

FOR INFORMATION

To: North Canterbury Fish and Game Council
From: H. Sanders Garrick
Date: 09 June 2025
Subject: 2024/25 Designated Waters Survey Results

Purpose

1. This document aims to update the North Canterbury Fish and Game Council (NCFG) on the results of the 2024/25 Designated Waters and Controlled Fishery Users Survey in advance of the results being released publicly.

Points of Information

2. Thirty-three percent of anglers who took the survey reported fishing North Canterbury Designated Waters – equating to an estimated ~910 resident anglers who utilised North Canterbury Designated Waters during the 2024/25 fishing season.
3. The Lewis Pass Fishery was the most utilised Designated Water, with 56% of reported angler days.
4. Estimated angler days increased by ~50% on the Lewis Pass and Upper Waiau Uwha Fisheries relative to the 2023/24 fishing season. Changes to angler days on the North and South Branch Hurunui were not statistically significant.
5. Angler satisfaction was similar to results from the 2023/24 season survey. Anglers were, on average, satisfied with their fishing experience and angling success, and reported neutral feelings about the condition of fish they caught.
6. Anglers booked 91% of all available days on the North Branch Controlled Fishery and 78% of all available days on the South Branch Controlled Fishery.
7. The largest number of days booked by a single angler was 41, 32 days on the North Branch and 9 days on the South Branch. This angler is a North Canterbury local and is not a guide.
8. Anglers reported fishing, on average, 68% of the days they booked on the North Branch and 44% of the days they booked on the South Branch. The most commonly cited reason for not fishing on a booked date was inclement weather.
9. The majority of comments provided during the survey were positive. However, many comments highlighted frustrations and concerns with the Controlled Fishery booking system.

Next steps

10. The survey report (enclosed) will be posted publicly, and results will be shared using a video containing the key findings listed above.
11. Comments regarding the booking system will be packaged and delivered to council with other consultation materials prior to council's evaluation of the Controlled Fishery trial.

Technical Report

North Canterbury Designated Waters Angler Survey

June 2025

North Canterbury Fish & Game

H. Sanders Garrick

During the 2023/24 fishing season, North Canterbury (along with six other regions of Fish & Game) implemented the Designated Waters system. This system is aimed at reducing angling pressure on pressure sensitive fisheries, in particular pressure from non-resident tourist anglers. North Canterbury identified four pressure sensitive backcountry fisheries to be included as Designated Waters (Appendix A). Additionally, North Canterbury added two experimental Controlled Fisheries within the Designated Waters, which require a booking to fish. The objective of this survey is to evaluate angler use and satisfaction with the North Canterbury Designated Waters.

Methods

During May 2025, North Canterbury Fish & Game invited all anglers who had purchased a North Canterbury Designated Waters licence to participate in an online survey. Anglers were sent an initial email invitation, followed by two email reminders, for a total of three emails. Additionally, two social media posts advertised the survey and encouraged licence holders to check their email for the survey link. The link was not supplied on social media to prevent spam entries. Both anglers who did and anglers who did not fish the Designated Waters system were encouraged to participate.

North Canterbury sold designated waters licences to 3,041 anglers, 2,753 residents and 288 non-residents. Of those licence holders who consented to receive further contact via email, 1,908 provided an email address at point of sale. Emails were sent to each of the 1,908 email addresses with an invitation to participate in the survey. Surveys that were not linked to an email address from the North Canterbury Designated Waters licence database were excluded from analysis.

The survey questionnaire was designed using the online Survey Monkey platform. While all anglers were asked to participate in the survey, only anglers who reported that they went fishing within the North Canterbury Designated Waters were asked questions regarding satisfaction or the number of days fished on each fishery. Satisfaction questions were designed to be comparable to the results from the 2024/25 Lake Coleridge angler surveys (Graham-Samson & Sanders Garrick 2025). The full questionnaire can be located in Appendix A.

Estimated angler days, E_i , were calculated from reported angler days according to the formula:

$$E_i = N \left(\frac{D_i}{n} \right)$$

In which N represents the number of anglers with a North Canterbury Designated Waters licence, D_i represents the number of reported angler days for river i , and n represents the number of anglers surveyed.

