

# Angler usage of New Zealand lake and river fisheries

Results from the 2021/22 National Angler Survey

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## Executive summary

Fish and Game New Zealand (FGNZ) management responsibilities create an ongoing need for timely and accurate data on angler use of the freshwater fisheries resource. Since 1994 FGNZ has conducted National Angler Surveys (NASs) to estimate annual waterbody usage by anglers for all significant freshwater sports fisheries within the 12 FGNZ regions. This report presents results of the fifth NAS, conducted during the 2021-22 season. The previous four NASs took place during the 1994-95, 2001-02, 2007-08 and 2014-15 fishing seasons. The objectives of the 2021-22 NAS were:

- to estimate annual usage by anglers, during the 2021-22 fishing season, for all lake and river fisheries managed by FGNZ.
- to tabulate and characterise these results at national, regional, and local scales.

The 2021-22 angling season was affected by COVID-19 restrictions on international and domestic travel. FGNZ regions were unequally affected by COVID-19 restrictions, with North Island regions experiencing stronger restrictions on angling activity during the 2021-22 angling season.

During 2021-22 FGNZ licences were available in 15 categories broadly defined by “duration” (whole-season, winter, daily, short-break (3-day) and long-break (9-day)) and “type” (adult, family, junior, non-resident, local-area adult, senior adult). These categories were grouped into five “strata” for the survey:

- Stratum 1 includes: New Zealand residents only; adult whole-season and winter licences; family licences; local-area and senior adult licences.
- Stratum 2 includes all junior licences, for both New Zealand residents and non-residents.
- Stratum 3 includes all one-day licences, for both New Zealand residents and non-residents.
- Stratum 4 includes all whole-season non-resident licences.
- Stratum 5 includes all short- and long-break licences.

Survey samples (interviews) were further stratified by bimonthly “period” (Oct-Nov; Dec-Jan;...).

A total of 91,121 fishing licences were purchased for fishing during the 2021-22 season. The largest number of licence sales occurred within Stratum 1 (59,393), with almost three times the number of licences sold as the next most popular stratum, Stratum 3. Of all fishing licences sold during the 2021-22 season, 64,836 (71%) were purchased by anglers affiliated with South Island regions and 26,285 (29%) by anglers affiliated with North Island regions.

Total usage for the 2021-22 season was 991,700 angler-days. Nationwide, ca. 38% of total annual usage was allocated to lakes during the 2021-22 season, with the remainder allocated to rivers (including canals). Rivers account for the majority of usage within all regions apart from Eastern/Rotorua Lakes (lakes accounted for 77% of usage) and Otago (lakes accounted for 52% of usage).

Central South Island was the most popular fishing region by far and accounted for 27.4% of the nationwide annual usage for 2021-22. Otago (17.7% of usage), Southland (12.6% of usage), Eastern

(11.9% of usage) and North Canterbury (10.5% of usage) also stand out on account of their popularity during the 2021-22 season.

As observed over previous NASs, Stratum 1 anglers accounted for the majority of fishing effort during 2021-22 (91% of total angler days). Although international (Stratum 4) anglers accounted for 3% of total usage during the 2014-15 fishing season, international anglers only accounted for 0.04% of total usage during the 2021-22 fishing season. This reduction in fishing effort by international anglers—by almost two orders of magnitude—is to be expected given the COVID-19 restrictions on international travel during 2021-22.

For most regions, total angling effort during 2021-22 was very similar to that observed during 2014-15. However, when compared with the previous NAS (2014-15 season) there was significantly less angling effort within North Canterbury and Eastern.

Numerous tables are presented within the body of this report that summarise angler usage of New Zealand's freshwater fisheries at different resolutions of the survey stratification. Appendices A and B, respectively, present estimates of usage of individual waterbodies throughout all 12 regions during the 2021-22 season, and long-term trends in the usage of those waterbodies since 1994.



# 1 Introduction

## 1.1 Freshwater angling in New Zealand and the national angler survey

Freshwater angling, primarily for brown trout (*Salmo trutta*), rainbow trout (*Oncorhynchus mykiss*), and Chinook salmon (*O. tshawytscha*), is a popular leisure time activity for many New Zealanders and has a distinctive place in the national culture. Following successful acclimatisation to New Zealand waters over three decades from c. 1875 (McDowall 1990; McDowall 1994), all three species soon became the basis of lively sports fisheries. Brown trout are widely distributed over the whole of the South Island, and the North Island south of Auckland (McDowall 1990); rainbow trout occur throughout the central North Island and South Island high country; and Chinook salmon occur on the east coast of the South Island from Otago to Marlborough, and on the West Coast from northern Fiordland to Greymouth. Smaller and more localised fisheries exist for other introduced salmonids (such as brook trout *Salvelinus fontinalis*), and “coarse fish” such as perch *Perca fluviatilis* and tench *Tinca tinca* (McDowall 1994).

In all fresh waters except Lake Taupo and its inflowing tributaries, angling for acclimatised species is managed by Fish & Game New Zealand (FGNZ). For administrative purposes New Zealand is divided into 12 FGNZ regions, with six in each island. The Lake Taupo fishery is managed by the Department of Conservation (DOC). All persons wishing to fish for acclimatised species must purchase a freshwater fishing licence at least annually. Licences purchased from FGNZ are freely interchangeable between regions, and (for New Zealand residents) are priced and sold without regard to angler origin, i.e., residents of each region pay the same as non-residents. It is possible, therefore, for anglers to live in one region, purchase a licence from a second region, and fish in a third. The DoC Taupo Conservancy is the sole exception: FGNZ licences are not valid within the Conservancy, and Conservancy licences are not valid elsewhere in New Zealand.

FGNZ management responsibilities create an ongoing need for timely and accurate data on angler use of the freshwater fisheries resource. Under the 1990 Conservation Law Reform Act, FGNZ is tasked with monitoring “... sports fish and game populations ...” and the “... success rate and degree of satisfaction of users of the sports fish and game resource ...”, while also being required to “... maintain and improve the sports fish and game resource”. Fulfilling this role effectively demands reliable information on angler usage. Up-to-date usage statistics are also required by FGNZ when acting as an advocate for freshwater anglers in day-to-day situations such as Regional Council and Planning Tribunal hearings which arise through application of the Resource Management Act. In 1994 FGNZ conducted a survey to estimate annual angling usage for all significant freshwater sports fisheries within the 12 FGNZ regions (Unwin, M. J. and Brown 1998). This survey was repeated in 2001 (Unwin, M. J. and Image 2003), 2007 (Unwin, M. J. 2009) and 2014-15 (Unwin, M. J. 2016) using essentially the same methodology as for the 1994 survey. By repeating these surveys at intervals of six to seven years, FGNZ seeks to compile a long-term database so that up-to-date estimates of angling usage are always available, and to allow local, regional, and national trends in use to be monitored over decadal time scales.

This report describes the fifth of these National Angler Surveys (NASs), conducted by NIWA on behalf of FGNZ over the 2021-22 fishing season. Although the 2014-15 NAS included angling within the Taupo Conservancy as well as the 12 FGNZ regions, this NAS only covers the 12 FGNZ regions; Department of Conservation did not participate in the 2021-22 NAS.

## 1.2 Objectives

The objectives of the 2021-22 NAS were:

1. to estimate annual usage by anglers during the 2021-22 fishing season, for all lake and river fisheries managed by FGZ;
2. to tabulate and characterise these results at national, regional, and local scales.

## 1.3 Disclaimers; interpretation and use of the data presented

- The 2021-22 fishing season was impacted by COVID-19 travel restrictions. These restrictions affected the angling activities of international and domestic anglers. International travel was greatly restricted. Not all FGZ regions were equally affected by COVID-19 restrictions to angling. Certain North Island regions were subject to longer and/or more prohibitive restrictions than other FGZ regions. It follows that the results presented herein are not an accurate reflection of waterbody usage rates among regions.
- Waterbody usage rates presented herein are estimates derived from samples. Although the sampling procedures used are scientifically robust, they are nevertheless estimates of real waterbody usage rates<sup>1</sup>, hence imperfect and associated with estimation error. Estimation errors are presented in this report as standard errors. All estimates of waterbody usage must be interpreted in light of their associated standard errors. In some cases, standard errors may be as large as the estimates of usage themselves, indicating there is much uncertainty about the real usage during that period or season. When standard errors are small relative to usage rates, one may be more confident in the usage estimate.

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<sup>1</sup> Which can only be known with constant monitoring of all reaches of a waterbody at all times throughout the season (ie. practically impossible).

## 2 Survey design and implementation

### 2.1 Licence types and strata

For the 2021-22 season, FGNZ licences were available in 15 categories defined by duration (whole-season, winter, daily, short-break (3-day) and long-break (9-day)) and “type” (adult, family, junior, non-resident). Whole-season, winter, and daily licences are valid for 12 months (October-September), six months (April-September), and 24 hours, respectively. Adult and junior licences were available to New Zealand residents aged 18 years and over, or 12-17 years, respectively, on 1 October 2014. Family licences allow one person (the primary licence holder), or one person and their partner (the secondary licence holder), plus any children or grandchildren under 18 years of age, to fish together.

Local area adult licences are valid for the entire year but licences are region-specific and holders of local area licences are not permitted to fish outside of the region the licence is for. Senior loyal adult licences are for anglers aged over 65 on 1 October 2021 who have held an Adult Whole Season Licence or Family Licence for the last five consecutive years or more. Senior loyal adult licences are valid for the entire season. Both local area and senior loyal adult licences are available to New Zealand residents only.

Licence types were grouped into five “strata” based on duration, type and whether they were held by residents or international anglers (Table 2-1).

**Table 2-1: Licence types available to anglers during the 2021-22 fishing season, and their assignment to five survey strata.**

Code	Description	Duration	Type	Stratum
FWF	Whole-season family	Whole-season	Family	1
FWA	Whole-season adult	Whole-season	Adult	1
FSLA	Senior loyal adult	Whole-season	Adult	1
FLAA	Local area adult	Whole-season	Adult	1
FWIA	Winter adult	Winter	Adult	1
FWJ	Whole-season junior	Whole-season	Junior	2
FWIJ	Winter junior	Winter	Junior	2
FDA	One-day adult	1-day	Adult	3
FDNA	One-day adult (non-resident)	1-day	Adult	3
FDJ	One-day junior	1-day	Junior	3
FDNJ	One-day junior (non-resident)	1-day	Junior	3
FWNA	Whole-season adult (non-resident)	Whole-season	Adult	4
FWNJ	Whole-season junior (non-resident)	Whole-season	Junior	4
FLBA	Long-break adult	9-day	Adult	5

Code	Description	Duration	Type	Stratum
FSBA	Short-break adult	3-day	Adult	5

A key change introduced by FGNZ for the 2014-15 season was a “non-resident” licence class for overseas visitors to New Zealand. Non-resident anglers were not surveyed in 1994-95 and 2001-02 because of the logistical difficulties associated with overseas phone calls, so that usage estimates were restricted to New Zealand resident anglers and were conservative (an under-estimate). For the 2007-08 survey email was used to contact overseas visitors, based on random samples of licence records with a valid email address (Unwin, M. J. 2009). For the 2014-15 survey Unwin (2016) took advantage of the non-resident licence class and the almost universal availability of mobile phones to survey overseas visitors by telephone, both to align their responses more closely with the data provided by New Zealand residents, and to avoid the tendency for email-based surveys to be skewed in favour of more active anglers (Unwin, M. 2013).

## 2.2 Updating the National Angling Waters Database

The National Angling Waters Database (NAWD) has been developed over all previous NASs. For the 2021-22 NAS a total of 27 amendments were made to the NAWD. These amendments are summarised in Table 2-2.

**Table 2-2: List of amendments to the National Angling Waters database made before the 2021-22 fishing season.**

Region	Amendment type	Description
Auckland/Waikato	New	<i>Quarry Lake</i> added
	Rename	<i>Ototoa Lake</i> renamed as <i>Ototoa/Rototoa Lake</i>
	Rename	<i>Hamilton Lake</i> renamed <i>Hamilton/Rotoroa Lake</i>
Eastern	Split	Split <i>Waioeka River</i> into two reaches: (1) above <i>Opato</i> confluence; and (2) below <i>Opato</i> confluence
Taranaki	New	Added <i>Sattlers Dam</i> in Whangaehu Catchment
	Split	Split <i>Patea River</i> into two reaches: (1) upstream of Lake Rotorangi; and (2) downstream of Patea Dam
	New	Added <i>Lake Rotokare</i>
Nelson/Marlborough	Rename	<i>Argyle Pond</i> renamed as <i>Argyle Lake</i>
	New	Added <i>Waimea River Park Fishing Ponds</i> in Waimea Catchment
	Split	Split Lower Wairau into (1) <i>Lower Wairau – trout</i> ; and (2) <i>Lower Wairau - salmon</i>
	Rename	<i>Clarence River</i> renamed as <i>Waiau Toa / Clarence River</i>
West Coast	Split	Split <i>Karamea River</i> into two reaches: (1) <i>above Kakapo River</i> ; and (2) <i>below Kakapo River</i>

Region	Amendment type	Description
	Split	Split <i>Mohikinui River</i> into two reaches: (1) <i>above Rough and Tumble Creek</i> ; and (2) <i>below Rough and Tumble Creek</i>
	New	Added <i>Kangaroo Lake</i>
	New	Added <i>Nile River</i>
North Canterbury	Rename	Renamed <i>Waiau River</i> as <i>Waiau Uwha River</i>
	Split	Split lower <i>Hurunui River</i> into (1) <i>Lower Hurunui – trout</i> ; and (2) <i>Lower Hurunui - salmon</i>
	Rename	Update reach locations of <i>Hurunui</i> to be consistent with salmon/trout division: <i>Lower Hurunui (above South Branch)</i> and <i>Lower Hurunui (below South Branch)</i>
Central South Island	Split	<i>Ohau Canal</i> split into two reaches: (1) <i>Ohau B</i> and (2) <i>Ohau C</i>
	Rename	<i>Pukaki Canal</i> renamed <i>Pukaki-Ohau A Canal</i> .
	New	<i>Waitaki Hydroelectric Canals</i> – <i>specific location unknown</i> added
	Split	<i>Ohau River</i> split into two reaches: (1) <i>above Ruataniwha</i> ; and (2) <i>below Ruataniwha</i>
	New	<i>Borton’s Pond</i> added (adjacent <i>Waitaki River</i> )
	New	<i>South Opuha River</i> added
Otago	Split	Split <i>Pomahaka River</i> into: (1) <i>above Park Hill Bridge at Switzers Rd</i> ; and (2) <i>below Park Hill Bridge at Switzers Rd</i>
	New	Added <i>Ross Creek Reservoir</i>
Southland	Split	Split <i>Mataura River</i> from two reaches into three reaches: (1) <i>above Nokomai Gorge</i> ; (2) <i>Gore to top of Nokomai Gorge</i> ; and (3) <i>below Gore</i>
	Rename	Rename reaches of <i>Oreti River</i> : (1) <i>above Mossburn</i> ; and (2) <i>below Mossburn</i> . Reaches were above and below <i>Lumsden</i> .
	Split	Split <i>Whitestone River</i> into two reaches: (1) <i>above Prospect Bridge</i> ; and (2) <i>below Prospect Bridge</i>

## 2.3 Sample design

### 2.3.1 Timing of interviews

Sample design for the 2021-22 survey generally followed that utilised for the 2014-15 NAS. With the exception of Stratum 4, analysis of angler usage was structured by bimonthly periods (henceforth “period”; October-November; December-January, etc). Accordingly, phone interviews were carried out during the two weeks immediately after each period for strata 1, 2 and 5. The two-month survey cycle reflects FGZ experience that an angler’s ability to recall their recent fishing activity is reliable over periods of one to two months, but declines over longer periods (Unwin 2016). Fishing locations

of Stratum 3 anglers are obtained at the point of sale (see Target sample sizes, below). A single set of phone interviews for Stratum 4 (international) anglers was carried out at the end of the season, at the same time as other Period 6 interviews. Interviews for Stratum 4 anglers were not carried out every two months due to the greater difficulty of conducting phone interviews with international anglers (e.g. time-zone differences).

### 2.3.2 Target sample sizes

Target sample sizes for Strata 1, 2 and 5, taking into account the resources available for conducting telephone interviews, represented a trade-off between maximising the precision of the final usage estimates, and capturing data on as many fisheries as possible. The extent to which these two goals can be realised is sensitive to the spatial scale of interest (i.e., local, regional, national), and they are not necessarily compatible. Maximising precision tends to prioritise strata which make the largest contribution to total effort and population variance at the expense of smaller strata, whereas capturing data for as many fisheries as possible requires a more structured distribution of sampling effort across regions and strata. For example, setting a target sample size of 2,000 interviews distributed across Stratum 1 licence holders in proportion to regional licence sales would yield ca. 250–400 interviews per region for the four largest regions (Eastern, North Canterbury, Central South Island, Otago), but only ca. 5-30 interviews for the two smallest regions (Northland and Taranaki). Conversely, dividing 2,000 interviews evenly across the 12 FGNZ regions (167 interviews per region) would yield rich data sets for Northland and Taranaki, but relatively sparse data sets for the largest regions. Such a strategy would also risk alienating licence holders in small regions because of the need for repeated calls to many of the same individuals every two months.

In practice, we used Neyman allocation (Cochran 1977) to guide our choice of sample sizes for each licence type and survey period, but also used a degree of judgement when allocating sampling effort to each region. For Stratum 1 the largest samples (up to 350 interviews) were allocated to the Eastern, North Canterbury, Central South Island, and Otago regions during the peak activity period from December to March, with smaller samples outside these months. Target sample sizes for most remaining Stratum 1 samples ranged from 100 to 300 (Table 2-3). The exception was Northland, which typically attracts far less angling than other regions (Unwin 2016). Target sample sizes for Stratum 2 ranged from 10 (in Taranaki) to 40 (in North Canterbury, Central South Island, Otago, and Southland; Table 2-3). Again the exception was Northland, whose Stratum 2 sales (Unwin 2016) are usually too low to make a significant contribution to angler usage as a whole.

**Table 2-3: Target sample sizes (number of phone interviews) for strata 1, 2 and 5 during the 2021-22 national angler survey.**

Stratum	Region	Period					
		1	2	3	4	5	6
Stratum 1	Northland	20	20	20	20	20	20
	Auckland/Waikato	200	300	250	150	150	150
	Eastern	250	350	350	250	250	200
	Taranaki	150	150	150	150	150	150
	Hawkes Bay	150	200	150	100	100	100
	Wellington	150	250	150	150	100	100
	Nelson/Marlborough	150	200	150	150	100	100
	West Coast	150	200	150	100	100	100

Stratum	Region	Period					
		1	2	3	4	5	6
	North Canterbury	250	350	250	250	150	150
	Central Sth Island	300	350	300	200	150	150
	Otago	200	350	200	200	150	150
	Southland	300	350	300	200	150	150
	<b>Total</b>	<b>2,470</b>	<b>3,270</b>	<b>2,620</b>	<b>2,120</b>	<b>1,770</b>	<b>1,720</b>
<b>Stratum 2</b>	Northland	0	0	0	0	0	0
	Auckland/Waikato	15	20	15	15	15	15
	Eastern	30	30	30	30	30	30
	Taranaki	10	10	10	10	10	10
	Hawkes Bay	15	15	15	15	15	15
	Wellington	15	30	15	15	15	15
	Nelson/Marlborough	15	15	15	15	15	15
	West Coast	10	10	10	10	10	10
	North Canterbury	30	40	30	30	20	20
	Central Sth Island	30	40	30	30	20	20
	Otago	30	40	30	30	20	20
	Southland	30	40	30	30	20	20
	<b>Total</b>	<b>230</b>	<b>290</b>	<b>230</b>	<b>230</b>	<b>190</b>	<b>190</b>
<b>Stratum 5</b>	<b>All regions pooled</b>	<b>150</b>	<b>250</b>	<b>250</b>	<b>150</b>	<b>100</b>	<b>20</b>

For all anglers fishing on a Stratum 3 (1-day) licence, the intended fishing location is obtained at the point of sale. As such, no interviews of Stratum 3 licence holders were conducted. This method of determining usage assumes that each 1-day licence holder fishes at most one water over the 24 hours for which their licence is valid. Retrospective analysis in previous NASs confirmed that this assumption is reasonable. Second, it assumes that the water actually fished by each licence holder was the same as their intended target water at the time of purchase. Since most 1-day licence holders purchase their licence within 1-2 days of their intended fishing date, and tend to concentrate on high profile waters near popular tourist destinations (e.g., Lake Rotorua, Lake Tarawera, Lake Benmore, Lake Wanaka, Rakaia River, Lake Wakatipu, Clutha River), this assumption is also plausible. To maximise data accuracy, online purchasing of 1-day licences involved filling out a form that included a drop-down list configured to display matching water names as soon as the user had typed the first three characters (c.f. Section 2.4.2). An “Another water not listed here” option was provided to cater for users fishing waters new to the survey database.

## 2.4 Survey process

### 2.4.1 Protocol and general technique

Telephone interviews for Strata 1, 2, and 4 were conducted by call centre staff at the Southern Institute of Technology (SIT) in Invercargill. For each stratum, SIT was provided with a randomly sorted list of licence holders with at least one viable landline or mobile phone number. Most interviews to New Zealand residents were conducted in the evening between 5:00 and 9:00 p.m., but

daytime interviews (between 9:00 a.m. and 5:00 p.m.) were used as necessary to contact licence holders who had been unavailable for an evening call. Interviews began as soon as possible after the end of each two-month survey period so as to minimise the recall period. Stratum 5 interviews (conducted at the end of Period 6 only) were timetabled so as to coincide with early evening in the target country based on local time zones.

Up to three attempts were made to contact each licence holder over successive weekday evenings, after which the individual concerned was dropped in favour of the next available licence holder. SIT maintained records of each call outcome, so that licence holders who could not be contacted or did not wish to take part in the survey could be excluded from samples drawn for any following survey periods. Of 28,993 Stratum 1, 2 and 5 interviews attempted during the survey, 15,062 were ultimately successful, representing a mean success rate of 52%. This success rate is similar to that obtained during the 2014-15 NAS (Unwin 2016). Licence holders who did not wish to participate in the survey accounted for 391 (1.3%) of the attempted interviews.

Interviews were conducted according to standard SIT call centre protocols, which include a requirement for interviews with junior licence holders (under the age of 18) to proceed only after obtaining parental permission. Interview outcomes were entered directly into an online database, developed specifically for the survey by Global Office Ltd. in Christchurch using a system developed for a 2013 FGNZ survey as a starting point (Unwin 2013). Key components of this software were a database of selected fields from FGNZ's licence database, including names and telephone numbers, together with a master list of known angling waters representing the pooled results of the 1994-95, 2001-02, 2007-08, 2013 and 2014-15 surveys.

Interviewers began each call by entering the licence number of the target licence holder into the survey website, which responded by displaying their name, licence region, home town, licence number, licence type, and telephone number. After ensuring that they were talking to the intended target, the interviewer identified themselves as representing the FGNZ region matching the licence region; e.g., interviewers would continue with "I'm calling on behalf of Fish & Game Southland" rather than "I'm calling on behalf of Fish & Game New Zealand". This approach was motivated by previous FGNZ experience indicating that anglers were more receptive to calls from their local FGNZ region than from a more anonymous national body.

#### 2.4.2 Identification of waters fished

Anglers were then asked whether they had fished over the previous two calendar months. If they had not, the interviewer recorded this on the survey web site, thanked the licence holder for their cooperation, and closed the interview. Just over half (8036 of 15,062; 53%) of the interviews ended in this way (the same percentage observed during the 2014-15 NAS; Unwin 2016).

Anglers who had fished over the survey period were then prompted to name all the waters they had fished. The interviewer's priority at this stage was to record the name of each water as accurately as possible, based on their understanding of the angler's response. The survey website was configured to display plausible matches as soon as three characters had been entered; thus, entering "wana" was sufficient to identify "Lake Wanaka" as the only matching candidate. The web site also displayed a brief description of each matching water to (1) minimise ambiguity arising from duplicate or near-duplicate names, and (2) identify subsections of rivers which were subdivided into contiguous sections where the character of the fishery differed significantly along the river's length. For example, on hearing "Waiau River", and entering "waiau", the interviewer would immediately see a drop-down list displaying possible matches such as "Waiau River (North Canterbury; salmon)";



“Waiau River (North Canterbury; trout)”; “Waiau River (Southland; Te Anau - Manapouri)”; and “Waiau River (Southland; below Mararoa)”. The interviewer would then ask for clarification as necessary to resolve any remaining ambiguity. This facility virtually eliminated errors resulting from misidentified waters, which were a persistent problem in surveys prior to 2014-15 (Unwin 2016). If the interviewer was unable to find a plausible match, the website allowed them to enter a “custom water” based on their best guess as to the name of the nominated water, creating a record which could be checked retrospectively for the most likely match. Across all periods a total of 523 angling waters required retrospective checking by FGNZ staff. Of this total, 80 could not be verified, representing only 0.02% of all rows in the global data frame of water usage.

As far as possible subject to the availability of call centre staff, SIT attempted to assign interviewers to regions they were familiar with, and to use the same interviewers for successive surveys in each region. This had the dual advantage of making use of the interviewer’s local knowledge, and allowing them to become increasingly familiar with the most common local water names as the survey progressed.

Overseas visitors (Stratum 4) were surveyed in October 2022, immediately after the end of the 2021-22 fishing season, and asked to identify all waters they had fished at any time during their New Zealand visit. No attempt was made to partition the responses by survey period, on the assumption that international visitors who were sufficiently motivated to buy a whole season licence would have little difficulty remembering where they had fished even up to a year after the event. Otherwise, interviewers used essentially the same methodology as for calls to New Zealand residents, although only one attempt was made to contact each licence holder before moving to the next available record. This reflected the difficulty of running interviews across multiple time zones, and the relatively high proportion (12%) of failed calls due to, for example incorrect or unusable telephone numbers, the call being disconnected, or anglers unable to speak English. The overall success rate (250 completed interviews out of 483 attempted calls) was 52% hence very similar to that of other strata.

### 2.4.3 Angling effort

After establishing all waters fished during the survey period, the interviewers final task was to prompt the respondent for the number of days spent on each water. Interviewers were instructed to use the phrasing “On how many days did you fish [River/Lake X]?”, so as to record effort in units of angler-days<sup>2</sup>. This question was repeated for each nominated lake or river, and was potentially time consuming for respondents who had fished multiple waters. In practice this was rarely the case: of the respondents interviewed, only 22% fished two or more waterbodies, and only 3% fished five or more waterbodies during a period. For family licence holders the interviewer also recorded the same information for each secondary licence holder, using the names as recorded in the master licence database to prompt for each person. At all times during this phase of the interview it was possible to add additional waters if the respondent suddenly remembered any they had overlooked during the previous phase.

### 2.4.4 Closing the interview

Call centre staff concluded each interview by thanking the respondent for their help, and alerting them to the possibility that they may be contacted again if their licence number was drawn in the random sample for one or more future two-month survey periods. In practice 21% of anglers

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<sup>2</sup> i.e. one angler visiting a waterbody on one day; numbers of hours fished was not estimated.

interviewed were interviewed twice or more over the course of the 2021-22 NAS, and only 5% were interviewed three or more times.

## 2.5 Data analysis

### 2.5.1 Tidying the licence data for 2021-22

The licence holder database is managed by the company ESL Ltd. There are two major subsets of the licence holder database:

1. The subset comprising all data of individual primary licence holders—all licence holders for non-family licences, and the primary licence-holder for family licences.
2. The secondary licence holders listed on family licences, not including the primary family licence holder.

These databases are provided to NIWA separately<sup>3</sup>, and both underwent extensive tidying every period<sup>4</sup>. Most notably, over the course of the 2021-22 NAS 153,470 duplicate rows (exact copies of each other; 55% of total rows in licence frame) were deleted from the primary licence database<sup>5</sup>. A further 93,044 rows were deleted from the database (50% of rows remaining after removal of exact duplicate rows)—these were not exact copies of each other but contained nuanced information corresponding to the same primary license number (rows that were almost exact copies within periods, but where, for example, a different sales channel or phone number might alone differentiate rows that would otherwise be exact copies)<sup>6</sup>. For the secondary licence holder database these numbers were (respectively): 35,797 exact duplicates (56% of total rows in secondary license frame) and 18,703 duplicated licence rows (41% of rows remaining after removal of exact duplicate rows). By far the major cause of duplicated licence information was rows containing different birthday data (e.g. birthday in one row, but missing data in second row) for the same person.

### 2.5.2 Auditing Stratum 3 data

Licence holder metadata (name, gender, address, phone numbers, etc.) for Stratum 3 licence holders is stored within the primary licence holder database managed by ESL. The corresponding fishing location data is held within a separate database—what we referred to as the Stratum 3 fishing location (FL) frame. Ideally the licences in the FL frame would be the same as those in the primary licence holder database, and vice versa, but this was not the case. We found and had to remove 1,493 licences in the licence database that were not in the Stratum 3 FL frame, and 1,708 licences that were in the Stratum 3 FL frame but not in the primary licence holder database<sup>7</sup>.

Further filtering of Stratum 3 licences followed the same protocols developed for the 2014-15 NAS (Unwin 2016): 1,482 Stratum 3 licences were removed from sales channels generally yielding unreliable intended fishing locations (all sales channels apart from “Agency”, “Agency Online” and

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<sup>3</sup> To protect privacy of anglers: All angler information was supplied to NIWA via a Microsoft OneDrive folder, access to which was limited to the primary author of this report, the FGNZ project manager and the project manager from ESL Ltd. Licensee data was never shared via email.

<sup>4</sup> Note that tidying each period took place before random sampling of anglers to survey.

<sup>5</sup> The causes of the exact duplicate rows in the primary license database managed by ESL are unknown.

<sup>6</sup> Additional causes of duplicated rows corresponding to the same license include alternate spelling of the same street name, some rows containing contact details while other rows did not, etc. The ultimate cause of duplicated license information in the ESL database is unknown.

<sup>7</sup> The causes of these issues are unknown.

“Public Online”<sup>8</sup>). An additional 1,012 Stratum 2 licences were then removed that did not include fishing locations.

### 2.5.3 Estimating usage

For strata 1, 2, 3 and 5, usage of an angling water (total angler-days) per period broadly involved:

- A. obtaining the mean number of days spent on a waterbody, per angler interviewed; then
- B. multiplying the mean usage by the total number of licences that were active during that period.

This basic usage calculation was carried out within sub-strata<sup>9</sup> defined by combinations of strata, regions and periods. Usage estimates for Stratum 4 were obtained in a similar way, with the only difference being that period was ignored (Stratum 4 surveys were not stratified by period).

Usage estimates were made under the assumption that the survey respondents represent a random sample of all licence holders within a sub-stratum. Equivalently, we assumed that those individuals who could not be contacted (Strata 1, 2, 4 and 5), or had purchased a Stratum 3 licence via unreliable sales channels, had the same fishing characteristics, on average, as those who were contacted. Responses for family licence holders were summed across all individuals fishing on that licence, to ensure that the licence (rather than the individual) remained the basic sampling unit across all sub-strata.

To be clear, the usage (angler-days) of waterbody  $i$  ( $i \in \{1, 2, \dots, 1376\}$ ) during period  $j$  ( $j \in \{1, 2, \dots, 6\}$ ) within stratum  $k$  ( $k \in \{1, 2, 3, 5\}$ ) by an angler holding a licence associated with region  $p$ <sup>10</sup> ( $p \in \{\text{Northland, Auckland – Waikato, } \dots, \text{Southland}\}$ ) (there are  $m = 12$  regions for this analysis)  $E_{ijkp}$  was:

$$E_{ijkp} = N_{jkp} \times \bar{D}_{ijkp}$$

where

$N_{jkp}$  denotes the number of active licences in stratum  $k$ , region  $p$ , during period  $j$ ; and

$\bar{D}_{ijkp}$  denotes the mean number of days per respondent spent on waterbody  $i$  during period  $j$  within stratum  $k$ , region (of licence-holder)  $p$ :

$$\bar{D}_{ijkp} = \left( \frac{1}{n_{jkp}} \right) \sum_{l=1}^{n_{jkp}} D_{ijkpl}$$

where

$n_{jkp}$  is the number of respondents (anglers interviewed) for period  $j$  within stratum  $k$ , region  $p$ ; and

<sup>8</sup> Unreliable sales channels: ESL; Eyedee Call Centre; Public

<sup>9</sup> We differentiate “sub-strata” from “strata” to avoid confusion; “stratum” is reserved for reference to the five strata defined in Table 2-1.

<sup>10</sup> Note that  $p$  refers only to the region associated with a licence, not the region within which a waterbody is situated. The distinction between region of a licence holder and region of a waterbody is critical to usage estimation.

$D_{ijkpl}$  is the number of days spent on waterbody  $i$  during period  $j$ , within stratum  $k$ , region  $p$ , by respondent  $l$ .

The variance of the *mean number of days per respondent* ( $\bar{D}_{ijkp}$  not  $E_{ijkp}$ ) is denoted  $s^2_{ijkp}$  and was estimated as follows:

$$s^2_{ijkp} = \frac{1}{n_{jkp} - 1} \times \sum_{l=1}^{n_{jkp}} (D_{ijkpl} - \bar{D}_{ijkp})^2$$

Standard deviations ( $s$ ) of  $\bar{D}_{ijkp}$  were then obtained by square-rooting the variances defined above.

If a waterbody experiences cross-region fishing<sup>11</sup>, then there will be numerous estimates of  $E_{ijkp}$  (one for each licence-holder region,  $p$ ) for that waterbody. Therefore, after  $E_{ijkp}$  has been obtained, the total usage of waterbody  $i$  within period  $j$ , stratum  $k$  is obtained via a summation across regions of licence-holders:

$$\hat{E}_{ijk} = \sum_{p=1}^m E_{ijkp}$$

The appropriate statistic of dispersion for  $\hat{E}_{ijk}$  is the standard error of composite proportions, estimated as (Cochran 1977, Ch. 5):

$$se(\hat{E}_{ijk}) = \sum N_{jkp} \sqrt{\frac{\sum (s_{ijkp} / \sqrt{n_{jkp}})^2 \cdot n_{jkp}^2}{(\sum n_{jkp})^2}}$$

where the summations are across regions (of license-holders).

The above estimates of  $E$  and  $se$  apply to individual waterbodies within periods and strata. We do, however, require estimates of usage and some estimate of error about that usage at coarser levels of stratification. Obtaining usage at coarser level of stratification is a simple matter of summing the  $\hat{E}_{ijk}$  across the required values of  $i, j$  and  $k$ . Combining standard errors at coarser levels of stratification was done using the standard error of the difference of the means ( $SEDM$ ):

$$SEDM = \sqrt{\sum se^2}$$

where the summation subscripts are dependent on the level of aggregation of sub-strata.

Estimates of usage for stratum 4 are made with the above equations but ignoring the period subscript ( $j$ ; Stratum 4 anglers were interviewed only once at the end of the season).

For summarising and reporting purposes, these estimates were merged with metadata for each angling water, such as catchment number (Anon 1956), water type (c.f. Unwin & Brown 1998), and REC class (Snelder and Biggs 2002), to provide additional opportunities for cross-tabulation. Waters were assigned to one of three main classes: lakes, rivers, and canals. Lakes were further subdivided into natural lakes and artificial reservoirs. Rivers were subdivided by flow source using a modified version of the original REC classification scheme, defined for the purposes of this report as mountain (50% of mean annual catchment rainfall above 1000 m elevation); hill (50% of mean annual

<sup>11</sup> Fished by licence-holders from a region that is different to the region of the waterbody.

catchment rainfall between 400-1000 m elevation); lowland (50% of mean annual catchment rainfall < 400 m elevation); and lake-fed (as defined by Snelder & Biggs 2002). Rivers were also grouped according to the dominant catchment land cover, defined here as natural (indigenous forest, tussock, scrub, bare ground); exotic forest; pasture (including cropland); and urban. Finally, the results were appended to the existing results for the four preceding surveys, so as to facilitate analysis of temporal trends over the two decades since the 1994-95 survey.

## 3 Results

### 3.1 Licence sales

Licence sales data by stratum and region are presented in Table 3-1 and Table 3-2 respectively. A total of 91,121 fishing licences were purchased for fishing during the 2021-22 season (Table 3-1). The largest number of licence sales occurred within Stratum 1, with almost three times the number of licences sold as the next most popular stratum, Stratum 3 (Table 3-1). Of all fishing licences sold during the 2021-22 season, 64,836 (71%) were purchased by anglers affiliated with South Island regions and 26,285 (29%) by anglers affiliated with North Island regions (Table 3-2).

**Table 3-1: Number of licences sold under each licence code and stratum for the 2021-22 season.**

Ages	Duration	Code	Resident	Stratum	Total
Adult	winter	FWIA	New Zealand resident	1	2,430
Adult	year	FLAA	New Zealand resident	1	4,503
Adult	year	FSLA	New Zealand resident	1	5,593
Family	year	FWF	New Zealand resident	1	18,877
Adult	year	FWA	New Zealand resident	1	27,990
				<b>Stratum total</b>	<b>59,393</b>
Junior	year	FWJ	New Zealand resident	2	4,718
				<b>Stratum total</b>	<b>4,718</b>
Junior	24 hour	FDNJ	Non-resident	3	40
Adult	24 hour	FDNA	Non-resident	3	974
Junior	24 hour	FDJ	New Zealand resident	3	2,182
Adult	24 hour	FDA	New Zealand resident	3	18,337
				<b>Stratum total</b>	<b>21,533</b>
Junior	year	FWNJ	Non-resident	4	55
Adult	year	FWNA	Non-resident	4	494
				<b>Stratum total</b>	<b>549</b>
Adult	9 day	FLBA	New Zealand resident	5	212
Adult	3 day	FSBA	New Zealand resident	5	4,716
				<b>Stratum total</b>	<b>4,928</b>
				<b>Grand total</b>	<b>91,121</b>

**Table 3-2: Number of licences sold within each region and stratum for the 2021-22 fishing season.** Total licences sales by region and stratum are presented in bold.

Region	Stratum 1	Stratum 2	Stratum 3	Stratum 4	Stratum 5	Total
Northland	185	11	102	6	18	<b>322</b>
Auckland/Waikato	2,831	231	1,137	54	209	<b>4,462</b>
Eastern	7,262	425	4,160	62	1,043	<b>12,952</b>
Taranaki	769	86	190	8	54	<b>1,107</b>

Region	Stratum 1	Stratum 2	Stratum 3	Stratum 4	Stratum 5	Total
Hawke's Bay	2,217	233	763	35	186	<b>3,434</b>
Wellington	3,032	277	591	20	88	<b>4,008</b>
Nelson/Marlborough	3,089	251	836	40	137	<b>4,353</b>
West Coast	1,482	139	591	11	161	<b>2,384</b>
North Canterbury	9,639	653	2,271	44	545	<b>13,152</b>
Central South Island	9,327	828	5,519	72	1,361	<b>17,107</b>
Otago	12,674	877	3,924	116	701	<b>18,292</b>
Southland	6,886	707	1,449	81	425	<b>9,548</b>
<b>Total</b>	<b>59,393</b>	<b>4,718</b>	<b>21,533</b>	<b>549</b>	<b>4,928</b>	

Uptake rates—proportion of the New Zealand population purchasing a fishing licence—were estimated using population data from the 2018 census<sup>12</sup>. Uptake rates for the 2021-22 fishing season were very similar to those observed during the 2014-15 season. For the North and South Island, respectively, total uptake rates were 1.32% and 10.26% (Table 3-3; cf. 1.5% and 10.2% during 2014-15; Unwin 2016). Nationally, uptake rate for freshwater fishing was 3.45% of the population during 2021-22. The highest uptake rates was observed in the Central South Island region (25.8%), with the lowest uptake rate observed in Northland (0.3%).

**Table 3-3: Uptake of fishing licences by the New Zealand population during the 2021-22 fishing season (strata 1, 2, 3 and 5 only).**  $n_{Lic}$  and  $n_{Lic\_male}$  present, respectively, the total number of licences in strata 1, 2, 3 and 5 and the number of licences in those strata where the primary licence holder is male. The total New

<sup>12</sup> <https://www.stats.govt.nz/2018-census/>

Zealand population size ( $n_{pop}$ ) and male population size ( $n_{pop\_male}$ ) following the 2018 national census are presented. Uptakes as proportions and percentages are presented for the entire population and males only.

Region	$n_{Lic}$	$n_{Lic\_male}$	$n_{pop}$	$n_{pop\_male}$	Uptake (%)	Uptake (%; male only)
Northland	310	287	17,9076	88,383	0.2	0.3
Auckland/Waikato	4,331	4,033	2,029,920	1,001,864	0.2	0.4
Eastern	12,721	11,313	35,6016	17,5711	3.6	6.4
Taranaki	1,087	998	117,561	58,022	0.9	1.7
Hawke's Bay	3,370	3,128	166,368	82,111	2.0	3.8
Wellington	3,975	3,691	74,5611	367,995	0.5	1.0
<b>Total North Island</b>	<b>25,794</b>	<b>23,450</b>	<b>359,4552</b>	<b>177,4086</b>	<b>0.7</b>	<b>1.3</b>
Nelson/Marlborough	4,289	3,926	150,609	74,333	2.9	5.3
West Coast	2,345	2,065	3,1575	15,584	7.4	13.2
North Canterbury	13,018	12,022	505,539	249,508	2.6	4.8
Central South Island	16,832	14,583	114,708	56,614	14.7	25.8
Otago	17,890	16,021	225,186	111,140	7.9	14.4
Southland	9,390	8,348	97,467	48,105	9.6	17.3
<b>Total South Island</b>	<b>63,764</b>	<b>56,965</b>	<b>1,125,084</b>	<b>555,284</b>	<b>5.7</b>	<b>10.3</b>
<b>Total New Zealand</b>	<b>89,558</b>	<b>80,415</b>	<b>4,719,636</b>	<b>2,329,370</b>	<b>1.9</b>	<b>3.5</b>

Of the international anglers purchasing a Stratum 4 licence during the 2021-22 season, 46% were from Australia-Oceania (Table 3-4). North Americans and Europeans comprised a further 17% and 11% of Stratum 4 sales, respectively.

**Table 3-4: Composition of international (Stratum 4) anglers buying licences for the 2021-22 fishing season.**  $n_{Lic}$  is the total number of licenses purchased by anglers from a region.

World region	$n_{Lic}$	Percentage of Stratum 4 sales
Australia-Oceania	181	46
North America	66	17
Europe	44	11
United Kingdom	33	8
Other	33	8
South-East Asia / Japan	26	7
South America	9	2

### 3.2 Extent of cross-region fishing

Cross-region fishing occurs when an angler fishes a region outside the region within which they live/purchased their license. Each row of Table 3-5 presents the percentage of total usage (total angler-days) of anglers from a region<sup>13</sup> fishing other regions (as well as their own, listed along the diagonal). Cross-region fishing during the 2021-22 season was quite common. Within the North Island the Eastern region attracted a lot of anglers from neighbouring regions, with 31%, 20% and

<sup>13</sup> Technically speaking, anglers that purchased a licence and specified affiliation with a region; they may or may not be living within that region on a permanent basis.



13% of total annual usage by Northland, Auckland/Waikato and Taranaki licence holders being allocated to Eastern waterbodies during the 2021-22 season (Table 3-5). Within the South Island the Central South Island region attracted a lot of anglers from neighbouring regions, with 12%, 32% and 22% of total annual usage by Nelson/Marlborough, North Canterbury and Otago licence holders being allocated to Central South Island waterbodies during the 2021-22 season (Table 3-5). In the case of cross-region fishing to the Central South Island, it is likely that the trophy canal fisheries are the primary attraction (see Regional Summaries in Section 3.4). Northland and North Canterbury anglers allocated over 50% of total usage to other regions (Table 3-5).

**Table 3-5: Percentage of total usage of anglers from a region allocated to other regions during the 2021-22 fishing season.** Bold diagonal denotes the percentage of total usage within a region accounted for by license-holders of that same region. Off-diagonal entries in rows denote percentage of a region's license holders total usage allocated to other regions. That is, rows sum to 100 (not columns).

	Region (fished)											
	Northland	Auckland/Waikato	Eastern	Taranaki	Hawke's Bay	Wellington	Nelson/Marlborough	West Coast	North Canterbury	Central South Island	Otago	Southland
Northland	<b>28.39</b>	3.39	31.48	0	0.47	1.29	0.88	0	10.28	11.92	8.82	3.1
Auckland/Waikato	0.27	<b>64.42</b>	20.34	1.63	4.29	0.63	0.89	0.8	0.63	3.56	1.76	0.77
Eastern	0.34	3.68	<b>89.79</b>	0.21	2.09	0.13	0.61	0.03	0.13	2.39	0.28	0.31
Taranaki	0.15	11.3	13.21	<b>59.89</b>	2.29	5.61	0.32	0	0	5.85	0.38	1
Hawke's Bay	0.07	0.42	7.67	0.43	<b>85.8</b>	1.64	0.4	0.37	0.03	1.83	1.13	0.2
Wellington	0	1.67	2.12	1.63	4.71	<b>80.19</b>	1.88	0.38	0.79	4.45	1.54	0.65
Nelson/Marlborough	0.03	0	1.17	0.69	0.03	0.07	<b>73.27</b>	6.3	3.57	11.82	2.47	0.57
West Coast	0	0	0.15	0.35	0.09	1.03	0.91	<b>88.46</b>	1.68	4.17	1.42	1.75
North Canterbury	0	0.18	0.21	0.07	0.18	0.04	1.98	8.4	<b>49.06</b>	31.93	4.98	2.95
Central South Island	0	0	0.16	0	0.01	0.28	0.33	1.28	6.48	<b>85.93</b>	3.45	2.1
Otago	0	0	0.12	0.07	0	0.24	0.08	2.1	0.55	22.18	<b>68.56</b>	6.12
Southland	0	0	0	0.16	0.09	0	0.25	0.46	0.06	7.47	10.91	<b>80.59</b>

Table 3-6 presents a slightly different analysis of cross-region fishing; it presents the percentages of total waterbody usage within a region that can be attributed to anglers from all regions, including the region within which the water body is located. For example, of all angling that took place within the West Coast during 2021-22, 43% was due to West Coast anglers (bold diagonal entry) and 34% was due to anglers visiting from North Canterbury (Table 3-6). Only 52% of the total waterbody usage within Central South Island was due to anglers from that region, with large percentages of total usage due to anglers visiting from Otago (17%) and North Canterbury (22%; Table 3-6).

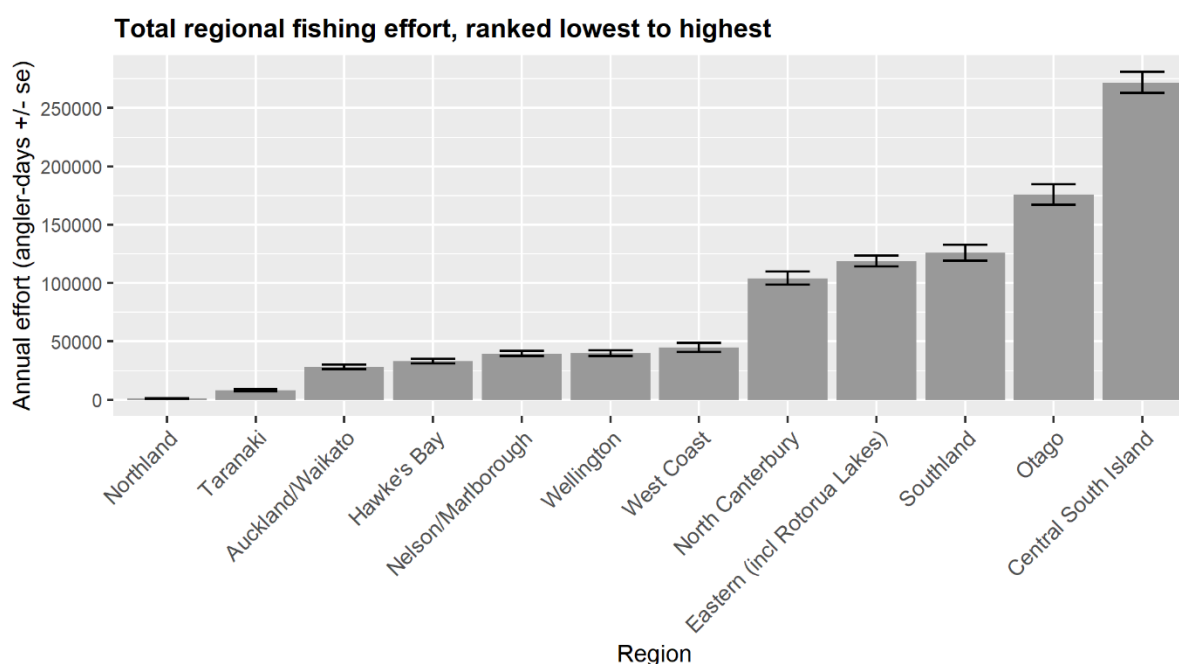
**Table 3-6: Percentage of total usage within a region coming from license-holders across all regions during the 2021-22 fishing season.** Bold diagonal denotes the percentage of total usage within a region accounted for by license-holders of that same region. Off-diagonal entries in columns denote percentage of a region's total usage that can be attributed to license-holders visiting from other regions That is, columns sum to 100 (not rows).

		Region (fished)											
		Northland	Auckland/Waikato	Eastern	Taranaki	Hawke's Bay	Wellington	Nelson/Marlborough	West Coast	North Canterbury	Central South Island	Otago	Southland
Region (license holder)	Northland	<b>48.12</b>	0.21	0.47	0	0.02	0.06	0.04	0	0.17	0.08	0.09	0.04
	Auckland/Waikato	8.81	<b>76.64</b>	5.87	6.64	4.37	0.53	0.75	0.6	0.2	0.44	0.33	0.2
	Eastern	38.02	14.93	<b>88.46</b>	2.98	7.26	0.37	1.78	0.09	0.14	1.02	0.18	0.28
	Taranaki	1.39	3.8	1.08	<b>68.99</b>	0.66	1.32	0.08	0	0	0.21	0.02	0.07
	Hawke's Bay	2.18	0.45	2.01	1.6	<b>79.46</b>	1.25	0.31	0.25	0.01	0.21	0.2	0.05
	Wellington	0	2.77	0.85	9.31	6.7	<b>93.28</b>	2.22	0.39	0.35	0.77	0.41	0.24
	Nelson/Marlborough	1.49	0	0.45	3.74	0.05	0.08	<b>82.6</b>	6.23	1.52	1.96	0.63	0.2
	West Coast	0	0	0.03	0.93	0.06	0.56	0.5	<b>42.51</b>	0.35	0.34	0.17	0.3
	North Canterbury	0	1.19	0.34	1.6	1.02	0.19	9.15	34.19	<b>85.92</b>	21.73	5.18	4.25
	Central South Island	0	0	0.22	0	0.04	1.13	1.35	4.66	10.16	<b>52.4</b>	3.21	2.7
	Otago	0	0	0.22	1.69	0	1.24	0.41	9.78	1.1	17.29	<b>81.61</b>	10.1
	Southland	0	0	0	2.52	0.36	0	0.81	1.31	0.08	3.57	7.97	<b>81.56</b>

### 3.3 Fishing effort – national overview

Central South Island was the most popular fishing region by far (Figure 3-1) and accounted for 27% of the nationwide annual usage for 2021-22 (Table 3-7). Apart from the Central South Island region, Otago (18% of nationwide usage), Southland (13% of nationwide usage), Eastern (12% of nationwide annual usage) and North Canterbury (11% of nationwide usage) stand out on account of their popularity during the 2021-22 season (Figure 3-1; Table 3-7). Northland accounted for only 0.1% of the total annual usage during 2021-22 fishing season (Figure 3-1; Table 3-7).

