

## Sharrie Campbell

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Please find attached submission for Fish and Game.

Please acknowledge receipt.

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**SUBMISSION FROM:** CENTRAL SOUTH ISLAND FISH AND GAME COUNCIL

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**Regional Council:** Environment Canterbury  
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This submission is made in reference to the *Variation 2 (Hinds/ Hekeao Plains Area) to the Canterbury Land and Water Regional Plan*.

**Trade Competition**

Pursuant to Clause 6 of Schedule 1 of the Resource Management Act 1991, Fish and Game confirm they could not gain an advantage in trade competition through this submission.

**Hearing**

Fish and Game wish to be heard in support of our submission; and will consider presenting a joint case at hearing with others presenting similar submission.

Signature:

A handwritten signature in black ink that reads 'Jay Graybill'.

Jay Graybill  
Date: 24 October 2014

## ROLE OF FISH AND GAME

Fish and Game Councils are Statutory Bodies with Functions (*inter alia*) to:

*'manage, maintain and enhance the sports fish and game bird resource in the recreational interests of anglers and hunters...*

*(b) 'to maintain and improve the sports fish and game resource-*  
*(i) by maintaining and improving access*

*(c) 'to promote and educate-*  
*(i) by promoting recreation based on sports fish and game*

*(e) 'in relation to planning-*  
*(i)'to represent the interests and aspirations of anglers and hunters in the statutory planning process; and*  
*(vii)'to advocate the interests of the Council, including its interests in habitats...'*

Section 26Q, Conservation Act 1987.

In addition, Section 7(h) of the RMA states that all persons *'shall have particular regard to... the protection of the habitat of trout and salmon.'*

### **Introduction: The importance of sports fishery and game bird resource in the region**

#### **Reasons for the submission are:**

1. Canterbury is one of the key regions in the South Island for quality river fisheries. The sports fish and game bird resources of the Central Sought Island Fish and Game region are highly valued. On the basis of 2010/2011 licence figures, Fish and Game represent holders of over 33,000 angling and hunting licences in the Canterbury Region. The sports fishery, in particular is significant, with over 450,000 angler days being spent on the Region's waters (NIWA National Angling Survey 2007/08). The value placed on the sports fish and gamebird resource in a wider context is encapsulated by the four operative Water Conservation Orders in the Region (Te Waihora/ Ellesmere, Rakaia, Rangitata and Ahuriri.)
2. The Hinds River arises in the Moorhouse Range as two headwater streams. The river is entirely rain and spring fed, with losses to the bed across the plains, and a section of the river is completely dry for much of the time. Despite the low flows the Hinds was still a popular angling stream, certainly up until the late 1980's but has progressively declined since that time, but does support surprisingly high results in angler use surveys. Size of trout ratings in the stream indicate that the river still rears small trout and the NIWA National Angler Survey 2001/02 shows 320 +/-170 angler days are spent on the Hinds, an increase compared with the last survey results of 210 +/-100 for 1994/96. A 1972 Fisheries Technical Report assessed relative fish distribution between the 14 species of fish recorded in the river. The distinctly mutually exclusive populations of fontinalis (in the upper tributaries) and brown trout throughout the rest of the river was described and is still a feature of the river today
3. Primarily as a result of abstractions the Hinds River suffers extended periods of dryness and a longer recovery time than would occur naturally. Current abstractions total 1522l/s from the main river and the south branch. The mean flow of the river is in the order of 1m<sup>3</sup>/s at Longbeach and MALF equals approximately 600 l/s.
4. Up until 2006, the Hinds Drains generally supported high juvenile rearing habitat for brown trout, and almost all the 'drains' from State Highway 1 to the sea supported populations of brown trout and native species. As the habitat for adult fish is limited by flows and size of drains Fish and Game historically took the juvenile fish out of the system in order to stock other waterways, subsequently leaving the larger adult breeding fish to reutilise the habitat the following year with less competition for food and space. Irrigation efficiency improvements up catchment from converting to spray from border dyke and on the south side and increased groundwater abstraction has influenced aquifer pressures and subsequently reduced drain flows on the north side.
5. Those drains that discharge directly to the coast, for example the Windemere Drain and its associated donga provide important habitat values.
6. In the Ashburton River catchment, the South Ashburton River flows through a diverse range of landscapes before it emerges from the foothills. From here on it gradually widens, separates into a braided form and meanders over a shingle bed. The river supports both trout and salmon fisheries and is joined by the North Ashburton (see below) just upstream of Ashburton township.

7. In the past, very high angling pressure has been exerted on the Ashburton River with salmon and trout fishing being equally valued. Easy access in combination with proximity to a nearby population centre guaranteed high use, however low flows, poor water quality and river control works have contributed to diminishing fishery value. Prior to the 1970's quinnat salmon were occasionally seen migrating up the North Ashburton River to spawn. Where in the late 1960's up to 2,300 salmon were taken at the mouth (Hakaterere), the annual catch has since declined to around 50 salmon.
8. Over the past 30 years, increased abstraction from the North Ashburton has resulted in the river having little or no visible flow for extended periods during the summer in the section from Thompson's Track down to the confluence with the South Ashburton. The 1994/96 National Angling Survey (Unwin and Brown 1998) estimates 4173 angler days per season are spent on the Ashburton River with the 2001/02 survey recording 8530 days spent fishing in the catchment.
9. Native fish species also inhabit the Ashburton system. Torrent fish, bullies (3 species), eels (2 species), and galaxias (3 species) are distributed throughout the total Ashburton River system. The relative significance of the main tributary streams towards maintenance of those populations is unknown. Nor is there any information on the status of populations relating to these species.
10. Although the fisheries have deteriorated over the last 30 years, salmon and trout still spawn in the North Ashburton River and it still has a fishery value deserving of rehabilitation and protection into the future.
11. The current state of the Ashburton River catchment continues to be of great concern to Fish & Game, the threats and realities of the state of the river and any effects from landuse and surface and groundwater management in the Hinds catchment appears to be excluded from discussion in this Variation. It is noted that whilst this variation excludes consideration of the Ashburton systems, the community groups are still committed to improving habitat and management in these, for example the Wheatstone Drain. Better management of the resources would occur if consideration of effects on the Ashburton waterways were included in this process.
12. The Rangitata River contains nationally important sportsfisheries, this importance being recognised by a National Water Conservation Order on the river. Chinook salmon are abundant and widely distributed throughout the river system during the main fishing season (November to April). Brown trout are also abundant and widely distributed throughout the main river. Sea run brown trout are also distributed throughout the lower reaches of the river during spring and early summer (August to December). There are lesser populations of rainbow trout and brook char, mainly limited to side streams and the upper river. The Rangitata River is also inhabited by 18 species of native fish.
13. Past National Angler Surveys, conducted by NIWA, have shown angler use to range between 12 710 +/- 1930 days in a poor year 01/02 to 35 960 +/- 2550 days in 94/95 which was a good year, and reiterates the importance of the resource to Fish and Game licence holders.
14. Angling for salmon is believed to account for around 80% of all angler activity on the Rangitata River. The total annual salmon catch usually varies between 1500-5000 fish, up to 1m long and 18 kg. The total annual trout catch is around 6000-8000 fish, up to 0.9m long and 6 kg.
15. Various hunting opportunities abound in the vicinity of the river for most species of New Zealand gamebird and the area is well utilised in this respect.
16. Sports fisheries have existed as part of a statutory regime in NZ since 1867, with the largely salmonid based fisheries a key value in and attribute of our freshwaters. The current statutory basis and regime for sports fishery management is provided under Part VA of the Conservation Act 1987, as part of freshwater fisheries management, together with associated Freshwater Fisheries Regulations 1983 and Angler's Notices promulgated annually under this legislation.
17. Game birds are recognised in the First Schedule of the Wildlife Act 1953 and their management by Fish and Game Councils under the Part II of that Act, with analogous regulations and annual Game Gazette Notices to the Anglers Notice. Please note that several of the principle game birds (grey duck, paradise shelduck, shoveler duck, black swan and pukeko) are native species.