Additionally, staff attempted to individually survey each angler who booked the Controlled Fisheries. Anglers were asked how many of the booked days were fished, and how many anglers were in their fishing party.

Both anglers from the general Designated Waters survey and the booking system survey were given the opportunity to provide comment on their opinions of the Designated Waters and Controlled Fishery. We used the NRC emotion lexicon via the tidytext package in Program R to perform sentiment analysis on comments provided by anglers (Mohammad and Turney 2013, Silge and Robinson 2016). We excluded the following words which could be used to refer to the sport or Designated Waters system as they were commonly included in comments but did not carry the typical connotations as listed in the lexicon: ballot, bank, guide, hut, numbers, pay, resident, rod, system. Each of these words was associated with positive sentiments, and hut and rod carried irrelevant negative connotations.

Results

Designated Waters User Survey

We received 623 submissions to the survey. Thirty-two anglers indicated that they did not wish to participate in the survey. Fifty-nine surveys were invalid (included no responses). We identified no duplicate surveys (i.e., surveys in which the same survey participant submitted a survey twice). As such, we were able to use 532 valid surveys for analysis, a

response rate of 27.9%. Only 3 of the survey respondents were non-residents, while the remainder had purchased resident licences.

Of those who responded, 197 anglers said that they fished in the North Canterbury Designated Waters during the 2024/25 fishing season. However, 19 anglers who said they fished the Designated Waters reported zero angling days for all North Canterbury Designated Waters. As such, the final reported participation rate for fishing Designated Waters was 33.5%, slightly higher than the 2023/24 participation rate.

The Lewis Pass was the most utilized of the Designated Waters, with 55.6% of reported angler days, followed by the Upper Waiau Uwha with 18.3%. The North and South Branch of the Hurunui accounted for 11.7 and 14.3% of reported angler days respectively. The estimated number of angler days was 2,754 on the Lewis Pass fishery, 905 on the Upper Waiau Uwha, 709 on the Hurunui South Branch, and 579 on the Hurunui North Branch (Figure 1).

Sixty-six percent of the anglers who said they fished in North Canterbury's Designated Waters reported fishing the Lewis Pass fishery, followed by 36.0% on the Upper Waiau Uwha, 26.4% on the Hurunui South Branch, and 23.0% on the Hurunui North Branch (Figure 2). The median number of total reported days fishing North Canterbury Designated Waters was 3 (IQR 2-6). The maximum reported number of days fished was 40. Twenty-one anglers reported fishing 10 or more days, and 7 reported fishing more than 20 days.

