

**Agenda For The Meeting of Otago Fish & Game Council
On Thursday 26th September 2019
At Otago Fish & Game Council office, Cnr Hanover and Harrow Streets,
Dunedin**

**Starting 11.45am with a light lunch
Public Excluded Session 2 – 3 pm
Public Forum 3pm
ORC CEO (Sarah Gardner) Address 3.30pm**

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1.0 Present and Apologies

2.0 Matters to be Raised Not on the Agenda

3.0 Declarations of Interest

4.0 Confirmation of Previous Minutes

**Minutes of the Otago Fish and Game Council Meeting,
St John's Rooms, 145 Scotland St, Roxburgh
Thursday 18th July 2019, commencing at 12.30pm.**

1.0 Present:

Monty Wright (Chair), Adrian McIntyre, John Barlow, Rick Boyd, Vicki Whyte, Colin Weatherall, Murray Neilson, Mike Barker, Dan Rae

In attendance: Ian Hadland (CE), Richard Twining (Ngai Tahu), Melissa Dennis (Ngai Tahu), Nigel Pacey (OF&GC and minute secretary)

Apologies were received from

Ray Grubb, John Highton and Bruce Jefferies (Conservation Board), Ian Cole Resolved (Rae/McIntyre)

2.0 Matters to be raised not on the Agenda.

Bullock creek – public excluded

3.0 Declarations of Interest

Nil

4.0 Confirmation of Previous Minutes

Resolved (Boyd/Barker)

That the minutes of the Council Meeting held on 16 May 2019 be confirmed as a true and correct record without amendment.

5.0 Matters arising from Minutes

Cr Boyd asked about the progress of a guide's licence at NZC level.

CE responded – guidelines have been sent back to the NZ Professional Fishing Guides Association (NZPFGA) for comment. CE also reminded the NZ Council that NZPFGA doesn't represent all fishing guides and that there was a potential stumbling block with DOC Taupo not fully supporting the need for a guide's licence.

Cr Boyd also asked about the stormwater pipe at Bullock Creek.

6.0 Health and Safety Report

CE updated Council on the use of a health and safety app, developed by the staff in Nelson/Marlborough, for tracking staff intentions when on field duties. It has been updated with a callback feature – when a staff member was overdue. An automated feature to send text messages when a staff member is overdue has been added and now the app is fit for purpose and will be used by Otago staff.

7.0 Items Requiring Decisions

7.1 NZC New Subcommittees Nominations

Cr Weatherall (New Zealand F&G Councillor) gave an update regarding the rationale for setting up the three new subcommittees. Terms of reference were circulated in the agenda.

Cr Barker asked how remuneration and staffing levels were set across the organization. Cr Weatherall responded that currently, it was mainly historic and quite complex.

The following nominations were received:

1. Financial Review Subcommittee – Ray Grubb
2. Remuneration Policy Subcommittee – Cr Weatherall as a NZ Council nomination
3. Licensing Subcommittee – Ian Hadland (Otago CE)

Moved (Whyte/Boyd):

That the council nominate Cr Grubb to the Financial Review Subcommittee.

Carried – Unanimously

Moved (Barker/Boyd):

That the council endorse the appointment/nomination of Mr Hadland to the Licensing Subcommittee.

Carried – Unanimously

8.0 Public Excluded Items

Moved (Weatherall/Barlow)

That the meeting moves into the public excluded session.

Carried – Unanimously

8.1 Manuherikia Communications and Engagement Approach (Draft)

Otago Fish & Game Officer Nigel Pacey presented the draft strategy for discussion.

Moved (Rae/Boyd)

That the report be received (with some adjustments) and the budget outlined to be adopted

Carried (Cr McIntyre against)

8.2 Dingle Burn Backcountry Fishery – Survey of Aerial Operators

Report received

8.3 OF&GC Property update July 2019

CE updated Council on the lease of Cromwell section.

Moved (Weatherall/Wright)

That the lease for the Councils Chardonnay Street section be signed for a term of three years at \$21,000 pa plus GST and expenses.

Carried - Unanimously

CE presented options for the Wanaka hatchery site and the Dunedin Office building.

8.4 Upper Clutha Salmon Farms

Report received

8.5 F&G Council Guidance on Deemed Permit Applications

CE and Nigel Paragreen to canvas dates for a workshop for councillors regarding deemed permit renewals.

8.6 Delegation Extension – Spending from Dedicated Reserves

Moved (McIntyre/Rae)

That the council approve the spending beyond the CE's usual delegation when coming from dedicated reserves.

Carried – Unanimously

Other public excluded business:

Bullock Creek: Discussion regarding possible further developments.

Moved (Barlow/Rae):

That the meeting moves out of the public excluded session

Carried – Unanimously.

9.0 Financial Report and Licence sales report

CE gave an explanation as to why expenses were tracking well above budget. Spending from reserves for RMA matters (\$369 000) is showing as an expense at this stage. It is proposed that RMA costs be extracted in the future into a separate report.

With this removed, the Council is currently on budget.

CE updated council on low interest returns currently for cash investments.

This is a concern going forward.

Habitat Enhancement Fund now has funds available.

Moved (Rae/McIntyre):

That the Financial Report and Licence sales report be received

Carried – Unanimously

10.0 Chief Executives Report

CE spoke to the report contained in the agenda.

10.1 SPECIES:

CE updated council on spawning survey conducted in the Manuherikia valley where little spawning was identified.

Cr McIntyre asked why Pukeko were still being counted if the bag limit was zero.

CE responded that pukeko was still on the game bird list and monitoring data would be required if the bag limit was to be increased.

10.2 HABITAT:

Chairman updated the public at the meeting, that the Roxburgh hatchery plans were still under negotiation. CE to write a letter to Mr Gillespie to thank him for his presentation before the Council meeting.

CE updated council on Lindis Minimum Flow plan change and the priority catchments.

Chairman thanked Councillors that had attended the values consultation meetings in the Arrow and Cardrona. Chairman also thanked Environmental Officer Nigel Paragreen and Niall Watson for their oral and written presentation to Peter Skelton (reviewing ORC performance).

Cr Barlow asked how many consents have already been issued (35 years – with a provision for a call back once minimum flows had been established) to replace

deemed permits in the Cardrona. CE replied he was unsure how many exactly how many had been processed but there were still many outstanding.

10.3 USER PARTICIPATION – No discussion

10.4 PUBLIC INTERFACE

The CE reported that he had meet a number of other agencies over the period including QLDC CEO, ORC CEO, attended a Conservation Board Meeting and met with staff and the president of Otago Federated Farmers.

10.5 COMPLIANCE – No discussion

10.6 LICENCING – No discussion

10.7 COUNCIL – No discussion

10.8 PLANNING AND REPORTING - No discussion

Moved (Barlow/Neilson)

That the CE report be accepted

Carried – Unanimously

11.0 Committee & Delegate Reports

11.1 CFT

Cr Neilson presented the report in Cr Cole's absence. A strategic plan is being worked on. Workshop planned soon.

Cr Rae asked about the landslip on Kane Rd – Cr Neilson to follow up.

11.2 NZC

Cr Weatherall spoke – many items already covered.

Cr Weatherall reported that NZC was considering options for managing non-resident levy funds. The CE noted that the revenue was tagged to the region of sale. The CE to report to council at next meeting regarding potential projects.

Cr Weatherall noted the audit reports of CSI and Nth Canterbury are available and the report on Hawkes Bay will be available in a couple of months.

Next NZC meeting on 27/28 July.

11.3 National Sea Run Salmon Committee

Cr Boyd Spoke.

A brief presentation was made to the Salmon Committee regarding a seasonal bag limit and a possible introduction in NZ.

There was a discussion of the adaptive management proposal which includes mechanisms for protecting the salmon fishery.

MPI made a presentation to the meeting regarding biosecurity issues with salmon farming and hatcheries.

The national fish screen policy was also discussed at the meeting. Cr Boyd suggested that fish screens were the responsibility of the ORC, not Fish & Game.

Cr Boyd answered questions from councillors regarding regulations for the salmon fishery.

Next meeting 30th September.

11.4 Ngai Tahu

Richard Twining spoke of a pleasing MOU between OF&GC and Aukaha.

He passed on a request from Canterbury University wanting notification of koura populations for future study.

Cr Whyte thanked Mr Twining for his support of the Roxburgh hatchery.

Cr Rae offered support regarding Ngai Tahu's strong stance on longfin eel protection.

11.5 Conservation Board

No report. CE attended previous meeting and gave an update.

12.0 Correspondence

Correspondence (circulated with agenda) was noted.

12.1 NZC to OF&GC

12.1.1 Fish & Game chairs workshop – CE to reply to confirm availability.

12.1.2 Dates to set licence fees in 2020 – OF&GC Meeting schedule complies

12.1.3 Setting National Policy – Consultation Policy review has been confirmed.

CE to draft a reply.

12.2 OF&GC to NZC

12.2.1 Licence Fee Recommendations and Ratio Changes

12.3 General Correspondence In

12.3.1 Commercial Salmon Farm Licence Applications. Staff to develop a checklist/guidelines/standard response for proposed applicants to protect Fish & Game resources.

12.4 General Correspondence Out

12.4.1 Cooperation between Fish & Game and Friends of Bullock Creek - noted

13.0 Items To Be Received Or Noted

13.1 Report to ORC on Takitakitoa. CE to forward the report to DOC.

13.2 Game Ranging 2019 – Noted

13.3 Backcountry Fishery and Controlled Fishery Report for the 2018/2019 Season
CE commented that the daily takeup rate for the Greenstone controlled fishery is only 29% and non-resident anglers make up approximately 65% and that has been steady for the past few seasons.
Hunter Valley access was also discussed. May need to use different access modes in the future.

13.4 Put & Take Fisheries Monitoring Program. Many methods have been trialled in the past to gather data. The proposal is to tag fish and monitor growth rates. Angler feedback via a text message will be trialled this summer. May also offer incentives to report.

13.5 Report to Council on Consenting Workload 8 May – 10 July 2019. Discussion centred around the QLDC Wastewater Network consent. The OF&GC submission has been completed and circulated.

Moved (Neilson/Whyte):

That the Items 13.1 – 13.5 be received/noted

Carried – Unanimously

14.0 General Business

Cr Whyte proposed the council consider developing wilderness packs for women. CE asked Cr Whyte to investigate the “Becoming an Outdoors Woman” initiative and comment on its potential application to Otago. Cr McIntyre suggested sponsorship would be easy to obtain and clay target clubs would also be keen to help. Cr Weatherall commented that there is a national R3 funding pool for increasing woman's participation

Cr Barker outlined his experience with seeing a large amount of silt in the Cardrona River. He alerted the ORC pollution hotline. ORC pollution staff visited and couldn't find a single point source.

The meeting was closed at 4.50 pm

5.0 Matters Arising from the Minutes

6.0 Health and Safety Report



OTAGO FISH AND GAME COUNCIL HEALTH AND SAFETY POLICY

Introduction

The Otago Fish and Game Council (the Council) is a 'person conducting a business or undertaking' (PCBU) in terms of the Health and Safety at Work Act 2015 (HSWA) and associated regulations - Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.

The Council is committed to maintaining a safe and healthy work environment for its workers - staff, councillors, volunteers and other persons (visitors, clients and contractors) in its 'workplace' and to complying with relevant legislation, New Zealand standards and approved codes of practice.

The Council has a 'primary duty of care' or the primary responsibility for the health and safety of workers and others influenced by its work.

Scope

This policy applies to all Otago Fish and Game Council 'workers' and others influenced by its work in any place a worker or other person goes or is likely to be while at work or where work is carried out be it permanent or intermittent.

Key elements of the policy

The Council will comply with the provisions of legislation dealing with health and safety in the workplace, by:

- providing a safe physical and emotional work environment;
- ensuring a health and safety strategy/plan is in place and that engagement and consultation with staff on the strategy occurs;
- providing adequate facilities and any safety equipment deemed necessary, including ensuring access and ensuring property and equipment is safe to use and workers are not exposed to hazards;
- ensuring there is an effective method in place for identifying, assessing and controlling hazards. This includes the recording and investigating of injuries, and reporting serious harm incidents;
- having a commitment to a culture of continuous improvement.

Liability and personal liability

The Council, its chief executive (CE) and staff are responsible for implementing health and safety policy. Councillors and the CE are 'officers' in terms of the legislation and while the Council may be liable, and the CE and workers may be personally liable, for a failure to meet health and safety obligations an individual councillor cannot be prosecuted under the HSWA for failing to comply with his or her duties because they are volunteer officers.

The CE has primary responsibility for implementing this policy including:

- exercising due diligence in accordance with the provisions of the health and safety legislation;
- taking all reasonable steps to protect workers, volunteers and visitors in the workplace from unsafe or unhealthy conditions or practices;
- ensuring there are effective processes to deal with unacceptable behaviour, such as non compliance;
- providing information and training opportunities to workers;
- keeping the Chair and Council fully informed and advising them of any emergency situations as soon as possible.
- Resourcing Health and Safety appropriately.

Everyone is responsible

All workers (employees, contractors, and volunteer workers) are expected to play their role in maintaining a safe and healthy workplace through:

- being involved in improving health and safety systems at work;
- following instructions, rules, procedures and safe ways of working;
- reporting all injuries, incidents and near misses;
- reporting any pain or discomfort as soon as possible;
- helping new staff members, trainees, volunteers and visitors to the workplace understand the risks and hazards and why they exist;
- reporting any hazards, new hazards or health and safety issues through the reporting system;
- keeping the workplace tidy to minimise the risk of any trips and falls;
- wearing or using protective clothing and equipment when required to minimise exposure to workplace hazards;
- taking reasonable care for the health and safety of themselves and of others in the workplace.

All others (e.g. visitors) in the workplace must:

- follow all instructions, rules and procedures while in the workplace;
- report all injuries, incidents and near misses to the Chief Executive;
- wear or use protective clothing and equipment as an when required to minimise their exposure to hazards.

Signed: _____ (Chief Executive)

Signed: _____ (Chairman)

Adopted: _____

7.0 Items Requiring Decisions

7.1 Special Permit Request– Tenkara Fishing

Purpose

The purpose of this paper is for the Council to consider issuing a ‘special licence’ to an angler for Tenkara fishing.

Background

Dunedin angling enthusiast Howard Halliday has asked for a special licence to trial Tenkara fishing in some Otago streams. His email is below.

The method is at present not able to be used as the Regulations only allow for a ‘rod and running line’ fishing or fly fishing with a ‘fly rod and a fly reel’. Tenkara rods look like a flyrod but have a 4-6m fixed line attached to the tip. In simplistic terms, it is the fixed (not running) line which prohibits its use in NZ freshwater sports fisheries.

Regulations

Changes to the regulations to allow for Tenkara fishing would mean adjustments to the first schedule of the Anglers Notice. That requires all regions to agree to that proposed change. While that isn’t impossible, a strong case usually must be made to the Minister and backed up with good evidence that it won’t adversely impact on the fishery, other anglers and can be complied with.

Special Licence issued under delegated authority

An alternative to changing the regulations is to allow for a trial by way of a OF&GC Special Licence issued under Section 4a of the Freshwater Fisheries Regulations. The Council has such a delegation from the Minister.

(1) The Minister may authorise any Fish and Game Council to issue special licences of the following kinds:

(a) authorising the holder to take sports fish for education, investigative research, or the carrying out of trials or experiments involving any vessel, gear, or apparatus capable of being used in connection with the taking of sports fish:

Summary

The method is growing in popularity overseas and it is inevitable that there will be further pressure here for its introduction. This issue has arisen a number of times over the last decade across the country, but the usual regional response has been to deny the method.

The applicant has offered to report back on the method, its appropriateness for certain waters and his success if a trial is granted. The Council could take that opportunity to learn more about Tenkara fishing. Restrictions could be imposed to limit the area or types of fisheries where the trial might take place but as the permit is for one angler who will be limited to the Otago F&G region, it may not be necessary (or desirable) to limit the scope of the trial further.

Recommendation

That a 'special licence' be issued under Section 4a of the Freshwater Fisheries Regulations for the trial of Tenkara fishing in Otago region for the 2019/2020 season

Ian Hadland
Chief Executive
17.9.19

Hi Ian,

Thank you for taking the time to speak with me in regard to the possibility of introducing Tenkara fishing in the Otago Fish and Game area with a possible change to section 2 regulations. I appreciate the positive response from you and Morgan.

Tenkara is an ancient form of Japanese Fly fishing that in the last 10 years has moved beyond the mountain streams of Japan and now Tenkara fisherman can be seen fishing on ponds, urban and wilderness streams throughout the world. It has not been just accepted but is moving forward rapidly in USA, Europe and even allowed on the finest chalk streams of England. Tenkara embodies simplicity, A rod, line and fly.

I see it as an opportunity for more New Zealanders to fly fish and enjoy our streams, from urban to wilderness. People are often overwhelmed by the complexity and expense of traditional western fly fishing gear, let alone becoming proficient in its use, Tenkara is cheap in comparison, even a high quality .Tenkara rod is no more that \$400.00 and it is possible to start from no more than \$50.00, The casting line is about \$15.00, a spool of tippet and 1/2 a dozen flies and away you go.

Casting a Tenkara rod is in my experience less difficult than even casting a spinning rod, something young and old can do.

It would be appreciated if a permit could be issued to me to investigate and explore the possibilities of fishing Tenkara here in Otago. I would be happy to document my season fishing Tenkara, talk and demonstrate the style of fishing to those that are interested with the purpose of encouraging not just fisherman but mountain climbers, trampers, mountain bikers who would like to fish at the amazing places they get to but have been put off with the thought of the amount of gear required to take with them. Perhaps if you haven't seen a Tenkara fisherman in action here is link to a video that I particularly think demonstrates the amazing possibilities that is Tenkara fishing.

<https://www.youtube.com/watch?v=u6Kw5q3cz50&list=PL3PddE-llvIUWEI5O2l0znWxxupdCUvhW&index=8&t=2s>

Regards Howard Halliday.

7.2 Friends of Bullock Creek – 12month workplan at Hatchery Springs site

Purpose

The purpose of this paper is to consider (and or amend) then approve the annual workplan provided by Friends of Bullock Creek.

Background

The MOU signed between Otago Fish & Game Council and Friends of Bullock Creek requires that they produce a 12 month workplan for the Councils consideration. This is to ensure that any work done on the Councils property is well managed and the Council is kept informed of progress.

12month Plan

Appendix 1 Below contains the proposed plan. It should be noted that;

- The small hut now belongs to the FOBC so the only obligation while it remains on F&G land is that it is kept tidy.
- The Council has previously agreed to keep the site largely free of additional structures including signage and building work.
- F&G is not responsible for the staff member employed by FOBC on a casual basis. The only obligation the Council has is towards Health and Safety (noting hazards on the land) if they are working on the Councils property

Appendix 2 is the site landscape plan agreed by Council in 2017.

Recommendation

For discussion, amendment if necessary and approval

Ian Hadland
Chief Executive
3 September 2019

Appendix 1

Proposed FOBC Site Work Plan for next 12 months: (For F&G Approval)

Onsite

- Complete an all-weather pathway to Education Platform. (Approx 30 meters).
- Renovation of small F&G hut. (minor weatherboard replacement and maybe new roof & repaint) Subject to F&G sign off.
- Identify possible pathway linking the Education platform to Punga pond. Review with F&G options in longer term re path construction.
- Prepare/design story boards explaining history of the F&G site, habitat, trout life cycle etc. Review option of either setting up larger visual installation at start of walkway, or at points along pathway. Story Boards location, design and content to be agreed with F&G
- Support F&G ongoing new native planting at the site.
- Support F&G weed control and site maintenance
- Labour permitting, further site clearance of weeds and bush in consultation with F&G (Paul)
- Support F&G re felling several large trees previously identified for removal within the site

Along Bullock Creek

- Install signage, drawing attention to creek and storm water risks
- Assist with install of native symbols on drains reminding public of contamination risk
- Support Aspiring Environmental managed project (ORC testing water quality along Bullock Creek over 12 months, starting October)

Note

- The above represents a very approximate 12 month work plan.
- Department of Corrections Saturday site work has been suspended for the time being. Therefore, limited onsite labour resource. (the above site work plan may be optimistic).
- Preliminary investigations/discussions underway with F&G regarding a possible paid groundsman position. FOBC has agreed to fund up to \$7k per annum. Other funding options require investigation.