### **Sports Fish and Game Bird Management**

18. Sports fishery management sits within a framework established for freshwater fishery management and similarly game bird management within a framework of wildlife management jointly between Fish and Game Councils and the Department of Conservation in Part VB of the Conservation Act 1987. Aspects of fishery and game bird management (such as which species should be managed where) are covered by that legislation. Thus species management is primarily the function of DOC and Fish and Game Councils. The nature of this management is set out in some detail for each Fish and Game region in their respective statutory Sports Fish and Game Management Plans which have been through a public process and approved by the Minister of Conservation. These cannot be inconsistent with Conservation Management Strategies, for example. As statutory management plans, this regional plan and other such plans prepared under the RMA are obliged to have regard to such plans in their preparation (section 66(2)(c)(i)). Fish and Game submits that this plan does not

adequately have regard for these plans, which is covered in more detail elsewhere in this submission. When it comes to defining sports fishery values therefore, Fish and Game has the statutory duty and authority to specify where those values exist, and advocate for their management and protection.

19. Management of the habitat of all freshwater fish and wildlife and appropriate provision for the amenity derived from the fishery and game bird resource, however, is also the responsibility of regional and district councils under the RMA. Sections 5(a) and (b), and section 6(a) (preservation of natural character), s(6)(d) (regarding public access to water bodies) 7(c) (the maintenance and enhancement of amenity values), 7(h) (protection of the habitat of trout and salmon), and 7(d)(intrinsic values of ecosystems) are directly relevant to sports fishery management. While sections 5(a) and (b), and sections 6(a) (preservation of natural character of water bodies including wetlands), 6(c) (protection of areas of significant indigenous vegetation and significant habitats of indigenous flora and fauna, 7(c), and 7(d) are directly relevant to game bird management.
20. The inclusion of the protection of the habitat of trout and salmon (s(7)(h)) in the RMA (1991) has a dual purpose; firstly in recognition of the national importance of these species. Freshwater sports fisheries are of high socio economic and socio cultural importance both domestically and internationally, providing a myriad of benefits to society (Weithman, 1999; Welcomme and Naeve 2001; Arlinghaus, Mehner & Cowx 2002).
21. Secondly, s(7)(h) provides de facto protection for our other freshwater species. Trout and salmon are amongst the most studied fish in the world. Salmonid habitat requirements (water quality and quantity and physical habitats) are well established in the literature. Regrettably the habitat requirements of most of our native fish species are much less well known. Given the sensitivity of salmonids to habitat degradation, it is recognised that the provision of salmonid habitat requirements provides protection for the health of other species in aquatic ecosystems, and for Life Supporting Capacity generally. This is another reason for the inclusion of the protection for the habitats of these species in section 7(h). There is a good correlation between the habitat requirements of salmonids and suitability for other species and other purposes.
22. The region's sport fishery and game bird habitat provide significant economic benefits to the Canterbury Region and the national economy through generating increased visitor spend. There are many tourism associated activity and service providers who cater for anglers and game bird hunters, including specialised guiding services, accommodation and hospitality providers, transport and retail services. Many overseas anglers and hunters are affluent high value visitors.
23. The proposed variation 2 as notified fails to identify or protect the catchment's instream values that should influence the setting of limits and targets.
24. The proposed variation 2 does not give effect to or otherwise have appropriate regard to the hierarchy of legislation, policy statements and plans as required under the Resource Management Act 1991 (and subsequent amendments).
25. The proposed variation 2 does not appear to allow for integrated management of the plains, with the nearby Rangitata and Ashburton Rivers.

### **General Submission on Variation 2**

26. Fish and Game support the intent of Canterbury Regional Council in reviewing, and the Ashburton Zone Committee in developing an integrated catchment land and water plan variation to address the significant resource management issues in the Hinds/ Hekeao Plains area, and ensure that the catchments land and water resources are sustainably managed and their values protected. In particular Fish and Game supports the intent of variation 2 to reduce nitrogen leaching from farming in the lower Hinds/Hekeao Plains area by 45% by 2035. However, Fish and Game submit that in its current form it fails to meet the purpose of the Act, give effect to the National Policy Statement for Freshwater (NPS Freshwater), show appropriate regard has been had to the vision and principals of the Canterbury Water Management Strategy 2009 (CWMS), or adequately address the significant water quality and quantity issues the Hinds/ Hekeao Plains catchment. In its current form the Variation cannot achieve the aspirations of the Zone Implementation Plan.

### **Reason for the submission are:**

27. The Variation in its current form does not adequately provide for / or give effect to:
  - (a) The purpose and principles of the Resource Management Act, including but not limited to:
    - (i) Safeguarding the life supporting capacity of.... water, soil, and ecosystems, and
    - (ii) the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development;

- (iii) the protection of outstanding natural features and landscape
  - (iv) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna
  - (v) maintenance and enhancement of amenity values;
  - (vi) protection of the habitat of trout and salmon
- (b) s15 RMA
  - (c) s30 including but not limited to the requirement that the regional council achieve the integrated management of natural and physical resources
  - (d) s32 RMA
  - (e) s 67 RMA
  - (f) s69 and Schedule 3 RMA
  - (g) s70 RMA
  - (h) The NPS for Freshwater Management;
  - (i) The New Zealand Coastal Policy Statement 2010
  - (j) The Canterbury Water Management Strategy 2009
  - (k) The Canterbury Regional Policy Statement 2013
  - (l) The Water Conservation (Rangitata River) Order 2006
  - (m) Ensuring that resource use (including the taking of water and use of the assimilative capacity of water) is necessary, reasonable, and efficient
  - (n) The protection of recreational fisheries and gamebird resources, including the protection of rivers, lakes, wetlands, and their margins.
  - (o) Maintenance and enhancement of the quality of freshwater environments, including wetland environments, as habitats for sports fish and game birds;
  - (p) The maintenance and enhancement of recreational values, amenity values, and the intrinsic values of ecosystems;
  - (q) The maintenance and enhancement of public access to and along the coastal marine area, lakes, rivers, and wetlands;
  - (r) Adequately identify and list the values of freshwater in the region including but not limited to: recreational salmonid fishery and spawning values;
  - (s) Set numerical water quality and quantity limits to protect freshwater values, and give effect to the NPS Freshwater Management, the Canterbury Regional Policy Statement, and National Coastal Policy Statement;
  - (t) Ensure that land use activities and development are managed so that life supporting capacity of water is safeguarded; and freshwater values including trout fishery, trout spawning, recreational, and amenity values; areas of significant indigenous vegetation and significant habitats of indigenous fauna; and the natural character of waterbodies is protected
  - (u) Ensuring that land use activities and development are managed so that where numerical water quality and quantity limits are currently being achieved that they continue to be met, and where water quality and quantity limits are not met (currently degraded) that water quality and quantity is restored towards meeting the limits.

