AGENDA

AUCKLAND/WAIKATO FISH AND GAME COUNCIL

15th February 2025

AUCKLAND/WAIKATO FISH & GAME

A Meeting of Council will be held at the Waikato Deer Stalkers Hall, Wairere Drive, Hamilton on Saturday 15 February 2025 commencing at 11.00 a.m.

AGENDA

* Denotes attachments

** Denotes the need for council to make a decision.

N Juby
Chairman

05/02/2025

AUCKLAND/WAIKATO FISH & GAME

Minutes of a Meeting of Council
held at the NZ Deerstalkers Hall, Wairere Dr, Hamilton
on Saturday 16th November 2024 commencing at 11:27am.

PRESENT:

Chairman:	N. Juby.
Councillors:	E. Williamson, D. Cocks, M. Barker, G. Annan, G. Dickey, T. Clark, A. Sapich, S. Smith, O. Kent, P. Del.
Staff:	D. Klee, D. Le Lievre, A. Daniel, B, Jarvis-Child
Public:	C Sherrard

1. APOLOGIES:

A. Brown, M. Barker, E. Williamson

It was moved;

that apologies be accepted.

Annan/Cocks – CARRIED

2. POSSIBLE CONFLICTS OF INTEREST ARISING FROM MEETING AGENDA:

Nil.

3. APPOINTMENT OF CHAIRMAN:

Mr Klee assumed the Chair and called for nominations for the position of Chairman.

Councillor Annan was nominated by Councillor Smith and seconded by Councillor Clarke.

Councillor Juby was nominated by Councillor Cocks and seconded by Councillor Dickey.

A secret ballot was held, and Mr Klee declared Councillor Juby as Chairman and vacated the Chair.

4. GENERAL EXPLANATION OF VARIOUS LAWS AFFECTING COUNCILLORS /COUNCIL:

In accordance with Standing Orders Mr Klee briefed the Councillors on the relevant sections of:

- Local Authorities (Members' Interests) Act 1968 – regarding the corrupt use of official information and bribery of officials.
- Local Government Official Information and Meetings Act 1987 – regarding the access of the public to official information.
- Secret Commission Act 1910 – Councillors acting for the Council cannot take secret commissions.

5. APPOINTMENT OF THE TWO VICE CHAIRMAN:

The Chairman called for nominations for the two Vice Chairmen.

Councillor Cocks was nominated by Councillor Juby and seconded by Councillor Smith.

Councillor Annan was nominated by Councillor Cocks and seconded by Councillor Smith.

The Chairman asked if there were any further nominations, there being none Councillors Cocks and Annan were declared Vice Chairmen.

6. APPOINTMENT OF COUNCIL'S NOMINEE FOR NZF&G COUNCIL:

The Chairman called for nominations for the position of Auckland/Waikato representative on the NZF&GC.

Councillor Kent was nominated by Councillor Smith and seconded by Councillor Juby.

Councillor Williamson was nominated by Councillor Cocks and seconded by Councillor Annan.

A secret ballot was held, and Councillor Williamson was declared Auckland/Waikato's representative to the NZF&GC.

7. MINUTES OF PREVIOUS MEETINGS OF 12th October 2024:

It was moved;
That the minutes of the 12th October 2024 meeting be accepted as true and correct records with the addition of O.Kent and W.William as members of the public:
Annan/Cocks – CARRIED

8. MATTERS ARISING FROM PREVIOUS MINUTES:

Councillor Juby asked if any progress had been made looking at body cameras for Rangers. Dr Daniel said he had found some for around $250-$300 each on Ali Express. The CE suggested that two would be purchased to trial their performance.

Councillor Juby noted the kids fish out day at Lake Te Koutu in Cambridge on the 1st of December. The C.E. acknowledged Waikato Hunting and Fishing who have supplied

around $250 worth jig heads and soft baits toward the event. There was further discussion around a fish out day at Lake Waiwhakareke and Dr Daniel indicated he was still working with the zoo to see if they were willing to take pest fish caught to feed to their animals.

Councillor Annan noted that the Te Awamutu club were hosting a kids fish out day on the 24th of November and Dr Daniel indicated he would put links on the AWFG Facebook page to help publicise the event.

9. INWARDS COUNCIL CORRESPONDENCE:

Letter to Council from the Honourable Todd McClay. The council outlined the new access charter announced by the government and that the response to the minister could highlight some of the great outcomes we are achieving for access at next to no cost for licence holders.

The Chair presented a draft response letter he had drafted and circulated to Council. The Chair then took council through the letter and sought feedback.

It was moved;
That the council largely agreed to the content of the letter and with some minor suggested amendments. Councillors would be asked to give approval of the final letter via email prior to responding to the minister.

Dell/Dickey – CARRIED

The meeting rose for lunch at **12.54pm**. Dr Andrew West and Adreinne Murray joined the meeting.

The meeting reconvened at **1.21pm.**

The CE formally introduced Dr West and Adrienne Murray to the meeting. Dr West gave a presentation on governance with the assistance of Addrienne, which was well received.

The C.E. thanked Dr West and Adrienne for their contribution and informed him that a Fish and Game cook book would be delivered in due course.

Adrienne Murray and Andrew West left the meeting **2.45pm.**

10. CHIEF EXECUTIVE'S BI-MONTHLY REPORT AND FINANCIAL STATEMENTS:

Councillor Dickey raised concerns around the timeframes stipulated in the comprehensive maintenance consents for F&G wetlands and suggested that not enough thought had been put into it. The CE explained that staff had given it lots of consideration, however, to progress the consent through a non-notified process and a avoid a potentially

costly and time-consuming hearing we had to make some concessions. The consent conditions were also aligned with other similar consents. The CE outlined the need to update processes and ensure all wetlands provide a Wishlist to staff so these can be prioritised and budget for. He noted that last financial year, habitat works on council land was the major item where we overspent, although this was in part due to needing to make up for works that had to be put on hold while we sought the consent. It was also noted that F&G have multiple contractors that we use for wetland maintenance and restoration activities.

11. STANDING ORDERS

Council discussed the adoption of new standing orders that facilitated online attendance at council meetings. The CE suggested that the standing orders adopted by NZC were a good starting point but had many clauses which were NZC specific and would need to be altered to make them suitable for regional adoption. It was also noted that other councils have recently been audited which let to recommendations for standing orders and governance policy updates and these should be incorporated.
It was moved;
The CE develop an updated set of standing orders suitable for regional adoption that facilitates online meeting attendance.

Annan/Dickey – CARRIED

12. ADOPTED POLICIES AND POSITIONS REVIEW

The CE explained that these had been reviewed and reaffirmed at the October council meeting and were there primarily for new councillors information so they could review councils existing policies.
It was moved;

13. MEETING SCHEDULE

Council discussed the draft meeting schedule. The CE noted that the 15th of February clashed with banding and the Councillor Brown is also unable to attend. Alternatives were discussed but no suitable date could be found within the meeting window that suited everyone. Further discussion was had around the proposed timeframes for the mid-week may meeting.

It was moved
Council adopt the draft meeting schedule with the amendment that the meeting on the 22nd of May be scheduled to occur between 6pm and 9pm.

Smith/Annan – CARRIED

14. OSH:

The CE noted there were no accidents or near misses to report.

It was moved;
that the OSH report is accepted.

Annan/Sapich – CARRIED

15. GENERAL BUSINESS:

The Chair updated the meeting on the Whakapapa intake road access issue. It was noted that we are currently working with partner agencies such as NZDA to try and find a resolution.

The CE outlined the performance report process as a process of self-evaluation and that he would present council feedback at the next meeting.

The CE outlined the 150 years of fishing promotion which Otago F&G have invited other regions to be a part of. This falls on the 1st of December where each region will give out up to 150 free day licences.

The next meeting of Council is scheduled for 15th of February 2025 at 11am.

17 January 2025

NZC CEO Update to Regional Managers

Summary of Fish & Game National Council Meeting #171 (13 & 14 December 2024)

Tēnā koutou,

Below, you'll find a comprehensive summary of the topics and decisions from our latest NZC meeting.

Executive Overview:

It was the first meeting of the New Zealand Council following the 2024 elections, and it was lovely meet some new faces and say hi to some returning faces. Barrie Barnes was re-elected as the national council Chair and the meeting kicked off with governance expert Graeme Nakhies taking everyone through the expectations and the functions of NZC.

The Council approved the annual meeting and budget schedule accepting changes proposed by North Canterbury Fish & Game and Otago Fish & Game Councils. Key items of discussion were the Health and Safety Report, NZ Fish & Game Council Draft Performance Report, RMA fund updates and application on RM Reform Phase 3 and National Direction, research into (1) Licence holder perceptions and (2) economic assessment of New Zealand's trout fisheries, the staff development application fund, Sports Fish and Gamebird Management Plan policies and guidance, and High Pathogenicity Avian Influenza.

New Zealand Fish & Game Risk Register

The Risk Register was presented to the Council. Risks around organisational culture and cohesion, wellbeing, and resilience remain high despite the establishment and implementation of a significant body of work over the last 2 years to address these risks. Other risks on the register that remain high are New Zealand Council Staff stress and wellbeing, support for the financial management of NZC along with support to the GBHT and Fish & Game Regions, New Zealand Environmental Management Legislation reform, Conservation Law Reform, licence holder recruitment, reactivation, and retention, and biosecurity.

Two further Items had developed since the risk register paper was published at meeting 170. These were the provision of financial support for New Zealand Council - a consultant has been brought in to help assist with the financial work. Plus there have been some developments around the risk of High Pathogenicity Avian Influenza (HPA). More discussion of this issue occurred later in the meeting.

Health and Safety Report

The Health and Safety Report is intended to provide an update to NZC on Health and Safety across the organisation as well as in relation to the NZC team. An important requirement of NZC is to exercise due diligence to ensure that the entire organisation complies with health and safety obligations. This includes understanding the risks of the workplace and ensuring the organisation has the polices, processes, and resources in place to avoid, and minimise risks.

In supporting the organisations H&S requirements, the NZC CEO has established a H&S committee which is facilitated by Adrienne Murray. The committee consists of the following team and meets every 2nd Monday (11am online):

- Adrienne Murray (NZC);
- Steve McKnight (CSI);
- Davey Jones (Hawkes Bay);
- Karen Crook (Nelson);
- Danielle Lelievre (Ak/Wgtn); and
- Samantha May (NZC)

The H&S committee considers and advises on:

- Any incidences, near misses, or future potential H&S matters reported by the regions or by NZC;
- The committee provides advice on any changes to policies, processes, or ongoing training, that may be required to ensure the organisation continues to meet H&S legislative requirements and provides a safe and supportive organisational working environment;
- Reviews current national and regional policies and identify policy/ process gaps or/and amendments;
- Provides a list of policies or /and processes that they recommend are put in place and a priority list with timeframes for implementation;

It is important to remind everyone that all incidents or near misses need to be recorded and we seek that they are communicated up to New Zealand Council. Even where a near miss does not result in an injury it is important that it is recorded. NZC is working to create an environment and organisational culture of transparency and where the whole organisation can learn from a region's/ NZS experiences. A good reporting framework also allows F&G to identify trends across the country and put in place preemptive processes to ensure risk are adequately avoided/ mitigated.