Nationwide, approximately 38% of total annual usage was allocated to lakes during the 2021-22 season, with the remainder allocated to rivers (including canals; Table 3-7). Rivers account for the majority of usage within all regions apart from Eastern/Rotorua Lakes (where lakes account for  $(91/118.85) \times 100 = 77\%$  of usage) and Otago (where lakes account for  $(90.79/175.79) \times 100 = 52\%$  of usage; Table 3-7).



**Figure 3-1: Total fishing effort within regions during the 2021-22 fishing season, ranked from lowest (left) to highest (right).**

**Table 3-7: Number of angler days (thousands +/- se) allocated to lakes and rivers within regions during the 2021-22 fishing season.** Regional total angling effort (thousands of angler days) also presented. Numbers in brackets are percentages of column totals (e.g. each number in brackets in the 'Lake' column is percentage of total effort allocated to lakes by that region).

Region	Lake	River	Total
Northland	0.58 +/- 0.17 (0.2%)	0.6 +/- 0.33 (0.1%)	1.18 +/- 0.37 (0.1%)
Auckland/Waikato	7.65 +/- 1.24 (2%)	20.66 +/- 1.44 (3.4%)	28.34 +/- 1.9 (2.9%)
Eastern (incl Rotorua Lakes)	90.95 +/- 3.88 (24%)	27.87 +/- 2.64 (4.6%)	118.85 +/- 4.69 (12%)
Taranaki	2.23 +/- 0.42 (0.6%)	6.01 +/- 0.83 (1%)	8.24 +/- 0.93 (0.8%)
Hawke's Bay	1.11 +/- 0.27 (0.3%)	31.87 +/- 1.96 (5.2%)	32.99 +/- 1.98 (3.3%)
Wellington	3.8 +/- 0.81 (1%)	36.15 +/- 2.44 (5.9%)	39.96 +/- 2.57 (4%)
Nelson/Marlborough	10.81 +/- 1.05 (2.9%)	28.81 +/- 2.14 (4.7%)	39.65 +/- 2.39 (4%)
West Coast	18.16 +/- 2.71 (4.8%)	26.62 +/- 2.76 (4.4%)	44.78 +/- 3.87 (4.5%)
North Canterbury	24.06 +/- 2.01 (6.3%)	80.05 +/- 5.24 (13.1%)	104.12 +/- 5.61 (10.5%)
Central South Island	93.37 +/- 5.34 (24.6%)	178.39 +/- 7.48 (29.2%)	271.9 +/- 9.19 (27.4%)
Otago	90.79 +/- 5.08 (23.9%)	84.93 +/- 7.2 (13.9%)	175.79 +/- 8.81 (17.7%)
Southland	35.91 +/- 3.5 (9.5%)	89.92 +/- 5.87 (14.7%)	125.91 +/- 6.83 (12.7%)
<b>Total</b>	<b>379.42 +/- 9.82</b>	<b>611.89 +/- 14.2</b>	<b>991.7 +/- 17.26</b>

As observed over previous NASs, Stratum 1 anglers accounted for the majority of fishing effort during 2021-22 (92% of total angler days; Table 3-8). Although international (Stratum 4) anglers accounted for 3% of total usage during the 2014-15 fishing season (Unwin 2016), international anglers only

accounted for 0.04% of total usage during the 2021-22 fishing season (Table 3-8). This reduction in fishing effort by international anglers—by almost two orders of magnitude—is to be expected given the COVID-19 restrictions on international travel. International anglers focused most attention on waterbodies of the Central South Island (34%), Otago (17%) and Southland (20%; Table 3-8).

Short- (3-day) and long-break (9-day) licences were new to the NAS during 2021-22. Together (Stratum 5) they accounted for ca. 1% of total usage during the 2021-22 fishing season (9,970 angler-days; Table 3-8). A very large proportion of Stratum 5 fishing effort (41%) was allocated to the Central South Island—again, likely associated with the attraction of the trophy canal fisheries of the upper Waitaki (see Regional Summaries, Section 3.4).

Apart from Northland—where spring was the most popular fishing period—most fishing took place over the summer months (Table 3-9). This pattern of seasonality generally became stronger the further south the region (Table 3-9). A preference for summer fishing was particularly strong in North Canterbury and Otago (Table 3-9).

**Table 3-8: Number of angler-days (thousands +/- se) allocated to each stratum and region during the 2021-22 fishing season.** Regional total angling effort (thousands of angler days) also presented. Numbers in brackets are percentages of column totals (e.g. each number in brackets in the 'Stratum 1' column is percentage of total effort allocated in Stratum 1 within that region).

Region	Stratum 1	Stratum 2	Stratum 3	Stratum 4	Stratum 5	Total
Northland	0.96 +/- 0.37 (0.1%)	0.01 +/- 0.01 (0%)	0.17 +/- 0.02 (0.7%)	0 +/- 0 (0%)	0.03 +/- 0.02 (0.3%)	1.18 +/- 0.37 (0.1%)
Auckland/Waikato	26.37 +/- 1.86 (2.9%)	1.05 +/- 0.38 (2.1%)	0.76 +/- 0.04 (3.2%)	0.04 +/- 0.02 (8.8%)	0.13 +/- 0.03 (1.3%)	28.34 +/- 1.9 (2.9%)
Eastern (incl Rotorua Lakes)	106.38 +/- 4.55 (11.7%)	5.11 +/- 1.12 (10.3%)	5.15 +/- 0.1 (21.4%)	0.02 +/- 0.01 (5.3%)	2.18 +/- 0.16 (21.9%)	118.85 +/- 4.69 (12%)
Taranaki	7.16 +/- 0.9 (0.8%)	0.85 +/- 0.23 (1.7%)	0.19 +/- 0.04 (0.8%)	0 +/- 0 (0.5%)	0.03 +/- 0.02 (0.3%)	8.24 +/- 0.93 (0.8%)
Hawke's Bay	29.42 +/- 1.78 (3.2%)	2.53 +/- 0.86 (5.1%)	0.76 +/- 0.03 (3.2%)	0.01 +/- 0.01 (2.5%)	0.27 +/- 0.06 (2.7%)	32.99 +/- 1.98 (3.3%)
Wellington	36.87 +/- 2.49 (4.1%)	2.48 +/- 0.64 (5%)	0.56 +/- 0.04 (2.3%)	0.01 +/- 0.01 (2.3%)	0.03 +/- 0.01 (0.3%)	39.96 +/- 2.57 (4%)
Nelson/Marlborough	34.67 +/- 2.26 (3.8%)	3.72 +/- 0.76 (7.5%)	0.95 +/- 0.05 (4%)	0.02 +/- 0.02 (6%)	0.28 +/- 0.05 (2.8%)	39.65 +/- 2.39 (4%)
West Coast	41.94 +/- 3.84 (4.6%)	1.79 +/- 0.4 (3.6%)	0.73 +/- 0.03 (3%)	0 +/- 0 (1%)	0.33 +/- 0.07 (3.3%)	44.78 +/- 3.87 (4.5%)
North Canterbury	97.82 +/- 5.55 (10.8%)	4.22 +/- 0.86 (8.5%)	1.74 +/- 0.05 (7.2%)	0.01 +/- 0.01 (3.3%)	0.34 +/- 0.05 (3.4%)	104.12 +/- 5.61 (10.5%)
Central South Island	251.21 +/- 9.11 (27.7%)	8.07 +/- 1.15 (16.3%)	8.4 +/- 0.11 (34.9%)	0.14 +/- 0.04 (33.8%)	4.08 +/- 0.22 (40.9%)	271.9 +/- 9.19 (27.4%)
Otago	157.91 +/- 8.32 (17.4%)	12.65 +/- 2.54 (25.5%)	3.25 +/- 0.08 (13.5%)	0.07 +/- 0.02 (17%)	1.91 +/- 1.39 (19.1%)	175.79 +/- 8.81 (17.7%)
Southland	116.99 +/- 6.76 (12.9%)	7.08 +/- 1 (14.3%)	1.41 +/- 0.05 (5.9%)	0.08 +/- 0.05 (19.5%)	0.35 +/- 0.07 (3.6%)	125.91 +/- 6.83 (12.7%)
<b>Total</b>	<b>907.7 +/- 16.83</b>	<b>49.56 +/- 3.58</b>	<b>24.08 +/- 0.21</b>	<b>0.4 +/- 0.08</b>	<b>9.97 +/- 1.43</b>	<b>991.7 +/- 17.26</b>

**Table 3-9: Number of angler-days (thousands +/- se) allocated to periods within regions during the 2021-22 fishing season (Strata 1, 2, 3 and 5).** Regional total angling effort (thousands of angler days) also presented. Numbers in brackets are percentages of column totals (e.g., each number in brackets within the October - November column is the percentage of that period's angling effort allocated to each region). The exception is the bottom row of the table, where each number in brackets is the percentage of the nation's total effort allocated to each period.

Region	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Total
Northland	0.53 +/- 0.32 (0.4%)	0.1 +/- 0.03 (0%)	0.13 +/- 0.08 (0.1%)	0.08 +/- 0.03 (0.1%)	0.04 +/- 0.03 (0.1%)	0.29 +/- 0.16 (0.4%)	<b>1.18 +/- 0.37 (0.1%)</b>
Auckland/Waikato	3.15 +/- 0.51 (2.1%)	8.4 +/- 1 (2.6%)	7.08 +/- 0.93 (3%)	5.3 +/- 0.8 (3.6%)	2.08 +/- 0.4 (3.4%)	2.3 +/- 0.82 (2.9%)	<b>28.34 +/- 1.9 (2.9%)</b>
Eastern	21.27 +/- 2.2 (14.1%)	30.09 +/- 2.02 (9.5%)	24.6 +/- 2.22 (10.4%)	17.85 +/- 1.54 (12.1%)	14.79 +/- 1.8 (24%)	10.23 +/- 1.59 (13%)	<b>118.85 +/- 4.69 (12%)</b>
Taranaki	1.98 +/- 0.31 (1.3%)	2.59 +/- 0.69 (0.8%)	1.44 +/- 0.31 (0.6%)	0.96 +/- 0.21 (0.6%)	0.3 +/- 0.08 (0.5%)	0.97 +/- 0.39 (1.2%)	<b>8.24 +/- 0.93 (0.8%)</b>
Hawke's Bay	6.59 +/- 0.76 (4.4%)	9.82 +/- 1.05 (3.1%)	5.83 +/- 0.65 (2.5%)	6.3 +/- 1.06 (4.3%)	1.89 +/- 0.52 (3.1%)	2.55 +/- 0.67 (3.3%)	<b>32.99 +/- 1.98 (3.3%)</b>
Wellington	6.95 +/- 0.76 (4.6%)	13.43 +/- 1.54 (4.2%)	11.12 +/- 1.57 (4.7%)	5.2 +/- 0.78 (3.5%)	1.33 +/- 0.37 (2.1%)	1.93 +/- 0.68 (2.5%)	<b>39.96 +/- 2.57 (4%)</b>
Nelson/Marl	7.56 +/- 0.83 (5%)	15.18 +/- 1.5 (4.8%)	7.31 +/- 1.08 (3.1%)	6.17 +/- 1.09 (4.2%)	0.86 +/- 0.23 (1.4%)	2.54 +/- 0.58 (3.2%)	<b>39.65 +/- 2.39 (4%)</b>
West Coast	7.65 +/- 1.22 (5.1%)	14.33 +/- 2.37 (4.5%)	10.9 +/- 1.79 (4.6%)	5.61 +/- 1.17 (3.8%)	3.03 +/- 1.38 (4.9%)	3.27 +/- 1.16 (4.2%)	<b>44.78 +/- 3.87 (4.5%)</b>
North Canterbury	11.57 +/- 1.47 (7.7%)	38.17 +/- 2.97 (12%)	34.02 +/- 3.76 (14.4%)	12.37 +/- 1.94 (8.4%)	3.53 +/- 1.01 (5.7%)	4.45 +/- 1.27 (5.7%)	<b>104.12 +/- 5.61 (10.5%)</b>
Cntrl Sth Island	34.98 +/- 2.63 (23.2%)	88.03 +/- 4.95 (27.7%)	65.58 +/- 4.51 (27.8%)	42.49 +/- 3.93 (28.9%)	18.14 +/- 2.04 (29.4%)	22.55 +/- 3.62 (28.7%)	<b>271.9 +/- 9.19 (27.4%)</b>
Otago	25.99 +/- 2.14 (17.2%)	62.56 +/- 4.29 (19.7%)	36.01 +/- 2.74 (15.3%)	23.69 +/- 3.21 (16.1%)	11 +/- 2.35 (17.8%)	16.47 +/- 5.6 (21%)	<b>175.79 +/- 8.81 (17.7%)</b>
Southland	22.64 +/- 1.96 (15%)	34.94 +/- 3 (11%)	31.52 +/- 3.69 (13.4%)	21.07 +/- 2.94 (14.3%)	4.73 +/- 1.16 (7.7%)	10.94 +/- 3.19 (13.9%)	<b>125.91 +/- 6.83 (12.7%)</b>
<b>Total</b>	<b>150.87 +/- 5.11 (15.2%)</b>	<b>317.64 +/- 8.81 (32%)</b>	<b>235.52 +/- 8.29 (23.7%)</b>	<b>147.08 +/- 6.75 (14.8%)</b>	<b>61.72 +/- 4.22 (6.2%)</b>	<b>78.48 +/- 7.89 (7.9%)</b>	<b>991.7 +/- 17.26</b>

### 3.4 2021/22 Regional summaries

Usage estimates for all individual waterbodies in 2021/22, structured by period, are presented in the extensive detailed tables of Appendix A.

#### 3.4.1 Northland

Total estimated effort within the Northland region during 2021-22 was 1,180 (+/- 370) angler-days, distributed across 24 waterbodies (Appendix A). The 20 most popular waterbodies are presented in Table 3-10 and together accounted for 99.6% of the total angling effort allocated to the region during 2021-22. The top five waterbodies accounted for 85.6% of the total effort within Northland during 2021-22. Of the 20 most fished waterbodies, eight were within the Wairoa catchment (Table 3-10). Northland waterbodies that were most fished during the 2021-22 season were also among the most fished waterbodies reported in previous NASs (Unwin, M. J. 2016).

**Table 3-10: Twenty most popular Northland waterbodies during the 2021-22 fishing season, showing estimated angler-days  $\pm 1$  se, and the cumulative percentage of the 2021-22 total.**

Catchment	Waterbody	Angler days (+/- se)	Cum. % of total
	Whau Valley Dam	343 +/- 165	29
Rangitane	Rangitane River	318 +/- 314	56
Waihou	Waihou River	174 +/- 84	70.7
	Kaiwi Lakes	120 +/- 34	80.9
	Wilson's Dam	56 +/- 34	85.6
Rangitane	Lake Manuwai	55 +/- 19	90.3
Wairoa	Kaihu River	20 +/- 11	92
Wairoa	Wairua River	18 +/- 15	93.5
Wairoa	Wairoa River	15 +/- 14	94.8
Wairoa	Kaiikanui River	13 +/- 13	95.9
Rangitane	Waipapa Stream	10 +/- 8	96.7
	Lake Taharoa	6 +/- 3	97.2
Wairoa	Mangere Stream	5 +/- 5	97.6
Kawakawa	Kawakawa River	4 +/- 4	98
Kerikeri	Kerikeri River	4 +/- 2	98.3
Waihou	Waipapa River	4 +/- 2	98.6
Wairoa	Whakapara River	4 +/- 2	99
	Victoria River	3 +/- 3	99.2
Wairoa	Mangatu Stream	2 +/- 2	99.4
Wairoa	Waiariki River	2 +/- 2	99.6

### 3.4.2 Auckland/Waikato

Total estimated effort within the Auckland/Waikato region during 2021-22 was 28,340 (+/- 1,900) angler-days, distributed across 75 waterbodies (Appendix A). The 20 most popular waterbodies are presented in Table 3-11 and together accounted for 86.4% of the total angling effort allocated to the region during 2021-22. The top five waterbodies accounted for 48.9% of the effort allocated to the Auckland/Waikato region within 2021-22. Of the 20 most popular waterbodies, 11 were within the Waikato River catchment and four were in the Waihou catchment (Table 3-11).

**Table 3-11: Twenty most popular waterbodies within the Auckland/Waikato region during the 2021-22 fishing season.** The cumulative percentage of total 2021-22 fishing effort is also presented.

Catchment	Waterbody	Angler-days (+/- se)	Cum % of total
Waikato	Lake Arapuni	3,805 +/- 828	13.4
Whanganui	Whakapapa River	3,772 +/- 779	26.7
Waikato	Waikato River below Karapiro	2,735 +/- 510	36.4
Whanganui	Whanganui River Whakapapa to Ohura	2,074 +/- 501	43.7
Waikato	Lake Waipapa	1,468 +/- 854	48.9
Waihou	Waimakariri Stream	1,394 +/- 335	53.8
Waihou	Waihou River above Okoroire	1,018 +/- 298	57.4
Waikato	Mangatutu Stream	989 +/- 364	60.9
Waikato	Waipa River	867 +/- 250	63.9
Whanganui	Whanganui River above Whakapapa	837 +/- 244	66.9
Waikato	Lake Karapiro	774 +/- 191	69.6
	Pupuke Lake	753 +/- 201	72.3
Waihou	Waiomou Stream	748 +/- 351	74.9
Waihou	Waihou River below Okoroire	719 +/- 223	77.5
Waikato	Little Waipa Stream	519 +/- 229	79.3
Waikato	Kaniwhaniwha Stream	499 +/- 147	81
Awakino	Awakino River	420 +/- 134	82.5
Waikato	Moakurua Stream	377 +/- 136	83.9
Waikato	Waipapa River	363 +/- 125	85.1
Waikato	Mangakino Stream	349 +/- 211	86.4

### 3.4.3 Eastern (including Rotorua Lakes)

Total estimated effort within the Eastern region during 2021-22 was 118,880 (+/- 4,690) angler-days, distributed across 86 waterbodies (Appendix A). The Eastern region supported the second-highest angling effort within New Zealand during the 2021-22 season (Figure 3-1). The 20 most popular waterbodies are presented in Table 3-12, which together accounted for 89.6% of the total angling effort allocated to the Eastern region during 2021-22. The top five waterbodies accounted for 68.2% of the total angling effort within the Eastern region during 2021-22. Of the 20 most popular waterbodies, six were within the Kaituna catchment and five were in the Tarawera catchment (Table 3-12). Most of the fishing effort (ca. 76% of total 2021-22 effort in the Eastern region) was focused on lakes.



**Table 3-12: Twenty most popular waterbodies within the Eastern region (including Rotorua Lakes) during the 2021-22 fishing season.** The cumulative percentage of total 2021-22 fishing effort is also presented.

Catchment	Waterbody	Angler-days (+/- se)	Cum. % of total
Kaituna	Lake Rotoiti Eastern	33,176 +/- 2235	27.9
Tarawera	Lake Tarawera Eastern	21,652 +/- 2232	46.1
Kaituna	Lake Rotorua Eastern	11,532 +/- 1170	55.8
Kaituna	Ngongotaha Stream Eastern	8,983 +/- 1825	63.4
	Lake Rotoma Eastern	5,674 +/- 1238	68.2
Wairoa	Lake Waikaremoana Eastern	4,011 +/- 756	71.5
Kaituna	Waiteti Stream Eastern	3,670 +/- 1360	74.6
Tarawera	Lake Okataina Eastern	3,495 +/- 480	77.6
Tarawera	Lake Okareka Eastern	2,904 +/- 571	80
Tarawera	Lake Rerewhakaaitu Eastern	1,853 +/- 422	81.6
Waikato	Waikato River Huka Falls to Lake Ohakuri Eastern	1,609 +/- 450	82.9
Kaituna	Utuhina Stream Eastern	1,323 +/- 540	84
Tarawera	Tarawera River Lake Tarawera to Tawarera Falls Eastern	1,016 +/- 444	84.9
Waioeka	Waioeka River above Opato confluence Eastern	1,010 +/- 241	85.7
Kaituna	Awahou Stream Eastern	845 +/- 299	86.5
	Lake Rotoehu Eastern	821 +/- 287	87.1
Rangitaiki	Rangitaiki River Aniwhenua Dam to Lake Matahina Eastern	799 +/- 259	87.8
Wairoa	McLaren Falls Dam Eastern	798 +/- 217	88.5
Wairoa	Ruakituri River above Boothman Bridge Eastern	697 +/- 193	89.1
Waikato	Lake Whakamaru Eastern	622 +/- 219	89.6

### 3.4.4 Taranaki

Total estimated effort within the Taranaki region during 2021-22 was 8,240 (+/- 930) angler-days, distributed across 53 waterbodies (Appendix A). The 20 most popular waterbodies are presented in Table 3-13, which together accounted for 85.9% of the total effort allocated to Taranaki during the 2021-22 season. The top five waterbodies accounted for 43.9% of the total effort allocated to the region during 2021-22. Of the 20 most popular waterbodies, four were each within the Whanganui and Waiwhakaiho catchments and three were in the Patea catchment (Table 3-13).

**Table 3-13: Twenty most popular waterbodies within the Taranaki region during the 2021-22 fishing season.** The cumulative percentage of total 2021-22 fishing effort is also presented.

Catchment	Waterbody	Angler-days (+/- se)	Cum. % of total
Whanganui	Whanganui River below Ohura	1,005 +/- 449	12.2
Whanganui	Manganuioteao River	909 +/- 572	23.2
Waiwhakaiho	Lake Rotomanu	658 +/- 181	31.2
Waiwhakaiho	Waiwhakaiho River	538 +/- 92	37.7
Stony	Stony River	508 +/- 157	43.9
Waiwhakaiho	Lake Mangamahoe	471 +/- 193	49.6

Catchment	Waterbody	Angler-days (+/- se)	Cum. % of total
Patea	Patea River upstream of Lake Rotorangi	409 +/- 95	54.6
Whangaehu	Mangawhero River	393 +/- 202	59.3
	Lake Waiau	308 +/- 175	63.1
Patea	Patea River downstream of Patea Dam	276 +/- 90	66.4
Whangaehu	Lake Rotokura Karioi	215 +/- 196	69
Whanganui	Retaruke River	202 +/- 94	71.5
	Rotokare Lake Perch fishery Tangahoe River catchment	202 +/- 156	73.9
Whanganui	Ruatiti Stream	192 +/- 49	76.3
Waitara	Lake Ratapiko	164 +/- 85	78.3
Kaupokonui	Kaupokonui Stream	157 +/- 53	80.2
Waitara	Manganui River	123 +/- 44	81.7
Waiwhakaiho	Mangamohoe Stream	123 +/- 104	83.2
Waiaua	Waiaua River	114 +/- 98	84.5
Patea	Makuri Stream	111 +/- 57	85.9

### 3.4.5 Hawke's Bay

Total estimated effort within the Hawke's Bay region during 2021-22 was 32,990 (+/- 1,980) angler-days, distributed across 46 waterbodies (Appendix A). The 20 most popular waterbodies are presented in Table 3-14, which together accounted for 95% of the total effort allocated to the Hawke's Bay during the 2021-22 season. The top five waterbodies accounted for 52.9% of the total effort allocated to the region during 2021-22. Of the 20 most popular waterbodies, seven were within the Mohaka catchment and five were within the Tukituki catchment (Table 3-14).

**Table 3-14: Twenty most popular waterbodies within the Hawke's Bay region during the 2021-22 fishing season.** The cumulative percentage of total 2021-22 fishing effort is also presented.

Catchment	Waterbody	Angler-days (+/- se)	Cum. % of total
Tutaekuri	Tutaekuri River	4,449 +/- 684	13.5
Tukituki	Tukituki River below Patangata	4,445 +/- 820	27
Tukituki	Tukituki River Waipawa to Patangata	3,177 +/- 581	36.6
Tukituki	Tukituki River above Waipawa confluence	2,815 +/- 509	45.1
Ngaruroro	Ngaruroro River below Taruarau confluence	2,557 +/- 789	52.9
Tukituki	Waipawa River	2,542 +/- 745	60.6
Mohaka	Mohaka River below SH5	1,956 +/- 413	66.5
Mohaka	Mohaka River above Mangatainoka	1,859 +/- 410	72.1
Ngaruroro	Ngaruroro River above Taruarau confluence	1,814 +/- 389	77.6
Mohaka	Mohaka River Mangatainoka to SH5	1,774 +/- 337	83
Aropaoanui	Lake Tutira	899 +/- 230	85.7
Mohaka	Waipunga River	490 +/- 253	87.2
Ngaruroro	Ohara Stream	476 +/- 153	88.7
Esk	Esk River	453 +/- 134	90

Catchment	Waterbody	Angler-days (+/- se)	Cum. % of total
Mohaka	Kaipō River	387 +/- 333	91.2
Tukituki	Tukipō River	295 +/- 119	92.1
Tutaekuri	Mangaone River	269 +/- 113	92.9
Mohaka	Mangatainoka River	251 +/- 103	93.7
Mohaka	Oamaru River	213 +/- 110	94.3
Tutaekuri	Mangatutu Stream	186 +/- 71	94.9

### 3.4.6 Wellington

Total estimated effort within the Wellington region during 2021-22 was 39,960 (+/- 2,570) angler-days, distributed across 61 waterbodies (Appendix A). The 20 most popular waterbodies are presented in Table 3-15, which together accounted for 88.9% of the total effort allocated to the Wellington region during the 2021-22 season. The top five waterbodies accounted for 48.2% of the total effort allocated to the Wellington region during 2021-22. Of the 20 most popular waterbodies, eight were within the Manawatu catchment, five were within the Ruamahanga catchment, and three were within the Rangitikei catchment (Table 3-15).

**Table 3-15: Twenty most popular waterbodies within the Wellington region during the 2021-22 fishing season.** The cumulative percentage of total 2021-22 fishing effort within this region is also presented.

Catchment	Waterbody	Angler-days (+/- se)	Cum % of total
Hutt	Hutt River	6,617 +/- 1078	16.6
Rangitikei	Rangitikei River Mangaohane Bridge to Vinegar Hill	4,360 +/- 1241	27.5
Manawatu	Manawatu River Dannevirke to Woodville	3,141 +/- 578	35.3
Rangitikei	Rangitikei River Vinegar Hill to Tangimoana	2,796 +/- 659	42.3
Ruamahanga	Ruamahanga River Masterton to Martinborough	2,350 +/- 479	48.2
Manawatu	Manawatu River Woodville to Palmerston North	2,238 +/- 721	53.8
Manawatu	Mangatainoka River	1,972 +/- 521	58.7
Manawatu	Pohangina River	1,526 +/- 299	62.6
Rangitikei	Rangitikei River above Mangaohane Bridge	1,430 +/- 284	66.1
NA	Lake Waitawa	1,300 +/- 445	69.4
Ohau	Ohau River	1,210 +/- 697	72.4
Manawatu	Manawatu River above Dannevirke	1,021 +/- 436	75
Manawatu	Manawatu River Palmerston North to Foxton	998 +/- 227	77.5
Wainuiomata	Wainuiomata River	888 +/- 279	79.7
Manawatu	Hokowhitu Lagoon	757 +/- 446	81.6
Manawatu	Oroua River	712 +/- 400	83.4
Ruamahanga	Ruamahanga River Martinborough to Lake Onoke	597 +/- 173	84.9
Ruamahanga	Lake Wairarapa	591 +/- 241	86.4
Ruamahanga	Lake Henley	537 +/- 351	87.7
Ruamahanga	Ruamahanga River Mount Bruce to Masterton	490 +/- 246	88.9

### 3.4.7 Nelson/Marlborough

Total estimated effort within the Nelson/Marlborough region during 2021-22 was 39,650 (+/- 2,390) angler-days, distributed across 77 waterbodies (Appendix A). The 18 most popular waterbodies are presented in Table 3-16, which together accounted for 80.8% of the total effort allocated to the Nelson-Marlborough region during the 2021-22 season. Fishing effort within two of these waterbodies (Clarence/Waiau Toa and Wairau Rivers) was further subdivided into trout and salmon fishing (giving twenty waterbody-activities in Table 3-16). The top five waterbodies/activities accounted for 44.5% of the total effort allocated to the Nelson-Marlborough region during 2021-22. Of the 20 most popular waterbodies/activities, 7 were within the Wairau catchment, four were within the Buller catchment, and three each were within the Motueka and Clarence/Waiau Toa catchments (Table 3-16).

**Table 3-16: Twenty most popular waterbodies/activities within the Nelson-Marlborough region during 2021-22 fishing season.** The cumulative percentage of total 2021-22 fishing effort within this region is also presented. Note: waterbodies in this region may be differentiated by the type of salmonid targeted (trout versus salmon).

Catchment	Waterbody	Angler-days (+/- se)	Cum. % of total
Wairau	Argyle Lake	5,748 +/- 772	14.5
Motueka	Motueka River below Wangapeka	3,647 +/- 769	23.7
Wairau	Wairau River below Wash Bridge trout	3,504 +/- 775	32.5
Wairau	Wairau River above Wash Bridge	2,416 +/- 874	38.6
Motueka	Motueka River above Wangapeka	2,328 +/- 668	44.5
Waimea	Waimea River Park Pond Waimea River Park Fishing Ponds	1,802 +/- 382	49
Waimea	Waimea River	1,584 +/- 578	53
Clarence/Waiau Toa	ClarenceWaiau Toa River below Acheron trout	1,528 +/- 504	56.9
Buller	Lake Rotoiti Nelson Lk	1,269 +/- 341	60.1
Buller	Lake Rotoroa	1,226 +/- 402	63.2
Wairau	Wairau River below Wash Bridge salmon	1,023 +/- 594	65.8
Motueka	Wangapeka River	828 +/- 217	67.9
Wairau	Branch River	792 +/- 208	69.9
Clarence/Waiau Toa	ClarenceWaiau Toa River below Acheron salmon	786 +/- 276	71.8
Wairau	Leatham River	741 +/- 248	73.7
Buller	Buller River Gowan to Lyell	648 +/- 403	75.3
Clarence/Waiau Toa	ClarenceWaiau Toa River above Acheron	542 +/- 261	76.7
Pelorus	Pelorus River below Pelorus Bridge	539 +/- 167	78.1
Wairau	Wairau Diversion	537 +/- 256	79.4
Buller	Matakitaki River	533 +/- 274	80.8

Salmon fishing comprised a total of 4.6% of the annual angling effort in Nelson/Marlborough during the 2021-22 season (Table 3-17). Salmon fishing accounted for 28% of all angling effort within the Clarence River during 2021-22, and for 15% of all angling effort in the Wairau River over the same season.

**Table 3-17: Allocations of angling effort to rivers supporting salmon runs in Marlborough during the 201-22 fishing season.**

Catchment	Waterbody/Activity	Angler-days (+/- se)	Cum. % of total
Clarence/Waiau Toa	ClarenceWaiau Toa River above Acheron	542 +/- 261	1.4
Clarence/Waiau Toa	ClarenceWaiau Toa River below Acheron salmon	786 +/- 276	2
Clarence/Waiau Toa	ClarenceWaiau Toa River below Acheron trout	1,528 +/- 504	3.9
Wairau	Wairau River above Wash Bridge	2,416 +/- 874	6.1
Wairau	Wairau River below Wash Bridge salmon	1,023 +/- 594	2.6
Wairau	Wairau River below Wash Bridge trout	3,504 +/- 775	8.8

### 3.4.8 West Coast

Total estimated effort within the West Coast region during 2021-22 was 44,7780 (+/- 3,870) angler-days, distributed across 108 waterbodies (Appendix A). The 20 most popular waterbodies are presented in Table 3-18, which together accounted for 79.4% of the total effort allocated to the West Coast region during the 2021-22 season. The top five waterbodies accounted for 50.2% of the total effort allocated to the West Coast region during 2021-22. Of the 20 most popular waterbodies, eight were within the Grey catchment (Table 3-18).

**Table 3-18: Twenty most popular waterbodies within the West Coast region during the 2021-22 fishing season.** The cumulative percentage of total 2021-22 fishing effort within this region is also presented.

Catchment	Waterbody	Angler-days (+/- se)	Cum. % of total
Grey	Lake Brunner	12,288 +/- 2470	27.4
Grey	Grey River below Ikamatua	3,079 +/- 963	34.3
Hokitika	Hokitika River	2,941 +/- 1167	40.9
Haast	Haast River	2,331 +/- 1355	46.1
Taramakau	Taramakau River	1,865 +/- 676	50.3
Grey	Grey River above Ikamatua	1,807 +/- 642	54.3
Okarito	Lake Mapourika	1,512 +/- 539	57.7
Paringa	Lake Paringa	1,456 +/- 776	60.9
Grey	Crooked River	876 +/- 267	62.9
Buller	Buller River Lyell to Westport	865 +/- 312	64.8
Grey	Arnold River Lake Brunner to dam	774 +/- 338	66.5
Mokihinui	Mokihinui River above Rough and Tumble Creek	749 +/- 409	68.2
Grey	Arnold River Dam to Stillwater	706 +/- 305	69.8
Whataroa	Whataroa River	700 +/- 682	71.3
Grey	Waikiti River	684 +/- 684	72.9
Wanganui	Lake Ianthe	668 +/- 274	74.4
Mokihinui	Mokihinui River below Rough and Tumble Creek	656 +/- 332	75.8
Buller	Inangahua River	654 +/- 586	77.3

Catchment	Waterbody	Angler-days (+/- se)	Cum. % of total
Wanganui	Wanganui River	501 +/- 161	78.4
Grey	Lake Poerua	457 +/- 199	79.4

### 3.4.9 North Canterbury

Total estimated effort within the North Canterbury region during 2021-22 was 104,120 (+/- 5,610) angler-days, distributed across 81 waterbodies (Appendix A). The 18 most popular waterbodies/activities are presented in Table 3-19, which together accounted for 88.1% of the total effort allocated to the North Canterbury region during the 2021-22 season. Fishing effort within two of these waterbodies (Waimakariri and Waiau Uwha Rivers) was further subdivided into trout and salmon fishing (giving twenty waterbodies/activities in Table 3-19). The top five waterbodies/activities accounted for 56.5% of the total effort allocated to the region during 2021-22. Of the 20 most popular waterbodies/activities, eight were within the Waimakariri catchment, five were within the Rakaia catchment and three were within the Hurunui catchment (Table 3-19).

**Table 3-19: Twenty most popular waterbodies/activities within the North Canterbury region during the 2021-22 fishing season.** The cumulative percentage of total 2021-22 fishing effort within this region is also presented. Note: waterbodies in this region may be differentiated by the type of salmonid targeted (trout versus salmon).

Catchment	Waterbody	Angler-days (+/- se)	Cum. % of total
Waimakariri	Waimakariri River salmon	20,593 +/- 2640	19.8
Rakaia	Rakaia River salmon	12,142 +/- 2088	31.4
Waimakariri	Waimakariri River trout	9,932 +/- 1321	41
Rakaia	Lake Coleridge	9,141 +/- 1269	49.8
Rakaia	Rakaia River trout	7,045 +/- 1439	56.5
Rakaia	Lake Lyndon	5,050 +/- 1022	61.4
Ashley	Ashley River	4,409 +/- 982	65.6
Waiau Uwha	Waiau Uwha River trout	2,709 +/- 1092	68.2
Hurunui	Hurunui River below south branch trout	2,514 +/- 867	70.6
Waimakariri	Kaiapoi River	2,342 +/- 1549	72.9
Hurunui	Lake Sumner	2,159 +/- 608	74.9
Waimakariri	Cust River	2,136 +/- 1586	77
Waimakariri	Cam River	2,000 +/- 1538	78.9
Waimakariri	Waimakariri South Branch	1,828 +/- 455	80.7
Hurunui	Hurunui River above south branch	1,704 +/- 506	82.3
Rakaia	Lake Selfe	1,572 +/- 443	83.8
Waiau Uwha	Waiau Uwha River salmon	1,216 +/- 462	85
	Lake Forsyth	1,115 +/- 449	86.1
Waimakariri	Lake Grasmere	1,074 +/- 540	87.1
Waimakariri	Lake Pearson	1,063 +/- 229	88.1

Relative to other regions, salmon fishing was particularly popular in North Canterbury during the 2021-22 season, with salmon fishing in the Waimakariri and Rakaia Rivers alone accounting for 31.5% of the total angling effort allocated to the region in 2021-22. Table 3-20 summarises the angling effort allocated to salmon rivers during the 2021-22 season.

**Table 3-20: Angling effort allocated to North Canterbury rivers supporting salmon runs during the 2021-22 fishing season.** Note that the percentages in column four are percentages of the total angling effort allocated to the region during the season; they are not ranked cumulative percentages like those presented in the “top twenty” tables.

Catchment	Waterbody/Activity	Angler-days (+/- se)	% of total
Hurunui	Hurunui River above south branch	1,704 +/- 506	1.6
Hurunui	Hurunui River below south branch salmon	699 +/- 293	0.7
Hurunui	Hurunui River below south branch trout	2,514 +/- 867	2.4
Rakaia	Rakaia River salmon	12,142 +/- 2,088	11.7
Rakaia	Rakaia River trout	7,045 +/- 1,439	6.8
Waiau Uwha	Waiau Uwha River salmon	1,216 +/- 462	1.2
Waiau Uwha	Waiau Uwha River trout	2,709 +/- 1,092	2.6
Waimakariri	Waimakariri River salmon	20,593 +/- 2,640	19.8
Waimakariri	Waimakariri River trout	9,932 +/- 1,321	9.5

### 3.4.10 Central South Island

Total estimated effort within the Central South Island region during 2021-22 was 271,900 (+/- 9,190) angler-days, distributed across 76 waterbodies (Appendix A). The 18 most popular waterbodies/activities are presented in Table 3-21, which together accounted for 91.4% of the total effort allocated to the Central South Island region during the 2021-22 season. Fishing effort within two of these waterbodies (Rangitata and Waitaki rivers) was further subdivided into trout and salmon fishing (giving twenty waterbodies/activities in Table 3-21). The top five waterbodies/activities accounted for 52.2% of the total effort allocated to the region during 2021-22. Of the 20 most popular waterbodies/activities, 16 were within the Waitaki catchment (Table 3-21).

**Table 3-21: Twenty most popular waterbodies/activities within the Central South Island region during the 2021-22 fishing season.** The cumulative percentage of total 2021-22 fishing effort within this region is also presented. Note: waterbodies in this region may be differentiated by the type of salmonid targeted (trout versus salmon).

Catchment	Waterbody	Angler-days (+/- se)	Cum. % of total
Waitaki	Ohau C Canal Hydroelectric canal between Ohau B and Ohau C powerstations	32,655 +/- 2864	12
Waitaki	Lake Benmore	31,262 +/- 3172	23.5
Waitaki	Ohau B Canal Hydroelectric canal between Ruataniwha and Ohau B powerstation	29,257 +/- 2858	34.3
Waitaki	Pukaki/Ohau A Canal	26,211 +/- 2594	43.9
Waitaki	Tekapo Canal	22,526 +/- 2121	52.2
Waitaki	Lake Aviemore	17,857 +/- 3008	58.8
Waitaki	Waitaki River trout	11,856 +/- 2098	63.1

Catchment	Waterbody	Angler-days (+/- se)	Cum. % of total
Opihi	Opihi River	8,376 +/- 2547	66.2
Waitaki	Lake Ohau	8,337 +/- 1676	69.3
Waitaki	Twizel River	7,937 +/- 1187	72.2
Waitaki	Upper Waitaki Canals Waitaki hydroelectric canals specific canal unknown	7,165 +/- 1592	74.8
Waitaki	Lake Tekapo	7,099 +/- 1028	77.4
Rangitata	Rangitata River trout	6,735 +/- 2254	79.9
Waitaki	Lake Alexandrina	6,564 +/- 1419	82.3
Rangitata	Rangitata River salmon	6,016 +/- 2012	84.5
Waitaki	Waitaki River salmon	4,652 +/- 1589	86.2
Waitaki	Lake Ruataniwha Wairepo	3,835 +/- 801	87.7
Opihi	Lake Opuha	3,748 +/- 920	89
Waitaki	Lake Waitaki	3,681 +/- 718	90.4
Waitaki	Ahuriri River	2,833 +/- 454	91.4

Waitaki canals accounted for a total of 43.3% of all angling effort expended in the Central South Island region during 2021-22 (Table 3-22). Four canal fisheries were within the five most-fished waterbodies of Central South Island region during 2021-22 (Table 3-21). Angling effort was evenly distributed across the upper Waitaki canal system (Table 3-22).

**Table 3-22: Angling effort allocated to the Waitaki canals during the 2021-22 fishing season.** Note that the percentages in column four are percentages of the total angling effort allocated to the region during the season; they are not ranked cumulative percentages like those presented in the “top twenty” tables.

Catchment	Waterbody	Angler-days (+/- se)	% of total
Waitaki	Tekapo Canal	22,526 +/- 2,121	8.3
Waitaki	PukakiOhau A Canal	26,211 +/- 2,594	9.6
Waitaki	Upper Waitaki Canals Waitaki hydroelectric canals specific canal unknown	7,165 +/- 1,592	2.6
Waitaki	Ohau B Canal Hydroelectric canal between Ruataniwha and Ohau B powerstation	29,257 +/- 2,858	10.8
Waitaki	Ohau C Canal Hydroelectric canal between Ohau B and Ohau C powerstations	32,655 +/- 2,864	12

Significantly less effort was allocated to salmon fishing in the Central South Island region than in the North Canterbury region, but allocations of angling effort to salmon in the Central South Island were comparable to those observed in Nelson/Marlborough over the 2021-22 season (Table 3-23).

**Table 3-23: Angling effort allocated to salmon and trout fishing in rivers known to support salmon runs during the 2021-22 fishing season.** Note that the percentages in column four are percentages of the total



angling effort allocated to the region during the season; they are not ranked cumulative percentages like those presented in the “top twenty” tables.

Catchment		Waterbody	Angler-days (+/- se)	% of total
Rangitata	Rangitata River	salmon	6,016 +/- 2,012	2.2
Rangitata	Rangitata River	trout	6,735 +/- 2,254	2.5
Waitaki	Waitaki River	salmon	4,652 +/- 1,589	1.7
Waitaki	Waitaki River	trout	11,856 +/- 2,098	4.4

### 3.4.11 Otago

Total estimated effort within the Otago region during 2021-22 was 175,790 (+/- 8,810) angler-days, distributed across 111 waterbodies (Appendix A). The 19 most popular waterbodies are presented in Table 3-24, which together accounted for 82.5% of the total effort allocated to the Otago region during the 2021-22 season. Fishing effort within one of these waterbodies (Clutha River below Roxburgh) was further subdivided into trout and salmon fishing (giving twenty waterbodies/activities in Table 3-24). The top five waterbodies/activities accounted for 49.1% of the total effort allocated to the region during 2021-22. Of the 20 most popular waterbodies/activities, 15 were within the Clutha catchment (Table 3-24).

Salmon fishing (Clutha River below Roxburgh) accounted for a total 1.6% of the angling effort within the Otago region during 2021-22. The large lakes of the upper Clutha catchment comprised four of the top five most popular Otago fisheries of 2021-22 and together accounted for 39% of all angling effort in the Otago region during 2021-22 (Table 3-24).

**Table 3-24: Twenty most popular waterbodies within the Otago region during the 2021-22 fishing season.** The cumulative percentage of total 2021-22 fishing effort within this region is also presented.

Catchment	Waterbody	Angler-days (+/- se)	Cum. % of total
Clutha	Lake Wakatipu	26,267 +/- 3069	14.9
Clutha	Clutha River below Roxburgh trout	17,602 +/- 2358	25
Clutha	Lake Wanaka	16,162 +/- 1805	34.1
Clutha	Lake Dunstan	14,254 +/- 2152	42.3
Clutha	Lake Hawea	11,953 +/- 1886	49.1
Taieri	Taieri River Outram to Taieri Mouth	9,849 +/- 1659	54.7
Clutha	Manuherikia River	7,164 +/- 2228	58.7
Clutha	Kawarau River	5,969 +/- 5114	62.1
Clutha	Clutha River Clyde to Roxburgh	5,629 +/- 1090	65.3
Clutha	Clutha River Wanaka to Lake Dunstan	5,018 +/- 1088	68.2
Kaikorai	Southern Reservoir	3,791 +/- 1134	70.3
Clutha	Lake Onslow	3,115 +/- 757	72.1
Clutha	Clutha River below Roxburgh salmon	2,736 +/- 1042	73.7
Clutha	Pool Burn	2,459 +/- 730	75.1
Taieri	Lake Mahinerangi	2,363 +/- 698	76.4
Taieri	Taieri River above Kokonga	2,284 +/- 686	77.7

Catchment	Waterbody	Angler-days (+/- se)	Cum. % of total
Water of Leith	Sullivans Dam	2,267 +/- 659	79
Clutha	Pomahaka River above Park Hill Bridge at Switzers Rd	2,173 +/- 892	80.2
Clutha	Pomahaka River below Park Hill Bridge at Switzers Rd	2,027 +/- 772	81.4
Clutha	Hawea River	1,883 +/- 759	82.5

### 3.4.12 Southland

Total estimated effort within the Southland region during 2021-22 was 125,910 (+/- 6,830) angler-days, distributed across 81 waterbodies (Appendix A). The 20 most popular waterbodies are presented in Table 3-25, which together accounted for 90.2% of the total effort allocated to the Southland region during the 2021-22 season. The top five waterbodies accounted for 42.4% of the total effort allocated to the region during 2021-22. Of the 20 most popular waterbodies/activities, 11 were within the Waiau catchment (Table 3-24).

**Table 3-25: Twenty most popular waterbodies within the Southland region during the 2021-22 angling season.** The cumulative percentage of total 2021-22 fishing effort within the region is also presented.

Catchment	Waterbody	Angler-days (+/- se)	Cum. % of total
Waiau	Lake Te Anau	14,104 +/- 2008	11.2
Oreti	Oreti River below Mossburn	12,197 +/- 2774	20.9
Mataura	Mataura River below Gore	10,813 +/- 2105	29.5
Waiau	Lake Manapouri	8,657 +/- 1548	36.4
Waiau	Waiau River Te Anau to Manapouri	7,620 +/- 1203	42.4
Aparima	Aparima River	7,397 +/- 1398	48.3
Waiau	Waiau River below Mararoa	7,375 +/- 2053	54.1
Mataura	Mataura River Gore to top of Nokomai Gorge	7,243 +/- 1615	59.9
Mataura	Mataura River above Nokomai Gorge	6,894 +/- 1341	65.4
Waiau	Mararoa River	5,557 +/- 1641	69.8
Waiau	North Mavora Lake	4,862 +/- 2050	73.6
Oreti	Oreti River above Mossburn	4,046 +/- 724	76.9
Waiau	Lake Monowai	3,369 +/- 717	79.5
Mataura	Waikaia River	2,959 +/- 758	81.9
Waiau	Upukerora River	2,211 +/- 905	83.6
Waiau	Whitestone River above Prospect Bridge	2,071 +/- 1445	85.3
Waiau	Eglinton River	1,738 +/- 767	86.7
Oreti	Makarewa River	1,627 +/- 756	88
Waiau	South Mavora Lake	1,425 +/- 631	89.1
Waikawa	Waikawa River	1,373 +/- 811	90.2

### 3.5 Temporal trends and effects of waterbody type and landcover

Long-term temporal trends of individual waterbodies are presented in Appendix B; a high-level national overview is provided here.

For most regions, total angling effort during 2021-22 was very similar to that observed during 2014-15 (Figure 3-2; Table 3-26). However, when compared with the previous NAS (2014-15 season) there was significantly less angling effort within North Canterbury and Eastern (Figure 3-2; Table 3-26).

**Table 3-26: Long-term trends in angling effort (angler-days +/- se) within each region.**

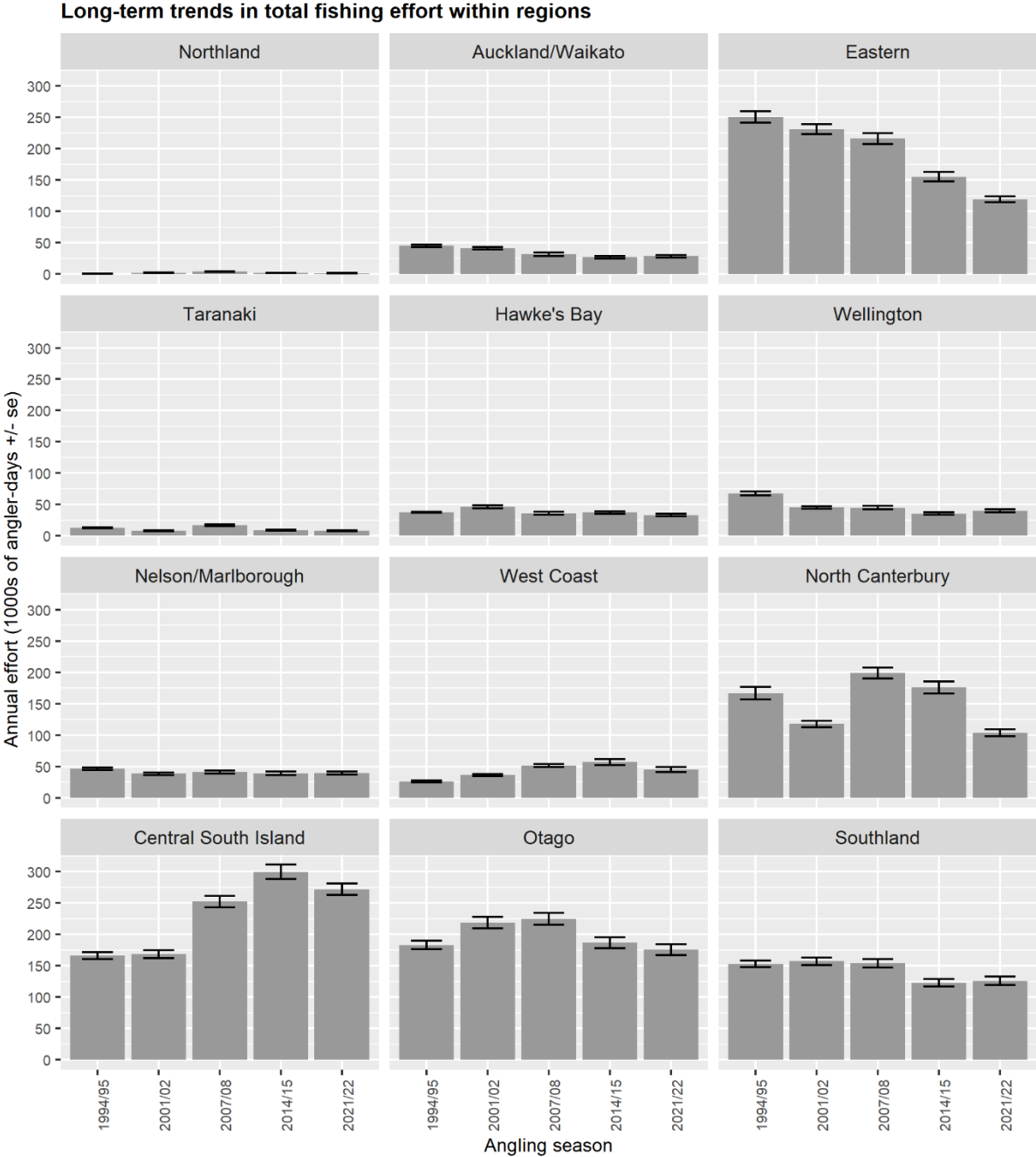
Region	1994/95	2001/02	2007/08	2014/15	2021/22
Northland	336 +/- 129	1,873 +/- 527	3,652 +/- 567	1,572 +/- 260	1,181 +/- 369
Auck/Waik	44,935 +/- 2,112	41,036 +/- 2,055	31,531 +/- 2,656	26,689 +/- 2,252	28,343 +/- 1,903
Taranaki	13,145 +/- 906	8,235 +/- 684	16,922 +/- 1,474	9,013 +/- 734	8,241 +/- 931
Hawke's Bay	37,835 +/- 668	46,433 +/- 2,198	36,096 +/- 2,645	37,392 +/- 2,066	32,992 +/- 1,981
Wellington	68,033 +/- 3,328	45,311 +/- 2,200	45,081 +/- 2,668	35,486 +/- 2,084	39,957 +/- 2,574
Nelson/Marl	46,267 +/- 2,275	38,525 +/- 1,837	41,068 +/- 2,169	39,090 +/- 2,531	39,645 +/- 2,386
West Coast	25,998 +/- 1,458	36,026 +/- 1,621	51,273 +/- 2,526	57,077 +/- 4,595	44,784 +/- 3,866
Nth Canterbury	166,688 +/- 9,810	117,933 +/- 5,278	199,230 +/- 8,751	176,129 +/- 9,504	104,120 +/- 5,612
Cntrl Sth Island	166,137 +/- 5,799	168,230 +/- 6,364	252,187 +/- 9,389	299,520 +/- 11,501	271,896 +/- 9,190
Otago	182,869 +/- 6,573	218,714 +/- 8,819	224,942 +/- 9,574	186,570 +/- 8,484	175,787 +/- 8,814
Southland	152,824 +/- 5,201	157,061 +/- 6,085	153,706 +/- 6,381	122,658 +/- 6,147	125,911 +/- 6,829
Eastern	250,409 +/- 9,374	231,325 +/- 7,836	215,636 +/- 8,717	155,240 +/- 7,310	118,848 +/- 4,688
<b>Total</b>	<b>1,155,477 +/- 17,667</b>	<b>1,110,701 +/- 16285</b>	<b>1,271,324 +/- 20,195</b>	<b>1,146,435 +/- 20,679</b>	<b>991,705 +/- 17,264</b>

Although the NAS has been taking place periodically since 1994-95, it is difficult to determine trends from only five data points. Indeed, no formal trend analysis has been undertaken as part of this NAS<sup>14</sup>. Over the period 1994-95 to 2021-22 there appears to be a trend for declining angling rates in the Eastern region (Figure 3-2; Table 3-26).