### RMA s69 and Schedule 3

28. Fish and Game submits that at the very least, variation 2 should identify which water bodies support the values set out in Schedule 3 to the RMA, and include these as freshwater objectives. Relevant to Fish and Game's submission are the following classes:
- Aquatic ecosystem purposes
  - Fishery purpose
  - Fish spawning
  - contact recreation
  - natural state.
29. Fish and Game submit that variation 2 should be amended to include specified management outcomes (such as protection) of identified values of the waterbodies, as freshwater objectives. These values should be identified ideally to the river, stream, or where appropriate reach level, however if this is not achievable the values should be identified to the sub catchment level, In addition to the schedule 3 values listed above, the other values that are important for management include:
- Amenity values
  - Aesthetic values
  - Cultural values
  - Native bird habitat
  - Riparian habitat
30. Both nitrogen and phosphorus instream water quality limits should be set to safeguard life supporting capacity and ecosystem health, and to protect, and where degraded enhance, macroinvertebrate community health, and prevent undesirable periphyton and cyanobacteria blooms. Water quality should not be managed to, or allowed to degrade to, toxic levels, this includes nitrate nitrogen, as these levels of contaminates do not meet the requirements above. Nitrogen toxicity levels are based on laboratory experiments and do not reflect the requirements of rivers, lakes, and streams where multiple stressors interact to impact on aquatic ecosystems.
31. The Objectives and policies, Table 13(a), 13(g), and rules should reflect the numerical water quality and quantity freshwater objectives..
32. Amend Table 13 (j) to include amended and much lower Dissolved Inorganic Nitrogen (DIN) (mg/L) concentrations, and new Dissolved Reactive Phosphorus (DRP) (mg/L) concentrations, at levels based on life supporting capacity, ecosystem health and the values to be managed and protected. These levels are significantly lower than toxicity.
33. Amend table 13 (g) so that it includes Nitrogen load (tonnes per year) and Phosphorus load (tonnes per year) loads that are calculated to achieve the set concentrations for DIN and DRP in the amended table 13 (j).
34. Apply Table 13 (j) to all of Section 13 of the Plan, in place of Schedule 8, for Rivers.
35. Variation 2 should establish management approaches for land use (including agriculture and horticulture) which ensure that where the appropriate instream concentrations of contaminants and other water quality characteristics, continue to be met, and where they are currently exceeded (and as such are 'targets' as defined by the NPSFW) that land use activities are managed to ensure that water quality and quantity are improved over time to work back towards the 'targets'. Management frameworks should include regulation which at a minimum should be an activity classification of controlled activity and where land use activities which may result in further degradation away from limits and targets are a Prohibited activity.

## Section 32

36. In specific terms Fish and Game proposes some new objectives, and some new and amended policies and rules.. There is insufficient justification for the absence of any zone specific Objectives, in terms of whether or not relying on the overarching pCLWRP Objectives are suitable for achieving the purpose of the Act in this Zone.. Fish and Game also submits that the policies, methods and rules are not suitable to achieve the objectives, nor have sufficient reasonable alternatives been identified.
37. Fish and Game submit that the Council has not correctly evaluated the benefits and costs of the policies, rules and methods in order to determine the appropriateness or otherwise of including, and in some cases specifically excluding, provisions the subject of this submission. Fish and Game disagrees that the variation 2 provisions will provide an efficient and effective framework to achieve the objectives of the Canterbury Land and Water Regional Plan or address the significant natural resource management issues this catchment faces, or the purpose of the Act.
38. Fish and Game also submit that s32 has not been complied as some of the rules, including those that reference 'good Management Practice nitrogen loss rates', cannot have been assessed to determine their appropriateness or otherwise of achieving the objectives of the CLWRP and Variation 2, including those proposed by Fish and Game in Appendix 2, as they have yet to be developed. It is not possible to assess the benefits, costs or effectiveness of an instrument that is central to the proposed methods, that is not defined or specified.

## NPS Freshwater

39. In regards to the NPS Freshwater, Fish and Game submit that variation 2, in relation to managing water quality, does not give effect to the NPS Freshwater's Objectives including, but not limited to, for the following reasons:
  - (a) The freshwater objectives established in the CLWRP and Variation 2 will not give effect to either the Objective A1 or A2 of the NPS Freshwater
  - (b) The 'limits' as described in the CLWRP and Variation 2 including Schedule 8, and table 13(a), table 13(g), 13(j), will not achieve Objectives A1 or A2 of the NPSFW and will not achieve the Objectives of the CLWRP, the Freshwater Outcomes of Variation 2 set out in table 13(a) or the Objectives and Policies of the Canterbury Regional Policy Statement (CRPS). Setting Nitrogen at toxicity as an instream limit or target or as a load volume, will not safeguard life supporting capacity or ecosystem health, will not achieve the macroinvertebrate or Periphyton Freshwater Objectives (outcomes), and will not provide for recreational fishery or native fish values.
  - (c) Variation 2 will not result in maintenance of water quality, and instead allows degradation from current state by setting the current nitrogen loads from calculations of estimated current leaching and not from current water quality.
  - (d) Tables 13(a), table 13(g), and table 13 (j) require further work to ensure that numerical freshwater objectives, limits and targets are set which safeguard the life supporting capacity and ecosystem health of freshwater, and which protect the values of waterbodies, including recreational salmonid fishery and spawning values as toxicity levels will not achieve this.
  - (e) Table 13(j) Limits and Targets for the Hinds/Hekeao Plains Area Surface waterbodies, which are set at Nitrogen Toxicity levels, will not meet the requirements of A1 and A2 of the NPSFW, nor the purpose and principals of the RMA. Nor will it give effect to the objectives and policies of the CRPS. Amend Table 13 (j) to include amended and much lower Dissolved Inorganic Nitrogen (DIN) (mg/L) concentrations, and new Dissolved Reactive Phosphorus (DRP) (mg/L) concentrations, at levels based on life supporting capacity, ecosystem health and the values to be managed and protected. These levels are significantly lower than toxicity.

## Permitted activities and deeming provisions

Rules such as 13.5.21 and 13.5.24 state that if an irrigation scheme has a consent, an additional landuse consent is not required – the landuse is permitted. This is only appropriate if the irrigation scheme rules on which 13.5.21 and 24 rely apply the same rigour and control as the landuse rules that otherwise control nitrogen loss. The Variation as currently drafted does not require that nitrogen loss is controlled sufficiently from the rules cross referenced. For example 13.5.22 is a full discretionary rule. There is no certainty as to the farm management practises that will be required through this rule.

## Fish and Game seek the following relief:

40. That the relief outlined under the specific submission points, and as appended, is accepted; and additionally in general terms;



- (a) That provisions are included which ensure that the life supporting capacity of water, soil, and ecosystems are safeguarded
- (b) Fish and Game water body values be identified at least in accordance with the Schedule 3 water quality classes. Fish and Game submit that the values associated with the water bodies affected by variation 2 be specifically set out in variation 2.
- (c) Fish and Game submit that the following values at a minimum should be included in variation 2. These values should be identified ideally to the river, stream, or where appropriate reach level, however if this is not achievable the values should be identified to the sub catchment level:
- Amenity values
  - Aesthetic values
  - Cultural values
  - Contact recreation
  - Native fish values including inanga spawning
  - Trout fishery values
  - Trout spawning values
  - Game bird habitat
  - Native bird habitat
  - Riparian habitat
- (d) Fish and Game also submit that the following values should be identified, and managed by the plan: Outstanding Fresh Water Bodies, National Significance, Regional Significance, Local significance, High Naturalness.
- (e) These values should be included as a schedule within the plan and be used to set water quality and quantity limits to provide for these values and safeguard the life supporting capacity of freshwater resources. Both nitrogen and phosphorus limits should be set to protect macroinvertebrate community health, life supporting capacity, and to prevent undesirable periphyton and cyanobacteria blooms. Water quality should not be managed to toxic levels this includes nitrate nitrogen.
- (f) Remove all reference to 'good management practice nitrogen loss rates' including in table 13(h), 13(i), and schedule 7. These loss rates have not yet been developed and so cannot be assessed to determine their effectiveness or appropriateness. No s32 analysis could have been undertaken.
- (g) Amend table 13(h) so that the leaching reductions apply starting at 2017, and move all subsequent compliance dates forward eg first column applies in 2017, second column applies 2020, third column applies 2025, fourth column applies at 2030.
- (h) Amend the farming rules so that failure to comply with the leaching reductions set in table 13(h) or table 13(i) results in the activity becoming prohibited
- (i) Numerical water quality and quantity limits and standards should be inserted into the appropriate policies, Tables, and as standards within rules and should ensure compliance with the standards set in Schedule 3 of the RMA as a minimum. In particular:
- (i) That Tables 13(a), and 13(g) and (j) be amended to include numerical water quality and quantity limits for each river, stream and drain which are set to protect the values of freshwater bodies,. These limits should include but not be limited to numerical limits for: Macroinvertebrate community health; pH; visual clarity and percentage clarity change; turbidity; maximum temperature including maximum temperature during the Salmonid Spawning period or native fish spawning periods; percentage temperature change; and soluble inorganic nitrogen (SIN) and dissolved reactive phosphorus (DRP) to achieve a periphyton limit and cyanobacteria limits for the waterbody, and to provide for macroinvertebrate community health and life supporting capacity.

