

For: Opuha Water limited

Subject: Stock Exclusion from Waterways – Regulatory and Industry Based Review

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1. This review provides a brief summary of regulatory requirements around stock exclusion from water ways in the Canterbury region. In addition reference is given to steps the dairy industry has taken. Comment is also provided on potential policy and planning changes that may occur in the future.

#### **Land and Water Regional Plan (LWRP)**

2. The rules in relation to stock exclusion are written entirely in the context of natural waterways with no reference to artificial water courses (refer to Appendix 2 for definitions of these water bodies). Other rules dictate levels of contaminants and colour change in discharges from one water body to another. In the context of Opuha Water Limited (OWL), these are covered in the conditions of the existing resource consents held for the discharges for Totara Valley Irrigation (CRC151133, Condition 15) and Kakahu (CRC151090, Condition 20). With no reference to artificial waterways in the LWRP, OWL can manage their races as they see fit in relation to stock exclusion, provided that the conditions of consent can be met.
3. Rule 5.71 lists as prohibited activities having farmed cattle, deer or pigs in salmon and whitebait spawning sites (listed below), within community drinking water protection zones such as Pleasant Point, Downlands, Seadown and Arowhenua Marae, within 1000 metres upstream of a listed freshwater bathing site (none within the OWL command area), or in the bed and banks of a listed spring-fed plains river such as the Waitawa.
4. For natural waterways, under rule 5.70, the use of the bank and bed of a lake, a river (that is greater than 1 m wide or 100 millimetres deep), or a wetland, by intensively farmed stock<sup>1</sup> is non-complying.

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<sup>1</sup> Intensively farmed stock means:

- 1.cattle or deer grazed on irrigated land or contained for break-feeding of winter feed;
- 2.dairy cattle, including cows, whether dry or milking, whether on irrigated land or not; or
3. farmed pigs.

5. Where not prohibited or non-complying, under Rule 5.68, stock may be present in the bed of a lake or river when it is used as a stock crossing point. The crossing point may only be 20 metres wide, run perpendicular to the flow of the river and align with a track on either side.
6. In instances other than for stock crossing (also under Rule 5.68), having stock in the bed of a river, lake or wetland may not result in pugging or de-vegetation that exposes bare earth in the bed or affects the colour and clarity of the water beyond 200 metres downstream in a river and a 25 metre radius in a lake. In addition, cattle may not stand in a lake that is below 600 metres above sea level, within a Lake Zone or lake classified as a High Naturalness Waterbody. This would pertain to Lake Opuha and also the Weir.

*Table 1: Listed spawning sites*

<b>River</b>	<b>Upstream location description</b>	<b>Downstream location description</b>
Opihi River	Fairlie at SH79 Bridge	Temuka River confluence
Temuka River	Ford at Oxford Crossing Road	Confluence of Temuka River with Opihi River (Approximately 3.5 km downstream of SH1 Bridge over Opihi River)
Waihi River	Beeby Road ford	Oxford Crossing Road
Opuha River Gorge	Approximately 1.5 km below dam	Skipton (SH79 Bridge over Opuha River)
Tengawai River	Albury	Confluence of Tengawai River with Opihi River (Approximately 800 m upstream of Waitohi Pleasant Point Road over Opihi River)

7. Note on Plan Change 4 (the Omnibus Plan Change) (PC4) to the LWRP: PC4 relates to the entire Canterbury Region. The most relevant change in terms of stock exclusion is that a definition of the bed of a braided river is provided in Rule 5.68A (Appendix 1).
8. In general terms PC4 primarily addresses implementation issues that have arisen in the original LWRP, and four other main points:
  - Vegetation clearance and earthworks within the beds and margins of Canterbury's braided alpine river systems
  - Stormwater discharges
  - Protection of inanga spawning sites and potential inanga spawning habitat
  - Group and community drinking water supplies.

The recommendations and decisions of the Hearing Commissioners on submissions to PC4 to the LWRP were formally adopted by the Canterbury

Regional Council (ECan) on 21 July 2016 and publicly notified on 30 July 2016. All appeals have been withdrawn and PC4 must now be treated as operative even though it remains a 'proposed plan change'. The plan will remain in this 'proposed' state until such time as ECan can make the plan change operative. To make the plan change operative Council will need to pass a resolution, and the plan change will be operative from the date nominated in that resolution.