The New Zealand Fish & Game Council is reviewing Health and Safety across Fish & Game and proposing policies in order to ensure Fish and Game is meeting its obligations as a good employer along with Health and Safety legislative requirements. This work is also intended to increase efficiencies across Fish & Game by avoiding duplication of effort and utilising experts.

The New Zealand Fish & Game Council approved for regional Fish & Game Council consultation and feedback, a proposed fatigue management policy. The policy was released for regional consultation 28 May 2024. At this stage only CSI and Hawkes Bay have provided feedback.

NZC sought additional amendments to the draft policy to consider Fatigue Management in relation to governance, along with highlighting significant concerns in relation to potential fatigue associated with driving for long distances.

Regions are invited to consider and provide feedback on the Fatigue Management Policy. Feedback is due by the 20th March 2025.

It is noted that for those regions which are implementing Maritime Functions, they are required to have an operative Fatigue Management Policy in place now in order to meet Maritime legislative requirements.

[draft Fatigue Management Policy attached]

Once the New Zealand Fish & Game Councils considers regional feedback, and if NZC adopts the policy, it will become binding on Fish & Game regions under section 26C(1)(a) and s26Q(1)(e)(v) of the Conservation Act 1987.

> *s26C Functions of New Zealand Fish and Game Council*
>
> *(1) The functions of the New Zealand Fish and Game Council shall be -*
>
> *(a) to develop, in consultation with Fish and Game Councils, national policies for the carrying out of its functions for sports fish and game, and the effective implementation of relevant general policies established under the Wildlife Act 1953 and this Act:*
>
> *s26Q Functions of Fish and Game Councils*
>
> *(1) The functions of each Fish and Game Council shall be to manage, maintain, and enhance the sports fish and game resource in the recreational interests of anglers and hunters, and, in particular, -*
>
> *(e) in relation to planning*
>
> *(v) to implement national policy determined by the New Zealand Fish and Game Council*

It is noted that NZC can audit regions against National Policy under s26C(1)(j) of the Conservation Act 1987.

> *26CFunctions of New Zealand Fish and Game Council*
> *(1) The functions of the New Zealand Fish and Game Council shall be—*
> *(a) to develop, in consultation with Fish and Game Councils, national policies for the carrying out of its functions for sports fish and game, and the effective implementation of relevant general policies established under the Wildlife Act 1953 and this Act:…*
> *(j) to audit the activities of Fish and Game Councils*

Page 30 of the NZC board pack included a table summarising the status of policies and procedures across all regions (updated 25/11/2024). The NZC CEO stated that the inclusion of this work was not authorised and the table was materially incorrect. It was to be struck from the board pack, and as such has been deleted from the publicly available material. This work is ongoing and will be included once it is finalised and has been confirmed by the regions.

Regional Fish & Game Councils are kindly asked to share their H&S update papers with NZC staff, so that the team can consider these reports in their update to NZC on H&S matters across the organisation. This is also to enable the timely consideration of any incidences, accidents, or near misses by the H&S committee.

RMA/Legal Fund Update & Applications:

There is a huge amount of work that we have in front of us as a result of the change of Government. The coalition are looking at wholesale reform to the RMA, plus reviews of the Biosecurity Act, Conservation Act, Arms legislation, and freshwater framework. The NZC Chair's view is that this is a very significant aspect of the work Fish & Game engages in on behalf of hunters and anglers, and that our current budget is insufficient for this work.

RMA/Legal Fund paper [attached]

An application was put to NZC from the NZC CEO seeking funding to engage in the Governments National Direction and RM Reform phase 3 work. The application for $98,000 was granted to cover the RMA phase 3 reform, replacement NPS-FM, and to support development of an agricultural consenting framework. The spend is for legal, ecological, and agricultural expertise as well as Kahu Environmental Planning. The particular experts that are proposed to be bought on have been selected because of the relationships they have both across central government a wider group of stakeholders, which will be beneficial to Fish & Game in securing positive outcomes for hunters and anglers. The application to engage on the Governments National Direction and RM Reform Phase 3 had been supported in principal by the Regional Managers/ CE's at their in person meeting on the 14 and 15 November 2024.

NZC discussed the practice notes that have been developed, and raised concerns that these may be outdated given the potential changes to the NPS-FWM. The Practice Notes are exception pieces of policy work, representing the latest scientific thinking, case law, and robust planning principals. This works forms Fish & Games policy position, and provides a suite of documents that Regional Councils, and stakeholders can access and engage with. Irrespective of changes to RMA and NPS FW, the Practice notes are a valuable resource which is helpful in framing up Fish & Games planning and more general Government submissions. The Practice Notes are a living document, which will be reviewed and updated as required.

Wai Good Policy

NZC also discussed reforms that might lead to charging for the use of public conservation land. The understanding of the NZC CEO is that the Government is looking to charge international tourists for access but would only seek to charge New Zealanders for the use of facilities. Hunters and Anglers have strongly opposed charging New Zealanders for access.

Licence Holder Survey 2024:

The Council was excited to hear about the results of a recent survey conducted by Dr Humphrey Walker on the priorities, value, and performance of Fish & Game New Zealand as perceived by licence holders.

This survey will assist NZC track progress year on year in our Statement of Service Performance priorities, and builds on the survey by Primary Purpose in 2023. The survey should not be used in an of itself, to inform budget and operational work plans. It should be considered alongside other information we have, including work on R[3,] and other research and insights.

The survey highlighted that the top priorities for licence holders are access (working to ensure access to waterways), ecological monitoring (monitoring the ecology of rivers, lakes and wetlands), fish population monitoring (monitoring fish populations and spawning sites) and advocacy (participating in legal process for healthy freshwater habitats). Interesting findings were that younger licence holders (under 45) and female respondents prioritised environmental concerns more, while older (65+) male respondents prioritised access.

Overall 60.6% of respondents rate Fish & Game's performance as good, while only 7.1% rated it poorly.

NZIER Economic Contribution of Freshwater Angling Report:

The other piece of research which generated quite a buzz at New Zealand Council was a report into the economic contribution of recreational angling and an assessment of the wellbeing impacts conducted by NZIER.

The report estimates that domestic and international Fish & Game licence holders spend a total of $113 - $139 million per year across their angling trips. This results in a total (direct and indirect) output of between $96-118 million, $66 - $81 million of value added (GDP) and supports between 952 – 1,168 jobs around the country.

The report also found evidence that freshwater angling enhances physical and mental health outcomes and is part of a group of physical recreational activities in which anglers participate such as hiking, kayaking and swimming.

The Council considers this to be an excellent piece of work with powerful conclusions. And they asked how we can maximise the outreach on this piece of work. Part of the contract with NZIER includes an outreach component and we believe that this report merits its own launch and advocacy.

Budget and Meeting Schedule

The budget and meeting schedule was approved with amendments supporting the feedback from both the North Canterbury and Otago Fish & Game Councils.

[updated meeting and budget schedule uploaded to Managers Sharepoint folder]

Staff Development Fund

Two applications for the staff development fund were received, one for Jayde Cooper to attend a two-day hands-on course on otolith preparation and techniques and a second for Adam Daniel to study aquatic invasive species prevention in the USA.

The cost for the two development opportunities was in excess of the $10,000 budget that has been allocated for staff development. NZC passed two resolutions in relation to this matter:

1. The CEO has the delegated authority to award staff development grants, with regard to the views of regional managers, and so long as the cost is within the budget envelope;
2. In this instance, the two projects were to be funded with the outstanding funds coming from the research budget.

Congratulations to Jayde Cooper and Dr Adam Daniels.

Sports Fish and Gamebird Management Plan Policies and Guidance

The Fish & Game team has done a considerable amount of work preparing a range of documents to support the development of regional Fish & Game Sportfish and Gamebird management plans. The documents have been socialised with regional staff and governance on a number of occasions. The paper to NZ Council was to confirm the adoption of three policies and the Mana Whenua engagement guideline.

A discussion was held on the merits of having these documents as policies rather than guidelines. The NZC CEO explained that the Ministerial review recommended that NZ Council write guidance on this matter, but that the Minister for Hunting and Fishing was clear that his expectations was that the material be adopted as NZC policy, especially given that NZC would be required to advise the Minister on any subsequent Regional Sportsfish and Gamebird Management Plans.

A few further errors were identified in the documents during the debate. NZC adopted the SFGMP consultation policy, key elements and guide as amended by NZC as policies and the Mana Whenua Engagement as guidance.

[documents uploaded to Managers Sharepoint folder]

Ranger & Maritime Compliance Reports:

There are still two significant unresolved issues stemming from the lack of consistent policy across the organisation. In particular, NZC is lacking a consistent trip reporting procedure and their remains gaps in the health and safety suite of policies and national processes. There are at least five separate staff intentions policies in place currently just within the regions participating in the NZC maritime program. To be prepared for the next audit and to monitor compliance with the 2023 Maritime NZ audit NZC needs to develop a policy database to track the polices regions have or have not adopted or make that policy mandatory. In addition, it may be prudent to develop a fast-track method for creating new policy in conjunction with regions to better respond to future needs.

Following this discussion, NZC is going to write back to regional offices asking them to go back and review their health and safety policies and look at their enforcement systems. A H&S Committee has been established to provide greater co ordination across Fish & Game and to collate and disseminate the learnings from regions across Fish & Game. The discussed further above under the Health and Safety topic. NZC staff will present an overarching H&S policy to NZC at its Feb meeting.

License Working Party and Sales Update

Despite Fish Licence 2023-24 sales reporting to be 1.8% behind 2022-23 complete season results, 99.2% of the annual sales target was met. The variance nationally was $83,145 ex GST.

Communications Update:

NZC received an update on communications and public awareness work. Advocacy, social licence and brand are key focus areas and the NZC communications Report Dec 2024, has been developed to highlight progress and achievements in these areas. NZC work in communications and advocacy and the organisations ReWild campaign has been designed to support the organisations R^3 programmes as well as enhancing the organisations social licence. The Re Wild campaign has been successful in achieving reach and positive brand perception since its launch in November 2023 and 2024, with 6 million impressions across all channels. Ages between 35 and 54 are the most engaged, though reach is across demographics (age, gender, ethnicity). Feedback and analytics of content performance on a range of channels and campaigns is monitored and reported.