Bullock Creek Landscape Plan A 29-09-2017 (A3 copies at Meeting)



7.3 Back Country Fisheries Work Schedule and Funding

Purpose

The purpose of this paper is to address the letters provided by Cr Cole and seek approval for funding of Backcountry fieldwork from the dedicated backcountry reserve.

Background

Cr Cole, on behalf of himself, and also as Chair of the Clutha Fisheries Trust, has raised a number of issues related to the Nevis River. The core if it is centred on potential options for angler management to ensure that both the fishery and the experience remain high quality. His letters are attached.

2019/20 Operational Workplan

At the February meeting there was agreement to reduce our previous effort in backcountry work to ensure we are well enough resourced to deal with central Otago water allocation issues, particularly the potential field work in the Manuherikia River and tributaries.

The February planning meeting is the usual place for setting of priorities for the following years operational workplan and its it difficult to insert new projects of shift emphasis once the year is underway. It is already a very ambitious workplan. In saying that there is a certain amount of flexibility in our program so a shift in focus may be able to be accommodated and it's also possible that additional work in this area can be funded from outside the approved budget.

At the last council meeting I was asked to return with a workplan that can be undertaken to make use on the Non Resident levy funds being held buy our Council. For convenience, I have run the two agenda items together.

Proposed workplan for backcountry fisheries 2019/20

At present the proposal is to undertake random compliance checks in most backcountry fisheries as usual but with an increased special focus on the specific fisheries noted below. The projects are still being developed but the external costings are starting to become clearer. Briefly though;

Dingle River - Compliance and user (social) surveys during no-fly period. No additional external cost. Staff walking in.

Fraser River - Fisheries assessment required under Sportfish & Game Management Plan – No additional cost, although contracted help could assist with electric fishing and other field surveys to reduce staff burden. Cost estimate of contractor - \$3,000

Greenstone River - Drift diving to update aged fisheries data. Helicopter access required and overnight accommodation in the valley. Cost estimate – \$5,000

Upper Lochy River - Aerial fish survey, spawning survey and electric fishing survey to be conducted in a single site visit by multiple staff. Helicopter access and helicopter time for survey required. Cost estimate - \$5,000

Nevis River – Angler (social) survey and beat definition. 8 visits proposed ***but could be doubled with contractor support***. Cost estimate for contractor support role and travel expenses - \$4000

Recommendation

That the Council agree to fund the above projects to the value of \$17,000 from the Non Resident Licence Levy reserve and notify same to New Zealand Fish & Game Council.

Ian Hadland
Chief Executive
19.9.19



Ian Hadland
 Chief Executive
 Otago Fish and Game
 Hanover Street DUNEDIN

23rd Aug 2019

Dear Ian,
 I write to express my concern re the Nevis Valley.

As you are well aware, Otago Fish and Game, the Clutha Fisheries Trust, various agencies and numerous individuals have invested substantial resources and personal commitments in both time and money to protect the inherent values of this magnificent valley. Indeed, we actually managed to protect it from hydro development for future generations to enjoy.

However, we are witnessing growing angling pressures coupled with a growing threat of increasing commercialisation.

In recognition of those substantial monetary and time investments I believe OFGC need to display a more significant presence in the valley to better reflect that investment, to potentially offset any further “commercialisation” and to better manage increasing angling pressure

The existence of a road along the entire length of the valley [from the Nevis crossing up] affords good access – similar to the Upper Oreti, Upper Mataura and Upper Ahurriri Rivers

It is noted that in the first of those two fisheries there has been a long established simple “beats” system in place. As a regular user of all of those fisheries, both as a guide and recreational angler, the beats system seems to work very well – while it is voluntary in its nature [at this stage] it subtly educates anglers into what is regarded as good angling etiquette. It has undoubtedly reduced the potential for conflict and is a vast improvement on the “free for all” that previously existed.

I believe the Upper Ahurriri would also benefit from implementing such a system

I am of the firm belief, the identification and implementation of the “beats system” is the very first management tool that should be employed in any attempt to better manage high

angler usage. It clearly forms the very foundation of all future management regimes. It can, if and when the need has been identified, have additional management tools added. I would envisage, in some circumstances, it may be the only tool managers require

Furthermore, it is an incredibly simple and "low cost" management tool once the initial costs of signage and beat demarcation have been met.

Clearly, this relatively small funding requirement could be met by the generous Backcountry Reserves Fund

I believe this issue is of high priority and wish it to be placed on the upcoming Otago Fish and Game meeting on the 26th September 2019

Yours sincerely,

Ian Cole

See Ian's "soul video" [here](#)

Registered Professional NZPFGA Guide

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[Wanaka A Fly Fishers Guide](#)

[Wanaka Fly Fishing Academy](#)

Testimonial for Epic carbon fibre rods [here](#)

What can we do to maximise fly fishing success in NZ - visit Epic blog [here](#)



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Ian Hadland
Chief Executive
Otago Fish and Game
Hanover Street
Dunedin

23rd August 2019

Dear Ian,

At its meeting in Dunedin yesterday the Clutha Fisheries Trust met and discussed with some concern the increasing pressures that the Nevis valley seems to be experiencing.

Trustees have passed a resolution for my writing to you requesting a larger Fish and Game presence in the Nevis Valley in recognition of the considerable amount of money both the CFT and OF&GC have invested in protecting the river.

Your sincerely,

Ian

Ian Cole - Clutha Fisheries Trust Chairman

8.0 Public Excluded Items

- 8.1 Confirm previous minutes (Previously circulated)**
- 8.2 Otago Fish and Game Staff Salary Bands**
- 8.3 Otago Fish & Game Council Property Update**
- 8.4 Contact Energy Sports Fish Management Plan Update**
Presentation by Neil Gillispie and Mark Gillard
- 8.5 Council Guidance on Providing Written Approval for Surface Water Abstraction Applications**

9.0 Financial Report

Draft Finance Report and Licence Sales Report to 31st August 2019

9.1 Finance Reports

The draft finance report for the period from 1 September 2018 to 31st August 2019 is attached. The accountant has been unable to begin the end of year adjustments ready for our final accounts for the annual report. This will begin soon.

Expenditure to date is \$2,556,832 (including levies \$1,004,799, agent commission \$83,498 and depreciation \$88703) compared with the annual budget of \$1,014,373.

Total income to date is \$2,215,782 compared with annual budget of \$2,168,643

Budget and expenditure figures are exclusive of GST.

Funds Position at 31st August 2019

ANZ 00 account \$56,605.46
ANZ 70 account \$235,088.92

Term Investments as at 31st August 2019:

ASB 0079 \$348,846.14 @ 3.22% maturing January 2020
ANZ 1000 \$300,000 @ 3.42% maturing October 2019

The sum of \$71,046.10 is held by Anderson Lloyd in trust for wetland management via DOC.

Otago Reserves 31st August 2019

| Otago Reserves Movements | Balance August 2018 | Income (To) Reserve | Note | Expense (From) Reserve | Balance August 2019 |
|--------------------------------|---------------------|-----------------------|------|------------------------|---------------------|
| Back Country Non-resident Levy | \$105,295 | \$102,928 | | \$6,190.75 | \$202,032 |
| Habitat Enhancement & Research | \$41,989 | \$6,885 | 2 | \$15,915 | \$32,959 |
| Lindis Reserve | \$115,842 | \$180,000 \$80,000 | 1 | \$374,855.45 | \$986.39 |
| Mining Rights | 150,000 | 0.0 | 3 | 94,091 | \$55,908 |
| Historical Reserves | \$179,968 | 0.0 | | 0.0 | \$179,968 |
| Renovation Reserves | \$66,000 | 0.0 | | \$57,824.98 | \$8,175.02 |

- Note 1* \$180,000 (Lindis) approved Feb 19 by NZC from our reserves. OF&GC agreed (via email) to transfer \$80,000 from Mining Rights reserve in July 2019
- Note 2* Balance is \$32,959, less committed but not yet paid out of \$29,000 so balance of \$3,959 is available for dispersal
- Note 3* \$150,000 (Mining) approved prior to 2018 by NZC from our reserves. Includes \$80,000 of Lindis expenses.

9.2 Capital Expenditure

Buildings

The renovation to the entrance of the Otago Fish & Game Council building in Dunedin is now finished, except for some artwork and signage.

Vehicles and Equipment

No change

9.3 Licence Sales

Fish Licence Sales 2018/19 Season

See the table following for fish licence sales categories and numbers up to the 15th September 2019

Fish licences sales revenue for the 2018/19 season recorded to 15th September 2019 total \$2,051,134 compared with \$2,006,317 for the same date for the 2017/18 Season. This includes commission.

Fishing licence income has improved due to the increase of licence prices not licence sales. The 2018/19 budget for fish licence sales is \$1,746,748 exclusive of GST.

In summary, fishing licence sales to 15th September in whole season licence equivalents (LEQs) 14,813.45 LEQs compared with 15,402.79 for the same period last year.

Game Licence Sales 2019 Season

See table following for game licence sales categories and numbers up to the 15th September. This compares the end of the 2018 and 2019 Seasons.

Game licences sales revenue for the 2019 season recorded to 15th September 2019 total \$398,879 compared with \$390,060 for 15th September 2018 for the 2018 Season. This includes commission.

The 2018/19 budget for Game Licence Sales is \$344,100 exclusive of GST.

In summary, game licence sales in whole season licence equivalents (LEQs) 4145.45 LEQs compared with 4136.63 for the same period last year.

9.4 Agents and Debts

No liabilities or potential liabilities at the present time.

Recommendations

- 1. That Council ratifies its July email vote to transfer \$80,000 from the Mining Right Reserve to the Lindis Reserve to cover costs associated with the Environment Court Hearing.**
- 2. That this report be received**

Sharon Milne
Administration
19/09/19

Balance Sheet

Otago Fish and Game Council

As at 31 August 2019

| | 31 AUG 2019 | 31 AUG 2018 |
|----------------------------------|------------------|------------------|
| Assets | | |
| Current Assets | | |
| Bank | 291,844 | 433,614 |
| Receivables | 161,607 | 178,479 |
| Investments | 648,846 | 842,310 |
| Inventory | 18,521 | 18,521 |
| Funds Held in Trust | 71,046 | 71,046 |
| Accrued Interest | - | 4,285 |
| Total Current Assets | 1,191,865 | 1,548,255 |
| Fixed Assets | | |
| Property Plant & Equipment | 1,414,212 | 1,412,970 |
| Total Fixed Assets | 1,414,212 | 1,412,970 |
| Total Assets | 2,606,077 | 2,961,225 |
| Liabilities | | |
| Current Liabilities | | |
| Payables | 291,828 | 309,146 |
| Employee Entitlements | 44,427 | 41,206 |
| Rounding | (1) | - |
| Total Current Liabilities | 336,254 | 350,353 |
| Total Liabilities | 336,254 | 350,353 |
| Net Assets | 2,269,822 | 2,610,873 |
| Equity | | |
| Accumulated Funds | | |
| Accumulated Funds | 2,017,324 | 2,102,857 |
| Current Year Earnings | (341,050) | (85,533) |
| Transfer (To)/From Reserves | (26,793) | - |
| Total Accumulated Funds | 1,649,480 | 2,017,324 |
| Dedicated Reserves | | |
| Back Country Fisheries Reserve | 202,033 | 105,295 |
| Habitat Enhancement & Research | 32,959 | 41,989 |
| Lindis Reserve | 987 | 115,842 |
| Mining Privileges Reserve | 55,908 | - |
| Historical Reserves | 179,968 | 179,968 |
| Asset Replacement Funding | 74,826 | 74,826 |
| Total Dedicated Reserves | 546,680 | 517,920 |
| Restricted Reserves | | |
| Bullock Creek Reserve | 2,616 | 4,583 |

Balance Sheet

| | 31 AUG 2019 | 31 AUG 2018 |
|--|------------------|------------------|
| Wetland Development Trust - Anderson (Iloyd) | 71,046 | 71,046 |
| Total Restricted Reserves | 73,662 | 75,629 |
| Total Equity | 2,269,822 | 2,610,873 |

Profit and Loss

Otago Fish and Game Council For the year ended 31 August 2019

| | JUL 2019 | AUG 2019 | YTD ACTUAL | YTD BUDGET | VARIANCE | % OF YTD BUDGET | ANNUAL BUDGET |
|---|---------------|---------------|------------------|------------------|----------------|-----------------|------------------|
| Income | | | | | | | |
| Licence Sales | | | | | | | |
| Fish Licence Sales | 6,734 | 76,273 | 1,669,581 | 1,746,748 | (77,167) | 96% | 1,746,748 |
| Non-Resident Licence Revenue | 1,992 | 6,199 | 102,928 | - | 102,928 | - | - |
| Game Licence Sales | 393 | 230 | 334,286 | 344,100 | (9,814) | 97% | 344,100 |
| Total Licence Sales | 9,119 | 82,702 | 2,106,795 | 2,090,848 | 15,947 | 101% | 2,090,848 |
| Other Income | | | | | | | |
| Interest Income | 5,911 | 104 | 22,141 | 35,851 | (13,710) | 62% | 35,851 |
| Fines - Fishing & Game Offences | 235 | 203 | 4,737 | 5,000 | (263) | 95% | 5,000 |
| Rent Received | 1,890 | 1,760 | 32,930 | 35,644 | (2,714) | 92% | 35,644 |
| Fishing Competitions | 333 | - | 1,129 | - | 1,129 | - | - |
| Gain on sale | - | - | 9,558 | - | 9,558 | - | - |
| Donations & Grants | 14,870 | - | 21,921 | - | 21,921 | - | - |
| Merchandise Sales/Other | 22 | 117 | 1,309 | - | 1,309 | - | - |
| RMA Costs Reimbursed | - | - | 5,090 | 1,300 | 3,790 | 392% | 1,300 |
| Sundry Income | 224 | 2,266 | 3,288 | - | 3,288 | - | - |
| Diversion - Habitat Enhancement and Research Fund | 1,475 | - | 6,885 | - | 6,885 | - | - |
| Total Other Income | 24,960 | 4,451 | 108,987 | 77,795 | 31,192 | 140% | 77,795 |
| Total Income | 34,079 | 87,153 | 2,215,782 | 2,168,643 | 47,139 | 102% | 2,168,643 |
| Gross Profit | 34,079 | 87,153 | 2,215,782 | 2,168,643 | 47,139 | 102% | 2,168,643 |
| Expenses | | | | | | | |
| Species Management | | | | | | | |
| Population Monitoring | | | | | | | |
| Waterfowl Monitoring | - | - | 6,895 | 12,000 | (5,105) | 57% | 12,000 |
| Total Population Monitoring | - | - | 6,895 | 12,000 | (5,105) | 57% | 12,000 |

Profit and Loss

| | JUL 2019 | AUG 2019 | YTD ACTUAL | YTD BUDGET | VARIANCE | % OF YTD BUDGET | ANNUAL BUDGET |
|--|---------------|---------------|----------------|---------------|----------------|-----------------|---------------|
| Harvest Assessment | | | | | | | |
| Game Harvest Survey | - | 2,700 | 2,700 | 3,000 | (300) | 90% | 3,000 |
| Total Harvest Assessment | - | 2,700 | 2,700 | 3,000 | (300) | 90% | 3,000 |
| Hatchery Operations | 846 | 3,136 | 5,412 | 10,000 | (4,588) | 54% | 10,000 |
| Releases | 68 | 238 | 1,556 | - | 1,556 | - | - |
| Total Species Management | 914 | 6,074 | 16,563 | 25,000 | (8,437) | 66% | 25,000 |
| Habitat Protection & Mngt | | | | | | | |
| Resource Mngt Act | | | | | | | |
| RMA Consents | - | - | 858 | 2,000 | (1,142) | 43% | 2,000 |
| RMA Planning | 5,119 | 13,466 | 387,897 | 2,500 | 385,397 | 15,516% | 2,500 |
| Contact Sports Fish Management Plan | 10,000 | - | 20,000 | - | 20,000 | - | - |
| Total Resource Mngt Act | 15,119 | 13,466 | 408,755 | 4,500 | 404,255 | 9,083% | 4,500 |
| Works & Management | 141 | - | 9,380 | 3,500 | 5,880 | 268% | 3,500 |
| Assisted Habitat | - | 315 | 344 | - | 344 | - | - |
| Habitat Enhancement Research Fund Grants | - | 3,500 | 15,915 | - | 15,915 | - | - |
| Total Habitat Protection & Mngt | 15,260 | 17,281 | 434,394 | 8,000 | 426,394 | 5,430% | 8,000 |
| Participation | | | | | | | |
| Access | 207 | 539 | 1,834 | 2,000 | (166) | 92% | 2,000 |
| Satisfaction Survey | - | 5,174 | 6,191 | - | 6,191 | - | - |
| Newsletters | - | - | 2,116 | 4,500 | (2,384) | 47% | 4,500 |
| Other Publicatons | - | - | - | 1,000 | (1,000) | - | 1,000 |
| Training | - | 1,190 | 4,878 | 7,000 | (2,122) | 70% | 7,000 |
| Club Relations | - | 364 | 1,166 | 1,000 | 166 | 117% | 1,000 |
| Merchandise stock | - | - | 52 | - | 52 | - | - |
| Total Participation | 207 | 7,267 | 16,236 | 15,500 | 736 | 105% | 15,500 |
| PUBLIC INTERFACE | | | | | | | |
| Media Releases | - | - | - | 1,000 | (1,000) | - | 1,000 |
| Liaison DoC Unin Govt CFT IWI | 467 | 12 | 567 | - | 567 | - | - |
| Total PUBLIC INTERFACE | 467 | 12 | 567 | 1,000 | (433) | 57% | 1,000 |
| COMPLIANCE | | | | | | | |
| Ranging | - | - | 1,880 | 2,500 | (620) | 75% | 2,500 |

Profit and Loss

| | JUL 2019 | AUG 2019 | YTD ACTUAL | YTD BUDGET | VARIANCE | % OF YTD BUDGET | ANNUAL BUDGET |
|---------------------------------------|-----------------|------------------|------------------|------------------|------------------|-----------------|------------------|
| Ranger Training | 180 | 87 | 1,877 | 4,500 | (2,623) | 42% | 4,500 |
| Compliance | - | - | 9,684 | 10,000 | (316) | 97% | 10,000 |
| Total COMPLIANCE | 180 | 87 | 13,440 | 17,000 | (3,560) | 79% | 17,000 |
| LICENCING | | | | | | | |
| Agent Servicing | - | - | 209 | 500 | (291) | 42% | 500 |
| Commission/Fees | 325 | 1,347 | 83,498 | 94,088 | (10,590) | 89% | 94,088 |
| Total LICENCING | 325 | 1,347 | 83,707 | 94,588 | (10,881) | 88% | 94,588 |
| COUNCIL | | | | | | | |
| Council Meetings | 513 | 294 | 16,786 | 15,000 | 1,786 | 112% | 15,000 |
| Total COUNCIL | 513 | 294 | 16,786 | 15,000 | 1,786 | 112% | 15,000 |
| PLANNING & REPORTING | | | | | | | |
| Reporting/Audit | - | - | 2,733 | 13,000 | (10,267) | 21% | 13,000 |
| National Liason | 8 | 31 | 548 | - | 548 | - | - |
| Total PLANNING & REPORTING | 8 | 31 | 3,280 | 13,000 | (9,720) | 25% | 13,000 |
| ADMINISTRATION | | | | | | | |
| Salaries | 79,491 | 56,926 | 707,814 | 773,540 | (65,726) | 92% | 773,540 |
| Staff Expenses | 2,553 | 1,233 | 14,018 | 15,564 | (1,546) | 90% | 15,564 |
| Office Premices | 6,852 | 4,151 | 83,099 | 84,872 | (1,773) | 98% | 84,872 |
| Office Equipment | 14 | 32 | 1,905 | 2,500 | (595) | 76% | 2,500 |
| Communications | 1,754 | 3,040 | 20,886 | 25,100 | (4,214) | 83% | 25,100 |
| General Exp (incl Insurance) | 1,819 | 49 | 3,032 | 6,741 | (3,709) | 45% | 6,741 |
| General Field Equipment | - | 6 | 1,561 | 3,500 | (1,939) | 45% | 3,500 |
| Vehicles | 1,781 | 1,577 | 46,002 | 49,500 | (3,498) | 93% | 49,500 |
| Total ADMINISTRATION | 94,263 | 67,015 | 878,315 | 961,317 | (83,002) | 91% | 961,317 |
| Depreciation | 7,096 | 7,096 | 88,703 | 23,004 | 65,699 | 386% | 23,004 |
| Loss on Disposal | - | - | 42 | - | 42 | - | - |
| NZ Fish & Game Levies | - | 251,200 | 1,004,799 | 1,004,798 | 1 | 100% | 1,004,798 |
| Total Expenses | 119,233 | 357,703 | 2,556,832 | 2,178,207 | 378,625 | 117% | 2,178,207 |
| Net Profit | (85,154) | (270,551) | (341,050) | (9,564) | (331,486) | 3,566% | (9,564) |