When we structure our analysis by type of waterbody, few long-term trends are evident (Figure 3-3; Table 3-27). Trends associated with two types of waterbody were, however, noteworthy: The strong and significant increase in canal-based angling since 2007-08 (Figure 3-3) can be attributed to the establishment of a trophy trout and Chinook salmon fishery in the upper Waitaki canals. The abundance of large, trophy-sized brown and rainbow trout and salmon of commercial farm origin in the upper Waitaki canals is high and well-known by New Zealand anglers. Accordingly, estimated fishing rates on the upper Waitaki canals during 2014-15 and 2021-22 are among the highest ever recorded by the NAS for individual waterbodies. For example, if we combine the angling rates of the Tekapo and Pukaki-Ohau canal reaches (Table 3-22), the Upper Waitaki canal system operated by Genesis Energy and Meridian Energy attracted an angling rate of 117814 angler-days, which is 3.6 times the usage observed on the second most-fished individual waterbody (Lake Rotoiti (Eastern): 33176 angler-days).

<sup>14</sup> For an example of formal trend analysis, see White, R.S.A., Stoffels, R.J., Whitehead, A.L. (2023) Assigning trend-based conservation status despite high uncertainty. *Conservation Biology*, e14084, [https://doi.org/10.1111/cobi.14084\(n/a\)](https://doi.org/10.1111/cobi.14084(n/a)).  
<https://doi.org/10.1111/cobi.14084>

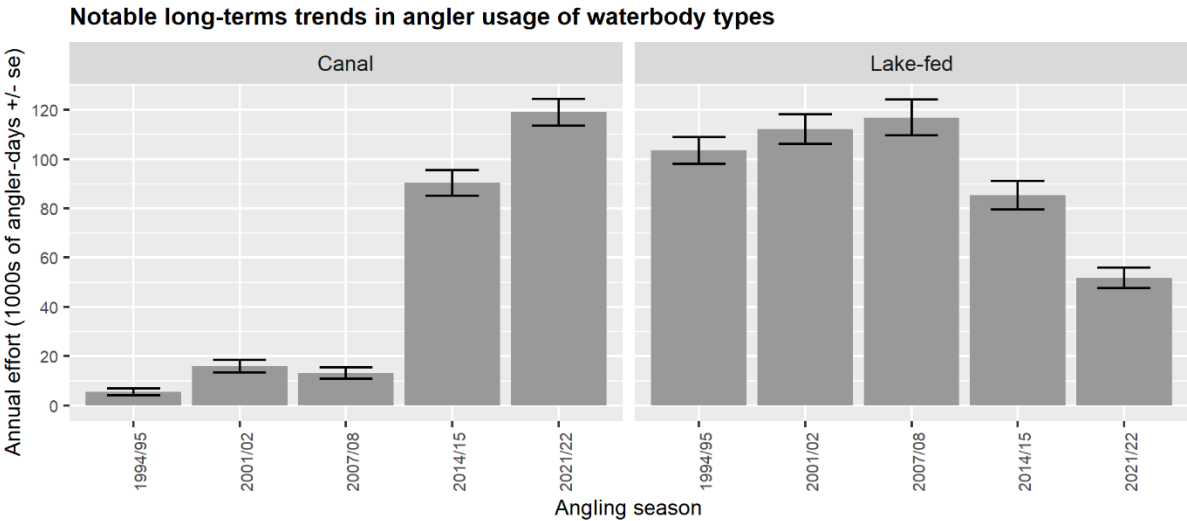
The decline in angling rates on lake-fed rivers is significant and very strong (Figure 3-3). One possible explanation for this decline is a reduction in the quality of lake-fed river fisheries—hence their appeal to anglers—as a result of invasion by didymo (*Didymosphenia geminata*). In the South Island, didymo is known to prefer the stable hydrology and low nutrient status of rivers fed by lakes (Kilroy et al. 2009; Kilroy et al. 2016). It was first detected in the South Island in 2004 and is likely to have spread throughout suitable habitats of South Island rivers during the 5-10 years following 2004 (Kilroy et al. 2016). Displacement of endemic periphyton communities by didymo may change the structure of the benthic invertebrate community, resulting in lower densities of the invertebrate taxa preferred by trout (Kilroy et al. 2009). We caution, however, that the above explanation for the decline in angling rates on lake-fed rivers is a hypothesis. Although there has been much speculation about the long-term, large-scale impact of didymo on trout fisheries of New Zealand, defensible scientific analyses of such impact have not been undertaken.



**Figure 3-2: Long-term trends in total angler usage (+/- se) of regions.**

**Table 3-27: Annual trends in angler usage of different types of waterbodies throughout New Zealand.**  
Presented are estimates of angler-days +/- sd. Taupo excluded.

Water type	Sub-type	1994/95	2001/02	2007/08	2014/15	2021/22
Lake	Lake	328,008 +/- 9,470	345,460 +/- 8,573	378,991 +/- 11,251	310,984 +/- 10,688	267,275 +/- 7,997
Lake	Reservoir	107,599 +/- 4,223	120,222 +/- 5,539	164,975 +/- 7,373	141,218 +/- 7,572	112,217 +/- 5,699
<b>Total - lakes</b>		<b>435,607 +/- 103,69</b>	<b>465,682 +/- 10,207</b>	<b>543,966 +/- 13,451</b>	<b>452,202 +/- 13,098</b>	<b>379,492 +/- 9,820</b>
River	Mountain	146,386 +/- 8,665	103,850 +/- 5,417	197,207 +/- 8,767	159,815 +/- 9,034	149,575 +/- 8,653
River	Hill	205,162 +/- 6,754	220,543 +/- 6,904	235,083 +/- 7,359	216,487 +/- 7,655	156,888 +/- 6,303
River	Lowland	259,337 +/- 7,193	192,650 +/- 6,151	165,052 +/- 5,880	142,218 +/- 6,280	134,862 +/- 6,285
River	Lake-fed	103,509 +/- 5,446	112,142 +/- 5,949	116,879 +/- 7,276	85,410 +/- 5,813	51,868 +/- 4,157
<b>Total - rivers</b>		<b>714,394 +/- 14,216</b>	<b>629,185 +/- 12,257</b>	<b>714,221 +/- 14,783</b>	<b>603,931 +/- 14,610</b>	<b>493,193 +/- 13,091</b>
<b>Total - canals</b>		<b>5,476 +/- 1,442</b>	<b>15,835 +/- 2,535</b>	<b>13,137 +/- 2,390</b>	<b>90,302 +/- 5,153</b>	<b>119,020 +/- 5,499</b>

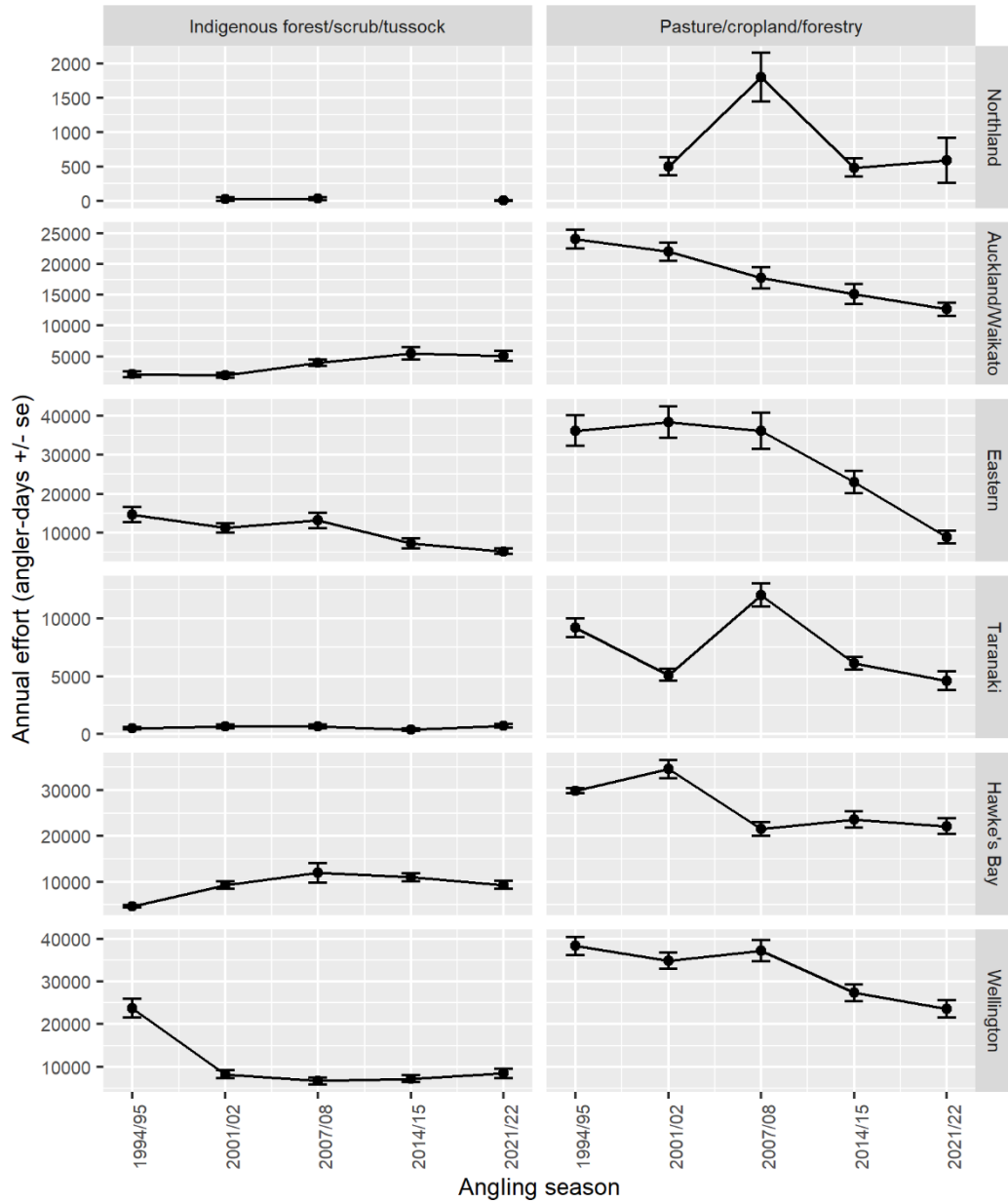


**Figure 3-3: Long-term trends in angler usage of canals and lake-fed rivers throughout New Zealand.**

It is very difficult to infer effects of landcover from the NAS data (Figure 3-4; Figure 3-5). Negative trends of usage within pasture/cropland/forestry landcovers do not necessarily indicate a negative effect of agriculture and/or silviculture, as a similar trend can be mirrored in waterbodies within indigenous vegetation landcovers (e.g., Eastern Region; Figure 3-4).

## Long-term trends in angler usage of waterbodies in different landcover contexts

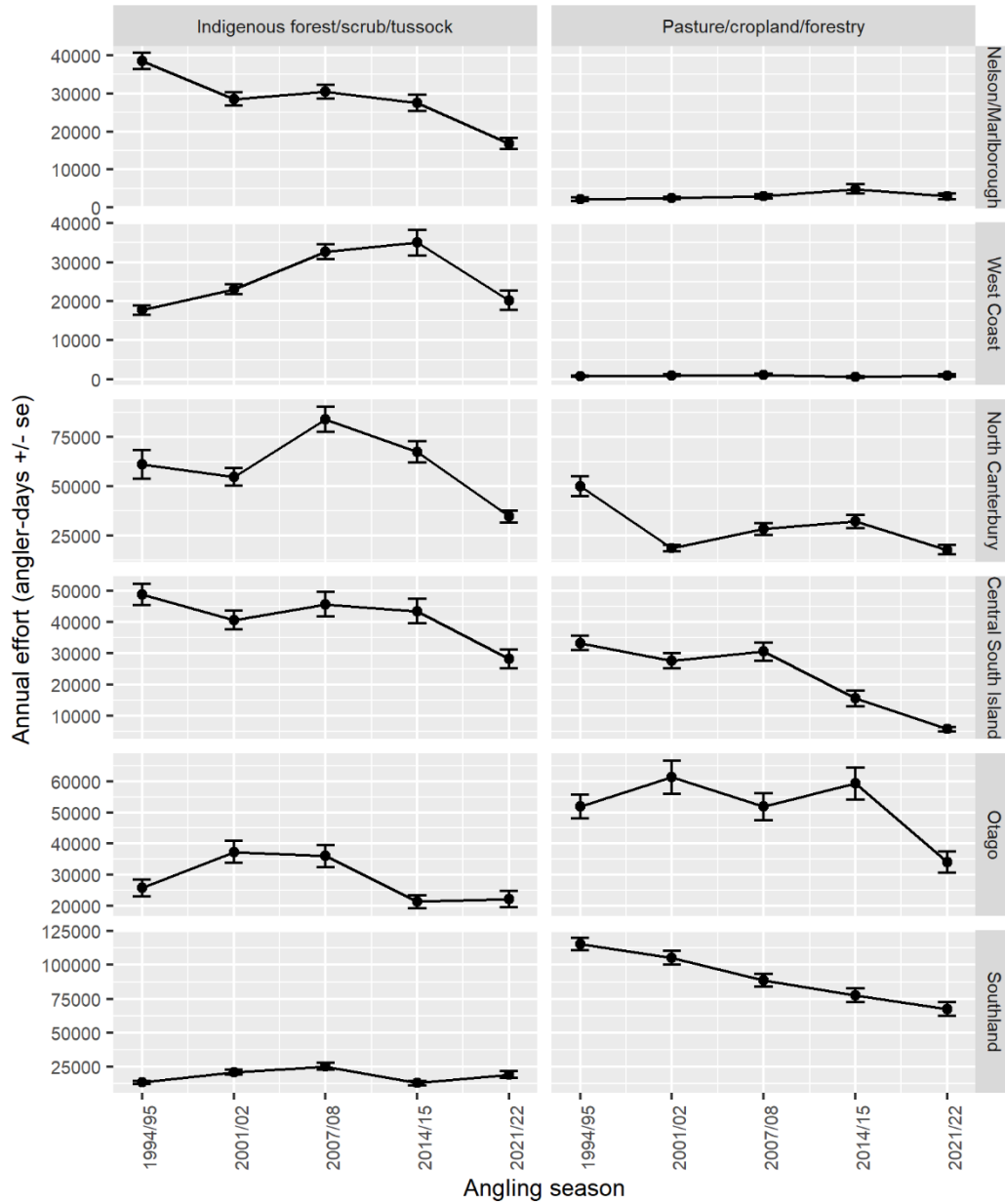
### North Island



**Figure 3-4: Mean usage (angler-days +/- se) of North Island waterbodies within different landcover classes over National Angler Surveys from 1994-95 through to 2021-22.**

### Long-term trends in angler usage of waterbodies in different landcover contexts

#### South Island



**Figure 3-5: Mean usage (angler-days +/- se) of South Island waterbodies within different landcover classes over National Angler Surveys from 1994-95 to 2021-22.**

## 4 Discussion

Like its predecessors the 2021-22 NAS has yielded information critical for freshwater fishery management throughout New Zealand. The detailed tables of waterbody usage (Appendices A and B) should be useful for identifying the most popular waterbodies, and potentially prioritising resource allocation within regions over the coming years. There were, however, few surprises, with patterns of usage in space and time generally reflecting those of previous NASs. There was a reduction in usage by international visitors, which accounted for only 0.04% of total annual usage during 2021-22. This contrasts with an estimated usage by international anglers of 3% of total usage during the 2014-15 season (Unwin 2016). This reduction in fishing effort by international anglers—by almost two orders of magnitude—is to be expected given the COVID-19 restrictions on international travel. Other notable features of the 2021-22 NAS were the continued popularity of the upper Waitaki canals and the decline in popularity of lake-fed rivers. The cause of the increase in the popularity of the Waitaki canals is well known—they support a highly productive and easily accessible trophy trout fishery. Causes of the decline in popularity of lake-fed rivers are unknown and warrant further investigation. It is possible that the proliferation of *Didymo* in lake-fed rivers has eroded the quality of their fisheries.

Below we discuss two issues arising from the 2021-22 NAS.

### Relating waterbody usage to environmental change and management

If we wish to understand how environmental change is affecting usage of waterbodies by anglers then a change in approach is required. Landcover classes of the REC only coarsely indicate land use type and do not indicate magnitude of anthropogenic disturbance. Landcover classes of the REC are also temporally static and vary little over decadal timescales. As such, relationships between REC landcover classes and trends in usage are not well suited for inferring how changing patterns in catchment use and management affect usage of waterbodies by anglers.

Future NASs could be improved by determining which waterbodies have long-term time series for habitat and water quality variable (e.g., time series for fine sediment, nutrients, etc, available through State of Environment (SoE) databases), then determining whether long-term trends in habitat and water quality are affecting trends in waterbody usage by anglers. Such data could be analysed using advanced forms of regression that might yield more defensible inferences concerning the effects of changing land use on usage of fisheries. These analyses may enable FGNZ to more effectively and efficiently allocate resources (e.g., for rehabilitation and lobbying) to waterbodies that need it most.

### Assess fishery status and trends

Spatial and temporal patterns in usage is a reflection of angler behaviour, not necessarily the statuses of fisheries. Numerous factors influence usage of waterbodies by anglers, including:

- proximity to home and/or major holiday locations;
- ease of public access;
- co-occurrence of fishing with other recreational pursuits in the same waterbody (e.g., boating, water-skiing in lakes); and
- the ease with which different fishing methods are implemented (e.g., spinning, trawling).



If the objective is to determine state and trends in fisheries then time series of fishery states (abundance, size-structure,...) are required. If the objective is to make effective and efficient decisions about fishery management, then time series of fishery states need to be coupled with information about the potential drivers of change (e.g., coupling stock and habitat assessments). Partnering with organisations that have similar freshwater monitoring requirements (e.g., regional councils) may be a cost-effective way of obtaining these required environment-fishery datasets.

## 5 Acknowledgements

We thank Helen Trotter (now with Otago Regional Council), Jayde Couper and Jack Kos for their help in implementing the 2021-22 NAS, and Kelly Mara for statistical advice.

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## Appendix A Tables of angling effort allocated to individual waterbodies within regions during the 2021-22 fishing season

The tables below present usage of individual waterbodies (angler-days +/- se) by all anglers during the 2021-22 fishing season. Information is presented for each region in a north-to-south order. Waterbodies within each region are presented following an approximately clockwise order, starting from north-most waterbodies, then north-east most waterbodies, etc. Totals for sea-draining catchments are also presented. Catchment totals are presented only for catchments containing more than one angling waterbody. Dashed lines indicate that a waterbody was not fished during that period. Waterbody usage by international/overseas anglers (Stratum 4) is not structured by period, as they were only interviewed once at the end of the fishing season. Estimates of usage for international/overseas anglers are for the 2021-22 season as a whole.

### Northland Region

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
Rangitane	Victoria River	3 +/- 3	-	-	-	-	-	-	3 +/- 3
	Rangitane River	315 +/- 314	3 +/- 2	-	-	-	-	-	318 +/- 314
	Waipapa Stream	8 +/- 8	2 +/- 2	-	-	-	-	-	10 +/- 8
Rangitane	Lake Manuwai	1 +/- 1	10 +/- 8	-	20 +/- 18	-	24 +/- 0	-	55 +/- 19
	Total	324 +/- 314	15 +/- 8	-	20 +/- 18	-	24 +/- 0	-	383 +/- 315
Kerikeri	Kerikeri River	3 +/- 2	1 +/- 1	-	-	-	-	-	4 +/- 2
Waitangi	Waitangi River	-	-	2 +/- 1	-	-	-	-	2 +/- 1
Kawakawa	Kawakawa River	4 +/- 4	-	-	-	-	-	-	4 +/- 4
	Whau Valley Dam	95 +/- 54	24 +/- 17	-	9 +/- 9	-	215 +/- 154	-	343 +/- 165
	Wilson's Dam	38 +/- 33	1 +/- 1	2 +/- 1	2 +/- 1	4 +/- 4	9 +/- 9	-	56 +/- 34
Waipu	Waipu River	-	-	1 +/- 1	-	-	-	-	1 +/- 1
Wairoa	Wairua River	15 +/- 15	3 +/- 2	-	-	-	-	-	18 +/- 15
	Wairoa River	14 +/- 14	-	-	1 +/- 1	-	-	-	15 +/- 14
	Kaihu River	1 +/- 1	19 +/- 11	-	-	-	-	-	20 +/- 11

Catchment	Angling water	New Zealand residents					Overseas		Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
Wairoa	Mangatu Stream	-	-	1 +/- 1	1 +/- 1	-	-	-	2 +/- 2
	Mangere Stream	-	5 +/- 5	-	-	-	-	-	5 +/- 5
	Mangahahuru Stream	-	1 +/- 1	-	-	-	-	-	1 +/- 1
	Whakapara River	2 +/- 2	-	2 +/- 2	-	-	-	-	4 +/- 2
	Kaimamaku Stream	-	1 +/- 1	-	-	-	-	-	1 +/- 1
	Kaiikanui River	13 +/- 13	-	-	-	-	-	-	13 +/- 13
	Waiariki River	1 +/- 1	1 +/- 1	-	-	-	-	-	2 +/- 2
	Total	46 +/- 24	30 +/- 12	3 +/- 2	2 +/- 2	-	-	-	81 +/- 27
	Kaiwi Lakes	17 +/- 13	16 +/- 3	21 +/- 2	17 +/- 9	40 +/- 28	9 +/- 9	-	120 +/- 34

## Auckland / Waikato

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
	Chelsea Sugar Works Pond	-	15 +/- 15	-	-	-	-	-	15 +/- 15
	Pupuke Lake	122 +/- 56	84 +/- 41	203 +/- 103	153 +/- 78	185 +/- 137	-	6 +/- 6	753 +/- 201
Wairoa	Wairoa River Auckland	61 +/- 32	70 +/- 69	10 +/- 10	-	-	-	-	141 +/- 77
	Kaiaua Gravel Pits	-	-	20 +/- 20	-	-	-	-	20 +/- 20
Waihou	Waihou River above Okoroire	83 +/- 40	114 +/- 54	246 +/- 143	344 +/- 226	231 +/- 114	-	-	1018 +/- 298
	Waihou River below Okoroire	27 +/- 20	217 +/- 99	172 +/- 138	172 +/- 114	39 +/- 39	77 +/- 77	15 +/- 15	719 +/- 223
	Hikutaia River	-	-	-	-	19 +/- 19	-	-	19 +/- 19
	Maratoto Stream	-	8 +/- 8	-	-	-	-	-	8 +/- 8
	Ohinemuri River	2 +/- 2	114 +/- 79	73 +/- 36	61 +/- 32	48 +/- 36	-	-	298 +/- 99
	Waitawheta River	16 +/- 12	65 +/- 32	41 +/- 24	74 +/- 45	87 +/- 65	19 +/- 19	-	302 +/- 91
	Waiomou Stream	248 +/- 152	36 +/- 36	315 +/- 292	110 +/- 110	39 +/- 39	-	-	748 +/- 351
	Rapurapu Stream	-	-	-	84 +/- 61	19 +/- 19	231 +/- 231	-	334 +/- 239
	Kakahu Stream	6 +/- 6	15 +/- 15	-	47 +/- 35	58 +/- 58	-	-	126 +/- 70
	Oraka Stream	4 +/- 3	15 +/- 15	100 +/- 62	139 +/- 96	39 +/- 39	38 +/- 38	-	335 +/- 127
	Waimakariri Stream	244 +/- 139	399 +/- 190	304 +/- 171	232 +/- 115	77 +/- 54	138 +/- 106	-	1394 +/- 335
Waihou	Total	630 +/- 211	983 +/- 240	1251 +/- 400	1263 +/- 326	656 +/- 173	503 +/- 269	15 +/- 15	5301 +/- 686
Kauaeranga	Kauaeranga River	25 +/- 25	-	46 +/- 39	16 +/- 16	-	-	-	87 +/- 49
Waiwawa	Waiwawa River	-	5 +/- 2	-	-	-	-	-	5 +/- 2
Tairua	Tairua River	39 +/- 39	1 +/- 1	-	-	-	-	-	40 +/- 39
Whanganui	Whanganui River above Whakapapa	202 +/- 100	250 +/- 162	149 +/- 72	140 +/- 93	-	96 +/- 96	-	837 +/- 244
	Whanganui River Whakapapa to Ohura	108 +/- 73	694 +/- 335	344 +/- 123	505 +/- 318	245 +/- 107	178 +/- 72	-	2074 +/- 501
	Ohura River	-	-	-	-	-	-	2 +/- 2	2 +/- 2
	Ongarue River	-	9 +/- 9	-	37 +/- 37	-	16 +/- 16	-	62 +/- 41

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
	Taringamotu River	1 +/- 1	-	-	-	-	-	-	1 +/- 1
	Waimiha Stream	-	-	110 +/- 86	18 +/- 18	-	-	-	128 +/- 88
	Pungapunga River	-	-	-	1 +/- 1	-	-	-	1 +/- 1
	Whakapapa River	331 +/- 195	984 +/- 382	781 +/- 284	1115 +/- 530	379 +/- 228	182 +/- 98	-	3772 +/- 779
	Piopiotea Stream	-	47 +/- 47	-	-	-	-	-	47 +/- 47
	Raurimu Stream	44 +/- 44	-	-	-	-	-	-	44 +/- 44
	Mangatepopo Stream	-	1 +/- 1	-	1 +/- 1	-	-	-	2 +/- 2
Whanganui	Total	686 +/- 235	1985 +/- 536	1384 +/- 330	1817 +/- 626	624 +/- 252	472 +/- 156	2 +/- 2	6970 +/- 965
Mokau	Mokau River	-	5 +/- 5	-	-	-	-	-	5 +/- 5
	Mangaotaki River	-	70 +/- 51	22 +/- 20	22 +/- 19	-	-	-	114 +/- 58
Mokau	Total	-	75 +/- 52	22 +/- 20	22 +/- 19	-	-	-	119 +/- 58
Awakino	Awakino River	36 +/- 12	86 +/- 36	242 +/- 126	41 +/- 24	5 +/- 5	10 +/- 10	-	420 +/- 134
	Manganui River	-	-	5 +/- 5	-	19 +/- 19	-	-	24 +/- 20
	Mangaorongong Stream	8 +/- 8	-	-	-	-	-	-	8 +/- 8
Awakino	Total	44 +/- 15	86 +/- 36	247 +/- 126	41 +/- 24	24 +/- 20	10 +/- 10	-	452 +/- 136
Marokopa	Marokopa River	-	8 +/- 8	-	-	-	-	-	8 +/- 8
	Tawarau River	2 +/- 2	1 +/- 1	-	1 +/- 1	-	-	-	4 +/- 2
	Mangaohae Stream	-	5 +/- 5	-	18 +/- 18	-	-	-	23 +/- 19
Marokopa	Total	2 +/- 2	14 +/- 9	-	19 +/- 18	-	-	-	35 +/- 21
Oparau	Oparau River	49 +/- 37	31 +/- 31	-	-	-	-	-	80 +/- 48
Waikato	Lake Arapuni	687 +/- 342	1307 +/- 559	1082 +/- 487	220 +/- 97	87 +/- 44	414 +/- 84	8 +/- 8	3805 +/- 828
	Lake Karapiro	86 +/- 45	108 +/- 85	213 +/- 80	151 +/- 113	123 +/- 68	93 +/- 56	-	774 +/- 191
	Waikato River below Karapiro	167 +/- 94	1224 +/- 348	818 +/- 300	487 +/- 197	39 +/- 39	-	-	2735 +/- 510
	Lake Waipapa	50 +/- 26	434 +/- 273	311 +/- 301	18 +/- 18	-	655 +/- 751	-	1468 +/- 854

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
HamiltonRotoroa Lake		-	92 +/- 92	-	55 +/- 41	-	115 +/- 71	-	262 +/- 124
Mangatawhiri Reservoir		3 +/- 2	2 +/- 2	-	-	-	-	-	5 +/- 2
Parkinsons Lake		82 +/- 52	48 +/- 33	6 +/- 3	1 +/- 1	53 +/- 40	-	-	190 +/- 73
Lake Whatihua		-	34 +/- 24	-	-	-	-	-	34 +/- 24
Mangatawhiri River		-	-	1 +/- 1	-	-	-	-	1 +/- 1
Whangamarino River		-	8 +/- 8	-	37 +/- 37	-	-	-	45 +/- 38
Mangatangi Reservoir		1 +/- 1	15 +/- 11	1 +/- 1	-	-	-	-	17 +/- 11
Whangape Stream		-	15 +/- 15	-	-	-	-	-	15 +/- 15
Lake Hakanoa		-	50 +/- 34	-	55 +/- 55	-	-	-	105 +/- 65
Lake Waahi		-	8 +/- 8	-	1 +/- 1	-	-	-	9 +/- 8
Mangawara Stream		-	-	10 +/- 10	74 +/- 74	-	-	-	84 +/- 74
Waipa River		8 +/- 6	427 +/- 176	297 +/- 162	135 +/- 71	-	-	-	867 +/- 250
Kaniwhaniwha Stream		99 +/- 55	94 +/- 42	211 +/- 117	95 +/- 55	-	-	-	499 +/- 147
Mangauika Stream		-	-	-	30 +/- 30	-	-	-	30 +/- 30
Puniu River		18 +/- 16	73 +/- 33	88 +/- 55	38 +/- 37	-	-	-	217 +/- 76
Mangatutu Stream		132 +/- 93	478 +/- 224	340 +/- 269	39 +/- 37	-	-	-	989 +/- 364
Waipari River		-	1 +/- 1	-	-	-	-	-	1 +/- 1
Ngakoaohia Stream		90 +/- 90	-	-	-	-	-	-	90 +/- 90
Moakurarua Stream		8 +/- 8	79 +/- 50	161 +/- 95	129 +/- 84	-	-	-	377 +/- 136
Ngutunui Stream		8 +/- 8	-	-	-	-	-	-	8 +/- 8
Mangaokewa Stream		-	5 +/- 5	-	55 +/- 55	-	-	-	60 +/- 55
Waimahora Stream		-	-	-	2 +/- 2	-	-	-	2 +/- 2
Pokaiwhenua Stream		-	41 +/- 25	102 +/- 100	18 +/- 18	19 +/- 19	-	-	180 +/- 107
Lake Moananui		2 +/- 2	18 +/- 18	2 +/- 2	-	-	-	-	22 +/- 18



Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
	Little Waipa Stream	20 +/- 18	306 +/- 172	11 +/- 10	147 +/- 147	-	35 +/- 25	-	519 +/- 229
	Waipapa River	1 +/- 1	94 +/- 40	171 +/- 104	37 +/- 37	58 +/- 43	-	2 +/- 2	363 +/- 125
	Mangakino Stream	-	73 +/- 72	64 +/- 46	-	212 +/- 193	-	-	349 +/- 211
Waikato	Total	1462 +/- 390	5034 +/- 807	3889 +/- 756	1824 +/- 344	591 +/- 222	1312 +/- 761	10 +/- 9	14122 +/- 1457
	Takapuna Quarry Pond	16 +/- 16	-	-	-	-	-	2 +/- 2	18 +/- 17
	Lake Kereta	-	-	-	147 +/- 147	-	-	-	147 +/- 147
	OtotoaRototoa Lake	-	1 +/- 1	2 +/- 2	-	-	-	-	3 +/- 2
Muriwai	Muriwai Beach	-	-	1 +/- 1	-	-	-	-	1 +/- 1
	Kumeu River	16 +/- 16	-	-	-	-	-	-	16 +/- 16
	Lake Tomarata	-	18 +/- 18	-	-	-	-	-	18 +/- 18

## Eastern (including Rotorua Lakes)

Catchment	Angling water	New Zealand residents						Overseas	
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	Total
Catchment	Angling water	Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	Total
Tuapiro	Tuapiro Creek Eastern	118 +/- 118	-	-	-	-	-	-	118 +/- 118
Wairoa	Wairoa River Tauranga Eastern	13 +/- 13	-	-	-	-	-	-	13 +/- 13
	McLaren Falls Dam Eastern	167 +/- 91	178 +/- 77	56 +/- 27	296 +/- 167	101 +/- 66	-	-	798 +/- 217
	Ohourere Stream Eastern	-	-	-	-	19 +/- 19	-	-	19 +/- 19
	Ruahihi Canal Eastern	-	82 +/- 54	29 +/- 33	1 +/- 1	-	-	-	112 +/- 64
	Ngamuwahine River Eastern	-	8 +/- 8	1 +/- 1	18 +/- 18	-	-	-	27 +/- 20
	Omanawa River Eastern	15 +/- 15	-	-	-	-	-	-	15 +/- 15
Wairoa	Total	195 +/- 93	268 +/- 94	86 +/- 43	315 +/- 168	120 +/- 68	-	-	984 +/- 229
Waimapu	Waimapu Stream Eastern	-	-	-	-	88 +/- 88	-	-	88 +/- 88
Kaituna	Kaituna River Eastern	60 +/- 59	8 +/- 8	104 +/- 82	18 +/- 18	143 +/- 85	-	-	333 +/- 133
	Ohau Channel Eastern	189 +/- 116	52 +/- 19	31 +/- 10	26 +/- 6	10 +/- 7	29 +/- 9	-	337 +/- 118
	Lake Rotoiti Eastern	4797 +/- 402	11008 +/- 14395	417 +/- 617	5972 +/- 8523	071 +/- 768	2911 +/- 1032	-	33176 +/- 2235
	Lake Rotorua Eastern	1257 +/- 280	3161 +/- 440	2691 +/- 624	1095 +/- 2831	190 +/- 273	2135 +/- 744	3 +/- 2	11532 +/- 1170
	Utuhina Stream Eastern	550 +/- 318	376 +/- 214	381 +/- 381	1 +/- 1	15 +/- 15	-	-	1323 +/- 540
	Ngongotaha Stream Eastern	2741 +/- 1425	1144 +/- 251	2347 +/- 906	1342 +/- 362	962 +/- 312	447 +/- 432	-	8983 +/- 1825
	Waiteti Stream Eastern	209 +/- 197	784 +/- 436	1980 +/- 1223	303 +/- 165	394 +/- 310	-	-	3670 +/- 1360
	Awahou Stream Eastern	2 +/- 2	206 +/- 73	555 +/- 283	82 +/- 60	-	-	-	845 +/- 299
	Hamurana Stream Eastern	27 +/- 21	20 +/- 18	250 +/- 141	203 +/- 144	-	-	-	500 +/- 203
Kaituna	Total	9832 +/- 1558	16759 +/- 1603	13756 +/- 1827	9042 +/- 9955	785 +/- 930	5522 +/- 1344	3 +/- 2	60699 +/- 3464
Waihi	Waihi Estuary Eastern	-	18 +/- 18	10 +/- 10	-	-	-	-	28 +/- 21

Catchment	Angling water	New Zealand residents					Overseas		Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
Tarawera	Lake Rotoehu Eastern	284 +/- 196	74 +/- 45	177 +/- 109	66 +/- 58	-	220 +/- 164	-	821 +/- 287
	Lake Rotoma Eastern	1615 +/- 941	794 +/- 323	684 +/- 347	670 +/- 288	788 +/- 285	1123 +/- 507	-	5674 +/- 1238
	Lake Okataina Eastern	1219 +/- 301	961 +/- 222	509 +/- 133	519 +/- 186	133 +/- 175	154 +/- 85	-	3495 +/- 480
	Lake Rerewhakaaitu Eastern	220 +/- 86	252 +/- 119	260 +/- 195	169 +/- 88	267 +/- 139	685 +/- 303	-	1853 +/- 422
	Tarawera River Lake Tarawera to Tawarera Falls Eastern	583 +/- 368	31 +/- 23	2 +/- 2	30 +/- 24	355 +/- 247	15 +/- 8	-	1016 +/- 444
	Tarawera River below Tarawera Falls Eastern	9 +/- 8	204 +/- 112	76 +/- 76	79 +/- 79	12 +/- 7	37 +/- 37	-	417 +/- 161
	Lake Okaro Eastern	47 +/- 46	72 +/- 72	19 +/- 19	230 +/- 230	117 +/- 117	10 +/- 7	-	495 +/- 272
	Ruruanga Stream Eastern	-	-	-	-	87 +/- 87	-	-	87 +/- 87
	Waiwhakapa Stream Eastern	1 +/- 1	1 +/- 1	-	-	-	-	-	2 +/- 2
	Lake Tarawera Eastern	5072 +/- 1041	5782 +/- 974	4604 +/- 942	2601 +/- 813	3221 +/- 1174	365 +/- 145	7 +/- 5	21652 +/- 2232
	Lake Okareka Eastern	397 +/- 181	795 +/- 304	804 +/- 246	108 +/- 65	392 +/- 197	408 +/- 313	-	2904 +/- 571
	Lake Rotokakahi Eastern	21 +/- 20	-	3 +/- 2	1 +/- 1	583 +/- 583	-	-	608 +/- 584
	Lake Tikitapu Blue Lake Eastern	61 +/- 42	30 +/- 22	24 +/- 15	6 +/- 3	58 +/- 58	35 +/- 25	-	214 +/- 81
Lake Rotomahana Eastern	-	93 +/- 59	268 +/- 232	-	87 +/- 87	-	-	448 +/- 255	
Tarawera	Total	7630 +/- 1163	8221 +/- 1062	6569 +/- 1032	3743 +/- 876	5312 +/- 1379	1709 +/- 469	7 +/- 5	33191 +/- 2537
Rangitaiki	Lake Matahina Eastern	5 +/- 2	165 +/- 103	116 +/- 114	71 +/- 58	-	-	-	357 +/- 164
	Rangitaiki River above Lake Aniwhenua Eastern	108 +/- 113	119 +/- 182	2 +/- 2	77 +/- 43	53 +/- 46	81 +/- 58	-	440 +/- 231
	Rangitaiki River Aniwhenua Dam to Lake Matahina Eastern	80 +/- 46	237 +/- 101	208 +/- 188	150 +/- 104	35 +/- 30	89 +/- 89	-	799 +/- 259
	Rangitaiki River below Matahina Dam Eastern	12 +/- 10	1 +/- 1	404 +/- 307	153 +/- 135	-	5 +/- 5	-	575 +/- 336
	Lake Aniwhenua Eastern	23 +/- 20	235 +/- 93	178 +/- 138	9 +/- 3	92 +/- 64	61 +/- 61	-	598 +/- 190
	Mangamako Stream Eastern	-	18 +/- 18	1 +/- 1	29 +/- 29	-	-	-	48 +/- 34
	Ngatamawahine Stream Eastern	-	8 +/- 8	-	-	-	-	-	8 +/- 8
	Horomanga River Eastern	1 +/- 1	114 +/- 104	-	1 +/- 1	-	-	-	116 +/- 104
Whirinaki River Eastern	1 +/- 1	148 +/- 57	131 +/- 73	201 +/- 141	-	-	-	481 +/- 169	

Catchment	Angling water	New Zealand residents					Overseas		Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
	Wheao River Eastern	-	-	-	-	5 +/- 5	257 +/- 257	-	262 +/- 257
	Lake Flaxy Eastern	-	-	-	191 +/- 123	-	-	-	191 +/- 123
	Flaxy Canal Eastern	1 +/- 1	-	-	29 +/- 29	-	-	-	30 +/- 29
	Rangitaiki Canal Eastern	59 +/- 59	-	-	29 +/- 29	-	-	-	88 +/- 66
	Otangimoana Stream Eastern	35 +/- 25	2 +/- 2	-	-	-	-	-	37 +/- 25
	Otamatea River Eastern	26 +/- 25	72 +/- 46	-	4 +/- 2	-	-	-	102 +/- 52
Rangitaiki	Total	351 +/- 142	1119 +/- 281	1040 +/- 409	944 +/- 268	185 +/- 84	493 +/- 284	-	4132 +/- 653
Whakatane	Whakatane River Eastern	80 +/- 79	18 +/- 18	24 +/- 17	67 +/- 61	-	-	-	189 +/- 102
	Waimana River Eastern	-	38 +/- 36	1 +/- 1	-	262 +/- 262	-	-	301 +/- 265
	Tauranga River Eastern	20 +/- 20	15 +/- 15	-	4 +/- 2	262 +/- 235	110 +/- 110	-	411 +/- 261
	Waikare River Eastern	-	207 +/- 207	-	-	233 +/- 233	-	-	440 +/- 312
	Ruatahuna Stream Eastern	20 +/- 20	-	1 +/- 1	-	-	-	-	21 +/- 20
Whakatane	Total	120 +/- 83	278 +/- 211	26 +/- 17	71 +/- 61	757 +/- 423	110 +/- 110	-	1362 +/- 496
Waioeka	Waioeka River above Opato confluence Eastern	116 +/- 65	480 +/- 133	92 +/- 61	107 +/- 86	63 +/- 59	152 +/- 147	-	1010 +/- 241
	Waioeka River below Opato confluence Eastern	59 +/- 44	167 +/- 90	98 +/- 66	58 +/- 58	58 +/- 58	-	-	440 +/- 145
	Opato Stream Eastern	10 +/- 10	-	19 +/- 19	-	-	-	-	29 +/- 22
	Wairata Stream Eastern	6 +/- 6	8 +/- 3	115 +/- 114	1 +/- 1	-	-	-	130 +/- 115
	Koranga River Eastern	-	1 +/- 1	4 +/- 2	2 +/- 2	-	-	-	7 +/- 3
Waioeka	Total	191 +/- 79	656 +/- 161	328 +/- 146	168 +/- 104	121 +/- 83	152 +/- 147	-	1616 +/- 304
Otara	Otara River Eastern	1 +/- 1	4 +/- 2	19 +/- 19	-	-	-	-	24 +/- 19
Motu	Motu River Eastern	22 +/- 20	39 +/- 25	57 +/- 43	121 +/- 91	29 +/- 29	-	-	268 +/- 109
	Takaputahi River Eastern	20 +/- 20	46 +/- 37	-	-	-	-	-	66 +/- 42
Motu	Total	42 +/- 28	85 +/- 45	57 +/- 43	121 +/- 91	29 +/- 29	-	-	334 +/- 117
	Waitahaia River Eastern	-	-	-	-	5 +/- 5	-	-	5 +/- 5

Catchment	Angling water	New Zealand residents						Overseas		
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	Total	
Turanganui	Turanganui River Eastern	6 +/- 4	20 +/- 20	2 +/- 2	1 +/- 1	21 +/- 21	-	2 +/- 2	52 +/- 29	
	Wharekopae River Eastern	2 +/- 2	-	-	-	-	-	-	2 +/- 2	
Kopuawhara	Kopuawhara Stream Eastern	-	1 +/- 1	-	-	-	31 +/- 31	-	32 +/- 31	
Wairoa	Wairoa River Gisborne Eastern	-	18 +/- 18	-	-	-	-	-	18 +/- 18	
	Waiau River Eastern	67 +/- 34	40 +/- 26	70 +/- 60	22 +/- 21	-	-	-	199 +/- 76	
	Lake Waikareiti Eastern	-	-	2 +/- 2	2 +/- 2	37 +/- 37	-	-	41 +/- 37	
	Lake Waikaremoana Eastern	3 +/- 2	139 +/- 72	407 +/- 132	1693 +/- 549	1255 +/- 431	514 +/- 250	-	4011 +/- 756	
	Lake Tuai Eastern	-	-	1 +/- 1	22 +/- 22	-	-	-	23 +/- 22	
	Waikaretaheke River Eastern	30 +/- 17	49 +/- 49	-	2 +/- 2	-	-	-	81 +/- 52	
	Moerangi Stream Eastern	3 +/- 2	-	-	-	-	-	-	3 +/- 2	
	Mangaone Stream Eastern	-	20 +/- 20	-	-	-	-	-	20 +/- 20	
	Ruakituri River above Boothman Bridge Eastern	175 +/- 76	225 +/- 134	195 +/- 96	90 +/- 64	5 +/- 5	-	7 +/- 7	697 +/- 193	
	Ruakituri River below Boothman Bridge Eastern	111 +/- 118	126 +/- 125	38 +/- 38	310 +/- 241	-	-	-	585 +/- 299	
	Hangaroa River Eastern	3 +/- 2	68 +/- 48	37 +/- 23	85 +/- 79	-	-	-	193 +/- 95	
	Total	195 +/- 93	268 +/- 94	86 +/- 43	315 +/- 168	120 +/- 68	-	-	984 +/- 229	
	Waikato	Lake Atiamuri Eastern	-	108 +/- 80	120 +/- 75	-	-	38 +/- 38	-	266 +/- 116
		Lake Maraetai Eastern	88 +/- 54	47 +/- 22	111 +/- 101	113 +/- 94	77 +/- 54	148 +/- 67	2 +/- 2	586 +/- 173
Lake Ohakuri Eastern		1 +/- 1	221 +/- 114	2 +/- 2	67 +/- 45	-	152 +/- 147	-	443 +/- 191	
Lake Whakamaru Eastern		119 +/- 118	41 +/- 27	231 +/- 128	133 +/- 103	77 +/- 77	21 +/- 21	-	622 +/- 219	
Lake Aratiatia Eastern		-	1 +/- 1	-	-	-	-	-	1 +/- 1	
Waikato River Huka Falls to Lake Ohakuri Eastern		278 +/- 192	601 +/- 237	468 +/- 312	168 +/- 88	94 +/- 66	-	-	1609 +/- 450	
Whirinaki Stream Eastern		-	-	1 +/- 1	-	-	-	-	1 +/- 1	
Lake Ngapouri Eastern		-	90 +/- 90	38 +/- 38	-	29 +/- 29	-	-	157 +/- 102	
Pueto Stream Eastern	7 +/- 7	-	123 +/- 123	-	-	-	-	130 +/- 123		

Catchment	Angling water	New Zealand residents						Overseas	
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	Total
Waikato	Total	493 +/- 232	1109 +/- 291	1094 +/- 382	481 +/- 171	277 +/- 118	359 +/- 167	2 +/- 2	3815 +/- 597
Catchment	Angling water	Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	Total

## Taranaki

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
Whangaehu	Lake Namunamu	-	-	2 +/- 2	5 +/- 2	15 +/- 15	-	-	22 +/- 16
	Lake Ohakune	-	-	-	2 +/- 2	-	-	-	2 +/- 2
	Lake Rotokura Karioi	-	19 +/- 13	196 +/- 196	-	-	-	-	215 +/- 196
	Whangaehu River	-	4 +/- 2	78 +/- 78	-	-	-	-	82 +/- 78
	Sattlers Lake also Sattlers Dam	4 +/- 4	-	5 +/- 5	-	-	-	-	9 +/- 6
	Mangawhero River	84 +/- 38	254 +/- 196	49 +/- 32	1 +/- 1	5 +/- 5	-	-	393 +/- 202
	Taonui Stream	15 +/- 15	56 +/- 56	-	-	-	-	-	71 +/- 58
	Mangateitei Stream	-	15 +/- 15	-	5 +/- 5	-	-	-	20 +/- 16
	Tokiahuru Stream	4 +/- 4	-	-	5 +/- 5	10 +/- 10	10 +/- 10	-	29 +/- 16
Whangaehu	Waitaiki Stream	4 +/- 4	28 +/- 28	35 +/- 31	-	-	-	-	67 +/- 42
	Total	111 +/- 41	376 +/- 207	363 +/- 215	13 +/- 8	15 +/- 11	10 +/- 10	-	888 +/- 302
Kaitoke	Lake Wiritoa	30 +/- 29	15 +/- 14	-	-	-	22 +/- 22	-	67 +/- 39
Whanganui	Whanganui River below Ohura	87 +/- 96	243 +/- 199	176 +/- 116	117 +/- 81	-	380 +/- 365	2 +/- 2	1005 +/- 449
	Manganuioteao River	110 +/- 97	523 +/- 549	102 +/- 86	62 +/- 59	6 +/- 6	106 +/- 71	-	909 +/- 572
	Ruatiti Stream	58 +/- 21	69 +/- 35	25 +/- 14	30 +/- 21	-	10 +/- 7	-	192 +/- 49
	Waimarino Stream	1 +/- 1	11 +/- 11	-	1 +/- 1	-	-	-	13 +/- 11
	Makatote River	4 +/- 4	-	-	-	-	-	-	4 +/- 4
	Whangamomona River	-	-	-	5 +/- 5	-	-	-	5 +/- 5
Whanganui	Retaruke River	-	5 +/- 5	82 +/- 61	115 +/- 71	-	-	-	202 +/- 94
	Total	260 +/- 138	851 +/- 585	385 +/- 158	330 +/- 124	6 +/- 6	496 +/- 372	2 +/- 2	2330 +/- 735
	Lake Waiau	308 +/- 175	-	-	-	-	-	-	308 +/- 175
Patea	Patea River upstream of Lake Rotorangi	114 +/- 57	133 +/- 50	66 +/- 37	36 +/- 23	-	60 +/- 35	-	409 +/- 95
	Patea River downstream of Patea Dam	98 +/- 42	48 +/- 62	47 +/- 33	42 +/- 27	10 +/- 10	31 +/- 23	-	276 +/- 90