High Pathogenicity Avian Influenza (HPAI)

The NZC CEO presented a late paper to the New Zealand Council on HPAI. This is a fast-moving situation so the NZC CEO was keen to get the latest information in front of Councilors, and Regions.

HPAI is a highly contagious viral disease that affects both domestic and wild birds. This virus has been circulating globally for many years as several strains. The highly pathogenic H5N1 strain, which can be transmitted to humans and other animals, emerged in 2021 in the northern hemisphere and began to spread globally. New Zealand has not yet recorded a case of the H5N1 strain, but it is expected that it will eventually spread here naturally through migrating birds. Against this backdrop, a recent H7N6 outbreak (also a high pathogenic variety but H7 strains do not have the same capacity to jump species) in an egg farm in Otago was discovered. This outbreak has given MPI, DOC and ourselves an opportunity to test our systems for responding to an HPAI outbreak.

The New Zealand Council discussed various policy approaches in relation to the current H7N6 strain. The most important message at this stage in the response is to stay vigilant for sick or dead birds. If you see three or more sick or dead birds, you are to report them to the Biosecurity Hotline on 0800 80 99 66. Other policies include the cessation of bird banding in Canterbury and Otago (which we understand do not have active banding programs scheduled anyway), although it is okay to continue with bird banding operations in the rest of the country so long as appropriate PPE gear is worn.

Permits for culling wild birds are not to be issued in response to concerns around HPAI. MPI advises that disturbing or culling wild birds is not an effective approach in relation to HPAI as it risks spreading the virus further.

Finally, if H5N1 is discovered in New Zealand and the country moves to Phase 3 on the risk framework, Fish & Game may need to consider ceasing routine operations involving the handling of wild birds until advised further. Note that in Phase 3 where contact with wild birds is necessary and undertaken in conjunction with MPI, PPE level 3 protocols must be adhered to by all Fish & Game staff and volunteers.

NZC supported the following recommendations and requested that regional councils also uphold these positions:

(i) That Personal Protective Equipment (PPE) level 1 protocols are adhered to for any activities where birds are being handled;

(ii) That any bird banding operations in Otago and CSI are to cease (as requested by MPI) until further notice, but banding operations outside of Otago and CSI may continue, if PPE level 1 protocols are implemented.

(iii) That if H5N1 is discovered in New Zealand and the country moves to Phase 3 on the risk framework, Fish & Game will stop routine operations involving the handling of wild birds until advised further. Note that in Phase 3 where contact with wild birds is necessary and undertaken in conjunction with MPI, DOC or Te Whatu Ora, PPE level 3 protocols must be adhered to by all Fish & Game staff and volunteers. (iv) That permits for disturbing or culling wild birds are not to be issued as a mechanism to address concerns around HPAI transmission from wild birds to farmed birds or more generally as a response to HPAI concerns.

NZC adopted the HPAI Communications Plan.

[NZC HPAI paper, including recommendations, PPE levels and requirements, and NZC adopted communications plan attached].

Note that the HPAI situation in New Zealand has the potential to change quickly, which may require agility in relation to the NZC recommendations.

POLICIES

Please note that once the New Zealand Fish & Game Councils consults with the regions and gives proper and due regard to their feedback, that if NZC adopts the policy it will become binding on Fish & Game regions under section 26C(1)(a) and s26Q(1)(e)(v) of the Conservation Act 1987. It is also noted that NZC can audit regions against National Policy under s26C(1)(j) of the Conservation Act 1987.

This section has been included as it has come to the notice of the Council that there may be some confusion as to the legislative status of NZC policy and its implications on regions

Approved Policies:

Sportsfish and Gamebird Management Plan policies and guidance

HPAI recommendations

NZC supported the following recommendations and requested that regional councils also uphold these positions:

(i) That Personal Protective Equipment (PPE) level 1 protocols are adhered to for any activities where birds are being handled [HPAI NZC paper]

(ii) That any bird banding operations in Otago and CSI are to cease (as requested by MPI) until further notice, but banding operations outside of Otago and CSI may continue, if PPE level 1 protocols are implemented.

(iii) That if H5N1 is discovered in New Zealand and the country moves to Phase 3 on the risk framework, Fish & Game will stop routine operations involving the handling of wild birds until advised further. Note that in Phase 3 where contact with wild birds is necessary and undertaken in conjunction with MPI, DOC or Te Whatu Ora, PPE level 3 protocols must be adhered to by all Fish & Game staff and volunteers. (iv) That permits for disturbing or culling wild birds are not to be issued as a mechanism to address concerns around HPAI transmission from wild birds to farmed birds or more generally as a response to HPAI concerns.

(iv) Adopt the Fish & Game New Zealand HPAI Communications Plan [HPAI NZC Paper]

(v) Note that the HPAI situation in New Zealand has the potential to change quickly, which may require agility in relation to the NZC recommendations.

Draft Policies for Regional Consultation:

Fatigue Management Policy

Deadline for Feedback is 20 March 2025

Conclusion

I hope you enjoyed this summary of the NZ Council meeting. I look forward to working with this Council for the term and together with the wider organisation, shaping the future of Fish & Game, and ensuring that fishing and hunting remain part of the fabric of New Zealand and our culture.

As usual, I welcome any questions or clarifications regarding the matters in the letter or any other matters of relevance.

HPAI Update and Recommendations

New Zealand Fish and Game Council Meeting 171 - 13 & 14 December 2024

Prepared by: Ros Connelly and Maggie Tait

Kōrero taunaki - Summary of considerations

Purpose

1. To outline the general context and risks associated with the high pathogenicity avian influenza virus, provide a situation report on the H7N6 avian influenza detection at an egg farm in rural Otago and recommend immediate actions and policy decisions in relation to HPAI.

Financial considerations

☒ Nil ☐ Budgetary provision ☐ Unbudgeted

Risk

☐ Low ☒ Medium ☐ High ☐ Extreme

Ngā taunaki - Staff Recommendations

That NZC:

2. Receive the information,

3. Adopt the following recommendations and request that regional councils also uphold these positions:

   (i) That Personal Protective Equipment (PPE) level 1 protocols are adhered to for any activities where birds are being handled (see Appendix 2)

   (ii) That any bird banding operations in Otago and CSI are to cease (as requested by MPI) until further notice, but banding operations outside of Otago and CSI may continue, if PPE level 1 protocols are implemented.

   (iii) That if H5N1 is discovered in New Zealand and the country moves to Phase 3 on the risk framework, Fish & Game will stop routine operations involving the handling of wild birds until advised further. Note that in Phase 3 where contact with wild birds is necessary and undertaken in conjunction with MPI,

DOC or Te Whatu Ora, PPE level 3 protocols must be adhered to by all Fish & Game staff and volunteers.

(iv) That permits for disturbing or culling wild birds are not to be issued as a mechanism to address concerns around HPAI transmission from wild birds to farmed birds or more generally as a response to HPAI concerns.

4. Adopt the Fish & Game New Zealand HPAI Communications Plan as set out in Appendix 3.

5. Note that the HPAI situation in New Zealand has the potential to change quickly, which may require agility in relation to the NZC recommendations.

Executive Summary - Whakarāpopoto

6. High pathogenicity avian influenza (HPAI) or bird flu, is a viral disease of birds and is spreading globally, causing widespread losses of poultry and wild birds, and spillover infections in mammals. The H5N1 2.3.4.4b strain, which is particularly devastating, has spread throughout the world but has not yet been discovered in Oceania. MPI is the lead agency for bird flu response in New Zealand.

7. On 2 December 2024, MPI confirmed detection of H7N6, a subtype of avian influenza HPAI (High Pathogenic Avian Influenza) at a rural Otago commercial egg farm, representing the first detection of HPAI in New Zealand poultry.

8. Key points and Recommendations
    - This is not the H5N1 strain that is causing global concern,
    - The H7N6 strain appears to have mutated from low pathogenic strains already present in NZ,
    - MPI has implemented biosecurity controls at the affected Otago farm,
    - There are no reports of illness in wild birds to date, but people need to be vigilant for signs of sickness or mortality and ***report three or more sick or dead birds to Biosecurity NZ Hotline*** **0800 80 99 66** ***and NZC,***
    - Fish & Game are encouraging heightened biosecurity protocols for all staff, hunters and members of the community who are dealing with wild birds,
    - Food safety is not a concern regarding the consumption of wild game birds, provided usual food safety protocols are followed,
    - NZC are advising regions to follow PPE level 1 protocols for any activities where birds are being handled. In the event of an H5N1 outbreak, the organisation will move to PPE level 3 and routine operations where wild birds are handled are to cease pending further information,
    - MPI has advised that any planned banding operations for Otago and CSI should cease until further notice due to the outbreak of H7N6. Banding operations outside of Otago and CSI may continue, if PPE level 1 protocols can be implemented. Ongoing testing of birds for virus monitoring is recommended,
    - MPI and DOC have advised that Fish and Game should not issue permits for culling wild birds as a mechanism to address concerns around HPAI transmission from wild birds to farmed birds,
    - MPI and DOC may request Fish & Game support for testing of wild birds for LPAI or HPAI,
    - In relation to Fish & Game's botulism response, the advice from MPI is that regions can continue responding to botulism outbreaks until Phase 3, provided Phase 1 PPE is used. If this advice changes prior to Phase 3, we will let you know,
    - The NZC CEO is the primary point of contact for MPI and DOC over the Christmas New Year period. She will alert Regional Managers, the Chair of the NZC and Regional Chairs if an HPAI outbreak occurs over this period,
    - The NZC team is continuing to monitor worldwide responses and the latest scientific thinking in the design of our recommendations. The

situation is dynamic and as such recommendations and advice will continue to evolve.

9. Immediate actions being taken:
    - A Fish & Game cross-organisational regional team was established to work together to draft an HPAI action plan,
    - The NZC CEO has established regular meetings with senior leaders across MPI and DOC to ensure timely flow of information and a professional and coordinated response across the organisations to HPAI,
    - MPI and DOC have been reviewing the Fish & Game Draft HPAI Action Plan,
    - NZC staff have a direct relationship with MPI comms team and are working collaboratively to work up the communications and engagement strategy and key messages. This includes targeted comms resulting from the H7N6 outbreak at the Otago poultry farm (Appendix 1),
    - Regional Managers have been kept updated and consulted through Regional Managers meetings, in-person managers meeting on 14 – 15 November date and regular communications,
    - NZ Council was updated at their August meeting,
    - Regional staff have been kept updated through the staff newsletter and an all of staff webinar was held on 10 December, this will be followed by a Councillor's webinar on Thursday 19 December.

Background - Takenga mai

10. Avian influenza virus strains are described as **low pathogenicity (LPAI) –** causing no or minimal illness or **high pathogenicity (HPAI)** – causing severe illness. Influenza viruses are further divided into subtypes based on two proteins on the surface of the virus: the H protein and the N protein. There are 18 different H subtypes and 11 different N subtypes (H1 through H18 and N1 through N11, respectively).