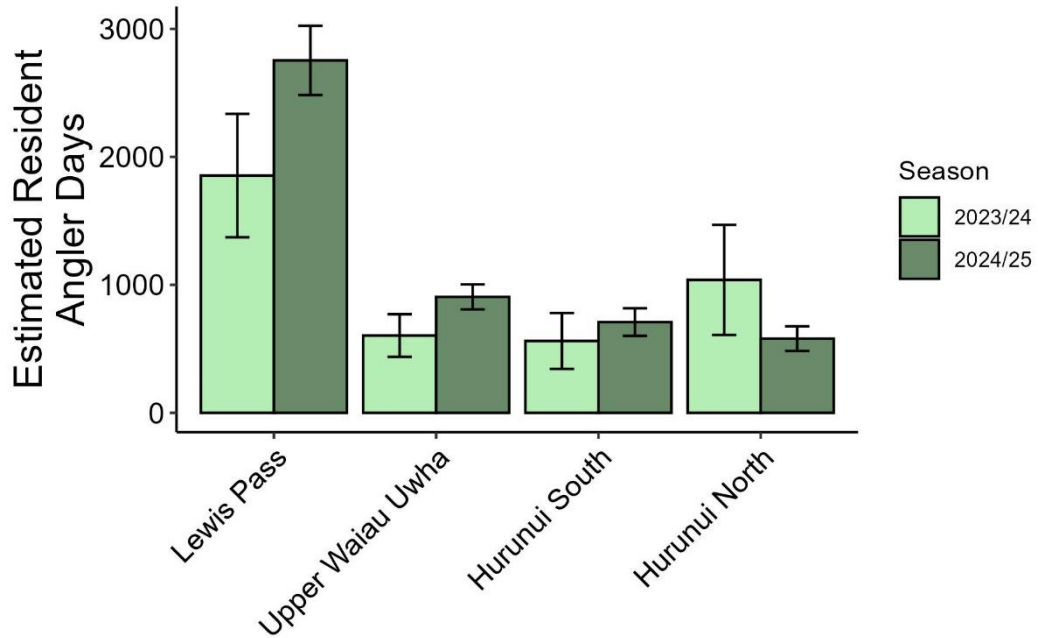


Figure 1. The estimated number of resident angler days for each of the North Canterbury Designated Waters during the 2023/24 and 2024/25 fishing seasons, with error bars representing 95% confidence intervals.

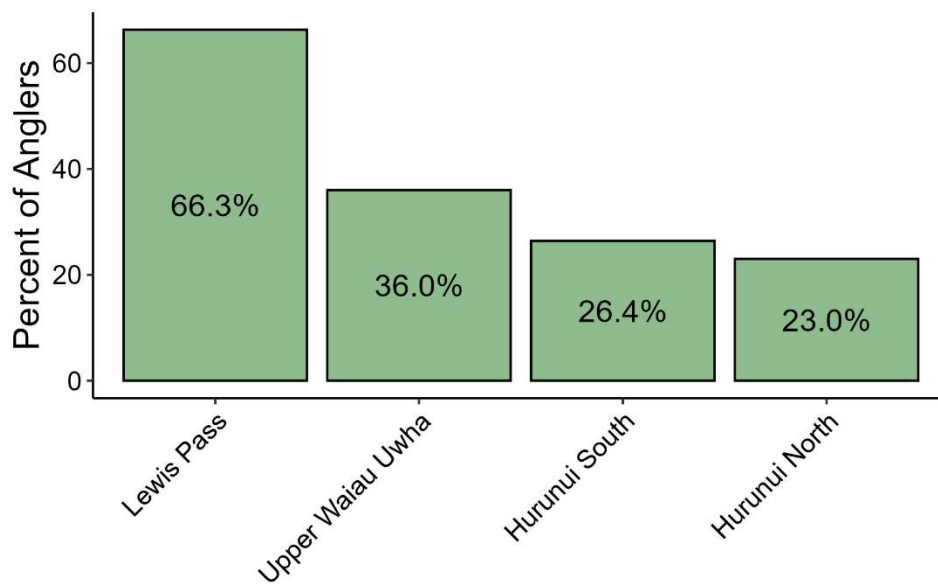


Figure 2. The proportion of resident anglers that reported fishing each of the North Canterbury Designated Waters during the 2024/25 fishing season.

Satisfaction

When it came to angler satisfaction, 49% of anglers reported they were satisfied or very satisfied with their angling success; 15% of anglers reported they were dissatisfied with their angling success and 8% felt very dissatisfied. Sixty-three percent of anglers reported they were satisfied or very satisfied with the condition of fish they caught while 11% reported they were either dissatisfied or very dissatisfied with fish condition. Finally, 75% of anglers reported they were satisfied or very satisfied with their overall experience fishing North Canterbury Designated Waters.

Anglers on average rated the condition of fish they caught at 3.3 +/- 0.2, their angling success at 3.6 +/- 0.1, and their overall fishing experience at 3.9 +/- 0.2.

