

## **Agenda Item 6: In-stream damming**

### **Purpose**

1. This document provides an overview of how in-stream damming is managed under the draft Land and Water Regional Plan (LWRP) provisions, including how they have been amended in response to clause 3 feedback. As the decisions on the proposed Otago Regional Policy Statement (pORPS) did not significantly change the policy framework for in-stream damming, this document explains the decisions and how the draft provisions of the LWRP work, but does not suggest further options or further changes.

### **Executive summary**

2. In relation to in-stream damming activities, the DAM chapter of the draft LWRP manages the:
  - a. use of existing in-stream dams and weirs
  - b. placement and use of new in-stream dams and weirs
  - c. maintenance, demolition or removal of in-stream dams and weirs.
3. In-stream damming is subject to relatively stringent policy direction from the National Policy Statement for Freshwater Management 2020 (NPSFM), as well as direction from the National Policy Statement for Renewable Electricity Generation 2011 (NPSREG) and the proposed Otago Regional Policy Statement (pORPS).
4. The draft provisions seek to strike a balance by providing for ongoing use of existing in-stream dams and weirs, preferring off-stream storage, and allowing a consenting pathway for new in-stream dams and weirs.

### **Key direction informing the provisions**

#### **National Policy Statement for Freshwater Management 2020 (NPSFM)**

5. The NPSFM contains strong direction relevant to in-stream damming activities. It requires that the loss of river extent and values is avoided to the extent practicable, and directs ORC to include provisions in the LWRP that prevent the granting of consent for activities that may contravene these requirements, except in limited circumstances.<sup>1</sup> The NPSFM also includes direction for providing for fish passage and including dammed or diverted water in environmental flows and levels and take limits.<sup>2</sup>
6. The NPSFM requires that any type of damming with a functional need to locate in a particular place where there will be effects on the extent or values of a river must be managed by applying the effects management hierarchy. In most cases, a consent process will be required to achieve this. The effects management hierarchy requires applicants to consider actions to avoid, remedy, mitigate, offset and then compensate for any residual effects. This a significant change

---

<sup>1</sup> NPSFM, Policy 7 and clause 3.24.

<sup>2</sup> NPSFM, Policies 9 and 10 and clause 3.26.

for the management of in-stream damming and makes activities more challenging to be undertaken.

### **National Policy Statement for Renewable Electricity Generation 2011 (NPSREG)**

7. The National Policy Statement for Renewable Electricity Generation 2011 (NPSREG) directs ORC to include provisions in the LWRP that provide for the development, operation, maintenance, and upgrading of new and existing hydro-electricity generation activities to the extent applicable to the region.<sup>3</sup> The NPSREG does not apply to the allocation and prioritisation of freshwater. The preamble of the NPSREG explicitly states that these are matters for regional councils to address in a catchment or regional context.

### **Proposed Otago Regional Policy Statement (pORPS)**

8. The decisions version of the pORPS did not result in any significant changes to the direction for damming activities from the notified version, except with regard to greater recognition for renewable electricity generation. A broad range of provisions across multiple chapters in the pORPS are relevant to damming activities.
9. Specific direction for damming in the pORPS requires:
  - a. the harvesting and storage of fresh water to be provided for, to meet increasing demand for water, to manage water scarcity conditions and to provide resilience to the effects of climate change, provided it is within limits and in accordance with any relevant environmental flows and levels (LF-FW-P7A).
  - b. ORC to provide for the allocation and use of fresh water in accordance with LF-FW-P7A, including by providing for off-stream water storage (LF-FW-M6).
10. The pORPS implements the NPSFM, including the direction highlighted in paragraphs 5 and 6 which makes in-stream damming activities more challenging than off-stream damming to be undertaken.

### **Feedback from iwi partners and Council**

11. The placement of new in-stream dams is a significant issue for mana whenua. In-stream damming in particular has resulted in material and cultural deprivation for Kāi Tahu. The policy framework in the draft LWRP for new in-stream damming was developed in response to previous direction provided by ORC's Strategy and Planning Committee in 2022 i.e., encouraging off-stream storage and only allowing new in-stream dams in limited circumstances.

### **Clause 3 feedback – brief summary**

12. The feedback from the clause 3 consultation was discussed at the Council workshop on 19 March 2024. In summary:

---

<sup>3</sup> NPSREG, Policy E2.

- a. Some parties considered the draft provisions for new in-stream dams and weirs were too restrictive i.e., only allowing for new in-stream dams and weirs where they met the criteria (listed in paragraph 22).
  - b. Some parties considered that “for the primary purpose” should be removed so that dams for other purposes (e.g., irrigation) could be allowed provided they also protect, restore or enhance ecosystem health, indigenous biodiversity or hydrological functioning.
  - c. Other parties considered that the approach is too lenient, and sought that it is tightened further.
13. Some changes to the draft provisions for in-stream damming were made in response to clause 3 feedback, including:
- a. Providing for increased water storage by replaced or upgraded existing in-stream dams subject to conditions
  - b. Limiting the size of temporary dams as a permitted activity
  - c. Clarifying the intent of various rule conditions and aligning with other standard conditions in the draft LWRP including those related to fish spawning habitat, receiving water quality standards, and timing.