11. Genetic analysis of low pathogenicity H5 and H7 viruses suggests that these viruses have circulated for decades amongst birds within New Zealand, with no evidence of recent introductions.

12. Influenza viruses evolve rapidly, which means that their genetic code changes over time. This means that a reasonably benign influenza type can mutate into a more concerning type very quickly. In avian species, infections with the H5 and H7 subtypes are of greatest concern because of their potential to evolve into the highly pathogenic form of the virus that can devastate poultry populations and occasionally be transmitted to humans. Why the H5 and H7 subtypes are more prone to evolve into highly pathogenic forms than other subtypes remains poorly understood.

13. In 2020, a new H5N1 strain of high pathogenicity avian influenza – known as H5N1 2.3.4.4b – emerged in the northern hemisphere. It established and has subsequently spread to the United Kingdom, Europe, the United States, and other regions. It has caused large outbreaks in commercially farmed poultry, with devastating consequences.

14. In 2023, it was detected in the southern hemisphere. Since then, it has spread through South America to the sub-Antarctic islands and the Antarctic peninsula. It is important to note that to date Oceania remains free of the currently circulating strain of Highly Pathogenic Avian Influenza (HPAI H5N1 2.3.4.4b).

15. The typical evolutionary pattern for the avian flu virus is that wild birds are host to the low pathogenicity form of the virus where it is likely to be asymptomatic. Wild birds then come in contact with farmed birds and transmit the virus to them. In the farming environment, the virus mutates into the high pathogenic variety. The high pathogenic variety is then passed back to the wild bird population and then to humans or other mammals – including cows. There are cases where humans have caught the H5N1 2.3.4.4b virus from non-bird species and in rare cases humans have passed it to other humans.

16. At the beginning of December 2024, a highly pathogenic strain of avian influenza was detected on a commercial rural Otago egg farm. Tests from the Mainland Poultry managed farm have identified a high pathogenic H7N6 subtype of avian influenza. The H7N6 virus is troubling as it has the potential to cause widespread loss to the poultry industry, however this is a different strain to the H5N1 2.3.4.4b strain that is causing international alarm.

17. It is believed that the current H7N6 outbreak in Otago is an example of highly pathogenic avian influenza (HPAI) viruses evolving directly from low-pathogenic (LPAI) virus precursors following introduction into domestic poultry, known as a “spillover event”.

18. In birds, avian influenza viruses are shed in the faeces and respiratory secretions. They can also be spread through direct contact with secretions from infected birds, especially through faeces or through contaminated feed and water. Because of the resistant nature of avian influenza viruses, including their ability to survive for long periods when temperatures are low, they can also be carried on farm equipment and spread easily from farm to farm.

19. MPI has established an HPAI risk framework with different phases to help guide the H5N1 response. Each level has different recommendations for PPE (attached as Appendix 2).

- **Phase one**: now, focus on being prepared – alert but not alarmed. Working with poultry industry and wider primary industries sector;
- **Phase two:** HPAI is closer to NZ (Ross Sea area of Antarctica/Australia) – broader awareness raising;
- **Phase three:** HPAI is here – response-type approach to communication;
- **Phase four:** HPAI is established in the wild bird population.

Discussion – Kōrerorero

Concerns for Fish & Game

20. The concerns for Fish & Game are primarily focused on (i) the health of our wild bird populations (and any staff, hunters or members of the community coming into contact with wild birds), (ii) the social licence to ensure sustainable populations of waterfowl and game birds continue to be treated as treasured and respected taonga and (iii) the financial and organisational consequences for Fish & Game should cancellation of a hunting season become necessary.

Health Aspects

21. The globally circulating strain of avian influenza H5N1 2.3.4.4b can cause mass mortalities in many species of wild birds as well as other non-avian wildlife species and may represent a population level threat to some wildlife hosts, impacting biodiversity. Other strains of HPAI are less likely to cause disease in wild birds and mammals. Low pathogenicity strains are unlikely to cause disease in wild birds or other wildlife species but need to be monitored due to the potential of H5 and H7 subtypes to mutate into HPAI forms when introduced to poultry.

22. The most obvious sign of HPAI is several sick or dead birds. Sick birds may appear dopey; display lethargy/reluctance to move, droopy head, panting and nasal secretions, lack of co-ordination, blindness and trembling. The symptoms are similar to botulism, a bacterial disease present in New Zealand.

23. The key message at this stage of the avian flu response is to report sick or dying birds to Biosecurity New Zealand's Exotic Pest and Disease hotline 0800 80 99 66. The specific instructions are to:
    - If a significant number of birds (three or more) are observed in a group sick or dying, report it to the hotline 0800 80 99 66,
    - Record a GPS reading or other precise location information,
    - Take photographs and/or videos of sick and dead birds,
    - Identify the species and estimate the numbers affected,
    - Note how many sick or freshly dead are present as well as total number present,
    - Follow Biosecurity New Zealand instructions for handling of sick or dead birds,
    - Also inform NZC of the finding as soon as practicable and enter into a national Fish & Game database.

24. Although the H5N1 2.3.4.4b virus is not yet present in New Zealand, there are sensible precautions that staff and hunters must take:
    - Maintain a heightened awareness of disease risk when working with wildlife,
    - Always maintain good biosecurity and hygiene practices to prevent disease spread and protect yourself,
    - Scrub and disinfect all your equipment, boots & clothing between sites,
    - Clean your hands and equipment between handling each bird e.g. alcohol wipe,
    - Employ good personal hygiene, this includes not hunting when you are sick or are immunocompromised,

- Regional Fish & Game staff are requested to follow MPI PPE Level 1 protocols for any activity where birds are being handled. However, the alert levels and PPE requirements will change depending on the virus risk so Fish & Game staff and hunters will need to be agile in our response,
- See Appendix 3 for the Fish & Game HPAI Engagement and Communications Strategy.

25. It is recommended that dogs not be allowed to retrieve or come in contact with birds that appear sick or have been found dead. Hunters should also not feed their dogs raw meat from harvested birds nor allow them to come in contact with discarded carcasses or entrails. All dogs should be up to date with their vaccinations and do not bring them hunting if they are sick or injured.

26. Banding operations that concentrate birds or expose birds to common capture or holding equipment have the potential to increase the transmission of HPAI among wild birds.

27. Because of the heightened global risk of HPAI, Fish & Game staff in Otago and CSI have been requested to cease all banding operations for population monitoring. Banding operations outside of Otago and CSI may continue, if PPE level 1 protocols can be implemented. Ongoing testing of birds for virus monitoring is recommended.

28. There is no evidence that people can be infected with HPAI by eating thoroughly cooked poultry (including duck), eggs, or foods that contain them. The internal temperature of a cooked bird should reach at least 73°C for 2-3 minutes. Eggs should be cooked until the white is completely firm and the yolk begins to thicken. Usual food safety protocols including keeping raw meat separate from other foods, ensuring equipment and surfaces are clean and correctly chilling, freezing and defrosting of food is to be followed.

29. It is not improbable that the first sign of H5N1 2.3.4.4b in New Zealand will be discovered amongst wild birds by members of the public. It is therefore critical that everyone working with birds is alert to the signs of HPAI and protocols for reporting.

Botulism

30. In relation to Fish & Game's botulism response, the advice from MPI is that, while we are in HPAI risk level Phase 1, we can continue our standard operations regarding collection of birds, so long as Phase 1 PPE is used. If this advice changes prior to Phase 3, we will let you know.

31. If the country moves to alert level 3, all routine Fish & Game activities where wild birds are handled, including botulism response operations, are to cease until advised.

32. The current recommended Botulism protocol is :
    - Inform Regional Council or District Council (as appropriate);
    - Inform MPI (hotline for bird deaths 0800 80 99 66);
    - MPI to inform on whether or not birds should be tested for HPAI
    - Record event, location, number of bird deaths, and response;

- Update F&G national database so we can keep a record of outbreaks and changes over time;
- Use PPE gear if handling birds (gloves, eye protection, closed footwear and either change and disinfect at the end of fieldwork or between sites – Alert Level 1);

Social Licence Aspects

33. *Anseriformes* (ducks, swans, geese) and *Charadriiformes* (gulls, terns and shorebirds) are considered the main natural reservoirs for all avian influenza viruses. However, it is also worth noting that the influenza virus has been confirmed in other wild bird species including rails, petrels, cormorants, penguins, hawks, eagles, owls, sparrows, magpies and blackbirds. Internationally, over 5000 species of birds have been identified as LPAI carriers. Studies on species other than *Anseriformes* and *Charadriiformes* are limited.

34. Because of the connection between *Anseriformes* and avian influenza, and because the monitoring of avian influenza has predominantly occurred in ducks (so there is better data in relation to the prevalence of the virus in ducks than other avian species) there is a tendency for some to point the finger at ducks as the cause of the HPAI situation.

35. This is an unhelpful response and not based in the scientific learnings. Furthermore, any attempts to cull large numbers of birds could be counterproductive and likely illegal.

36. MPI has advised farmers and hunters against actively culling or dispersing wild birds because it can increase the spread of HPAI. Disturbing groups of wild birds might cause them to scatter and spread the disease further. Other birds will quickly move into the vacated space and may bring the virus with them. Because of this advice Fish & Game are requesting that offices do not issue any permits to disturb or cull game birds around poultry operations as a mechanism to reduce HPAI risk to farmed birds or as a more general response to HPAI, unless advised by MPI.

37. Any reports of disturbing or culling birds without a permit should be investigated following the usual processes.

Organisational Impacts for Fish & Game

38. Should the avian influenza risk in New Zealand worsen, it is possible that one or more game bird hunting seasons may have to be cancelled. This would cause a significant financial loss for Fish & Game and it could have long running consequences for game bird hunting in New Zealand.

39. The issue around the financial risk for Fish & Game has already been raised in conversation with Government and New Zealand Fish & Game will develop a strategy on how to maintain hunting capital in New Zealand should we experience the loss of a season.

Actions Taken So Far

40. Because of the global threat of the H5N1 virus, Fish & Game have already been working with MPI and DOC at the highest levels to develop a joined-up approach to wild bird populations should the disease arrive. The current outbreak of H7N6 has allowed us to test this approach and identify areas for improvements. We are also working with external experts to provide independent advice and help Fish & Game develop our policy direction.

41. The key recommendations we are proposing are on 1) safe handling of wild birds and the usage of PPE, 2) the current position on the banding of birds, 3) issuance of permits to disturb or cull wild birds as a response to HPAI, and 4) the cessation of routine Fish & Game operations where wild birds are being handled if we move to Phase 3, until advised differently. The current paper proposes recommendations based on the evidence to date. Our advice may chance as more information comes to light or the risk of the virus changes.