- (ii) Amend Table 13 (j) to include amended and much lower Dissolved Inorganic Nitrogen (DIN) (mg/L) concentrations, and new Dissolved Reactive Phosphorus (DRP) (mg/L) concentrations, at levels based on life supporting capacity, ecosystem health and the values to be managed and protected. These levels are significantly lower than toxicity.
- (iii) Amend table 13 (g) so that it includes Nitrogen load (tonnes per year) and Phosphorus load (tonnes per year) loads that are calculated to achieve the set concentrations for DIN and DRP in the amended table 13 (j).
- (iv) Apply Table 13 (j) to all of Section 13 of the variation, in place of Schedule 8, for Rivers.
- (j) It also needs to be ascertained that the nutrient losses allowed by the variation, give effect to the requirement in clause 11 of the Water Conservation (Rangitata) River Order 2006, which sets water quality standards for the Rangitata that must be complied with:

*(3) No resource consent may be granted or rule included in a regional plan authorising a discharge into any of the waters identified in Schedule 2 or Schedule 3, unless, after allowing for reasonable mixing of the discharge with the receiving waters –*

*(a) there will be no undesirable biological growths attributable to the discharge;*

*(b) in particular there will be no:*

*(i) bacterial and/or fungal slime growths that are visible to the naked eye; and/or*

*(ii) maximum biomass cover of streams or river beds by:*

*(a) periphyton as filamentous growths (longer than 20 mm) exceeding 30%; and/or biomass exceeding 120 mg/m<sup>2</sup> as chlorophyll a, and/or biomass exceeding 35 g/m<sup>2</sup> ash free dry weight, as area of exposed substrate (i.e., tops and sides of visible stones); and/or*

*(b) periphyton as diatoms or mats (more than 3 mm average thickness) exceeding 60%; and/or biomass exceeding 200 mg/m<sup>2</sup> as chlorophyll a, and/or biomass exceeding 35 g/m<sup>2</sup> ash free dry weight, as area of exposed substrate (i.e., tops and sides of visible stones).*

*(c) aquatic organisms shall not be rendered unsuitable for human consumption through the accumulation of contaminants; and/or*

*(d) the water is not made unsuitable for contact recreation by:*

*(i) the presence of contaminants; or*

*(ii) a single sample of bacterial values exceeds 550 E. coli per 100 ml.*

- (k) An analysis of current state versus desired state should be determined by assessing current state against these limits. This analysis should be used to establish the allocation status of waterbodies or and waterbody catchments, and appropriate management approaches including regulation should be developed to either maintain water quality and flows where they are currently sufficient to provide for the values and safeguard the life supporting capacity of waterbodies, or enhance water quality and flows where the catchment or waterbody is currently degraded such that the limits are not met.
- (l) Fish and Game submit that the Plan should also identify contact recreation sites in relation to the regional salmonids fishery and include these with the 'contact recreation' sites already identified, and incorporate numerical water quality and quantity limits to protect these values and also include rules in relation to those identified waters which must, at the very least, ensure the standard set out in Schedule 3 are complied with.
- (m) That the Plan is amended so that it is consistent with the Sports Fish and Game Management Plan of the Central South Island Fish and Game Council;
- (n) That provisions are included in the variation to preserve the natural character of the coastal environment, wetlands, lakes and rivers and their margins and the protection of them from inappropriate subdivision, use, and development;
- (o) That land use (including "farming") rules include ancillary discharges (s9 and s15 RMA);

- (p) That land use and ancillary discharge rules for both intensive and extensive land uses manage sediment, faecal, phosphorus, and nitrogen discharges, and include standards (limits or targets) in relation to these contaminants;
- (q) That in at or under allocated catchments (where numerical water quality or quantity limits are met but not exceeded) Land use and ancillary discharge activities are regulated to discharge/ leaching standards to ensure that at a minimum the water resource (quantity and quality) is used efficiently;
- (r) That in over allocated catchments (where numerical water quality or quantity limits are currently being exceeded):
- land use and ancillary discharge activities are regulated to discharge/ leaching standards which are set to progressively decline over time to ensure that discharges/ leaching is reduced to meet the receiving water quality numerical limits/ targets and achieve the objectives of the Variation;
  - Land use activities which do not achieve the nitrogen reductions set are a prohibited activity
  - new and existing water takes are regulated to so that water takes are reduced to meet the water quantity numerical limits/targets
  - That takes which breach targets and limits are prohibited activity
  - Increases in discharges is prohibited
- (s) That land use and ancillary discharge activity rules are integrated;
- (t) That land use and ancillary discharge activity permitted rules meet the requirements of s70 RMA,;
- (u) That nitrogen leaching standards are established and allocated based on the natural capacity of soil such as Land Use Capability or a similar alternative;
- (v) That nitrogen leaching rights are allocated within catchments in such a way that there is equitable allocation of a total catchment nitrogen limit to all users/activities who may wish to use the available resource;
- (w) That all cattle, pigs, and deer, and horses should be excluded from waterbodies;
- (x) The consequential restructuring of the variation, or parts thereof, arising from the material amendments sought;
- (y) Such other or further relief as addresses the issues raised by this submission.

**SPECIFIC SUBMISSION POINTS:**

Note: This submission has been set out in an attempt to be user friendly. The outcomes sought and the wording used is as a suggestion only, where a suggestion is proposed it is with the intention of 'or words to that effect'.

Submissions on Variation 2	Support/Oppose	Reason (in addition to the above)	I seek the following decision:
<b>NEW CHAPTER 13 to the CLWRP: HINDS/ HEKEAO PLAINS AREA</b>			
New Provision: identification of values of water bodies in Hinds/ Hekeao Plains area		The plan should identify the values of freshwater resources within the catchment.	Include in the catchment plan a table and maps which identify the values of the Hinds Hekeao Plains area and management objectives for each value.
New Objective: Protection of recreational fishery values, maintenance and enhancement of macroinvertebrate community healthy			To sustainably manage the use and development of land, the discharge of contaminants including nutrients, and the taking, using, damming, or diverting of fresh water in the Hinds/Hekeao Plains Catchment so that: (a) Groundwater levels, river flows, lake and wetland levels and water quality maintain or enhance the