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
	Lake Rotorangi	16 +/- 12	10 +/- 7	15 +/- 15	-	-	62 +/- 62	-	103 +/- 65
	Mangakotukutuku Stream	-	61 +/- 61	-	-	-	-	-	61 +/- 61
	Makuri Stream	77 +/- 46	34 +/- 34	-	-	-	-	-	111 +/- 57
Patea	Total	305 +/- 86	286 +/- 107	128 +/- 52	78 +/- 35	10 +/- 10	153 +/- 74	-	960 +/- 168
	Rotokare Lake Perch fishery Tangahoe River catchment	161 +/- 151	-	-	-	41 +/- 41	-	-	202 +/- 156
Waingongoro	Waingongoro River	11 +/- 11	29 +/- 18	60 +/- 39	-	10 +/- 10	-	-	110 +/- 46
	Mangatoki Stream	-	14 +/- 14	-	-	-	-	-	14 +/- 14
Waingongoro	Total	11 +/- 11	43 +/- 22	60 +/- 39	-	10 +/- 10	-	-	124 +/- 48
Kapuni	Kapuni Stream	15 +/- 15	19 +/- 19	-	-	-	-	-	34 +/- 24
Waiokura	Waiokura Stream	4 +/- 4	34 +/- 34	-	5 +/- 5	-	-	-	43 +/- 35
Kaupokonui	Kaupokonui Stream	44 +/- 23	-	5 +/- 5	36 +/- 24	21 +/- 16	51 +/- 38	-	157 +/- 53
	Mangawhero Stream	-	23 +/- 17	-	-	-	-	-	23 +/- 17
	Mangawheroiti Stream	-	-	-	16 +/- 16	-	-	-	16 +/- 16
Kaupokonui	Total	44 +/- 23	23 +/- 17	5 +/- 5	52 +/- 28	21 +/- 16	51 +/- 38	-	196 +/- 58
Otakeho	Otakeho Stream	-	9 +/- 9	20 +/- 20	-	-	-	-	29 +/- 22
Waiaua	Waiaua River	-	98 +/- 98	-	16 +/- 12	-	-	-	114 +/- 98
Okahu	Okahu Stream	7 +/- 7	-	1 +/- 1	-	-	-	-	8 +/- 7
Pungaereere	Pungaereere Stream	7 +/- 7	-	-	-	-	-	-	7 +/- 7
Waitotoroa	Waitotoroa Stream	7 +/- 7	-	-	-	-	-	-	7 +/- 7
Warea	Warea River	-	34 +/- 34	-	-	5 +/- 5	15 +/- 15	-	54 +/- 38
Stony	Stony River	33 +/- 12	228 +/- 121	71 +/- 35	135 +/- 88	10 +/- 10	31 +/- 27	-	508 +/- 157
Kaihihi	Kaihihi Stream	-	-	10 +/- 10	16 +/- 16	-	-	-	26 +/- 19
Oakura	Oakura River	11 +/- 11	-	-	-	-	-	-	11 +/- 11
Waiwhakaiho	Lake Rotomanu	219 +/- 74	200 +/- 143	118 +/- 62	18 +/- 16	67 +/- 45	36 +/- 28	-	658 +/- 181



Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
	Waiwhakaiho River	179 +/- 49	186 +/- 60	57 +/- 26	49 +/- 23	15 +/- 15	52 +/- 32	-	538 +/- 92
	Mangorei Stream	31 +/- 31	-	1 +/- 1	-	-	-	-	32 +/- 31
	Lake Mangamahoe	83 +/- 40	125 +/- 166	101 +/- 69	41 +/- 22	51 +/- 28	70 +/- 47	-	471 +/- 193
	Mangamohoe Stream	19 +/- 12	-	-	104 +/- 104	-	-	-	123 +/- 104
	Kai Auahi Stream	7 +/- 7	-	-	5 +/- 5	-	-	-	12 +/- 9
Waiwhakaiho	Total	538 +/- 103	511 +/- 227	277 +/- 96	217 +/- 109	133 +/- 55	158 +/- 63	-	1834 +/- 301
Waiongana	Waiongana Stream	33 +/- 16	1 +/- 1	-	10 +/- 10	-	-	-	44 +/- 19
Waitara	Waitara River	4 +/- 4	14 +/- 14	10 +/- 10	78 +/- 74	-	-	-	106 +/- 76
	Lake Ngangana True right of Waitara R	-	5 +/- 5	1 +/- 1	-	-	-	-	6 +/- 5
	Manganui River	47 +/- 23	38 +/- 29	6 +/- 5	-	5 +/- 5	27 +/- 22	-	123 +/- 44
	Maketawa Stream	26 +/- 12	-	-	-	-	-	-	26 +/- 12
	Lake Ratapiko	22 +/- 10	9 +/- 7	96 +/- 82	-	27 +/- 20	10 +/- 7	-	164 +/- 85
Waitara	Total	99 +/- 28	66 +/- 33	113 +/- 83	78 +/- 74	32 +/- 21	37 +/- 23	-	425 +/- 123

## Hawke's Bay

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
Mohaka	Mohaka River above Mangatainoka	538 +/- 172	406 +/- 171	286 +/- 165	493 +/- 273	55 +/- 46	81 +/- 74	-	1859 +/- 410
	Mohaka River Mangatainoka to SH5	262 +/- 138	783 +/- 237	334 +/- 118	181 +/- 93	58 +/- 58	156 +/- 111	-	1774 +/- 337
	Mohaka River below SH5	223 +/- 75	436 +/- 209	433 +/- 208	579 +/- 229	151 +/- 84	134 +/- 134	-	1956 +/- 413
	Te Hoe River	-	28 +/- 21	38 +/- 38	58 +/- 58	-	-	-	124 +/- 72
	Hautapu River	21 +/- 16	-	43 +/- 33	58 +/- 58	-	-	-	122 +/- 68
	Pukahunui Stream	-	-	23 +/- 23	-	-	-	-	23 +/- 23
	Waipunga River	1 +/- 1	45 +/- 22	94 +/- 46	311 +/- 245	39 +/- 39	-	-	490 +/- 253
	Mokomokonui River	34 +/- 33	-	55 +/- 55	-	-	-	-	89 +/- 64
	Ripia River	15 +/- 12	-	51 +/- 32	40 +/- 40	-	-	-	106 +/- 53
	Makahu River	-	-	27 +/- 27	-	-	-	-	27 +/- 27
	Makino River	10 +/- 10	10 +/- 10	41 +/- 41	-	-	-	-	61 +/- 43
	Mangatainoka River	79 +/- 38	20 +/- 20	65 +/- 49	87 +/- 80	-	-	-	251 +/- 103
	Taharua River Mohaka trib	1 +/- 1	-	-	-	5 +/- 5	-	-	6 +/- 6
	Oamaru River	-	78 +/- 72	59 +/- 57	60 +/- 58	-	16 +/- 16	-	213 +/- 110
Kaipō River	1 +/- 1	-	-	58 +/- 58	-	328 +/- 328	-	387 +/- 333	
Mohaka	Total	1185 +/- 240	1806 +/- 369	1549 +/- 319	1925 +/- 465	308 +/- 119	715 +/- 379	-	7488 +/- 818
Waikari	Waikari River	-	20 +/- 20	-	-	-	-	-	20 +/- 20
Aropaoanui	Aropaoanui River	-	-	-	110 +/- 110	-	-	-	110 +/- 110
	Waikoau River	8 +/- 8	-	23 +/- 23	-	-	-	-	31 +/- 24
	Lake Orakāi	-	-	118 +/- 126	-	-	-	-	118 +/- 126
	Lake Tutira	47 +/- 22	222 +/- 113	141 +/- 125	95 +/- 44	82 +/- 44	312 +/- 142	-	899 +/- 230
Aropaoanui	Total	55 +/- 23	222 +/- 113	282 +/- 179	205 +/- 119	82 +/- 44	312 +/- 142	-	1158 +/- 286
Esk	Esk River	66 +/- 36	228 +/- 93	114 +/- 77	45 +/- 44	-	-	-	453 +/- 134

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
Tutaekuri	Tutaekuri River	1044 +/- 313	1577 +/- 451	782 +/- 231	332 +/- 119	425 +/- 246	289 +/- 194	-	4449 +/- 684
	Twin Lakes	1 +/- 1	1 +/- 1	-	60 +/- 60	-	-	-	62 +/- 60
	Mangaone River	141 +/- 96	79 +/- 50	27 +/- 27	22 +/- 22	-	-	-	269 +/- 113
	Mangatutu Stream	52 +/- 43	35 +/- 21	55 +/- 43	22 +/- 22	-	22 +/- 22	-	186 +/- 71
Tutaekuri	Total	1238 +/- 331	1692 +/- 455	864 +/- 236	436 +/- 137	425 +/- 246	311 +/- 195	-	4966 +/- 699
Ngaruroro	Ngaruroro River above Taruarau confluence	544 +/- 171	789 +/- 256	136 +/- 40	92 +/- 62	224 +/- 224	29 +/- 22	-	1814 +/- 389
	Ngaruroro River below Taruarau confluence	358 +/- 84	687 +/- 191	518 +/- 150	938 +/- 745	11 +/- 7	45 +/- 31	-	2557 +/- 789
	Tutaekuri Waimate Stream	125 +/- 76	-	-	-	-	-	-	125 +/- 76
	Mangatarata Stream	-	20 +/- 20	-	-	-	-	-	20 +/- 20
	Mangatahi Stream	-	15 +/- 15	-	-	-	-	-	15 +/- 15
	Ohara Stream	200 +/- 111	103 +/- 50	41 +/- 41	132 +/- 82	-	-	-	476 +/- 153
	Taruarau River	83 +/- 43	28 +/- 21	30 +/- 24	-	-	-	-	141 +/- 54
	Ikawetea Stream	2 +/- 2	-	-	-	-	-	-	2 +/- 2
	Ngaawapurua Stream	39 +/- 39	1 +/- 1	68 +/- 56	-	-	-	-	108 +/- 69
Ngaruroro	Total	1351 +/- 240	1643 +/- 325	793 +/- 172	1162 +/- 752	235 +/- 224	74 +/- 38	-	5258 +/- 900
Tukituki	Tukituki River above Waipawa confluence	910 +/- 341	729 +/- 260	348 +/- 151	732 +/- 222	51 +/- 39	45 +/- 31	-	2815 +/- 509
	Tukituki River Waipawa to Patangata	277 +/- 86	1231 +/- 335	512 +/- 169	790 +/- 364	284 +/- 227	75 +/- 67	8 +/- 8	3177 +/- 581
	Tukituki River below Patangata	782 +/- 389	1014 +/- 326	1103 +/- 350	563 +/- 263	319 +/- 272	662 +/- 385	2 +/- 2	4445 +/- 820
	Waipawa River	375 +/- 234	1081 +/- 578	189 +/- 140	381 +/- 214	157 +/- 120	359 +/- 294	-	2542 +/- 745
	Mangaonuku Stream	15 +/- 15	20 +/- 20	5 +/- 5	-	-	-	-	40 +/- 25
	Mangamauku Stream	-	20 +/- 20	-	-	-	-	-	20 +/- 20
	Makaroro River	73 +/- 73	11 +/- 10	6 +/- 6	-	6 +/- 6	-	-	96 +/- 74
	Mangataura Stream	83 +/- 83	-	-	-	-	-	-	83 +/- 83
Tukipo River	130 +/- 84	74 +/- 59	68 +/- 56	23 +/- 22	-	-	-	295 +/- 119	

Catchment	Angling water	New Zealand residents					Overseas		Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
	Makaretu River	-	-	-	-	22 +/- 22	-	-	22 +/- 22
	Mangatewai River	15 +/- 15	-	-	-	-	-	-	15 +/- 15
Tukituki	Total	2660 +/- 592	4180 +/- 790	2231 +/- 443	2489 +/- 546	839 +/- 377	1141 +/- 490	10 +/- 8	13550 +/- 1360
Maraetotara	Maraetotara River	37 +/- 37	29 +/- 22	-	1 +/- 1	-	-	-	67 +/- 43

## Wellington

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
Pahaoa	Pahaoa River	-	43 +/- 30	-	-	-	-	-	43 +/- 30
Ruamahanga	Lake Onoke	-	-	-	37 +/- 37	-	-	-	37 +/- 37
	Ruamahanga River above Mount Bruce	15 +/- 15	171 +/- 102	39 +/- 39	-	-	-	-	225 +/- 110
	Ruamahanga River Mount Bruce to Masterton	108 +/- 67	198 +/- 182	37 +/- 35	147 +/- 147	-	-	-	490 +/- 246
	Ruamahanga River Masterton to Martinborough	403 +/- 196	722 +/- 213	574 +/- 268	587 +/- 267	62 +/- 44	-	2 +/- 2	2350 +/- 479
	Ruamahanga River Martinborough to Lake Onoke	251 +/- 91	241 +/- 131	2 +/- 2	103 +/- 66	-	-	-	597 +/- 173
	Lake Henley	29 +/- 29	-	508 +/- 350	-	-	-	-	537 +/- 351
	Kourarau Dam	10 +/- 10	-	-	-	-	-	-	10 +/- 10
	Oporua Spillway	-	-	-	100 +/- 100	-	-	-	100 +/- 100
	Lake Wairarapa	3 +/- 2	482 +/- 230	3 +/- 2	41 +/- 40	62 +/- 62	-	-	591 +/- 241
	Tauherenikau River	1 +/- 1	69 +/- 68	1 +/- 1	2 +/- 2	-	-	-	73 +/- 68
	Huangarua River	15 +/- 15	11 +/- 11	-	-	-	-	-	26 +/- 19
	Waiohine River	68 +/- 44	95 +/- 72	1 +/- 1	20 +/- 20	62 +/- 62	-	-	246 +/- 106
	Mangatarere Stream	-	-	19 +/- 19	-	-	-	-	19 +/- 19
	Waingawa River	44 +/- 33	68 +/- 42	80 +/- 78	2 +/- 2	-	-	-	194 +/- 94
	Atiwhakatu Stream	-	1 +/- 1	-	1 +/- 1	-	-	-	2 +/- 2
	Kopuaranga River	-	34 +/- 34	-	20 +/- 20	-	-	-	54 +/- 39
Ruamahanga	Total	947 +/- 236	2092 +/- 414	1264 +/- 451	1060 +/- 333	186 +/- 98	-	2 +/- 2	5551 +/- 743
Wainuiomata	Wainuiomata River	102 +/- 67	311 +/- 113	274 +/- 200	201 +/- 144	-	-	-	888 +/- 279
Hutt	Hutt River	1645 +/- 363	1351 +/- 511	2017 +/- 753	970 +/- 388	495 +/- 210	139 +/- 87	-	6617 +/- 1078
	Whakatikei River	-	34 +/- 25	-	-	-	-	-	34 +/- 25
	Akatarawa River	-	1 +/- 1	-	18 +/- 18	-	-	-	19 +/- 18
	Akatarawa River West	-	23 +/- 23	-	-	-	-	-	23 +/- 23

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
	Mangaroa River	25 +/- 25	-	19 +/- 19	22 +/- 22	-	-	-	66 +/- 39
	Pakuratahi River	30 +/- 29	26 +/- 16	78 +/- 78	80 +/- 63	-	-	-	214 +/- 106
Hutt	Total	1700 +/- 365	1435 +/- 512	2114 +/- 757	1090 +/- 394	495 +/- 210	139 +/- 87	-	6973 +/- 1084
Pauatahanui	Pauatahanui Stream	15 +/- 15	-	-	-	-	-	-	15 +/- 15
	Whitby Lakes	1 +/- 1	66 +/- 47	97 +/- 97	221 +/- 220	-	-	-	385 +/- 245
Pauatahanui	Total	16 +/- 15	66 +/- 47	97 +/- 97	221 +/- 220	-	-	-	400 +/- 246
Horokiwi	Horokiwi Stream	-	-	-	18 +/- 18	-	-	-	18 +/- 18
Wainui	Wainui Stream	-	-	39 +/- 39	-	-	-	-	39 +/- 39
Waikanae	Waikanae River	93 +/- 47	23 +/- 23	20 +/- 19	40 +/- 40	-	-	-	176 +/- 69
Otaki	Otaki River	198 +/- 88	43 +/- 26	137 +/- 93	23 +/- 20	-	52 +/- 37	-	453 +/- 137
	Waiotauru River	-	1 +/- 1	-	-	-	-	-	1 +/- 1
Otaki	Total	198 +/- 88	44 +/- 26	137 +/- 93	23 +/- 20	-	52 +/- 37	-	454 +/- 137
	Lake Waitawa	15 +/- 15	409 +/- 252	156 +/- 156	320 +/- 193	309 +/- 255	91 +/- 91	-	1300 +/- 445
Waikawa	Waikawa Stream	146 +/- 120	-	-	-	-	-	-	146 +/- 120
Ohau	Ohau River	119 +/- 69	144 +/- 89	583 +/- 583	-	-	364 +/- 364	-	1210 +/- 697
Manawatu	Manawatu River above Dannevirke	1 +/- 1	485 +/- 239	359 +/- 358	145 +/- 64	31 +/- 31	-	-	1021 +/- 436
	Manawatu River Dannevirke to Woodville	721 +/- 217	949 +/- 339	614 +/- 225	765 +/- 341	31 +/- 31	61 +/- 61	-	3141 +/- 578
	Manawatu River Woodville to Palmerston North	338 +/- 178	363 +/- 133	644 +/- 548	407 +/- 169	31 +/- 31	455 +/- 375	-	2238 +/- 721
	Manawatu River Palmerston North to Foxton	79 +/- 58	635 +/- 178	237 +/- 125	27 +/- 20	15 +/- 15	-	5 +/- 5	998 +/- 227
	Hokowhitu Lagoon	115 +/- 98	45 +/- 45	233 +/- 233	-	-	364 +/- 364	-	757 +/- 446
	Tokomaru River	29 +/- 21	20 +/- 20	-	-	-	-	-	49 +/- 28
	Oroua River	135 +/- 56	117 +/- 68	431 +/- 390	29 +/- 20	-	-	-	712 +/- 400
	Turitea Stream	-	2 +/- 2	-	-	-	-	-	2 +/- 2
	Pohangina River	216 +/- 68	649 +/- 178	317 +/- 147	146 +/- 69	-	196 +/- 164	2 +/- 2	1526 +/- 299

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
	Makiekie Creek	-	1 +/- 1	-	-	-	-	-	1 +/- 1
	Mangahao River	58 +/- 32	101 +/- 61	194 +/- 194	1 +/- 1	93 +/- 93	15 +/- 15	-	462 +/- 227
	Mangatainoka River	330 +/- 162	737 +/- 357	404 +/- 197	337 +/- 263	93 +/- 93	71 +/- 37	-	1972 +/- 521
	Makuri River	-	136 +/- 80	233 +/- 173	-	-	-	-	369 +/- 191
	Mangaone River	-	21 +/- 15	19 +/- 19	80 +/- 80	-	30 +/- 30	-	150 +/- 89
Manawatu	Total	2022 +/- 357	4261 +/- 631	3685 +/- 911	1937 +/- 480	294 +/- 143	1192 +/- 553	7 +/- 5	13398 +/- 1383
Rangitikei	Rangitikei River above Mangaohane Bridge	320 +/- 92	673 +/- 198	390 +/- 179	29 +/- 17	-	18 +/- 18	-	1430 +/- 284
	Rangitikei River Mangaohane Bridge to Vinegar Hill	143 +/- 45	2959 +/- 1166	1054 +/- 417	173 +/- 67	16 +/- 12	15 +/- 15	-	4360 +/- 1241
	Rangitikei River Vinegar Hill to Tangimoana	915 +/- 454	781 +/- 216	942 +/- 419	86 +/- 42	11 +/- 8	61 +/- 61	-	2796 +/- 659
	Mangawharariki River	-	6 +/- 5	-	-	-	-	-	6 +/- 5
	Kawhatau River	16 +/- 15	47 +/- 36	6 +/- 5	1 +/- 1	15 +/- 11	-	-	85 +/- 41
	Pourangaki River	-	11 +/- 11	-	-	-	-	-	11 +/- 11
	Hautapu River	15 +/- 10	57 +/- 28	249 +/- 214	-	-	-	-	321 +/- 216
	Moawhango River	-	-	44 +/- 27	-	-	-	-	44 +/- 27
	Whakaurekou River	-	-	41 +/- 39	-	-	-	-	41 +/- 39
	Mangaohane Stream	-	18 +/- 18	-	-	-	-	-	18 +/- 18
	Mangamaire River	15 +/- 15	-	-	-	-	-	-	15 +/- 15
Rangitikei	Total	1424 +/- 466	4552 +/- 1203	2726 +/- 655	289 +/- 81	42 +/- 18	94 +/- 65	-	9127 +/- 1451
Kaitoke	Kaitoke Stream	2 +/- 2	35 +/- 34	19 +/- 19	-	-	-	-	56 +/- 39
Pahaoa	Pahaoa River	-	43 +/- 30	-	-	-	-	-	43 +/- 30

## Nelson/Marlborough

Catchment	Angling water	New Zealand residents						Overseas		Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep		
Aorere	Aorere River	23 +/- 21	15 +/- 9	-	2 +/- 2	-	-	-	40 +/- 23	
Takaka	Takaka River above Lindsays Bridge	29 +/- 29	143 +/- 118	-	-	-	-	-	172 +/- 122	
	Takaka River below Lindsays Bridge	29 +/- 29	-	-	-	-	-	-	29 +/- 29	
	Anatoki River	-	1 +/- 1	-	-	-	-	-	1 +/- 1	
	Waingaro River	-	14 +/- 14	-	-	-	-	-	14 +/- 14	
	Cobb River	137 +/- 96	18 +/- 13	13 +/- 10	43 +/- 41	-	-	-	211 +/- 105	
	Cobb Reservoir	141 +/- 96	64 +/- 42	2 +/- 2	6 +/- 2	-	-	-	213 +/- 105	
	Total	336 +/- 141	240 +/- 127	15 +/- 10	49 +/- 41	-	-	-	640 +/- 195	
Riwaka	Riwaka River	-	50 +/- 38	45 +/- 45	41 +/- 41	-	-	-	136 +/- 72	
	Riwaka River South Branch	-	112 +/- 112	20 +/- 20	-	-	-	-	132 +/- 114	
Riwaka	Total	-	162 +/- 118	65 +/- 49	41 +/- 41	-	-	-	268 +/- 134	
Motueka	Motueka River above Wangapeka	629 +/- 313	955 +/- 436	529 +/- 377	182 +/- 122	33 +/- 33	-	-	2328 +/- 668	
	Motueka River below Wangapeka	452 +/- 286	1549 +/- 583	873 +/- 308	236 +/- 105	50 +/- 36	487 +/- 250	-	3647 +/- 769	
	Graham River	15 +/- 15	42 +/- 42	-	-	-	-	-	57 +/- 45	
	Pearse River	-	28 +/- 28	-	-	-	-	-	28 +/- 28	
	Dove River	15 +/- 15	-	-	-	-	-	-	15 +/- 15	
	Baton River	30 +/- 21	103 +/- 58	40 +/- 28	20 +/- 20	-	-	-	193 +/- 70	
	Wangapeka River	120 +/- 59	482 +/- 184	114 +/- 66	49 +/- 35	63 +/- 63	-	-	828 +/- 217	
	Motupiko River	75 +/- 75	40 +/- 30	-	1 +/- 1	-	-	-	116 +/- 81	
	Total	1336 +/- 436	3199 +/- 755	1556 +/- 492	488 +/- 166	146 +/- 80	487 +/- 250	-	7212 +/- 1048	
Waimea	Waimea River	185 +/- 125	666 +/- 456	385 +/- 301	238 +/- 121	40 +/- 33	70 +/- 62	-	1584 +/- 578	
	Waimea River Park Pond Waimea River Park Fishing Ponds	342 +/- 117	601 +/- 234	98 +/- 58	178 +/- 116	67 +/- 52	516 +/- 240	-	1802 +/- 382	



Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
	Waiiti River	-	-	20 +/- 20	289 +/- 289	-	-	-	309 +/- 289
	Wairoa River Nelson	-	74 +/- 63	-	166 +/- 116	-	-	-	240 +/- 132
Waimea	Total	527 +/- 171	1341 +/- 516	503 +/- 308	871 +/- 354	107 +/- 61	586 +/- 248	-	3935 +/- 762
Maitai	Maitai River	66 +/- 60	-	-	-	-	-	-	66 +/- 60
Wakapuaka	Wakapuaka River	-	28 +/- 27	49 +/- 35	-	-	-	-	77 +/- 44
Whangamo	Whangamo River	-	41 +/- 31	-	16 +/- 16	-	-	-	57 +/- 35
Pelorus	Pelorus River above Pelorus Bridge	70 +/- 48	228 +/- 210	31 +/- 30	2 +/- 2	8 +/- 8	-	-	339 +/- 218
	Pelorus River below Pelorus Bridge	160 +/- 73	8 +/- 3	25 +/- 20	126 +/- 87	189 +/- 117	31 +/- 31	-	539 +/- 167
	Wakamarina River	1 +/- 1	3 +/- 2	-	-	-	-	-	4 +/- 2
	Rai River	193 +/- 144	228 +/- 108	30 +/- 20	57 +/- 44	-	-	-	508 +/- 186
	Opouri River	87 +/- 86	56 +/- 56	-	-	-	-	-	143 +/- 103
Pelorus	Total	511 +/- 189	523 +/- 243	86 +/- 41	185 +/- 98	197 +/- 117	31 +/- 31	-	1533 +/- 348
Wairau	Wairau River above Wash Bridge	178 +/- 85	1166 +/- 436	182 +/- 172	890 +/- 732	-	-	-	2416 +/- 874
	Wairau River below Wash Bridge salmon	3 +/- 2	340 +/- 164	420 +/- 532	235 +/- 207	-	25 +/- 12	-	1023 +/- 594
	Wairau River below Wash Bridge trout	225 +/- 92	1483 +/- 566	401 +/- 221	949 +/- 387	-	434 +/- 271	12 +/- 12	3504 +/- 775
	Roses Overflow	30 +/- 30	-	-	-	-	-	-	30 +/- 30
	Wairau Diversion	45 +/- 45	115 +/- 86	196 +/- 196	6 +/- 6	-	175 +/- 134	-	537 +/- 256
	Opawa River	9 +/- 9	28 +/- 28	-	-	-	31 +/- 31	-	68 +/- 43
	Taylor River	74 +/- 74	-	-	-	-	-	-	74 +/- 74
	Spring Creek	15 +/- 15	25 +/- 18	142 +/- 142	1 +/- 1	-	-	-	183 +/- 144
	Waihopai River	-	25 +/- 18	-	-	-	-	-	25 +/- 18
	Bartletts Creek	60 +/- 42	-	-	-	-	-	-	60 +/- 42
	Top Valley Stream	-	-	1 +/- 1	-	-	-	-	1 +/- 1
	Goulter River	15 +/- 15	98 +/- 66	20 +/- 20	-	-	-	-	133 +/- 70

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
	Branch River	133 +/- 83	133 +/- 48	281 +/- 131	245 +/- 131	-	-	-	792 +/- 208
	Argyle Lake	964 +/- 227	2262 +/- 462	579 +/- 273	1090 +/- 361	174 +/- 114	667 +/- 336	12 +/- 12	5748 +/- 772
	Leatham River	170 +/- 68	469 +/- 231	39 +/- 39	63 +/- 46	-	-	-	741 +/- 248
	Rainbow River	60 +/- 60	66 +/- 34	137 +/- 137	41 +/- 41	95 +/- 95	-	-	399 +/- 185
	Fish Lake	-	-	235 +/- 235	-	32 +/- 32	-	-	267 +/- 237
Wairau	Total	1981 +/- 305	6210 +/- 906	2633 +/- 767	3520 +/- 938	301 +/- 151	1332 +/- 453	24 +/- 17	16001 +/- 1616
Awatere	Awatere River	-	25 +/- 18	9 +/- 9	-	-	-	-	34 +/- 20
Blind	Blind River	-	-	20 +/- 20	-	-	-	-	20 +/- 20
Clarence/Waiiau Toa	ClarenceWaiiau Toa River above Acheron	124 +/- 123	100 +/- 51	79 +/- 62	239 +/- 215	-	-	-	542 +/- 261
	ClarenceWaiiau Toa River below Acheron salmon	59 +/- 41	134 +/- 90	543 +/- 252	50 +/- 49	-	-	-	786 +/- 276
	ClarenceWaiiau Toa River below Acheron trout	182 +/- 109	814 +/- 434	415 +/- 222	117 +/- 62	-	-	-	1528 +/- 504
	Acheron River	2 +/- 2	207 +/- 207	13 +/- 13	-	-	-	-	222 +/- 207
	Severn River	-	14 +/- 14	-	-	-	-	-	14 +/- 14
	Alma River	91 +/- 91	-	78 +/- 78	-	-	-	-	169 +/- 120
	Bowscale Tarn	1 +/- 1	-	-	-	-	-	-	1 +/- 1
	Lake Tennyson	2 +/- 2	47 +/- 37	81 +/- 76	9 +/- 3	-	-	-	139 +/- 85
Clarence/Waiiau Toa	Total	461 +/- 192	1316 +/- 493	1209 +/- 359	415 +/- 229	-	-	-	3401 +/- 680
Conway	Conway River	37 +/- 29	28 +/- 26	44 +/- 28	-	-	-	-	109 +/- 48
Buller	Buller River Rotoiti to Gowan	135 +/- 96	133 +/- 70	12 +/- 10	1 +/- 1	-	17 +/- 11	-	298 +/- 119
	Buller River Gowan to Lyell	139 +/- 82	438 +/- 393	50 +/- 28	21 +/- 21	-	-	-	648 +/- 403
	Deepdale River	37 +/- 23	-	-	-	-	-	-	37 +/- 23
	Maruia River	118 +/- 53	163 +/- 77	40 +/- 39	37 +/- 37	-	-	-	358 +/- 108
	Lake Daniells	52 +/- 33	17 +/- 4	78 +/- 76	1 +/- 1	8 +/- 8	6 +/- 6	-	162 +/- 84
	Woolley River	300 +/- 300	-	-	-	-	-	-	300 +/- 300

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
Rahu River		29 +/- 29	-	-	-	-	-	-	29 +/- 29
Matiri River		-	39 +/- 22	-	-	-	-	-	39 +/- 22
Matakitaki River		75 +/- 75	99 +/- 70	77 +/- 70	282 +/- 245	-	-	-	533 +/- 274
Six Mile Creek		-	14 +/- 14	-	-	-	-	-	14 +/- 14
Mangles River		-	28 +/- 20	-	-	-	-	-	28 +/- 20
Owen River		75 +/- 52	193 +/- 95	77 +/- 76	-	-	-	-	345 +/- 132
Fyfe River		-	-	38 +/- 38	-	-	-	-	38 +/- 38
Gowan River		15 +/- 15	226 +/- 224	-	7 +/- 6	-	-	-	248 +/- 224
Lake Rotoroa		786 +/- 373	252 +/- 135	108 +/- 58	47 +/- 29	25 +/- 19	8 +/- 8	-	1226 +/- 402
Sabine River		30 +/- 30	3 +/- 3	-	21 +/- 21	-	-	-	54 +/- 36
D`Urville River		-	-	-	20 +/- 20	-	-	-	20 +/- 20
Hope River		60 +/- 60	70 +/- 50	98 +/- 98	-	64 +/- 64	-	-	292 +/- 141
Howard River		15 +/- 15	-	-	-	-	-	-	15 +/- 15
Lake Rotoiti Nelson Lk		182 +/- 68	331 +/- 106	523 +/- 285	147 +/- 124	16 +/- 11	70 +/- 62	-	1269 +/- 341
Travers River		237 +/- 137	42 +/- 31	20 +/- 20	-	-	-	-	299 +/- 142

## West Coast

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
Awarua	Awarua River	-	78 +/- 78	76 +/- 76	-	-	-	-	154 +/- 109
Cascade	Cascade River	-	-	179 +/- 179	-	-	-	-	179 +/- 179
	Jackson River	-	2 +/- 2	-	1 +/- 1	-	-	-	3 +/- 2
	Lake Ellery	-	-	-	90 +/- 82	-	-	-	90 +/- 82
Waiatoto	Waiatoto River	25 +/- 25	-	-	-	-	-	-	25 +/- 25
Okuru	Okuru River	-	20 +/- 19	122 +/- 122	-	-	-	-	142 +/- 124
Haast	Haast River	65 +/- 103	538 +/- 368	254 +/- 143	141 +/- 242	1267 +/- 1267	66 +/- 66	-	2331 +/- 1355
	Landsborough River	-	34 +/- 34	-	-	-	-	-	34 +/- 34
	Burke River	-	34 +/- 34	-	-	-	-	-	34 +/- 34
Haast	Total	65 +/- 103	606 +/- 372	254 +/- 143	141 +/- 242	1267 +/- 1267	66 +/- 66	-	2399 +/- 1356
Moeraki	Lake Moeraki	6 +/- 6	75 +/- 54	328 +/- 343	-	-	-	-	409 +/- 347
	Moeraki River	120 +/- 81	-	-	-	-	-	-	120 +/- 81
Moeraki	Total	126 +/- 82	75 +/- 54	328 +/- 343	-	-	-	-	529 +/- 357
Paringa	Paringa River	-	-	197 +/- 115	-	-	-	-	197 +/- 115
	Lake Paringa	201 +/- 201	72 +/- 44	1176 +/- 749	2 +/- 2	5 +/- 5	-	-	1456 +/- 776
Paringa	Total	201 +/- 201	72 +/- 44	1373 +/- 757	2 +/- 2	5 +/- 5	-	-	1653 +/- 785
Mahitahi	Mahitahi River	-	1 +/- 1	-	-	-	-	-	1 +/- 1
Manakaiaua	Manakaiaua River	39 +/- 46	-	-	316 +/- 260	-	-	-	355 +/- 264
Karangarua	Karangarua River	-	-	-	2 +/- 2	5 +/- 5	-	-	7 +/- 5
Cook	Cook River	-	97 +/- 97	-	-	-	-	-	97 +/- 97
	Hare Mare Creek	81 +/- 44	-	76 +/- 76	-	-	-	-	157 +/- 88
Omoeroa	Omoeroa River	-	-	-	-	45 +/- 45	-	-	45 +/- 45
Waiho	Waiho River	29 +/- 29	15 +/- 15	10 +/- 10	-	-	-	-	54 +/- 34

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
Okarito	Okarito River	6 +/- 6	20 +/- 19	-	1 +/- 1	-	66 +/- 66	-	93 +/- 69
	Okarito Lagoon	1 +/- 1	27 +/- 20	185 +/- 119	3 +/- 2	45 +/- 45	151 +/- 151	-	412 +/- 198
	Lake Wahapo	-	-	-	-	-	15 +/- 15	-	15 +/- 15
	Lake Mapourika	135 +/- 128	223 +/- 101	927 +/- 494	12 +/- 4	144 +/- 135	71 +/- 33	-	1512 +/- 539
Okarito	Total	142 +/- 128	270 +/- 105	1112 +/- 508	16 +/- 4	189 +/- 142	303 +/- 168	-	2032 +/- 578
Waitangi-taona	Waitangitaona River	162 +/- 128	26 +/- 16	-	15 +/- 15	-	-	-	203 +/- 130
Whataroa	Whataroa River	-	19 +/- 19	-	681 +/- 681	-	-	-	700 +/- 682
	Perth River	63 +/- 47	-	-	-	-	-	-	63 +/- 47
	Butler River	-	-	1 +/- 1	-	-	-	-	1 +/- 1
Whataroa	Total	63 +/- 47	19 +/- 19	1 +/- 1	681 +/- 681	-	-	-	764 +/- 683
Wanganui	Wanganui River	110 +/- 81	93 +/- 50	135 +/- 102	103 +/- 68	30 +/- 30	30 +/- 30	-	501 +/- 161
	La Fontaine Stream	-	21 +/- 12	-	106 +/- 92	-	-	-	127 +/- 93
	Lake Ianthe	149 +/- 94	150 +/- 67	80 +/- 50	3 +/- 2	30 +/- 30	256 +/- 241	-	668 +/- 274
	Berry Creek	-	6 +/- 6	-	-	-	-	-	6 +/- 6
Wanganui	Total	259 +/- 124	270 +/- 85	215 +/- 114	212 +/- 114	60 +/- 42	286 +/- 243	-	1302 +/- 331
Waitaha	Waitaha River	114 +/- 168	71 +/- 115	77 +/- 76	-	-	181 +/- 181	-	443 +/- 283
	Kakapotahi River	-	-	-	1 +/- 1	-	-	-	1 +/- 1
Waitaha	Total	114 +/- 168	71 +/- 115	77 +/- 76	1 +/- 1	-	181 +/- 181	-	444 +/- 283
Mikonui	Mikonui River	42 +/- 42	65 +/- 53	-	-	-	-	-	107 +/- 68
Totara	Totara River near Ross	6 +/- 6	129 +/- 100	95 +/- 95	41 +/- 41	-	-	-	271 +/- 144
Mahinapua	Mahinapua Creek	-	67 +/- 65	38 +/- 30	-	-	-	-	105 +/- 71
Hokitika	Hokitika River	520 +/- 264	1010 +/- 953	317 +/- 401	396 +/- 250	321 +/- 321	377 +/- 240	-	2941 +/- 1167
	Lake Mahinapua	61 +/- 47	73 +/- 45	127 +/- 98	45 +/- 34	30 +/- 30	8 +/- 8	-	344 +/- 126
	Kaniere River	-	-	9 +/- 9	-	-	-	-	9 +/- 9

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
	Lake Kaniere	94 +/- 81	183 +/- 196	5 +/- 2	4 +/- 2	42 +/- 29	-	-	328 +/- 214
	Kokatahi River	-	287 +/- 202	-	-	-	-	-	287 +/- 202
	Harris Creek	73 +/- 124	28 +/- 28	142 +/- 142	-	-	-	-	243 +/- 191
	Murray Creek	-	-	9 +/- 9	-	-	-	-	9 +/- 9
	Toaroha River	-	13 +/- 13	-	-	-	-	-	13 +/- 13
	Styx River	-	6 +/- 6	-	-	-	-	-	6 +/- 6
Hokitika	Total	748 +/- 307	1600 +/- 996	609 +/- 437	445 +/- 252	393 +/- 324	385 +/- 240	-	4180 +/- 1226
Arahura	Arahura River	50 +/- 32	141 +/- 104	66 +/- 66	-	-	-	-	257 +/- 127
	Kawhaka Hydro	37 +/- 37	78 +/- 78	9 +/- 9	1 +/- 1	-	15 +/- 15	-	140 +/- 88
	Kawhaka Creek	-	-	9 +/- 9	-	-	-	-	9 +/- 9
Arahura	Total	87 +/- 49	219 +/- 130	84 +/- 68	1 +/- 1	-	15 +/- 15	-	406 +/- 155
Taramakau	Taramakau River	243 +/- 164	668 +/- 454	436 +/- 351	411 +/- 312	32 +/- 32	75 +/- 54	-	1865 +/- 676
	Kapitea Dillmans D Reservoir	-	-	11 +/- 10	-	-	-	-	11 +/- 10
	Taipo River	1 +/- 1	-	-	-	-	-	-	1 +/- 1
	Bruce Creek	-	8 +/- 7	57 +/- 47	121 +/- 121	-	-	-	186 +/- 130
Taramakau	Total	244 +/- 164	676 +/- 454	504 +/- 354	532 +/- 335	32 +/- 32	75 +/- 54	-	2063 +/- 688
New	New River	56 +/- 56	-	-	-	-	-	-	56 +/- 56
Grey	Grey River above Ikamatua	417 +/- 271	482 +/- 263	520 +/- 418	294 +/- 293	94 +/- 100	-	-	1807 +/- 642
	Grey River below Ikamatua	447 +/- 568	1245 +/- 636	606 +/- 292	586 +/- 296	60 +/- 42	135 +/- 161	-	3079 +/- 963
	Lake Haupiri	86 +/- 50	-	9 +/- 9	-	-	-	-	95 +/- 51
	Lake Hochstetter	29 +/- 29	-	-	-	-	-	-	29 +/- 29
	Lady Lake	29 +/- 29	-	-	-	-	-	-	29 +/- 29
	Arnold River Lake Brunner to dam	337 +/- 255	220 +/- 158	20 +/- 19	147 +/- 146	5 +/- 5	45 +/- 45	-	774 +/- 338
	Arnold River Dam to Stillwater	153 +/- 194	131 +/- 165	182 +/- 127	176 +/- 91	4 +/- 4	60 +/- 60	-	706 +/- 305

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
	Lake Brunner	1279 +/- 332	5319 +/- 1850	1785 +/- 966	1405 +/- 585	779 +/- 393	1717 +/- 1067	4 +/- 4	12288 +/- 2470
	Crooked River	84 +/- 70	428 +/- 167	155 +/- 158	209 +/- 118	-	-	-	876 +/- 267
	Lake Poerua	31 +/- 29	129 +/- 110	281 +/- 163	16 +/- 15	-	-	-	457 +/- 199
	Kangaroo Lake	18 +/- 18	-	-	-	-	-	-	18 +/- 18
	Poerua River Brunner	35 +/- 28	-	-	-	-	-	-	35 +/- 28
	Orangipuku River	-	156 +/- 112	28 +/- 28	146 +/- 146	-	-	-	330 +/- 186
	Blackball Creek	31 +/- 26	-	20 +/- 20	-	-	-	-	51 +/- 32
	Nelson Creek	-	78 +/- 51	1 +/- 1	-	-	-	-	79 +/- 51
	Moonlight Creek	12 +/- 12	19 +/- 19	19 +/- 19	-	-	-	-	50 +/- 30
	Lake Ahaura	1 +/- 1	-	-	-	-	-	-	1 +/- 1
	Ahaura River	19 +/- 19	9 +/- 7	250 +/- 126	1 +/- 1	-	-	-	279 +/- 127
	Hauptiri River	76 +/- 57	92 +/- 53	76 +/- 54	26 +/- 26	-	-	-	270 +/- 98
	Waikiti River	684 +/- 684	-	-	-	-	-	-	684 +/- 684
	Trent River	12 +/- 12	-	-	-	-	-	-	12 +/- 12
	Big River	15 +/- 15	6 +/- 6	-	-	-	-	-	21 +/- 16
	Rough River	46 +/- 33	13 +/- 13	-	-	-	-	-	59 +/- 35
	Mawheraiti River	54 +/- 83	70 +/- 70	38 +/- 38	-	-	-	-	162 +/- 115
	Robinson River	16 +/- 15	-	-	-	-	-	-	16 +/- 15
	Blue Grey River	171 +/- 97	1 +/- 1	229 +/- 161	-	-	-	-	401 +/- 188
	Brown Grey River	29 +/- 29	2 +/- 2	38 +/- 38	-	-	-	-	69 +/- 48
Grey	Total	4111 +/- 1054	8400 +/- 2002	4257 +/- 1145	3006 +/- 763	942 +/- 408	1957 +/- 1081	4 +/- 4	22677 +/- 2889
Punakaiki	Punakaiki River	29 +/- 29	1 +/- 1	-	-	-	-	-	30 +/- 29
Pororari	Pororari River	12 +/- 12	32 +/- 32	29 +/- 21	-	-	-	-	73 +/- 40

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
Fox	Fox River Paparoa	-	-	59 +/- 59	1 +/- 1	-	-	-	60 +/- 59
Waitakere	Waitakere River	12 +/- 12	6 +/- 6	-	-	-	-	-	18 +/- 14
Buller	Buller River Lyell to Westport	387 +/- 204	245 +/- 216	192 +/- 90	41 +/- 29	-	-	-	865 +/- 312
	Ohikanui River	-	21 +/- 19	-	-	-	-	-	21 +/- 19
	Blackwater River	-	4 +/- 2	-	-	-	-	-	4 +/- 2
	Inangahua River	8 +/- 6	191 +/- 78	365 +/- 573	-	90 +/- 90	-	-	654 +/- 586
	Stony Te Wharau River	-	-	-	21 +/- 21	-	-	-	21 +/- 21
	Awarau River	-	1 +/- 1	-	-	-	-	-	1 +/- 1
	Waitahu River	231 +/- 149	130 +/- 129	-	-	-	-	-	361 +/- 197
	Montgomerie River	-	27 +/- 27	-	-	-	-	-	27 +/- 27
	Buller	Total	626 +/- 253	619 +/- 266	557 +/- 581	62 +/- 36	90 +/- 90	-	-
Mokihinui	Mokihinui River above Rough and Tumble Creek	62 +/- 62	193 +/- 123	491 +/- 385	3 +/- 2	-	-	-	749 +/- 409
	Mokihinui River below Rough and Tumble Creek	44 +/- 27	593 +/- 331	19 +/- 19	-	-	-	-	656 +/- 332
Mokihinui	Total	106 +/- 68	786 +/- 353	510 +/- 386	3 +/- 2	-	-	-	1405 +/- 527
Little Wanganui	Little Wanganui River	-	6 +/- 6	-	-	-	-	-	6 +/- 6
Karamea	Karamea River above Kakapo River	123 +/- 156	2 +/- 2	145 +/- 84	-	-	-	-	270 +/- 177
	Karamea River below Kakapo River	30 +/- 30	-	-	-	-	-	-	30 +/- 30
	Ugly River	-	-	78 +/- 78	-	-	-	-	78 +/- 78
	Roaring Lion River	45 +/- 45	84 +/- 71	-	-	-	-	-	129 +/- 84
	Beautiful River	15 +/- 15	-	-	-	-	-	-	15 +/- 15
	Leslie River	42 +/- 31	-	59 +/- 59	-	-	-	-	101 +/- 67
	Crow River	-	-	58 +/- 44	-	-	-	-	58 +/- 44
Karamea	Total	255 +/- 168	86 +/- 71	340 +/- 137	-	-	-	-	681 +/- 228



Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
Oparara	Oparara River	-	-	-	37 +/- 37	-	-	-	37 +/- 37
Kohaihai	Kohaihai River	1 +/- 1	-	-	-	-	-	-	1 +/- 1
	Nile River Located by Charleston Westport	-	13 +/- 13	-	-	-	-	-	13 +/- 13
Awarua	Awarua River	-	78 +/- 78	76 +/- 76	-	-	-	-	154 +/- 109
Cascade	Cascade River	-	-	179 +/- 179	-	-	-	-	179 +/- 179

## North Canterbury

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
Waiau Uwha	Waiau Uwha River salmon	-	400 +/- 199	572 +/- 338	244 +/- 244	-	-	-	1216 +/- 462
	Waiau Uwha River trout	88 +/- 64	724 +/- 285	346 +/- 256	369 +/- 187	-	1182 +/- 1003-	-	2709 +/- 1092
	Leader River	29 +/- 29	-	-	-	-	-	-	29 +/- 29
	Hanmer River	1 +/- 1	1 +/- 1	-	-	-	-	-	2 +/- 2
	Percival River	21 +/- 21	-	-	-	-	-	-	21 +/- 21
	Hope River	58 +/- 58	213 +/- 82	48 +/- 39	148 +/- 109	-	6 +/- 6	-	473 +/- 153
	Boyle River	45 +/- 45	138 +/- 76	2 +/- 2	101 +/- 98	321 +/- 321	-	-	607 +/- 347
	Doubtful River	45 +/- 45	42 +/- 42	1 +/- 1	-	-	-	-	88 +/- 62
	Nina River	30 +/- 30	14 +/- 14	1 +/- 1	-	-	-	-	45 +/- 33
	Lewis River	-	117 +/- 89	1 +/- 1	-	-	-	-	118 +/- 89
	Henry River	46 +/- 46	-	-	-	-	-	-	46 +/- 46
	Lake Guyon	-	-	1 +/- 1	-	-	-	-	1 +/- 1
Waiau Uwha	Total	363 +/- 125	1649 +/- 379	972 +/- 426	862 +/- 340	321 +/- 321	1188 +/- 1003-	-	5355 +/- 1251
Jed	Jed River	-	26 +/- 26	-	-	-	-	-	26 +/- 26
Hurunui	Hurunui River above south branch	354 +/- 345	1071 +/- 347	226 +/- 116	53 +/- 49	-	-	-	1704 +/- 506
	Hurunui River below south branch salmon	5 +/- 2	235 +/- 78	355 +/- 265	104 +/- 98	-	-	-	699 +/- 293
	Hurunui River below south branch trout	103 +/- 78	841 +/- 342	496 +/- 459	815 +/- 627	193 +/- 143	66 +/- 66	-	2514 +/- 867
	Lake Sumner	522 +/- 230	663 +/- 247	619 +/- 430	25 +/- 18	330 +/- 265	-	-	2159 +/- 608
	Waitohi River	-	1 +/- 1	-	-	-	-	-	1 +/- 1
	Mandamus River	58 +/- 41	-	-	-	-	-	-	58 +/- 41
	Lake Sheppard	29 +/- 29	28 +/- 26	-	-	-	-	-	57 +/- 39
	Lake Taylor	58 +/- 31	111 +/- 58	79 +/- 76	6 +/- 3	5 +/- 5	72 +/- 66	-	331 +/- 120
Loch Katrine	374 +/- 258	23 +/- 23	-	9 +/- 9	-	-	-	406 +/- 260	

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
Hurunui	Total	1503 +/- 499	2973 +/- 556	1775 +/- 697	1012 +/- 636	528 +/- 301	138 +/- 93	-	7929 +/- 1244
Waipara	Waipara River	-	79 +/- 78	76 +/- 76	-	-	-	-	155 +/- 109
Ashley	Ashley River	1029 +/- 419	2214 +/- 756	197 +/- 114	218 +/- 126	193 +/- 143	558 +/- 411	-	4409 +/- 982
	Saltwater Creek	70 +/- 59	129 +/- 129	-	-	-	-	-	199 +/- 142
	Okuku River	87 +/- 64	41 +/- 31	-	-	-	-	-	128 +/- 71
	Glentui River	-	49 +/- 49	-	-	-	-	-	49 +/- 49
Ashley	Total	1186 +/- 428	2433 +/- 769	197 +/- 114	218 +/- 126	193 +/- 143	558 +/- 411	-	4785 +/- 996
				11677 +/-					20593 +/-
Waimakariri	Waimakariri River salmon	121 +/- 91	3544 +/- 756	1986	4739 +/- 1535	321 +/- 231	191 +/- 191	-	2640
	Waimakariri River trout	1408 +/- 606	4596 +/- 997	2453 +/- 500	1094 +/- 305	213 +/- 166	168 +/- 116	-	9932 +/- 1321
	The Groynes	111 +/- 57	213 +/- 165	84 +/- 76	98 +/- 60	205 +/- 151	89 +/- 84	-	800 +/- 264
	Lake Roto Kohatu	59 +/- 58	1 +/- 1	-	49 +/- 49	-	-	-	109 +/- 75
	Monopolies Pond	-	28 +/- 28	-	-	-	-	-	28 +/- 28
	Styx River	59 +/- 41	117 +/- 65	76 +/- 76	-	-	-	-	252 +/- 108
	Kaiapoi River	260 +/- 160	334 +/- 188	1650 +/- 1526	98 +/- 98	-	-	-	2342 +/- 1549
	Silverstream	-	121 +/- 85	119 +/- 118	428 +/- 428	-	33 +/- 33	-	701 +/- 453
	Kaiapoi Lakes	201 +/- 201	-	191 +/- 137	-	-	-	-	392 +/- 244
	Cam River	259 +/- 125	85 +/- 84	1525 +/- 1525	-	-	131 +/- 131	-	2000 +/- 1538
	Cust River	31 +/- 29	55 +/- 54	1601 +/- 1526	449 +/- 428	-	-	-	2136 +/- 1586
	Ohoka Stream	-	14 +/- 14	-	-	-	-	-	14 +/- 14
	Waimakariri South Branch	279 +/- 149	772 +/- 301	528 +/- 270	99 +/- 57	135 +/- 135	15 +/- 15	-	1828 +/- 455
	Broken River	218 +/- 102	423 +/- 171	147 +/- 97	52 +/- 49	-	-	-	840 +/- 227
	Lake Pearson	169 +/- 66	555 +/- 177	96 +/- 55	141 +/- 95	10 +/- 7	92 +/- 67	-	1063 +/- 229
	Winding Creek	-	6 +/- 6	-	-	-	-	-	6 +/- 6
	Porter River	60 +/- 41	54 +/- 37	22 +/- 20	-	-	-	-	136 +/- 58