9. The LWRP stock exclusion rules in their entirety are attached in Appendix 1, with changes under PC4 included.
10. Definitions to the wording of the LWRP rules is attached as Appendix 2.

### **Sustainable Dairying: Water Accord (SDWA)**

11. The Dairying Clean Streams Accord saw its genesis in 2003 as an agreement between the Fonterra Co-operative Group, all New Zealand's Regional Councils, the Ministry for the Environment and the Ministry of Agriculture and Forestry. The stated goal of this policy was: "...to have water that is suitable, where appropriate, for: Fish, Drinking by stock, Swimming (in areas defined by regional councils)" Ministry of the Environment (26 May, 2003).
12. The first accord expired in late 2013 and it has been replaced by the 2013 Sustainable Dairying: Water Accord which is an agreement between a larger group of stakeholders and is led by DairyNZ, in contrast to the previous Accord driven by Fonterra. The Accord is a series of commitments and expectations with a timetable for various goals.
13. In terms of riparian management the SDWA seeks the exclusion of dairy cattle on dairy farms from all waterways and drains (greater than one metre in width and deeper than 30 cm) by 31 May 2017 and significant wetlands (as identified by a regional council) by 31 May 2014.
14. In addition dairy companies are encouraging farmers to bridge or culvert crossing points by 31 May 2018 and have a riparian management plan in place by 31 May 2020.

### **Industry Agreed Good Management Practices (GMP)**

15. GMP have been developed by various primary industry sectors. ECan provides a list of general GMP including some around stock exclusion (Appendix 3). Each Primary Industry Sector has their own publications that provide more sector specific GMP information.
16. ECan is utilising GMP as part of their planning frameworks. Plan Change 3 to the LWRP (South Canterbury Coastal Streams) contains one rule specifically calling for GMP use. In this case GMP is defined in a schedule within the Plan where, in relation to stock exclusion, it states:  
*All grazing of intensively farmed stock adjacent to any river, lake, drain, artificial watercourse (excluding irrigation canals or stock water races) or a wetland to be prevented by fencing or a minimum of 3m vegetative strip (measured from the edge of the bed of the river, lake, artificial*

*watercourse, or wetland) from which stock are excluded, is maintained around the water body.*

17. While OWL and its shareholders are outside of this sub region and therefore not affected by this, given that the Orari/Temuka/Opihi/Pareora (OTOP) Plan is pending, the use of GMP in this context is noteworthy.

### **National Policy Statement –Fresh Water Management (NPS-FM)**

18. The NPS-FM provides direction about how local authorities should carry out their responsibilities under the Resource Management Act 1991 for managing fresh water. It directs regional councils to consider specific matters and to meet certain requirements when they are developing regional plans for fresh water and must be fully implemented by 31 December 2025.
19. The first version was released in 2011 and has subsequently been updated in 2014. It is likely that it will be updated again. Since 2009 the government has taken advice from the Land and Water Forum (LWF), a range of stakeholders consisting of industry groups, electricity generators, environmental and recreational NGOs, iwi, scientists, and other organisations with a stake in freshwater and land management.
20. In November 2015 the LWF released its fourth report. As part of this report the Government asked the Forum for advice on the form of a national regulation to exclude stock from waterways. The LWF recommended a framework that excludes dairy cattle, beef cattle, deer and pigs from waterways on the plains and in lowland hills, over time. This recommendation became a part of the "Next steps for freshwater: Consultation document". Public consultation was held in early 2016. Presently, the Government is considering the submissions on the proposals and will use the feedback to inform further development of specific policy options. Whether this will include specific policy on stock exclusion remains to be seen.

### **Clean Water Package 2017**

21. In late February the Government announced its latest round of proposed freshwater reforms. The consultation document "Clean Water" has been released. This document outlines new proposed regulations on stock exclusion from waterways. While the new regulations are only proposed, it is likely that at least some aspects will become law, and attention should be paid to them.
22. The requirements and timelines begin in July 2017 and continue to be implemented depending on the stock type and land gradient through to 2030, as can be seen in the table below.

Table 2: Stock exclusion timeline from the "Clean Water" discussion document.