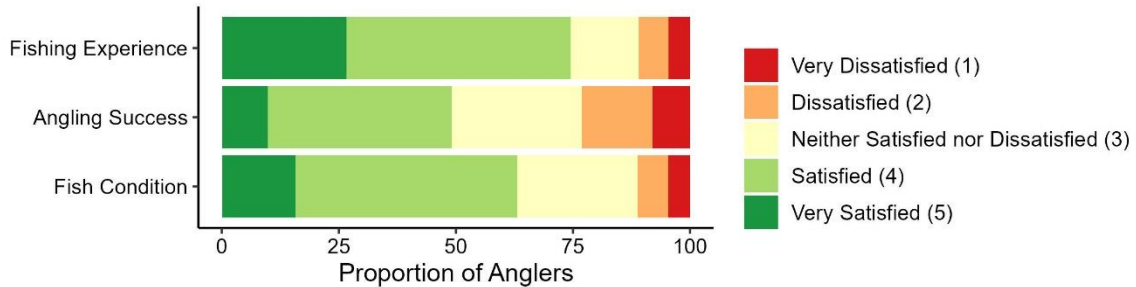


Figure 3. Angler satisfaction with the overall fishing experience, angling success, and condition of fish caught during the 2024/25 fishing season on North Canterbury Designated waters.

Controlled Fisheries User Survey

Anglers had booked 193 of the 212 available days (91%) on the North Branch and 165 (78%) on the South Branch. Seventy-four unique anglers were associated with an online booking for the North Branch and 59 anglers for the South Branch. Thirty-two bookings were cancelled on the North Branch and 13 on the South Branch. Of dates that were cancelled, 75% were subsequently booked by another angler on the North Branch and 77% on the South Branch. The mean number of days booked per angler was 3.5 (+/- 0.5) on the North Branch and 3.7 (+/- 0.5) on the South Branch. Three anglers had booked more than 10 days on the North Branch; the angler with the most bookings had booked 32 days. On the South branch, four anglers booked more than 10 days; the angler with the most bookings had booked 22 days.

Staff were able to successfully interview 15 anglers who held bookings on the North Branch Controlled Fishery, accounting for 80 of the total 193 booked days. We were able to successfully interview 11 anglers who held bookings on the South Branch Controlled Fishery, accounting for 68 of the total 165 booked days. Anglers on the North Branch reported fishing, on average, 68% of the days they booked, while anglers on the South Branch reported fishing 44% of the days they booked. Median reported party size was 2 anglers on the North Branch and 1 angler on the South Branch.

Sentiment Analysis

Between both surveys, we gathered 196 comments from anglers regarding the North Canterbury Designated Waters programme. In those comments, there were 231 incidences of words with positive connotations and 176 words with negative connotations. Positive emotions such as trust, anticipation, and joy were included in comments more frequently than negative emotions such as sadness, fear or anger (Figure 4). Negative comments tended to be geared towards difficulties experienced with the booking system (26% of all comments) or concerns about guides (14% of all comments).

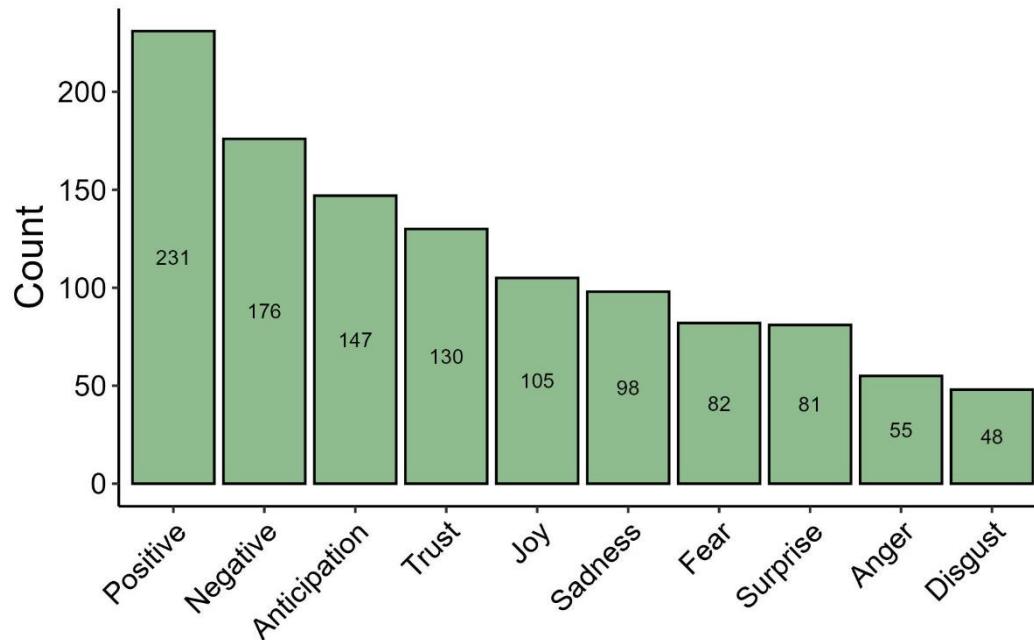


Figure 4. The results of sentiment analysis using the NRC emotion lexicon to categorize comments provided by North Canterbury Designated Waters anglers during the 2024/25 season survey.