## **Draft LWRP provisions**

### **Overview**

14. In relation to in-stream damming activities, the DAM chapter of the draft LWRP manages the:<sup>4</sup>
- a. use of existing in-stream dams and weirs
  - b. placement and use of new in-stream dams and weirs
  - c. maintenance, demolition or removal of in-stream dams and weirs.
15. New definitions have been introduced to provide clarity on the scope of the activities and to, where appropriate, align with definitions in national legislation and direction. Key definitions used in the chapter are included in Appendix 6.1.

### **Use of existing in-stream dams and weirs**

16. The draft provisions provide a permitted activity pathway for the continued operation of small in-stream dams and weirs that were lawfully established as at 31 October 2024, provided they meet the permitted activity conditions.<sup>5</sup> These conditions include:

---

<sup>4</sup> All relevant activities associated with the damming of water; for example, disturbance of the bed of a lake or river, discharge of water or contaminants, and damming or diversion etc. are managed under the same rules in the DAM chapter and are permitted or consented along with the primary activity.

<sup>5</sup> Small dams are those that do not meet the classifiable dam size threshold i.e. dams which have a height of 4 or more metres and store 20,000 or more cubic metres of water.

- a. the in-stream dam or weir is not a classifiable dam, is maintained in a good and safe condition, and is not located in the Waitaki catchment;<sup>6</sup>
  - b. if it is a weir in the bed of a river, it meets the permitted activity conditions of regulation 72(2) of the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (NESF);
  - c. if the in-stream dam or weir is identified in an action plan as a structure requiring remediation to provide for passage of a desired fish species or to prevent the passage of an undesirable fish species, the remediation has been completed by the date specified in the action plan;
  - d. the level of any lake or the downstream flow in any river is not reduced below an environmental level or flow as a result of the activity;
  - e. any discharge from the in-stream dam or weir complies with the relevant receiving water quality standards, and does not contain any hazardous substance, pest, pest agent, unwanted organism or organism of interest unless it is associated with the passive flow of water through or over the in-stream dam or weir; and
  - f. the activity does not cause flooding of any other person's property, erosion, land instability, sedimentation, or property damage.
17. Larger scale existing activities or those with more significant adverse effects on water bodies and freshwater ecosystems are unlikely to meet the permitted activity conditions and will require resource consent. The activity status for these activities is generally discretionary.
18. Policy direction requires resource consent applicants to demonstrate how any relevant take limits and environmental flows and levels will be met, including by specifying a series of time bound steps to be implemented to achieve any necessary water quantity improvements, and demonstrating measures that will avoid adverse effects on the health and well-being of water bodies and freshwater ecosystems.

### **New in-stream dams and weirs**

19. The draft provisions provide a permitted activity pathway for new temporary in-stream dams and weirs.<sup>7</sup> Permitted activity conditions include:
- a. the in-stream dam or weir is not a classifiable dam; and
  - b. the activity does not occur within:
    - i. an area damming or diversion is prohibited under a Water Conservation Order, unless it complies with the provisions of the relevant Water Conservation Order;
    - ii. Lake Wānaka or the Upper Clutha River/Mata-au between its source to its confluence with the Cardrona River/Ōrau, other than for the duration of an

---

<sup>6</sup> For alignment with the Waitaki Catchment Allocation Plan.

<sup>7</sup> Temporary in-stream dams and weirs are those that are placed and used for a maximum of 30 days in any consecutive 12-month period.

- emergency as declared by the Guardians of Lake Wānaka under the Lake Wānaka Preservation Act 1973;
- iii. the Waitaki catchment;
  - iv. the habitat of a threatened species;
  - v. any mātaimai or taiāpure;
  - vi. a drinking water protection zone;
- c. the activity does not:
- i. frustrate or prevent the exercise of any lawful take of water by any other person;
  - ii. frustrate the use or integrity of any nationally significant infrastructure, regionally significant infrastructure or other lawfully established structure;
  - iii. impede the passage of a desired fish species or enable the passage of an undesirable fish species where this passage does not already exist;
  - iv. disturb the spawning habitat of desired fish species and salmonids during their spawning seasons;
  - v. disturb the roosting or nesting of indigenous birds and bats;
  - vi. cause flooding of any other person's property, erosion, land instability, sedimentation, or property damage;
- d. if it is a weir in the bed of a river, it meets the permitted activity conditions of regulation 72(2) of the NESF;
- e. the level of any lake or the downstream flow in any river is not permanently reduced below an environmental level or flow as a result of the activity, and the activity meets any relevant take limits;
- f. if the activity disturbs an archaeological site, the accidental discovery protocol set out in APP[ADP] must be applied;
- g. any discharge complies with the relevant receiving water quality standards, and does not contain any hazardous substance, pest, pest agent, unwanted organism or organism of interest unless it is associated with the passive flow of water through or over the in-stream dam or weir;
- h. at least ten working days prior to the placement of the in-stream dam or weir, ORC is notified of the timing, location and extent of the activity; and
- i. within ten working days after the completion of the activity, any plant, equipment, or machinery associated with the activity is removed from the bed, the surrounding bed is returned as near as practicable to its original channel shape, area, depth, and gradient that existed prior to works, any debris associated with the activity are removed.
20. Damming, unless for the purpose of stockwater supply, is currently prohibited in several water bodies under the operative Water Plan, including parts of the Pomahaka River/Poumāhaka, Waipahī River and Lower Clutha River/Mata-Au. The draft LWRP provisions roll over these