42. New Zealand Fish & Game has also sought to inform regional offices and councillors on this emerging situation. As well as regular email updates we propose to hold webinars with technical experts over the next few weeks. We have already held a webinar for staff and a webinar for regional councillors will be held next week. This will be an opportunity for you to ask questions and discuss other operational policies you consider would be of value.

Considerations for decision-making - Whai whakaaro ki ngā whakataunga

Financial Implications

43. Current response actions can be accommodated within existing budgets.

Legislative Implications

44. Operating within existing MPI framework. No additional requirements currently.

Section 4 Treaty Responsibilities

45. Maintain communication with iwi partners regarding potential impacts

46. Consider implications for customary harvest

Policy Implications

47. Review of handling procedures for wild birds

48. Update to staff safety protocols

49. Update permits to disturb or cull policies

Risks and mitigations

50. H5N1 2.3.4.4b incursion in New Zealand resulting in large-scale bird deaths
    Mitigation: Vigilance in reporting sick or dead birds and heightened biosecurity practices to limit disease spread

51. Staff and hunter safety when handling birds. Mitigation: Enhanced PPE and protocols for staff. Communication to hunters on appropriate safety measures;

52. Impact on monitoring programs. Mitigation: Alternative surveillance methods/estimates

53. Bird culling or bird disturbance from uninformed members of the public Mitigation: Clear messaging and alignment between messaging from Fish & Game, MPI and DOC

54. Closure of one or more hunting seasons with resultant financial and hunting capital loss Mitigation: discussions with Government on how to limit loss, development of strategy to guide actions

Consultation

55. Ongoing communication with MPI

56. Regional council engagement

57. Staff briefings scheduled

Next actions - Ngā mahinga e whai ake nei

58. Implement staff and councillor briefing program (Priority: High, Timeframe: This week)

59. Establish enhanced monitoring protocols (Priority: Medium, Timeframe: Two weeks)

60. Review and update response measures as situation develops (Priority: Ongoing)

APPENDIX 1 – Fact Sheet on HPAI in Wild Birds

Understanding avian influenza in wild birds – fact sheet

Understanding avian influenza in wild birds

Biosecurity New Zealand
Ministry for Primary Industries
Manatū Ahu Matua

Low pathogenic avian influenza has been present in wild bird populations in New Zealand for over 20 years and many species of wild birds may have strains of the virus.

Internationally, over 5,000 species of wild birds have low pathogenic avian influenza (LPAI).

LPAI causes few or no signs of illness in wild birds but when it infects chickens, it can mutate into highly pathogenic avian influenza (HPAI) which causes severe illness and deaths.

It's believed this is what caused the current case of HPAI (strain H7N6) at an Otago free-range egg farm. The hens, foraging outside their shed, are likely to have encountered wild birds with LPAI which has mutated into HPAI.

It appears that the Otago event is a rare one-off situation and there is no evidence to suggest that the risk of spread of LPAI from wild birds to poultry has changed.

Should wild birds be culled to protect commercial poultry?

MPI and the Department of Conservation advise against culling wild birds in relation to avian influenza because it will not prevent transmission and may worsen outbreaks.

Culling would potentially increase bird movements and cause stress to any native or threatened birds in the habitat. More birds would move into vacated habitats and on-farm risk will not be reduced.

LPAI in New Zealand

Biosecurity New Zealand has been carrying out avian influenza surveillance in wild birds for more than 20 years. The H7N6 strain detected at the Otago farm is known to be closely related to LPAI strains present in wild birds in New Zealand. The LPAI in wild birds does not appear to be causing deaths or severe illness in the birds carrying it.

Spillover to poultry

When LPAI is introduced to chickens, it can mutate into a high pathogenicity strain (HPAI). This is something that happens over time, not immediately.

The mutation to HPAI happens by chance after the chicken is exposed to the low pathogenicity form of the virus. It does not happen with every exposure to the virus.

There is no evidence that the strain at the Otago egg farm, H7N6, can spread from chickens back into wild birds.

The recent detection of bird flu in poultry in Otago is the first case of HPAI in New Zealand. It is not the H5N1 strain causing global concern.

Are wild birds a risk to poultry farms?

There is no evidence to suggest there has been any recent change in the circulating LPAI viruses in wild birds in New Zealand or that the risk of spread of LPAI from wild birds to poultry has changed.

However, changes in animal husbandry with more free-range birds does create the potential for increasing exposure of poultry to LPAI viruses carried by wild birds.

Good on-farm biosecurity and minimising the contact between wild birds and poultry is the recommended approach to protecting poultry from bird flu.

Department of Conservation
Te Papa Atawhai

Fish & Game NEW ZEALAND

Te Kāwanatanga o Aotearoa
New Zealand Government

December 2024

APPENDIX 2 – Use of Personal Protective Equipment during HPAI

Activity level 1 - Contact with apparently healthy birds (no disease/mortality) and associated fomites
•**Activity level 2** - Contact with birds/ sick/dead possibly due to HPAI and associated fomites.
•**Activity level 3** - Contact with birds/mammals sick/dead and associated fomites in places known to have HPAI

PPE Level 1	*Previous level, plus:* BAU biosecurity. Gloves (nitrile or latex) and eye protection should be worn. Footwear (closed and waterproof) and clothes should be changed and, at the end of fieldwork, cleaned and disinfected (eg using SteriGene) before re-using.
PPE Level 2	*Previous level, plus:* Enhanced levels of biosecurity, facial mask (PFF2, N95 or KN95), protective eyewear, and protective clothing (preferably Tyvek/plastic overalls or waders).
PPE Level 3	*Previous level, plus:* Two layers of gloves (nitrile or latex) and full-body waterproof clothing (disposable Tyvek overall). Hair should be covered by the overall's hood. There should be no gap between gloves and sleeves (use tape if necessary). Fitted face mask

APPENDIX 3 - **Fish & Game New Zealand HPAI communications plan**

Context

New Zealand has confirmed its first case of highly pathogenic avian influenza (HPAI) with the detection of H7N6 at an Otago commercial egg farm in December 2024. While this is not the H5N1 strain causing global concern, it represents a significant shift in New Zealand's avian influenza status and requires immediate communication response.

It still demands careful handling to inform and prepare stakeholders without inciting unnecessary alarm.

Fish & Game has a duty to provide clear, factual guidance on safety protocols and reporting processes.

Additionally, there is ongoing risk of H5N1 HPAI arriving in New Zealand through wild birds. Fish & Game needs to communicate effectively with staff, licence holders, and stakeholders about both the current H7N6 situation and preparedness for potential H5N1 incursion.

Fish & Game should be reinforcing the need for vigilance and readiness. Communication must balance transparency and responsibility, ensuring obligations are met while maintaining public confidence and avoiding hysteria.

Fish & Game has already been sharing our constructive messages around avian influenza in our stakeholder newsletter and shared MPI's campaign on social media, and we will continue with the heartbeat continual messaging.

See an example here in our recent November newsletter and here from May. It was also highlighted in our July, August and November staff newsletters.

It is important that Fish & Game are part of a whole of New Zealand response to this issue. It is potentially significant for people's health and the economy. Our reputational risk of breaking ranks is serious, but also likely unhelpful. Simple clear messages are what's needed and complexity won't be understood.

Fish & Game manages game bird hunting across New Zealand and has direct communication channels with approximately 40,000 licence holders who need clear guidance on safety protocols and reporting procedures.

Communications objectives

- **Inform and reassure** licence holders about the current H7N6 situation and its implications for hunting
- **Educate** hunters about biosecurity protocols and safety measures when handling game birds
- **Establish reporting protocols** to ensure hunters know how to report unusual bird deaths
- **Build preparedness** for potential future HPAI incursions including H5N1

- **Maintain confidence** in game bird hunting while ensuring safety measures are understood and followed

Strategic approach

Communications will take a three-phase approach:

1. **Immediate Response** (December 2024)
   - Address current H7N6 situation
   - Provide clear guidance for staff
   - Establish reporting protocols
   - Have message control – avoid causing panic

2. **Enhanced Preparedness** (January-March 2025)
   - Continue to build awareness of HPAI risks and symptoms
   - Educate about biosecurity measures
   - Coordinate with MPI and other agencies
   - prepare communications for H5N1 strain incursion

3. **Seasonal Readiness** (April-May 2025)
   - Pre-season hunter education
   - Distribution of safety guidelines
   - Integration with game bird season communications

4. Distribution channels
- Direct email to licence holders
- Fish & Game website
- Social media
- Both Barrels newsletter
- Reel Life magazine
- Hunting & fishing retailers
- Club networks
- Staff newsletter and emails from CE

5. Key messages

Current Situation (H7N6)
- First detection of HPAI in NZ but not the H5N1 strain of global concern
- There is no current evidence of spread to wild birds
- Normal hunting activities can continue with appropriate precautions
- Fish & Game is working closely with Biosecurity NZ on surveillance

Safety Protocols
- Don't harvest or handle birds that appear sick or are found dead
- Use appropriate PPE when handling game birds
- Practice good hygiene including hand washing
- Clean and disinfect equipment between hunting sites

Reporting Requirements

- Report 3+ sick or dead birds in a group to 0800 80 99 66
- Do not handle or move dead birds
- Note location and species if possible

Food Safety

- Game birds remain safe to eat when properly handled and cooked
- Internal temperature should reach at least 73°C for 2-3 minutes
- Keep raw meat separate from other foods
- Use clean equipment and surfaces

Bird Culling

- Hunters and farmers are advised to not actively cull or disperse wild birds, because this can increase the spread of HPAI.
- A low pathogenic strain of avian influenza exists in wild bird populations in New Zealand and has done for over 20 years. Many species of wild birds may have strains of the virus.
- Many species of wild birds may have low pathogenic strains of the virus and there is no evidence to suggest that the risk of spread of LPAI from wild birds to poultry has changed.
- Culling wild birds because they may have avian influenza is not justified and we strongly advise against it.
- Culling of wild birds can only be done with a permit. It's important that any decision to cull wild birds is based on robust science and evidence.
- Culling wild birds is likely to increase bird movements, as well as causing stress to any native or threatened birds in the area (which could also be present in wetland areas). More birds will move into vacated wetlands and on-farm risk will not be reduced.
- Good on-farm biosecurity and minimising the contact between wild birds and poultry is the recommended approach to protecting poultry from bird flu.

LPAI in New Zealand (MPI messages)

- Biosecurity New Zealand has been carrying out surveillance in wild birds for more than 20 years. The H7N6 strain detected in Otago is known to be closely related to LPAI strains present in wild birds in New Zealand. There are no reports or evidence of disease in wild birds from the low pathogenic strain of H7N6.