Farm/stock type	Plains (0-3°)	Undulating / rolling land (>3-15°)	Steeper land (>15° and over)
Dairy cattle (on milking platforms) and pigs	1 July 2017 for waterways over 1 metre wide on all slopes 1 July 2020 for waterways less than 1 metre wide on the plains		
Dairy support (on either land owned/leased by the dairy farmer or third party land)	1 July 2022 for all waterways on the plains regardless of size and waterways over 1 metre wide on rolling land		Only where break feeding, by 1 July 2022
Beef cattle and deer	1 July 2025 for all Waterways regardless of size	1 July 2030 for waterways over 1 metre wide	
	Where break feeding, by 1 July 2022		

23. Regional Councils will have the discretion to set more rigorous requirements under the proposals.

24. The proposed regulations do provide some flexibility where they are proven to be impractical. Land owners will be able to apply to the Regional Council to develop a "Stock Exclusion Plan" in such instances where full stock exclusion is not achievable. This plan would need to outline alternative mitigations to manage the impact of stock access.

## Appendix 1 - LWRP Stock Exclusion Policy and Rules

### Policy

#### Livestock Exclusion from Water Bodies

##### **4.31**

Damage to the bed or banks of water bodies, sedimentation and disturbance of the waterbody, direct discharge of contaminants, and degradation of aquatic ecosystems and inanga and salmon spawning habitat is avoided by:

- (a) excluding intensively farmed stock from lakes, rivers and wetlands; and
- (b) excluding stock from within freshwater bathing sites listed in Schedule 6, salmon spawning sites listed in Schedule 17A, Community Drinking water Protection Zones as set out in Schedule 1, other sensitive waterbody areas and the waterbody bed and banks closely adjacent to and upstream of these areas; and
- (ba) excluding stock from inanga spawning habitat and
- (c) limiting access to wetlands, and the banks or beds of lakes and rivers to stock species that prefer to avoid water and at stocking rates that avoid evident damage.

### Rules

#### Stock Exclusion

##### **5.68A**

For the purposes of Rules 5.68 to 5.71 of this Plan the bed (including the banks) of a braided river is limited to the wetted channels, any gravel islands, the gravel margins, and the outer edge of any flood protection vegetation; or where no flood protection vegetation exists, the lesser of:

1. The distance from the outer gravel margin to land that was cultivated or was in crop or pasture prior to 5 September 2015; or
2. 10m either side landward of the outer gravel margin as measured at any time, except that if a stopbank exists then the stopbank does not form part of the bed.

##### **5.68B**

Rules 5.68 to 5.71 of this Plan do not apply to the bed (including the banks) of any artificial lake unless:

1. The artificial lake has been created as a result of the damming of a river; or
2. The artificial lake discharges directly into a river, lake or wetland.

##### **5.68**

The use and disturbance of the bed (including the banks) of a lake, river or a wetland by stock and any associated discharge to water is a permitted activity, provided the following conditions are met:

1. The use or disturbance of the bed (including the banks) of a lake, river or wetland and any associated discharge to water is not categorised as a non-complying activity under Rule 5.70 or a prohibited activity under Rule 5.71; and
2. The use or disturbance of the bed (including the banks) of a lake or river and any associated discharge to water is at a stock crossing point that is:
  - (a) not more than 20 m wide; and

- (b) perpendicular to the direction of water flow, except where this is impracticable owing to the natural contours of the riverbed or adjoining land; and
  - (c) aligns with a constructed track or raceway on either side of the crossing point; or
3. The use or disturbance of the bed (including the banks) of a lake or river and any associated discharge to water that is not at a permanent stock crossing point does not result in:
- (a) pugging or de-vegetation that exposes bare earth in the bed (including the banks) of a lake or river; or
  - (b) a conspicuous change in colour or clarity of the water, outside the Mixing Zone; or
  - (c) cattle standing in any:
    - (1) lake located outside of the Hill and High Country Area other than any farm pond specifically constructed to provide stock water and that has no outlet to a lake, river, artificial watercourse or wetland; and
    - (2) lake located within a Lake Zone, as shown on the Planning Maps; and
    - (3) lake classified as a High Naturalness Waterbody; and
4. The disturbance of a wetland does not result in a conspicuous change in colour or clarity of water, or pugging or de-vegetation that exposes bare earth.

#### **5.69**

The use and disturbance of the bed (including the banks) of a lake, river or a wetland by stock and any associated discharge to water that does not meet one or more of conditions of Rule 5.68, excluding condition 1 and is not listed as a non-complying activity under Rule 5.70 or a prohibited activity under Rule 5.71 is a discretionary activity.