Otago Game Lic Sales 2018 and 2019 Up To the 15th September of the Season

2018 - 2019

| Channel | GWA | GWJ | GWC | GDA | GDJ | Total | Game LEQ | Game \$ |
|--------------|--------------|------------|------------|-----------|----------|--------------|-----------------|---------------------|
| Agency | 3,379 | 236 | 78 | 38 | 2 | 3,733 | | |
| Eyede | 5 | 0 | 0 | 0 | 0 | 5 | | |
| Online | 679 | 59 | 23 | 54 | 0 | 815 | | |
| Total | 4,063 | 295 | 101 | 92 | 2 | 4,553 | 4,145.45 | \$398,879.00 |

2017 - 2018

| Channel | GWA | GWJ | GWC | GDA | GDJ | Total | Game LEQ | Game \$ |
|--------------|--------------|------------|------------|-----------|----------|--------------|-----------------|---------------------|
| Agency | 3,490 | 254 | 94 | 35 | 0 | 3,873 | | |
| Eyede | 3 | 0 | 0 | 0 | 0 | 3 | | |
| Online | 568 | 52 | 12 | 40 | 1 | 673 | | |
| Total | 4,061 | 306 | 106 | 75 | 1 | 4,549 | 4,136.63 | \$390,060.00 |

GWA Full Season Adult, GWJ Full season Junior, GWC Full season Child
 GDA Adult Day, GDJ Junior Day

Otago Fish Licence Sales 2018/19 and 2017/18 Up to 15th September of the Season

2018/19

| Channel | FWF | FWA | FWNA | FSLA | FLAA | FWIA | FLBA | FSBA | FDA | FDNA | FWJ | FWNJ | FDJ | FDNJ | FWNC | FDNC | Total | Fish LEQ | Fish \$ |
|--------------|--------------|--------------|--------------|------------|------------|------------|-----------|------------|--------------|--------------|------------|-----------|------------|------------|-----------|----------|---------------|------------------|-----------------------|
| Agency | 2,469 | 3,203 | 520 | 577 | 203 | 188 | 21 | 287 | 1,134 | 2,092 | 439 | 43 | 102 | 136 | 20 | 155 | 11,589 | | |
| Eyede | 13 | 5 | 4 | 5 | 1 | 1 | 0 | 2 | 10 | 11 | 0 | 0 | 3 | 0 | 1 | 2 | 58 | | |
| Online | 1,648 | 1,831 | 847 | 244 | 333 | 168 | 35 | 318 | 1,935 | 2,572 | 267 | 24 | 152 | 115 | 22 | 112 | 10,623 | | |
| Total | 4,130 | 5,039 | 1,371 | 826 | 537 | 357 | 56 | 607 | 3,079 | 4,675 | 706 | 67 | 257 | 251 | 43 | 0 | 22,270 | 14,813.45 | \$2,051,134.00 |

2017/18

| Channel | FWF | FWA | FWNA | FSLA | FLAA | FWIA | FLBA | FSBA | FDA | FDNA | FWJ | FWNJ | FDJ | FDNJ | FWNC | FDNC | Total | Fish LEQ | Fish \$ |
|--------------|--------------|--------------|--------------|------------|------------|------------|-----------|------------|--------------|--------------|------------|-----------|------------|------------|----------|----------|---------------|------------------|-----------------------|
| Agency | 2,568 | 3,579 | 498 | 549 | 233 | 125 | 36 | 275 | 1,343 | 2,909 | 549 | 23 | 104 | 144 | 0 | 0 | 12,935 | | |
| Eyede | 12 | 5 | 13 | 8 | 1 | 2 | 0 | 4 | 1 | 19 | 2 | 0 | 0 | 0 | 0 | 0 | 67 | | |
| Online | 1,694 | 1,835 | 809 | 223 | 269 | 99 | 42 | 236 | 1,554 | 3,530 | 284 | 23 | 129 | 134 | 0 | 0 | 10,861 | | |
| Total | 4,274 | 5,419 | 1,320 | 780 | 503 | 226 | 78 | 515 | 2,900 | 6,458 | 835 | 46 | 233 | 278 | 0 | 0 | 23,865 | 15,402.79 | \$2,006,317.00 |

FWF (Family), FWA (Adult), FWNA (Non Resident), FSLA (Senior Loyal), FLAA (Local Area),

FWJ (Junior), FWNJ (Junior non resident), FLBA (Long Break), FSBA (Short Break), FDA (Adult Day), FDJ (Junior Day)

FDNJ (non resident Junior), FWNC (non resident Child), FDNC (non Resident child day)

10.0 Chief Executives Report September 2019

10.1 SPECIES

Population Monitoring (1111)

The annual Pukeko and shoveler monitoring was completed in August and will be reported on in January along with the aerial trend counts for paradise shelduck.

Monitor Spawning (1112)

Salmon spawning and trout spawning surveys have been completed for the season and reports are attached as items 13.11 & 13.3.

Monitor Fisheries (1113)

The report on the status of the upper Upper Clutha fishery is not complete and is attached as item 13.6. This was a Sportsfish & Game Management Plan milestone document.

Success & Satisfaction (1122)

Creel Surveys of Lake Wanaka anglers has gone to plan and now been reported on Item 13.10 the project is being repeated this season and September surveys are already underway.

Hatchery Operations (1141)

The Macraes Hatchery continues to operate smoothly. Stripping of ova for this years stock is in progress.

Liberations (1161)

Liberations to designated waters has begun and will continue through the month. Liberation of takable sized rainbows to Southern Reservoir is on hold due to DCC contractors lowering the water level for spillway repairs.

Regulations (1171)

The Anglers Notice regulations were approved by the Minister in late July and are ready for the new season.

Permits to disturb (1181)

Item 13.1 summarises all activity in this project area.

10.2 HABITAT

Consents (1212)

See separate report item 13.8

Contact Energy Consents

Neil Gillespie will address the meeting in the public excluded section to update the Council on the Lower Clutha Sports Fish Management Plan provisions. Staff have successfully negotiated a range of work to be funded under that plan and now planning for the implementation of those projects

CE to Report

Minimum and Residual Flow Setting (1212)

The ORC appears committed to pushing ahead with its proposed agenda in Arrow, Cardrona and Manuherehia catchments. With notification for the Arrow and Cardrona on track for March and the Manuherehia later in 2020. However, it is unclear how the process will work exactly until the Skelton Review reports back.

In the Manuherehia, both the Technical Advisory Group (TAG) and Manuherehia Reference Group (MRG) are in full swing, with meetings occurring regularly. The ORC has reported that the CHES model has been largely completed by NIWA and is ready to be verified by the TAG. After this, flow scenarios will be developed and put to the MRG for discussion. At the next MRG meeting, Fish and Game has been invited to present on the values it holds in the catchment and desired outcomes.

Lindis Minimum Flow Plan Change

The Environment Court hearing of the Lindis minimum flow appeal was completed in late February and the decision is due any day.

Water Quality in Otago

Plan changes to extend Plan Change 6A timeframes on discharge standards and begin implementing a new water quality framework are reportedly being developed. However, it is unclear at this stage when they will be delivered or exactly what they will entail.

RMA Advocacy - Update on Action for Healthy Waterways

On the 5th of September the Action for Healthy Waterways was released. This comprised of a new National Policy Statement for Freshwater Management; National Environmental Standards for Freshwater, Sources of Drinking Water, and Wastewater; and regulations under Section 360 of the RMA in relation to stock exclusion and water metering. The changes are significant and have the potential to be effective at improving water quality. However, it appears the provisions water quantity are light, and the government may tackle these in coming years. How these changes impact on the deemed permit processes will likely be largely addressed by the Skelton Review.

CEO of ORC Sarah Gardner will be attending the meeting at 3:30pm to explain some of these matters further.

Reserves Management (1221)

The monitoring report for the Takitakitoa wetland was circulated back to the Gamebird Habitat Trust Board and was very well received. They propose to make a site visit to the wetland next winter.

An application to the GBHTB for funding to extend the Tatakitoa wetland has been successful with \$10,000 allocated to the project. Staff are now working with the landowner (City Forests Ltd) on the extent of the flooding they will permit without influencing their forestry operation.

Bullock Creek subdivision Stormwater

The inadequacy Alpha Series Stormwater System continues demand attention by staff and Councillors. Following the review which found some serious flaws in the soakage estimates used to model stormwater dissipation, the QLDC has been working on a solution. Progress has been slow.

I have again met with the CEO of QLDC who has given assurances that no water will be pumped from the site into Bullock Creek and that no F&G land is required for the proposed stormwater solution. They are however interested in the Councils intentions for the top end of the wetland and may see an opportunity to contribute to enhancement of the area in future.

For discussion

1232 Habitat Enhancement Fund

By way of summary for this project code, over the last year, five habitat enhancement projects have been finished to a satisfactory standard and grants issued by Council (Pamu, Mt Albert, Murrays, Mt Aspiring and Armstrong). A further five projects have been approved: Wildlands Research (Bullock Ck study), Styx Wetland contribution, Terry Broad wetland, Johnny Mark wetland and there is also the annual contribution towards Friends of Bullock Ck for riparian plantings. Staff provided wetland creation advice on five other properties. These were considered too small to qualify for financial assistance.

10.3 USER PARTICIPATION

Signage (1312)

Staff have completed adjusting signs in lowland catchments as a result of the changes to the searun salmon bag limit. In addition, new signs have been erected at:

- Hamiltons Dam
- McAtamneys Head Pond
- Pomahaka backcountry river signs x4
- Nevis River at Nevis Crossing
- Lake Hawea boat ramp

- Matukituki River
- Old Von River sign - removed (Jan 2019)
- Clutha River mouth signs x4

Back Country Fisheries Management (1321)

The Hunter River creel and social surveys conducted over the last three years have now been summarized and reported on. See item 13.2

See separate agenda item 7.3

Magazine Supplements and Newsletters (1331)

The magazine was mailed out a bit later than usual this season and this had a corresponding positive impact on the flow of licence sales. Staff would be happy to receive feedback on content and layout.

Reel Life/Both Barrels (1343)

Monthly contributions to online newsletters are continuing but the Both Barrels ezine will conclude this month

User training (1350)

Two 'Introduction to sportsfishing' classes have been held in Dunedin and these were followed practical sessions in the field where some of the participants successfully landed a trout.

TAKF events (1352)

Unfortunately, our major take a kid fishing events at Southern Reservoir had to be postponed due to the low water levels. A scaled down event has been rescheduled for 14th December.

10.4 PUBLIC INTERFACE

Liaison (1411)

The Upper Taieri Water Users Group meeting was attended by staff and a presentation given on wetlands.

The CE and Councillors have attended a number of engagements recently including;

- Chair, Councillor and CE attended a meeting of the with Upper Taieri Water Users Group
- CE met with the CEO of ORC and also QLDC during the period
- Councillors and staff had meetings with Friends of Bullock Creek members

Media (1431)

Social media updates have been more regular with a good range of content being generated or shared. The number of followers continues to grow, albeit more slowly than we would like.

Staff have been working hard to get anglers and hunters to make submissions and attend meetings for proposed water plan changes and submit central governments Essential Freshwater package release last week.

NZC Advocacy

Staff are now receiving direct feedback from landowners that the 'anti farming' commentary coming directly from the NZC (in direct emails and media releases) is over the top and unnecessarily antagonistic. This is now having a direct impact on angling access in the district. Locally we are anxious to maintain the good relationship we have with landowners but this is becoming increasingly difficult.

For discussion

10.5 COMPLIANCE

Ranging (1530)

Three new volunteer rangers have been appointed in the lakes area and they will join our team for a further ranger training session being planned for the end of November.

Prosecutions (1531)

Three further offenders have been caught fishing without licences in the period. A report on all compliance and law enforcement activity is attached as agenda item 13.7

10.6 LICENCING

Licensing System (1611)

The national subcommittee on licensing which is handling the tender process for an updated licensing system contractor has completed its assessment of bidders. A recommendation from the subcommittee is likely to come through between our scheduled meetings. As such it may be necessary for the executive to agree on the proposal so a decision can be fed back to the NZC ahead of its November meeting.

Recommendation:

That Council authorises the Executive to decide on a suitable licensing provider following a full briefing from the CE.

10.7 COUNCIL

Council (1720)

See separate report on property in the public excluded agenda.

10.8 PLANNING AND REPORTING

Annual planning (1820)

The February planning meeting is scheduled to take place in Wanaka. It would be good to have an indication now if council would like to use an independent facilitator for the planning session.

For discussion

Annual Reporting (1831)

Preparation for the annual report are underway. The auditors have already visited the office in late July and the annual accounts are being prepared and finalised now.

Recommendation

That this report is received.

Ian Hadland
Chief Executive
19 September 2019

11.0 Committee & Delegate Reports

11.1 CFT

11.2 NZC

11.3 Salmon Committee

11.4 Ngai Tahu

11.5 Conservation Board

12.0 Correspondence

12.1 NZC to Otago

12.1.1 Nominations to NZC Sub-Committees

31 July 2019

AUG 2019

Monty Wright
Chairperson
Otago Fish and Game Council
PO Box 76
DUNEDIN 9054

Dear Monty,

The purpose of this letter is to respond to the points you raise in your letter of 24 June 2019 about nominations to NZ Council sub-committees.

It is noted that your Council proposes to discuss nominations at its July meeting, and we look forward to feedback to the NZ Council on this. The NZ Council welcomes this feedback. It was quite intentional in proposing sub-committees of the New Zealand Fish and Game Council that each would consist of its own councilors and appointees nominated from other Fish and Game Councils. Each sub-committee can also appoint any suitably qualified person required for advice, assistance and support.

As you acknowledge, there is some urgency in getting the National Sub-committee on Licensing up and running. We are pleased to acknowledge the membership of sub-committee will include three of the past Licence Working Party members, your own Chief Executive Ian Hadland, Jay Graybill and Phil Teal. They are joined by two NZ Councilors Chris Owen and Noel Birchall with Chris in the role of Chairperson. Kate Thompson has been invited as a coopted member to assist the committee.

An initial meeting of the Sub-committee has already taken place, with another set for early August. The urgency for this Sub-committee is to secure new service providers for the roles set out in the Request for Proposals. The meeting on 4 & 5 July 2019 commenced with a discussion of the points you raise in your 24 June letter and can best be reflected in the minutes of that Sub-committee meeting.

The Sub-committee Terms of Reference (ToR) have been set by the NZ Council and can only be changed by the NZ Council. Your Otago Fish and Game Council request on amendments to the ToR would be addressed in the next meeting of the NZ Council.

The process for the sub-committee to deal with governance and operational roles would follow the normal pattern of reporting to NZ Council, who would then form a resolution to consult with Fish and Game Councils and with that feedback, arrive at a recommended outcome for delivery of the licence administration services.

The ongoing management function on a day-to-day basis was acknowledged by the Sub-committee as being more of a technical role to be coordinated by NZ Council staff with input from other Fish and Game Council staff.

The role of Liquid IT and the RFP tender process can be prefaced by the fact that Liquid IT was identified by referees from other agencies seeking a similar service. They were not known prior to

Statutory managers of freshwater sports fish, game birds and their habitats

New Zealand Council

this by the NZ Council Chief Executive. A contract was signed with Liquid IT by the Chief Executive on behalf of NZ Council.

NZ Council staff will continue to provide secretarial services and advice to all National Sub-committees.

There is an opportunity to revisit timelines and how revenue is to be handled. This is expected to be reviewed by sub-committees as they set their own priorities and programme. As a sub-committee of the NZ Council, each meeting will be reported back to the parent body and be bound by the Governance Policies of the New Zealand Council.

Yours sincerely

A handwritten signature in black ink, appearing to be 'M. Jones', written in a cursive style.

12.1.2 Strategic Financial Review Committee NZC Progress

18 September 2019

Monty Wright
Chairperson
Otago Fish & Game Council
PO Box 76
DUNEDIN 9054

**Strategic Financial Review Committee
New Zealand Council, Fish & Game**

Dear Monty

This is a quick update on the background and progress of the above committee.

A number of factors have led to setting up the committee:

1. Strategically, we continue to operate in an environment where our financial commitment to defending the environment can escalate and we need to understand what we can and cannot commit to. One only has to look at the lengthy Horizons Regional Council issue and Otago Mining Deemed Permits cases to realise that we have to pick our fights in the future. To do that we need to understand the capacity of our war chest.
2. A quick projection of the overall finances of Fish & Game clearly shows we are running down our reserves as we continue the current business model. Projecting forward, we will reach minimum reserves in the next five years.
3. While we have every confidence that the R3 Programme will drive up participation and revenue over the next three to five years, it would be imprudent to continue business as usual and rely entirely on R3 to cover growing shortfalls.
4. This year, the Minister has made it clear that she will not support continuing increases in license fees without significant justification from Fish & Game. In other words, a detailed financial plan into the future.
5. Similarly, the R3 research suggests we are rapidly approaching the point at which further price increases will result in reduced sales and further reductions in revenue.

Primarily, the committee was formed to model some scenarios to better understand our financial position in five years time. However, while this seems a simple task, it is actually quite complex because we can only answer the future financial position question if we have an integrated strategic plan which includes NZ Council with the Regions. We may also have to visit our financial allocation policies and look at how we strike our individual budgets. Finally, as an integral part of any strategic plan, we need to check we are getting best use of our resources across the organization.

Statutory managers of freshwater sports fish, game birds and their habitats

New Zealand Council

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Accordingly, the committee has requested quite a lot of information from Carmel Veitch (NZC Finance Manager) to start the analysis phase. We plan to have our first face to face meeting in early October once we have had time to digest the information Carmel is assembling. The committee would like to assure you that we will engage in a full consultation process before any firm recommendations are made to NZC and the twelve regional councils.

If any council has any questions or concerns at any stage of the process please raise them with any member of the committee. The committee comprises:

Paul Shortis (Wellington & NZC) paulshortis55@gmail.com

Dan Isbister (CSI & NZC) danisbister@hotmail.com

Ray Grubb (Otago) raygrubb@gmail.com

Richard O'Keefe (NC) richard.okeefe@ritchies.co.nz

We consider it essential we keep you in the loop as we progress and obtain your feedback at relevant points.

Regards

The Strategic Financial Review Committee

12.1.3 Consultations on 2020 NZC and Managers Meetings

3 September 2019

Fish and Game Councils

Consultation on 2020 meeting dates

The attached schedule of meeting dates for 2020 was considered at the August meeting of the NZ Fish and Game Council, where it was agreed to circulate for consultation with regions and received feedback before the NZ Council's November meeting.

It is noted that this schedule differs from dates outlined in my earlier letter. This is due to attempts to bring the consideration of new licence fees and budgets forward to allow for more time for it to be considered by Department of Conservation officials and sign-off by the Minister.

Please submit your feedback on these dates by Friday 8 November.