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
	Poulter River	86 +/- 86	152 +/- 112	-	49 +/- 49	-	-	-	287 +/- 150
	Lake Minchin	-	69 +/- 1	1 +/- 1	-	-	-	-	70 +/- 2
	Lake Sarah	-	78 +/- 58	1 +/- 1	-	-	-	-	79 +/- 58
	Lake Grasmere	145 +/- 104	884 +/- 529	7 +/- 3	38 +/- 37	-	-	-	1074 +/- 540
	Lake Hawdon	1 +/- 1	-	2 +/- 2	99 +/- 98	-	-	-	102 +/- 98
	Bealey River	2 +/- 2	-	-	-	-	-	-	2 +/- 2
Waimakariri	Total	3469 +/- 723	12101 +/- 1448	20180 +/- 3362	7433 +/- 1690	884 +/- 349	719 +/- 283	-	44786 +/- 4121
Avon	Avon River	-	551 +/- 603	114 +/- 114	257 +/- 257	-	-	-	922 +/- 665
	Heathcote River	30 +/- 29	2 +/- 2	-	-	-	-	-	32 +/- 29
	Wairarapa Stream	-	-	19 +/- 19	-	-	-	-	19 +/- 19
Avon	Total	30 +/- 29	553 +/- 603	133 +/- 116	257 +/- 257	-	-	-	973 +/- 666
	Lake Forsyth	196 +/- 129	627 +/- 392	156 +/- 152	1 +/- 1	69 +/- 64	66 +/- 66	-	1115 +/- 449
	Okana River	58 +/- 58	-	-	-	-	-	-	58 +/- 58
	Okuti River	29 +/- 29	-	-	-	-	-	-	29 +/- 29
	Kaituna River	-	52 +/- 52	-	-	-	-	-	52 +/- 52
Halswell	Halswell River	271 +/- 178	236 +/- 165	-	49 +/- 49	-	131 +/- 93	-	687 +/- 265
L II	L II River	196 +/- 124	285 +/- 215	-	244 +/- 244	-	-	-	725 +/- 348
Selwyn	Selwyn River	460 +/- 312	210 +/- 146	1 +/- 1	296 +/- 249	-	-	-	967 +/- 425
Harts	Harts Creek	60 +/- 41	158 +/- 110	114 +/- 85	29 +/- 27	-	-	-	361 +/- 147
	Lake Ellesmere	31 +/- 29	30 +/- 26	1 +/- 1	81 +/- 81	-	-	-	143 +/- 90
Ellesmere to Rakaia	Ellesmere to Rakaia Creeks	4 +/- 2	52 +/- 52	-	-	-	-	-	56 +/- 52
Rakaia	Rakaia River salmon	68 +/- 81	7764 +/- 1930	3716 +/- 738	196 +/- 103	207 +/- 193	191 +/- 191	-	12142 +/- 2088
	Rakaia River trout	1368 +/- 932	3514 +/- 946	1847 +/- 526	261 +/- 171	18 +/- 14	37 +/- 32	-	7045 +/- 1439

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
	Acheron River	29 +/- 29	11 +/- 11	-	-	-	-	-	40 +/- 31
	Lake Lyndon	680 +/- 198	1183 +/- 326	1924 +/- 798	268 +/- 112	70 +/- 65	925 +/- 496	-	5050 +/- 1022
	Lake Coleridge	1210 +/- 283	2968 +/- 447	2254 +/- 736	981 +/- 309	1235 +/- 795	493 +/- 250	-	9141 +/- 1269
	Lake Georgina	23 +/- 21	31 +/- 26	152 +/- 95	8 +/- 3	-	-	-	214 +/- 101
	Lake Ida	29 +/- 29	2 +/- 2	-	-	-	-	-	31 +/- 29
	Lake Evelyn	29 +/- 29	1 +/- 1	-	18 +/- 18	-	-	-	48 +/- 34
	Lake Henrietta	-	15 +/- 15	-	-	-	-	-	15 +/- 15
	Wilberforce River	-	181 +/- 118	-	1 +/- 1	-	-	-	182 +/- 118
	Harper River	-	95 +/- 67	7 +/- 7	-	-	-	-	102 +/- 68
	Lake Selfe	163 +/- 87	725 +/- 334	514 +/- 255	152 +/- 109	5 +/- 5	-	13 +/- 13	1572 +/- 443
	Lake Lilian	-	69 +/- 69	-	-	-	-	-	69 +/- 69
	Avoca River	-	69 +/- 69	-	-	-	-	-	69 +/- 69
	Hydra Waters	-	-	-	2 +/- 2	-	-	-	2 +/- 2
	Glenariffe Stream	115 +/- 81	26 +/- 26	-	-	-	-	-	141 +/- 85
	Double Hill Stream	-	52 +/- 52	-	-	-	-	-	52 +/- 52
	Lake Stream	-	2 +/- 2	1 +/- 1	-	-	-	-	3 +/- 2
			16708 +/-	10415 +/-					35918 +/-
Rakaia	Total	3714 +/- 10052251		1440	1887 +/- 400	1535 +/- 821	1646 +/- 589	13 +/- 13	3055

## Central South Island

Catchment	Angling water	New Zealand residents						Overseas		Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep		
Rakaia	Lake Heron	574 +/- 198	1256 +/- 500	222 +/- 116	223 +/- 104	126 +/- 126	-	-	2401 +/- 573	
Ashburton	Ashburton River	47 +/- 42	206 +/- 98	249 +/- 125	-	252 +/- 252	-	-	754 +/- 301	
	Lake Camp	1 +/- 1	692 +/- 287	3 +/- 2	49 +/- 37	-	-	-	745 +/- 289	
	Lake Emma	322 +/- 205	208 +/- 93	504 +/- 334	22 +/- 14	-	-	-	1056 +/- 403	
	Lake Emily	-	121 +/- 121	114 +/- 114	103 +/- 103	-	-	-	338 +/- 196	
	Lake Mystery	-	1 +/- 1	-	2 +/- 2	-	-	-	3 +/- 2	
	Lake Hood	64 +/- 47	386 +/- 214	156 +/- 152	35 +/- 35	3 +/- 3	-	-	644 +/- 269	
	Bowyers Stream	144 +/- 144	-	-	-	-	-	-	144 +/- 144	
	Lake Clearwater	171 +/- 96	963 +/- 324	367 +/- 358	31 +/- 18	-	-	-	1532 +/- 492	
	Maori Lakes	-	146 +/- 146	287 +/- 233	-	-	-	-	433 +/- 274	
Ashburton	Total	749 +/- 275	2723 +/- 536	1680 +/- 588	242 +/- 118	255 +/- 252	-	-	5649 +/- 886	
Rangitata	Rangitata River salmon	230 +/- 230	1956 +/- 842	1589 +/- 615	2238 +/- 1705	-	3 +/- 3	-	6016 +/- 2012	
	Rangitata River trout	1354 +/- 965	1522 +/- 674	1758 +/- 909	2101 +/- 1693	-	-	-	6735 +/- 2254	
	Deep Creek	-	-	76 +/- 76	-	-	-	-	76 +/- 76	
Rangitata	Total	1584 +/- 992	3478 +/- 1078	3423 +/- 1100	4339 +/- 2403	-	3 +/- 3	-	12827 +/- 3022	
Orari	Orari River	-	176 +/- 106	546 +/- 539	519 +/- 519	-	-	-	1241 +/- 756	
Opihi	Opihi River	536 +/- 274	4499 +/- 2157	2760 +/- 1289	565 +/- 311	3 +/- 3	13 +/- 6	-	8376 +/- 2547	
	Temuka River	245 +/- 138	241 +/- 146	137 +/- 95	75 +/- 74	-	-	-	698 +/- 234	
	Waihi River	-	-	60 +/- 60	-	-	-	-	60 +/- 60	
	Te Ngawai River	92 +/- 77	149 +/- 87	231 +/- 137	148 +/- 148	-	-	-	620 +/- 233	
	Opuha River	10 +/- 3	128 +/- 66	5 +/- 2	57 +/- 49	-	3 +/- 3	-	203 +/- 82	
	Lake Opuha	864 +/- 414	1389 +/- 434	963 +/- 475	532 +/- 510	-	-	-	3748 +/- 920	

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
	South Opuha River Flows into Lake Opuha	29 +/- 29	-	-	-	-	-	-	29 +/- 29
	Deep Creek Opuha	-	-	26 +/- 26	-	-	-	-	26 +/- 26
	North Opuha River	60 +/- 58	-	86 +/- 65	37 +/- 37	-	-	-	183 +/- 94
Opihi	Total	1836 +/- 525	6406 +/- 2208	4268 +/- 1387	1414 +/- 623	3 +/- 3	16 +/- 7	-	13943 +/- 2732
Pareora	Pareora River	187 +/- 132	400 +/- 169	238 +/- 188	-	-	-	-	825 +/- 285
	Pareora River South Branch	-	180 +/- 134	-	-	-	-	-	180 +/- 134
Pareora	Total	187 +/- 132	580 +/- 215	238 +/- 188	-	-	-	-	1005 +/- 315
Waimate	Waimate Creek	21 +/- 21	231 +/- 202	-	-	-	-	-	252 +/- 203
Waihao	Waihao River	1 +/- 1	24 +/- 24	-	1 +/- 1	-	-	-	26 +/- 24
Waitaki	Lake Aviemore	1563 +/- 559	9605 +/- 2161	4082 +/- 1716	1682 +/- 959	386 +/- 321	539 +/- 311	-	17857 +/- 3008
	Lake Benmore	5485 +/- 1055	1947	8445 +/- 2078	2786 +/- 798	55 +/- 35	1707 +/- 451	3 +/- 3	31262 +/- 3172
	Lake Waitaki	842 +/- 279	1673 +/- 472	377 +/- 185	773 +/- 425	-	16 +/- 6	-	3681 +/- 718
	Waitaki River salmon	3 +/- 2	452 +/- 274	1836 +/- 1109	1810 +/- 1023	169 +/- 169	382 +/- 382	-	4652 +/- 1589
	Waitaki River trout	1313 +/- 462	3812 +/- 854	2762 +/- 1325	2115 +/- 816	484 +/- 398	1370 +/- 937	-	11856 +/- 2098
	Bells Pond	2 +/- 2	98 +/- 97	-	-	-	-	-	100 +/- 97
	Maerewhenua River	-	107 +/- 93	361 +/- 311	-	-	-	-	468 +/- 325
	Kurow River	1 +/- 1	173 +/- 124	60 +/- 60	111 +/- 111	-	-	-	345 +/- 177
	Hakataramea River	217 +/- 120	331 +/- 117	189 +/- 136	64 +/- 63	-	-	-	801 +/- 225
	Otematata River	390 +/- 280	131 +/- 74	82 +/- 79	-	-	-	-	603 +/- 300
	Clear Stream	-	1 +/- 1	79 +/- 79	37 +/- 37	-	-	-	117 +/- 87
	Ahuriri River	126 +/- 87	1009 +/- 221	1429 +/- 352	258 +/- 161	11 +/- 11	-	-	2833 +/- 454
	Omarama Stream	365 +/- 365	135 +/- 121	-	51 +/- 49	-	-	-	551 +/- 387

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
Avon Burn		42 +/- 42	-	-	-	-	-	-	42 +/- 42
Lake Ohau		887 +/- 237	4202 +/- 1507	1717 +/- 490	941 +/- 374	259 +/- 241	331 +/- 204	-	8337 +/- 1676
Ohau River Ohau River above Lake Ruataniwha		457 +/- 243	205 +/- 92	96 +/- 67	12 +/- 4	-	-	-	770 +/- 268
Ohau River Ohau River below Lake Ruataniwha		42 +/- 42	6 +/- 6	10 +/- 10	49 +/- 49	-	-	-	107 +/- 66
Lake Ruataniwha Wairepo		234 +/- 121	1752 +/- 546	1084 +/- 459	94 +/- 74	592 +/- 328	79 +/- 66	-	3835 +/- 801
Lake Middleton		172 +/- 136	131 +/- 129	-	-	-	-	-	303 +/- 188
Lake McGregor		141 +/- 87	243 +/- 175	288 +/- 146	39 +/- 37	-	-	-	711 +/- 246
Upper Waitaki Canals Waitaki hydroelectric canals specific canal unknown		3312 +/- 1144	503 +/- 231	793 +/- 231	2060 +/- 1044	247 +/- 43	243 +/- 165	7 +/- 6	7165 +/- 1592
Ohau B Canal Hydroelectric canal between Ruataniwha and Ohau B powerstation		1176 +/- 370	7304 +/- 1053	6360 +/- 885	4914 +/- 995	5426 +/- 1442	4059 +/- 1752	18 +/- 14	29257 +/- 2858
Ohau C Canal Hydroelectric canal between Ohau B and Ohau C powerstations		2369 +/- 654	8060 +/- 1117	9286 +/- 1328	4312 +/- 813	3775 +/- 626	4837 +/- 1926	16 +/- 16	32655 +/- 2864
Bortons Pond Also called Black Points Pond irrigation pond on the Waitaki River		21 +/- 21	-	-	-	-	-	-	21 +/- 21
Larch Stream		-	-	-	49 +/- 49	-	-	-	49 +/- 49
Twizel River		3523 +/- 728	2143 +/- 841	689 +/- 136	1015 +/- 362	302 +/- 128	235 +/- 70	30 +/- 30	7937 +/- 1187
Lake Wardell		1 +/- 1	-	1 +/- 1	-	-	-	-	2 +/- 2
Loch Cameron		29 +/- 29	14 +/- 14	-	-	-	-	-	43 +/- 32
Fraser Stream		-	1 +/- 1	-	-	-	-	-	1 +/- 1
Hopkins River		32 +/- 29	-	-	98 +/- 98	-	-	-	130 +/- 102
Dobson River		143 +/- 104	148 +/- 124	179 +/- 90	98 +/- 98	-	-	-	568 +/- 209
Lake Pukaki		614 +/- 276	493 +/- 189	86 +/- 54	410 +/- 175	15 +/- 7	574 +/- 426	2 +/- 2	2194 +/- 572
Kelland Pond		-	-	-	9 +/- 9	-	-	-	9 +/- 9
PukakiOhau A Canal		113 +/- 23	6935 +/- 873	6521 +/- 1098	3816 +/- 851	4044 +/- 962	4744 +/- 1764	38 +/- 19	26211 +/- 2594



Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
	Lake Merino	-	49 +/- 49	-	-	-	-	-	49 +/- 49
	Lake Poaka	87 +/- 64	205 +/- 144	81 +/- 61	49 +/- 49	-	-	-	422 +/- 176
	Tasman River	177 +/- 96	49 +/- 49	60 +/- 60	49 +/- 49	-	-	-	335 +/- 132
	Lake Tekapo	1124 +/- 255	2696 +/- 677	1256 +/- 429	492 +/- 173	569 +/- 226	950 +/- 518	12 +/- 11	7099 +/- 1028
	Tekapo River	221 +/- 88	264 +/- 139	260 +/- 210	116 +/- 98	7 +/- 7	-	-	868 +/- 285
	Tekapo Canal	3477 +/- 803	5766 +/- 943	4114 +/- 662	5373 +/- 1010	1323 +/- 417	2464 +/- 1153	9 +/- 9	22526 +/- 2121
	Mary Burn	29 +/- 29	118 +/- 83	68 +/- 61	-	-	-	-	215 +/- 107
	Grays River	45 +/- 33	-	85 +/- 46	-	-	-	-	130 +/- 57
	Lake Alexandrina	1043 +/- 428	1442 +/- 474	1983 +/- 987	2072 +/- 795	24 +/- 18	-	-	6564 +/- 1419
	Cass River	3 +/- 2	-	-	-	-	-	-	3 +/- 2
	Godley River	58 +/- 58	-	212 +/- 150	-	-	-	-	270 +/- 161
	Macaulay River	-	-	145 +/- 106	-	-	-	-	145 +/- 106
	Total	29879 +/- 2349	73037 +/- 4217	55076 +/- 4066	35754 +/- 2998	17688 +/- 2024	22530 +/- 3616	135 +/- 44	234099 +/- 8124
Waitaki	Oamaru Creek	-	-	-	-	63 +/- 63	-	-	63 +/- 63
Kakanui	Kakanui River	43 +/- 42	118 +/- 74	122 +/- 122	1 +/- 1	-	-	-	284 +/- 149
Waianakarua	Waianakarua River	105 +/- 76	1 +/- 1	-	-	-	-	-	106 +/- 76

## Otago

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
Shag	Shag River	231 +/- 188	326 +/- 352	425 +/- 220	63 +/- 63	63 +/- 63	-	-	1108 +/- 465
Waikouaiti	Waikouaiti River	201 +/- 201	35 +/- 34	61 +/- 61	-	84 +/- 84	-	-	381 +/- 229
Waitati	Waitati River	-	130 +/- 130	-	-	-	-	-	130 +/- 130
Water of Leith	Water of Leith	8 +/- 3	72 +/- 69	-	259 +/- 176	422 +/- 422	45 +/- 45	-	806 +/- 465
	Sullivans Dam	787 +/- 369	566 +/- 426	508 +/- 210	133 +/- 89	253 +/- 253	20 +/- 11	-	2267 +/- 659
	Ross Creek Reservoir Dunedin City perch present	91 +/- 91	-	-	-	-	-	-	91 +/- 91
Water of Leith	Total	886 +/- 380	638 +/- 432	508 +/- 210	392 +/- 197	675 +/- 493	65 +/- 46	-	3164 +/- 812
	Tomahawk Lagoon	2 +/- 2	3 +/- 2	2 +/- 2	5 +/- 2	-	251 +/- 251	-	263 +/- 251
Kaikorai	Southern Reservoir	838 +/- 471	711 +/- 308	587 +/- 334	510 +/- 506	591 +/- 591	554 +/- 502	-	3791 +/- 1134
	Kaikorai Stream	-	1 +/- 1	-	-	-	-	-	1 +/- 1
Kaikorai	Total	838 +/- 471	712 +/- 308	587 +/- 334	510 +/- 506	591 +/- 591	554 +/- 502	-	3792 +/- 1134
Taieri	Taieri River above Kokonga	396 +/- 146	480 +/- 157	939 +/- 527	449 +/- 384	-	20 +/- 11	-	2284 +/- 686
	Taieri River Kokonga to Outram	295 +/- 194	411 +/- 172	816 +/- 274	38 +/- 30	-	7 +/- 7	5 +/- 4	1572 +/- 378
	Taieri River Outram to Taieri Mouth	2139 +/- 446	2938 +/- 708	2231 +/- 559	1056 +/- 391	95 +/- 85	1390 +/- 1257	-	9849 +/- 1659
	Hamiltons Dam	-	34 +/- 34	-	-	-	-	-	34 +/- 34
	Lake Mahinerangi	134 +/- 93	1556 +/- 647	521 +/- 210	131 +/- 126	21 +/- 15	-	-	2363 +/- 698
	Lake Waihola	47 +/- 46	173 +/- 147	492 +/- 489	223 +/- 223	-	-	-	935 +/- 559
	Lake Waipori	182 +/- 111	1011 +/- 632	-	63 +/- 63	-	-	-	1256 +/- 645
	Waipori River	48 +/- 46	22 +/- 19	978 +/- 978	1 +/- 1	-	-	-	1049 +/- 979
	Silver Stream	46 +/- 46	-	-	150 +/- 150	-	-	-	196 +/- 157
	Lee Stream	-	-	1 +/- 1	-	-	-	-	1 +/- 1
Deep Stream	-	-	-	61 +/- 60	-	-	-	61 +/- 60	
Kye Burn	-	-	2 +/- 2	-	-	-	-	2 +/- 2	

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
	Rutherfords Dam	183 +/- 111	104 +/- 77	-	-	-	-	-	287 +/- 135
	Coal Pit Dam	183 +/- 182	71 +/- 69	188 +/- 183	-	-	84 +/- 84	-	526 +/- 280
	Hoffmans Dam	-	-	3 +/- 2	-	-	-	-	3 +/- 2
	Mathias Dam	91 +/- 91	69 +/- 69	-	-	-	-	-	160 +/- 114
	Blakeleys Dam	1 +/- 1	107 +/- 77	183 +/- 183	2 +/- 2	-	-	-	293 +/- 199
	West Eweburn Dam	-	81 +/- 56	122 +/- 122	-	-	-	-	203 +/- 134
	Hores Pond	6 +/- 6	69 +/- 69	-	1 +/- 1	-	-	-	76 +/- 69
	Logan Burn Reservoir	2 +/- 2	869 +/- 545	263 +/- 193	1 +/- 1	-	-	-	1135 +/- 579
	Great Moss Swamp	242 +/- 136	430 +/- 203	2 +/- 2	64 +/- 63	-	-	-	738 +/- 252
	Logan Burn	-	364 +/- 154	313 +/- 118	-	-	-	-	677 +/- 194
	McAtamneys Head Pond	91 +/- 91	1 +/- 1	-	-	-	-	-	92 +/- 91
Taieri	Total	4086 +/- 605	8790 +/- 1337	7054 +/- 1427	2240 +/- 633	116 +/- 86	1501 +/- 1260	5 +/- 4	23792 +/- 2487
Tokomairiro	Tokomairiro River	16 +/- 16	1 +/- 1	-	901 +/- 901	-	-	-	918 +/- 901
Clutha	Clutha River Wanaka to Lake Dunstan	1439 +/- 794	561 +/- 172	2162 +/- 525	160 +/- 102	-	696 +/- 486	-	5018 +/- 1088
	Clutha River below Roxburgh salmon	551 +/- 407	1028 +/- 751	217 +/- 170	270 +/- 219	169 +/- 169	501 +/- 501	-	2736 +/- 1042
	Clutha River below Roxburgh trout	497 +/- 140	5986 +/- 1255	3437 +/- 862	2884 +/- 914	1161	2141 +/- 1019	13 +/- 9	17602 +/- 2358
	Clutha River Clyde to Roxburgh	2188 +/- 591	1491 +/- 595	524 +/- 230	558 +/- 344	861 +/- 561	-	7 +/- 7	5629 +/- 1090
	Kaitangata Channel	126 +/- 126	-	-	-	-	-	-	126 +/- 126
	Kaihiku Stream	-	172 +/- 172	-	-	-	-	-	172 +/- 172
	Waitahuna River	137 +/- 137	36 +/- 34	1 +/- 1	2 +/- 2	-	-	-	176 +/- 141
	Kuriwao Stream	-	5 +/- 5	-	-	-	-	-	5 +/- 5
	Pomahaka River above Park Hill Bridge at Switzers Rd	324 +/- 385	680 +/- 225	984 +/- 757	185 +/- 155	-	-	-	2173 +/- 892

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
Pomahaka River below Park Hill Bridge at Switzers Rd		186 +/- 157	521 +/- 225	351 +/- 174	69 +/- 69	248 +/- 248	652 +/- 652	-	2027 +/- 772
Waipahi River		129 +/- 92	-	-	103 +/- 103	-	-	-	232 +/- 138
Kaiwera Stream		-	206 +/- 206	-	-	-	-	-	206 +/- 206
Leithen Burn		-	-	122 +/- 122	-	-	-	-	122 +/- 122
Tuapeka River		-	-	271 +/- 271	-	-	-	-	271 +/- 271
Beaumont River		-	1 +/- 1	-	2 +/- 2	-	-	-	3 +/- 2
Talla Burn		-	34 +/- 34	-	-	-	-	-	34 +/- 34
Pinders Pond		-	25 +/- 24	-	60 +/- 60	-	-	-	85 +/- 65
Lake Onslow		152 +/- 73	1517 +/- 519	1246 +/- 536	200 +/- 109	-	-	-	3115 +/- 757
Teviot River		-	69 +/- 49	-	-	-	-	-	69 +/- 49
Lake Roxburgh		6 +/- 3	93 +/- 59	183 +/- 183	4 +/- 2	-	64 +/- 64	-	350 +/- 203
Butchers Dam		20 +/- 17	24 +/- 24	2 +/- 2	60 +/- 60	-	47 +/- 47	-	153 +/- 82
Falls Dam		334 +/- 178	279 +/- 217	245 +/- 244	1 +/- 1	-	-	-	859 +/- 372
Manuherikia River		97 +/- 91	2848 +/- 1105	866 +/- 411	3353 +/- 1888	-	-	-	7164 +/- 2228
Manor Burn		144 +/- 102	467 +/- 170	85 +/- 63	52 +/- 36	-	-	-	748 +/- 211
Manorburn Reservoir		204 +/- 201	155 +/- 170	24 +/- 14	5 +/- 2	-	-	-	388 +/- 264
Lauder Creek		-	79 +/- 79	-	-	-	-	-	79 +/- 79
Ida Burn		-	52 +/- 52	-	-	-	-	-	52 +/- 52
Poolburn Reservoir		198 +/- 133	705 +/- 342	29 +/- 19	2 +/- 2	-	-	-	934 +/- 368
Pool Burn		179 +/- 98	1087 +/- 351	499 +/- 356	694 +/- 523	-	-	-	2459 +/- 730
Dunstan Creek		137 +/- 102	218 +/- 128	428 +/- 328	3 +/- 2	-	-	-	786 +/- 367
Conroys Dam		330 +/- 197	42 +/- 42	-	90 +/- 90	-	-	-	462 +/- 221
Waikerikeri Creek		-	-	23 +/- 23	-	-	-	-	23 +/- 23
Fraser River		-	83 +/- 65	-	-	-	-	-	83 +/- 65

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
Fraser Dam		1 +/- 1	381 +/- 345	-	-	-	-	-	382 +/- 345
Kawarau River		7 +/- 3	472 +/- 344	366 +/- 222	8 +/- 3	11 +/- 11	5105 +/- 5098	-	5969 +/- 5114
Bannock Burn		1 +/- 1	269 +/- 179	1 +/- 1	-	-	-	-	271 +/- 179
Nevis River		-	29 +/- 26	206 +/- 120	-	-	-	-	235 +/- 123
Arrow River		366 +/- 365	34 +/- 34	245 +/- 244	4 +/- 2	-	-	-	649 +/- 440
Lake Hayes		-	27 +/- 26	-	1 +/- 1	-	-	-	28 +/- 26
Shotover River		-	1379 +/- 1374	2 +/- 2	65 +/- 63	-	-	-	1446 +/- 1376
Moke Lake		31 +/- 16	157 +/- 109	196 +/- 179	7 +/- 3	-	-	-	391 +/- 210
Lake Kirkpatrick		-	-	30 +/- 30	-	-	-	10 +/- 10	40 +/- 32
Lake Johnson		137 +/- 137	26 +/- 26	1 +/- 1	6 +/- 3	11 +/- 11	-	-	181 +/- 140
Diamond Lake		14 +/- 12	97 +/- 57	80 +/- 54	1 +/- 1	-	334 +/- 334	-	526 +/- 344
Lake Wakatipu		4745 +/- 1090	9185 +/- 2109	5432 +/- 1251	4048 +/- 1154	389 +/- 238	2459 +/- 912	9 +/- 9	26267 +/- 3069
Lake Sylvan		6 +/- 6	-	-	-	-	-	-	6 +/- 6
Lake Reid		-	2 +/- 2	-	-	-	-	-	2 +/- 2
Lake Dispute		1 +/- 1	-	-	-	-	-	-	1 +/- 1
Glenorchy Lagoons		501 +/- 273	7 +/- 3	4 +/- 2	1 +/- 1	-	-	3 +/- 3	516 +/- 273
Lochy River		182 +/- 144	206 +/- 175	-	-	-	-	-	388 +/- 227
Von River		31 +/- 31	20 +/- 19	-	69 +/- 69	-	-	-	120 +/- 78
Greenstone River		46 +/- 46	64 +/- 46	306 +/- 306	-	-	-	-	416 +/- 312
Caples River		1 +/- 1	83 +/- 78	-	1 +/- 1	-	-	-	85 +/- 78
Dart River		-	4 +/- 2	2 +/- 2	10 +/- 10	-	7 +/- 7	-	23 +/- 13
Rees River		-	-	1 +/- 1	-	-	-	-	1 +/- 1
Diamond Creek		52 +/- 46	14 +/- 8	63 +/- 61	256 +/- 253	-	7 +/- 7	-	392 +/- 264
Lake Dunstan		626 +/- 168	6382 +/- 906	2726 +/- 525	1878 +/- 1252	1371	678 +/- 243	-	14254 +/- 2152

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
	Lindis River	-	-	10 +/- 10	-	-	-	-	10 +/- 10
	Cardrona River	-	119 +/- 73	-	30 +/- 30	-	-	-	149 +/- 79
	Lake Hawea	2155 +/- 524	5658 +/- 1641	1785 +/- 292	1054 +/- 352	1127 +/- 612	172 +/- 89	2 +/- 2	11953 +/- 1886
	Hawea River	568 +/- 359	553 +/- 275	1 +/- 1	589 +/- 586	169 +/- 169	-	3 +/- 3	1883 +/- 759
	Hunter River	42 +/- 42	118 +/- 83	151 +/- 149	393 +/- 271	-	-	-	704 +/- 323
	Timaru River	1 +/- 1	-	-	-	-	-	-	1 +/- 1
	Dingle Burn	218 +/- 154	43 +/- 31	-	-	-	-	-	261 +/- 157
	Lake Wanaka	2238 +/- 551	6246 +/- 1084	3419 +/- 581	1339 +/- 435	1836 +/- 895	1068 +/- 673	16 +/- 10	16162 +/- 1805
	Matukituki River	91 +/- 91	219 +/- 135	153 +/- 150	388 +/- 282	-	-	-	851 +/- 359
	Mototapu River	46 +/- 46	439 +/- 187	-	-	-	-	-	485 +/- 193
	Albert Burn	16 +/- 16	-	-	-	-	-	-	16 +/- 16
	Makarora River	29 +/- 29	154 +/- 80	434 +/- 328	98 +/- 70	-	-	-	715 +/- 346
	Wilkin River	1 +/- 1	53 +/- 52	2 +/- 2	4 +/- 2	-	-	-	60 +/- 52
	Young River	-	-	2 +/- 2	-	-	-	-	2 +/- 2
	Blue River	6 +/- 6	-	-	-	-	-	-	6 +/- 6
	Total	19537 +/- 1941	50904 +/- 4009	27317 +/- 2292	19007 +/- 2950	9429 +/- 2212	13931 +/- 5423	63 +/- 21	140188 +/- 8252
	Catlins River	196 +/- 142	647 +/- 294	7 +/- 5	111 +/- 111	46 +/- 46	167 +/- 167	-	1174 +/- 386
	Owaka River	-	240 +/- 209	-	105 +/- 104	-	-	-	345 +/- 233
Catlins	Total	196 +/- 142	887 +/- 360	7 +/- 5	216 +/- 152	46 +/- 46	167 +/- 167	-	1519 +/- 451
Tahakopa	Tahakopa River	-	-	-	307 +/- 278	-	-	-	307 +/- 278
	Maclennan River	-	34 +/- 34	45 +/- 45	-	-	-	-	79 +/- 57
Tahakopa	Total	-	34 +/- 34	45 +/- 45	307 +/- 278	-	-	-	386 +/- 283
Tautuku	Tautuku River	-	65 +/- 90	-	47 +/- 47	-	-	-	112 +/- 102
	Fleming River	-	34 +/- 34	-	-	-	-	-	34 +/- 34

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
Tautuku	Total	-	99 +/- 97	-	47 +/- 47	-	-	-	146 +/- 107

## Southland

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
Waikawa	Waikawa River	690 +/- 743	84 +/- 44	-	599 +/- 322	-	-	-	1373 +/- 811
Tokanui	Tokanui River	-	-	-	-	422 +/- 422	-	-	422 +/- 422
Titiroa	Titiroa Stream	1 +/- 1	37 +/- 37	-	69 +/- 69	-	-	-	107 +/- 78
Mataura	Mataura River above Nokomai Gorge	2273 +/- 885	1857 +/- 415	1828 +/- 633	422 +/- 491	-	510 +/- 449	4 +/- 3	6894 +/- 1341
	Mataura River Gore to top of Nokomai Gorge	802 +/- 288	1792 +/- 695	2807 +/- 844	850 +/- 612	-	990 +/- 978	2 +/- 2	7243 +/- 1615
	Mataura River below Gore	2233 +/- 514	3789 +/- 1342	2422 +/- 1118	1950 +/- 1024	324 +/- 248	93 +/- 66	2 +/- 2	10813 +/- 2105
	Mokoreta River	215 +/- 120	93 +/- 93	-	-	-	-	-	308 +/- 152
	Mimihau Stream	52 +/- 30	93 +/- 67	-	-	-	-	-	145 +/- 73
	Waiarikiki Stream	-	74 +/- 74	-	-	-	-	-	74 +/- 74
	Waikaka Stream	53 +/- 51	-	45 +/- 32	1 +/- 1	-	-	-	99 +/- 60
	Pukerau Stream	-	111 +/- 111	-	-	-	-	-	111 +/- 111
	Waimea Stream	147 +/- 147	173 +/- 172	1 +/- 1	38 +/- 35	46 +/- 46	-	-	405 +/- 234
	Pyramid Creek	-	111 +/- 111	-	-	-	-	-	111 +/- 111
	Waikaia River	1048 +/- 453	673 +/- 198	809 +/- 517	381 +/- 250	-	48 +/- 13	-	2959 +/- 758
	Gow Burn	-	19 +/- 19	-	-	-	-	-	19 +/- 19
	Tomogalak Stream	1 +/- 1	1 +/- 1	-	-	-	-	-	2 +/- 2
	Nokomai River	113 +/- 82	21 +/- 19	142 +/- 115	-	-	-	-	276 +/- 143
	Eyre Creek	-	1 +/- 1	8 +/- 8	-	-	-	-	9 +/- 9
	Robert Creek	-	26 +/- 26	23 +/- 23	345 +/- 345	-	-	-	394 +/- 347
Mataura	Total	6937 +/- 1175	8834 +/- 1603	8085 +/- 1627	3987 +/- 1359	370 +/- 253	1641 +/- 1078	8 +/- 4	29862 +/- 3110
	Waituna Lagoon	343 +/- 148	299 +/- 193	24 +/- 23	-	-	12 +/- 8	-	678 +/- 244
Waihopai	Waihopai River	-	75 +/- 59	480 +/- 384	-	-	-	-	555 +/- 389



Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
Oreti	Oreti River above Mossburn	1651 +/- 468	790 +/- 280	1021 +/- 386	207 +/- 146	185 +/- 185	192 +/- 147	-	4046 +/- 724
	Oreti River below Mossburn	1974 +/- 511	3395 +/- 569	4527 +/- 2569	1635 +/- 628	518 +/- 315	146 +/- 140	2 +/- 2	12197 +/- 2774
	Waikiwi Stream	-	1 +/- 1	367 +/- 367	-	-	-	-	368 +/- 367
	Makarewa River	210 +/- 164	371 +/- 210	113 +/- 75	933 +/- 704	-	-	-	1627 +/- 756
	Hedgehope Stream	-	-	68 +/- 68	-	-	-	-	68 +/- 68
	Dunsdale Stream	-	5 +/- 2	-	-	-	-	-	5 +/- 2
	Otapiri Stream	33 +/- 24	-	-	-	-	-	-	33 +/- 24
	Dipton Stream	-	-	1 +/- 1	-	-	-	-	1 +/- 1
	Irthing Stream	147 +/- 147	-	45 +/- 45	-	-	-	-	192 +/- 154
	Cromel Stream	64 +/- 42	37 +/- 37	113 +/- 113	-	-	-	3 +/- 3	217 +/- 126
	Ashton Burn	21 +/- 21	-	-	-	-	-	-	21 +/- 21
Oreti	Total	4100 +/- 729	4599 +/- 669	6255 +/- 2628	2775 +/- 954	703 +/- 365	338 +/- 203	5 +/- 3	18775 +/- 2995
Waimatuku	Waimatuku Stream	55 +/- 41	1 +/- 1	2 +/- 2	-	277 +/- 206	47 +/- 47	-	382 +/- 215
Aparima	Aparima River	2315 +/- 683	2345 +/- 737	1169 +/- 447	651 +/- 610	607 +/- 556	257 +/- 251	53 +/- 51	7397 +/- 1398
	Pourakino River	-	38 +/- 37	23 +/- 23	-	-	-	-	61 +/- 43
	Omutu Creek	-	-	271 +/- 271	-	-	-	-	271 +/- 271
	Otautau Stream	-	297 +/- 297	339 +/- 339	-	-	-	-	636 +/- 451
	Taringatura Creek	-	-	-	-	-	47 +/- 47	-	47 +/- 47
	Hamilton Burn	147 +/- 147	26 +/- 26	23 +/- 23	-	-	-	-	196 +/- 151
Aparima	Total	2462 +/- 698	2706 +/- 796	1825 +/- 624	651 +/- 610	607 +/- 556	304 +/- 255	53 +/- 51	8608 +/- 1503
Waimeamea	Waimeamea River	92 +/- 92	-	-	-	-	-	-	92 +/- 92
Waiau	Waiau River Te Anau to Manapouri	1033 +/- 390	1866 +/- 471	2636 +/- 538	1900 +/- 865	185 +/- 185	-	-	7620 +/- 1203
	Waiau River below Mararoa	487 +/- 200	2689 +/- 715	1379 +/- 612	766 +/- 508	-	2044 +/- 1741	10 +/- 10	7375 +/- 2053
	Orauea River	74 +/- 58	34 +/- 34	-	-	-	-	-	108 +/- 68

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
Wairaki River		-	56 +/- 41	-	-	-	-	-	56 +/- 41
Monowai River		172 +/- 134	430 +/- 207	24 +/- 23	12 +/- 4	-	6 +/- 6	-	644 +/- 248
Lake Monowai		399 +/- 163	1002 +/- 481	773 +/- 275	788 +/- 372	203 +/- 146	204 +/- 147	-	3369 +/- 717
Borland Burn		-	74 +/- 74	23 +/- 23	-	-	-	-	97 +/- 78
Mararoa River		663 +/- 203	1098 +/- 397	1660 +/- 414	739 +/- 609	-	1397 +/- 1397	-	5557 +/- 1641
Lake Thomas		129 +/- 112	111 +/- 95	436 +/- 305	-	-	-	-	676 +/- 339
Kiwi Burn		15 +/- 15	-	-	-	-	-	-	15 +/- 15
Whitestone River above Prospect Bridge		194 +/- 103	45 +/- 31	90 +/- 64	345 +/- 345	-	1397 +/- 1397	-	2071 +/- 1445
Whitestone River below Prospect Bridge		18 +/- 18	183 +/- 104	253 +/- 145	-	-	-	-	454 +/- 179
McGregors Pond		148 +/- 147	3 +/- 2	203 +/- 144	517 +/- 517	-	-	-	871 +/- 557
Flaxy Creek		47 +/- 47	-	61 +/- 61	-	-	-	-	108 +/- 77
North Mavora Lake		291 +/- 159	2385 +/- 1636	1514 +/- 1171	393 +/- 230	-	279 +/- 279	-	4862 +/- 2050
South Mavora Lake		230 +/- 141	691 +/- 493	326 +/- 306	178 +/- 203	-	-	-	1425 +/- 631
Windon Burn		18 +/- 18	-	-	-	-	-	-	18 +/- 18
Home Creek		38 +/- 27	-	-	-	-	-	-	38 +/- 27
Lake Manapouri		909 +/- 313	2438 +/- 673	1247 +/- 464	2274 +/- 968	757 +/- 426	1032 +/- 716	-	8657 +/- 1548
Grebe River		-	2 +/- 2	-	-	-	-	-	2 +/- 2
Island Lake		-	13 +/- 13	-	-	-	-	-	13 +/- 13
Lake Fergus		-	6 +/- 6	-	-	-	-	-	6 +/- 6
Lake Gunn		23 +/- 19	490 +/- 280	-	-	-	-	-	513 +/- 281
Lake Te Anau		2211 +/- 564	3913 +/- 781	2551 +/- 666	2340 +/- 1014	1208 +/- 610	1881 +/- 1122	-	14104 +/- 2008
Lake Hankinson		-	-	-	-	-	-	2 +/- 2	2 +/- 2
Lake Henry		-	1 +/- 1	-	63 +/- 63	-	-	-	64 +/- 63
Upukerora River		333 +/- 126	482 +/- 237	465 +/- 239	931 +/- 831	-	-	-	2211 +/- 905

Catchment	Angling water	New Zealand residents						Overseas	Total
		Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul	Aug-Sep	Oct-Sep	
	McKenzie Burn	2 +/- 2	-	-	2 +/- 2	-	-	-	4 +/- 2
	Wapiti River	-	-	339 +/- 339	-	-	-	-	339 +/- 339
	Eglinton River	68 +/- 85	49 +/- 27	482 +/- 219	1120 +/- 729	-	19 +/- 19	-	1738 +/- 767
	Worsley Stream	53 +/- 41	56 +/- 56	-	-	-	-	-	109 +/- 69
	Clinton River	111 +/- 111	57 +/- 55	-	69 +/- 69	-	-	-	237 +/- 142
	Eglinton River East Branch	-	11 +/- 11	-	483 +/- 483	-	-	-	494 +/- 483
Waiau	Total	7666 +/- 910	18185 +/- 2306	14462 +/- 1843	12920 +/- 2329	2353 +/- 780	8259 +/- 2968	12 +/- 10	63857 +/- 4938
Wairaurahiri	Wairaurahiri River	-	11 +/- 11	-	-	-	-	-	11 +/- 11
	Lake Hauroko	174 +/- 106	-	74 +/- 68	-	-	-	-	248 +/- 126
Wairaurahiri	Total	174 +/- 106	11 +/- 11	74 +/- 68	-	-	-	-	259 +/- 127
Dusky	Dusky Sound	-	-	-	-	-	334 +/- 334	-	334 +/- 334
Arthur	Arthur River	1 +/- 1	108 +/- 109	-	-	-	-	-	109 +/- 109
Hollyford	Hollyford River	18 +/- 18	-	4 +/- 4	49 +/- 49	-	-	-	71 +/- 52
	Lake McKerrow	18 +/- 18	-	-	-	-	-	-	18 +/- 18
	Lake Alabaster	18 +/- 18	-	-	21 +/- 20	-	-	-	39 +/- 27
	Lake Mackenzie	63 +/- 63	1 +/- 1	306 +/- 306	-	-	-	-	370 +/- 312
Hollyford	Total	117 +/- 71	1 +/- 1	310 +/- 306	70 +/- 53	-	-	-	498 +/- 318

## Appendix B Temporal trends in the usage of waterbodies within regions

The tables below present long-term trends in angling effort (angler-days +/- se) by all anglers (1994/95 data does not include international anglers). Information is presented for each region in a north-to-south order. Waterbodies within each region are presented following an approximately clockwise order, starting from north-most waterbodies, through to north-east most waterbodies, etc. Totals for sea-draining catchments are also presented. Catchment totals are presented only for catchments containing more than one angling waterbody. Blank cells under 'Catchment' denote rivers that do not have catchment numbers assigned to them in the Catchments of New Zealand manual (Anon 1956).