Discussion

The implementation of the Controlled Fisheries on the North and South Branches of the Hurunui River appears to have increased pressure on other rivers. The number of estimated resident angler days has increased on both the Lewis Pass Fishery and the Upper Waiau Uwha Fishery by nearly 50% relative to the 2023/24 season. Estimates indicate that resident angler days increased by 26% on the South Branch of the Hurunui since the 2023/24 season, and decreased by 45% on the North Branch, however changes to the North and South Branch were not statistically significant. The proportion of anglers who reported they had fished the North Branch decreased relative to the previous year, but has remained similar for the South Branch, and increased on both the Lewis Pass and Upper Waiau Uwha. These results indicate the implementation of the Controlled Fisheries has displaced anglers from the Designated Waters on the North and South Branch of the Hurunui River to the other North Canterbury Designated Waters. However, our data suggests the Controlled Fishery has not successfully reduced angler pressure on the North or South Branch.

Anglers were, on average, satisfied with all aspects of their experience fishing North Canterbury Designated Waters. Satisfaction with their overall fishing experience was similar to the 2023/24 fishing season. Anglers were slightly more satisfied with the number of fish they caught relative to the previous year. Compared to the recent satisfaction survey on Lake Coleridge (Graham-Samson & Sanders Garrick 2025), anglers were less satisfied with the condition of fish they caught than anglers on Lake Coleridge and less satisfied with the overall fishing experience. However, anglers were more satisfied with their angling success in the Designated Waters than on Lake Coleridge.

The sample size of the 2024/25 Controlled Fisheries survey is not sufficient to provide a meaningful estimate of angler days within the Controlled Fisheries sections of the Hurunui North and South Branch. In order to support the continued use of a Controlled Fishery booking system, it is critical to properly survey angler use of these areas. North Canterbury could improve its monitoring of these important pressure sensitive fisheries by surveying each booking holder immediately following the booking.

Similar to the 2023/24 season, this survey was not sufficient to survey non-resident anglers. Because non-resident anglers can only fish 5 days within any regional Designated Waters, it may be more effective to survey them as they fish, similar to the proposed surveys for the Controlled Fishery. However, this will require coordination with the licencing system that may not be possible under our current provider. North Canterbury should pursue options to better survey non-resident anglers in the coming years.

While sentiment analysis demonstrated that comments were more positive in nature than negative, the comments supplied during this survey revealed a few key points of concern amongst anglers. Many anglers experienced difficulties trying to book the Controlled Fisheries, and some felt the booking system unfairly favoured guides and non-residents over average resident anglers. There were many suggestions for changes that could be made to improve the functioning of the system, which will be provided to Council as they evaluate the experimental trial of the Controlled Fishery.

References

- Graham-Samson, H., Sanders Garrick, H. 2025. Lake Coleridge Summer Survey 2024/25. North Canterbury Fish & Game.
- Mohammad, S. M., Turney, P. D. 2013. NRC emotion lexicon. National Research Council of Canada: Information and Communication Technologies.
<https://doi.org/10.4224/21270984>
- Silge, J., Robinson, D. 2016. tidytext: Text Mining and Analysis Using Tidy Data Principles in R. The Journal of Open Source Software. doi:10.21105/joss.00037