Yours sincerely



Lindsay Lyons
Chairperson

Statutory managers of freshwater sports fish, game birds and their habitats

New Zealand Council

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Telephone (04) 499 4767 Email nzcouncil@fishandgame.org.nz www.fishandgame.org.nz

Agenda Item No. 3.6

2019/20 Budget & Meeting Schedule

New Zealand Fish and Game Council, August 2019

Prepared by: Carmel, Finance- NZ Fish and Game Council

A draft timetable for 2019/20 budget consultation is set out below to fit with the budget round process. In determining these meeting dates, please remember that:

- 1 The first managers meeting of the year is scheduled for February 18 – 19th. Followed by a joint NZC/Managers meeting on 4th April to recommend the licence fee (requires prompt licence fee memo being sent out to Fish & Game Councils to allow consideration in April meeting cycle).
- 2 June meetings of NZ Council requires Fish & Game Councils to respond to proposed Licence Fee recommendations by 4th June (this prevents Councils meeting in June to provide licence fee feedback).
- 3 NZ Council to consider feedback and confirm fee to Minister 12 - 13 June.

The other important set of dates to factor into regional Fish and Game Council consideration are sign-off on regulation details for draft Notice preparation. Details to be provided by:

- 1 **31st January** for the Game Notice
- 2 **30th June** for the Anglers Notice.

Timetable for 2019/2020

| Month | Day | Subject |
|----------------|---|---|
| 2019/20 | | |
| September | Saturday 1 st | New Financial year for Fish & Game |
| October | | Monday 1st -Opening of Fishing Season |
| | | Monday 22nd October – Labour Day |
| Oct – Nov | | Audit time for all Regions |
| November | Friday 22 nd & Sunday 24 th | Meeting of the NZ Council in Christchurch |
| | Saturday 23 rd | Forum meeting of Fish & Game Chairs with NZ Council in Christchurch |
| December | Friday 15 th | Final date for receipt of 2018/19 Variance Reports to CV |
| | | Wednesday 25st, Thursday 26th -Xmas & Boxing Day |
| | Tuesday 31 st | Last day to hold Public Annual General Meeting and present Annual Report & Financial Statements for year ended 31 August 2019 |
| 2020 | | |
| | | Wednesday 1st & Thursday 2nd January -New Year's Day & Day After NY |
| January | Monday 13 th | CV to return summary of Variance Reports to Managers with queries. |
| | Friday 31 st | Final day for regulation details from Fish & Game Councils for Game Notice |
| February | | Thursday 6 February - Waitangi Day |
| | Friday 7 th | Final circulation of VRs to Managers |
| | Friday 7 th | Draft Game Notice submission to DOC officials |
| | Thursday 13 th | Adjust submission following consultation with DOC & submit to MOC |
| | Friday 14 th & Saturday 15 th | Meeting of the NZ Council in Wellington |
| | Tuesday 18 & Wednesday 19 th | Meeting of Managers in Wellington |
| March | Thursday 5 th | Publish Game Notice in NZ Gazette |
| | Wednesday 11 th | Game licences go on sale |
| | Friday 13 th | Final date for receipt of draft budgets and contestable fund applications |

| | | |
|----------------|--|---|
| | Tuesday 24 th | Circulation of Budgets, contestable fund applications & budget summaries |
| April | Thursday 2 nd | Meeting of Managers in Wellington |
| | Friday 3 rd | Joint NZ Council & Managers Meeting s in Wellington |
| | Saturday 4 th | NZ Council Meeting s in Wellington |
| | Sunday 5 th Mark-up day for hunting stands | |
| | Friday 10 th April- Good Friday | |
| | Monday 13 th April -Easter Monday | |
| | Saturday 25 th April - Anzac Day | |
| May | Saturday 2 nd Opening of Game Season | |
| | Monday 25 ^h | Final date for receipt of Fish & Game council responses to licence fee proposals |
| June | Monday 1st June – Queens Birthday | |
| | Friday 12 th & Saturday 13 th | Meeting of the NZ Council in Wellington |
| | Monday 15 th | Draft licence fee submission to DOC officials |
| | Thursday 25 th | Adjust licence fee submission following consultation with DOC & submit to MOC |
| | Tuesday 30 th | Final day for submission for GBHT Grant applications |
| | Tuesday 30 th | Final day for regulation details from Fish & Game Councils for Anglers Notice |
| July | Monday 6 th | Draft Anglers Notice submission to DOC officials |
| | Friday 10 th | Send out submissions to GBHT Board |
| | Thursday 16 th | Adjust Anglers Notice submission following consultation with DOC & submit to MOC |
| | Wednesday 22 nd | GBHT Board Tel Conference @11am |
| | Friday 31 st | Publish Anglers Notice in NZ Gazette |
| August | Tuesday 18 th & Wednesday 19 th | Meeting of Managers in Wellington |
| | Wednesday 26 th | Fish licences go on sale |
| | Friday 28 th | GBHT Board Meeting in Wellington |
| 2020/21 | | |
| September | Saturday 1 st | New Financial year for Fish & Game |
| | Friday 11 th & Saturday 12 th | Meeting of the NZ Council in Wellington |
| October | Tuesday 1 st -Opening of Fishing Season | |
| | Monday 26 th October – Labour Day | |
| Oct – Nov | Audit time for all Regions | |
| November | Friday 20 th – Sunday 22 nd | Meeting of the NZ Council in Taranaki |
| December | Friday 11 th | Final date for receipt of 2019/20 Variance Reports to CV |
| | Friday 25 st , Saturday 26 th -Xmas & Boxing Day | |
| | Thursday 31 st | Last day to hold Public Annual General Meeting and present Annual Report & Financial Statements for year ended 31 August 2019 |

Recommendation:

That Managers

- Note NZ Council meeting dates proposed for 2020 are:
 - February 14 & 15 in Wellington
 - April 3 & 4 in Wellington
 - June 12 & 13 in Wellington
 - September 11 & 12 in Wellington
 - November 20 to 22 in Taranaki region.
- Note all dates to be confirmed in November by NZ Council following consultation with Managers & Fish & Game Councils.

12.2 Otago to NZC

Nil

12.3 General Correspondence In

12.3.1 Hon Eugenie Sage Meeting

Hon Eugenie Sage

Minister of Conservation

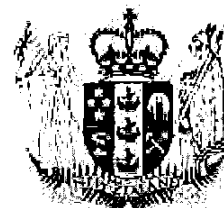
Minister for Land Information

Associate Minister for the Environment

Minita mō Te Papa Atawhai

Minita mō Toitū Te Whenua

Minita Tuarua mō Te Taiāo



15 JUL 2019

12 JUL 2019

Mr Martin Taylor
Chief Executive
New Zealand Fish and Game
PO Box 25-055
Wellington 6140

Dear Mr Taylor

Thank you for meeting with me on 19 June 2018 for the quarterly meeting with NZ Fish and Game Council.

During the course of the meeting we discussed fishing and game hunting licence fees, based on the briefing you had earlier provided with your recommendations for the 2019 – 2020 fee levels. While I am prepared to approve the increases requested this year, I am concerned at the continued incremental increases, ranging from 0.8 to 2.36% in the adult whole season licence (from which all other fees are derived) every year for the last five year.

I am aware that, in many areas, Fish and Game are doing an excellent job in the way they apply the income derived from these fees, but when exercising my regulatory functions, I have to be mindful of wider issues.

I would like to build my understanding of the fee-setting area. Could you please provide me with a financial overview – if there is no increase next year, what effect would this have on the organisation, and what is the sustainability of retaining customers from these constant increases. In addition, what is your strategic approach to fee setting over the coming years, in order to develop a more sustainable footing?

Yours sincerely

Hon. Eugenie Sage
Minister of Conservation

12.3.2 Hon David Parker – Costs of Resource Management Processes

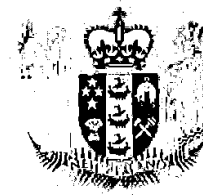
Hon David Parker BCom, LLB

Attorney-General

Associate Minister of Finance

Minister for the Environment

Minister for Trade and Export Growth



19-M-01547 / COR8167

13 SEP 2019

Ian Hadland
 Chief Executive
 Otago Fish and Game Council
 ihadland@fishandgame.org.nz

Dear Ian Hadland

Freshwater – costs of participating in resource management processes

Thank you for your letter dated 23 July 2019 about the costs of participating in resource management processes and your suggestions regarding future effort and engagement on freshwater matters.

You express concern about the increasing costs for your own and other organisations and individuals of participating in Environment Court proceedings, and identify some possible reasons for this.

A key purpose of the Environmental Legal Assistance (ELA) Fund is to provide funding to enable applicants to participate more effectively and efficiently in resource management processes. Individuals are encouraged to collaborate with other parties who are likely to meet the ELA eligibility criteria. The level of collaboration and sharing of costs between parties who have interests in the same case is a matter considered by the ELA Panel. I am aware of the financial restraints on the ELA fund appropriation, and am currently expecting further advice on this issue.

Your points about the costs of participation have been noted, and will be provided to the panel conducting the review of the Resource Management Act 1991. Thank you for your recommendations for future funding and engagement on freshwater matters. The Government is committed to improving the state of our waterways and is looking at a range of regulatory and non-regulatory measures to support this priority.

A number of initiatives in the past have been funded through the Freshwater Improvement Fund. The recent Wellbeing Budget provided a platform for a significant increase in investment to improve water quality and quantity by:

- funding people on the ground to facilitate, leverage, and accelerate community-led action by investing in exemplar catchments, which could form a template for action around the country

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- assisting farmers and councils to make the improvements to land use practices that are needed to improve water quality
- providing funding to improve the tools and advice that we need to turn good research and development into best practice and action on the ground. This includes strengthening decision-making support tools (including Overseer), and improving environmental data and monitoring in the primary sector.

The Wellbeing Budget also allocated over \$49 million to help transform the forestry sector and support our One Billion Trees programme, which will also have a positive impact on freshwater.

We are listening to the views of stakeholders, such as you, through a number of avenues. These include the freshwater advisory groups that the Ministry for the Environment is engaging with as part of the Essential Freshwater programme, and which have representation from Fish & Game. These relationships provide an important feedback loop for the Government on the state of regional resource management and the way forward.

You suggest increasing the use of National Environment Standards (NES). As part of the recent release of the Essential Freshwater package, we are consulting on a new NES and regulations for freshwater, as well as a new National Policy Statement (NPS). I urge you to read the discussion document when it is released and provide feedback on the steps we are proposing to improve our freshwater outcomes.

Yours sincerely



Hon David Parker
Minister for

12.4 General Correspondence Out

13.4.1 Cost of Participation in Resource Management Processes

23 July 2019

NEW ZEALAND

The Hon David Parker
Minister for the Environment
Parliament Buildings
WELLINGTON
David.Parker@parliament.govt.nz

Dear Minister

Costs of participation in resource management processes

Otago Fish and Game Council sees its participation in resource management processes as core business because maintaining natural sports fish and game bird resources depends entirely on healthy, productive freshwater habitats. That has been a Council priority since establishment in 1990 and I was pleased to see Conservation Minister Eugenie recognise Fish and Game's "*.. extraordinary efforts over many years in front of district and regional councils and the Environment Court to protect and enhance rivers lakes and wetlands...*" in recent correspondence.

But costs of participation are increasing at a rate which is putting real pressure on statutory agencies such as ourselves as well as NGOs and individuals. The causes of increased RM costs appear to be threefold:

- Commercial resource users are escalating their use of lawyers and experts to 'outgun' opposition in order to influence outcomes
- Planning frameworks are becoming more sophisticated and contested policy changes more frequent.
- High quality science advice from Crown research institutes such as NIWA and Cawthron is expensive and key advice in areas of public interest is either lacking or dissemination is slow.

I appreciate that MfE has an environmental legal assistance fund for not-for-profit groups advocating for matters of environmental public interest with potential grants up to \$50,000 but note that individual participants cannot apply. My view is that it is a daunting prospect for individuals to advocate public interest positions in the Environment Court and more should be done to assist them in their participation. As far as the ELA fund goes I consider the overall annual allocation is at a minimum at \$600,000 and should be increased.

Even though licenced anglers and hunters bear far more than a fair share of the costs of protecting the public interest in freshwater resources I am not suggesting Fish and Game Councils should have access to ELA funds.

Instead I recommend:

- improved, targeted funding for public good research in the freshwater area and for dissemination of research results especially those results relating to water quantity and quality.

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Otago Fish and Game Council

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- closer working relationships between Fish and Game and staff from both MfE and DOC over freshwater matters. The situation has been improving in recent years but I believe there is scope for further strengthening of relationships. The relationships provide an important feedback loop for Government on the state of regional resource management.
- increased use of National Environmental Standards where at all possible to set rules for resource management rather than National Policy Statements requiring a cascade of policy interpretation and participation.

Yours faithfully



Ian Hadland
Chief Executive

Copy: The Hon. Eugenie Sage, Minister of Conservation

13.0 Items to be Received or Noted

13.1 1180 Management Of Gamebirds Causing Damage

In total six authorities to disturb gamebirds was issued over the last financial year. Two near Owaka (mallards), one near Tapanui (mallards), one near Milton (paradise), one in the Ida Valley (mallard and paradise) and one near Clarks Junction (mallard and paradise).

The previous year 2 permits to disturb gamebirds were issued, and 10 and 8 in the years prior.

One permit to destroy up to 10 Pukekos causing ongoing damage to plantings near Lake Hayes was issued.

One permit to destroy four paradise shelduck fowling a recreational facility in Dunedin was issued but not actioned.

Staff captured and relocated 220 mallards from Harraways in Green Island that had been fouling the grounds. These birds were relocated to the Lake Waihola after wing clipping.

All complaints were responded to within time limits.

Recommendation

That this report is received.

Morgan Trotter
Otago Fish and Game Officer
September 2019

13.2 1321 Hunter River Creel And Social Surveys 2016 – 2019

Prepared by James Smith, edited by Paul van Klink September 2019

This report summarises the outputs of ranging activities on the Hunter River during the 2016/17, 2017/18 and 2018/19 angling seasons. Rangers were tasked with three main objectives: monitor compliance of backcountry fishing regulations, collect creel data and conduct a brief social survey. The results collected herein are compared with those from a similar, more extensive survey conducted during the 1999/2000 & and 2000/01 angling seasons (Smith, 2016).

Ranging Effort and Angler Encounters

A survey form was drafted in 2016 to replicate the 1999-2001 Hunter River Creel and Social Surveys and was used for the surveys undertaken over the past three seasons (Appendix 1). Total ranging effort and angler encounters are shown below in *Figure 1*. Guides encountered were also interviewed and asked two different questions (Appendix 1, Figure 1). Anglers and Guides that had not begun fishing for the day and those in breach of regulations were not surveyed. The three offences detected were anglers fishing without a backcountry licence.

| Season | Ranging Days | Anglers Encountered | Surveys Completed | Guides interviewed | Offences Detected |
|---------|--------------|---------------------|-------------------|--------------------|-------------------|
| 2016/17 | 17 | 13 | 12 | 3 | 1 |
| 2017/18 | 18 | 14 | 12 | 1 | 2 |
| 2018/19 | 11 | 18 | 14 | 0 | 0 |
| | 46 | 45 | 38 | 4 | 3 |

Figure 1. Ranging effort and angler encounters on the Hunter River, 2016 – 2019.

Anglers and their catch

Angler demographics and catch rate (Hoenig et al. 1997) are shown below in *Figure 2*. Thirty-seven anglers caught 40 fish at the time of being surveyed. The majority of anglers (62%) had caught no fish, 22% had caught one or two fish, while 16% caught three or more. Eleven out of twelve non-resident anglers were guided and guided catch rate (0.31 fish/angler-hour) was greater than unguided catch rate (0.22 fish/angler-hour).

| | 2016 - 2019 | 1999 – 2001 |
|--------------------------|-----------------------|----------------------|
| Resident anglers | 73% | 66% |
| Guided anglers | 24% | 21% |
| Catch rate (all anglers) | 0.22 fish/angler-hour | 0.3 fish/angler-hour |

Figure 2. Hunter River angler demographics and catch rate.

Perceptions of crowding

Anglers were asked how many other anglers they had encountered and how crowded they thought the river was (*Figure 3*). The vast majority of anglers (86%) had seen no other anglers on the day they were surveyed.

| | 2016 - 2019 | 1999 - 2001 |
|------------|-------------|-------------|
| Extremely | 0% | 4% |
| Moderately | 19% | 7% |
| Slightly | 0% | 16% |
| Not at all | 81% | 73% |

Figure 3. Anglers' perceptions of crowding on the Hunter River.

Angler satisfaction

Anglers were asked how satisfied they were with their Hunter River angling experience. 75% of anglers were *Satisfied* or *Very satisfied* (*Figure 4*).

| | 2016 - 2019 | 1999 - 2001 |
|-------------------|-------------|-------------|
| Very satisfied | 59% | 43% |
| Satisfied | 16% | 43% |
| Neither | 16% | 8% |
| Dissatisfied | 8% | 4% |
| Very dissatisfied | 0% | 2% |

Figure 4. Angler satisfaction, Hunter River.

Feedback from Fishing Guides

Six fishing guides were encountered in the Hunter River over the 3 seasons between 2016 and 2019. Four were interviewed and the remaining two had just arrived on the river and were not interviewed (*Figure 1*). The responses from the guides is shown here in *Figure 5*.

| Do you think the Hunter River angling regulations adequately reflect the needs of all users (Y/N) | No. of days guiding on Hunter River this season | Comments / suggestion for change |
|---|---|--|
| Y | 3 | Advocating for catch and release |
| | 1 | Voluntary beats (not bookings) may alleviate conflict and protect the experience rather than the fishery |
| N | 4 | River getting busy, need for booking system?, struggle to find water |
| N | | |
| Y | 4 | Advocating for catch and release |

Figure 5. Fishing Guide feedback, Hunter River 2016 – 2019

Discussion

A concern that overcrowding and conflict between users has degraded the quality of the angling experience has prompted an increased focus on ranging in the backcountry. However, results from the last three years of ranging activity on the Hunter River do not necessarily bear this out. Satisfaction remains high among users and unsatisfied anglers may simply represent the “glass half empty” segment of society. While a run in with an inconsiderate angler has the potential to spoil a day on the river, there were no such reports from those encountered during 2016 – 2019. With respect to crowding, it was interesting to note that some anglers who thought the river was moderately crowded had in fact seen no other anglers that day.

Two fishing guides thought that current Sports Fishing Regulations were adequate although they were both advocating for catch and release for a fishery that has a daily limit of 1 trout. Two guides thought that more regulations were needed, and voluntary beats and a booking system were seen as ways to manage the fishery. In both cases the two guides had each seen 3 other anglers on the day they were interviewed. Of the 38 anglers interviewed, 33 anglers (86%) had not seen another angler on the river that day. Despite these findings some fishing guides and anglers will perceive crowding to be a problem even if just one other angler is seen.

The Hunter River continues to provide excellent angling opportunity in a scenic backcountry setting despite the catch rate for the last three years being slightly lower than from 1999 to 2001. The more recent estimate however was based on significantly fewer angler encounters. Part of the reason for this was reduced ranger effort due to poor weather conditions and difficulty in obtaining access through Hunter Valley Station. Indeed, ensuring fair and equitable access for all users may be one of the more pressing issues in times ahead.

References

- Hoening J.M., Jones C.M., Pollock K.H., Robson D.S. & Wade D.L. (1997). Calculation of catch rate in roving surveys of anglers. *Biometrics* 53, 306-317.
- Smith J. (2016). Hunter River creel and social surveys 1999 – 2001. Otago Fish and Game Council Report November 2016.

James Smith
Otago Fish & Game
September 2019

Appendix 1

| <i>HUNTER RIVER SURVEY 2016/2017</i> | | | | <i>Ranger: _____</i> |
|---|--|--|--|----------------------|
| Date | | | | |
| Licence Number | | | | |
| Res (N) / Non Res (NR) | | | | |
| Number of fishing days on Hunter River this trip | | | | |
| Method of access | | | | |
| Hours fished today | | | | |
| Number fish caught today | | | | |
| How crowded do you think the Hunter River is? (1-4) | | | | |
| Number of other anglers encountered today | | | | |
| How satisfied with angling experience? (1-5) | | | | |
| Reason/comments | | | | |
| Guide name | | | | |
| Do you think the Hunter River angling regulations adequately reflect the needs of all users? Y/N | | | | |
| Comment/suggestion for change | | | | |
| How many days have you guided on the Hunter River this season? | | | | |

CROWDING: 1-Extremely 2-Moderately 3-Slightly 4-Not at all

SATISFACTION: 1-Very Satisfied 2-Satisfied 3-Neither 4-Dissatisfied 5-Very Dissatisfied

13.3 1112 Monitor Trout Spawning in the Cardrona River

Introduction

The Cardrona River will be subject to a minimum flow with deemed permits expiring in 2021. Fisheries monitoring has been undertaken by Fish and Game in recent years to gauge how receding flows from irrigation extraction impact on fish populations. This has included photo points and electro-fishing to assess fish populations and timing of out-migration, and spawning surveys.