### Northland

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
	Awanui River	-	-	27 +/- 28	-	-
	Victoria River	-	28 +/- 25	17 +/- 19	-	3 +/- 3
Rangitane	Rangitane River	-	-	25 +/- 26	-	318 +/- 314
Rangitane	Lake Manuwai	-	166 +/- 39	456 +/- 202	169 +/- 97	55 +/- 19
Rangitane	Waipapa Stream	-	-	27 +/- 29	82 +/- 58	10 +/- 8
Total Rangitane Catchment		-	166 +/- 39	508 +/- 206	251 +/- 113	383 +/- 315
Kerikeri	Kerikeri River	-	16 +/- 16	-	53 +/- 33	4 +/- 2
Waitangi	Waitangi River	-	123 +/- 15	18 +/- 15	8 +/- 8	2 +/- 1
Kawakawa	Kawakawa River	-	-	-	-	4 +/- 4
Kawakawa	Tirohanga Stream	-	3 +/- 3	-	-	-
Total Kawakawa Catchment		-	3 +/- 3	-	-	4 +/- 4
	Hatea River	-	-	82 +/- 84	-	-
	Mangakino Stream	-	2 +/- 2	241 +/- 123	111 +/- 76	-
	Whau Valley Dam	-	100 +/- 47	481 +/- 271	222 +/- 109	343 +/- 165
	Wilson's Dam	-	-	67 +/- 54	19 +/- 13	56 +/- 34
Waipu	Waipu River	-	-	24 +/- 18	-	1 +/- 1
Waipu	North River	-	-	12 +/- 14	-	-
Total Waipu Catchment		-	-	36 +/- 22	-	1 +/- 1
Wairoa	Wairua River (Northland)	-	114 +/- 60	495 +/- 190	111 +/- 64	18 +/- 15
Wairoa	Wairoa River (Northland)	-	-	-	-	15 +/- 14
Wairoa	Kaihu River	-	-	-	-	20 +/- 11
Wairoa	Mangatu Stream	-	2 +/- 3	45 +/- 48	-	2 +/- 2
Wairoa	Mangakahia River	-	97 +/- 100	36 +/- 26	54 +/- 38	-
Wairoa	Mangere Stream	-	-	12 +/- 13	-	5 +/- 5
Wairoa	Poroti Stream	-	-	12 +/- 13	-	-
Wairoa	Mangahuru Stream	-	13 +/- 13	41 +/- 36	7 +/- 7	1 +/- 1
Wairoa	Whakapara River	-	45 +/- 37	20 +/- 22	-	4 +/- 2
Wairoa	Kaimamaku Stream	-	5 +/- 5	-	15 +/- 10	1 +/- 1
Wairoa	Kaiikanui River	-	5 +/- 6	48 +/- 39	-	13 +/- 13
Wairoa	Te Waiongatahuna Stream	-	-	17 +/- 19	-	-

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Wairoa	Kirikiritoki Stream	-	-	13 +/- 10	-	-
Wairoa	Waiariki River	-	-	170 +/- 180	-	2 +/- 2
Wairoa	Waiotu River	-	18 +/- 16	-	-	-
Total Wairoa Catchment		-	298 +/- 124	909 +/- 275	187 +/- 76	81 +/- 27
	Kaiiwi Lakes	336 +/- 129	1,065 +/- 506	652 +/- 261	677 +/- 169	120 +/- 34
	Lake Taharoa	-	14 +/- 12	79 +/- 50	-	6 +/- 3
	Waima River	-	-	129 +/- 109	-	-
	Punakitere River	-	-	52 +/- 53	-	-
Waihou	Waihou River	-	30 +/- 31	323 +/- 130	43 +/- 36	174 +/- 84
Waihou	Waipapa River	-	27 +/- 25	14 +/- 14	-	4 +/- 2
Waihou	Pukatea Stream	-	-	17 +/- 19	-	-
Total Waihou Catchment		-	58 +/- 40	354 +/- 133	43 +/- 36	178 +/- 84

## Auckland/Waikato

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
	Henderson Lake	-	49 +/- 50	-	-	-
	Chelsea Sugar Works Pond	603 +/- 218	110 +/- 60	10 +/- 10	-	15 +/- 15
	Lake Pupuke	1,240 +/- 347	605 +/- 346	917 +/- 318	311 +/- 120	-
	Pupuke Lake	-	-	-	-	753 +/- 201
	Carter Holt Ponds	-	26 +/- 27	-	-	-
Wairoa	Wairoa River (Auckland)	-	49 +/- 27	-	104 +/- 54	141 +/- 77
	Kaiaua Gravel Pits	454 +/- 146	199 +/- 71	49 +/- 51	-	20 +/- 20
Waihou	Waihou River	1,781 +/- 334	2,643 +/- 377	1,530 +/- 470	-	-
Waihou	Waihou River (above Okoroire)	-	-	-	620 +/- 129	1,018 +/- 298
Waihou	Waihou River (below Okoroire)	-	-	-	899 +/- 417	719 +/- 223
Waihou	Hikutaia River	22 +/- 21	-	-	93 +/- 93	19 +/- 19
Waihou	Maratoto Stream	-	-	9 +/- 9	47 +/- 47	8 +/- 8
Waihou	Komata River	17 +/- 17	-	31 +/- 34	-	-
Waihou	Ohinemuri River	1,623 +/- 402	2,601 +/- 490	1,526 +/- 321	696 +/- 244	298 +/- 99
Waihou	Waitawheta River	164 +/- 57	649 +/- 197	483 +/- 182	319 +/- 85	302 +/- 91
Waihou	Waitekauri River	298 +/- 202	194 +/- 75	94 +/- 87	10 +/- 10	-
Waihou	Waiomou Stream	491 +/- 141	495 +/- 156	-	126 +/- 65	748 +/- 351
Waihou	Rapurapu Stream	131 +/- 100	148 +/- 81	24 +/- 25	50 +/- 40	334 +/- 239
Waihou	Kakahu Stream	32 +/- 19	246 +/- 106	77 +/- 53	34 +/- 23	126 +/- 70
Waihou	Oraka Stream	131 +/- 56	95 +/- 72	21 +/- 22	154 +/- 84	335 +/- 127
Waihou	Waimakariri Stream	553 +/- 137	767 +/- 199	365 +/- 141	353 +/- 107	1,394 +/- 335
Waihou	Purere Stream	-	26 +/- 27	-	-	-
	Total Waihou Catchment	5,242 +/- 608	7,864 +/- 717	4,159 +/- 624	3,402 +/- 542	5,301 +/- 686
Kauaeranga	Kauaeranga River	140 +/- 56	134 +/- 110	154 +/- 104	-	87 +/- 49
Waiwawa	Waiwawa River	1,054 +/- 419	59 +/- 41	-	14 +/- 14	5 +/- 2
Tairua	Tairua River	317 +/- 102	59 +/- 48	444 +/- 192	88 +/- 63	40 +/- 39
Whanganui	Whanganui River (above Ohura)	-	1,260 +/- 369	905 +/- 255	-	-
Whanganui	Whanganui River (above Whakapapa)	-	-	-	2,087 +/- 688	837 +/- 244
Whanganui	Whanganui River (Whakapapa to Ohura)	-	-	-	2,607 +/- 591	2,074 +/- 501
Whanganui	Ohura River	53 +/- 52	32 +/- 34	215 +/- 131	3 +/- 3	2 +/- 2
Whanganui	Ongarue River	694 +/- 378	287 +/- 101	210 +/- 101	151 +/- 80	62 +/- 41
Whanganui	Taringamotu River	16 +/- 16	53 +/- 54	27 +/- 28	78 +/- 59	1 +/- 1
Whanganui	Waione Stream	36 +/- 29	-	-	-	-
Whanganui	Waimiha Stream	217 +/- 147	91 +/- 63	59 +/- 51	2 +/- 2	128 +/- 88
Whanganui	Pungapunga River	-	-	-	-	1 +/- 1
Whanganui	Whakapapa River	326 +/- 100	1,034 +/- 319	2,838 +/- 457	2,922 +/- 726	3,772 +/- 779
Whanganui	Piopiotea Stream	-	8 +/- 9	19 +/- 13	126 +/- 97	47 +/- 47
Whanganui	Raurimu Stream	-	-	-	-	44 +/- 44

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Whanganui	Mangatepopo Stream	21 +/- 14	-	-	7 +/- 7	2 +/- 2
Total Whanganui Catchment		1,363 +/- 422	2,764 +/- 506	4,272 +/- 552	7,982 +/- 1,170	6,970 +/- 965
Mokau	Mokau River	275 +/- 179	170 +/- 88	56 +/- 44	-	5 +/- 5
Mokau	Mangaotaki River	192 +/- 77	68 +/- 36	153 +/- 90	234 +/- 151	114 +/- 58
Mokau	Mangapehi River	-	46 +/- 47	25 +/- 26	-	-
Total Mokau Catchment		467 +/- 195	284 +/- 106	233 +/- 103	234 +/- 151	119 +/- 58
Awakino	Awakino River	797 +/- 160	840 +/- 368	597 +/- 127	383 +/- 152	420 +/- 134
Awakino	Manganui River	-	-	-	80 +/- 48	24 +/- 20
Awakino	Mangaorongo Stream	277 +/- 277	-	16 +/- 16	-	8 +/- 8
Total Awakino Catchment		1,075 +/- 319	840 +/- 368	613 +/- 128	463 +/- 159	452 +/- 136
	Waikawau River	-	-	27 +/- 28	-	-
Marokopa	Marokopa River	145 +/- 55	98 +/- 40	108 +/- 84	106 +/- 48	8 +/- 8
Marokopa	Tawarau River	31 +/- 22	228 +/- 119	92 +/- 61	3 +/- 2	4 +/- 2
Marokopa	Mangaohae Stream	302 +/- 92	182 +/- 76	41 +/- 34	76 +/- 45	23 +/- 19
Total Marokopa Catchment		479 +/- 110	507 +/- 147	240 +/- 109	186 +/- 66	35 +/- 21
	Awaroa River	-	-	41 +/- 43	-	-
Oparau	Oparau River	-	-	81 +/- 83	-	80 +/- 48
Waikato	Hamilton Lake	443 +/- 189	67 +/- 36	-	12 +/- 12	-
Waikato	Lake Arapuni	7,298 +/- 939	9,734 +/- 1,011	5,991 +/- 1,862	3,371 +/- 940	3,805 +/- 828
Waikato	Lake Karapiro	4,806 +/- 700	2,318 +/- 471	1,156 +/- 347	1,689 +/- 612	774 +/- 191
Waikato	Lake Waipapa	825 +/- 468	1,367 +/- 435	539 +/- 286	228 +/- 166	1,468 +/- 854
Waikato	Waikato River (below Karapiro)	7,245 +/- 824	4,357 +/- 809	4,953 +/- 1,001	3,132 +/- 868	2,735 +/- 510
Waikato	Lake Otamatearoa	-	40 +/- 24	-	5 +/- 3	-
Waikato	Mangatawhiri Reservoir	-	299 +/- 127	39 +/- 29	150 +/- 142	5 +/- 2
Waikato	Waikato River	-	470 +/- 159	1,280 +/- 509	-	-
Waikato	Lake D	-	-	59 +/- 53	-	-
Waikato	Hamilton/Rotoroa Lake	-	-	-	-	262 +/- 124
Waikato	Lake Whatihua	85 +/- 44	114 +/- 56	-	88 +/- 58	34 +/- 24
Waikato	Parkinsons Lake	23 +/- 17	42 +/- 32	38 +/- 23	136 +/- 81	190 +/- 73
Waikato	Piggott Wetland	-	-	-	19 +/- 19	-
Waikato	Mangatawhiri River	-	24 +/- 24	68 +/- 69	-	1 +/- 1
Waikato	Whangamarino River	84 +/- 34	74 +/- 60	38 +/- 29	3 +/- 2	45 +/- 38
Waikato	Mangatangi Reservoir	836 +/- 154	138 +/- 90	50 +/- 36	10 +/- 10	17 +/- 11
Waikato	Whangape Stream	-	-	-	30 +/- 23	15 +/- 15
Waikato	Rangiriri Stream	-	255 +/- 111	258 +/- 112	45 +/- 45	-
Waikato	Lake Waikare	-	-	99 +/- 101	-	-
Waikato	Lake Hakanoa	154 +/- 63	26 +/- 27	179 +/- 90	6 +/- 3	105 +/- 65
Waikato	Lake Waahi	-	-	-	24 +/- 24	9 +/- 8
Waikato	Mangawara Stream	14 +/- 14	88 +/- 36	131 +/- 66	21 +/- 15	84 +/- 74
Waikato	Waipa River	2,600 +/- 708	1,561 +/- 407	1,698 +/- 889	2,337 +/- 995	867 +/- 250
Waikato	Mangawawa Stream	-	8 +/- 9	219 +/- 222	-	-

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Waikato	Kaniwhaniwha Stream	859 +/- 228	370 +/- 144	109 +/- 69	311 +/- 129	499 +/- 147
Waikato	Mangauika Stream	-	145 +/- 138	10 +/- 11	-	30 +/- 30
Waikato	Lake Ngaroto	-	-	23 +/- 25	-	-
Waikato	Puniu River	1,219 +/- 282	839 +/- 192	441 +/- 293	340 +/- 201	217 +/- 76
Waikato	Mangatutu Stream	1,600 +/- 361	1,070 +/- 240	859 +/- 212	497 +/- 182	989 +/- 364
Waikato	Waipari River	49 +/- 42	66 +/- 41	-	50 +/- 40	1 +/- 1
Waikato	Ngakoaohia Stream	269 +/- 105	426 +/- 148	122 +/- 82	24 +/- 24	90 +/- 90
Waikato	Moakurua Stream	324 +/- 202	151 +/- 55	90 +/- 43	64 +/- 46	377 +/- 136
Waikato	Ngutunui Stream	78 +/- 42	35 +/- 28	14 +/- 14	-	8 +/- 8
Waikato	Mangawhero Stream	86 +/- 71	52 +/- 53	35 +/- 28	39 +/- 39	-
Waikato	Mangaokewa Stream	37 +/- 22	17 +/- 18	9 +/- 10	94 +/- 63	60 +/- 55
Waikato	Waimahora Stream	-	-	-	42 +/- 42	2 +/- 2
Waikato	Pokaiwhenua Stream	362 +/- 112	233 +/- 88	116 +/- 60	117 +/- 53	180 +/- 107
Waikato	Whakauru Stream	-	-	83 +/- 90	-	-
Waikato	Lake Moananui	-	327 +/- 276	297 +/- 146	-	22 +/- 18
Waikato	Matarawa Stream	-	607 +/- 627	4 +/- 5	-	-
Waikato	Little Waipa Stream	726 +/- 215	171 +/- 98	100 +/- 59	389 +/- 137	519 +/- 229
Waikato	Mangawhio Stream	-	72 +/- 54	10 +/- 11	20 +/- 20	-
Waikato	Waipapa River	441 +/- 111	218 +/- 85	443 +/- 175	206 +/- 74	363 +/- 125
Waikato	Mangakino Stream	-	-	-	372 +/- 372	349 +/- 211
Waikato	Kaiwhitiwhiti Stream	-	81 +/- 83	-	-	-
Total Waikato Catchment		30,465 +/- 1,798	25,862 +/- 1,731	19,560 +/- 2,455	13,869 +/- 1,825	14,122 +/- 1,457
	Takapuna Quarry Pond	-	-	-	-	18 +/- 17
	Bombay Pond	457 +/- 160	217 +/- 148	51 +/- 38	-	-
	Lake Kereta	132 +/- 66	-	-	-	147 +/- 147
	Lake Ototoa	931 +/- 284	1,255 +/- 329	209 +/- 79	3 +/- 2	-
	Ototoa/Rototoa Lake	-	-	-	-	3 +/- 2
Muriwai	Muriwai Beach	-	4 +/- 4	-	-	1 +/- 1
Muriwai	Lake Okaihau	316 +/- 93	110 +/- 108	75 +/- 77	-	-
Total Muriwai Catchment		316 +/- 93	114 +/- 108	75 +/- 77	-	1 +/- 1
	Kaipara River	-	-	20 +/- 21	-	-
	Kumeu River	17 +/- 17	-	337 +/- 345	31 +/- 31	16 +/- 16
	Lake Tomarata	184 +/- 165	39 +/- 24	39 +/- 29	1 +/- 1	18 +/- 18

## Eastern, including Rotorua Lakes

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Tuapiro	Tuapiro Creek	-	44 +/- 33	35 +/- 36	41 +/- 41	118 +/- 118
Tuapiro	Waitengaue Stream	-	-	86 +/- 89	-	-



Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Total Tuapiro Catchment		-	44 +/- 33	121 +/- 96	41 +/- 41	118 +/- 118
Wairoa	McLaren Falls Dam	1,695 +/- 636	1,201 +/- 433	864 +/- 306	1,572 +/- 630	798 +/- 217
Wairoa	Wairoa River (Tauranga)	142 +/- 106	159 +/- 84	78 +/- 45	14 +/- 5	13 +/- 13
Wairoa	Ohourere Stream	-	51 +/- 38	16 +/- 16	21 +/- 21	19 +/- 19
Wairoa	Ruahihi Canal	1,072 +/- 425	463 +/- 357	377 +/- 228	179 +/- 124	112 +/- 64
Wairoa	Ngamuwahine River	163 +/- 106	1,004 +/- 453	-	38 +/- 21	27 +/- 20
Wairoa	Opuaki River	-	16 +/- 17	-	-	-
Wairoa	Ngatuhua Stream	-	-	285 +/- 193	-	-
Wairoa	Omanawa River	-	65 +/- 67	75 +/- 77	-	15 +/- 15
Total Wairoa Catchment		3,072 +/- 780	2,959 +/- 731	1,695 +/- 437	1,824 +/- 643	984 +/- 229
Waimapu	Waimapu Stream	-	48 +/- 50	-	-	88 +/- 88
Kaituna	Kaituna River	2,457 +/- 653	1,555 +/- 772	412 +/- 176	299 +/- 142	333 +/- 133
Kaituna	Waiari Stream	257 +/- 181	35 +/- 26	-	-	-
Kaituna	Mangorewa River	-	45 +/- 33	195 +/- 106	-	-
Kaituna	Lake Rotoiti	43,365 +/- 3,471	40,540 +/- 2,908	48,065 +/- 3,792	40,147 +/- 4,260	33,176 +/- 2,235
Kaituna	Ohau Channel	4,718 +/- 1,065	2,176 +/- 1,068	6,288 +/- 3,818	1,058 +/- 319	337 +/- 118
Kaituna	Hauparu Stream	74 +/- 74	-	19 +/- 19	-	-
Kaituna	Lake Rotorua	40,192 +/- 4,451	27,514 +/- 2,159	32,002 +/- 3,263	17,802 +/- 2,159	11,532 +/- 1,170
Kaituna	Utuhina Stream	2,311 +/- 1,450	3,055 +/- 1,167	555 +/- 303	358 +/- 199	1,323 +/- 540
Kaituna	Ngongotaha Stream	8,804 +/- 2,706	11,235 +/- 2,038	11,237 +/- 1,903	7,451 +/- 2,025	8,983 +/- 1,825
Kaituna	Waiteti Stream	1,843 +/- 583	3,094 +/- 1,075	3,784 +/- 984	3,111 +/- 734	3,670 +/- 1,360
Kaituna	Awahou Stream	189 +/- 128	1,415 +/- 596	1,409 +/- 443	2,010 +/- 1,018	845 +/- 299
Kaituna	Hamurana Stream	1,065 +/- 590	1,547 +/- 823	878 +/- 321	578 +/- 283	500 +/- 203
Total Kaituna Catchment		105,275 +/- 6,602	92,210 +/- 4,750	104,843 +/- 6,680	72,815 +/- 5,359	60,699 +/- 3,464
Waihi	Waihi Estuary	-	-	4 +/- 5	-	28 +/- 21
Waihi	Pongakawa Stream	55 +/- 39	-	-	78 +/- 78	-
Total Waihi Catchment		55 +/- 39	-	4 +/- 5	78 +/- 78	28 +/- 21
	Lake Rotoehu	2,294 +/- 589	2,188 +/- 781	3,719 +/- 1,246	1,276 +/- 341	821 +/- 287
	Lake Rotoma	6,606 +/- 1,303	9,206 +/- 1,265	11,107 +/- 2,079	3,477 +/- 804	5,674 +/- 1,238
Tarawera	Lake Okaro	100 +/- 67	204 +/- 118	257 +/- 176	968 +/- 693	495 +/- 272
Tarawera	Lake Okataina	5,827 +/- 952	6,827 +/- 883	6,285 +/- 1,087	6,663 +/- 1,168	3,495 +/- 480
Tarawera	Lake Rerewhakaaitu	9,394 +/- 1,676	8,074 +/- 1,348	3,833 +/- 820	3,848 +/- 774	1,853 +/- 422
Tarawera	Tarawera River	5,011 +/- 1,197	1,393 +/- 575	427 +/- 201	-	-
Tarawera	Tarawera River (below Tarawera Falls)	-	2,037 +/- 638	596 +/- 447	282 +/- 236	417 +/- 161
Tarawera	Tarawera River (Lake Tarawera to Tawarera Falls)	-	639 +/- 300	295 +/- 129	1,091 +/- 687	1,016 +/- 444
Tarawera	Ruruanga Stream	175 +/- 98	-	-	7 +/- 7	87 +/- 87
Tarawera	Waiaute Stream	-	-	96 +/- 99	-	-
Tarawera	Waiwhakapa Stream	-	42 +/- 32	68 +/- 69	27 +/- 23	2 +/- 2
Tarawera	Lake Tarawera	38,439 +/- 4,039	41,795 +/- 2,981	34,216 +/- 3,501	31,543 +/- 3,662	21,652 +/- 2,232
Tarawera	Lake Okareka	3,410 +/- 807	3,746 +/- 1,261	2,037 +/- 538	3,285 +/- 1,252	2,904 +/- 571
Tarawera	Lake Rotokakahi	916 +/- 913	24 +/- 24	241 +/- 136	24 +/- 23	608 +/- 584

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Tarawera	Lake Tikitapu (Blue Lake)	255 +/- 162	470 +/- 193	370 +/- 138	599 +/- 284	214 +/- 81
Tarawera	Lake Rotomahana	1,220 +/- 426	820 +/- 391	74 +/- 52	875 +/- 324	448 +/- 255
Total Tarawera Catchment		64,746 +/- 4,813	66,071 +/- 3,756	48,793 +/- 3,840	49,211 +/- 4,259	33,191 +/- 2,537
Rangitaiki	Lake Aniwhenua	11,327 +/- 1,657	9,838 +/- 2,864	2,357 +/- 519	1,493 +/- 509	598 +/- 190
Rangitaiki	Lake Matahina	884 +/- 402	588 +/- 286	357 +/- 227	354 +/- 169	357 +/- 164
Rangitaiki	Rangitaiki River (above Lake Aniwhenua)	1,411 +/- 430	4,402 +/- 1,602	2,208 +/- 664	906 +/- 386	440 +/- 231
Rangitaiki	Rangitaiki River (Aniwhenua Dam to Lake Matahina)	3,557 +/- 1,210	2,355 +/- 1,601	1,175 +/- 433	1,118 +/- 548	799 +/- 259
Rangitaiki	Rangitaiki River (below Matahina Dam)	715 +/- 211	770 +/- 260	317 +/- 165	559 +/- 302	575 +/- 336
Rangitaiki	Rangitaiki River	-	2,016 +/- 652	1,325 +/- 320	-	-
Rangitaiki	Waihua Stream	306 +/- 305	271 +/- 125	116 +/- 60	296 +/- 189	-
Rangitaiki	Mangamako Stream	-	-	-	-	48 +/- 34
Rangitaiki	Ngatamawahine Stream	-	32 +/- 26	50 +/- 38	-	8 +/- 8
Rangitaiki	Horomanga River	1,240 +/- 432	187 +/- 95	1,793 +/- 1,149	565 +/- 472	116 +/- 104
Rangitaiki	Whirinaki River	1,714 +/- 524	747 +/- 237	2,178 +/- 707	1,250 +/- 551	481 +/- 169
Rangitaiki	Lake Flaxy	1,521 +/- 441	2,405 +/- 755	1,470 +/- 573	241 +/- 155	191 +/- 123
Rangitaiki	Wheao River	547 +/- 184	403 +/- 167	508 +/- 297	328 +/- 328	262 +/- 257
Rangitaiki	Flaxy Canal	-	589 +/- 424	823 +/- 534	86 +/- 63	30 +/- 29
Rangitaiki	Rangitaiki Canal	-	-	-	135 +/- 135	88 +/- 66
Rangitaiki	Otangimoana Stream	19 +/- 19	-	-	32 +/- 32	37 +/- 25
Rangitaiki	Otamatea River	-	8 +/- 9	429 +/- 303	268 +/- 191	102 +/- 52
Total Rangitaiki Catchment		23,241 +/- 2,321	24,612 +/- 3,843	15,106 +/- 1,923	7,632 +/- 1,258	4,132 +/- 653
Whakatane	Whakatane River	2,233 +/- 805	1,447 +/- 541	1,590 +/- 793	176 +/- 100	189 +/- 102
Whakatane	Waimana River	1,917 +/- 678	484 +/- 183	1,055 +/- 574	87 +/- 50	301 +/- 265
Whakatane	Urewera Stream	-	6 +/- 6	-	-	-
Whakatane	Tauranga River	-	-	-	93 +/- 93	411 +/- 261
Whakatane	Waikare River	-	265 +/- 266	10 +/- 11	20 +/- 14	440 +/- 312
Whakatane	Ruatahuna Stream	-	32 +/- 33	38 +/- 28	45 +/- 45	21 +/- 20
Total Whakatane Catchment		4,151 +/- 1,053	2,233 +/- 631	2,692 +/- 980	421 +/- 153	1,362 +/- 496
	Waiotahi River	109 +/- 63	87 +/- 58	-	-	-
Waioeka	Waioeka River	2,479 +/- 1,249	1,540 +/- 535	1,574 +/- 645	2,237 +/- 581	-
Waioeka	Waioeka River (above Opato confluence)	-	-	-	-	1,010 +/- 241
Waioeka	Waioeka River (below Opato confluence)	-	-	-	-	440 +/- 145
Waioeka	Opato Stream	-	75 +/- 46	-	29 +/- 29	29 +/- 22
Waioeka	Wairata Stream	109 +/- 85	410 +/- 269	89 +/- 66	177 +/- 157	130 +/- 115
Waioeka	Koranga River	-	26 +/- 26	5 +/- 5	-	7 +/- 3
Waioeka	Kahunui Stream	-	26 +/- 26	-	-	-
Total Waioeka Catchment		2,588 +/- 1,252	2,076 +/- 602	1,668 +/- 648	2,442 +/- 602	1,616 +/- 304
Otara	Otara River	256 +/- 159	60 +/- 45	290 +/- 222	21 +/- 21	24 +/- 19
Motu	Motu River	240 +/- 127	1,288 +/- 407	510 +/- 247	786 +/- 456	268 +/- 109

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Motu	Takaputahi River	40 +/- 40	35 +/- 25	-	-	66 +/- 42
Total Motu Catchment		280 +/- 133	1,323 +/- 408	510 +/- 247	786 +/- 456	334 +/- 117
	Haparapara River	-	38 +/- 40	-	-	-
	Raukokore River	-	-	126 +/- 85	-	-
	Mata River	46 +/- 46	-	-	-	-
	Waingakia Stream	-	-	10 +/- 11	-	-
	Waitahaia River	-	-	-	-	5 +/- 5
Turanganui	Turanganui River	-	-	-	22 +/- 22	52 +/- 29
Total Turanganui Catchment		-	-	-	22 +/- 22	52 +/- 29
	Waipaoa River	-	-	48 +/- 32	-	-
	Wharekopae River	-	75 +/- 77	34 +/- 26	-	2 +/- 2
Kopuawhara	Kopuawhara Stream	-	-	245 +/- 217	-	32 +/- 31
Total Kopuawhara Catchment		-	-	245 +/- 217	-	32 +/- 31
Wairoa	Wairoa River (Gisborne)	-	41 +/- 35	39 +/- 31	125 +/- 88	18 +/- 18
Wairoa	Waiau River	282 +/- 165	197 +/- 138	399 +/- 153	372 +/- 201	199 +/- 76
Wairoa	Lake Kaitawa	183 +/- 183	53 +/- 50	29 +/- 31	81 +/- 81	-
Wairoa	Lake Tuai	1,197 +/- 467	21 +/- 17	52 +/- 36	181 +/- 109	23 +/- 22
Wairoa	Lake Waikareiti	514 +/- 278	253 +/- 87	355 +/- 221	272 +/- 213	41 +/- 37
Wairoa	Lake Waikaremoana	20,617 +/- 2,214	18,766 +/- 2,058	12,986 +/- 1,670	7,497 +/- 1,135	4,011 +/- 756
Wairoa	Waikaretaheke River	-	24 +/- 24	87 +/- 83	70 +/- 45	81 +/- 52
Wairoa	Mangapapa Stream	-	16 +/- 17	-	82 +/- 82	-
Wairoa	Aniwaniwa Stream	-	127 +/- 93	237 +/- 122	-	-
Wairoa	Mokau Stream	-	63 +/- 67	-	-	-
Wairoa	Hopuruahine Stream	-	179 +/- 106	12 +/- 13	51 +/- 50	-
Wairoa	Moerangi Stream	-	-	-	12 +/- 12	3 +/- 2
Wairoa	Mangapoike River	-	26 +/- 27	16 +/- 16	-	-
Wairoa	Mangaone Stream	-	65 +/- 44	204 +/- 95	-	20 +/- 20
Wairoa	Ruakituri River	2,385 +/- 630	1,418 +/- 266	2,180 +/- 597	-	-
Wairoa	Ruakituri River (above Boothman Bridge)	-	-	-	1,614 +/- 555	697 +/- 193
Wairoa	Ruakituri River (below Boothman Bridge)	-	-	-	136 +/- 62	585 +/- 299
Wairoa	Hangaroa River	616 +/- 427	445 +/- 163	807 +/- 545	1,190 +/- 983	193 +/- 95
Total Wairoa Catchment		25,793 +/- 2,416	21,696 +/- 2,095	17,404 +/- 1,884	11,683 +/- 1,640	5,871 +/- 847
Waikato	Lake Aratiatia	179 +/- 99	75 +/- 57	-	4 +/- 3	1 +/- 1
Waikato	Lake Atiamuri	538 +/- 234	573 +/- 272	797 +/- 425	520 +/- 381	266 +/- 116
Waikato	Lake Maraetai	646 +/- 328	799 +/- 377	1,138 +/- 437	333 +/- 143	586 +/- 173
Waikato	Lake Ohakuri	2,559 +/- 748	1,215 +/- 545	582 +/- 450	660 +/- 260	443 +/- 191
Waikato	Lake Whakamaru	3,364 +/- 1,064	569 +/- 175	1,013 +/- 507	492 +/- 291	622 +/- 219
Waikato	Waikato River (Huka Falls to Lake Ohakuri)	3,708 +/- 1,590	1,926 +/- 1,112	2,151 +/- 758	1,115 +/- 412	1,609 +/- 450
Waikato	Tahunaatara Stream	442 +/- 308	258 +/- 218	45 +/- 46	-	-
Waikato	Whirinaki Stream	109 +/- 84	413 +/- 164	581 +/- 477	120 +/- 117	1 +/- 1

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Waikato	Lake Ngapouri	79 +/- 56	173 +/- 90	62 +/- 47	202 +/- 142	157 +/- 102
Waikato	Lake Ngahewa	-	32 +/- 33	298 +/- 279	33 +/- 33	-
Waikato	Torepatutahi Stream	191 +/- 125	181 +/- 130	102 +/- 91	-	-
Waikato	Ruatawiri Stream	-	97 +/- 100	-	23 +/- 23	-
Waikato	Pueto Stream	82 +/- 49	-	14 +/- 14	11 +/- 10	130 +/- 123
Waikato	Lake Rotoaira	-	87 +/- 54	436 +/- 168	-	-
Total Waikato Catchment		11,896 +/- 2,125	6,397 +/- 1,377	7,220 +/- 1,324	3,512 +/- 723	3,815 +/- 597

## Taranaki

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
	Turakina River	63 +/- 63	-	-	-	-
	Lake Namunamu	301 +/- 113	32 +/- 20	29 +/- 19	133 +/- 123	22 +/- 16
Whangaehu	Lake Ohakune	114 +/- 45	-	43 +/- 32	20 +/- 19	2 +/- 2
Whangaehu	Lake Rotokura (Karioi)	109 +/- 39	12 +/- 10	434 +/- 395	-	215 +/- 196
Whangaehu	Whangaehu River	5 +/- 5	-	-	-	82 +/- 78
Whangaehu	Raetihi Hydro Dam	-	-	31 +/- 22	11 +/- 9	-
Whangaehu	Sattlers Lake (also Sattlers - Dam)	-	-	-	-	9 +/- 6
Whangaehu	Mangawhero River	617 +/- 190	434 +/- 157	423 +/- 131	253 +/- 86	393 +/- 202
Whangaehu	Taonui Stream	402 +/- 262	69 +/- 42	47 +/- 37	95 +/- 70	71 +/- 58
Whangaehu	Lake Lahar	-	7 +/- 5	-	-	-
Whangaehu	Makotuku Stream	-	3 +/- 4	11 +/- 12	-	-
Whangaehu	Mangateitei Stream	-	-	-	3 +/- 3	20 +/- 16
Whangaehu	Tokiahuru Stream	79 +/- 42	33 +/- 20	-	-	29 +/- 16
Whangaehu	Waitaiki Stream	31 +/- 23	41 +/- 24	37 +/- 29	7 +/- 7	67 +/- 42
Whangaehu	Omarae Stream	10 +/- 10	-	57 +/- 51	-	-
Whangaehu	Waitangi Stream	-	-	19 +/- 14	14 +/- 14	-
Total Whangaehu Catchment		1,368 +/- 333	600 +/- 165	1,102 +/- 424	404 +/- 113	888 +/- 302
Kaitoke	Lake Pauri	39 +/- 30	3 +/- 4	15 +/- 17	-	-
Kaitoke	Lake Wiritoa	14 +/- 10	51 +/- 31	95 +/- 40	84 +/- 35	67 +/- 39
Kaitoke	Lake Kohata	-	112 +/- 40	-	-	-
Total Kaitoke Catchment		53 +/- 32	167 +/- 50	111 +/- 44	84 +/- 35	67 +/- 39
Whanganui	Lake Virginia	321 +/- 84	103 +/- 61	-	-	-
Whanganui	Whanganui River	1,784 +/- 535	429 +/- 173	1,893 +/- 435	-	-
Whanganui	Whanganui River (below Ohura)	-	189 +/- 81	371 +/- 152	674 +/- 199	1,005 +/- 449
Whanganui	Manganui-o-te-ao River	1,971 +/- 264	757 +/- 151	2,381 +/- 553	1,230 +/- 273	909 +/- 572
Whanganui	Ruatiti Stream	31 +/- 31	-	143 +/- 45	22 +/- 6	192 +/- 49
Whanganui	Orautoha Stream	-	28 +/- 32	81 +/- 76	-	-
Whanganui	Mangaturuturu River	-	-	-	3 +/- 3	-
Whanganui	Waimarino Stream	18 +/- 13	35 +/- 21	47 +/- 40	-	13 +/- 11
Whanganui	Makatote River	120 +/- 94	-	5 +/- 5	13 +/- 13	4 +/- 4
Whanganui	Whangamomona River	-	-	27 +/- 28	-	5 +/- 5
Whanganui	Retaruke River	78 +/- 63	84 +/- 53	96 +/- 55	194 +/- 127	202 +/- 94
Total Whanganui Catchment		4,323 +/- 614	1,626 +/- 260	5,043 +/- 729	2,135 +/- 361	2,330 +/- 735
	Waitotara River	-	-	5 +/- 6	-	-
	Lake Waiau	-	-	268 +/- 253	-	308 +/- 175
	Omahine Stream	5 +/- 5	67 +/- 43	-	10 +/- 10	-
Patea	Lake Rotorangi	232 +/- 75	147 +/- 67	125 +/- 77	36 +/- 22	103 +/- 65
Patea	Patea River	284 +/- 130	882 +/- 311	1,452 +/- 370	545 +/- 141	-
Patea	Patea River (downstream - of Patea Dam)	-	-	-	-	276 +/- 90

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Patea	Patea River (upstream of Lake Rotorangi)	-	-	-	-	409 +/- 95
Patea	Mangakotukutuku Stream	-	-	-	-	61 +/- 61
Patea	Mangaehu Stream	-	-	10 +/- 11	2 +/- 2	-
Patea	Makuri Stream	106 +/- 90	-	-	32 +/- 22	111 +/- 57
Patea	Kahouri Stream	42 +/- 42	-	-	21 +/- 17	-
Patea	Piakau South Stream	36 +/- 36	-	-	-	-
Patea	Konini Stream	16 +/- 16	-	-	-	-
Total Patea Catchment		716 +/- 184	1,029 +/- 318	1,588 +/- 378	635 +/- 146	960 +/- 168
	Rotokare Lake (Perch fishery Tangahoe River catchment)	-	-	-	-	202 +/- 156
	Tawhiti Stream	6 +/- 6	-	-	-	-
Waingongoro	Waingongoro River	1,550 +/- 268	1,008 +/- 206	1,214 +/- 306	565 +/- 170	110 +/- 46
Waingongoro	Mangatoki Stream	199 +/- 131	32 +/- 25	14 +/- 12	21 +/- 15	14 +/- 14
Total Waingongoro Catchment		1,749 +/- 298	1,040 +/- 208	1,228 +/- 307	586 +/- 171	124 +/- 48
Kapuni	Kapuni Stream	53 +/- 22	109 +/- 46	51 +/- 32	26 +/- 17	34 +/- 24
Total Kapuni Catchment		53 +/- 22	109 +/- 46	51 +/- 32	26 +/- 17	34 +/- 24
Waiokura	Waiokura Stream	-	19 +/- 22	205 +/- 202	2 +/- 2	43 +/- 35
Total Waiokura Catchment		-	19 +/- 22	205 +/- 202	2 +/- 2	43 +/- 35
Kaupokonui	Kaupokonui Stream	156 +/- 122	231 +/- 102	287 +/- 132	202 +/- 60	157 +/- 53
Kaupokonui	Mangawhero Stream	-	34 +/- 17	17 +/- 18	12 +/- 5	23 +/- 17
Kaupokonui	Mangawheroiti Stream	-	-	45 +/- 46	-	16 +/- 16
Kaupokonui	Dunns Creek	-	3 +/- 4	-	-	-
Total Kaupokonui Catchment		156 +/- 122	268 +/- 103	349 +/- 141	214 +/- 60	196 +/- 58
Otakeho	Otakeho Stream	-	7 +/- 6	44 +/- 30	-	29 +/- 22
Total Otakeho Catchment		-	7 +/- 6	44 +/- 30	-	29 +/- 22
	Taungatara Stream	6 +/- 6	-	234 +/- 219	5 +/- 4	-
	Mangahume Stream	12 +/- 12	4 +/- 4	-	36 +/- 34	-
Waiaua	Lake Opunake	31 +/- 21	4 +/- 5	205 +/- 90	185 +/- 95	-
Waiaua	Waiaua River	102 +/- 48	9 +/- 7	49 +/- 33	50 +/- 30	114 +/- 98
Total Waiaua Catchment		133 +/- 52	14 +/- 9	254 +/- 96	235 +/- 99	114 +/- 98
	Otahi Stream	-	-	12 +/- 13	3 +/- 3	-
	Oaonui Stream	-	50 +/- 54	10 +/- 11	-	-
Okahu	Okahu Stream	80 +/- 53	7 +/- 6	36 +/- 23	13 +/- 8	8 +/- 7
Total Okahu Catchment		80 +/- 53	7 +/- 6	36 +/- 23	13 +/- 8	8 +/- 7
Pungaereere	Pungaereere Stream	-	-	147 +/- 146	-	7 +/- 7
Total Pungaereere Catchment		-	-	147 +/- 146	-	7 +/- 7
Waitotoroa	Waitotoroa Stream	-	13 +/- 16	-	-	7 +/- 7
Total Waitotoroa Catchment		-	13 +/- 16	-	-	7 +/- 7
	Kapoiaia Stream	-	8 +/- 9	-	10 +/- 10	-
Warea	Warea River	30 +/- 14	28 +/- 19	132 +/- 49	50 +/- 27	54 +/- 38
Total Warea Catchment		30 +/- 14	28 +/- 19	132 +/- 49	50 +/- 27	54 +/- 38

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
	Waiweranui Stream	-	7 +/- 6	78 +/- 54	-	-
Stony	Stony River	148 +/- 38	407 +/- 153	267 +/- 119	285 +/- 104	508 +/- 157
Total Stony Catchment		148 +/- 38	407 +/- 153	267 +/- 119	285 +/- 104	508 +/- 157
Kaihihi	Kaihihi Stream	-	-	-	7 +/- 7	26 +/- 19
Total Kaihihi Catchment		-	-	-	7 +/- 7	26 +/- 19
	Timaru Stream	29 +/- 15	7 +/- 8	131 +/- 107	120 +/- 120	-
Oakura	Oakura River	27 +/- 14	43 +/- 46	81 +/- 54	33 +/- 20	11 +/- 11
Total Oakura Catchment		27 +/- 14	43 +/- 46	81 +/- 54	33 +/- 20	11 +/- 11
	Tapuae Stream	-	-	22 +/- 26	-	-
	Huatoki Stream	56 +/- 36	-	-	-	-
	Te Henui Stream	292 +/- 148	21 +/- 17	64 +/- 42	-	-
Waiwhakaiho	Lake Rotomanu	718 +/- 172	625 +/- 288	303 +/- 104	729 +/- 281	658 +/- 181
Waiwhakaiho	Waiwhakaiho River	535 +/- 127	338 +/- 136	1,236 +/- 227	1,214 +/- 233	538 +/- 92
Waiwhakaiho	Mangorei Stream	109 +/- 78	-	20 +/- 21	6 +/- 5	32 +/- 31
Waiwhakaiho	Lake Mangamahoe	1,383 +/- 255	827 +/- 217	1,915 +/- 893	1,208 +/- 352	471 +/- 193
Waiwhakaiho	Mangamohoe Stream	-	-	-	-	123 +/- 104
Waiwhakaiho	Kai Auahi Stream	97 +/- 49	-	71 +/- 34	108 +/- 85	12 +/- 9
Waiwhakaiho	Mangawarawara Stream	-	-	36 +/- 36	-	-
Total Waiwhakaiho Catchment		2,842 +/- 345	1,789 +/- 385	3,580 +/- 929	3,265 +/- 514	1,834 +/- 301
Waiongana	Waiongana Stream	100 +/- 55	23 +/- 16	85 +/- 48	183 +/- 96	44 +/- 19
Waiongana	Mangaoraka Stream	187 +/- 116	92 +/- 65	56 +/- 35	-	-
Total Waiongana Catchment		287 +/- 129	115 +/- 67	140 +/- 60	183 +/- 96	44 +/- 19
Waitara	Lake Cowley	81 +/- 38	-	6 +/- 7	30 +/- 30	-
Waitara	Waitara River	23 +/- 14	12 +/- 10	118 +/- 68	32 +/- 23	106 +/- 76
Waitara	Lake Ngangana	-	199 +/- 70	102 +/- 49	11 +/- 8	6 +/- 5
Waitara	Manganui River	159 +/- 77	152 +/- 65	604 +/- 179	305 +/- 94	123 +/- 44
Waitara	Ngatoro Stream	39 +/- 34	3 +/- 4	141 +/- 61	61 +/- 53	-
Waitara	Ngatoronui Stream	-	-	12 +/- 13	-	-
Waitara	Maketawa Stream	99 +/- 44	38 +/- 26	61 +/- 23	14 +/- 11	26 +/- 12
Waitara	Mangamawhete Stream	9 +/- 9	-	15 +/- 17	-	-
Waitara	Waipuku Stream	-	-	-	3 +/- 3	-
Waitara	Te Popo Stream	-	13 +/- 16	-	-	-
Waitara	Lake Ratapiko	-	342 +/- 132	650 +/- 264	83 +/- 29	164 +/- 85
Total Waitara Catchment		411 +/- 103	760 +/- 166	1,709 +/- 337	540 +/- 119	425 +/- 123

## Hawke's Bay

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Wairoa	Mangamate Stream	-	-	24 +/- 25	-	-
Mohaka	Mohaka River	3,773 +/- 228	656 +/- 178	2,325 +/- 714	-	-
Mohaka	Mohaka River (above Mangatainoka)	-	900 +/- 241	3,493 +/- 1,827	2,114 +/- 380	1,859 +/- 410
Mohaka	Mohaka River (below SH5)	-	3,165 +/- 584	2,244 +/- 418	2,911 +/- 455	1,956 +/- 413
Mohaka	Mohaka River (Mangatainoka to SH5)	-	2,347 +/- 362	2,236 +/- 394	1,834 +/- 298	1,774 +/- 337
Mohaka	Te Hoe River	14 +/- 14	7 +/- 8	126 +/- 77	102 +/- 58	124 +/- 72
Mohaka	Hautapu River	51 +/- 19	37 +/- 31	184 +/- 105	42 +/- 42	122 +/- 68
Mohaka	Pukahunui Stream	-	-	-	-	23 +/- 23
Mohaka	Waipunga River	50 +/- 17	343 +/- 110	347 +/- 135	209 +/- 68	490 +/- 253
Mohaka	Mokomokonui River	-	8 +/- 9	-	294 +/- 180	89 +/- 64
Mohaka	Inangatahi Stream	135 +/- 20	35 +/- 20	104 +/- 84	-	-
Mohaka	Toropapa Stream	-	14 +/- 15	-	-	-
Mohaka	Ripia River	135 +/- 20	192 +/- 77	27 +/- 28	91 +/- 50	106 +/- 53
Mohaka	Makahu River	101 +/- 11	7 +/- 7	-	30 +/- 22	27 +/- 27
Mohaka	Mangatutunui Stream	-	-	-	102 +/- 96	-
Mohaka	Makino River	-	-	-	-	61 +/- 43
Mohaka	Mangatainoka River	202 +/- 32	14 +/- 15	58 +/- 46	117 +/- 84	251 +/- 103
Mohaka	Taharua River	-	-	-	47 +/- 31	-
Mohaka	Taharua River (Mohaka trib)	-	-	-	-	6 +/- 6
Mohaka	Oamaru River	-	73 +/- 57	36 +/- 30	6 +/- 3	213 +/- 110
Mohaka	Kaipu River	33 +/- 6	28 +/- 26	59 +/- 43	52 +/- 52	387 +/- 333
Total Mohaka Catchment		4,494 +/- 234	7,825 +/- 765	11,239 +/- 2,056	7,952 +/- 711	7,488 +/- 818
Waikari	Waikari River	123 +/- 38	7 +/- 8	265 +/- 140	-	20 +/- 20
Aropaoanui	Aropaoanui River	-	-	80 +/- 54	30 +/- 22	110 +/- 110
Aropaoanui	Waikoau River	67 +/- 12	371 +/- 305	-	53 +/- 28	31 +/- 24
Aropaoanui	Lake Opouahi	-	14 +/- 15	27 +/- 21	-	-
Aropaoanui	Lake Orakai	-	-	638 +/- 569	-	118 +/- 126
Aropaoanui	Lake Tutira	3,088 +/- 164	2,336 +/- 393	1,644 +/- 508	2,720 +/- 506	899 +/- 230
Total Aropaoanui Catchment		3,155 +/- 165	2,721 +/- 498	2,389 +/- 765	2,803 +/- 508	1,158 +/- 286
Esk	Esk River	1,954 +/- 99	188 +/- 58	873 +/- 211	1,527 +/- 406	453 +/- 134
Tutaekuri	Tutaekuri River	7,127 +/- 260	6,732 +/- 812	4,784 +/- 638	5,739 +/- 1,135	4,449 +/- 684
Tutaekuri	Twin Lakes	-	215 +/- 116	234 +/- 184	26 +/- 18	62 +/- 60
Tutaekuri	Lake Te Pohue	258 +/- 46	14 +/- 15	33 +/- 27	-	-
Tutaekuri	Mangaone River	371 +/- 29	393 +/- 139	180 +/- 92	637 +/- 236	269 +/- 113
Tutaekuri	Mangatutu Stream	302 +/- 39	107 +/- 59	562 +/- 304	206 +/- 107	186 +/- 71
Tutaekuri	Donald River	-	10 +/- 10	-	-	-
Total Tutaekuri Catchment		8,057 +/- 268	7,470 +/- 834	5,792 +/- 736	6,608 +/- 1,164	4,966 +/- 699
Ngaruroro	Ngaruroro River	3,760 +/- 181	112 +/- 49	581 +/- 262	-	-



Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Ngaruroro	Ngaruroro River (above Taruarau confluence)	-	978 +/- 295	549 +/- 160	2,633 +/- 467	1,814 +/- 389
Ngaruroro	Ngaruroro River (below Taruarau confluence)	-	5,152 +/- 697	1,681 +/- 319	1,807 +/- 325	2,557 +/- 789
Ngaruroro	Tutaekuri Waimate Stream	-	-	32 +/- 33	173 +/- 102	125 +/- 76
Ngaruroro	Mangatarata Stream	-	37 +/- 38	-	-	20 +/- 20
Ngaruroro	Waitio Stream	-	-	17 +/- 19	-	-
Ngaruroro	Mangatahi Stream	-	67 +/- 69	181 +/- 112	3 +/- 2	15 +/- 15
Ngaruroro	Otamauri Stream	-	14 +/- 15	48 +/- 38	68 +/- 68	-
Ngaruroro	Poporangi Stream	101 +/- 19	-	-	10 +/- 10	-
Ngaruroro	Whanaukini Stream	-	-	-	10 +/- 10	-
Ngaruroro	Ohara Stream	168 +/- 21	292 +/- 143	118 +/- 76	583 +/- 335	476 +/- 153
Ngaruroro	Taruarau River	222 +/- 82	358 +/- 159	278 +/- 120	407 +/- 136	141 +/- 54
Ngaruroro	Ikawetea Stream	-	71 +/- 74	-	-	2 +/- 2
Ngaruroro	Ngaawapurua Stream	-	-	-	20 +/- 20	108 +/- 69
Total Ngaruroro Catchment		4,251 +/- 201	7,082 +/- 795	3,484 +/- 481	5,713 +/- 686	5,258 +/- 900
Tukituki	Tukituki River	14,022 +/- 441	474 +/- 195	1,698 +/- 554	-	-
Tukituki	Tukituki River (above Waipawa confluence)	-	2,488 +/- 500	1,684 +/- 378	2,467 +/- 618	2,815 +/- 509
Tukituki	Tukituki River (below Patangata)	-	10,138 +/- 1,262	2,918 +/- 616	4,151 +/- 588	4,445 +/- 820
Tukituki	Tukituki River (Waipawa to Patangata)	-	4,106 +/- 681	3,834 +/- 610	3,032 +/- 612	3,177 +/- 581
Tukituki	Waipawa River	607 +/- 43	2,052 +/- 418	1,286 +/- 285	1,847 +/- 496	2,542 +/- 745
Tukituki	Mangaonuku Stream	202 +/- 23	564 +/- 201	184 +/- 124	380 +/- 160	40 +/- 25
Tukituki	Mangamauku Stream	-	-	-	43 +/- 33	20 +/- 20
Tukituki	Makaroro River	37 +/- 5	40 +/- 31	-	56 +/- 34	96 +/- 74
Tukituki	Mangataura Stream	101 +/- 11	14 +/- 15	10 +/- 11	-	83 +/- 83
Tukituki	Tukipo River	136 +/- 81	1,052 +/- 309	54 +/- 41	577 +/- 358	295 +/- 119
Tukituki	Makaretu River	-	7 +/- 7	162 +/- 179	-	22 +/- 22
Tukituki	Maharakeke Stream	-	61 +/- 35	-	-	-
Tukituki	Mangatewai River	-	-	-	-	15 +/- 15
Tukituki	Tangarewai Stream	-	-	93 +/- 95	-	-
Total Tukituki Catchment		15,104 +/- 452	20,997 +/- 1,631	11,923 +/- 1,158	12,552 +/- 1,227	13,550 +/- 1,360
Maraetotara	Maraetotara River	698 +/- 193	143 +/- 94	106 +/- 77	237 +/- 102	67 +/- 43
Waikato	Tikitiki Stream	-	-	-	-	1 +/- 1
Waikato	Lake Hawkestone	-	-	-	-	31 +/- 31
Total Waikato Catchment		-	-	-	-	32 +/- 31

## Wellington

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Pahaoa	Pahaoa River	-	12 +/- 13	-	-	43 +/- 30
Pahaoa	Wainuioru River	-	23 +/- 18	-	34 +/- 34	-
Total Pahaoa Catchment		-	35 +/- 22	-	34 +/- 34	43 +/- 30
Ruamahanga	Kourarau Dam	851 +/- 240	609 +/- 176	227 +/- 151	2 +/- 2	10 +/- 10
Ruamahanga	Lake Henley	2,253 +/- 817	283 +/- 262	270 +/- 275	-	537 +/- 351
Ruamahanga	Oporua Spillway	79 +/- 79	-	164 +/- 170	-	100 +/- 100
Ruamahanga	Ruamahanga River	7,386 +/- 942	333 +/- 169	1,461 +/- 383	-	-
Ruamahanga	Lake Onoke	-	26 +/- 19	12 +/- 13	11 +/- 11	37 +/- 37
Ruamahanga	Ruamahanga River (above Mount Bruce)	-	155 +/- 91	30 +/- 23	63 +/- 46	225 +/- 110
Ruamahanga	Ruamahanga River (Martinborough to Lake Onoke)	-	1,092 +/- 313	1,298 +/- 592	463 +/- 142	597 +/- 173
Ruamahanga	Ruamahanga River (Masterton to Martinborough)	-	4,971 +/- 746	3,142 +/- 609	2,436 +/- 394	2,350 +/- 479
Ruamahanga	Ruamahanga River (Mount Bruce to Masterton)	-	362 +/- 113	607 +/- 216	633 +/- 216	490 +/- 246
Ruamahanga	Lake Wairarapa	200 +/- 146	153 +/- 87	114 +/- 73	280 +/- 143	591 +/- 241
Ruamahanga	Tauherenikau River	364 +/- 285	218 +/- 154	160 +/- 80	150 +/- 75	73 +/- 68
Ruamahanga	Huangaia River	-	59 +/- 38	63 +/- 53	45 +/- 32	26 +/- 19
Ruamahanga	Waiohine River	1,325 +/- 421	961 +/- 469	857 +/- 385	314 +/- 118	246 +/- 106
Ruamahanga	Mangatarere Stream	262 +/- 139	156 +/- 96	-	-	19 +/- 19
Ruamahanga	Tauweru River	49 +/- 36	139 +/- 59	296 +/- 157	13 +/- 12	-
Ruamahanga	Waingawa River	429 +/- 219	137 +/- 66	144 +/- 69	61 +/- 35	194 +/- 94
Ruamahanga	Atiwhakatu Stream	-	27 +/- 28	-	24 +/- 13	2 +/- 2
Ruamahanga	Waipoua River	136 +/- 87	263 +/- 185	76 +/- 44	22 +/- 22	-
Ruamahanga	Kopuaranga River	521 +/- 241	523 +/- 198	311 +/- 138	84 +/- 59	54 +/- 39
Total Ruamahanga Catchment		13,856 +/- 1,425	10,466 +/- 1,071	9,233 +/- 1,121	4,601 +/- 521	5,551 +/- 743
	Orongorongo River	-	37 +/- 38	-	-	-
Wainuiomata	Wainuiomata River	2,388 +/- 612	752 +/- 178	1,563 +/- 414	213 +/- 82	888 +/- 279
Hutt	Hutt River	19,960 +/- 2,085	6,163 +/- 873	3,794 +/- 631	5,563 +/- 734	6,617 +/- 1,078
Hutt	Whakatikei River	70 +/- 35	75 +/- 70	22 +/- 17	22 +/- 22	34 +/- 25
Hutt	Akatarawa River	71 +/- 71	315 +/- 140	223 +/- 137	39 +/- 21	19 +/- 18
Hutt	Akatarawa River West	-	-	-	-	23 +/- 23
Hutt	Mangaroa River	117 +/- 80	10 +/- 10	-	12 +/- 12	66 +/- 39
Hutt	Pakuratahi River	53 +/- 39	49 +/- 51	-	200 +/- 194	214 +/- 106
Total Hutt Catchment		20,271 +/- 2,089	6,611 +/- 889	4,040 +/- 646	5,836 +/- 760	6,973 +/- 1,084
	Korokoro Stream	18 +/- 18	-	-	-	-
	Kaiwharawhara Stream	18 +/- 18	-	-	-	-
	Karori Stream	120 +/- 86	-	-	-	-
	Makara Stream	99 +/- 62	69 +/- 57	-	-	-