Appendix A: North Canterbury Designated Waters

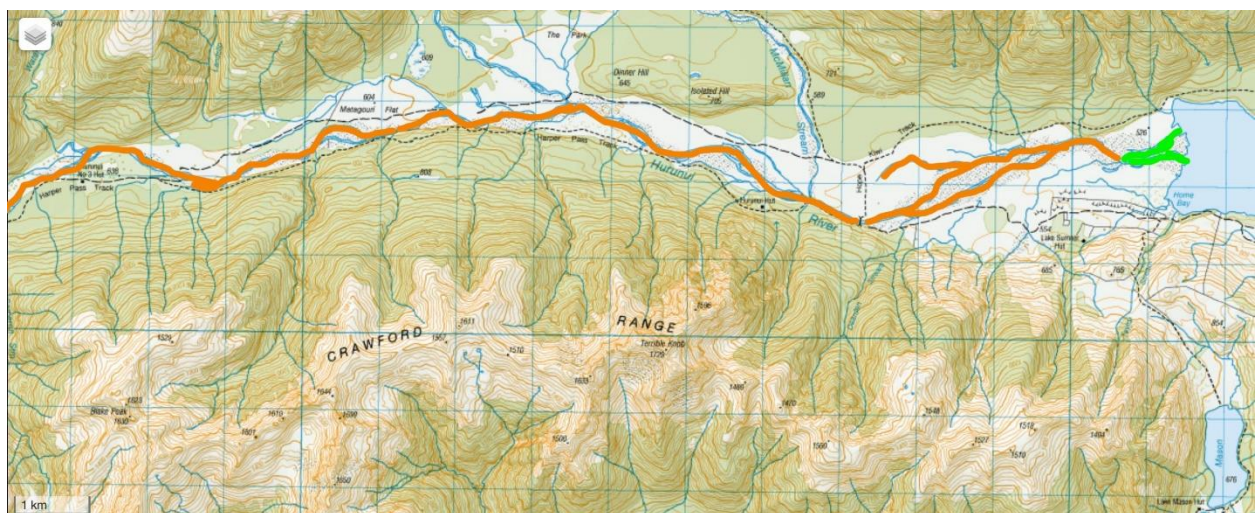
Hurunui River South Branch

The South Branch of the Hurunui River upstream of the confluence with the North Esk River. The area on the map shown in orange is the Designated Water for the Hurunui River South Branch.



Hurunui River North Branch

The North Branch of the Hurunui River beginning approximately 500 m upstream from Lake Sumner. The area on the map shown in orange is the Designated Water for the Hurunui River North Branch.