existing restrictions but enable temporary dams in these areas provided the permitted activity conditions are met.

21. New in-stream dams and weirs in place for longer than a total of 30 days in any consecutive 12-month period will require resource consent as a discretionary activity. Exceptions to this are Welcome Creek (non-complying), or in areas where damming is prohibited under legislation, and the parts of the Pomahaka River/Poumāhaka, Waipahī River and Lower Clutha River/Mata-Au where it is already prevented (prohibited).
22. While there will be a consenting pathway for new longer term in-stream dams and weirs, policies direct that new in-stream dams and weirs are only allowed if they:
  - a. are temporary, or
  - b. are renewable electricity generation facilities that connect with the local distribution network or national grid (but are not facilities, or designed and operated principally for supplying a single premise or facility), or
  - c. are for the primary purpose of protecting, restoring or enhancing the ecosystem health, indigenous biodiversity, or hydrological functioning, or
  - d. have no material adverse effects on water bodies.
23. This policy specifically recognises renewable electricity generation activities to give effect to direction in the pORPS and NPSREG. Broader policy recognition for renewable electricity generation is provided in other chapters of the LWRP and is being amended to implement the direction in the pORPS more clearly.
24. Mixed-use dams (e.g., dams that have multiple purposes such as irrigation + hydro) will be captured by (b) provided that they connect with the local distribution network or national grid.
25. If in-stream dams and weirs are not temporary or for the purposes outlined above, applicants will still be able to apply for resource consent but will have to demonstrate that they meet the direction in this policy (i.e., that the activity will have no material adverse effects on water bodies).
26. Providing for the replacement of existing in-stream dams was a key issue raised in community consultation, particularly as resource consents for this activity may be considered and processed as a new activity under the RMA and subject to the same policy tests for new in-stream dams. For example, if the replacement structure needed to be constructed outside of the footprint of the existing structure, it would be assessed as a new dam. The age and condition of in-stream dams in Otago varies considerably. Consequently, some in-stream dams may need to be upgraded or replaced within the life of the LWRP to maintain acceptable levels of safety or to increase or vary volumes of water released from outlets to meet new flow regimes. Obligations for dam owners under the Building (Dam Safety) Regulations 2022 may also require dams to be replaced.
27. The draft provisions provide for these activities where the applicant can demonstrate that the new structure will maintain or improve the passage of desired fish species, meet the relevant environmental flows and levels and take limits and have the same or lesser adverse effects on the values and extent of rivers and natural lakes than the existing structure.

### **Maintenance, demolition or removal of in-stream dams and weirs**

28. Regular maintenance of dams and weirs is important to ensure their safe operation. Policy direction also encourages the demolition or removal of dams and weirs where the structure was not lawfully established, or ceases to be maintained, operated or used and the removal will improve the health and well-being of the water body or freshwater ecosystems, or they pose a significant risk to the health and safety of people and communities.
29. The draft provisions include permitted activity pathways for maintenance, demolition and removal of in-stream dams and weirs, provided permitted activity conditions are met. These conditions are similar to other standard requirements within the provisions (i.e., meeting environmental flows and levels and receiving water quality standards etc.). If permitted activity conditions cannot be met, these activities require resource consent as a discretionary activity.

**Appendix 6.1 – Key definitions for the draft DAM chapter of the LWRP**

Term	Definition
Classifiable dam	means a dam that has a height of 4 or more metres and stores 20,000 or more cubic metres volume of <i>water</i> .  ...
Dam	means a structure used or to be used for the primary purpose of impounding water (and any substances dissolved in, suspended in or otherwise combined with the water) and that is not a weir.
Damming	means the activity of impounding water (and any substances dissolved in, suspended in or otherwise combined with the water).
In-stream dam	means any dam which is located in part or in whole in, on, under or over the bed of a lake or river, or within a natural inland wetland.
Lawfully established	means established in accordance with and compliant with the Resource Management Act 1991 or any former legislation at the time of establishment.
Weir	means an open-topped structure within the bed of a lake or river that:  (a) alters the water level and the flow characteristics of the water; and  (b) allows water to flow passively through or over top.