Submissions on Variation 2	Support/Oppose	Reason (in addition to the above)	I seek the following decision:
			habitat and health of aquatic ecosystems, macroinvertebrates, native fish and salmonids; (b) Water quality enables safe contact recreation and food gathering; (ba) Water quality and quantity enables safe and reliable human drinking water supplies; (c) The frequency and duration of excessive periphyton growths that adversely affect ecosystem health, recreational and cultural uses and amenity are reduced; (d) Wetlands are protected as significant habitats; (e) The mauri of surface water bodies and groundwater is recognised and adverse effects on aspects of water quality and quantity that contribute to healthy mauri are avoided
New Objective:			Where the quality and quantity of fresh water has been degraded by human activities to such an extent that the freshwater Objectives set out above and in table 13(a) are not being achieved, water quality and quantity shall not be allowed to degrade further and it shall be improved progressively over time so that the objectives set out above and in table 13(a) is achieved by 2050.
New Objective		The proposed plan does not provide for the preservation of the natural character of wetlands, and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development.	Preservation of the natural character of rivers, wetlands, their margins and their natural processes, and protection from inappropriate use and development.
New definition for Natural Character		The proposed plan does not provide for the preservation of the natural character of wetlands, and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development.	The Natural Character of rivers lakes and wetlands may include such attributes and characteristics as: <ul style="list-style-type: none"> <li>a) natural elements, processes and patterns, chemical, biophysical, ecological, geological, geomorphological and morphological aspects,</li> <li>b) natural landforms;</li> <li>c) the natural movement of water and sediment including hydrological and fluvial processes;</li> <li>d) places that are wild and scenic</li> <li>e) a range of natural character from pristine to modified"</li> </ul>
Table 13(a)	Oppose	The NPSFW require that Freshwater objectives be set to give effect to the purpose and principals of the RMA and recognise and provide for the values of freshwater	Amend table 13(a) to set instream water quality characteristics and outcomes that will achieves the management objectives for the values of each water body.
13.7.3 and Schedule 8	Oppose	Freshwater limits and targets  Nitrate nitrogen is a toxicant and should be included in the consideration of other toxicants Nitrogen toxicity does not set the threshold for where nitrogen should be managed to, as it will not	Amend Table 13 (j) and require that it be applied to all Rivers of chapter/section 13, not just the Hinds/Hekeou Plains.  Amend 13.7.3:  <b>"13.7.3: Water Quality Limits and Targets</b> <i>In the Hinds/Hekeao Plains Area the water quality limits and targets in Table 13(g) are additional limits and targets to the region-wide limits in Schedule 8. In the Hinds/Hekeao Plains Area the water quality limits in Tables 13(j) and 13(k) prevail over the region-wide limits in Schedule 8. Rules 13.5.14, 13.5.17 and 13.5.22</i>

Submissions on Variation 2	Support/Oppose	Reason (in addition to the above)	I seek the following decision:
		<p>ensure that the purpose and principals of the RMA or objectives A1 and A2 of the NPSFW are achieved. Setting nitrogen at toxicity fails to give effect to the objectives of the CLWRP and Variation 2 and in particular is contrary to the freshwater objectives (outcomes) that should be set out in amended table 13(a)</p> <p>A dissolved inorganic nitrogen limit and target must be set order to manage periphyton growth and macroinvertebrate health and to achieve the fresh water objectives.</p> <p>It is appropriate to set dissolved inorganic nitrogen and dissolved reactive phosphorous limits that reflect existing instream concentrations where the freshwater objectives, macroinvertebrate community health and periphyton limits are being achieved.</p>	<p><i>use Tables 13(h), and 13(i) to manage activities to achieve the limits/targets for the Hinds/Hekeao Plains Area. For all other areas covered by the Ashburton section refer to Schedule 8, <u>with the exception of Rivers, in which case Table 13 (j) applies to the Ashburton section.</u></i></p>
Policy 5.124	Support		Retain
Policy 5.129	Support		Retain
Policy 13.4.5	Supported	Support provisions that enable surface water or hydraulically connected groundwater to be swapped for deep groundwater.	Insert additional policy that ensures when consents expire in an overallocated catchment any new consent must be considered in light of the preference for use of deep groundwater.
Policy 13.4.6	Support		Retain
Policy 13.4.9	Oppose		<p>Replace with the following, or similar:</p> <p>Manage land use within the Hinds/Hekeao Plains catchment area by regulating farming so that</p> <ul style="list-style-type: none"> <li>• good management practices are implemented to reduce Sediment, phosphorus, nitrogen and microbial contamination of surface waterbodies</li> </ul>

Submissions on Variation 2	Support/Oppose	Reason (in addition to the above)	I seek the following decision:
			<ul style="list-style-type: none"> <li>• where water quality currently meets the limits set in tables 13(a) and (g) that the limits are not exceeded;</li> <li>• where water quality currently exceeds the targets set in tables 13(a) and (g) that water quality is improved overtime as set out in tables 13(h) and 13(i)</li> <li>• increases in nitrogen leaching are prohibited</li> <li>• a 45% reduction in nitrogen leaching is achieved by 2030</li> </ul>
Policy 13.4.10	Oppose		Replace with Reduce discharges of microbes, phosphorus, sediments and nitrogen in the Hinds/ Hekeao Plains catchment by: <ul style="list-style-type: none"> <li>• Excluding cattle, pigs, and deer from surface waterbodies including drains and ephemeral waterbodies</li> <li>• Implementing the farm practices in schedule 24 or</li> <li>• Preparing and implementing farm environment plans in accordance with Schedule 7 and 24a which set out and define good management practices and</li> <li>• Specifying set reductions in contaminate losses which work towards ensuring that catchment limits and targets set out in amended tables 13(a) and 13(g) are achieved by 2050</li> </ul>
Policy 13.4.11	Oppose	<p>Land use activities should be managed to maintain current water quality where the freshwater objectives and limits as set out in amended Table 13(a) and amended tables 13(g) are being met, and where they are currently not being met land uses should be managed to reduce contaminate losses overtime so that the objectives and limits set out in table 13(a) are achieved by 2050 and the loads in 13(g) are achieved by 2030.</p> <p>Determination of the allocation status of catchment should be undertaken by assessing current water quality against the objectives and limits set out in amended tables 13(a) and 13(g).</p> <p>The management framework for the Upper Hinds catchment is dependent on the allocation analysis.</p>	Delete Replace with a new policy which ensures that land use will be managed to ensure that the objectives, limits/ targets set out in tables 13(a), 13(g) and 13 (j) will be achieved by 2050 for the objectives, and 2030 for the loads Nutrient loads should be calculated based on the loads required to achieve the instream DRP and DIN limits/ targets set out in the amended table 13(j)

Submissions on Variation 2	Support/Oppose	Reason (in addition to the above)	I seek the following decision:
Policy 13.4.12	Oppose	<p>Both nitrogen and phosphorus instream limits/targets and loads should be set so as to achieve the amended outcomes in table 13(a).</p> <p>Land use activities should be regulated to ensure that water quality is improved where the limits are currently exceeded so as to achieve the objectives for freshwater as set out in table 13(a) by 2050 and targets set out in tables 13(g) and (j) by 2030</p>	<p>Replace with:</p> <p>Improve water quality in the Hinds/Hekeao Plains catchment area by reducing the discharge of nitrogen and phosphorus from farming to achieve the in stream targets for DIN and DRP and their associated nutrient load targets as set out in amended table 13(g)</p>
New Policy		<p>Fish and Game consider the effects of stock effluent and organic contaminants, derived from any source, are very similar to those of untreated sewage, which should be reflected in policy and regulatory frameworks. Again, for reasons of consistency, contaminants from land which may enter water bodies should be treated in a similar way to those which directly enter those water bodies.</p>	<p>Include new policy and reflect this intention by amending the rules</p> <p><i>There are no direct or indirect discharges to surface waterbodies or groundwater of:</i></p> <ul style="list-style-type: none"> <li><i>(a) untreated sewage, <b>stock effluent</b>, wastewater or bio-solids;</i></li> <li><i>(b) solid or hazardous waste or solid animal waste;</i></li> <li><i>(c) animal effluent from an effluent storage facility or a stock holding area;</i></li> <li><i>(d) organic waste or leachate from storage of organic material; and</i></li> <li><i>(e) untreated industrial or trade waste.</i></li> </ul> <p><i>For other discharges of contaminants to surface waterbodies or groundwater <b>or into or onto land where they may then enter surface water bodies or groundwater</b>, the effects of any discharge are minimised by the use of measures that:</i></p> <ul style="list-style-type: none"> <li><i>(a) first, avoids the production of the contaminant;</i></li> <li><i>(b) secondly, reuses, recovers or recycles the contaminant;</i></li> <li><i>(c) thirdly, reduce the volume or amount of the discharge; or</i></li> <li><i>(d) finally, wherever practical <b>and relevant</b> utilise land-based treatment, a wetland constructed to treat contaminants or a designed treatment system prior to discharge; and</i></li> <li><i>(e) meets the freshwater objectives/ limits/ targets set in tables 13(a) and (g).</i></li> </ul> <p><i>Any discharge of a contaminant into or onto land where it may enter groundwater shall:</i></p> <ul style="list-style-type: none"> <li><i>(a) not exceed the natural capacity of the soil to treat or remove the contaminant; and</i></li> <li><i>(b) not exceed available water storage capacity of the soil; and</i></li> <li><i>(c) where this is not practicable:</i> <ul style="list-style-type: none"> <li><i>(i) meet any nutrient limits/targets/loads or reductions set out in tables 13(a), (g), (h) and (i);</i></li> <li><i>(ii) utilise the best practicable option to ensure the size of any contaminant plume is as small as is reasonably practicable, and there is sufficient distance between the point of discharge, any other discharge and drinking water</i></li> </ul> </li> </ul>