#### **5.70**

Unless categorised as a prohibited activity under Rule 5.71, the use and disturbance of the bed (including the banks) of a lake, a river that is greater than 1 m wide or 100 millimetres deep (under median flow conditions), or a wetland, by intensively farmed stock and any associated discharge to water is a non-complying activity.

#### **5.71**

The use and disturbance of the bed (including the banks) of a lake or river by any farmed cattle, farmed deer or farmed pigs and any associated discharge to water is a prohibited activity in the following areas:

1. In an inanga or salmon spawning site listed in Schedule 17, or in any inanga spawning habitat; or
2. Within a Group or Community Drinking-water Protection Zone as listed in Schedule 1; or
3. Within 1,000 m upstream, in the bed of a lake river, of a fresh water bathing site listed in Schedule 6; or
4. In the bed (including the banks) of a Spring-fed plains river, as shown on the Planning Maps.

## Appendix 2 - LWRP Definitions

Artificial watercourse	Means a watercourse that is created by human action. It includes an irrigation canal, water supply race, canal for the supply of water for electricity power generation, and farm drainage canal channel. It does not include artificial swales, kerb and channelling or other watercourses designed to convey stormwater.
Hill and High Country	means all land above 600 m altitude or greater than 20-degrees in slope.
Intensively farmed stock	means: <ol style="list-style-type: none"> <li>1. cattle or deer grazed on irrigated land or contained for break-feeding of winter feed;</li> <li>2. dairy cattle, including cows, whether dry or milking, whether on irrigated land or not; or</li> <li>3. farmed pigs.</li> </ol>
Riparian margin	means the land within the following distances of the bed of any lake, river or wetland boundary: <ol style="list-style-type: none"> <li>1. In Hill and High Country land or land shown as High Soil Erosion Risk on the Planning Maps – within 10 m; and</li> <li>2. In all other land not shown as High Soil Erosion Risk on the Planning Maps or defined as Hill and High Country – within 5 m</li> </ol>
River	means a continually or intermittently flowing body of fresh water; and includes a stream and modified watercourse; but does not include any artificial watercourse (including an irrigation canal, water supply race, canal for the supply of water for electricity power generation, and farm drainage canal)
Surface water or surface water body	means water above the ground surface and within a lake, river, artificial watercourse or wetland, but does not include water in the sea, snow or rain or water vapour in the air. When a distance to a surface water body is being considered, it means the distance to the bed of a lake, river, artificial watercourse or to the boundary of a wetland (see wetland boundary definition).
Water race or water supply race	means a type of artificial watercourse used for the managed conveyance of water often, but not exclusively, for stockwater or irrigation purposes and excludes any drain.



Wetland	<p>includes:</p> <ol style="list-style-type: none"> <li>1. wetlands which are part of river, stream and lake beds;</li> <li>2. natural ponds, swamps, marshes, fens, bogs, seeps, brackish areas, mountain wetlands, and other naturally wet areas that support an indigenous ecosystem of plants and animals specifically adapted to living in wet conditions, and provide a habitat for wildlife;</li> <li>3. coastal wetlands above mean high water springs;</li> </ol> <p>but excludes:</p> <ol style="list-style-type: none"> <li>(a) wet pasture or where water temporarily ponds after rainfall;</li> <li>(b) artificial wetlands used for wastewater or stormwater treatment except where they are listed in Sections 6 to 15 of this Plan;</li> <li>(c) artificial farm dams, drainage canals and detention dams; and</li> <li>(d) reservoirs for firefighting, domestic or community water supply.</li> </ol>
Wetland boundary	<p>means the point in the transition from wetland to dryland where wetland plant species occur at more than four times their ungrazed height apart. Wetland edge has a similar meaning.</p>