Previous spawning surveys have focused on the mid river in the spring to provide information on the timing of rainbow migration and key spawning areas. The surveys recently completed and detailed below were undertaken to strengthen knowledge on the timing of rainbow spawning run and to identify any spawning activity in the summer drying reach of the river from Hill End to the State Highway 6 bridge. A distance of approximately 6 kilometres.

Methodology

Surveys were done on foot and a GPS was used to mark redds and fish seen.

Results

On Wednesday August 28 the river section from the State Highway 6 Bridge to Ballantyne Bridge was surveyed. The river was clear with good viewing conditions and flowing at approximately 3 cumecs.

No Redds were identified. Only one adult rainbow jack was seen immediately downstream of the Ballantyne Road bridge.

On Saturday August 30 the river section from Ballantyne road Bridge to Hill End ending at GPS ref E1293885 N5038491. Again, the river was flowing at approximately 3 cumecs with clear visibility.

No redds were identified. One adult brown trout was seen in a pool near the top of the survey reach at Hill End.

See Figure 1 showing the extent of the survey.

Conclusion

This lower river is the healthiest I have seen it in many years, no doubt due to the cessation of gravel extraction. In the latter part of August, the catchment received little rain and migrating fish may have been waiting for a fresh. It is also possible that the early run of rainbow trout hadn't commenced.

Lake levels in Wanaka and Hawea were low during August and early September as was the Upper Clutha River which may have also limited fish from entering the Cardrona River.

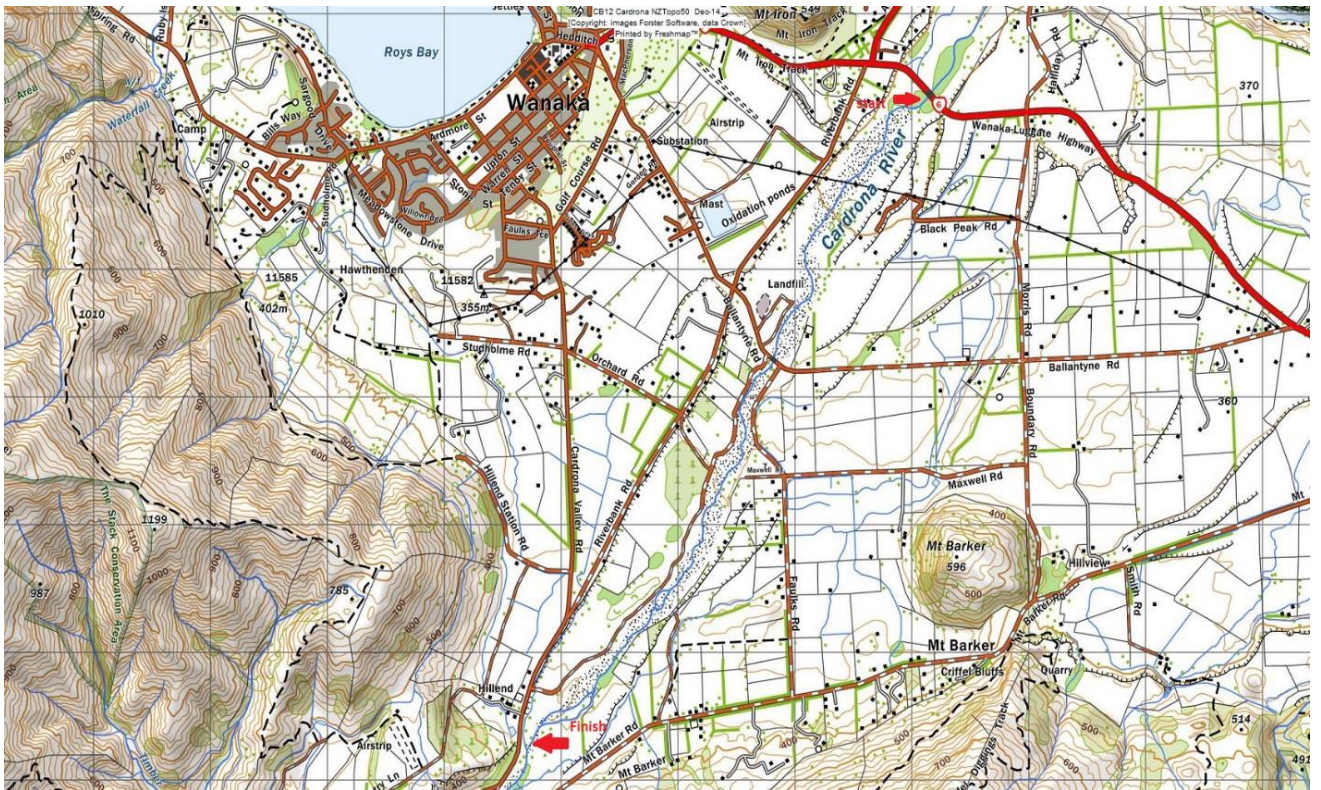


Figure 1. Extent of the spawning survey from State highway 6 Bridge to Hill End.

Recommendation

The report be received

Cliff Halford
Fish and Game Officer
September 2019

13.4 1362 Summary of Fishing Competitions for the 2018/19 season

Introduction

Fishing competitions are approved annually in line with the Sports Fish and Game Management Plan (SFGMP) for the Otago Region and subject to conditions defined in the Freshwater Fisheries Regulations 1983.

This report summarises competition activity for the 2018/19 financial year and provides details of the larger commercial type competitions that are required to pay an administration fee and levies.

Overview

There were seven main competitions which attracted levies in the Otago region during the 2018/19 season. A standard set of conditions was drawn up several years ago by F&G staff which are tailored to fit individual events.

These publicly notified events focus on family participation, and junior anglers are always well catered for with prizes and giveaways.

Our approval conditions generally allow 1 fish of each species per contestant to be weighed and measured at each event. Fish numbers presented to the weigh in can vary significantly between seasons mostly due to the weather. On Lakes Hawea and Wakatipu small salmon can be caught in abundance with many released.

Freshwater Fisheries Regulations 1983 Section 57F **Rental**

Where a Fish and Game Council approves a fishing competition under this Part and an entrance fee is charged by the holder, the holder shall be liable to pay to the Council a rental of \$40, plus \$5 for each participant aged 16 years or over and \$2 for each participant aged under 16 years.

With all the major competitions we have only been requesting 50% of the levy acknowledging that these competitions are community based, provide angling opportunities with family involvement, and that profits support local communities. Levy income can vary depending on the grade of entries, adults versus juniors.

Levy income can be used to assist with the purchase fishing equipment and merchandise to support events run by schools and TAKF programmes. We provide the major competitions with a rod and reel set for a junior prize.

Appendix 1. provides a full list of the major competitions and supporting information for the 2018/19 season noting that profits are derived from a range of sources including entry fees, donations, sponsorship, fundraising and BBQ's.

The Clubs NZ South Island Tournament is held in different regions each year and the Kingston Fishing Competition run jointly by the Kingston Flyer Café and Athol Hunting and Fishing Club was an inaugural event which is likely to run annually.

In house angling and hunting club competitions for club trophies feature regularly and some TAKF programmes incorporate a competition component. We are aware of most events and in some cases provide financial assistance through our grants budget. Staff attend competitions when they can, especially the major events where the ongoing collection of fisheries information is important.

Staff attended all events in Appendix 1 to undertake the measuring and weighing of fish, also the Waipahi Gold Medal and the Luggate Fishing Competition which have been running for many years.

Collection of Fisheries Information

Fisheries information is collected from all major competitions and downloaded on a data base. We have a good range of fisheries information from Lakes Dunstan, Hawea and Wakatipu, with over 30 years of data from the Glenorchy competition held annually at the head of Lake Wakatipu.

Additional Catch Per Unit Effort (CPUE) information has been sought from all competitors over the past year but there is a bias with only the anglers catching fish presenting at the weigh in and attending the prize giving. Staff are looking at ways to improve this situation.

Summary

Fishing competitions provide a range of fishing opportunities and enjoyment for clubs, organisations, families and individuals. Major competitions that attract levies are well organised and support requirements under Otago's SFGMP. Staff attendance at events is always well received by organisers and the fisheries information collected is proving very useful for monitoring population trends and fishery health.

Competitions early in a new season provide incentives for purchasing a new season licence.

Recommendation

The Report be received

Cliff Halford
Fish and Game Officer
September 2019

Appendix 1. Major fishing completions which attracted an application fee and levies for the 2019/20 season

| Date | Event and duration (years) | Organiser | Lake | No of entries | Fish measured and weighed | Application fee \$40, and levies | Distribution of *Profits |
|--|--|--|----------|---------------|---------------------------|----------------------------------|---|
| 6 th October 2018 | Glenorchy Fishing Competition (30+) | Glenorchy Play Group | Wakatipu | 196 | 69 | \$408.00 | \$ 3805.00 to Glenorchy Play Group for running costs and building maintenance. |
| 2 nd and 3 rd Nov 2018 | Lake Hawea Fishing Competition (23) | Lake Hawea Hotel | Hawea | 41 | 71 | \$149.00 | Levies were only requested for one day. Profit of \$124.50 +100 donation to Hawea School. |
| 11 th Nov 2018 | Lake Dunstan Fishing Competition (25) | Rotary of Cromwell | Dunstan | 116 | 32 | \$189.50 | Profit to the consolidated fund for local distribution. This competition largely targets family and junior participation. |
| 2 nd January 2019 | Lake Dunstan Fishing Competition (9) | Cromwell Town and Country Club | Dunstan | 221 | 121 | \$404.50 | Clyde voluntary Coast Guard \$500.00 Cancer Society \$500.00 |
| 9 th February 2019 | Lake Hawea Family Fishing Classic (23) | Family Fishing Classic Committee | Hawea | 220 | 168 | \$423.00 | \$6000.00 holding for distribution to local groups and organisations on application. |
| 23rd and 24th March 2019 | Clubs NZ South Island Tournament | Cromwell Town and Country Club | Dunstan | 159 | 99 | \$427.00 | All proceeds went into the running of the event, for meals and prizes. \$63.09 surplus |
| August 10 2019 | Kingston Fishing Competition | Kingston flyer Café and Athol Fishing and Hunting Club | Wakatipu | 47 | 28 | \$133.00 | Inaugural event with no profit but, \$140.00 donated to Life Matters \$140.00 donated to Search and Rescue. |

13.5 1122 Monitor Roxburgh Dam Wall Salmon - Angler Effort and Catch

Introduction

The lower Clutha River salmon enhancement project is part of Contact Energy's fisheries mitigation package to restore a self-sustaining annual salmon run of 5000 fish in the lower Clutha River.

As part of a monitoring programme salmon angler creel surveys have been undertaken at the Roxburgh Dam Wall and for two kilometres downstream on both banks of the Clutha River. The purpose was to monitor angling use and to document catch details.

Methodology

During the Months of February, March, April and May a minimum of one week and one weekend day per month was randomly selected along with random start times. The dam wall and several access points downstream were visited and checked for angling activity.

A standard creel survey form was used to document angler and licence details, fishing method and angling effort, and catch details.

Results

A total of (14) survey days were achieved with extra effort in March (+2), and April (+3) in an attempt to get additional information.

From the 14 survey days only two anglers visiting from Invercargill on February 17 were interviewed. Roxburgh locals commented that few salmon had been seen and that anglers weren't putting in much effort. This was similar feedback to a conversation I had with Fish and Game councillor Vicky Whyte who lives at Roxburgh.

Roxburgh Dam creel surveys in previous years have indicated declining angler activity and catch rates so the 2019 season results aren't surprising.

Conclusion

Creel surveys downstream of the Roxburgh Dam are planned for in the 2019/20 work plan. With a salmon hatchery below the Roxburgh Dam being considered by Contact Energy in consultation with Fish and Game and further enhancement work proposed, salmon numbers will hopefully improve, and ongoing monitoring will be beneficial in identifying changes in angling behaviour and catch rates.

Recommendation

The report be received

Cliff Halford
Fish and Game Officer
September 2019

13.6 1113 The Upper Clutha River Fishery in 2019:

A Summary of Data and Angler Opinion

The upper Clutha River from its outlet at Lake Wanaka to the head of Lake Dunstan is a nationally important brown and rainbow trout fishery. It contains the “world famous” Deans Bank section “thought to hold more fish per square metre than any water in New Zealand” (Turner (Ed.), 1994, p. 47). Yet despite high numbers of fish and water quality rated as “excellent” (ORC, 2018), angling values throughout much of the upper river have been degraded by the presence of *Didymo* (OFGC, 2015).

This report investigated the health of the upper Clutha River fishery in 2019. It comprises two parts; the first is a summary of data collected by or on behalf of Otago Fish & Game Council and Clutha Fisheries Trust (a report on trout energetics from Cawthron Institute was unavailable at the time of writing). The second presents anglers’ opinions of the fishery based on interviews conducted during the 2018/19 angling season.

Part One

Several different methods have been used to assess trout relative abundance in the upper Clutha River. These have included counts of fish by drift dive, counts of redds by helicopter, catch rate from incomplete trip data (roving creel surveys) and catch rate from completed trip data (guide returns).

Drift Dives

Drift dives of the upper Clutha River from outlet to confluence of the Cardrona River were conducted by Fish and Game staff in 2001, 2006 & 2012. Size and species information for all fish recorded by divers in the 4.8 km reach are shown below in Figure 1.

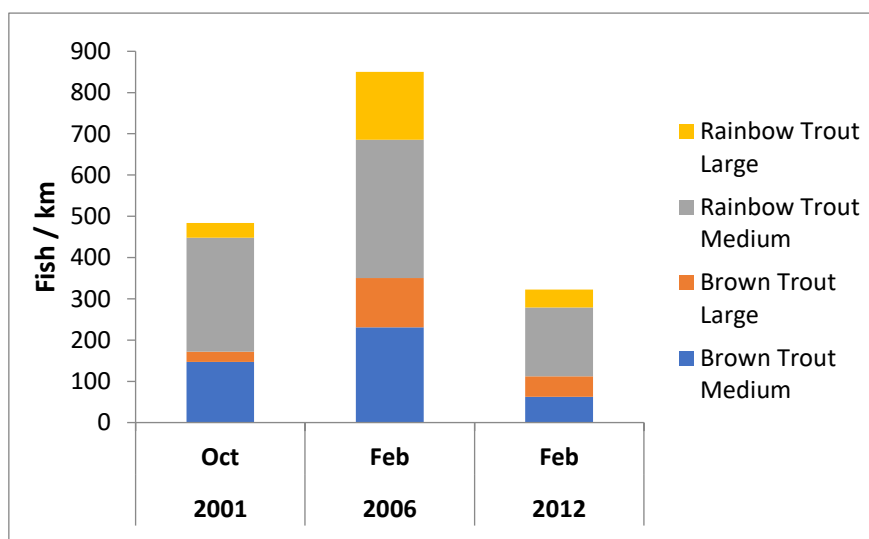


Figure 1. Number of trout per kilometer counted by drift divers in the upper Clutha River (outlet to Cardrona River).

Redd Counts

Upper Clutha River spawning surveys were conducted by Clutha Fisheries Trust and Otago Fish and Game staff on six occasions from 1997 to 2009. Spawning was assessed by counting all redds observed from a helicopter between the outlet and Lake Dunstan (approximately 54 km). Flights were mostly timed to coincide with brown trout spawning in July. The number of redds counted by aerial survey in each of five sub-reaches is shown below in Figure 2.

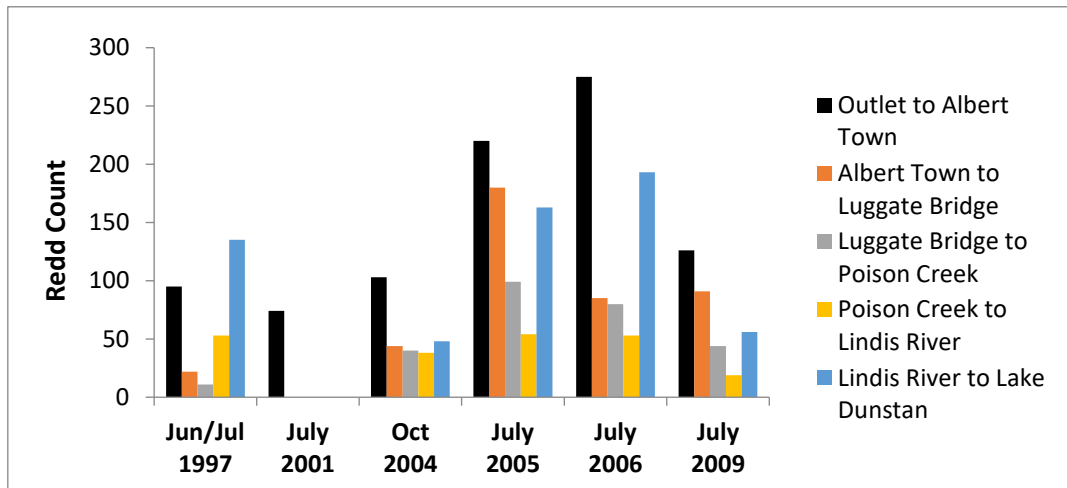
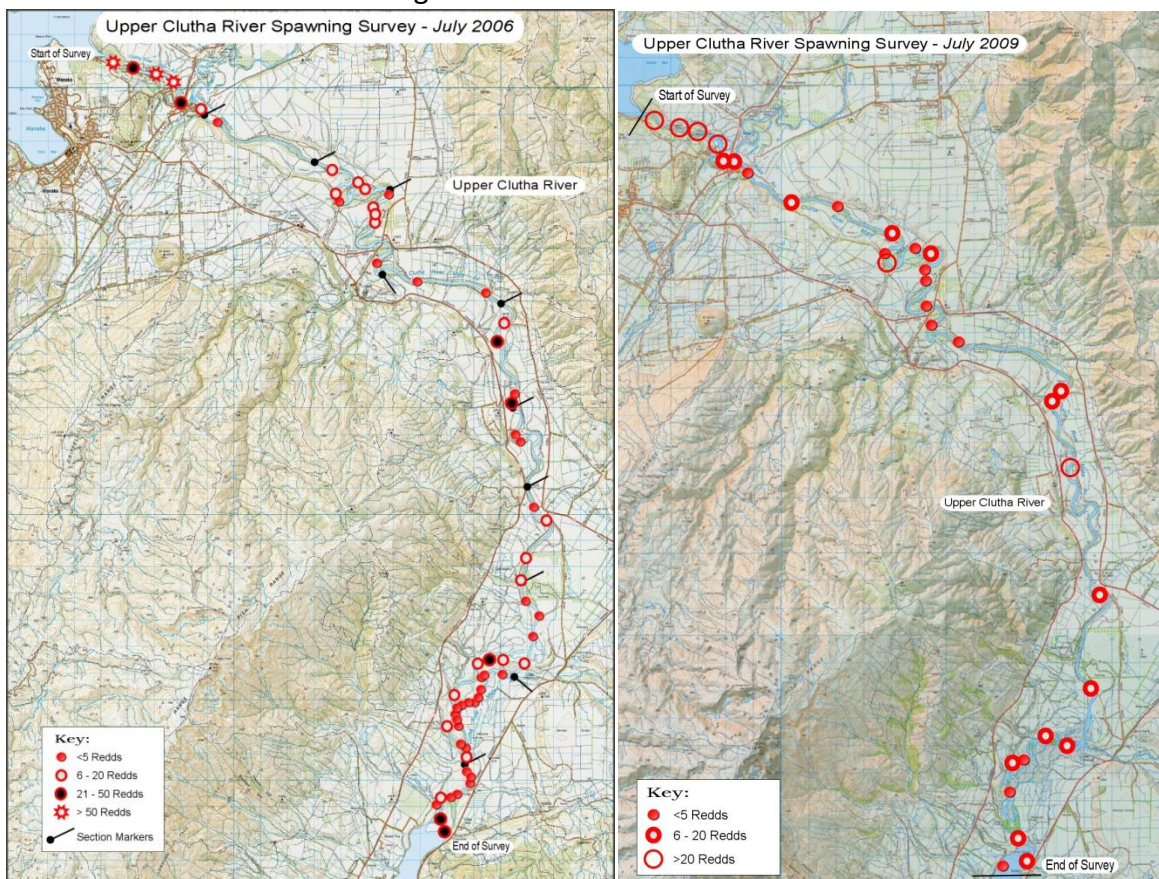


Figure 2. Trout redds counted by aerial survey in the upper Clutha River (outlet to Lake Dunstan).