Submissions on Variation 2	Support/Oppose	Reason (in addition to the above)	I seek the following decision:
			<p><i>supplies to allow for the natural decay or attenuation of pathogenic micro-organisms in the contaminant plume;</i>  <i>(iii) not result in the accumulation of pathogens, or a persistent or toxic contaminant that would render the land unsuitable for agriculture, commercial, domestic or recreational use or water unsuitable <b>for its life supporting capacity, to meet community outcomes</b> or as a source of potable water or for agriculture;</i>  <i>(iv) not raise groundwater levels so that land drainage is impeded; and</i>  <i>(v) not have any adverse effects on the drinking water quality of the groundwater, including any risk to public health</i>  <b><i>(vi) not have any adverse effects on any surface water resources fed from that groundwater.</i></b></p>
New policy			<p>Land use activities affecting groundwater and surface water are managed as follows:</p> <p><b>Sediment</b></p> <p>a. Activities are managed to reduce the risk of accelerated erosion of the land and avoid discharges of sediment to surface waterbodies</p> <p><b>Faecal contamination</b> Farming activities must be required to</p> <p>a. Prevent cattle, deer, pigs, and horses access to surface waterbodies and their beds</p> <p>b. Avoid direct discharges to surface waterbodies including but not limited to from drains, tracks, culverts, bridges, raceways, runoff</p> <p>c. Establish programmes for implementing any required changes</p> <p><b>Nutrients</b></p> <p>Land use activities must be managed including through regulation to</p> <p>d. prevent direct discharges of nutrients to surface waterbodies</p> <p>e. meet leaching limits set at efficiency standards in catchments which are underallocated</p> <p>f. met LUC N leaching target in catchments which are approaching or exceeding limits</p> <p>g. prepare a nutrient management plan</p> <p>h. Submit nutrient management plan and supporting input data to the regional council.....</p>
Policy 13.4.13	Oppose	The policy relies on as yet undefined good management practice nitrogen loss rates. As these have not been set, the effectiveness of the policy and the rules that derive from it cannot be assessed against the purpose of the act	<p>Delete</p> <p>Replace with a new policy which incorporates the intention of policy 13.4.13(c) enabling by way of resource consent process land use intensification or changes in land use on a maximum of 30,000 hectares of land, provided the nitrogen loss calculation is limited to no more than 27kg per hectare per year and provided the reduction of total load by 45% by 2030 is still achieved.</p>



Submissions on Variation 2	Support/Oppose	Reason (in addition to the above)	I seek the following decision:
		<p>and other relevant statutory requirements, and no s32 analysis could have been validly undertaken.</p> <p>Requirements to manage farming to set nitrogen reduction rates have been covered above</p>	<p>Define good management practices so that their effectiveness for achieving specified outcomes can be met.</p>
New Policy			<p>Water quantity is managed to enable people, industry, and agriculture to take and use water to meet their reasonable needs while ensuring that:</p> <p>a) For surface water</p> <ul style="list-style-type: none"> <li>I. Minimum flows and allocation regimes are set for the purpose of maintaining or enhancing the existing life supporting capacity of waterbodies and recognising and providing for values (listed)</li> <li>II. In times of water shortage, takes are restricted to those that are essential to the health or safety of people, and communities, or for drinking water for animals and all other takes are ceased</li> </ul> <p>b) For groundwater</p> <ul style="list-style-type: none"> <li>I. Takes do not cause a significant adverse effect on the long term groundwater yield</li> <li>II. Groundwater takes that are hydraulically connected to surface waterbodies are managed with minimum flow and allocation regimes established for those surface water bodies and to protect their natural character</li> <li>III. Groundwater takes that are hydraulically connected to lakes or wetlands are managed to protect the life supporting capacity and natural character of those wetlands and lakes</li> <li>IV. The adverse effects of a groundwater take on other groundwater and surface takes are avoided</li> <li>V. Saltwater intrusion into coastal aquifers, induced by groundwater takes, is avoided</li> </ul>
New Policy			<p>Water use must be necessary, reasonable, and justifiable for its intended use, and where it meets these criteria its use must be efficient.</p> <p>Water must be used efficiently, including by the following measures:</p> <ul style="list-style-type: none"> <li>1) Requiring water audits and water budgets to check for leakages and water use efficiency</li> <li>2) Requiring the use of, or progressive upgrade to infrastructure for water distribution that minimises the loss of water and restricts the use of water to the amounts determined by policy (reasonable, justifiable need for water)</li> <li>3) Enabling the transfer of water permits</li> <li>4) Raising awareness about water efficiency issues and techniques</li> <li>5) Requiring monitoring of water takes, including by installing water metering and telemetry</li> </ul>

Submissions on Variation 2	Support/Oppose	Reason (in addition to the above)	I seek the following decision:
Policy 13.4.14	Conditional support	<p>Fish and Game consistently participates in local, regional and national planning processes seeking to avoid the degradation of water quantity and quality. However, whilst the situation of water ways being degraded to the point that dilution of nitrate nitrogen concentrations and 'topping up' of over allocated waterways is considered, is a clear resource management failure - but we must look to the solutions available and their merits. Fish and Game acknowledge that Managed Aquifer Recharge could potentially offer water quantity and quality restoration (to an extent and coupled with other mechanisms) and in this case Fish and Game is mostly concerned with the origin of the water to be allocated to MAR and the subsequent fate of that water. Fish and Game seeks assurance (by way of policies/rules) that any water allocated for MAR is to be derived from already allocated and abstracted water. i.e no taking of water outside of EFR's from another waterway. Also, that the fate of the MAR water that is delivered to achieve augmentation of downstream waterways is not entirely reallocated for abstraction, leaving the waterway no better off at the downstream end. Is the augmentation to be to meet minimum flows or is it essentially to utilise the natural flow paths as irrigation delivery schemes. There needs to be eed certainty here.</p>	<p>Amend policy and rules to give effect to need to provide for certainty.</p> <p>Include salmonid fishery, salmonid spawning, and recreational use values in the policy.</p>
Policy 13.4.15	Support		Retain

Submissions on Variation 2	Support/Oppose	Reason (in addition to the above)	I seek the following decision:
Policy 13.4.16	Support with minor amendment		Replace reference to 'environmental outcomes' to 'freshwater objectives' Amend so that policy is clear that over time, as consents expire and new consents are applied, less water will be allocated and allocation will be based on reasonable use.
Policy 13.4.17	Support		Retain
Policy 13.4.18	Support		Retain
Policy 13.4.19	Support	Fish and Game recognise that the post-2020 environmental flow regime for lowland streams is intended only to act as a 'backstop' pending the outcomes from a collaborative process with the Hinds Drains Working Party. This party is a forum comprising local farmers and representatives from Te Rūnanga o Arowhenua, Fish & Game and other organisations. The Working Party has been tasked with developing specific environmental flow regimes for these waterbodies and reporting these to the Ashburton Zone Committee by 2015. The consequential recommendations from the Ashburton Zone Committee to Canterbury Regional Council are intended to inform a further change to section 13, and specifically Table 13(e), to insert specific minimum flows and allocation limits for each of the named waterbodies. As there is a low risk that the Working Party do not deliver an agreed EFR, Fish and Game consider the post 2020 EFR to be an appropriate back stop and should provide enough incentive for the community to engage in the process. F&G is fully committed to participating in a the collaborative community process. The original flows were set in the 1980's purely as per the standard rule of the time which was to retain one third of the mean flow as a	Retain