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
	Porirua Stream	-	-	-	42 +/- 42	-
Pauatahanui	Whitby Lakes	932 +/- 519	407 +/- 158	20 +/- 21	34 +/- 34	385 +/- 245
Pauatahanui	Pauatahanui Stream	-	-	-	-	15 +/- 15
Total Pauatahanui Catchment		932 +/- 519	407 +/- 158	20 +/- 21	34 +/- 34	400 +/- 246
Horokiwi	Horokiwi Stream	-	-	-	-	18 +/- 18
Wainui	Wainui Stream	88 +/- 79	73 +/- 49	22 +/- 17	26 +/- 26	39 +/- 39
Waikanae	Waikanae River	752 +/- 192	419 +/- 140	1,418 +/- 475	919 +/- 259	176 +/- 69
Waikanae	Maungakotukuku Stream	-	-	-	40 +/- 40	-
Total Waikanae Catchment		752 +/- 192	419 +/- 140	1,418 +/- 475	959 +/- 262	176 +/- 69
Otaki	Otaki River	694 +/- 228	346 +/- 98	698 +/- 190	830 +/- 167	453 +/- 137
Otaki	Waiotauru River	-	-	-	39 +/- 39	1 +/- 1
Total Otaki Catchment		694 +/- 228	346 +/- 98	698 +/- 190	868 +/- 172	454 +/- 137
	Lake Waitawa	824 +/- 560	143 +/- 70	367 +/- 164	46 +/- 31	1,300 +/- 445
	Waitohu Stream	-	-	65 +/- 38	-	-
Waikawa	Lake Kopureherehere	714 +/- 364	211 +/- 110	-	-	-
Waikawa	Waikawa Stream	-	-	10 +/- 11	-	146 +/- 120
Total Waikawa Catchment		714 +/- 364	211 +/- 110	10 +/- 11	-	146 +/- 120
Ohau	Ohau River	233 +/- 103	183 +/- 96	166 +/- 63	462 +/- 160	1,210 +/- 697
Manawatu	Hokowhitu Lagoon	219 +/- 107	429 +/- 270	235 +/- 246	34 +/- 34	757 +/- 446
Manawatu	Manawatu River	11,966 +/- 1,395	151 +/- 67	1,647 +/- 475	-	-
Manawatu	Manawatu River (above-Dannevirke)	-	1,166 +/- 363	1,536 +/- 558	1,546 +/- 575	1,021 +/- 436
Manawatu	Manawatu River (Dannevirke to Woodville)	-	3,729 +/- 732	5,361 +/- 1,067	1,977 +/- 467	3,141 +/- 578
Manawatu	Manawatu River (Palmerston North to Foxton)	-	1,996 +/- 421	1,316 +/- 319	1,242 +/- 519	998 +/- 227
Manawatu	Manawatu River (Woodville to Palmerston North)	-	6,818 +/- 1,013	4,357 +/- 1,076	4,436 +/- 682	2,238 +/- 721
Manawatu	Tokomaru River	158 +/- 81	52 +/- 29	-	133 +/- 103	49 +/- 28
Manawatu	Oroua River	204 +/- 88	611 +/- 294	405 +/- 188	728 +/- 314	712 +/- 400
Manawatu	Kahuterawa Stream	110 +/- 54	-	-	-	-
Manawatu	Turitea Stream	102 +/- 58	22 +/- 23	45 +/- 42	64 +/- 49	2 +/- 2
Manawatu	Pohangina River	1,400 +/- 357	922 +/- 237	1,842 +/- 511	934 +/- 280	1,526 +/- 299
Manawatu	Makiekie Creek	108 +/- 83	9 +/- 9	-	13 +/- 13	1 +/- 1
Manawatu	Horopito Stream	-	-	10 +/- 11	36 +/- 36	-
Manawatu	Mangahao River	213 +/- 73	824 +/- 226	1,116 +/- 612	357 +/- 162	462 +/- 227
Manawatu	Tiraumea River	46 +/- 39	10 +/- 10	42 +/- 43	43 +/- 29	-
Manawatu	Mangatainoka River	3,042 +/- 549	1,674 +/- 322	1,989 +/- 750	1,153 +/- 393	1,972 +/- 521
Manawatu	Makakahi River	1,171 +/- 476	161 +/- 73	175 +/- 139	179 +/- 123	-
Manawatu	Makuri River	817 +/- 248	520 +/- 135	592 +/- 263	230 +/- 85	369 +/- 191
Manawatu	Mangaone River	-	-	-	-	150 +/- 89

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Manawatu	Mangapuaka Stream	-	46 +/- 36	-	-	-
Manawatu	Mangatoro Stream	54 +/- 40	26 +/- 27	-	11 +/- 11	-
Total Manawatu Catchment		19,609 +/- 1,646	19,165 +/- 1,507	20,668 +/- 2,079	13,116 +/- 1,296	13,398 +/- 1,383
Rangitikei	Rangitikei River	5,713 +/- 723	416 +/- 157	1,857 +/- 424	-	-
Rangitikei	Rangitikei River (above - Mangaohane Bridge)	-	855 +/- 184	1,593 +/- 451	1,580 +/- 456	1,430 +/- 284
Rangitikei	Rangitikei River (Mangaohane Bridge to Vinegar Hill)	-	2,128 +/- 395	1,827 +/- 383	2,443 +/- 509	4,360 +/- 1,241
Rangitikei	Rangitikei River (Vinegar Hill to Tangimoana)	-	2,494 +/- 517	787 +/- 270	3,850 +/- 1,051	2,796 +/- 659
Rangitikei	Mangateweka Stream	88 +/- 57	-	70 +/- 77	79 +/- 60	-
Rangitikei	Mangawharariki River	-	-	-	-	6 +/- 5
Rangitikei	Kawhatau River	331 +/- 117	85 +/- 47	249 +/- 157	277 +/- 116	85 +/- 41
Rangitikei	Pourangaki River	-	-	84 +/- 86	-	11 +/- 11
Rangitikei	Hautapu River	1,057 +/- 463	256 +/- 135	216 +/- 116	238 +/- 81	321 +/- 216
Rangitikei	Moawhango River	188 +/- 100	62 +/- 37	12 +/- 13	32 +/- 32	44 +/- 27
Rangitikei	Whakaurekou River	-	99 +/- 78	64 +/- 48	26 +/- 26	41 +/- 39
Rangitikei	Mangatera River	-	-	53 +/- 44	21 +/- 21	-
Rangitikei	Mangaohane Stream	27 +/- 26	-	-	189 +/- 180	18 +/- 18
Rangitikei	Mangamaire River	-	-	-	-	15 +/- 15
Total Rangitikei Catchment		7,404 +/- 875	6,394 +/- 714	6,811 +/- 811	8,735 +/- 1,276	9,127 +/- 1,451
	Lake Alice	14 +/- 14	-	-	-	-
	Lake Dudding	-	-	-	515 +/- 222	178 +/- 122
Kaitoke	Kaitoke Stream	-	-	-	-	56 +/- 39

## Nelson/Marlborough

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Aorere	Aorere River	654 +/- 221	300 +/- 90	845 +/- 312	325 +/- 131	40 +/- 23
Takaka	Takaka River	1,161 +/- 361	222 +/- 104	222 +/- 125	-	-
Takaka	Takaka River (above Lindsay's Bridge)	-	358 +/- 115	166 +/- 84	153 +/- 93	172 +/- 122
Takaka	Takaka River (below Lindsay's Bridge)	-	543 +/- 165	474 +/- 335	84 +/- 47	29 +/- 29
Takaka	Waikoropupu River	43 +/- 42	82 +/- 51	-	-	-
Takaka	Anatoki River	353 +/- 244	39 +/- 22	17 +/- 19	40 +/- 35	1 +/- 1
Takaka	Waingarō River	50 +/- 39	50 +/- 24	29 +/- 24	47 +/- 37	14 +/- 14
Takaka	Cobb Reservoir	435 +/- 133	221 +/- 76	98 +/- 54	118 +/- 52	213 +/- 105
Takaka	Cobb River	289 +/- 96	259 +/- 120	106 +/- 45	279 +/- 114	211 +/- 105
Total Takaka Catchment		2,333 +/- 469	1,774 +/- 274	1,111 +/- 375	721 +/- 170	640 +/- 195
Riwaka	Riwaka River	619 +/- 224	567 +/- 158	315 +/- 112	253 +/- 121	136 +/- 72
Riwaka	Riwaka River North Branch	-	16 +/- 12	-	17 +/- 17	-
Riwaka	Riwaka River South Branch	-	27 +/- 15	-	115 +/- 115	132 +/- 114
Total Riwaka Catchment		619 +/- 224	610 +/- 159	315 +/- 112	385 +/- 168	268 +/- 134
Motueka	Motueka River	10,065 +/- 1,373	1,508 +/- 484	1,406 +/- 305	-	-
Motueka	Motueka River (above Wangapeka)	-	1,007 +/- 192	925 +/- 193	2,840 +/- 1,043	2,328 +/- 668
Motueka	Motueka River (below Wangapeka)	-	3,874 +/- 459	2,663 +/- 445	2,252 +/- 343	3,647 +/- 769
Motueka	Orinoco Creek	-	92 +/- 63	-	-	-
Motueka	Graham River	-	47 +/- 25	-	-	57 +/- 45
Motueka	Pearse River	268 +/- 240	28 +/- 19	-	25 +/- 19	28 +/- 28
Motueka	Dove River	-	-	-	-	15 +/- 15
Motueka	Baton River	438 +/- 142	150 +/- 43	222 +/- 103	136 +/- 58	193 +/- 70
Motueka	Wangapeka River	971 +/- 210	816 +/- 153	911 +/- 199	449 +/- 136	828 +/- 217
Motueka	Rolling River	8 +/- 8	9 +/- 10	-	21 +/- 21	-
Motueka	Motupiko River	383 +/- 156	289 +/- 82	66 +/- 36	723 +/- 401	116 +/- 81
Motueka	Rainy River	-	12 +/- 9	-	6 +/- 4	-
Total Motueka Catchment		12,133 +/- 1,426	7,832 +/- 720	6,193 +/- 616	6,452 +/- 1,178	7,212 +/- 1,048
Waimea	Waimea River	1,783 +/- 354	236 +/- 84	496 +/- 178	350 +/- 110	1,584 +/- 578
Waimea	Waimea River Park Pond (Waimea River Park Fishing Ponds)	-	-	-	-	1,802 +/- 382
Waimea	Wai-iti River	96 +/- 55	34 +/- 26	193 +/- 129	19 +/- 19	309 +/- 289
Waimea	Wairoa River (Nelson)	279 +/- 96	550 +/- 150	200 +/- 127	1,305 +/- 569	240 +/- 132
Waimea	Roding River	-	73 +/- 59	-	-	-
Waimea	Lee River	129 +/- 122	82 +/- 35	48 +/- 49	5 +/- 4	-
Total Waimea Catchment		2,286 +/- 390	975 +/- 187	936 +/- 259	1,681 +/- 580	3,935 +/- 762
Maitai	Maitai River	182 +/- 64	281 +/- 191	87 +/- 49	432 +/- 233	66 +/- 60
Wakapuaka	Wakapuaka River	283 +/- 199	126 +/- 74	68 +/- 53	393 +/- 207	77 +/- 44

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Whangamoa	Whangamoa River	-	12 +/- 13	11 +/- 12	40 +/- 24	57 +/- 35
Pelorus	Pelorus River	2,096 +/- 395	320 +/- 146	259 +/- 107	-	-
Pelorus	Pelorus River (above Pelorus Bridge)	-	182 +/- 61	573 +/- 172	569 +/- 168	339 +/- 218
Pelorus	Pelorus River (below Pelorus Bridge)	-	1,093 +/- 223	861 +/- 184	702 +/- 197	539 +/- 167
Pelorus	Wakamarina River	-	46 +/- 31	60 +/- 38	44 +/- 34	4 +/- 2
Pelorus	Rai River	1,444 +/- 331	740 +/- 217	1,075 +/- 561	600 +/- 204	508 +/- 186
Pelorus	Ronga River	-	18 +/- 14	9 +/- 10	-	-
Pelorus	Tunakino River	8 +/- 8	30 +/- 18	-	-	-
Pelorus	Opouri River	502 +/- 254	131 +/- 56	22 +/- 23	124 +/- 103	143 +/- 103
Pelorus	Tinline River	6 +/- 6	-	-	-	-
Total Pelorus Catchment		4,055 +/- 574	2,561 +/- 355	2,859 +/- 626	2,039 +/- 347	1,533 +/- 348
	Kaituna River	187 +/- 179	33 +/- 22	188 +/- 193	-	-
Wairau	Wairau River (reach and species unknown)	8,477 +/- 850	1,227 +/- 488	1,507 +/- 466	-	-
Wairau	Wairau River (above Wash Bridge)	-	1,434 +/- 256	2,333 +/- 618	2,009 +/- 381	2,416 +/- 874
Wairau	Wairau River (below Wash Bridge - species unknown)	-	5,746 +/- 734	5,924 +/- 819	10,516 +/- 1,721	-
Wairau	Wairau River (below Wash Bridge - salmon)	-	-	-	-	1,023 +/- 594
Wairau	Wairau River (below Wash Bridge - trout)	-	-	-	-	3,504 +/- 775
Wairau	Roses Overflow	45 +/- 45	-	15 +/- 16	-	30 +/- 30
Wairau	Wairau Diversion	-	168 +/- 186	701 +/- 643	1,015 +/- 406	537 +/- 256
Wairau	Opawa River	873 +/- 298	498 +/- 210	157 +/- 100	445 +/- 363	68 +/- 43
Wairau	Taylor River	136 +/- 111	179 +/- 78	59 +/- 43	380 +/- 270	74 +/- 74
Wairau	Omaka River	-	-	255 +/- 261	-	-
Wairau	Spring Creek	167 +/- 73	362 +/- 117	937 +/- 373	515 +/- 194	183 +/- 144
Wairau	Tuamarina River	18 +/- 18	-	63 +/- 65	12 +/- 12	-
Wairau	Waikakaho River	16 +/- 15	157 +/- 154	76 +/- 44	-	-
Wairau	Waihopai River	97 +/- 70	67 +/- 49	-	12 +/- 12	25 +/- 18
Wairau	Bartletts Creek	23 +/- 23	15 +/- 11	-	-	60 +/- 42
Wairau	Timms Creek	-	-	27 +/- 20	12 +/- 12	-
Wairau	Top Valley Stream	-	-	11 +/- 12	-	1 +/- 1
Wairau	Goulter River	34 +/- 24	92 +/- 41	179 +/- 84	126 +/- 62	133 +/- 70
Wairau	Argyle Pond	1,278 +/- 245	937 +/- 223	714 +/- 228	699 +/- 252	-
Wairau	Branch River	228 +/- 120	22 +/- 15	59 +/- 43	121 +/- 56	792 +/- 208
Wairau	Argyle Lake	-	-	-	-	5,748 +/- 772
Wairau	Leatham River	97 +/- 41	32 +/- 22	44 +/- 23	70 +/- 40	741 +/- 248
Wairau	Rainbow River	76 +/- 43	33 +/- 19	86 +/- 43	152 +/- 82	399 +/- 185
Wairau	Fish Lake	-	-	-	12 +/- 12	267 +/- 237
Total Wairau Catchment		11,562 +/- 957	10,969 +/- 1,010	13,149 +/- 1,405	16,096 +/- 1,895	16,001 +/- 1,616

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Awatere	Awatere River	196 +/- 123	167 +/- 113	164 +/- 95	53 +/- 32	34 +/- 20
Blind	Blind River	-	-	-	32 +/- 32	20 +/- 20
Clarence/Waiiau Toa	Clarence/Waiiau Toa River (reach and species unknown)	840 +/- 376	281 +/- 130	494 +/- 168	-	-
Clarence/Waiiau Toa	Clarence/Waiiau Toa River (above Acheron)	-	155 +/- 87	1,391 +/- 469	717 +/- 246	542 +/- 261
Clarence/Waiiau Toa	Clarence/Waiiau Toa River (below Acheron - species unknown)	-	181 +/- 84	1,128 +/- 491	-	-
Clarence/Waiiau Toa	Lake McRae	-	-	11 +/- 12	-	-
Clarence/Waiiau Toa	Clarence/Waiiau Toa River (below Acheron - salmon)	-	-	-	429 +/- 198	786 +/- 276
Clarence/Waiiau Toa	Clarence/Waiiau Toa River (below Acheron - trout)	-	-	-	602 +/- 295	1,528 +/- 504
Clarence/Waiiau Toa	Acheron River	78 +/- 62	47 +/- 33	316 +/- 153	51 +/- 30	222 +/- 207
Clarence/Waiiau Toa	Severn River	18 +/- 18	71 +/- 58	-	143 +/- 132	14 +/- 14
Clarence/Waiiau Toa	Lake Sedgemere	-	-	-	48 +/- 48	-
Clarence/Waiiau Toa	Alma River	37 +/- 37	-	57 +/- 37	12 +/- 12	169 +/- 120
Clarence/Waiiau Toa	Bowscale Tarn	-	156 +/- 130	274 +/- 150	24 +/- 16	1 +/- 1
Clarence/Waiiau Toa	Lake Tennyson	448 +/- 332	82 +/- 47	154 +/- 69	337 +/- 143	139 +/- 85
Total Clarence/Waiiau Toa Catchment		1,422 +/- 507	973 +/- 235	3,826 +/- 736	2,361 +/- 477	3,401 +/- 680
	Lyell Creek	-	41 +/- 41	-	37 +/- 27	-
	Kahutara River	-	30 +/- 31	-	23 +/- 23	-
Conway	Conway River	12 +/- 12	63 +/- 41	146 +/- 148	57 +/- 52	109 +/- 48
Buller	Buller River (above Lyell)	3,456 +/- 666	-	-	-	-
Buller	Buller River	-	748 +/- 370	839 +/- 243	-	-
Buller	Buller River (Gowan to Lyell)	-	663 +/- 138	415 +/- 136	969 +/- 272	648 +/- 403
Buller	Buller River (Rotoiti to Gowan)	-	1,316 +/- 251	914 +/- 210	652 +/- 188	298 +/- 119
Buller	Deepdale River	-	4 +/- 4	8 +/- 8	28 +/- 22	37 +/- 23
Buller	Lake Daniells	226 +/- 147	157 +/- 93	42 +/- 28	141 +/- 78	162 +/- 84
Buller	Maruia River	1,192 +/- 377	1,826 +/- 910	1,109 +/- 230	622 +/- 191	358 +/- 108
Buller	Woolley River	-	46 +/- 35	-	33 +/- 33	300 +/- 300
Buller	Rahu River	-	-	8 +/- 8	-	29 +/- 29
Buller	Warwick River	-	23 +/- 20	8 +/- 8	-	-
Buller	Matiri River	95 +/- 60	99 +/- 45	131 +/- 109	36 +/- 36	39 +/- 22
Buller	Matakitaki River	513 +/- 162	558 +/- 129	1,037 +/- 292	605 +/- 292	533 +/- 274

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Buller	Six Mile Creek	-	-	-	-	14 +/- 14
Buller	Glenroy River	67 +/- 41	91 +/- 42	110 +/- 69	1 +/- 1	-
Buller	Mangles River	400 +/- 147	182 +/- 75	479 +/- 198	92 +/- 48	28 +/- 20
Buller	Tutaki River	210 +/- 87	85 +/- 38	104 +/- 55	165 +/- 84	-
Buller	Tiraumea River	-	-	-	12 +/- 12	-
Buller	Owen River	136 +/- 69	323 +/- 79	519 +/- 146	727 +/- 249	345 +/- 132
Buller	Fyfe River	-	14 +/- 11	17 +/- 18	-	38 +/- 38
Buller	Gowan River	68 +/- 44	348 +/- 120	267 +/- 125	342 +/- 271	248 +/- 224
Buller	Lake Rotoroa	1,028 +/- 228	2,352 +/- 494	1,940 +/- 704	1,243 +/- 281	1,226 +/- 402
Buller	Sabine River	232 +/- 88	154 +/- 57	208 +/- 84	195 +/- 89	54 +/- 36
Buller	D`Urville River	90 +/- 45	167 +/- 64	560 +/- 192	41 +/- 29	20 +/- 20
Buller	Hope River	36 +/- 23	264 +/- 101	18 +/- 14	3 +/- 2	292 +/- 141
Buller	Station Creek	-	11 +/- 12	8 +/- 8	-	-
Buller	Howard River	-	23 +/- 20	62 +/- 44	37 +/- 37	15 +/- 15
Buller	Speargrass Creek	83 +/- 83	11 +/- 12	19 +/- 15	-	-
Buller	Lake Rotoiti (Nelson Lk)	2,058 +/- 553	1,966 +/- 271	1,995 +/- 339	1,730 +/- 261	1,269 +/- 341
Buller	Travers River	446 +/- 165	288 +/- 90	342 +/- 120	287 +/- 153	299 +/- 142
Total Buller Catchment		10,334 +/- 1,037	11,718 +/- 1,204	11,158 +/- 1,014	7,961 +/- 752	6,252 +/- 867
	Anatori River	-	59 +/- 46	13 +/- 14	-	-
	Paturau River	8 +/- 8	-	-	-	-



## West Coast

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Awarua	Awarua River	-	-	-	10 +/- 10	154 +/- 109
	Hope River	-	14 +/- 16	249 +/- 172	5 +/- 4	-
Cascade	Cascade River	200 +/- 80	47 +/- 24	152 +/- 71	1,532 +/- 1,509	179 +/- 179
Cascade	Martyr River	30 +/- 30	-	-	-	-
Total Cascade Catchment		230 +/- 85	47 +/- 24	152 +/- 71	1,532 +/- 1,509	179 +/- 179
	Arawata River	200 +/- 184	327 +/- 199	241 +/- 109	1,773 +/- 1,519	-
	Jackson River	84 +/- 39	29 +/- 27	302 +/- 173	129 +/- 85	3 +/- 2
	Lake Ellery	70 +/- 44	-	58 +/- 36	-	90 +/- 82
Waiatoto	Waiatoto River	-	190 +/- 169	66 +/- 70	940 +/- 824	25 +/- 25
	Hapuka River	24 +/- 18	-	27 +/- 28	815 +/- 815	-
	Turnbull River	68 +/- 33	269 +/- 179	185 +/- 97	1,220 +/- 868	-
Okuru	Okuru River	222 +/- 120	96 +/- 57	541 +/- 325	293 +/- 153	142 +/- 124
Haast	Haast River	369 +/- 153	419 +/- 180	913 +/- 535	640 +/- 455	2,331 +/- 1,355
Haast	Thomas River	17 +/- 17	165 +/- 124	180 +/- 117	149 +/- 149	-
Haast	Landsborough River	-	7 +/- 8	-	-	34 +/- 34
Haast	Burke River	-	-	27 +/- 28	30 +/- 30	34 +/- 34
Total Haast Catchment		386 +/- 154	590 +/- 218	1,120 +/- 548	819 +/- 480	2,399 +/- 1,356
	Waita River	-	5 +/- 5	-	202 +/- 142	-
Moeraki	Lake Moeraki	36 +/- 17	134 +/- 57	461 +/- 174	356 +/- 176	409 +/- 347
Moeraki	Moeraki River	38 +/- 27	-	303 +/- 157	52 +/- 51	120 +/- 81
Total Moeraki Catchment		74 +/- 32	134 +/- 57	764 +/- 235	408 +/- 183	529 +/- 357
Paringa	Paringa River	131 +/- 87	98 +/- 70	364 +/- 121	529 +/- 284	197 +/- 115
Paringa	Lake Paringa	476 +/- 134	219 +/- 96	976 +/- 274	550 +/- 173	1,456 +/- 776
Paringa	The Windbag	-	-	27 +/- 28	-	-
Total Paringa Catchment		606 +/- 160	317 +/- 119	1,366 +/- 301	1,080 +/- 333	1,653 +/- 785
Mahitahi	Mahitahi River	60 +/- 60	12 +/- 13	74 +/- 59	269 +/- 167	1 +/- 1
	Jacobs (Makawhio) River	138 +/- 60	177 +/- 96	76 +/- 56	484 +/- 289	-
Manakaiaua	Manakaiaua River	-	-	-	-	355 +/- 264
Karangarua	Karangarua River	50 +/- 36	144 +/- 97	85 +/- 42	-	7 +/- 5
Karangarua	Copland River	8 +/- 6	76 +/- 79	-	-	-
Total Karangarua Catchment		58 +/- 37	220 +/- 125	85 +/- 42	-	7 +/- 5
Cook	Cook River	-	-	-	-	97 +/- 97
	Waikukupa River	-	-	57 +/- 60	-	-
	Hare Mare Creek	-	-	-	-	157 +/- 88
Omoeroa	Omoeroa River	-	-	-	-	45 +/- 45
Waiho	Waiho River	-	-	-	14 +/- 14	54 +/- 34
Okarito	Okarito River	33 +/- 19	309 +/- 105	700 +/- 255	675 +/- 245	93 +/- 69
Okarito	Okarito Lagoon	-	-	-	1,741 +/- 1,516	412 +/- 198
Okarito	Lake Wahapo	8 +/- 6	92 +/- 77	172 +/- 86	49 +/- 37	15 +/- 15
Okarito	Lake Mapourika	1,458 +/- 495	950 +/- 179	2,514 +/- 634	1,673 +/- 443	1,512 +/- 539

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Total Okarito Catchment		1,499 +/- 495	1,351 +/- 221	3,386 +/- 689	4,137 +/- 1,599	2,032 +/- 578
Waitangi-taona	Waitangi-taona River	98 +/- 30	248 +/- 129	433 +/- 143	142 +/- 118	203 +/- 130
Waitangi-taona	Vickers Creek	-	-	35 +/- 29	-	-
Total Waitangi-taona Catchment		98 +/- 30	248 +/- 129	468 +/- 146	142 +/- 118	203 +/- 130
Whataroa	Whataroa River	33 +/- 24	57 +/- 29	182 +/- 71	147 +/- 80	700 +/- 682
Whataroa	Perth River	-	-	-	-	63 +/- 47
Whataroa	Butler River	-	-	-	-	1 +/- 1
Total Whataroa Catchment		33 +/- 24	57 +/- 29	182 +/- 71	147 +/- 80	764 +/- 683
	Poerua River (Brunner)	79 +/- 38	71 +/- 48	42 +/- 35	22 +/- 17	-
Wanganui	Wanganui River	114 +/- 105	107 +/- 48	106 +/- 73	388 +/- 132	501 +/- 161
Wanganui	La Fontaine Stream	282 +/- 128	238 +/- 99	571 +/- 166	246 +/- 125	127 +/- 93
Wanganui	Lake Ianthe	143 +/- 40	247 +/- 85	577 +/- 166	383 +/- 156	668 +/- 274
Wanganui	Ianthe Creek	-	-	17 +/- 19	-	-
Wanganui	Berry Creek	-	-	116 +/- 87	137 +/- 128	6 +/- 6
Total Wanganui Catchment		540 +/- 171	592 +/- 139	1,387 +/- 261	1,153 +/- 272	1,302 +/- 331
Waitaha	Waitaha River	193 +/- 85	192 +/- 165	444 +/- 194	1,075 +/- 490	443 +/- 283
Waitaha	Kakapotahi River	59 +/- 37	109 +/- 71	45 +/- 29	33 +/- 32	1 +/- 1
Waitaha	Ellis Creek	-	-	8 +/- 9	-	-
Total Waitaha Catchment		252 +/- 93	301 +/- 180	498 +/- 196	1,108 +/- 491	444 +/- 283
Mikonui	Mikonui River	-	81 +/- 49	436 +/- 255	212 +/- 128	107 +/- 68
Totara	Totara River (near Ross)	13 +/- 10	130 +/- 100	366 +/- 253	183 +/- 155	271 +/- 144
Mahinapua	Mahinapua Creek	82 +/- 34	50 +/- 27	63 +/- 39	93 +/- 50	105 +/- 71
Hokitika	Hokitika River	940 +/- 240	1,116 +/- 311	6,003 +/- 1,022	3,428 +/- 653	2,941 +/- 1,167
Hokitika	Lake Mahinapua	50 +/- 36	4 +/- 5	118 +/- 62	160 +/- 61	344 +/- 126
Hokitika	Kaniere River	33 +/- 19	31 +/- 20	16 +/- 13	65 +/- 39	9 +/- 9
Hokitika	Lake Kaniere	498 +/- 97	229 +/- 109	436 +/- 238	761 +/- 196	328 +/- 214
Hokitika	Kokatahi River	7 +/- 5	44 +/- 30	113 +/- 93	21 +/- 21	287 +/- 202
Hokitika	Harris Creek	99 +/- 25	116 +/- 48	80 +/- 45	-	243 +/- 191
Hokitika	Murray Creek	47 +/- 19	58 +/- 30	14 +/- 11	-	9 +/- 9
Hokitika	Toaroha River	-	6 +/- 6	-	-	13 +/- 13
Hokitika	Styx River	26 +/- 14	26 +/- 18	151 +/- 92	-	6 +/- 6
Hokitika	Whitcombe River	-	-	82 +/- 84	10 +/- 10	-
Total Hokitika Catchment		1,700 +/- 264	1,629 +/- 337	7,014 +/- 1,064	4,445 +/- 686	4,180 +/- 1,226
Arahura	Arahura River	222 +/- 81	945 +/- 319	1,017 +/- 303	509 +/- 212	257 +/- 127
Arahura	Kawhaka Hydro	8 +/- 6	120 +/- 65	23 +/- 19	39 +/- 24	140 +/- 88
Arahura	Kawhaka Creek	-	-	-	230 +/- 230	9 +/- 9
Total Arahura Catchment		230 +/- 81	1,066 +/- 325	1,039 +/- 303	778 +/- 314	406 +/- 155
Taramakau	Taramakau River	1,893 +/- 398	1,720 +/- 378	2,418 +/- 540	2,866 +/- 516	1,865 +/- 676
Taramakau	Dredge Ponds	-	13 +/- 14	-	-	-
Taramakau	Kapitea (Dillmans D) Reservoir	-	13 +/- 11	221 +/- 149	153 +/- 129	11 +/- 10
Taramakau	Clear Creek	-	4 +/- 5	26 +/- 26	-	-

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Taramakau	Hohonu River	16 +/- 8	-	-	-	-
Taramakau	Big Hohonu River	-	18 +/- 16	10 +/- 11	-	-
Taramakau	Nicholas Creek	-	4 +/- 5	-	-	-
Taramakau	Taipu River	12 +/- 7	27 +/- 27	68 +/- 51	6 +/- 6	1 +/- 1
Taramakau	Bruce Creek	145 +/- 91	85 +/- 42	114 +/- 79	26 +/- 18	186 +/- 130
Taramakau	Otira River	-	-	30 +/- 34	-	-
Total Taramakau Catchment		2,066 +/- 408	1,884 +/- 383	2,887 +/- 570	3,050 +/- 532	2,063 +/- 688
New	New River	13 +/- 10	166 +/- 87	6 +/- 7	169 +/- 77	56 +/- 56
Grey	Grey River (above Ikamatua)	1,658 +/- 568	1,403 +/- 375	1,156 +/- 309	1,901 +/- 752	1,807 +/- 642
Grey	Grey River (below Ikamatua)	1,727 +/- 253	4,129 +/- 591	2,421 +/- 458	3,051 +/- 564	3,079 +/- 963
Grey	Lake Haupiri	49 +/- 36	242 +/- 81	161 +/- 70	272 +/- 117	95 +/- 51
Grey	Grey River	-	735 +/- 220	969 +/- 265	-	-
Grey	Lady Lake	-	49 +/- 44	10 +/- 10	-	29 +/- 29
Grey	Lake Hochstetter	-	8 +/- 10	60 +/- 46	-	29 +/- 29
Grey	Coal Creek	-	-	-	70 +/- 43	-
Grey	Stillwater Creek	-	-	-	41 +/- 41	-
Grey	Arnold River	1,595 +/- 435	507 +/- 152	744 +/- 323	-	-
Grey	Arnold River (Dam to Stillwater)	-	352 +/- 87	613 +/- 207	1,126 +/- 280	706 +/- 305
Grey	Arnold River (Lake Brunner to dam)	-	566 +/- 145	390 +/- 119	1,134 +/- 318	774 +/- 338
Grey	Deep Creek	8 +/- 6	13 +/- 14	39 +/- 31	7 +/- 7	-
Grey	Molloy Creek	-	74 +/- 45	131 +/- 94	88 +/- 88	-
Grey	Crooked River	585 +/- 394	870 +/- 186	882 +/- 282	1,054 +/- 367	876 +/- 267
Grey	Lake Brunner	4,244 +/- 565	9,280 +/- 931	10,432 +/- 1,374	14,695 +/- 2,810	12,288 +/- 2,470
Grey	Lake Poerua	437 +/- 184	371 +/- 127	755 +/- 286	549 +/- 210	457 +/- 199
Grey	Kangaroo Lake	-	5 +/- 6	-	-	18 +/- 18
Grey	Poerua River (Brunner)	8 +/- 6	146 +/- 102	-	293 +/- 235	35 +/- 28
Grey	Orangipuku River	107 +/- 42	413 +/- 171	27 +/- 28	61 +/- 32	330 +/- 186
Grey	Eastern Hohonu River	-	95 +/- 83	-	-	-
Grey	Red Jacks Creek	-	-	33 +/- 26	-	-
Grey	Blackball Creek	-	-	-	-	51 +/- 32
Grey	Nelson Creek	116 +/- 63	118 +/- 88	21 +/- 22	21 +/- 21	79 +/- 51
Grey	Moonlight Creek	18 +/- 9	28 +/- 19	146 +/- 88	143 +/- 103	50 +/- 30
Grey	Ahaura River	676 +/- 173	609 +/- 165	582 +/- 208	892 +/- 327	279 +/- 127
Grey	Lake Ahaura	33 +/- 24	49 +/- 33	135 +/- 82	-	1 +/- 1
Grey	Haupiri River	140 +/- 33	269 +/- 117	502 +/- 164	189 +/- 75	270 +/- 98
Grey	Waikiti River	-	-	57 +/- 60	-	684 +/- 684
Grey	Trent River	8 +/- 6	-	-	-	12 +/- 12
Grey	Big River	132 +/- 49	62 +/- 41	27 +/- 28	118 +/- 85	21 +/- 16
Grey	Rough River	196 +/- 94	179 +/- 68	635 +/- 203	684 +/- 324	59 +/- 35

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Grey	Mawheraiti River	150 +/- 57	484 +/- 210	162 +/- 87	50 +/- 50	162 +/- 115
Grey	Burton Creek	-	-	27 +/- 28	-	-
Grey	Clarke River	18 +/- 18	25 +/- 15	21 +/- 22	-	-
Grey	Robinson River	-	163 +/- 71	8 +/- 8	-	16 +/- 15
Grey	Blue Grey River	49 +/- 27	-	-	170 +/- 72	401 +/- 188
Grey	Brown Grey River	-	102 +/- 57	25 +/- 20	2 +/- 2	69 +/- 48
Total Grey Catchment		11,952 +/- 1,067	21,347 +/- 1,294	21,170 +/- 1,657	26,613 +/- 3,076	22,677 +/- 2,889
	Seven Mile Creek	-	-	50 +/- 31	-	-
	Nine Mile Creek	-	-	-	-	6 +/- 6
	Ten Mile Creek	-	-	9 +/- 9	-	-
Punakaiki	Punakaiki River	68 +/- 30	28 +/- 21	-	2 +/- 2	30 +/- 29
Pororari	Pororari River	54 +/- 28	-	-	27 +/- 27	73 +/- 40
Fox	Fox River	16 +/- 12	82 +/- 58	12 +/- 13	4 +/- 2	60 +/- 59
Waitakere	Waitakere River	41 +/- 30	-	20 +/- 21	-	18 +/- 14
	Totara River (near Ross)-	-	-	117 +/- 125	14 +/- 14	-
	Okari River	9 +/- 7	-	27 +/- 28	-	-
Buller	Buller River (Lyell to Westport)	1,599 +/- 237	1,584 +/- 310	1,334 +/- 351	1,193 +/- 337	865 +/- 312
Buller	Bradshaws Creek	19 +/- 14	-	-	-	-
Buller	Ohikanui River	322 +/- 109	52 +/- 28	309 +/- 154	135 +/- 78	21 +/- 19
Buller	Ohikaiti River	-	-	19 +/- 19	-	-
Buller	Blackwater River	-	103 +/- 60	54 +/- 55	-	4 +/- 2
Buller	Inangahua River	790 +/- 173	1,081 +/- 237	1,184 +/- 359	1,014 +/- 323	654 +/- 586
Buller	Stony (Te Wharau) River	76 +/- 43	41 +/- 27	131 +/- 90	2 +/- 2	21 +/- 21
Buller	Awarau River	123 +/- 68	254 +/- 78	659 +/- 222	422 +/- 297	1 +/- 1
Buller	Waitahu River	108 +/- 39	296 +/- 79	214 +/- 77	210 +/- 94	361 +/- 197
Buller	Montgomerie River	15 +/- 15	8 +/- 8	27 +/- 28	42 +/- 42	27 +/- 27
Buller	New Creek	9 +/- 7	-	6 +/- 7	-	-
Total Buller Catchment		3,061 +/- 326	3,419 +/- 412	3,937 +/- 586	3,017 +/- 568	1,954 +/- 693
	Orowaiti River	31 +/- 16	-	-	-	-
Mokihinui	Mokihinui River	720 +/- 176	403 +/- 202	1,009 +/- 430	351 +/- 143	-
Mokihinui	Mokihinui River (above - Rough and Tumble Creek)	-	-	-	-	749 +/- 409
Mokihinui	Mokihinui River (below - Rough and Tumble Creek)	-	-	-	-	656 +/- 332
Mokihinui	Johnson River	53 +/- 39	23 +/- 24	-	-	-
Total Mokihinui Catchment		773 +/- 180	427 +/- 204	1,009 +/- 430	351 +/- 143	1,405 +/- 527
Little Wanganui	Little Wanganui River	19 +/- 10	59 +/- 34	98 +/- 74	136 +/- 88	6 +/- 6
Karamea	Karamea River	916 +/- 434	403 +/- 174	833 +/- 305	1,044 +/- 529	-
Karamea	Karamea River (above Kakapo River)	-	-	-	-	270 +/- 177

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Karamea	Karamea River (below Kakapo River)	-	-	-	-	30 +/- 30
Karamea	Ugly River	-	-	51 +/- 54	71 +/- 71	78 +/- 78
Karamea	Roaring Lion River	108 +/- 67	87 +/- 47	64 +/- 56	28 +/- 28	129 +/- 84
Karamea	Beautiful River	-	23 +/- 26	111 +/- 76	21 +/- 21	15 +/- 15
Karamea	Leslie River	45 +/- 26	35 +/- 21	284 +/- 120	49 +/- 30	101 +/- 67
Karamea	Crow River	65 +/- 41	-	276 +/- 133	54 +/- 32	58 +/- 44
Total Karamea Catchment		1,134 +/- 442	548 +/- 184	1,619 +/- 370	1,267 +/- 537	681 +/- 228
Oparara	Oparara River	-	-	-	13 +/- 13	37 +/- 37
Kohaihai	Kohaihai River	-	-	27 +/- 28	-	1 +/- 1
	Heaphy River	15 +/- 15	63 +/- 47	39 +/- 30	2 +/- 2	-
	Nile River (Located by Charleston, Westport)	-	-	-	-	13 +/- 13

## North Canterbury

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Waiau Uwha	Waiau Uwha River (species unknown)	1,444 +/- 498	2,133 +/- 427	4,343 +/- 1,041	-	-
Waiau Uwha	Waiau Uwha River (salmon)	-	-	-	2,318 +/- 1,040	1,216 +/- 462
Waiau Uwha	Waiau Uwha River (trout)	-	-	-	2,460 +/- 800	2,709 +/- 1,092
Waiau Uwha	Leader River	-	-	-	-	29 +/- 29
Waiau Uwha	Mason River	-	30 +/- 31	-	-	-
Waiau Uwha	Hanmer River	24 +/- 24	27 +/- 27	29 +/- 30	4 +/- 2	2 +/- 2
Waiau Uwha	Percival River	-	-	-	-	21 +/- 21
Waiau Uwha	Hope River	512 +/- 305	339 +/- 111	940 +/- 342	813 +/- 373	473 +/- 153
Waiau Uwha	Boyle River	386 +/- 270	197 +/- 81	403 +/- 173	630 +/- 237	607 +/- 347
Waiau Uwha	Doubtful River	-	47 +/- 36	169 +/- 123	63 +/- 47	88 +/- 62
Waiau Uwha	Doubtless River	-	-	107 +/- 110	-	-
Waiau Uwha	Nina River	261 +/- 260	40 +/- 23	204 +/- 124	21 +/- 21	45 +/- 33
Waiau Uwha	Lewis River	273 +/- 260	106 +/- 56	49 +/- 35	154 +/- 74	118 +/- 89
Waiau Uwha	Henry River	-	-	27 +/- 28	2 +/- 2	46 +/- 46
Waiau Uwha	Ada River	18 +/- 18	-	27 +/- 28	-	-
Waiau Uwha	Lake Guyon	-	162 +/- 83	-	317 +/- 233	1 +/- 1
Total Waiau Uwha Catchment		2,918 +/- 742	3,082 +/- 464	6,297 +/- 1,130	6,782 +/- 1,407	5,355 +/- 1,251
Jed	Jed River	-	-	-	-	26 +/- 26
Hurunui	Hurunui River	17,105 +/- 3,355	1,097 +/- 385	2,535 +/- 749	-	-
Hurunui	Lake Sumner	387 +/- 168	523 +/- 211	1,908 +/- 527	2,513 +/- 1,637	2,159 +/- 608
Hurunui	Hurunui River (above Mandamus)	-	2,914 +/- 364	4,401 +/- 822	4,728 +/- 1,444	-
Hurunui	Hurunui River (below Mandamus)	-	4,367 +/- 872	5,663 +/- 966	6,808 +/- 1,775	-
Hurunui	Hurunui River (above south branch)	-	-	-	-	1,704 +/- 506
Hurunui	Hurunui River (below south branch - salmon)	-	-	-	-	699 +/- 293
Hurunui	Hurunui River (below south branch - trout)	-	-	-	-	2,514 +/- 867
Hurunui	Waitohi River	-	-	216 +/- 197	-	1 +/- 1
Hurunui	Mandamus River	-	-	27 +/- 28	152 +/- 75	58 +/- 41
Hurunui	Lake Mason	300 +/- 299	17 +/- 18	377 +/- 150	187 +/- 183	-
Hurunui	Sisters Stream	-	-	27 +/- 28	-	-
Hurunui	Lake Sheppard	233 +/- 117	124 +/- 54	237 +/- 106	392 +/- 174	57 +/- 39
Hurunui	Lake Taylor	748 +/- 255	968 +/- 218	3,321 +/- 1,303	1,274 +/- 335	331 +/- 120
Hurunui	Loch Katrine	192 +/- 136	196 +/- 69	256 +/- 143	312 +/- 160	406 +/- 260
Total Hurunui Catchment		18,965 +/- 3,387	10,207 +/- 1,068	18,968 +/- 2,059	16,366 +/- 2,850	7,929 +/- 1,244
	Motunau River	17 +/- 17	-	280 +/- 283	638 +/- 638	-
Waipara	Waipara River	-	83 +/- 51	116 +/- 88	229 +/- 127	155 +/- 109

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Ashley	Ashley River	4,533 +/- 1,063	3,517 +/- 699	5,427 +/- 2,058	4,394 +/- 883	4,409 +/- 982
Ashley	Saltwater Creek	-	112 +/- 108	48 +/- 32	100 +/- 87	199 +/- 142
Ashley	Waikuku Stream	-	190 +/- 191	-	197 +/- 197	-
Ashley	Okuku River	-	27 +/- 27	178 +/- 122	4 +/- 2	128 +/- 71
Ashley	Glentui River	207 +/- 117	-	-	-	49 +/- 49
Total Ashley Catchment		4,740 +/- 1,069	3,846 +/- 733	5,654 +/- 2,062	4,695 +/- 908	4,785 +/- 996
Waimakariri	Waimakariri River (species unknown)	58,357 +/- 7,154	48,948 +/- 4,344	75,425 +/- 6,203	-	-
Waimakariri	Lake Roto Kohatu	-	319 +/- 325	140 +/- 142	549 +/- 430	109 +/- 75
Waimakariri	Monopolies Pond	-	70 +/- 71	-	-	28 +/- 28
Waimakariri	The Groynes	-	436 +/- 213	636 +/- 236	3,830 +/- 1,504	-
Waimakariri	Waimakariri River (salmon)	-	-	-	42,755 +/- 4,809	20,593 +/- 2,640
Waimakariri	Waimakariri River (trout)	-	-	-	16,761 +/- 2,255	9,932 +/- 1,321
Waimakariri	The Groynes	-	-	-	-	800 +/- 264
Waimakariri	Styx River	437 +/- 193	708 +/- 325	436 +/- 242	2 +/- 2	252 +/- 108
Waimakariri	Kaiapoi River	5,247 +/- 2,170	1,804 +/- 476	3,761 +/- 1,208	1,901 +/- 896	2,342 +/- 1,549
Waimakariri	Silverstream	1,402 +/- 625	317 +/- 156	21 +/- 22	64 +/- 54	-
Waimakariri	Kaiapoi Lakes	-	604 +/- 367	12 +/- 13	238 +/- 166	392 +/- 244
Waimakariri	Silverstream	-	-	-	-	701 +/- 453
Waimakariri	Courtenay Stream	-	8 +/- 9	143 +/- 107	-	-
Waimakariri	Cam River	1,577 +/- 1,075	119 +/- 84	160 +/- 91	271 +/- 263	2,000 +/- 1,538
Waimakariri	Cust River	362 +/- 193	42 +/- 31	758 +/- 348	250 +/- 175	2,136 +/- 1,586
Waimakariri	Ohoka Stream	-	124 +/- 108	-	-	14 +/- 14
Waimakariri	Waimakariri South Branch	2,563 +/- 700	290 +/- 107	559 +/- 362	5,795 +/- 1,302	1,828 +/- 455
Waimakariri	Eyre River	77 +/- 56	-	-	-	-
Waimakariri	Kowai River	13 +/- 13	275 +/- 176	-	-	-
Waimakariri	Broken River	684 +/- 329	289 +/- 98	405 +/- 147	623 +/- 241	840 +/- 227
Waimakariri	Lake Meremere	-	338 +/- 116	223 +/- 107	264 +/- 155	-
Waimakariri	Slovens Stream	-	-	27 +/- 28	-	-
Waimakariri	Lake Pearson	1,746 +/- 633	2,285 +/- 358	2,842 +/- 549	1,345 +/- 353	1,063 +/- 229
Waimakariri	Winding Creek	-	27 +/- 27	-	32 +/- 32	6 +/- 6
Waimakariri	Porter River	370 +/- 272	174 +/- 87	271 +/- 138	27 +/- 21	136 +/- 58
Waimakariri	Esk River	-	85 +/- 45	-	22 +/- 6	-
Waimakariri	Poulter River	30 +/- 30	76 +/- 35	379 +/- 215	137 +/- 71	287 +/- 150
Waimakariri	Lake Letitia	-	68 +/- 41	-	-	-
Waimakariri	Lake Minchin	196 +/- 195	-	-	-	70 +/- 2
Waimakariri	Minchin Stream	-	30 +/- 22	-	-	-
Waimakariri	Cass Hill Stream	-	46 +/- 47	-	7 +/- 7	-
Waimakariri	Lake Sarah	563 +/- 190	268 +/- 98	94 +/- 45	64 +/- 64	79 +/- 58
Waimakariri	Lake Grasmere	821 +/- 285	445 +/- 114	448 +/- 155	564 +/- 211	1,074 +/- 540

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Waimakariri	Lake Hawdon	177 +/- 110	380 +/- 119	186 +/- 81	167 +/- 110	102 +/- 98
Waimakariri	Bealey River	-	-	-	1 +/- 1	2 +/- 2
Total Waimakariri Catchment		74,620 +/- 7,665	58,572 +/- 4,448	86,927 +/- 6,386	75,667 +/- 5,793	44,786 +/- 4,121
Avon	Avon River	1,017 +/- 460	727 +/- 256	549 +/- 241	989 +/- 746	922 +/- 665
Avon	Lake Bryndwyr	296 +/- 295	40 +/- 42	-	-	-
Avon	Heathcote River	30 +/- 30	260 +/- 166	-	97 +/- 97	32 +/- 29
Avon	Wairarapa Stream	226 +/- 149	-	141 +/- 100	58 +/- 43	19 +/- 19
Total Avon Catchment		1,568 +/- 567	1,027 +/- 308	690 +/- 261	1,144 +/- 754	973 +/- 666
	Lake Forsyth	308 +/- 172	325 +/- 146	216 +/- 221	2,103 +/- 1,142	1,115 +/- 449
	Okana River	515 +/- 314	57 +/- 40	922 +/- 697	98 +/- 98	58 +/- 58
	Okuti River	-	-	216 +/- 221	-	29 +/- 29
	Kaituna River	89 +/- 89	-	-	-	52 +/- 52
Halswell	Halswell River	1,760 +/- 895	221 +/- 130	459 +/- 187	297 +/- 134	687 +/- 265
L II	L II River	2,132 +/- 1,120	681 +/- 298	595 +/- 250	-	725 +/- 348
Selwyn	Selwyn River	6,702 +/- 1,386	2,127 +/- 560	1,003 +/- 308	6,064 +/- 1,603	967 +/- 425
Selwyn	Hawkins River	207 +/- 138	77 +/- 46	-	-	-
Selwyn	Hororata River	160 +/- 133	-	-	-	-
Total Selwyn Catchment		7,070 +/- 1,399	2,204 +/- 562	1,003 +/- 308	6,064 +/- 1,603	967 +/- 425
	Irwell River	433 +/- 239	35 +/- 32	-	-	-
Harts	Harts Creek	1,008 +/- 522	484 +/- 124	630 +/- 342	311 +/- 167	361 +/- 147
	Lake Ellesmere	424 +/- 288	152 +/- 157	192 +/- 80	366 +/- 186	143 +/- 90
Ellesmere to Rakaia	Ellesmere to Rakaia Creeks	-	-	-	-	56 +/- 52
Ellesmere to Rakaia	Tentburn Outfall	2,277 +/- 1,188	35 +/- 36	12 +/- 13	-	-
Total Ellesmere to Rakaia Catchment		2,277 +/- 1,188	35 +/- 36	12 +/- 13	-	56 +/- 52
Rakaia	Rakaia River (species unknown)	34,649 +/- 3,885	21,460 +/- 2,099	53,203 +/- 4,548	-	-
Rakaia	Rakaia River (salmon)	-	-	-	34,180 +/- 5,300	12,142 +/- 2,088
Rakaia	Rakaia River (trout)	-	-	-	12,076 +/- 2,834	7,045 +/- 1,439
Rakaia	Acheron River	-	556 +/- 303	825 +/- 440	197 +/- 169	40 +/- 31
Rakaia	Lake Lyndon	3,289 +/- 813	1,968 +/- 364	2,820 +/- 811	3,359 +/- 584	5,050 +/- 1,022
Rakaia	Lake Coleridge	7,094 +/- 1,324	9,168 +/- 869	13,399 +/- 1,613	5,959 +/- 1,062	9,141 +/- 1,269
Rakaia	Lake Georgina	885 +/- 282	661 +/- 177	2,020 +/- 520	2,124 +/- 1,279	214 +/- 101
Rakaia	Lake Catherine	624 +/- 352	248 +/- 119	340 +/- 107	-	-
Rakaia	Lake Ida	509 +/- 479	736 +/- 190	200 +/- 72	142 +/- 83	31 +/- 29
Rakaia	Ryton River	71 +/- 71	46 +/- 28	27 +/- 28	52 +/- 52	-
Rakaia	Lake Evelyn	-	47 +/- 36	155 +/- 81	130 +/- 103	48 +/- 34
Rakaia	Lake Henrietta	-	-	349 +/- 223	98 +/- 73	15 +/- 15
Rakaia	Wilberforce River	-	52 +/- 41	259 +/- 225	32 +/- 32	182 +/- 118
Rakaia	Harper River	118 +/- 118	191 +/- 67	319 +/- 122	65 +/- 45	102 +/- 68
Rakaia	Lake Selfe	604 +/- 224	977 +/- 203	1,920 +/- 647	2,643 +/- 1,251	1,572 +/- 443
Rakaia	Lake Lilian	-	30 +/- 31	38 +/- 29	-	69 +/- 69



Catchment	Angling water		1994/95	2001/02	2007/08	2014/15	2021/22
Rakaia	Avoca River	-	190 +/- 79	107 +/- 75	-	69 +/- 69	
Rakaia	Hydra Waters	-	7 +/- 8	9 +/- 10	168 +/- 147	2 +/- 2	
Rakaia	Glenariffe Stream	-	187 +/- 70	-	-	141 +/- 85	
Rakaia	Double Hill Stream	-	-	-	32 +/- 32	52 +/- 52	
Rakaia	Lake Stream	-	399 +/- 255	64 +/- 39	113 +/- 113	3 +/- 2	
Total Rakaia Catchment			47,844 +/- 4,244	36,924 +/- 2,365	76,053 +/- 4,997	61,370 +/- 6,394	35,918 +/- 3,055