The extent and location of brown trout redds observed during the aerial surveys of 2006 and 2009 are shown below in Figures 3 and 4.



Figures 3 and 4. Brown trout spawning in the upper Clutha River, July 2006 (left) and July 2009 (right).

Roving Creel Surveys

Roving creel and satisfaction surveys were conducted by Clutha Fisheries Trust staff on the upper Clutha River from outlet to Cardrona River (Figure 5) during the 2004/05 and 2005/06 seasons.



Figure 5. The upper Clutha River where creel and satisfaction surveys were conducted in 2004/05 & 2005/06.

Results from the surveys are shown below in Figure 6.

| Season | Survey days | Creel surveys | Fish caught | Fish kept | Catch rate (fish/hour) | Satisfaction surveys | Quality of fish* (mode) | Level of success* (mode) |
|---------|-------------|---------------|-------------|-----------|------------------------|----------------------|-------------------------|--------------------------|
| 2004/05 | 47 | 61 | 23 | 5 | 0.30 | 13 | 4 | 4 |
| 2005/06 | 41 | 73 | 24 | 2 | 0.29 | 25 | 4 | 3 |

* 5 Excellent 4 Very good 3 Good 2 Poor 1 Very Poor

Figure 6. Results of creel and satisfaction surveys, 2004/05 & 2005/06.

Guide Returns

Catch and effort data supplied by fishing guide Greg Dougherty (Alpine Fishing Guides) who drift-fished the upper Clutha River from Albert Town to Queensbury are shown below in Figure 7. Of the 2709 fish caught, 189 were harvested.

| Season | Angler Hours | Brown Trout Caught | Rainbow Trout Caught | Salmon Caught |
|--------|--------------|--------------------|----------------------|---------------|
| 06/07 | 666 | 118 | 408 | 0 |
| 07/08 | 566 | 88 | 257 | 0 |
| 08/09 | 464 | 123 | 154 | 1 |
| 09/10 | 578 | 149 | 173 | 0 |
| 10/11 | 450 | 95 | 102 | 0 |
| 11/12 | 466 | 85 | 100 | 0 |
| 12/13 | 238 | 61 | 61 | 0 |
| 13/14 | 270 | 69 | 95 | 2 |
| 14/15 | 348 | 72 | 131 | 0 |
| 15/16 | 336 | 58 | 96 | 0 |
| 16/17 | 394 | 89 | 122 | 0 |
| | 4776 | 1007 | 1699 | 3 |

Figure 7. Seasonal catch and effort data of guided anglers on the upper Clutha River, 2006/07 – 2016/17.

Catch rates of the guided anglers are shown below in Figure 8.

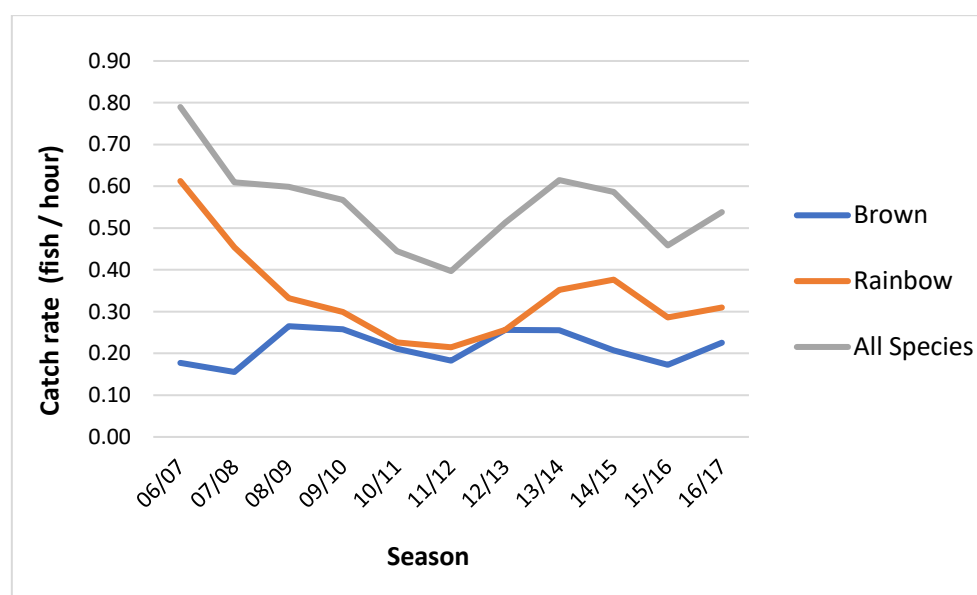


Figure 8. Catch rates of guided anglers on the upper Clutha River, 2006/07 – 2016/17.

Angler Effort

National Angling Surveys were conducted by NIWA on behalf of Fish & Game New Zealand and Department of Conservation in 1994/95, 2001/02, 2007/08 and 2014/15. Estimates of total angling effort for the upper Clutha River from outlet to Lake Dunstan are shown below in Figure 9.

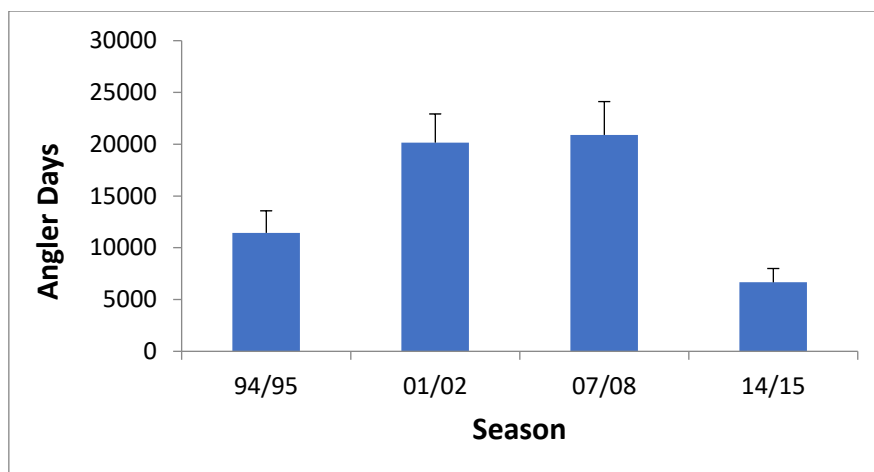


Figure 9. Upper Clutha River seasonal angling effort.

Water Quality

The Otago Regional Council (ORC) is responsible for managing and monitoring rivers, lakes and wetlands in Otago. Numerical limits for acceptable water quality in the upper Clutha River were set out in Water Plan Change 6A (PC6A), notified on 20 March 2013. The limits are applied as five-year, 80th percentiles, when flows are at or below median flow. The water quality monitoring results are shown below in Figure n.

| Report date | Period (July - June) | NNN (mg/l) | NH ₄ -N (mg/l) | DRP (mg/l) | <i>E. Coli</i> (CFU/100ml) | Turbidity (NTU) | TN (mg/l) | TP (mg/l) |
|-------------|----------------------|--------------|---------------------------|--------------|----------------------------|-----------------|-----------|-----------|
| | Limit | 0.075 | 0.010 | 0.005 | 50 | 3 | | |
| 2018 * | 2013 - 2018 | 0.043 | 0.004 | 0.001 | 5.00 | 0.954 | 0.091 | 0.003 |
| 2017 | 2012 - 2017 | 0.041 | 0.004 | 0.001 | 4.00 | 1.090 | 0.101 | 0.003 |
| 2016 | 2011 - 2016 | 0.040 | 0.004 | 0.001 | 5.00 | 0.990 | 0.084 | 0.003 |
| 2015 | 2010 - 2015 | 0.040 | 0.003 | 0.001 | 4.76 | 0.998 | 0.070 | 0.003 |
| 2014 | 2009 - 2014 | 0.043 | 0.003 | 0.001 | 3.00 | 1.000 | 0.068 | 0.003 |
| 2013 | 2008 - 2013 | 0.041 | 0.003 | 0.001 | 2.00 | 0.900 | 0.072 | 0.003 |

Figure n. Water quality monitoring results for the upper Clutha River at Luggate Bridge from Otago Regional Council's annual water quality and ecosystem health reports: nitrite-nitrate nitrogen (NNN), ammoniacal nitrogen (NH₄-N), dissolved reactive phosphorus (DRP), *Escherichia coli* (*E. coli*), turbidity (nephelometric turbidity units), total nitrogen (TN) & total phosphorus (TP). * not monitored for five years; result is interim.

Water quality in the upper Clutha River has consistently received an “excellent” grade; all five parameters comply with water quality standards.

Reference

<https://www.orc.govt.nz/plans-policies-reports/reports-and-publications/water-quality/annual-water-quality-and-bio-monitoring-summaries>

Part Two

Eight experienced upper Clutha anglers were interviewed during the 2018/19 fishing season. Interviews took the form of an informal conversation during which participants were asked to relate their angling experiences and describe any changes they had noticed in the quality of the fishing in the upper Clutha River. All participants were fly anglers who fished primarily at Deans Bank, though one angler also targeted spawning trout during the winter season. The least experienced angler had five seasons fishing on the upper Clutha River while the most experienced had over fifty years.

Anglers shared similar stories of their early years fishing at Deans Bank. They described a popular night fishery, *“there'd be fishermen about every forty or fifty meters right up the river”*, and prolific hatches of caddis: *“a guy I fished with would be out with his father... and their idea of a joke was to shine their torch into the other guys coffee cup because all these moths [sic] would just fly straight into the coffee”*. During a summer caddis hatch there would be *“fish rising all over the place”* and anglers would travel from Cromwell and Alexandra *“because you were guaranteed to get a fish on Deans Bank”*. Many anglers described frequently catching their limit of large, well conditioned trout: *“I'd be disappointed if I didn't catch a limit bag, I mean it wasn't any problem... the fish you caught were all between 3 and 6 pound”*.

All of the most experienced upper Clutha anglers reported a decline in the quality of the fishing: *“I started in 2003/4... those first few years there was a lot of fish; Deans Bank, the upper Clutha was fantastic fishing... then the old Didymo came along and you definitely noticed a downward turn in the amount of fish numbers and the quality of the water, and then basically over the next few years, maybe from 05/06, 07 through to 08, the fishing was just diabolical”*. Indeed, many anglers believed *Didymo* was responsible for a decline in angling quality: *“I would be down the Clutha every second or third night and quite frequently would get, in those days, this is 2004/05/06 something like that, through those years I could get six in a night, big fish, I've got a picture on the wall just in there of me holding two five pound browns, beautiful big fish. You don't see that now in the Clutha, in that piece of river... it's slowly dwindled off I think with the Didymo”*. A decline in the brown trout catch was reported by another angler: *“Twenty, thirty years ago when I regularly used to go out... we'd sometimes catch between five and ten fish each in an evening, mostly browns, and I guess then there was a period probably 10 years or so ago... when the occasional times I went I'd mostly catch, if I caught anything, smallish rainbows and very few browns”*.

In addition to declining fish numbers, some anglers reported dwindling caddis hatches following the introduction of *Didymo*: *“the other thing that I guess I am more aware of is the arrival of Didymo and seeing mostly the disappearance of Aoteapsyche caddis, net-spinning ones, and I guess I have always linked those two together”*. Another angler believed climatic conditions had affected the caddis hatch as well: *“the night fishing, particularly the sedges, is nothing like it used to be... it coincided with two factors I think: first of all Didymo but also about five years ago we had a series of cool summers with high water and the number of nights to be able to get out there with good sedge hatches going on was minimal.... for three or four seasons we caught bugger all, hardly saw anything and so there was a period there where it was pretty slack, um, that then come right again in the last two or three years just with a couple of better summers... it's not as good as it used to be but it's better than it was”*.

Most of the anglers interviewed had changed their fishing habits as a result of dwindling catches. Some went less often: *“I really went off fishing the upper Clutha you know, because all the times you go down there and there was just no fish around, so for a few years there I didn't stop fishing, but I never went down as many times”*. Others would not persevere as long: *“if it goes off I just think aw no it's not gonna come back on, whereas before I think you might get a bit of a run and then it might drop off for an hour or so and I'd stick around and then you'd start to hear them rising further around and by that time it's pitch black but you could work out where they were and you might have another run and get another three or four fish, now if it drops off I go home”*. At least one angler thought about giving up, *“I was considering giving it away... but I always used to be able to catch a couple of fish, it was hard work but I used to be able to get a couple”*, while another all but quit: *“I haven't done very much fishing at all in the upper Clutha in the last five to ten years largely because I have perceived catch rates to have dropped off significantly compared with twenty, thirty, forty years ago”*.

Declining catch rate was not the only factor that affected the quality of the angling experience in the upper Clutha. As one angler explained: *“the access and the experience is sort of not as good as it was, because there's less access but there's also building going on on the southern side of the river right through Albert Town and you're out there at night it's not just you and the rabbits and the sedges, there's people with power tools and things going, things like that, so the experience for people isn't quite the same, I think that's put a few people off, so not as many guys, I very seldom see anyone else out there night fishing now, back in the day I would talk to two or three guys a night”*.

One current angler described a fishery comprising fewer large fish and greater numbers of smaller fish: *“you get a lot of small fish, and recently I've fished down there and I got one nice fish, well I must of caught twelve fish this long, but that's quite encouraging, at least they're there and the young ones are coming through”*. His views were echoed by another: *“at the moment the river's high, it's been a bit challenging, I haven't been down for a week because*

of that, but a lot of fish there, lot of small ones, a big one at the moment would be 16 inches... but in the main lots of them but small, I suppose that's a good thing". Nonetheless, fish condition was described as good: *"the condition of the fish now is still very good, they're probably not quite as big as they were before... you're talking about a two pond fish compared to a four pound fish, the two pound fish is still in good nick".*

Two other anglers described a more dramatic turnaround in the quality of the angling for the 2018/19 season. As the first explained: *"the river's not like it used to be, the last couple of years, last year and the year before, weren't very good at all, but, I beg your pardon, the two years before that [2015/16 & 2016/17], last year [2017/18] I got quite a surprise; I caught a limit bag up there in a couple of hours and they were all lovely conditioned fish, and I thought, aw things are coming right here again you know, and I've been up two or three times since then this year [2018/19] and yeah, the fish are there and they're good".* The second angler agreed: *"this year, this season 18/19, I've felt I've seen a dramatic increase in fish numbers, quality of fish and quantity of fish, like chalk and cheese really. And just wanting to go out more because there's a lot more fish out there, so I feel that this season has been outstanding for me anyway... it's been great".*

Discussion

The discovery of *Didymo* in the upper Clutha River in October 2005 caused alarm among anglers and managers alike. By 2009, Fish and Game staff were receiving complaints from anglers about reduced catches and poor quality fish. Anglers interviewed during the 2018/19 season reported a decline in the quality of the fishing and many suggested *Didymo* was to blame. Though not possible to show causation, there is evidence to suggest a drop in trout numbers occurred in the years following the introduction of *Didymo*. Drift dive data showed a decline in trout abundance between 2006 and 2012. The number of brown trout counted by divers declined by 68% while rainbow trout declined by 58%. During the same period, the catch rate of guided anglers dropped by 50%. Rainbow trout, which made up 78% of the guided anglers' catch in 2006, comprised just 50% of the catch in 2012. Similarly, the number of brown trout redds counted by aerial survey dropped from 13 redds/km in 2005 and 2006 to 6 redds/km in 2009.

Redd counts can be used to estimate the number of female spawners in a given year. The 2009 redd count was similar to the pre-*Didymo* 1997 count; so rather than 2009 being a poor year, it could be argued that 2005 & 2006 were exceptionally good years (rated "very good" by anglers in satisfaction surveys). Similarly, the drift dive count from 2012 was not a world away from that obtained in 2001. The redd counts do, however, highlight the significance of the outlet to Albert Town reach and the Lindis River to Lake Dunstan reach, as these supported the highest densities of spawning trout.

The catch rate of guided anglers improved from 2011/12 to 2014/15; followed by another poor season in 2015/16. The notion of a poor season in 2015/16 was mentioned by one angler

who thought the quality of the angling had subsequently improved in 2017/18 and 2018/19. Though while some anglers agreed there had been a substantial improvement in the past season or two, others described a fishery comprising fewer large trout and fewer brown trout. Declining catch rates caused some anglers to reduce their effort on the upper Clutha River. This finding was consistent with results from the National Angling Surveys which found a 68% reduction in use from 2007/08 to 2014/15. The other reason anglers gave for fishing the river less was difficulty with access; exacerbated by eroded, overgrown tracks and the locking of the vehicle access gate at Deans Bank (red circle in Figure 5) and loss of mobility due to ageing.

Despite some optimism about the current fishery, it seems likely the upper Clutha River angling experience has changed forever. Although the direct affects of *Didymo* on trout abundance and condition in the upper Clutha River remain unclear, its presence alone may be enough to deter some anglers due to its propensity to foul gear and frustrate angling efforts. Regardless, the upper Clutha River still provides adequate angling opportunity. At last count (2012) there were over 300 fish/km in the river between the outlet and Albert Town and guided anglers' catch rates improved following the low point in 2012. Salmon however, occurred so infrequently in guided anglers' catches (0.0006 salmon/hour) that they were practically non-existent in the upper Clutha River. This is not reflected in current angling regulations.

The catch and effort data supplied by guide Greg Dougherty represents the most complete dataset currently available for the upper Clutha River. Guide returns provide an index of trout relative abundance based on repeated observations throughout the angling season and come at no cost to Fish and Game. Every effort should be made ensure this co-operation continues and to encourage other guides to supply similar information. The only disadvantage of this method is that it relies on the voluntary participation of a third party whose focus of operation may change in the future. If a guiding licence is introduced, then reporting of catch and effort by location should be mandatory.

Regular population monitoring enables managers to make informed decisions when setting bag limits to allow for the sustainable harvest of sports fish. A robust population monitoring programme would entail the selection of an appropriate technique with sampling to occur over a meaningful timeframe. The details of any future monitoring programme for the upper Clutha River are open for discussion. Comments from anglers interviewed in 2019 were supported by data from drift dives, redd counts and guide returns; thus highlighting the importance of engagement with the angling public.

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James Smith
Otago Fish & Game Council
September 2019

13.7 1530 Compliance Summary Report

2018/19 Season offences actioned from 1st of October – September 1st

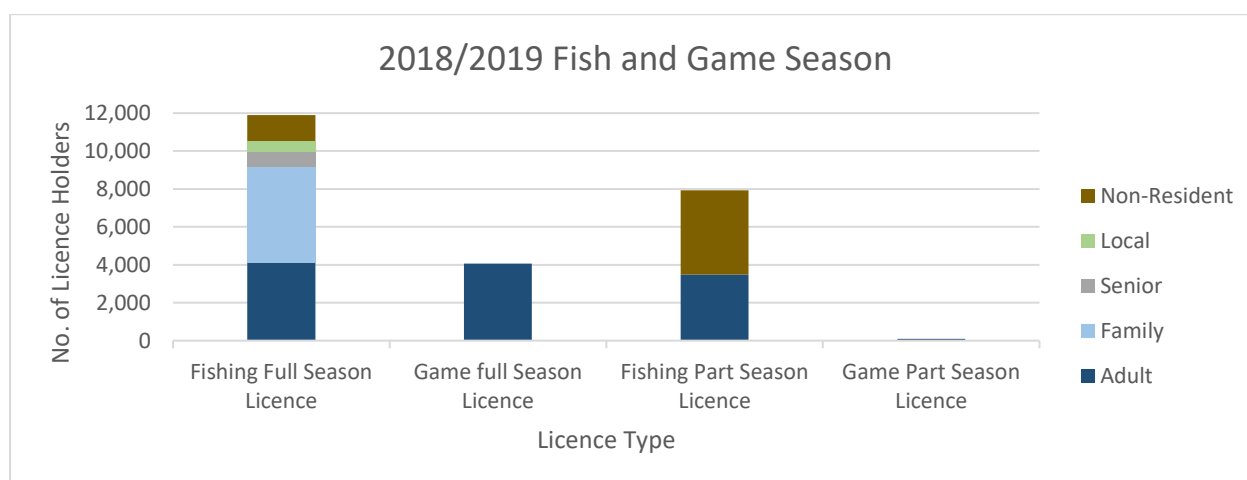
Purpose

This report provides a brief summary of the compliance activity for the 2018/19 fishing and hunting seasons.