Spillover to poultry

- When low pathogenicity avian influenza (LPAI) is introduced to chickens, it can mutate into a high pathogenicity strain (HPAI). This is something that happens over time, not immediately.
- The strain detected in Otago is not the H5N1 strain causing global concern. There is no evidence this strain of high pathogenicity avian influenza, H7N6, can spread from chickens back into wild birds.

- The recent detection of bird flu in poultry in Otago is the first case of HPAI in New Zealand. We believe it may have happened after free-range laying hens foraging outside were exposed to the low pathogenicity virus, which then mutated in the hens to become HPAI. The mutation happens by chance after the chicken is exposed to the low pathogenicity form of the virus, it does not happen with every exposure to the virus.
- There is no evidence to suggest any recent change in the circulating LPAI viruses in wild birds in New Zealand or that the risk of spread of LPAI from wild birds to poultry has changed.
- However, changes in husbandry with more free-range birds does create the potential for increasing exposure of poultry to LPAI viruses carried by wild birds.
- This ongoing risk of infection of poultry with LPAI viruses circulating in wild birds should be addressed with increased biosecurity.

Are wild birds a risk to poultry farms?

- There is no evidence to suggest any recent change in the circulating LPAI viruses in wild birds in New Zealand or that the risk of spread of LPAI from wild birds to poultry has changed.
- However, changes in husbandry with more free-range birds does create the potential for increasing exposure of poultry to LPAI viruses carried by wild birds.
- This ongoing risk of infection of poultry with LPAI viruses circulating in wild birds should be addressed with increased biosecurity.
- The Department of Conservation has advised there is no evidence from overseas that this strain of high-pathogenicity H7N6 can spread from chickens back into wild birds.
- For farms in the vicinity of the infected farm, the greatest risk of HPAI infection is from the infected farm. It is not clear if an H7N6 LPAI virus is circulating in wild birds in the vicinity of the infected farm.

Other MPI messages:

How to protect yourself and prevent possible spread

- Although avian influenza viruses rarely infect people, it is important to minimise your risk by avoiding sick or dying birds and practicing good hygiene if handling wild birds – both to protect yourself and to prevent spreading the virus.

- If you are tramping, camping, hunting, walking dogs near bird colonies, or anywhere you might be exposed to wild birds or marine mammals, keep your distance and maintain good hand hygiene.

- Wash your hands with soap and running water or use alcohol hand rubs as frequently, thoroughly, and often as possible. This is especially important before and after contact with animals and their environments.

- Do not touch, handle or collect any dead or dying birds. Leave these alone to prevent disease spread and protect human health. Ensure children and dogs don’t touch them either.

Advice for hunters:

New Zealand Food Safety's advice on food safety for hunters applies but in particular:

- don't harvest or handle wild birds (or their feathers) if they are obviously sick or found dead
- wash and dry your hands after handling or dressing wild birds
- don't eat, drink or put anything in your mouth while handling or cleaning harvested birds
- wash knives and other utensils, and scrub chopping boards between preparation of raw and cooked foods
- keep raw meat and poultry covered and away from ready-to-eat food, fruit, and vegetables
- cook birds well – an internal temperature of 75°C for at least 30 seconds, 70°C for 3 minutes or 65°C for 15 minutes is needed to kill bacteria and viruses
- scrub and disinfect all boots and equipment between hunting sites
- after each hunting trip, wash, or hose down any clothes that have been in direct contact with birds.

Nāku iti noa, nā

Corina Jordan
Chief Executive Officer
New Zealand Fish and Game Council

16/12/2024

Hon Todd McClay
Minister of Hunting and Fishing

By email: t.mcclay@ministers.govt.nz

Dear Minister,

Thank you for your letter dated 4 November 2024.

The Auckland/Waikato Fish and Game Council would like to take the opportunity to congratulate you and the government on the launch of the Access Charter. Access is one of our region's five operational priorities - along with increasing mallard populations, communication with licence holders, external fundraising and water quality.

The Auckland/Waikato Region has developed some specific & innovative initiatives to help create access to waterways for all New Zealanders. We wish to share these with you, as we hope that they can be used as a model for further uptake nationally. These are covered in our attached Statement of Service Performance in more detail.

- Waitomo District Plan change: We successfully advocated to have Environment Benefit Lots adopted that specifically include access provisions for significant fisheries. This provides an incentivised pathway for landowners to create access in perpetuity to some prime trout fishing rivers and in return receive additional titles for their property. Landowners, being primarily farmers, who are willing to provide legal public access through their properties are able to be compensated for their efforts, - a win for all involved. We aim to get this provision adopted by other councils as they review their plans.

- Creation and use of a Auckland/Waikato Access and Land Purchase Fund: Earlier this year, we established an Access fund and are currently active in seeking bequests and donations.

- We are the only region to be a registered charity in the USA and specifically target wealthy donors who are entitled to claim a US tax rebate on any donations that they make.

Auckland/Waikato Region
156 Brymer Rd, RD 9, Hamilton 3289, New Zealand. Telephone (07) 849 1666
Email: aucklandwaikato@fishandgame.org.nz www.fishandgame.org.nz

- Through these processes, and the use of restricted reserve funding, we have purchased a property on the Whakapapa River. This purchase used no licence money and opened up access to several kilometres of prime fishing water. We are now working with Heranga a Nuku, mana whenua and the local council to create esplanade strips and easements to the river, and ensure public access in perpetuity. Once access has been formalised, we plan to sell the property, put the money back into the access fund, and repeat the process. Currently, our access fund is limited to the purchase of smaller properties, but we hope to grow this capital fund over time to enable larger land purchases.

The ultimate goal of these provisions and work by our staff is to guarantee access in perpetuity at no cost to licence holders. This region's staff have lobbied for many years that NZC take up some of these initiatives, particularly a focus on augmenting licence revenue from other sources; unfortunately, they have not to this point been adopted.

As you are aware, this region has faced significant access-based challenges in recent years. The Whakapapa Intake Road is one such example, where we feel that we have exhausted all avenues with DOC's representatives to resolve this issue. We continue to try and engage, working alongside partners such as the NZ Deerstalkers Association. However, DOC is unwilling to force the landowner to meet their legal obligations.

The Auckland/Waikato Council agrees that Fish and Game, as an entity, should critically evaluate its performance, evolving where required to ensure that we continue to provide a high level of service to its licence holders. In this council's opinion, the above examples are illustrative of how innovative regional initiatives can be. Without any central support from NZC, regions are achieving significant outcomes for licence holders. It is important to ensure that the ability to deliver on local outcomes, as driven by the local environment, is not lost in any restructuring of the organisation.

We oppose any move to centralise the management of Fish and Game. One perspective is that Fish and Game, like agriculture, is part of the primary production sector. In this sector, national management from a central office is not the most efficient model due to regional climatic, topographic and demographic differences.

As a good example of this, Auckland-Waikato devotes significant effort to managing botulism. This disease is not a widespread problem for many regions and they, quite rightly, ignore it but put corresponding effort into other important activities for their region - such as facilitating access, hatcheries or enforcement. A decentralised model meets this purpose well. This is analogous to the decentralised management of most dairy farms - even when they are owned by large corporations with farms throughout the country, they have highly expert local management with significant autonomy to enable them to respond to local challenges and opportunities rather than centralised management.

Specifically in answer to the questions posed in your letter:

Question: What opportunities are there to make efficiencies, reduce duplication and ensure economies of scale across Fish and Game (e.g. shared services) to improve value for money for licence holders? How could these be best achieved?

Answer: With almost 50% of the NZ population living in our region and 1600ha of council owned land to manage, the Auckland-Waikato council has significant pressure on delivery of services to licence holders. We believe that some of the strategies that we have used could be adopted nationally.

1. **Use of AOG (All of Government) supply agreements.** Auckland/Waikato Fish and Game policy is that AOG providers should be considered before any significant spending is made. This would be a very simple policy for all councils to adopt and result in savings in vehicles, phone, power, fuel, insurance etc.

2. We believe that delivery of services to licence holders nationally could be increased by **greater use of volunteers** rather than staff. Our region is one of the few to utilise extensive networks of volunteers for pest control, wetland development and maintenance, banding and botulism response.

3. **Sharing of services between regions** already occurs. Our region provides RMA services to Northland, purchases fish from Eastern and collaborates on population management with neighbouring regions. Potential does likely exist to increase this cooperation nationally. In the 2023-24 FY, approximately 15% of total Auckland/Waikato staff time was spent on national or inter regional projects.

4. **Multipurpose staff**. Having staff skilled in a diverse range of areas allows their efficient use. Claims are made that Fish and Game has too many managers. However, like many regions, our CEO also carries out significant field work, fundraising and significant RMA work in addition to his management duties. Our field staff all have masters degrees or higher and most have national roles in addition to their individual regional duties.

5. **Regionalization of NZC roles.** NZC staff numbers keep rising. However, many of the skills NZC wants can be more efficiently provided by regional staff using their existing skills and often within existing budgets. We currently provide services to NZC in the areas of web design, biosecurity and Maritime NZ compliance. This model, expanded, would allow the economical provision of national services, foster staff career development and increase inter-regional linkages. It would also potentially allow regions with higher staff numbers or underutilised managers, field staff and administrators to reallocate resources nationally without redundancy. This fits in well with the legislative responsibility for NZC to “coordinate”.

6. **Reduced admin staff.** Our administrator is .75 FTE, which includes managing the NZC website. Administration workload within regions has reduced in recent years and some surplus may exist nationally. Some small regions still have full time administrators.

7. **Improve NZC governance and decision quality.** We are concerned about the financial sustainability of the organisation, particularly as a result of ongoing NZC expenditure. We are the only region that made its requested 3% budget cut this year and did not seek to increase budgets through contestable funding. The Auckland/Waikato Region is concerned that recent budgeting decisions by NZC are financially unsustainable, as well as being contrary to expert opinion and national policy. We consider that there is a risk that increased funding for backroom staff and consultants at a national level will reduce the ability for regions to deliver on the ground initiatives.

8. **Regions should be funded primarily according to a formula-based approach.** This was the recommendation of both the Hunt report and the 2024 Future Finance Working Group report. Once regions are funded, they would need to demonstrate that they are meeting their statutory responsibilities but otherwise left to meet local needs according to priorities set by their governors. Funding regions primarily on a formula-based approach would reduce the accusations favouritism and back-room deals that have been previously addressed at NZC - and which will get worse under their proposed "zero based budgeting" process.

9. **External funding.** Regions should not solely rely on licence fees to meet objectives. Again, formula-based funding encourages regions to seek external funding sources and leverage the different opportunities that each of them have on offer.