## Central South Island

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Rakaia	Lake Heron	2,617 +/- 751	2,578 +/- 972	2,738 +/- 538	3,166 +/- 936	2,401 +/- 573
	Wakanui Creek	-	61 +/- 63	-	-	-
Ashburton	Ashburton River	4,173 +/- 799	5,477 +/- 1,170	3,218 +/- 690	2,400 +/- 613	754 +/- 301
Ashburton	Lake Camp	680 +/- 191	473 +/- 195	484 +/- 185	1,152 +/- 458	745 +/- 289
Ashburton	Lake Emily	22 +/- 22	135 +/- 53	249 +/- 125	12 +/- 12	338 +/- 196
Ashburton	Lake Emma	435 +/- 156	370 +/- 141	715 +/- 264	1,243 +/- 457	1,056 +/- 403
Ashburton	Lake Mystery	60 +/- 60	-	10 +/- 10	-	3 +/- 2
Ashburton	Lake Roundabout	52 +/- 39	-	27 +/- 28	-	-
Ashburton	Lake Hood	-	-	313 +/- 169	1,800 +/- 1,054	644 +/- 269
Ashburton	Taylor's Stream	-	13 +/- 14	5 +/- 6	37 +/- 37	-
Ashburton	Bowyers Stream	145 +/- 131	281 +/- 241	176 +/- 127	33 +/- 33	144 +/- 144
Ashburton	Lake Clearwater	2,899 +/- 826	1,481 +/- 337	4,803 +/- 1,186	2,375 +/- 712	1,532 +/- 492
Ashburton	Lake Donne	-	-	27 +/- 28	-	-
Ashburton	Spider Lakes	-	-	27 +/- 28	-	-
Ashburton	Maori Lakes	68 +/- 34	216 +/- 124	54 +/- 39	-	433 +/- 274
Total Ashburton Catchment		8,534 +/- 1,185	8,446 +/- 1,271	10,109 +/- 1,432	9,052 +/- 1,553	5,649 +/- 886
	Hinds River	210 +/- 101	322 +/- 177	-	-	-
Rangitata	Rangitata River	35,963 +/- 2,616	12,706 +/- 1,985	33,499 +/- 3,675	-	-
Rangitata	Rangitata River (salmon)	-	-	-	19,885 +/- 2,944	6,016 +/- 2,012
Rangitata	Rangitata River (trout)	-	-	-	8,654 +/- 2,321	6,735 +/- 2,254
Rangitata	RDR Canal	17 +/- 17	957 +/- 782	112 +/- 61	90 +/- 64	-
Rangitata	Deep Stream	189 +/- 120	13 +/- 14	114 +/- 119	52 +/- 52	-
Rangitata	Deep Creek	22 +/- 22	76 +/- 78	13 +/- 14	33 +/- 32	76 +/- 76
Total Rangitata Catchment		36,191 +/- 2,619	13,753 +/- 2,135	33,738 +/- 3,678	28,714 +/- 3,750	12,827 +/- 3,022
Orari	Orari River	6,332 +/- 788	2,307 +/- 577	653 +/- 220	3,833 +/- 1,232	1,241 +/- 756
Orari	Ohapi Creek	119 +/- 119	-	189 +/- 122	-	-
Orari	Coopers Creek	-	27 +/- 27	-	-	-
Total Orari Catchment		6,450 +/- 797	2,333 +/- 578	841 +/- 252	3,833 +/- 1,232	1,241 +/- 756
Opihi	Opihi River	18,453 +/- 1,703	13,393 +/- 1,709	19,694 +/- 2,690	8,448 +/- 2,089	8,376 +/- 2,547
Opihi	Temuka River	1,281 +/- 288	967 +/- 348	966 +/- 328	735 +/- 329	698 +/- 234
Opihi	Waihi River	1,670 +/- 813	692 +/- 408	684 +/- 345	249 +/- 158	60 +/- 60
Opihi	Hae Hae Te Moana River	-	12 +/- 13	-	1 +/- 1	-
Opihi	Kakahu River	121 +/- 108	24 +/- 18	-	-	-
Opihi	Te Ngawai River	86 +/- 48	890 +/- 401	150 +/- 83	68 +/- 39	620 +/- 233
Opihi	Opuha River	1,498 +/- 500	1,306 +/- 395	837 +/- 219	411 +/- 167	203 +/- 82
Opihi	Lake Opuha	-	2,670 +/- 441	5,156 +/- 1,161	4,165 +/- 928	3,748 +/- 920
Opihi	South Opuha River (Flows into Lake Opuha)	-	-	-	-	29 +/- 29
Opihi	Deep Creek (Opuha)	-	-	-	-	26 +/- 26

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Opihi	North Opuha River	-	-	-	422 +/- 400	183 +/- 94
Total Opihi Catchment		23,110 +/- 1,977	19,956 +/- 1,929	27,488 +/- 2,977	14,499 +/- 2,355	13,943 +/- 2,732
Pareora	Pareora River	189 +/- 116	849 +/- 299	392 +/- 223	30 +/- 22	825 +/- 285
Pareora	Pareora River (South Branch)	-	-	6 +/- 6	-	180 +/- 134
Total Pareora Catchment		189 +/- 116	849 +/- 299	398 +/- 223	30 +/- 22	1,005 +/- 315
Waimate	Waimate Creek	22 +/- 22	-	288 +/- 295	-	252 +/- 203
Waihao	Waihao River	646 +/- 295	1,101 +/- 598	637 +/- 310	57 +/- 45	26 +/- 24
Waihao	Waihao River (North Branch)	-	-	292 +/- 155	45 +/- 45	-
Waihao	Waihao River (South Branch)	-	12 +/- 13	305 +/- 131	-	-
Total Waihao Catchment		646 +/- 295	1,113 +/- 598	1,234 +/- 371	102 +/- 64	26 +/- 24
Waitaki	Lake Aviemore	8,850 +/- 1,346	11,576 +/- 1,528	18,408 +/- 2,792	22,917 +/- 2,959	17,857 +/- 3,008
Waitaki	Lake Benmore	12,829 +/- 1,518	21,738 +/- 1,724	59,751 +/- 4,709	48,024 +/- 5,475	31,262 +/- 3,172
Waitaki	Lake Waitaki	5,233 +/- 1,177	3,047 +/- 907	3,567 +/- 919	4,237 +/- 1,029	3,681 +/- 718
Waitaki	Waitaki River (species unknown)	34,496 +/- 3,205	27,578 +/- 2,706	28,568 +/- 3,616	-	-
Waitaki	Bell's Pond	-	223 +/- 173	108 +/- 70	222 +/- 150	100 +/- 97
Waitaki	Waitaki River (salmon)	-	-	-	9,561 +/- 2,228	4,652 +/- 1,589
Waitaki	Waitaki River (trout)	-	-	-	16,685 +/- 2,412	11,856 +/- 2,098
Waitaki	Eckholds Pond	-	-	-	49 +/- 38	-
Waitaki	Maerewhenua River	466 +/- 237	197 +/- 97	544 +/- 220	1,047 +/- 743	468 +/- 325
Waitaki	Settlement Road Pond	-	-	40 +/- 41	-	-
Waitaki	Kurow River	273 +/- 133	65 +/- 38	162 +/- 164	276 +/- 236	345 +/- 177
Waitaki	Hakataramea River	1,916 +/- 494	1,614 +/- 452	1,258 +/- 469	415 +/- 159	801 +/- 225
Waitaki	Awakino River	-	-	-	2 +/- 2	-
Waitaki	Deep Stream	-	-	41 +/- 43	-	-
Waitaki	Parsons Rock Creek	54 +/- 40	-	-	-	-
Waitaki	Otematata River	594 +/- 220	182 +/- 115	1,056 +/- 526	16 +/- 4	603 +/- 300
Waitaki	Clear Stream	-	-	63 +/- 52	73 +/- 73	117 +/- 87
Waitaki	Ahuriri River	2,592 +/- 731	2,903 +/- 595	4,886 +/- 739	2,033 +/- 402	2,833 +/- 454
Waitaki	Andersons Creek	-	-	16 +/- 16	-	-
Waitaki	Otamatapaio River	-	52 +/- 54	-	-	-
Waitaki	Sutherlands Creek	-	49 +/- 50	-	194 +/- 140	-
Waitaki	Omarama Stream	493 +/- 172	389 +/- 296	259 +/- 125	723 +/- 287	551 +/- 387
Waitaki	Hen Burn	-	-	16 +/- 16	-	-
Waitaki	Avon Burn	17 +/- 17	-	73 +/- 74	-	42 +/- 42
Waitaki	Stony River	-	40 +/- 42	-	-	-
Waitaki	Lake McGregor	17 +/- 17	594 +/- 228	789 +/- 273	1,658 +/- 712	711 +/- 246
Waitaki	Lake Middleton	875 +/- 365	42 +/- 32	46 +/- 36	149 +/- 97	303 +/- 188
Waitaki	Lake Ohau	1,516 +/- 386	4,631 +/- 696	9,864 +/- 1,885	8,220 +/- 1,660	8,337 +/- 1,676

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Waitaki	Borton's Pond (Also called Black Points Pond, irrigation pond on the Waitaki River)	-	-	-	-	21 +/- 21
Waitaki	Lake Ruataniwha (Wairepo)	1,033 +/- 348	1,700 +/- 486	4,566 +/- 1,528	5,839 +/- 1,341	3,835 +/- 801
Waitaki	Upper Waitaki Canals - (Waitaki hydroelectric canals - specific canal unknown)	-	-	-	972 +/- 378	7,165 +/- 1,592
Waitaki	Ohau Canal	1,077 +/- 648	5,373 +/- 2,092	5,638 +/- 1,631	53,946 +/- 4,006	-
Waitaki	Ohau B Canal (Hydroelectric canal between Ruataniwha and Ohau B powerstation)	-	-	-	-	29,257 +/- 2,858
Waitaki	Ohau C Canal (Hydroelectric canal between Ohau B and Ohau C powerstations)	-	-	-	-	32,655 +/- 2,864
Waitaki	Ohau River	636 +/- 198	484 +/- 159	534 +/- 178	953 +/- 586	-
Waitaki	Ohau River (Ohau River above Lake Ruataniwha)	-	-	-	-	770 +/- 268
Waitaki	Ohau River (Ohau River below Lake Ruataniwha)	-	-	-	-	107 +/- 66
Waitaki	Larch Stream	100 +/- 74	-	47 +/- 49	-	49 +/- 49
Waitaki	Lake Wardell	17 +/- 17	27 +/- 27	-	-	2 +/- 2
Waitaki	Twizel River	723 +/- 360	1,251 +/- 329	3,820 +/- 660	7,227 +/- 1,447	7,937 +/- 1,187
Waitaki	Loch Cameron	-	119 +/- 90	90 +/- 49	64 +/- 45	43 +/- 32
Waitaki	Fraser Stream	-	-	130 +/- 113	-	1 +/- 1
Waitaki	Maitland Stream	17 +/- 17	93 +/- 95	32 +/- 33	12 +/- 12	-
Waitaki	Temple Stream	-	-	108 +/- 55	12 +/- 12	-
Waitaki	Hopkins River	348 +/- 227	132 +/- 88	585 +/- 225	283 +/- 215	130 +/- 102
Waitaki	Dobson River	-	284 +/- 134	1,246 +/- 340	103 +/- 66	568 +/- 209
Waitaki	Huxley River	257 +/- 146	-	181 +/- 135	-	-
Waitaki	Kelland Pond	17 +/- 17	774 +/- 427	548 +/- 408	257 +/- 146	9 +/- 9
Waitaki	Lake Pukaki	623 +/- 191	1,097 +/- 329	1,034 +/- 562	1,970 +/- 643	2,194 +/- 572
Waitaki	Lake Merino	-	67 +/- 70	16 +/- 16	97 +/- 72	49 +/- 49
Waitaki	Lake Poaka	-	13 +/- 14	867 +/- 359	131 +/- 103	422 +/- 176
Waitaki	Pukaki-Ohau A Canal	-	433 +/- 401	790 +/- 306	10,665 +/- 1,977	26,211 +/- 2,594
Waitaki	Tasman River	-	5 +/- 5	335 +/- 185	-	335 +/- 132
Waitaki	Whale Stream	-	-	10 +/- 11	-	-
Waitaki	Jollie River	-	118 +/- 91	-	-	-
Waitaki	Lake Tekapo	3,003 +/- 781	8,728 +/- 993	7,748 +/- 1,092	9,740 +/- 2,035	7,099 +/- 1,028
Waitaki	Tekapo Canal	867 +/- 242	7,696 +/- 964	4,441 +/- 1,474	23,051 +/- 2,498	22,526 +/- 2,121
Waitaki	Tekapo River	2,416 +/- 502	4,910 +/- 712	4,455 +/- 606	1,707 +/- 450	868 +/- 285

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Waitaki	Mary Burn	30 +/- 21	196 +/- 77	406 +/- 186	215 +/- 97	215 +/- 107
Waitaki	Irishman Creek	20 +/- 20	25 +/- 26	-	-	-
Waitaki	Grays River	87 +/- 60	257 +/- 109	309 +/- 183	172 +/- 93	130 +/- 57
Waitaki	Fork Stream	39 +/- 27	-	27 +/- 28	-	-
Waitaki	Lake Alexandrina	4,478 +/- 736	9,467 +/- 1,422	6,351 +/- 1,150	5,215 +/- 1,213	6,564 +/- 1,419
Waitaki	Cass River	-	29 +/- 23	104 +/- 74	3 +/- 2	3 +/- 2
Waitaki	Coal River	20 +/- 20	-	-	-	-
Waitaki	Godley River	101 +/- 78	124 +/- 88	243 +/- 165	71 +/- 41	270 +/- 161
Waitaki	Macaulay River	-	135 +/- 95	102 +/- 82	-	145 +/- 106
Total Waitaki Catchment		86,131 +/- 4,392	118,458 +/- 4,943	174,282 +/- 7,761	239,206 +/- 9,575	234,099 +/- 8,124
Oamaru	Oamaru Creek	-	-	-	-	63 +/- 63
Kakanui	Kakanui River	2,038 +/- 663	222 +/- 108	891 +/- 391	531 +/- 251	284 +/- 149
Kakanui	Kauru River	-	-	180 +/- 183	110 +/- 110	-
Total Kakanui Catchment		2,038 +/- 663	222 +/- 108	1,071 +/- 432	641 +/- 274	284 +/- 149
Waianakarua	Waianakarua River	-	139 +/- 143	-	278 +/- 237	106 +/- 76

## Otago

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Shag	Shag River	1,057 +/- 292	885 +/- 318	802 +/- 273	799 +/- 286	1,108 +/- 465
Waikouaiti	Waikouaiti River	2,629 +/- 713	1,357 +/- 865	1,236 +/- 591	632 +/- 230	381 +/- 229
Waitati	Waitati River	666 +/- 310	130 +/- 84	1,012 +/- 610	133 +/- 133	130 +/- 130
Water of Leith	Northern Reservoir	28 +/- 28	-	-	-	-
Water of Leith	Sullivans Dam	416 +/- 190	2,027 +/- 552	1,233 +/- 533	658 +/- 309	2,267 +/- 659
Water of Leith	Water of Leith	-	63 +/- 46	199 +/- 206	130 +/- 65	806 +/- 465
Water of Leith	Ross Creek Reservoir - (Dunedin City, perch present)	-	-	-	-	91 +/- 91
Total Water of Leith Catchment		443 +/- 192	2,089 +/- 554	1,432 +/- 571	788 +/- 316	3,164 +/- 812
	Tomahawk Lagoon	-	671 +/- 375	-	2,981 +/- 1,256	263 +/- 251
	Tomahawk Creek	-	-	317 +/- 189	-	-
Kaikorai	Southern Reservoir	429 +/- 243	1,095 +/- 416	1,034 +/- 674	3,132 +/- 742	3,791 +/- 1,134
Kaikorai	Kaikorai Stream	-	-	-	319 +/- 319	1 +/- 1
Total Kaikorai Catchment		429 +/- 243	1,095 +/- 416	1,034 +/- 674	3,451 +/- 808	3,792 +/- 1,134
Taieri	Hamiltons Dam	41 +/- 41	-	-	406 +/- 317	34 +/- 34
Taieri	Lone Pine Dam	20 +/- 20	-	-	-	-
Taieri	Taieri River	11,532 +/- 1,292	1,136 +/- 511	1,965 +/- 714	-	-
Taieri	Taieri River (above Kokonga)	-	3,659 +/- 742	4,054 +/- 1,146	5,085 +/- 1,198	2,284 +/- 686
Taieri	Taieri River (Kokonga - to Outram)	-	1,051 +/- 277	2,725 +/- 1,281	3,203 +/- 969	1,572 +/- 378
Taieri	Taieri River (Outram - to Taieri Mouth)	-	13,229 +/- 2,509	7,614 +/- 2,387	14,559 +/- 2,509	9,849 +/- 1,659
Taieri	Meggat Burn	-	47 +/- 48	-	-	-
Taieri	Knights Dam	28 +/- 28	70 +/- 71	-	-	-
Taieri	Lake Mahinerangi	4,131 +/- 704	4,746 +/- 1,110	2,163 +/- 608	1,580 +/- 520	2,363 +/- 698
Taieri	Lake Waiholo	312 +/- 216	1,640 +/- 634	304 +/- 204	1,664 +/- 797	935 +/- 559
Taieri	Lake Waipori	123 +/- 87	-	21 +/- 16	1,789 +/- 956	1,256 +/- 645
Taieri	Waipori River	315 +/- 160	715 +/- 275	136 +/- 108	124 +/- 107	1,049 +/- 979
Taieri	Silver Stream	-	15 +/- 16	235 +/- 220	-	196 +/- 157
Taieri	Lee Stream	171 +/- 92	55 +/- 43	154 +/- 101	37 +/- 37	1 +/- 1
Taieri	Three O'Clock Stream-	-	9 +/- 9	-	-	-
Taieri	Deep Stream	186 +/- 142	344 +/- 208	213 +/- 129	441 +/- 251	61 +/- 60
Taieri	Sutton Stream	147 +/- 86	84 +/- 66	-	-	-
Taieri	Kye Burn	-	96 +/- 82	335 +/- 202	3 +/- 3	2 +/- 2
Taieri	Coal Pit Dam	455 +/- 243	763 +/- 270	98 +/- 64	431 +/- 212	526 +/- 280
Taieri	Hoffmans Dam	33 +/- 33	280 +/- 133	-	16 +/- 9	3 +/- 2
Taieri	Rutherfords Dam	186 +/- 118	125 +/- 66	26 +/- 26	126 +/- 97	287 +/- 135
Taieri	Mathias Dam	339 +/- 157	195 +/- 103	51 +/- 52	659 +/- 403	160 +/- 114
Taieri	Blakeleys Dam	726 +/- 336	282 +/- 145	209 +/- 111	423 +/- 228	293 +/- 199
Taieri	West Eweburn Dam	28 +/- 28	-	638 +/- 626	7 +/- 4	203 +/- 134
Taieri	Hore's Pond	-	39 +/- 40	332 +/- 339	196 +/- 139	76 +/- 69

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Taieri	Logan Burn Reservoir	1,320 +/- 347	4,281 +/- 877	2,868 +/- 609	1,790 +/- 537	1,135 +/- 579
Taieri	Logan Burn	-	-	27 +/- 28	280 +/- 127	677 +/- 194
Taieri	McAtamneys Head Pond	-	-	281 +/- 262	179 +/- 179	92 +/- 91
Taieri	Great Moss Swamp	-	-	-	-	738 +/- 252
Total Taieri Catchment		20,093 +/- 1,618	32,860 +/- 3,139	24,448 +/- 3,266	32,996 +/- 3,360	23,792 +/- 2,487
	Akatore Creek	-	-	-	37 +/- 37	-
Tokomairiro	Tokomairiro River	848 +/- 275	4,089 +/- 1,713	519 +/- 335	540 +/- 388	918 +/- 901
Clutha	Clutha River (below Roxburgh - species unknown)	14,893 +/- 2,432	14,447 +/- 2,993	12,549 +/- 1,972	-	-
Clutha	Clutha River (Wanaka to Lake Dunstan)	11,443 +/- 2,156	20,155 +/- 2,813	22,030 +/- 3,291	6,731 +/- 1,347	5,018 +/- 1,088
Clutha	Clutha River (reach and species unknown)	-	2,714 +/- 1,006	5,151 +/- 1,171	-	-
Clutha	Clutha River (below Roxburgh - salmon)	-	-	-	6,758 +/- 2,721	2,736 +/- 1,042
Clutha	Clutha River (below Roxburgh - trout)	-	-	-	16,764 +/- 2,810	17,602 +/- 2,358
Clutha	Clutha River (Clyde to Roxburgh)	-	-	-	1,300 +/- 772	5,629 +/- 1,090
Clutha	Puerua River	-	93 +/- 75	298 +/- 264	179 +/- 133	-
Clutha	Kaitangata Channel	32 +/- 32	-	41 +/- 43	123 +/- 94	126 +/- 126
Clutha	Lake Tuakitoto	-	-	219 +/- 222	-	-
Clutha	Kaihiku Stream	17 +/- 17	-	-	-	172 +/- 172
Clutha	Waitahuna River	13 +/- 13	879 +/- 474	421 +/- 148	118 +/- 86	176 +/- 141
Clutha	Waiwera River	112 +/- 96	315 +/- 252	119 +/- 80	-	-
Clutha	Kuriwao Stream	-	-	-	-	5 +/- 5
Clutha	Pomahaka River	6,783 +/- 1,236	6,004 +/- 1,462	4,142 +/- 1,017	3,273 +/- 867	-
Clutha	Pomahaka River (above Park Hill Bridge at Switzers Rd)	-	-	-	-	2,173 +/- 892
Clutha	Pomahaka River (below Park Hill Bridge at Switzers Rd)	-	-	-	-	2,027 +/- 772
Clutha	Waipahi River	2,366 +/- 637	1,815 +/- 497	919 +/- 417	211 +/- 159	232 +/- 138
Clutha	Kaiwera Stream	96 +/- 71	69 +/- 71	255 +/- 261	-	206 +/- 206
Clutha	Waikoikoi Creek	-	343 +/- 317	51 +/- 53	-	-
Clutha	Leithen Burn	-	-	-	390 +/- 359	122 +/- 122
Clutha	Tuapeka River	86 +/- 63	113 +/- 98	98 +/- 79	5 +/- 4	271 +/- 271
Clutha	Malones Dam	-	-	233 +/- 223	-	-
Clutha	Phoenix Dam	-	-	94 +/- 77	-	-
Clutha	Beaumont River	-	-	-	-	3 +/- 2
Clutha	Talla Burn	-	-	-	-	34 +/- 34
Clutha	Pinders Pond	-	-	-	33 +/- 33	85 +/- 65
Clutha	Lake Onslow	2,721 +/- 498	3,449 +/- 583	3,423 +/- 823	1,423 +/- 421	3,115 +/- 757

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Clutha	Teviot River	160 +/- 75	325 +/- 204	102 +/- 82	194 +/- 121	69 +/- 49
Clutha	Lake Roxburgh	53 +/- 37	213 +/- 95	3,083 +/- 1,168	1,419 +/- 586	350 +/- 203
Clutha	Butchers Dam	170 +/- 87	204 +/- 95	618 +/- 331	539 +/- 397	153 +/- 82
Clutha	Falls Dam	28 +/- 28	132 +/- 81	193 +/- 87	45 +/- 31	859 +/- 372
Clutha	Manuherikia River	3,566 +/- 856	5,629 +/- 2,095	2,074 +/- 660	2,139 +/- 833	7,164 +/- 2,228
Clutha	Manor Burn	221 +/- 89	441 +/- 210	163 +/- 149	436 +/- 191	748 +/- 211
Clutha	Manorburn Reservoir	513 +/- 132	2,350 +/- 547	3,407 +/- 631	1,236 +/- 659	388 +/- 264
Clutha	Lauder Creek	-	-	-	-	79 +/- 79
Clutha	Poolburn Reservoir	2,275 +/- 549	2,810 +/- 612	3,843 +/- 713	5,153 +/- 1,294	934 +/- 368
Clutha	Ida Burn	-	-	201 +/- 161	3 +/- 3	52 +/- 52
Clutha	Pool Burn	-	368 +/- 138	49 +/- 30	797 +/- 262	2,459 +/- 730
Clutha	Dunstan Creek	156 +/- 140	40 +/- 42	361 +/- 202	215 +/- 153	786 +/- 367
Clutha	Conroys Dam	61 +/- 43	83 +/- 55	401 +/- 220	660 +/- 601	462 +/- 221
Clutha	Waikerikeri Creek	25 +/- 25	-	77 +/- 80	-	23 +/- 23
Clutha	Fraser Dam	55 +/- 55	93 +/- 75	271 +/- 167	28 +/- 23	382 +/- 345
Clutha	Fraser River	407 +/- 158	529 +/- 401	1,380 +/- 542	149 +/- 108	83 +/- 65
Clutha	Kawarau River	3,505 +/- 1,024	1,698 +/- 782	1,930 +/- 763	1,653 +/- 609	5,969 +/- 5,114
Clutha	Bannock Burn	191 +/- 119	-	-	387 +/- 277	271 +/- 179
Clutha	Nevis River	106 +/- 75	250 +/- 82	877 +/- 242	402 +/- 131	235 +/- 123
Clutha	Arrow River	207 +/- 120	-	347 +/- 167	415 +/- 269	649 +/- 440
Clutha	Lake Hayes	1,434 +/- 485	1,544 +/- 836	558 +/- 178	185 +/- 92	28 +/- 26
Clutha	Lake Kirkpatrick	504 +/- 310	70 +/- 72	27 +/- 28	2 +/- 2	40 +/- 32
Clutha	Lake Luna	37 +/- 37	-	-	-	-
Clutha	Moke Lake	365 +/- 176	1,525 +/- 440	815 +/- 277	485 +/- 206	391 +/- 210
Clutha	Shotover River	126 +/- 64	1,121 +/- 504	94 +/- 61	147 +/- 82	1,446 +/- 1,376
Clutha	Lake Johnson	-	79 +/- 80	171 +/- 108	552 +/- 450	181 +/- 140
Clutha	Diamond Lake	334 +/- 173	519 +/- 212	472 +/- 152	337 +/- 137	526 +/- 344
Clutha	Lake Wakatipu	21,411 +/- 2,226	17,715 +/- 1,956	21,481 +/- 2,278	22,196 +/- 3,212	26,267 +/- 3,069
Clutha	Lake Rere	-	6 +/- 6	-	-	-
Clutha	Glenorchy Lagoons	-	-	102 +/- 104	208 +/- 125	516 +/- 273
Clutha	Lake Dispute	-	-	77 +/- 78	-	1 +/- 1
Clutha	Lake Reid	-	-	54 +/- 55	-	2 +/- 2
Clutha	Lake Sylvan	-	-	182 +/- 185	5 +/- 4	6 +/- 6
Clutha	Wye Creek	521 +/- 210	-	155 +/- 112	-	-
Clutha	Lochy River	134 +/- 72	262 +/- 173	258 +/- 110	275 +/- 146	388 +/- 227
Clutha	Staircase Creek	83 +/- 83	-	25 +/- 26	-	-
Clutha	Twelve Mile Creek	20 +/- 20	-	38 +/- 40	-	-
Clutha	Von River	191 +/- 97	519 +/- 197	872 +/- 380	391 +/- 182	120 +/- 78
Clutha	Greenstone River	461 +/- 164	372 +/- 177	710 +/- 230	1,021 +/- 430	416 +/- 312
Clutha	Caples River	193 +/- 98	225 +/- 123	679 +/- 252	492 +/- 268	85 +/- 78
Clutha	Steele Creek	-	-	27 +/- 28	-	-
Clutha	Dart River	87 +/- 51	39 +/- 40	204 +/- 151	93 +/- 43	23 +/- 13



Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Clutha	Rees River	293 +/- 199	129 +/- 87	177 +/- 99	160 +/- 120	1 +/- 1
Clutha	Temple Burn	38 +/- 27	80 +/- 47	47 +/- 49	-	-
Clutha	Diamond Creek	30 +/- 21	380 +/- 160	578 +/- 260	169 +/- 89	392 +/- 264
Clutha	Route Burn	-	86 +/- 62	820 +/- 317	339 +/- 165	-
Clutha	Lake Dunstan	22,251 +/- 1,789	19,475 +/- 2,975	26,138 +/- 2,854	17,293 +/- 2,156	14,254 +/- 2,152
Clutha	Lindis River	280 +/- 106	147 +/- 87	332 +/- 228	37 +/- 37	10 +/- 10
Clutha	Cluden Stream	41 +/- 40	-	-	-	-
Clutha	Camp Creek	-	79 +/- 80	-	-	-
Clutha	Cardrona River	31 +/- 31	-	26 +/- 26	195 +/- 184	149 +/- 79
Clutha	Hawea River	1,924 +/- 483	4,971 +/- 1,335	834 +/- 324	476 +/- 175	1,883 +/- 759
Clutha	Lake Hawea	18,824 +/- 2,289	28,156 +/- 3,746	22,214 +/- 2,802	13,844 +/- 2,523	11,953 +/- 1,886
Clutha	Fast Burn	-	213 +/- 220	-	-	-
Clutha	Hunter River	612 +/- 170	1,629 +/- 595	1,225 +/- 362	1,004 +/- 453	704 +/- 323
Clutha	Timaru River	169 +/- 59	481 +/- 155	157 +/- 72	197 +/- 86	1 +/- 1
Clutha	Dingle Burn	123 +/- 58	105 +/- 83	91 +/- 62	772 +/- 430	261 +/- 157
Clutha	Lake Wanaka	25,529 +/- 2,402	25,268 +/- 2,363	39,402 +/- 5,809	23,742 +/- 3,303	16,162 +/- 1,805
Clutha	Matukituki River	873 +/- 248	531 +/- 286	494 +/- 186	1,649 +/- 769	851 +/- 359
Clutha	Mototapu River	147 +/- 87	23 +/- 24	125 +/- 85	258 +/- 127	485 +/- 193
Clutha	Minaret Burn	46 +/- 35	-	30 +/- 31	-	-
Clutha	Albert Burn	33 +/- 24	-	-	-	16 +/- 16
Clutha	Makarora River	1,457 +/- 357	1,484 +/- 416	1,865 +/- 472	1,063 +/- 321	715 +/- 346
Clutha	Wilkin River	197 +/- 118	145 +/- 88	412 +/- 155	221 +/- 116	60 +/- 52
Clutha	Young River	25 +/- 25	117 +/- 98	17 +/- 17	276 +/- 226	2 +/- 2
Clutha	Ore Stream	-	-	-	18 +/- 18	-
Clutha	Blue River	20 +/- 20	17 +/- 18	83 +/- 64	63 +/- 63	6 +/- 6
Clutha	Boundary Creek	-	79 +/- 80	-	-	-
Total Clutha Catchment		149,105 +/- 5,931	173,151 +/- 7,947	191,482 +/- 8,856	141,341 +/- 7,571	140,188 +/- 8,252
Catlins	Catlins River	4,505 +/- 1,543	913 +/- 337	1,492 +/- 730	2,278 +/- 814	1,174 +/- 386
Catlins	Owaka River	1,399 +/- 1,111	191 +/- 117	1,085 +/- 542	69 +/- 60	345 +/- 233
Total Catlins Catchment		5,903 +/- 1,901	1,104 +/- 356	2,577 +/- 909	2,347 +/- 816	1,519 +/- 451
Tahakopa	Tahakopa River	1,628 +/- 967	720 +/- 393	55 +/- 40	281 +/- 179	307 +/- 278
Tahakopa	Maclennan River	13 +/- 13	153 +/- 143	-	37 +/- 37	79 +/- 57
Total Tahakopa Catchment		1,640 +/- 967	873 +/- 418	55 +/- 40	317 +/- 183	386 +/- 283
Tautuku	Tautuku River	56 +/- 43	387 +/- 233	27 +/- 28	178 +/- 178	112 +/- 102
Tautuku	Fleming River	-	22 +/- 22	-	29 +/- 29	34 +/- 34
Total Tautuku Catchment		56 +/- 43	409 +/- 234	27 +/- 28	207 +/- 180	146 +/- 107

## Southland

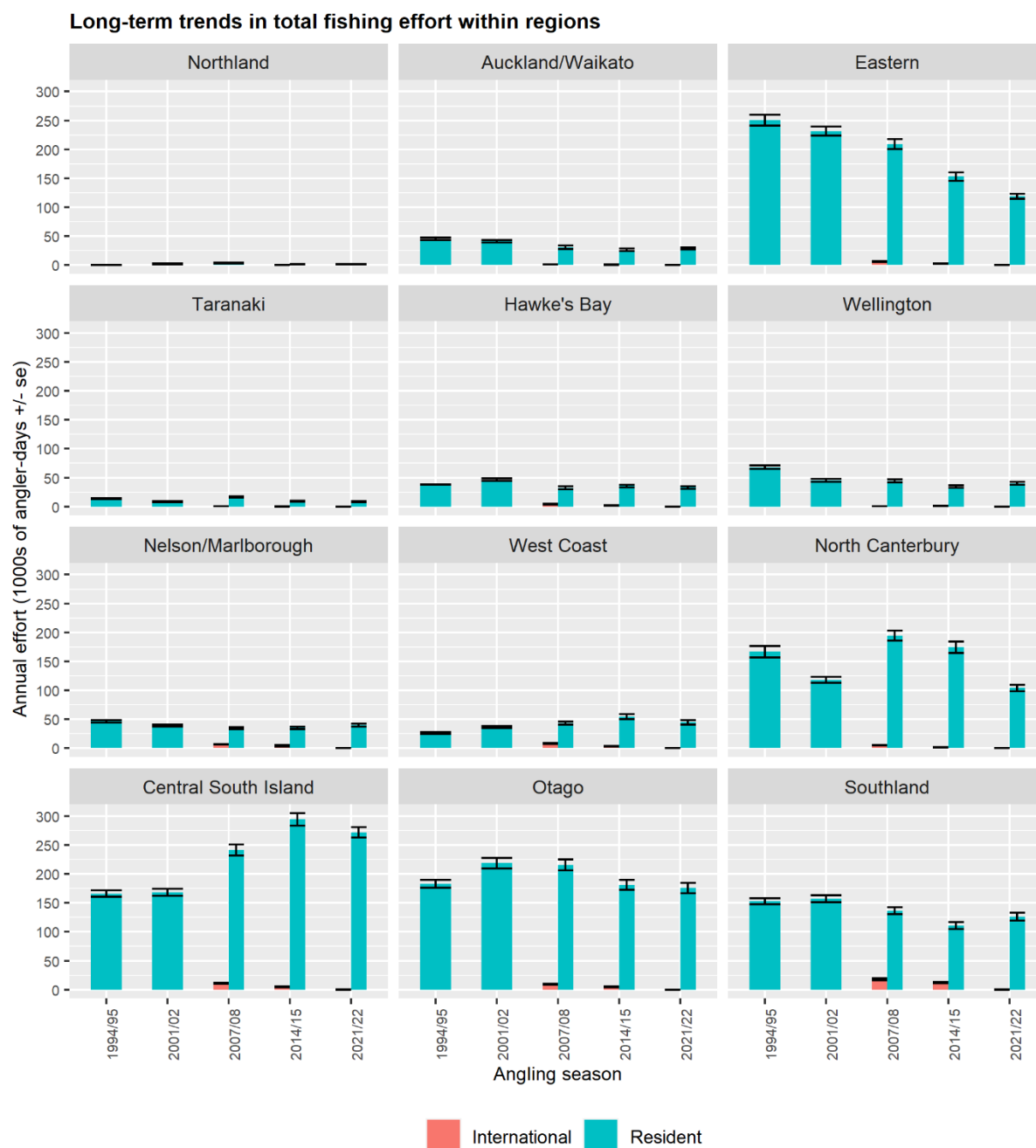
Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Waikawa	Waikawa River	1,025 +/- 454	926 +/- 408	1,091 +/- 398	592 +/- 233	1,373 +/- 811
	Waikopikopiko Stream	-	-	139 +/- 145	-	-
Tokanui	Tokanui River	-	-	140 +/- 112	33 +/- 33	422 +/- 422
Titiroa	Titiroa Stream	-	79 +/- 82	830 +/- 767	1,837 +/- 1,782	107 +/- 78
Mataura	Mataura River	51,358 +/- 3,354	297 +/- 100	7,237 +/- 1,209	-	-
Mataura	Mataura River (above-Gore)	-	15,808 +/- 1,862	13,665 +/- 1,674	15,280 +/- 1,614	-
Mataura	Mataura River (below-Gore)	-	36,854 +/- 3,606	19,362 +/- 3,068	22,975 +/- 3,168	10,813 +/- 2,105
Mataura	Mataura River (above-Nokomai Gorge)	-	-	-	-	6,894 +/- 1,341
Mataura	Mataura River (Gore - to top of Nokomai Gorge)	-	-	-	-	7,243 +/- 1,615
Mataura	Muddy Creek	-	17 +/- 18	-	-	-
Mataura	Mokoreta River	2,390 +/- 476	1,092 +/- 309	945 +/- 468	238 +/- 121	308 +/- 152
Mataura	Redan Stream	13 +/- 13	-	-	-	-
Mataura	Mimihau Stream	900 +/- 299	1,540 +/- 563	108 +/- 55	487 +/- 259	145 +/- 73
Mataura	Waiarikiki Stream	-	-	-	-	74 +/- 74
Mataura	Waikaka Stream	980 +/- 254	1,751 +/- 700	812 +/- 340	459 +/- 196	99 +/- 60
Mataura	Pukerau Stream	19 +/- 19	-	-	-	111 +/- 111
Mataura	Otamita Stream	1,374 +/- 598	840 +/- 267	498 +/- 303	-	-
Mataura	Waimea Stream	145 +/- 63	682 +/- 327	421 +/- 239	274 +/- 152	405 +/- 234
Mataura	Fortune Creek	44 +/- 34	-	-	-	-
Mataura	Winding Creek	-	-	27 +/- 28	37 +/- 37	-
Mataura	Pyramid Creek	-	-	-	-	111 +/- 111
Mataura	Waikaia River	6,807 +/- 1,056	6,852 +/- 1,230	4,461 +/- 821	4,309 +/- 935	2,959 +/- 758
Mataura	Dome Burn	7 +/- 7	17 +/- 18	29 +/- 30	-	-
Mataura	Argyle Burn	20 +/- 20	-	38 +/- 30	23 +/- 23	-
Mataura	Steeple Burn	20 +/- 20	-	-	-	-
Mataura	Gow Burn	41 +/- 41	-	351 +/- 365	-	19 +/- 19
Mataura	Tomogalak Stream	66 +/- 40	13 +/- 14	14 +/- 15	16 +/- 16	2 +/- 2
Mataura	Nokomai River	764 +/- 546	384 +/- 279	373 +/- 205	76 +/- 41	276 +/- 143
Mataura	Eyre Creek	206 +/- 206	46 +/- 38	60 +/- 61	98 +/- 73	9 +/- 9
Mataura	Robert Creek	-	-	90 +/- 66	-	394 +/- 347
Total Mataura Catchment		65,153 +/- 3,667	66,193 +/- 4,376	48,490 +/- 3,876	44,272 +/- 3,697	29,862 +/- 3,110
	Waituna Lagoon	1,125 +/- 333	1,222 +/- 561	1,839 +/- 427	2,238 +/- 601	678 +/- 244
Waihopai	Waihopai River	-	195 +/- 198	371 +/- 228	906 +/- 381	555 +/- 389
Oreti	Oreti River	27,179 +/- 2,367	339 +/- 145	3,289 +/- 670	-	-
Oreti	Oreti River (above Lumsden)	-	2,697 +/- 832	5,230 +/- 1,120	3,044 +/- 650	-
Oreti	Oreti River (below Lumsden)	-	17,588 +/- 2,003	13,333 +/- 1,653	13,382 +/- 1,933	-

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Oreti	Oreti River (above Mossburn)	-	-	-	-	4,046 +/- 724
Oreti	Oreti River (below Mossburn)	-	-	-	-	12,197 +/- 2,774
Oreti	Waikiwi Stream	132 +/- 86	-	413 +/- 319	100 +/- 73	368 +/- 367
Oreti	Makarewa River	3,614 +/- 696	1,914 +/- 630	1,942 +/- 701	1,101 +/- 621	1,627 +/- 756
Oreti	Hedgehope Stream	13 +/- 13	290 +/- 161	320 +/- 233	-	68 +/- 68
Oreti	Dunsdale Stream	364 +/- 215	228 +/- 114	331 +/- 234	23 +/- 19	5 +/- 2
Oreti	Otapiri Stream	947 +/- 225	991 +/- 270	253 +/- 118	226 +/- 110	33 +/- 24
Oreti	Lora Stream	100 +/- 66	77 +/- 42	-	98 +/- 98	-
Oreti	Dipton Stream	181 +/- 100	-	105 +/- 85	73 +/- 53	1 +/- 1
Oreti	Murray Creek	-	26 +/- 27	-	-	-
Oreti	Irthing Stream	91 +/- 56	200 +/- 118	-	28 +/- 28	192 +/- 154
Oreti	Cromel Stream	-	26 +/- 27	290 +/- 222	10 +/- 5	217 +/- 126
Oreti	Acton Stream	15 +/- 15	182 +/- 122	-	30 +/- 30	-
Oreti	Weydon Burn	13 +/- 13	66 +/- 68	-	-	-
Oreti	Windley River	-	70 +/- 57	-	-	-
Oreti	Ashton Burn	-	-	-	-	21 +/- 21
Total Oreti Catchment		32,648 +/- 2,492	24,694 +/- 2,297	25,506 +/- 2,282	18,114 +/- 2,139	18,775 +/- 2,995
Waimatuku	Waimatuku Stream	1,424 +/- 422	487 +/- 255	72 +/- 47	240 +/- 115	382 +/- 215
Aparima	Aparima River	11,278 +/- 1,495	6,747 +/- 1,003	7,730 +/- 1,160	9,905 +/- 2,253	7,397 +/- 1,398
Aparima	Pourakino River	482 +/- 224	225 +/- 173	33 +/- 35	-	61 +/- 43
Aparima	Omutu Creek	-	-	25 +/- 26	-	271 +/- 271
Aparima	Otautau Stream	51 +/- 51	296 +/- 215	398 +/- 282	3 +/- 3	636 +/- 451
Aparima	Etal Stream	25 +/- 25	-	-	-	-
Aparima	Taringatura Creek	-	-	-	-	47 +/- 47
Aparima	Hamilton Burn	194 +/- 80	1,035 +/- 393	595 +/- 206	232 +/- 88	196 +/- 151
Aparima	Braxton Burn	-	-	36 +/- 37	23 +/- 23	-
Aparima	Pleasant Creek	-	-	-	2 +/- 2	-
Total Aparima Catchment		12,031 +/- 1,515	8,303 +/- 1,112	8,818 +/- 1,213	10,163 +/- 2,255	8,608 +/- 1,503
Waimeamea	Waimeamea River	-	-	-	-	92 +/- 92
Waiau	Waiau River	7,721 +/- 864	848 +/- 335	4,129 +/- 1,202	-	-
Waiau	Waiau River (below Mararoa)	-	7,889 +/- 966	6,645 +/- 1,606	2,233 +/- 581	7,375 +/- 2,053
Waiau	Waiau River (Te Anau - to Manapouri)	-	5,919 +/- 1,147	7,762 +/- 1,239	7,906 +/- 1,389	7,620 +/- 1,203
Waiau	Orauea River	755 +/- 349	693 +/- 305	94 +/- 61	-	108 +/- 68
Waiau	Orauea Stream	-	-	-	83 +/- 68	-
Waiau	Morley Stream	25 +/- 25	52 +/- 43	135 +/- 140	33 +/- 33	-
Waiau	Lill Burn	116 +/- 77	82 +/- 50	21 +/- 22	-	-
Waiau	Wairaki River	216 +/- 73	462 +/- 217	789 +/- 307	196 +/- 118	56 +/- 41
Waiau	Letham Burn	15 +/- 15	120 +/- 73	-	69 +/- 69	-
Waiau	Monowai River	438 +/- 169	688 +/- 364	305 +/- 179	436 +/- 180	644 +/- 248

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Waiau	Lake Monowai	4,034 +/- 600	6,253 +/- 1,158	3,325 +/- 663	2,506 +/- 676	3,369 +/- 717
Waiau	Walker River	-	32 +/- 33	-	-	-
Waiau	Eel Creek	-	-	-	21 +/- 21	-
Waiau	Electric River	15 +/- 15	396 +/- 379	70 +/- 52	-	-
Waiau	Borland Burn	62 +/- 27	62 +/- 35	219 +/- 201	23 +/- 23	97 +/- 78
Waiau	Lake Thomas	132 +/- 54	394 +/- 160	27 +/- 28	125 +/- 79	676 +/- 339
Waiau	Mararoa River	2,234 +/- 391	2,972 +/- 609	1,927 +/- 361	1,013 +/- 249	5,557 +/- 1,641
Waiau	Kiwi Burn	-	13 +/- 14	-	-	15 +/- 15
Waiau	Whitestone River	710 +/- 365	473 +/- 133	1,596 +/- 453	389 +/- 129	-
Waiau	McGregors Pond	-	-	-	1,710 +/- 1,242	871 +/- 557
Waiau	Whitestone River (above Prospect Bridge)	-	-	-	-	2,071 +/- 1,445
Waiau	Whitestone River (below Prospect Bridge)	-	-	-	-	454 +/- 179
Waiau	Flaxy Creek	-	-	36 +/- 37	-	108 +/- 77
Waiau	Princhester Creek	-	40 +/- 42	6 +/- 6	-	-
Waiau	North Mavora Lake	1,416 +/- 305	2,758 +/- 595	3,591 +/- 1,407	3,383 +/- 1,333	4,862 +/- 2,050
Waiau	South Mavora Lake	691 +/- 148	1,125 +/- 306	821 +/- 451	1,405 +/- 571	1,425 +/- 631
Waiau	Windon Burn	71 +/- 71	17 +/- 18	119 +/- 69	32 +/- 32	18 +/- 18
Waiau	Home Creek	-	19 +/- 12	-	-	38 +/- 27
Waiau	Lake Manapouri	5,486 +/- 896	5,915 +/- 971	7,829 +/- 1,208	4,414 +/- 793	8,657 +/- 1,548
Waiau	Grebe River	113 +/- 62	323 +/- 322	352 +/- 211	166 +/- 118	2 +/- 2
Waiau	Green Lake	-	7 +/- 7	60 +/- 46	-	-
Waiau	Island Lake	-	7 +/- 7	-	-	13 +/- 13
Waiau	Spey River	49 +/- 37	399 +/- 309	-	18 +/- 18	-
Waiau	Awe Burn	-	364 +/- 378	27 +/- 28	-	-
Waiau	Freeman Burn	-	323 +/- 322	-	7 +/- 4	-
Waiau	Iris Burn	62 +/- 52	-	-	5 +/- 4	-
Waiau	Lake Gunn	35 +/- 24	122 +/- 85	243 +/- 146	174 +/- 96	513 +/- 281
Waiau	Lake Hankinson	13 +/- 13	-	-	-	2 +/- 2
Waiau	Lake Te Anau	10,278 +/- 1,264	12,081 +/- 1,954	21,345 +/- 2,715	15,404 +/- 1,810	14,104 +/- 2,008
Waiau	Lake Fergus	-	47 +/- 48	-	22 +/- 22	6 +/- 6
Waiau	Lake Henry	-	92 +/- 72	44 +/- 34	19 +/- 14	64 +/- 63
Waiau	Upukerora River	628 +/- 186	1,187 +/- 388	2,070 +/- 464	489 +/- 184	2,211 +/- 905
Waiau	McKenzie Burn	-	54 +/- 56	136 +/- 115	113 +/- 113	4 +/- 2
Waiau	Snag Burn	17 +/- 17	-	167 +/- 157	-	-
Waiau	Junction Burn	34 +/- 24	23 +/- 17	-	53 +/- 53	-
Waiau	Doon River	62 +/- 49	23 +/- 17	8 +/- 8	-	-
Waiau	Wapiti River	344 +/- 259	13 +/- 14	-	-	339 +/- 339
Waiau	Eglinton River	665 +/- 202	1,020 +/- 410	733 +/- 188	285 +/- 112	1,738 +/- 767
Waiau	Lugar Burn	-	9 +/- 10	66 +/- 48	-	-

Catchment	Angling water	1994/95	2001/02	2007/08	2014/15	2021/22
Waiau	Glaisnock River	48 +/- 35	23 +/- 21	14 +/- 15	-	-
Waiau	Nurse Creek	-	-	90 +/- 92	-	-
Waiau	Worsley Stream	795 +/- 305	104 +/- 87	130 +/- 58	65 +/- 63	109 +/- 69
Waiau	Clinton River	660 +/- 320	48 +/- 29	208 +/- 138	280 +/- 106	237 +/- 142
Waiau	Neale Burn	-	-	-	8 +/- 4	-
Waiau	Eglinton River East Branch	-	-	27 +/- 28	40 +/- 28	494 +/- 483
Total Waiau Catchment		37,942 +/- 2,105	53,492 +/- 3,247	65,167 +/- 4,235	43,125 +/- 3,244	63,857 +/- 4,938
Wairaurahiri	Wairaurahiri River	-	17 +/- 18	86 +/- 88	-	11 +/- 11
Wairaurahiri	Lake Hauroko	127 +/- 59	319 +/- 141	163 +/- 78	240 +/- 147	248 +/- 126
Total Wairaurahiri Catchment		127 +/- 59	337 +/- 142	249 +/- 118	240 +/- 147	259 +/- 127
	Lake Monk	-	52 +/- 54	113 +/- 82	-	-
Dusky	Dusky Sound	-	-	-	-	334 +/- 334
Dusky	Seaforth River	-	7 +/- 8	26 +/- 26	-	-
Total Dusky Catchment		-	7 +/- 8	26 +/- 26	-	334 +/- 334
	Dark River	-	70 +/- 71	-	-	-
	Light River	-	70 +/- 71	-	-	-
Arthur	Arthur River	174 +/- 149	16 +/- 14	60 +/- 61	241 +/- 230	109 +/- 109
Arthur	Lake Ada	-	-	30 +/- 31	-	-
Arthur	Joe's River	-	-	54 +/- 39	-	-
Total Arthur Catchment		174 +/- 149	16 +/- 14	144 +/- 79	241 +/- 230	109 +/- 109
	Cleddau River	93 +/- 68	-	54 +/- 39	450 +/- 296	-
Hollyford	Hollyford River	597 +/- 290	185 +/- 126	428 +/- 178	178 +/- 168	71 +/- 52
Hollyford	Lake McKerrow	364 +/- 227	441 +/- 383	-	29 +/- 8	18 +/- 18
Hollyford	Lake Alabaster	25 +/- 25	42 +/- 31	110 +/- 63	1 +/- 1	39 +/- 27
Hollyford	Pyke River	95 +/- 84	213 +/- 150	69 +/- 41	-	-
Hollyford	Lake Wilmot	-	13 +/- 14	25 +/- 26	-	-
Hollyford	Hidden Falls Creek	-	27 +/- 27	-	-	-
Hollyford	Lake Mackenzie	-	-	27 +/- 28	-	370 +/- 312
Total Hollyford Catchment		1,082 +/- 378	921 +/- 432	658 +/- 197	208 +/- 168	498 +/- 318

## Appendix C Decomposition of long-term trends by international vs. resident anglers



**Figure C-1: Long-term trends in total usage of regions, grouped by residents vs non-residents.** International anglers surveyed from 2007/08 onwards.