Submissions on Variation 2	Support/Oppose	Reason (in addition to the above)	I seek the following decision:
		<p>minimum and everything above that was available for abstraction. As such the minimum flows do not adequately safeguard the life supporting capacity of ecosystems, therefore cannot achieve the purpose of the RMA s.5 or give effect to Obj A1 or B1 of the NPS FM2014. Fish and Game agrees that is appropriate to include the 'back-stop' but that in all likelihood the matter will be addressed via the Hinds Working Party collaborative process.</p>	
New Policy 13.4.20	New	A policy framework on wetlands and wetland development is required.	Encourage the development of wetlands to reduce nutrients and microbial contaminants and provide ecosystem services, mahinga kai and fish and bird habitat.
Table 13 (a)	Support in part	<p>Table 13 (a) sets the Freshwater Objectives, based on the values of water bodies that need to be more precisely defined. Table 13 (a) will then dictate the corresponding instream limits that need to be achieved for critical contaminants, and from that the corresponding loads (Table 13 (j) and (g) respectively.</p>	<p>Amend Table 13 (a) so that it identifies the values of the water bodies.</p> <p>Amend Table 13 (a) so that it includes all relevant Freshwater Objectives to achieving the desired outcome for each value, such as seasonal temperature, DIN, DIP, clarity, Nitrate and other toxicants, pH.</p> <p>Amend Objectives so that they are better suited for protecting the identified values, in particular by reducing the temperature, fine sediment and chlorophyll a figures to more appropriate levels,.</p>
Table 13(d)	Support in part	<p>Fish and Game understands that because the south branch allocation is purely for water supply, and it is the only allocation allowed it would not be subject to a minimum flow, so there is no point in setting one. As there is no allocation at all for the north branch there is no need for a minimum flow to be set there either.</p> <p>However it is not clear where the 2020 restriction regime level of 1973 l/s has been derived from. If allocation was reduced to around 600 l/s Fish and Game could support this as it would</p>	<p>Amend to ensure that if the minimum flow does not meet the depth predictions it will be reviewed within 5 years.</p> <p>Amend to ensure apply fair sharing of water between instream and out of stream users as flows approach the minimum.</p>

Submissions on Variation 2	Support/Oppose	Reason (in addition to the above)	I seek the following decision:
		<p>generally be in accordance with 1:1 sharing above the minimum</p> <p>Fish and Game support the proposal to achieve 300mm depth at Boundary Rd, achieved via minimum flow of 770 l/s at Poplar Rd and support this provision, however consider that the correlation that these figures have been based on is not strong. Fish and Game is concerned that there is no avenues to amend minimum flow at Poplar Road should the 300mm depth not be achieved.</p> <p>It is openly accepted that the current surface water (or connected groundwater) allocation is too high, and a key part of the variation is to encourage existing to swap their unreliably surface water takes to deep groundwater. It is anticipated that this will go some way to reducing that over allocation. However, there is no corresponding reduction in the allocation limit over time included in Table 13(d)</p>	<p>Insert a new column that specifies a reduced allocation goal.</p>
Table 13(e)	Support	<p>On the basis that existing use is only until 2020, Fish and Game do not oppose this. After 2020 flows and limits will be reviewed and replaced with ones that protect ecosystem health.</p>	<p>Retain and review in 2020</p>
Rule 13.5.8 to Rule 13.5.24	Oppose	<p>The rules do not adequately control all sources of nitrogen, phosphorus, sediment, or faecal contamination for the use of production land. Minimum</p>	<p>Delete rules 13.5.8 to 13.5.24 and replace with rules that achieve the following outcomes and have the following types of controls:</p> <p>Require farms to comply with a sustainable nitrogen leaching rate which is based on allocating the total allowable</p>

Submissions on Variation 2	Support/Oppose	Reason (in addition to the above)	I seek the following decision:																											
		<p>management practices to control these contaminants should be required by the rule.</p> <p>The rule should combine both land use under s9 RMA and discharges under s15 RMA and provide a holistic management framework for managing all discharges from the land use so as to ensure cumulative impacts are addressed.</p> <p>It is not appropriate to rely on a permitted activity classification where:</p> <ul style="list-style-type: none"> <li>it is necessary to rely on OVERSEER modelled nitrogen leaching to determine compliance with conditions, or</li> <li>where the rules contain elements of subjectivity</li> </ul>	<p>load of nitrogen as set out in amended table 13(g) on either a flat per hectare allocation of nitrogen leaching or a nitrogen leaching allowance per hectare based on an allocation on a land use capability class basis. Or some other methodology which achieves efficient use of natural resources.</p> <p>Where current loads are far in excess of desired water quality and nutrient loads, the LUC leaching rates can be set to start high and then reduce overtime to achieve a trajectory of improvement towards the desired state. Where catchments are extremely over allocated in nutrients as the Lower Hinds and drains are, the timeline for setting the trajectory of improvement will be cross generational.</p> <p>Example of Land Use capability leaching rates. As discussed above step down rates may be required to achieve a trajectory of improvement over time.</p> <table border="1" data-bbox="1427 709 2318 947"> <thead> <tr> <th>LUC</th> <th>I</th> <th>II</th> <th>III</th> <th>IV</th> <th>V</th> <th>VI</th> <th>VII</th> <th>VIII</th> </tr> </thead> <tbody> <tr> <td>Leaching rate yr 1</td> <td>33.1</td> <td>32.3</td> <td>29.2</td> <td>21.8</td> <td>21.8</td> <td>12.5</td> <td>5</td> <td>2</td> </tr> <tr> <td>Leaching rate yr 5</td> <td>30</td> <td>29</td> <td>22</td> <td>20</td> <td>20</td> <td>11</td> <td>5</td> <td>2</td> </tr> </tbody> </table> <p>Require farms to comply with specified management practices which minimise or reduce the loss of nitrogen, phosphorus, sediment, and microbial contaminants, including but not limited to the requirement to seal effluent ponds and to practice deferred irrigation, good management practices for the application of fertiliser and other nutrient sources including setback distances from waterbodies, permanent fencing and planting of riparian margins, good management practices for earthworks and cultivation including setback distances from waterbodies of at least 6m to avoid or minimise sediment run off to water.</p> <p>Exclude all livestock from rivers, wetlands, and drains and to culvert or bridge all regular stock crossings Provide for any activity that increases its nitrogen or phosphorus leaching, or fails to achieve the reductions in leaching set in table 13(h) to be a prohibited activity.</p> <p>In particular delete parts of the rules that: Refer to undefined, good management practice nitrogen loss rates Provide for a permitted activity status for production land use activities that have to demonstrate compliance with a standard that relies on modelled nitrogen leaching</p>	LUC	I	II	III	IV	V	VI	VII	VIII	Leaching rate yr 1	33.1	32.3	29.2	21.8	21.8	12.5	5	2	Leaching rate yr 5	30	29	22	20	20	11	5	2
LUC	I	II	III	IV	V	VI	VII	VIII																						
Leaching rate yr 1	33.1	32.3	29.2	21.8	21.8	12.5	5	2																						
Leaching rate yr 5	30	29	22	20	20	11	5	2																						
Rule 13.5.9	Oppose	Fish and Game consider the permitted activity rule does not provide for a full assessment of the effects of the activity on waterways. Where catchments are currently not meeting freshwater	<p>Amend so that the activity status is controlled and the rule covers both s9 and s15 land use and associated discharges</p> <p>Amend Schedule 7 and 24a to ensure Overseer assumptions are mandatory requirements and process meets certainty and objectivity requirements.</p>																											