10. **Cap NZC/National spending**. Since 2018 the National Office personnel budget has increased by 65% from $655,700 to 1,085,903 in 2023. Over the same period this region's budget went up just 4%, from $571,548 – $596,382. NZC appears to aspire to even more staff increases. In the 2024 budget round, NZC requested that regions made 3% savings, and additionally successfully advocated for a licence fee increase. Of the available funds, they awarded almost 50% of ongoing and 90% of one-off funds to NZC / National.
    a. This is one example of disparity in how funding is being allocated within the organisation and the Auckland/Waikato region shares the government's concern around a general shift in emphasis for funding away from frontline staff.
    b. Frustratingly, while some of the work carried out by NZC staff is helpful to regional operations, a lot of it just creates more work for our staff and governors without obvious benefit.

11. **NZC should focus on their legislative functions** - primarily National advocacy, audit, administration and licence fee setting. Historically, this has required four staff members. If further functions of NZC are adopted, for example expanding services to improve organisational efficiency, these should be agreed to and supported by regions prior to their adoption.

    It is the opinion of this council that most if not all efficiencies and cost savings can be made within F&Gs current legislative structure and simply require a shift in prioritisation at national and regional levels.

Question: What do you think about the Governance Review recommendation to merge regions, and on what basis would this be appropriate?

Answer: The Auckland/Waikato region is open minded to the proposition. However, prior to any mergers occurring, objectives need to be set as to intended outcomes.

If the goal of merging regions is to improve financial efficiency, it makes sense to address this by changing the funding model. Moving a regional and NZC budget process to a mostly formula-based approach, as recommended by the Hunt and FFWG reports will mean that mergers make financial sense for regions and will happen organically over time.

Simply merging regions by Ministerial decree or mutual agreement won't necessarily result in lower cost or improved service. The voluntary merger between Wellington/Taranaki was a good example. Rather than achieving intended savings, these regions actually increased their budget requirements for the 2024/25 FY. Under the current funding model, there is no incentive to reduce regional costs, irrespective of mergers.

The Auckland/Waikato region is open minded about merging with Northland as recommended by the review. Prior to merging, three main issues need to be addressed.

1. **Governance and operational difficulties**. The size of the combined region would add some challenge. For example, the current field officer based in Kaitaia, an area with few licence sales, is a six-hour drive from Hamilton. Any governors based in Kaitaia would face the same challenge - a significant one for volunteers.

2. Our region makes significant **use of volunteers,** supported by staff, to carry out activities in a cost - effective manner. The relationships required to activate and maintain large volunteer forces takes commitment, time and energy, with many relationships with clubs and individuals going back decades. A geographically large region, with reduced governor numbers, would make the establishment and maintenance of these local relationships more difficult.

3. **The disparity of service provision between the two regions**. We are currently the largest levy paying region in the North Island, paying a higher levy than all other regions combined. Northland is by far the largest grant receiving region. To merge with Northland, while applying the Auckland-Waikato level of service provision across the new "northern" region could result in potential savings to the organisation in the vicinity of $350,000. However, Northland is unlikely to willingly adopt this. If the funding disparity with Northland is not addressed, we would be unlikely to willingly amalgamate as it would result in a two-tier system of service provision within our region - where fewer than 20% of licence holders in the newly combined region would get around 40% of the budget spent in their area.

We do not believe that merging with the Eastern region is beneficial. Eastern region has, as its priority, ensuring stocked trout make their way into lake fisheries. Auckland-Waikato is NZ's largest gamebird hunting region with associated work streams. Merging with Eastern would increase complexity with few benefits to licence holders. We would also be concerned

that our advantages such as external fundraising and volunteer workforce would be lost in the process of merging with a larger region.

Given our high levy, Auckland - Waikato is the most financially efficient region in the North Island and it would be a bad decision to action any merger that resulted in a loss of efficiency.

Question: What would better support you as councillors and as Fish and Game generally: Would a reduced number of councillors on each council improve effectiveness and decision making?

Answer: The council had robust discussions and weighed up the pros and cons of fewer councillors prior to the last election. Our particular council doesn't feel that the effectiveness of decision making is reduced by having 12 councillors. Rather, greater diversity of opinions around the council table and a strong club connection provides a net benefit to the organisation while improving the quality of decision making.

One thing that would greatly support us as a council would be the development of a simple conduit between regional Fish and Game managers and ministerial staff on key operational issues, without the filter of NZC staff, or the need to communicate via the minister. Currently, at the governance level, we can write a letter to you. However, as was shown by the recent letter from Otago and Southland, even this is seen as “rocking the boat” and troublemaking and likely elicit a disproportionate response from NZC. Having a simple management level method of two-way communication with your staff for regions would be extremely helpful.

A really good example of this is our dispute over access to the Whakapapa headwaters. Our governors have given direction to staff to fix the problem, our understanding is that you have done the same as Minister. This leaves settling the dispute as a purely operational issue - easily managed by Auckland-Waikato and Ministry staff.

Question: Would a modest honorarium for councillors recognise and support your voluntary role?

Answer: The council discussed this after the review and decided that the very limited resourcing F&G has would be better spent on delivering outcomes for licence holders. The consensus was that councillors are there because they are passionate, not because they want to get paid. The council is of the opinion that reimbursement for expenses as currently facilitated is sufficient. Governance training is likely a better use of funds.

Question: How can the relationship between your Council and the NZC be improved to support the organisation and licence holders? Is the current way of nominating your representative to the NZC working? How can there be stability for the NZC over the whole term?

Answer:
The relationship with NZC is not necessarily due to structural failings. Some of the reasons are outlined below.

1. It is our council's view that the recent decision by NZC to move towards a **Zero-Based Funding** model was damaging to its regional relationships.
   The motion was passed
   - without analysis
   - without being an agenda item (as required under LoGOIMA)
   - contrary to NZC policy on setting policy
   - contrary to all legal advice given to NZC
   - contrary to the provisions of the Conservation Act

   That this situation contributed to our council passing a vote of no confidence in our regional representative and NZC chair was regrettable and is entirely avoidable. Moving forward, NZC should have complete transparency, open discussion and consult with regions as required by national policy and legislation. If the appropriate processes are followed and regions' feedback is appropriately considered through formal consultation, we believe that we can have a unified and stable organisation.

2. The 2023 "Cost Optimisation report" commissioned by NZC at a cost of $100-$150k has seemingly disappeared without explanation. It is unclear who in NZC has seen a draft, but no report has eventuated after more than 12 months. A lack of openness feeds speculation, which in turn, undermines relationships.

3. Communication from NZC is poor. Minutes of meetings are not released for 2 months, if at all and agendas for meetings are not pre-circulated within appropriate timeframes. Feedback from meetings with the minister is not passed on in any depth. Secrecy promotes mistrust.

4. The relationship with NZC would be significantly improved if we felt that they were consistently acting in the national interest, rather than in NZC interests.

5. Clarity from the Minister on whether he supports an increasingly bureaucratic NZC or if he agrees with our vision that NZC should be facilitating efficient service provision to licence holders and "sticking to their legislated knitting" of national advocacy, licence fee setting and research would be helpful.

Question: What other measures would support your Council to be more effective and trusted (e.g. wider eligibility to stand and vote in elections, a fit and proper person test)?

Answer: Having a wider array of representatives from diverse backgrounds may be useful. However, this needs to be balanced with the consistent effectiveness of successive councils in our region. Whilst staff and individual governors have good working partnerships with Iwi and Mana Whenua, we are cognisant that we lack Iwi representation at a governance level. With 20 plus Iwi in our region, finding a solution is an ongoing problem.

Question: Should the criteria under which the Minister currently has the power to remove elected members be reviewed?

Answer: Our council has little experience in this but believes that the Minister should be able to remove councillors at the request of the relevant council and at his or her discretion.

The council would again like to thank you for your interest in the region's opinion and look forward to a visit. If you are interested, we would love to show you some of the recent wetland restoration partnership projects staff have completed with farmers in the region. We believe that these highlight some of the strengths of our council, which is to collaborate with a wide range of stakeholders to achieve outcomes for licence holders.

Yours sincerely:

Nigel Juby
Chair
Auckland/Waikato Fish and Game Council

Bi-Monthly Chief Executive's Report
February 2025

Foreword

It's been a busy couple of months, with the New Year kicking straight into the banding programme. At this stage, Dani and Beau do not have the appropriate banding certification to run sites and I am the only level 3 bander currently at the office meaning I need to try and be at all the sites. We are thankful to John Dyer for coming along to some of the sites this year, especially when we had two being banded on the same weekend.

The February meeting is when council gets its first bite the OWP, I have discussed planned upcoming projects with staff and we have made some suggested edits to the document. We are yet to receive budget templates and any further policy underpinning the move to the so called Zero Based budgeting approach. This was supposed to be provided to us in December. At this stage we have been told that for now we should simply base our budgets on last years. As Council is aware we are the only region that made the requested 3% budget cut and didn't put in a contestable funding bid to win it back last year. This was in part possible due to senior staff retirement which led to significant salary savings. Given that new staff are performing exceptionally well and the ongoing increase in cost for some budget items, e.g. vehicle expenses, trend flight costs, not to mention the liquidation of the LWH Trust, we will need to seek a budget increase for the 25/26 FY. We are yet to receive updated budget templates, so the figures in the draft OWP have not been updated. The budget will need to be approved at the March meeting and sent to the NZC CFO the Monday after the meeting.

Adam has spent significant time and effort on the 2025 sports fish regulation review. This was communicated to anglers in the spring flyer, reel Life and a direct email to all licence holders in the Auckland/Waikato angler database (previous five years). Anglers were asked to provide feedback via an online survey, written letter or email. Feedback was received from 168 respondents to the online survey, 31 emails, and no written submissions. The feedback from anglers was used as the basis for the Auckland/Waikato Fish & Game Council 2025 Sports Fishing Regulations Review report that has been submitted in this agenda. Submitters were invited via email and Reel Life to speak on behalf of their submission.

Beau finalised three reports for council. The first report concerns the grallard population size estimates. The second report is related to harvest and hunter effort and explores how regulations may (or may not) influence this. These two reports represent his first look into the data. These two reports aim to inform council of the current status of both the population and harvest, and contextualise these estimates. While this work may help answer some questions it will undoubtedly prompt more. The third report is about a SMS pilot what was completed in 2024. This presents a new approach to estimating the non-reporting of bands that each year which is important to know when estimating population size.

OUTPUT 1: SPECIES MANAGEMENT

Project 1111: Drift diving

The drift diving report from 2024 is still in progress. The 2025 drift dives have been delayed until early February to complete the regulation change and drift dive reports.

Project 1112: Banding

Banding has begun with Hauraki Plains and Parakai being completed so far, at the time of writing this. The Hauraki Plains catch this year included 581 new birds and 8 recaptures of previously banded birds. The Parakai catch this year included 417 new birds and 34 recaptures of previously banded birds. MPI tested 320 birds on-site at each of the first 2 weekends (640 birds tested total). The numbers of ducks at both sites were lower than previous years, so we are hoping for some bigger catches at the remaining four sites to hit our target of 3000 mallard and grey ducks.