It also reports on achievement of internal regional compliance guidelines of:

- Checking 10% of fish or game adult full season licence holders annually
- Maintaining 95% compliance with laws and regulation

Overview of Licence holders



Diversion Levels

Direction on matters of prosecution, including diversion levels, are guided by the Council's adopted "Offence Guidelines". These standardized diversion fines were approved in August 2018 and are in line with the Southland and Central South Island Regions levels.

Fishing Season Compliance

| | |
|---|--------|
| Documented interviews with Anglers | 975 |
| Total whole season Adult and Family Licence Holders | 11,897 |
| % Checked (target: >10% Adult licence holders) | 8.2% |
| Number of offenders (excluding Failure to Produce or "FTP's") | 29 |
| % Compliant (target: >95%) | 97% |

At 11,897, there was a slight decrease in adult full season licence sales this season. There were also 975 recorded interviews with anglers – around 40 more than last season.

Despite this increase in ranger checks, the previous table shows that the compliance team was once more beneath its target of 10% licence holder contacts. Many rangers who were active in the South and Coastal Otago reported traveling long distances to find very few or no anglers. Poor angling weather in the Southern Lakes over parts of summer lowered angler activity and limited lake creel survey work. This has had an impact on the overall number of interviews undertaken.

The 29 fishing offenders dealt with this season is below last season's 44 and closer to the 2016/17 season where 31 offences were actioned. Over the last 5 years regulation compliance has ranged between 95% and 98% and this season's result fits within the range at 97%. In addition to the more serious offences, all those who failed to produce a licence to a ranger in the field (FTP's) had offence notices issued and were given verbal or written warnings. This is routine procedure in case an angler should lie about actually having a licence.

Types of fishing offences

Fishing without holding a valid licence remains the most common offence occurring in the Otago Region. Of 29 offenders, 26 were fishing without a licence. We had a few offenders commit other offences simultaneously such as one young offender who was bait fishing without a licence in the Southern Reservoir and four offenders who were fishing without a licence in closed waters.

This season there was a notable decrease of anglers fishing with two rods, from seven last season, to one this season and two individuals were caught fishing without a valid back country endorsement.

Fishing Prosecution Summary

6 written warnings were given for minor offences due to considerations such as being an individual's first-time offence, age, impecuniosity and in one case where the offence occurred in the 2017/18 season - time passed was a factor.

This season the Otago Council a new diversion procedure, which requires laying a charge with the court and then offering diversion as a settlement (similar to previous reparation system with the exception of justice system oversight.).

23 Offenders were charged and offered diversion

- accepted and paid their fine into the Otago Regions 'Research and Habitat Enhancement Fund'
- 3 cases are ongoing and will likely result in diversion payments
- 2 charges were withdrawn without payment of diversion
 - 1x withdrawn due to inability to serve summons (uncontactable)
 - 1x withdrawn due to impecuniosity for a young, unemployed Australian visitor.
- 4 resulted in Court Hearings

In comparison to a 50% reparation take-up rate in 2017/18, diversion has proved similar results with 48% of offenders being dealt with through diversion (58.6% if the remaining offenders accept and pay diversion).

This is a positive end to the first season of implementing diversion.

Fishing Prosecutions

One flow on effect of the diversion procedure has been an increased number of offences taken to court. In comparison to one angling case taken during the 2017/18 season, the 2018/19 season has had 4.

- *Hanson* – FWL and FOS on Taieri River - wanted his day in court.
 - Fine \$700, Solicitor's fees \$200, Costs \$130, Forfeiture (Total Fine: \$1,030)
- *Hardie* – Bait Fishing and FWL in the Southern Reservoir - refused to engage with the diversion or court process – resulted in a trial by evidence due to lack of appearance.
 - Fine \$800, Solicitor fees \$500, Costs \$130, Forfeiture (Total Fine: \$1,430)
- *Darling* – FWL on the Southern Reservoir
 - Fine \$500, Solicitors fees \$250, Costs \$130, Forfeiture (Total Fine: \$880)
- *Mathieson* – FWL on the Roxburgh Dam
 - Fine \$500, Costs \$300, forfeiture (Total Fine: \$800)
 -

Although this is a higher number of prosecutions, harsher sentencing has been imposed for fishing offences in the Otago Regions District Courts this season.

In the 2017/18 season the offender, *Valentine*, had no fine imposed and a total of \$630 Solicitors fees and court costs, while this season on average the outcome at trial has been \$1,035.

Game Season Compliance

Game season compliance activity has been briefly reported on but below is a short summary

| | |
|---|-------|
| Total documented Game licence holder contacts | 154 |
| Total whole season adult and family licence holders | 4,063 |
| % Checked (target: >10% Adult licence holders) | 3.8% |
| Number of offenders (excluding FTP's) | 7 |
| % Compliant (target: > 95%) | 95.5% |

The target of 10% of gamebird licence holders was once more, not achieved this season. This contact rate is an almost unattainable target, especially when much of our compliance work is focused on opening weekend and on individual farm ponds and private land with a well-

trained but limited number of rangers. After opening weekend, game ranging generally results in a considerable effort for a limited number of hunter contacts.

There was a drop-in licence holders of about 140 compared to the previous season. Rangers checked 40 more hunters than the 2017/18 season.

1x offender was hunting without a licence (compared to 3 last season), predominantly due to confusion regarding the application of the Occupiers right. This was dealt with through diversion.

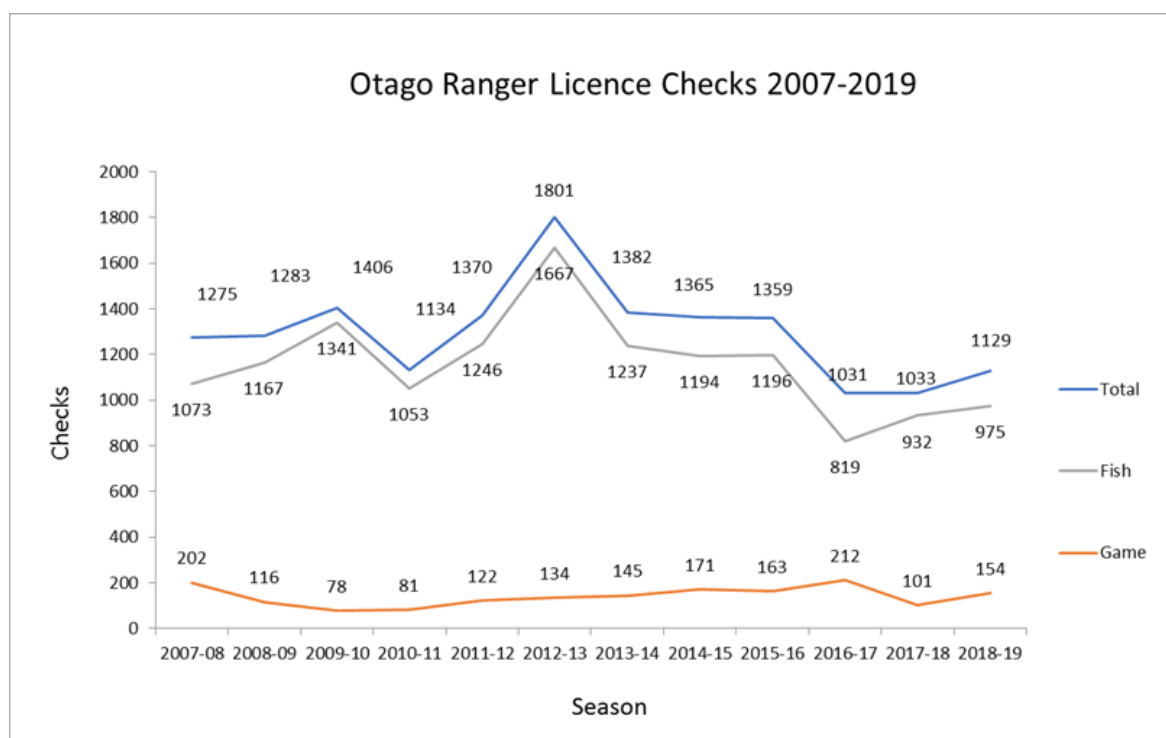
1x other offender was charged with possession of lead shot due to the large volume of empty lead cartridges around their maimai and was also dealt with through diversion.

5x further offenders were given written warnings. 4x for possession of a small amount of lead shot and 1x for taking a Pukeko.

1x potential offence occurred with an unattended shotgun in a car alongside a box of lead shot. However due to struggles receiving further information on the individual from Police, the case was not pursued

The increase of 'offenders' this season reflects the Otago Regions more active role in sending warning letters in response to even minor offences. These had previously been dealt with by way of warnings in the field.

Trends in Ranging Activity



Changes in honorary rangers

Our rangers have once again done an excellent job with a slight increase in fishing (and game) licence checks since last season. Although this may be partially attributed to the fact that for the first time we had a lot of anglers interviewed in CSI (by Otago rangers), mostly in the canals (169). One of our new Dunedin rangers WAYNE MARSH tallied up almost 200 compliance checks on his own.

We will put a concerted effort into increasing contacts this coming season with more organised events, particularly on our larger lakes. We will also be creating a schedule of planned events at the next Ranger Training in Lumsden on NOV 30/1 DEC.

Volunteer rangers have detected and professionally reported over a third of the total offences encountered in Otago. Their attendance at other events such as TAKF days and assisting with other field work is also greatly appreciated.

Over the last year four rangers retired or resigned, two new rangers have been appointed and three will soon be appointed in the Cromwell/Queenstown area which should markedly help boost angler encounters in the Lakes area. This will mean that for the coming season, the Council will have 23 volunteer rangers and 8 warranted staff.

Recommendations

Council receive this report.

Ashleigh Grenfell
Otago Fish & Game Compliance Officer
12/09/2019

13.8 1221 Council Report on Consenting Workload

Further update of select consents 11 July – 18 September 2019

Earnsclough Irrigation Company:

Written approval for the remaining segment of this application was provided on the basis of a reduced term of 15 years, as well as robust fish screening conditions and monitoring. As a result, Omeo Creek, the stream in question, will now be managed as a perennial stream where it had previously been treated as ephemeral.

Lake Onslow:

There have been no updates of significance since this was last reported.

Long Gully:

Since this was last reported, correspondence has been provided to the Long Gully Race Society detailing Fish and Game's position. I understand that the group is waiting on further feedback from affected parties before making a reply.

Luggate Catchment Deemed Permits:

Both deemed permit applications, representing all deemed permit holders in the Luggate catchment, have now been limited notified. Fish and Game remains not notified on the Criffle application but is notified for the Luggate Irrigation Company/Lake Mackay Station. Staff have made a submission asking for reductions in allocation, increases in residual flows, a re-configuration to the races and a reduced term. A pre-hearing meeting will be held on 20 September 2019 and the hearing is scheduled for the 24th of October 2019.

Queenstown Lakes District Council:

Wastewater Network consent: staff made a submission asking for the consent to be declined or issued with performance standards and a reduced term. Since the submission, the applicant has been in touch to discuss altering the application. It has been proposed that Fish and Game staff and the applicant meet in early October to discuss changes to the proposed consent conditions. I understand there is a great deal of interest in this consent. Should a contingent of Councillors wish to attend this meeting (which will be via skype), this could be arranged.

Subdivision on the Luggate-Cromwell Highway:

Staff made a neutral submission on a QLDC consent to subdivide a parcel of land near the Queensbury access easement to crown land on the Clutha River. The accessway is currently managed by Fish and Game but would be used for access to the new properties. The submission requested that ongoing access of the easement be shared evenly between Fish and Game and the landowners.

**Written approval provided during the period
Consents submitted to the ORC**

| Applicant | Activity | Outcome |
|--------------------------------|---|--|
| Earnsclough Irrigation Company | To abstract water from Omeo Creek at two locations | Described above. |
| The Department of Conservation | Discharge wastewater to land from the Routeburn Flats hut sewage system in circumstances where it may enter water | The application demonstrated that the activity had no discernible impact given the current treatment from the systems on site. Written approval was provided. |
| Allied Concrete | To discharge industrial process wash water and stormwater to Opoho Creek | Restrictions around the frequency of discharges were negotiated such that the plant does not discharge outside a 4 hour 10% AEP event, along with monitoring conditions when discharges do occur. Written approval was provided on the basis of these changes. |
| Murray Nielson | Discharge treated septic tank effluent to land | The application demonstrated that the activity had no discernible impact given the current treatment from the systems on site. Written approval was provided. |
| Shotover Jet Ltd. | To remove boulders, rocks, gravel and to discharge contaminants in the process, to the Shotover River | The application was altered to include strengthened sediment discharge conditions and improved reporting. Written approval was provided as a result. |
| Homestead Bay Trustees Ltd. | Development of a marina on Lake Wakatipu | The application was altered to include a volunteered condition around access and signage. Written approval was provided on this basis. |
| Waipori Falls Body Corporate | To discharge treated wastewater to water | The application demonstrated that the activity had no discernible impact given the current treatment from the systems on site. Written approval was provided. |
| Dunedin City Council | To install a second culvert in Post Office Creek | After a site visit confirmed fish passage would not be affected, Fish and Game provided written approval. |

Consents submitted to the Queenstown Lakes District Council

| Applicant | Activity | Outcome |
|-------------------------|---|---|
| Parkins Bay Golf Course | Removal of willows, replacement planting and construction of a boardwalk on the lower reaches of the Fern Burn. | Written approval was provided on the basis that changes were made to the application to ensure replacement vegetation will provide similar shading as the removed trees and there will be no impacts on fish spawning or passage. |
| James Gott | To operate a touch and go floatplane activity on Lake Wakatipu | The application was altered to include strengthened biosecurity conditions and written approval was provided on this basis. |

No written approvals were provided during the period for consents from the following bodies:

- Central Otago District Council
- Dunedin City Council
- Clutha District Council
- Waitaki District Council

Recommendation: that this report be received.

Nigel Paragreen
Environmental Officer
18 September 2019

13.9 1112 Monitor Trout Spawning in the Cardrona River

Introduction

The Cardrona River will be subject to a minimum flow with deemed permits expiring in 2021. Fisheries monitoring has been undertaken by Fish and Game in recent years to gauge how receding flows from irrigation extraction impact on fish populations. This has included photo points and electro-fishing to assess fish populations and timing of out-migration, and spawning surveys.

Previous spawning surveys have focused on the mid river in the spring to provide information on the timing of rainbow migration and key spawning areas. The surveys recently completed and detailed below were undertaken to strengthen knowledge on the timing of rainbow spawning run and to identify any spawning activity in the summer drying reach of the river from Hill End to the State Highway 6 bridge. A distance of approximately 6 kilometres.

Methodology

Surveys were done on foot and a GPS was used to mark redds and fish seen.

Results

On Wednesday August 28 the river section from the State Highway 6 Bridge to Ballantyne Bridge was surveyed. The river was clear with good viewing conditions and flowing at approximately 3 cumecs.

No Redds were identified. Only one adult rainbow jack was seen immediately downstream of the Ballantyne Road bridge.

On Saturday August 30 the river section from Ballantyne road Bridge to Hill End ending at GPS ref E1293885 N5038491. Again, the river was flowing at approximately 3 cumecs with clear visibility.

No redds were identified. One adult brown trout was seen in a pool near the top of the survey reach at Hill End.

See Figure 1 showing the extent of the survey.

Conclusion

This lower river is the healthiest I have seen it in many years, no doubt due to the cessation of gravel extraction. In the latter part of August, the catchment received little rain and migrating fish may have been waiting for a fresh. It is also possible that the early run of rainbow trout hadn't commenced.

Lake levels in Wanaka and Hawea were low during August and early September as was the Upper Clutha River which may have also limited fish from entering the Cardrona River.

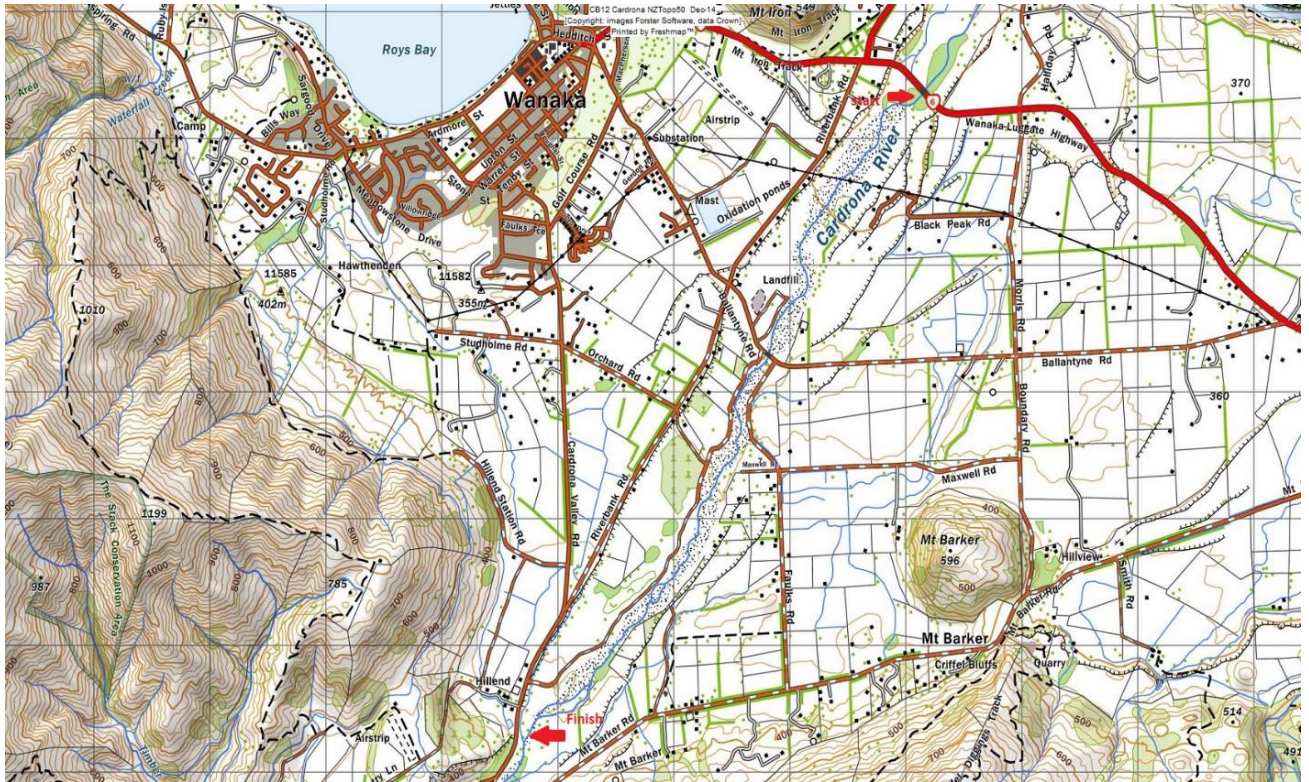


Figure 1. Extent of the spawning survey from State highway 6 Bridge to Hill End.

Recommendation

The report be received

Cliff Halford
Fish and Game Officer
September 2019

13.10 1122 Conduct Creel Surveys on Lake Wanaka 2018-19

Executive Summary

Forty one randomised creel surveys were undertaken on Lake Wanaka over the months of November to August during the 2018/19 fishing season to gather angler and fisheries information. 134 anglers were interviewed totalling 157.25 hours of angling effort for a catch of 37 fish, which equates to 1 fish for approximately 4.25 hours fishing. Trolling was the most popular method accounting for 72% of the overall angling effort and 78% of the total catch.