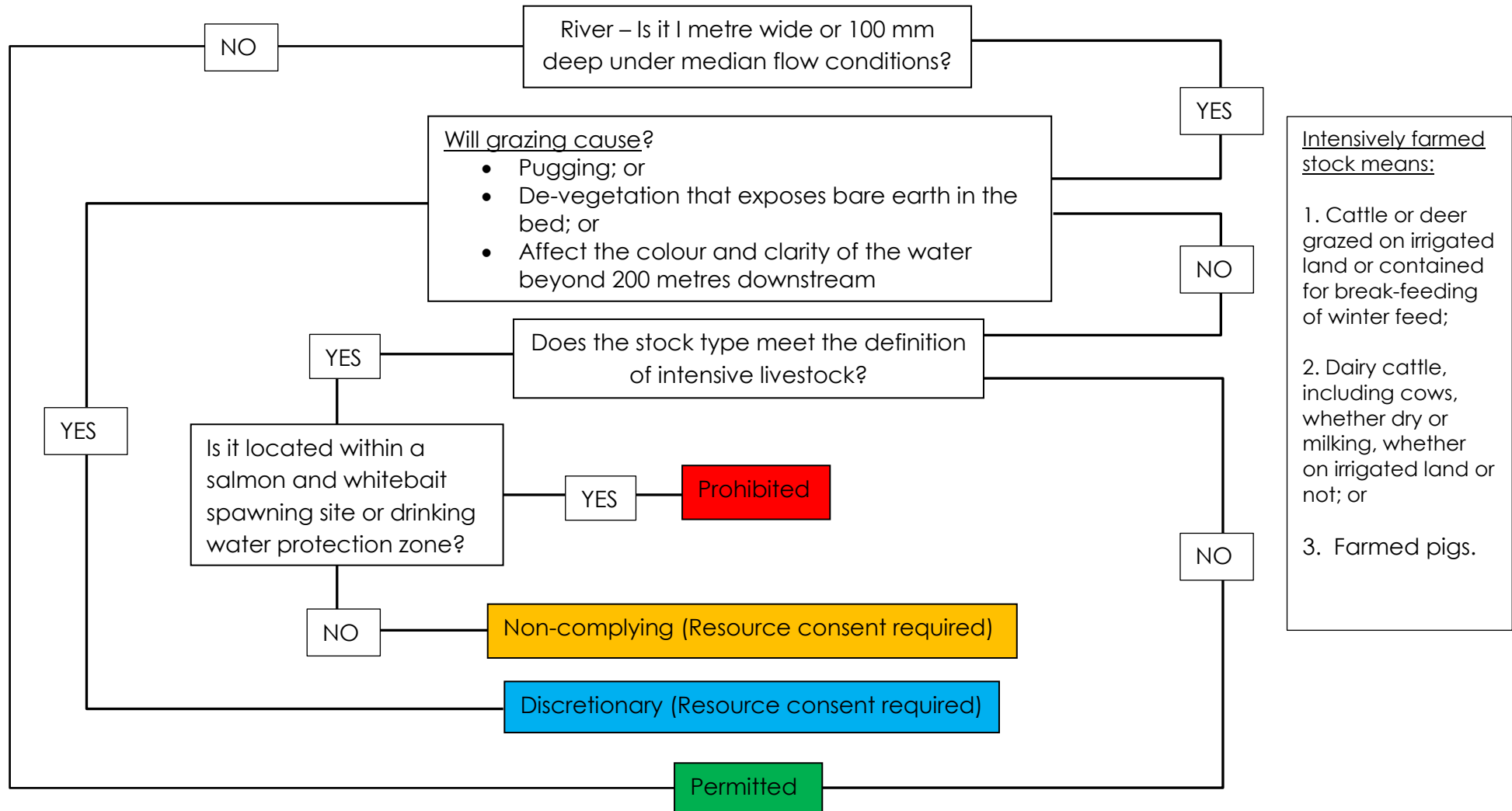
### **Appendix 3 – Stock Exclusion GMP**

GMP: To the extent that is compatible with land form, stock class and intensity, exclude stock from waterways.