Submissions on Variation 2	Support/Oppose	Reason (in addition to the above)	I seek the following decision:
		<p>objectives or limits, permitting land uses and associated discharges (s9 and s15) breaches requirements of s70 RMA</p> <p>Permitted activity rule should be clear and certain and not contain elements of subjectivity or discretion or require third party audit. Permitted activities should include numerical standards which ensure that significant adverse effects on the environment do not occur either as a result of an activity or due to cumulative activities</p>	Delete grandparenting clause 1 and insert 20kg or LUC leaching rates
Rule 13.5.10	Oppose	no justification for treating farming enterprises differently from normal farming activities. Same management frameworks should apply. No justification in granting increased discharge allowances. This approach is not equitable.	Delete
Rule 13.5.11 and Rule 13.5.12	Supported		
Rule 13.5.14	Oppose	Minor amendments sought	Amend rule so that there is certainty the increased area that may be irrigated does not frustrate achievement of the target reduction in load, and instream concentrations.
Rule 13.5.15	Oppose	<p>Fish and Game consider the permitted activity rule does not provide for a full assessment of the effects of the activity on waterways. Where catchments are currently not meeting freshwater objectives or limits, permitting land uses and associated discharges (s9 and s15) breaches requirements of s70 RMA</p> <p>Permitted activity rule should be clear and certain and not contain elements of subjectivity or discretion or require third party audit. Permitted activities should include numerical standards which ensure that significant adverse effects</p>	Amend rule and associated Schedule 24a and Schedule 7 so that rule is valid, certain and effective.

Submissions on Variation 2	Support/Oppose	Reason (in addition to the above)	I seek the following decision:
		on the environment do not occur either as a result of an activity or due to cumulative activities	
Rule 13.5.16	Oppose	<p>Fish and Game consider the permitted activity rule does not provide for a full assessment of the effects of the activity on waterways. Where catchments are currently not meeting freshwater objectives or limits, permitting land uses and associated discharges (s9 and s15) breaches requirements of s70 RMA</p> <p>Permitted activity rule should be clear and certain and not contain elements of subjectivity or discretion or require third party audit. Permitted activities should include numerical standards which ensure that significant adverse effects on the environment do not occur either as a result of an activity or due to cumulative activities</p>	<p>Amend so that the activity status is controlled and the rule covers both s9 and s15 land use and associated discharges</p> <p>Amend Schedules 24a and 7 so that use of FEMPs is certain, objective and effective.</p>
Rule 13.5.17	Oppose		<p>Amend</p> <p>Include within the rule requirements to achieve the nitrogen reductions set in table 13(h)</p> <p>Delete clause 3 and 4 from list of matters discretion is exercised over</p> <p>Include new matter of discretion – The impact of the activity in relation to achievement of the Freshwater objectives/ limits and targets set in amended tables 13(a) 13(g) and 13 (j)</p>
Rule 13.5.18	Oppose	No justification for treating farming enterprises differently from normal farming activities. Same management frameworks should apply.	Delete Farming enterprise rule
Rule 13.5.19 and 13.5.20	Supported		Retain intention. Minor amendments may be required consequential to meeting the relief sought in the Fish and Game submission
Rules 13.5.21 to 13.5.24	Oppose	As proposed variation 2 contains a number of rules (such as 13.5.21, and 13.5.24) which permit activities if a	Delete in their entirety



Submissions on Variation 2	Support/Oppose	Reason (in addition to the above)	I seek the following decision:
		<p>consent is held for a discharge from an irrigation Scheme or a land use. A rule in a plan cannot have activity status decided by whether or not another consent is held, nor deem that by virtue of holding a consent it is being complied with, or that the impacts on freshwater from the activity are not breaching the requirements of s15RMA. For rules 13.5.21 and 13.5.24 holding a consent is the only condition of the rule, as the rule doesn't have any other conditions, and the rule cannot require that the consent be complied with. This means that essentially rules 13.5.21 and 13.5.24 have no conditions controlling the environmental effects. Discharge rules structured like this as shown by rule 13.5.24 have no conditions which would prevent s107 effects from occurring. These rules should be deleted in their entirety.</p>	
Table 13 (e)	Support with amendment		Table 13(e) Windemere Drain minimum flow site should be Poplar Rd not Lower Beach Rd
Rule 13.5.36	Support in part	<p>The rate and volume of water to be discharged for augmentation needs to be a matter of discretion as it is a fundamental parameter of managing effects downstream</p>	<p>Add as a matter of discretion 1A Rate and volume of discharge</p>
Table 13(g)	Oppose	<p>The limits/ targets set in table 13(g) do not meet the requirements of NPSFW. Nutrient limits for phosphorus and nitrogen should be set at current water quality levels where the freshwater objectives including those set in amended Table 13(a) as amended by this submission are met. Load calculations should give effect to this</p>	<p>Amend table 13 (g) so that it includes loads that are calculated to achieve set concentrations for DIN and DRP in the amended table 13 (j).</p> <p>This will require setting the Nitrogen load (tonnes per year) to achieve Dissolved Inorganic Nitrogen (DIN) (mg/L), and Phosphorus load (tonnes per year) to achieve Dissolved Reactive Phosphorus (DRP) (mg/L). The concentrations to be set, and therefore loads, to be set, should be based on life supporting capacity, ecosystem health and the values to be managed and protected</p>

Submissions on Variation 2	Support/Oppose	Reason (in addition to the above)	I seek the following decision:
		<p>and be calculated to achieve current water quality limits and not derived from estimating nitrogen leaching from land.</p> <p>Both nitrogen and phosphorus limits, and where these are currently exceeded Targets should be included along with related load volumes.</p> <p>Nutrient targets should be set to achieve objectives A1 and A2 of the NPSFW, the purpose and principals of the RMA, the objectives and policies of the RPS and the objectives of the CLWRP and Variation 2 including amended table 13(a), and timeframes should be established to achieve these targets.</p>	
Table 13(j)	Oppose	<p>Nitrate nitrogen is a toxicant and should be included in the consideration of other toxicants , in an amended table 13 (a). Nitrogen toxicity does not set the threshold for where nitrogen should be managed to, as it will not ensure that the purpose and principals of the RMA or objectives A1 and A2 of the NPSFW are achieved. Setting nitrogen at toxicity fails to give effect to the objectives of the CLWRP and Variation 2 and in particular is contrary to the freshwater objectives (outcomes) that should be set out in amended table 13(a)</p> <p>While Fish and Game support the setting of instream water quality concentration limits and targets for nitrate nitrogen to avoid toxicity effects</p>	<p>Delete any reference to concentrations based on toxicity,</p> <p>Replace with much lower Dissolved Inorganic Nitrogen (DIN) (mg/L) concentrations, and new Dissolved Reactive Phosphorus (DRP) (mg/L) concentrations, at levels based on life supporting capacity, ecosystem health and the values to be managed and protected. These levels are significantly lower than toxicity.</p>

Submissions on Variation 2	Support/Oppose	Reason (in addition to the above)	I seek the following decision:
		on aquatic fauna, the numeric set in Table 13(j) are too high to avoid these effects and require amendment.	
Schedule 24a © (ii) winter grazing	Support	3m vegetative strip for stock exclusion and cultivation: Fish and Game notes that whilst 6m is technically defensible, Fish and Game has considered the loss of land resulting from 6m either side in conjunction with the general slope of the land and can accept 3m as appropriate.	Retain
Riparian protection, FEMP Schedule 7 and Schedule 24a			Redraft Rule to include 50 metre setbacks (at minimum) to important waterbodies; and to limit nitrogen-loading and application depth and rate dependent on soil type and the quality of the receiving environment.