Fly fishing is still popular and spinning made up the remainder of the angling methods. No bait anglers were interviewed, and no salmon catches were recorded. No salmon were harvested by interviewed anglers during the extent of the survey.

1. Introduction

Lake Wanaka is located in the Otago region of New Zealand, at an altitude of 278 meters. Covering an area of 192 km² (74 sq mi), it is New Zealand's fourth largest lake. The lake holds populations of brown and rainbow trout and landlocked chinook salmon and is highly valued nationally and internationally for its sports fishing opportunities.

Creel surveys were undertaken from 1998-2001 and summarised (30 years of Creel surveys D Scott and M. Wright, Otago Fish and Game, November 2007). Additional angler and fisheries information has been gathered in recent years during random ranging exercises over peak holiday periods.

This report summarises the Lake Wanaka Creel survey results for the 2018 – 2019 season starting in November 2018 and finishing at the end of August 2019.

2. Survey Methodology

The survey was a randomised creel survey with a frequency of at least two week and 2 weekend days per month and randomised starting times. Meeting the requirements of a randomised stratified roving creel survey (Pollock et al 1994).

Two weekdays and two weekend days were selected each month and stratified starting times were randomly selected. During November, December, January and February three week and three weekend survey days were stratified.

Early random start times were introduced to pick up the early morning holiday anglers and a 5pm start was to try and get information from evening anglers to obtain a broader data set.

Start times

November through February - 7am, 12pm and 5pm.

March through October – 9am and 1pm.

A full schedule of survey days and start times was compiled. Surveys had to be completed within the four or 5 hour survey period. Volunteers were mostly used to support staff on the boat.

Creel survey sheets and a questionnaire were developed to document all the relevant information.

On survey days the Otago Fish and Game Boat, a 5.5 meter kiwi Kraft with a 115hp four stroke Suzuki was used to circumnavigate the lake from a selected boat ramp. The direction of the trip was randomly picked. The Rotary Glendhu Bay Ramp was utilised the most because it enabled easier access and parking during the peak holiday period.

On the lake all anglers were approached. Extra care and consideration was given to approaching shore anglers to ensure that they were not overly interrupted by beaching the boat a fair distance from their fishing position around the shoreline. It was difficult at times in Paddock Bay when lake levels were low. Some boat angler interviews were conducted while anglers continued to fish with the F&G boat pulling alongside.

Anglers were asked about their angling activity for the day along with a standard set of creel questions. In addition, anglers were asked whether they had experienced lake Snow (*Lindavia intermedia*) on their trip, their years of experience on the lake and how many days a year did they commonly fish the lake. Their fishing location was recorded.

With very few salmon being caught on the lake and concerns about the salmon population, anglers were additionally asked had they last caught a salmon in the past and where the location was.

All fish harvested were weighed and measured and data collected was entered onto an excel data base where it has been analysed for reporting.

3. Results and Discussion

A total of 134 angler interviews were obtained from 41 sampling periods. Six survey days were not completed due to poor weather and two surveys had to be shortened due to a boat motor malfunction and, in March due to a build-up of log debris in the lake after heavy rain. During the months of April through August

From November through March there were four days when no anglers were sighted and during the months of April through August there were 12 survey periods when no anglers were seen with only 19 anglers interviewed over 18 survey periods which suggests the lake receives little angling pressure over the winter months and consideration could be given to stop surveying through the winter in the 2019/20 season.

The majority of the survey effort was in the lower third of the lake where anglers were located. Surprisingly through the summer months few boats were seen north of Minaret. Boaties were possibly being cautious about weather and lake conditions.

Matukituki Bay, Paddock Bay and Stevenson's Arm were popular angling areas.

The total catch from the 134 anglers was 37 fish for a total of 157.25 angling effort. Anglers returned 17 fish which was 45% of the total catch. 82% of anglers caught no fish on survey days. Fourteen anglers had caught 1 fish when interviewed, six anglers caught two fish each, a further 3 anglers caught 3 fish each and released 6.

3.1 Catch Rate

The Total Catch Rate (TCR) is calculated from the number of fish caught over the length of angling time. 157.25 divided by 37 fish = 1 fish for 4.25 hours angling effort or (.22) as fish per hour caught.

Of the 37 fish caught 24 were brown trout and 13 were rainbow trout. No salmon were recorded. The harvest rate (HR) is calculated from fish kept divided by total angling effort and shown as fish per hour.

Table 1. Total catch rates, return rates and harvest rate for each species

| Season | Species | Fish caught and (TCR) | Fish released (TCR) and % returned | Fish kept and (HR) |
|-------------------------|---------|-----------------------|------------------------------------|--------------------|
| Nov 2018-Aug 2019 (inc) | Brown | 24 (0.15) | 12 (0.07) 50% | 12 (0.07) |
| Nov 2018-Aug 2019 (inc) | Rainbow | 13 (0.08) | 5 (0.03) 38% | 8 (0.05) |

During the 1998-2001 seasons Scott and Wright, recorded (TCR) for brown trout at 0.14, 0.14 and 0.10 respectively. For rainbow trout it was 0.10, 0.16 and 0.08 and for landlocked salmon TCR was 0.04, 0.01, and 0.04 for the respective years.

Total Catch Rates (TCR) summarised by Scott and Wright were very similar to the 2018/19 results which is interesting when sample size was much greater at 509 fish caught by 1255 anglers over the full three year period. Noting that the sampling period during 1998-2001 was generally over a full day.

3.2 Catch Rate by Method

Table 2. Catch by method and Catch Rate (CR) as fish per hour

| Year | Fish caught Fly and (CR) | Fish caught Spin (CR) | Fish caught Surface Trolling (CR) | Fish caught Deep Trolling (CR) |
|-------------------------|--------------------------|-----------------------|-----------------------------------|--------------------------------|
| Nov 2018-Aug 2019 (inc) | 7 (0.21) | 1 (0.19) | 3 (0.15) | 26 (0.27) |

Deep trolling was the most productive method accounting for 26 fish and 70% of the total catch. Fly fishing was next then spinning and surface trolling. No bait angling, harling or jigging was recorded.

Table 3. Total Angling effort for each Method

| Year | Angler Numbers and (%) Time Fly fishing | Angler Numbers and (%) Time Spinning | Angler Numbers and (%) Time Surface Trolling | Angler Numbers and (%) Time Deep Trolling |
|-------------------------|---|--------------------------------------|--|---|
| Nov 2018-Aug 2019 (inc) | 23 (21%) | 15 (7%) | 28 (12%) | 68 (60%) |

Trolling was the most popular method (Table 3) and most productive (table 2) with deep trolling the standout. Scott and Wright reported similar findings with trolling being the most popular method and between 60-68% of the angling effort for the three survey years from 1998 - 2001.

There was a reasonable number of surface line trollers, but these anglers didn't catch many fish for their combined effort. This indicated that fish were likely deeper than they were fishing, and most appeared to have little experience fishing the lake

Fly fishing is still popular accounting for 21% of the total angling effort with two popular fly fish areas being Paddock Bay and Stevenson's Arm.

4. Catch Details

Table 4. Provides the average length, weight and condition factor of each fish species.

| Year | Average Length (mm) | | Average weight (Grams) | | Average condition | |
|--------------------------|---------------------|---------|------------------------|---------|-------------------|---------|
| | brown | rainbow | brown | rainbow | brown | rainbow |
| Nov 2018-June 2019 (inc) | 443 | 427 | 851 | 1158 | 35.45 | 46.3 |

Five rainbow trout were weighed and measured, an additional 2 could not be weighed due being cleaned and 1 further fish was consumed by tourists on a guided trip. Nine brown trout were weighed and measured. An additional 3 were measured but not weighed due to being cleaned.

Rainbow trout were generally bigger and in better condition by comparison with brown trout. Scott and Wright did not provide fish weights in their report but average fish lengths for brown trout were very similar over the three seasons at 456mm, 454mm, and 439mm and rainbow trout 437mm, 431mm, and 435mm which were slightly larger on average than in 2018/19.

5. Angler information

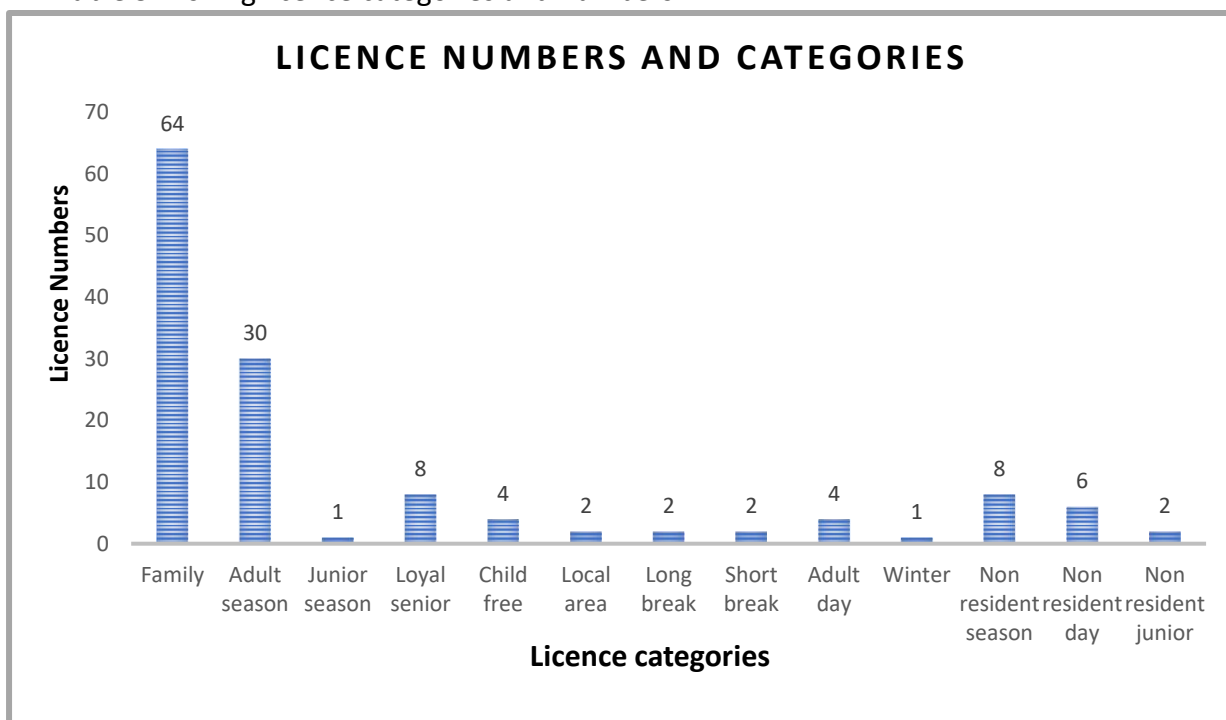
Table 5 below provides a breakdown of licence categories.

Of the 134 interviews during 2018/19, 56% of licence holders resided in the Otago Region. 32% were NZ residents and 12% were from overseas which were mainly on guided fishing trips.

Licence categories were broken down into 13 groups. Junior and child registered on family licences have been included in the family category. (Table 5)

Anglers with family or adult whole season licences made up 70% of all licence categories. It was pleasing to see all non-resident anglers with non-resident licences.

Table 5. Fishing licence categories and numbers



6. Angler Interview Questions.

Interviewed anglers were asked four questions.

- 4.1 How many seasons fishing experience they had on Lake Wanaka and how many days a season did they fish the lake.
- 4.2 Had they experienced lake snow while fishing on the day
- 4.3 Had they caught a salmon in the lake, if so when and where

Q4.1 These questions were asked to get some information on an anglers fishing experience on the lake and how often they fished in a season in an effort to document and possibly establish any long term trends in angling behaviour. A common response from anglers that have fished the lake for many years was that they were just happy to be out fishing and that

they don't fish as often now as they used to. Some anglers still found the fishing ok whilst others said it was now harder to catch fish. Some anglers said they didn't get out as much as they would like to.

Q4.2 The question was asked to get some current information on the distribution of Lake Snow and mainly targeted trollers who were more likely to experience it on their lines and lures. During the summer months most boat anglers around all surveyed areas of the lake experienced Lake Snow on their lines at varying depths. In some cases, anglers weren't aware of Lake Snow, but survey staff explained its occurrence. It was often visible on their shallow trolling lines and lead lines. During the winter months, (admittedly with far less interviews) lake snow wasn't as prominent.

Q4.3 Anglers generally haven't been reporting recent salmon catches and no salmon were inspected by survey staff during the extent of the survey. Some boat anglers reported catching salmon a few years ago and some of the older resident anglers reported good catches many years ago but nothing in recent years. It was difficult for some anglers to recall past fishing trips and dates. One boat fishing guide that regularly fishes Stevenson's Arm said he had not caught a salmon for 2-3 years.

In paddock Bay survey staff witnessed a salmon lost at the boat while being netted. A few salmon were reportedly caught at the Makarora end of the lake in late Autumn which resulted in two salmon samples collected for DNA analysis.

On several occasions survey staff had to correct anglers that thought they had harvested a salmon to find it was a small silvery brown or rainbow trout. The difference was explained to them.

7. Summary

Whilst the summarised survey has provided current angler and fisheries information on Lake Wanaka and comparisons with surveys undertaken in 1998 – 2001 a further full survey year will build a better picture. Angling use was less than expected but this could be the result of fluctuating weather patterns and probably an aging angling community who don't fish as much as they previously did.

82% of anglers hadn't caught a fish when interviewed but this is not dissimilar to other fisheries. Further questions on satisfaction could be asked but this information would only be useful if it was collected over a range of seasons.

Overall most boat anglers struggle to catch fish. Regularly the Fish and Game boat sounder was signalling fish at depths beyond 20 metres and often down to 40-50 metres. One boat fishing guide has regular success with a downrigger in Stevenson's Arm at depths of 20-30 metres proving that fishing deeper during the day is the key to success.

Survey staff also picked up that family groups on calm sunny days were content to just enjoying the days outing. Many weren't fully interested in fishing but had a line in the water to "try their luck".

8. Future Monitoring

The 2019/20 season monitoring which commenced in September 2019 will run through to November 2020 and provide 2 seasons of information. Consideration needs to be given on whether surveys should be continued through the winter months. With the low angler encounter rate during the 2018/19 winter season my recommendation is that surveys cease at the end of April.

Continuance of the Lake Wanaka creel surveys beyond October 2020 will be decided during the planning phase for the 2020/21 work year.

Acknowledgements

I wish to thank my partner Gae Chant for her voluntary time in committing to several survey days and also Daniel Kerr for his voluntary efforts.

References

Pollock, K.H., Jones, C.M. and Brown, T.L. 1994. *Angler survey methods and their applications in fisheries management*. American Fisheries Society Special Publication 25.

Scott, D., Wright, M. 2007 *Thirty Years of Creel Surveys*. Otago Fish and Game Council.

Recommendation

The report be received

**Cliff Halford
Fish and Game Officer
September 2019**

Appendix 1.

Lakes Survey Schedule of Activity

Lake

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| Season | Date | Weather | Zone and Start Time | Zone Finish Time | Survey Team |
|--------|------|---------|---------------------|------------------|-------------|
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Comments

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Appendix 2.

WATER : LAKE WANAKA DATE

| ANGLER DATA | | | | | | SPORTS FISH DATA | | | | | | Experience | | Lake Snow | Salmon Caught | |
|-------------|----------------|------------------|----------|--------------|--------|------------------|----|---|---------------|----|---|------------|---------------|-----------|---------------|-------|
| ZONE | LICENCE NUMBER | LICENCE CATEGORY | HOMETOWN | HOURS FISHED | METHOD | FISH KEPT | | | FISH RETURNED | | | # Seasons | Days / season | | When | Where |
| | | | | | | B | RB | S | B | RB | S | | | | | |
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13.11 1112 Upper Clutha Catchment Land-locked Salmon Spawning Surveys Interim Report

Introduction

Land-locked populations of quinnat salmon occur in Lakes Wakatipu, Wanaka and Hawea. where they form an important component of the sports fishery. Although the salmon are relatively small in size they can be easily caught.

Landlocked salmon spawning areas in the Central Otago Lakes are not well known and there is a general lack of knowledge of the land-locked salmon fishery. The purpose of the spawning surveys was to research where salmon have been observed spawning in the past and revisit these areas and identify where salmon are currently spawning.

Salmon spawning surveys were conducted in the Hunter River and tributaries for the Lake Hawea salmon population and in the Makarora River and tributaries for the Lake Wanaka salmon population. This interim report is part of a milestone activity identified in the Sports Fish and Game Management Plan for Otago Fish and Game Council (11.2.1.7 2020).

Methodology

Anecdotal information on past salmon spawning areas was provided by Fish & Game staff (past and present), landowners and anglers. The priority catchments were tributaries of Lake Wanaka (Priority 1) and tributaries of Lake Hawea (Priority 2). The historic spawning areas identified from previous information were surveyed first as a priority. Anecdotal observations of salmon spawning were obtained from tributaries of the Makarora River and tributaries of the Wilkin River which are both on Mt Albert Station. Salmon spawning areas were also identified in tributary streams on the True Right of the Hunter River on Hunter Valley Station.

Surveys were conducted from late April through until early June which was based on previous anecdotal records of when salmon have been observed at these locations. Walking surveys were conducted during periods of fine weather and suitable river conditions. Surveys varied in length depending on the location of suitable spawning habitats. Spawning surveys concentrated on spring creek tributary streams and side streams of the main river channels.

A total of 14 salmon spawning surveys were completed between 2017 – 2019; 6 were in the Hunter River and tributaries and 8 were in the Makarora River and tributaries (Appendix 1 – 14).

Results

No salmon or salmon spawning redds or salmon carcasses were observed at any of the spawning surveys undertaken (Appendix 1–6, 7–14). Brown trout and brown trout spawning redds were observed and recorded at many of the sites surveyed (Appendix 1–6, 7–14) though these observations were not quantified.

Discussion

Land-locked salmon over the past 5 years can be described as “scarce” in Lake Wanaka with on a handful being caught by anglers in the past season (van Klink, pers. comm.), (Halford, 2019). Two samples were collected for DNA sampling from anglers fishing at the Makarora River mouth. Another couple of salmon had been reportedly caught at the head of Lake Wanaka although they were not obtained for the DNA study. Given the scarcity of salmon in Lake Wanaka it is not surprising that salmon were not observed during the spawning surveys in the Makarora or Wilkin Rivers and their tributaries.

Salmon fishing in Lake Hawea has been productive over the past few years so it has been somewhat frustrating not to locate them during the spawning season. Anglers contacted in the Hunter River said that typically May was the month that they caught salmon in the river. Peter Innes who has been fishing the river for 30 years said that typically the 1st week of May was a good time to catch fresh run lake salmon in the river.

The survey observed that some previously known salmon spawning streams in the Hunter River appeared to have silted up and good spawning gravels were absent. It is possible that salmon are spawning in the main stem or side braids of the Hunter River or outside of the areas surveyed.

Future Salmon Spawning Surveys

Future salmon spawning surveys will concentrate on the inflowing tributary rivers and streams of Lake Hawea. Surveys will be limited in Lake Wanaka tributaries unless there are signs of salmon being caught by anglers in the lake this summer.

Three aerial salmon spawning surveys are planned from the beginning of early May 2020. Aerial surveys will cover the entire Hunter River and potential spawning streams on the river flats. This will allow an extensive survey in a relatively short amount of time. If spawning is observed from the helicopter a more detailed assessment will be made on foot.

Environmental DNA (eDNA) techniques are also being investigated to sample for salmon spawning. The method involves taking water samples and genetic testing the samples for salmon DNA markers. It is planned to use this technique in 2020.

References

SPORTS FISH AND GAME MANAGEMENT PLAN FOR OTAGO FISH AND GAME REGION 2015-2025. Unpublished Report, OTAGO FISH & GAME COUNCIL, PO BOX 76 CNR HARROW AND HANOVER STREETS DUNEDIN

Halford, C. 2019. Council Report Project 1122 – Conduct Creel surveys on Lake Wanaka, September 2019. Unpublished Report, Otago Fish and Game Council, Dunedin.

Recommendation

That this report is received.

Paul van Klink
Fish and Game Officer
September 2019

14.0 General Business