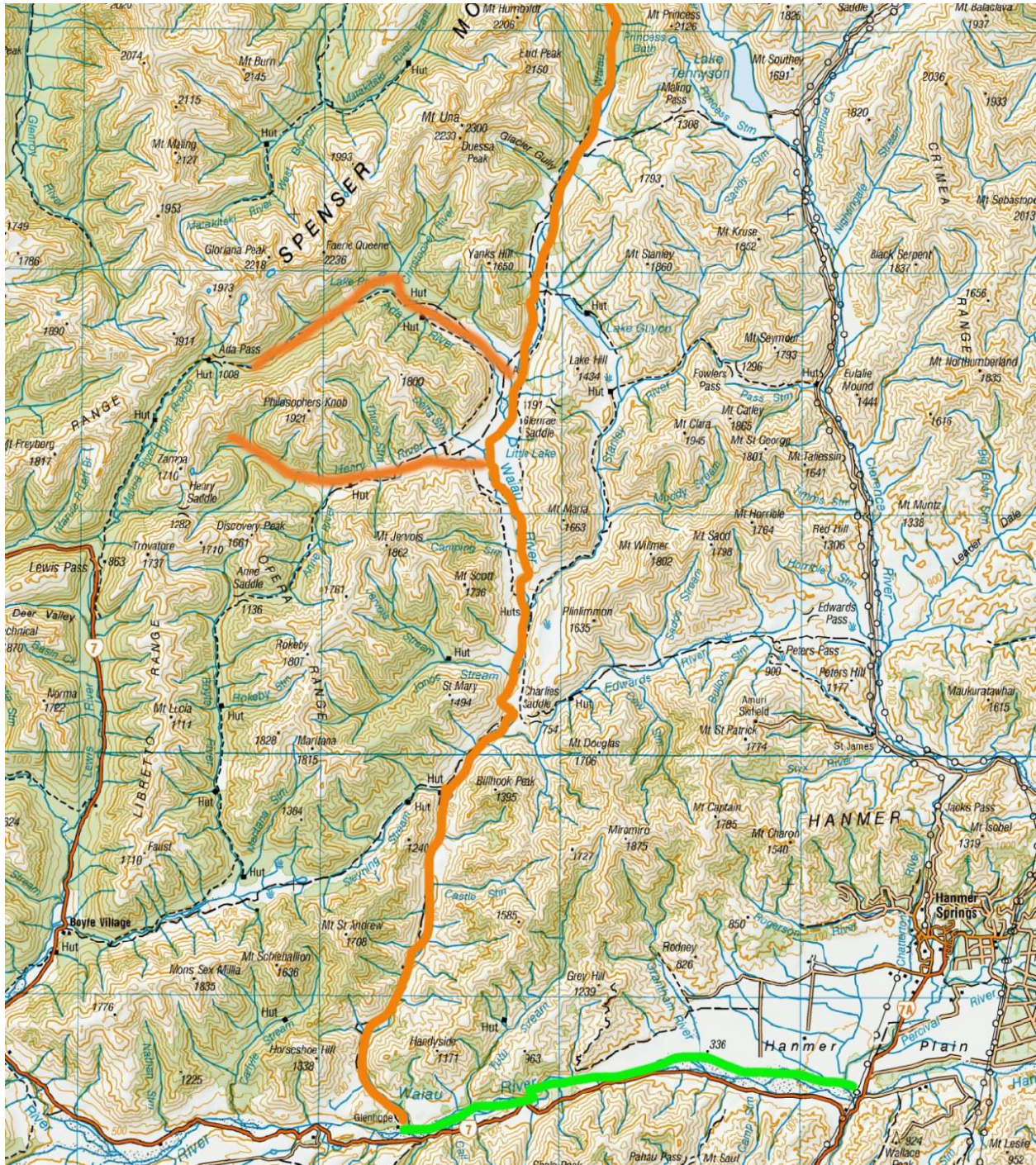
Lewis Pass Fishery

The Hope River and all tributaries upstream of the State Highway 7 bridge. Includes the Boyle, Doubtful, Nina, and Lewis Rivers. The area on the map shown in orange is the Designated Water for the Lewis Pass Fishery.



Upper Waiau Uwha Fishery

The upper Waiau Uwha River upstream of the confluence with the Hope River and includes the Henry and Ada Rivers. The area on the map shown in orange is the Designated Water for the upper Waiau Uwha Fishery.



Appendix B: Full Questionnaire

Q1. Do you wish to participate in this survey?

Yes

No

Q2. First Name

Q3. Surname

Q4. Please provide the email address associated with your Fish & Game fishing license.

Q5. Did you fish any of the Designated Waters in North Canterbury during the 2023/24 fishing season?¹

Yes

No

Q6. How many days did you fish the Hurunui South Branch Designated Waters fishery?¹

Q7. How many days did you fish the Hurunui River North Branch Backcountry Fishery?¹

Q8. How many days did you fish the Lewis Pass Designated Waters fishery?¹

Q9. How many days did you fish the Upper Waiau Uwha River Designated Waters fishery?¹

¹ Respondents were provided with a map and full description of each Designated Waters area alongside the question to help them respond to the best of their ability.

Q10. On a scale of 1 to 5, 1 being very dissatisfied and 5 being very satisfied, how satisfied were you with...

The number of fish you caught while fishing North Canterbury Designated Waters?

Very dissatisfied (1)	Dissatisfied (2)	Neither satisfied nor dissatisfied (3)	Satisfied (4)	Very satisfied (5)
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The size and condition of fish you caught while fishing North Canterbury Designated Waters?

Very dissatisfied (1)	Dissatisfied (2)	Neither satisfied nor dissatisfied (3)	Satisfied (4)	Very satisfied (5)
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Your enjoyment of the overall experience of fishing North Canterbury Designated Waters?

Very dissatisfied (1)	Dissatisfied (2)	Neither satisfied nor dissatisfied (3)	Satisfied (4)	Very satisfied (5)
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