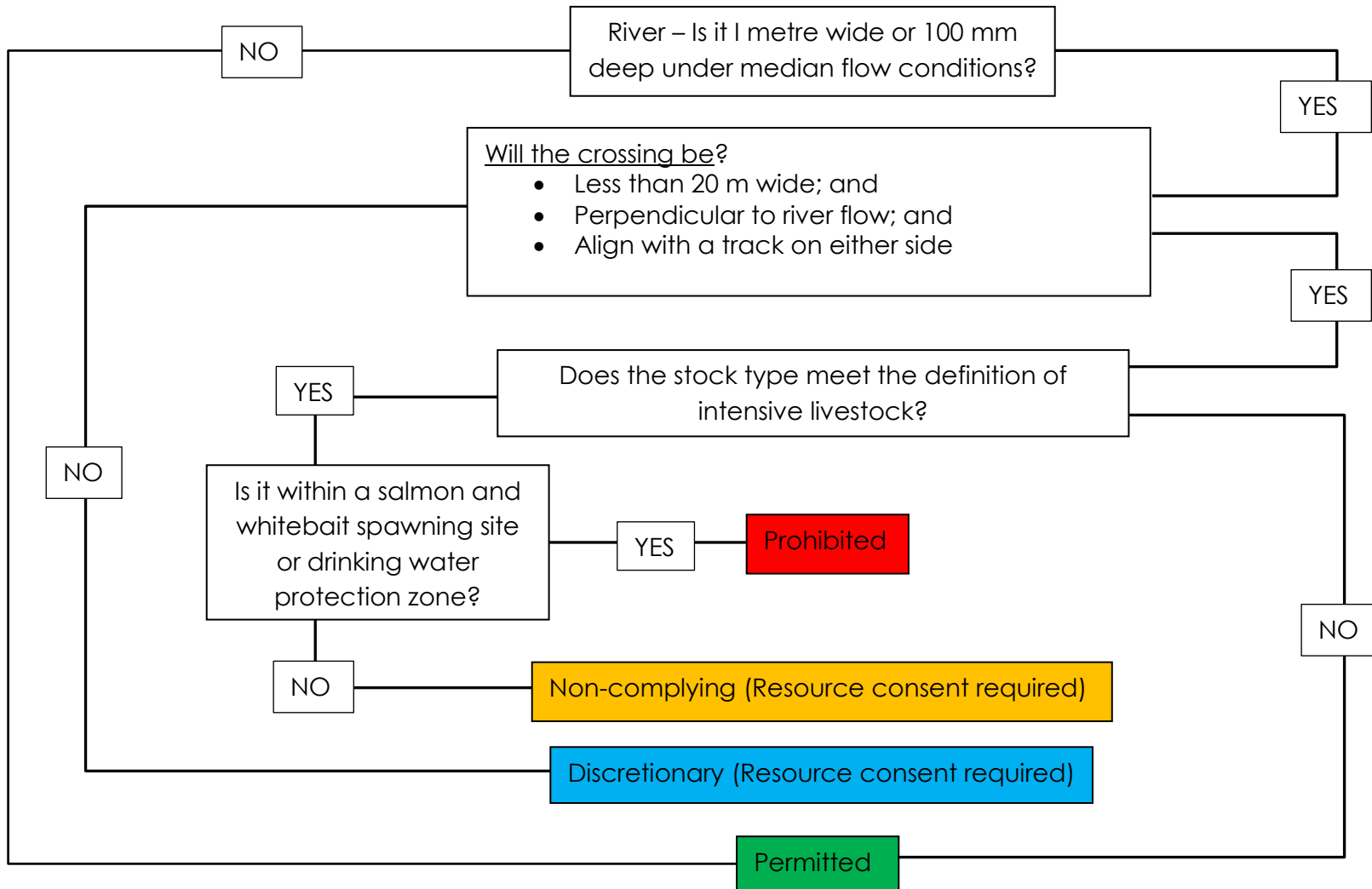
Implementation guidance:

- Plan and prioritise waterway areas (including wetlands) to fence, based on the vulnerability of the land, significance of the waterway and potential to impact on water quality off-farm.
- Exclusion of extensively farmed stock from waterways in hill and high country areas may not be practical but rather a mix of mitigations and practices can be used to minimise sediment and faecal bacteria losses from farms.
- Actively manage stock, stock density and stock classes adjacent to waterways to reduce risks to water where fencing is not practical.
- Exclude stock from significant waterways, drains and significant wetlands.
- Locate and manage crossing of waterways so it will not result in degradation of those waterways.
- Provide alternative stock-water sources away from waterways where possible.
- Provide shade and shelter away from waterways where appropriate.
- Place salt blocks and supplementary feed away from riparian margins.
- Leave an appropriate buffer depending on slope, to filter runoff, even if only temporarily during vulnerable periods.
- During high risk periods for erosion e.g. winter grazing, fawn weaning, actively manage stock to prevent slumping, pugging or erosion.

### Stock Exclusion – Rivers (Use of banks and bed)



### Stock Exclusion – Rivers (Crossing)



### Stock Exclusion – Lakes and Wetlands