Reasons for the lower catches so far could be for any number of reasons and doesn't mean bird numbers are lower. Previous years have shown it can be difficult to catch birds when there are abundant alternate food sources available, compared to drought years when catches have historically been higher. This might have contributed to the lower number caught on the Hauraki Plains, as the birds came in to feed at the cages relatively late with staff only closing the cages around 9.30 pm, suggesting the birds weren't desperate for the grain we'd set out. At Parakai when setting the cages on the Friday night staff found a duck carcass in the cages, and both Friday and Saturday nights the ducks sitting on the pond all kicked up for an unknown reason, potentially indicating a predator such as a mustelid or cat may have been present.

Project 1115: Population Surveys

Lake Arapuni Spawning Survey
The Spawning Survey report has been completed and is under review.

Trend Counts
Dani and Beau jointly carried out the aerial trend counts this January. These were carried out across two flights, and counts were ground truthed using photos taken at specific times/points to compare against the aerial estimates.

The paradise shelduck numbers in the King County this year fell short of the threshold of 5,000 birds needed to declare a special shelduck season with. A total of 4428 were counted across the 26 sites. They will still be available to hunters in the main waterfowl season, however.

Northland Field Officer Graham Gallaghan carried out the north of the Harbour bridge paradise shelduck counts on our behalf as he has done previously, whilst carrying out his Northland sites. The numbers counted this year were stable relative to the previous 5 years.

Total black swan numbers were looking healthy despite being down on last year, they were similar to the previous years prior to 2024. Highest numbers were once again seen in the western harbours (Kawhia and Aotea), including the Taharoa lakes. Though Kawhia was up on 2022 (1108) and 2023 (929), it has dropped from its 2023 count (3125), with 1629 swan counted.

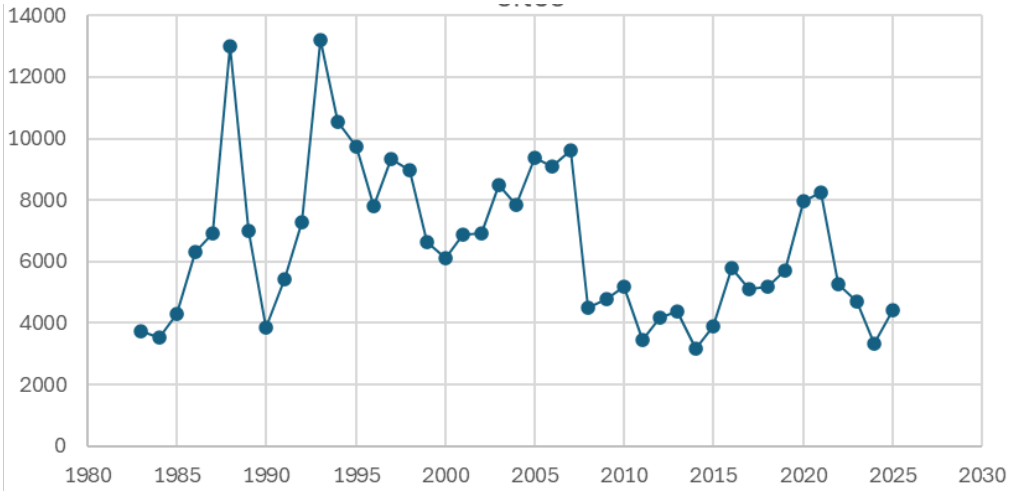

Figure 1. Total number of paradise shelduck as counted across 25 sites in the King Country.

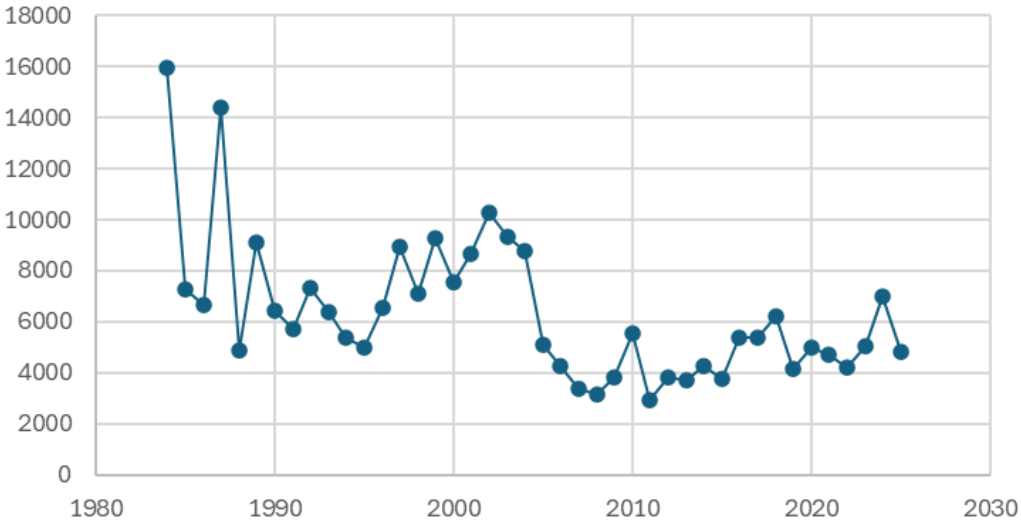

Figure 2. Total number of swan as counted across 26 sites in the Waikato

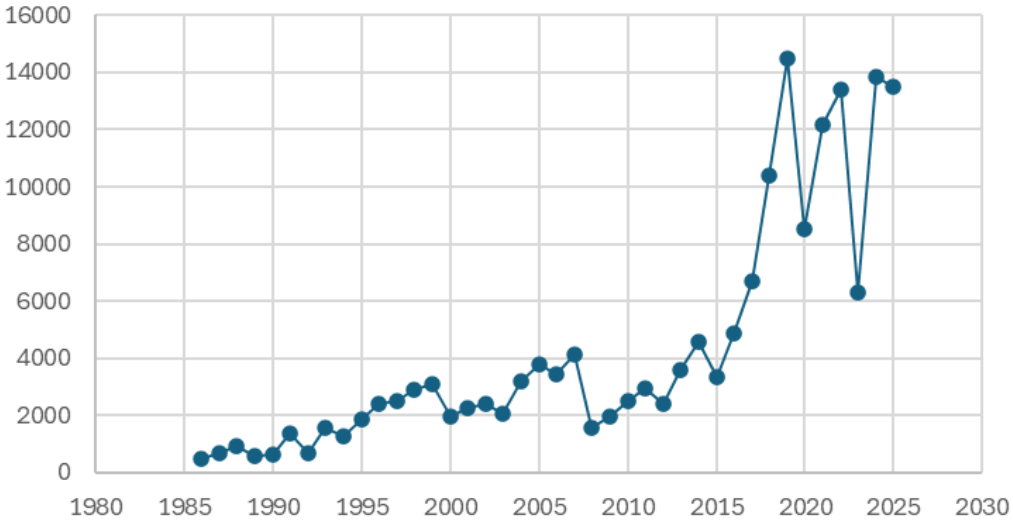

Figure 3. Total number of Canadian geese as counted across 26 sites in the Waikato

Project 1121: Harvest survey

Wild and hatchery tag returns

There was a surge of tag returns over the holiday period from both wild fish and Lake Arapuni tagging project. Tags for the Wild Fish Tagging Program were ordered for the Whakapapa and Whanganui (1000 tags). The data from the Wild Fish Tagging Program is used to describe/monitor trout populations (species composition and length) and will be expanded to include catch rates for future tagging sessions.

Project 1181: Control

Permits

We have received a lot of requests for permits to disturb and cull game birds this year, particularly for pukeko, and for paradise shelduck on chicory crops.

OUTPUT 2: HABITAT PROTECTION/MANAGEMENT

Project 1211: RMA

Bennydale WWTP reconsenting

We were contacted in October as an interested party to the reconsenting of the Benneydale WWTP. We have reviewed the application documents and raised several concerns with the applicant regarding the application. Namely the Mangapehi stream, to which the WWTP discharges into, is of local importance to Fish and Game due to its trout population, as such the effects on trout habitat need to be assessed as per s7 of the RMA which we consider has been overlooked in the application. We are concerned about a proposed increase in discharge volume and whether water quality improvements will be achieve during the term of consent. Next steps are to arrange a meeting with the applicant with Adam Daniel before lodging a submission on the application.

Auckland Council - Let's protect our environment consultation

We made a submission on the Auckland Council early consultation document regarding the Auckland Regional Pest Management Plan. We commented on two key topics for consultation – cats, and pest management in Auckland lakes including lake Tomarata. Regarding cats – we stated our support for the promotion of responsible pet ownership particularly de sexing and micro-chipping, especially near significant ecological areas. We agree and support the proposal that Auckland Council should invest more into providing financial support to assist people who cannot afford to desex their cats. Further to this we consider that micro-chipping should be made compulsory throughout the Auckland region. Regarding pests in lakes – we made the point that pest fish removal does not always improve ecological condition and has never been used to successfully restore the water quality of Auckland or Waikato Lakes. Poor water quality in Auckland lakes is primarily driven by land use and excess nutrient loading. We consider that netting non-native fish with no reasonable chance of eradication and no proof of water quality benefits is a poor use of ratepayer funds. The information gained from this consultation will help to inform the drafting of the next pest management plan for Auckland to which we will be able to submit on at a later date.

Matamata-Piako combined WWTP consents

We made a submission opposing a district wide application to replace the resource consents associated with the wastewater treatment plants for Matamata, Morrinsville, Tahuna and Te Aroha, in the Matamata Piako District. Our main concerns with the application were that, despite proposed upgrades to the WWTP's, requested increases in volumes and consent limits would leave headroom for further degradation of an already degraded receiving environment – being the Waihou River and Firth of Thames, which are of significance as habitat for trout and gamebirds. Proposed mitigation measures are not sufficient to account for a lack of improvement in receiving water quality. The application also lacks Avian Botulism Management Plan's for each of the WWTP. We have since met with the applicant to discuss our concerns and are currently waiting for further information and another meeting. Depending on the outcome from that information and meeting we can then look to whether we prepare evidence and present at the hearing to oppose the application. The hearing was proposed to be held in February.

Waikato Regional Coastal Plan – hearing

Late last year we submitted on the Waikato Regional Coastal Plan seeking changes to better enable wetland restoration and enhancement in the coastal marine area. The S42A Reports for this plan were published in October. Unfortunately, we were not successful in getting rule ECO-R5 'Restoration of indigenous species or habitats' changed to a permitted activity which would have enabled the deposition and disturbance of any natural material for the purpose of restoring and/or enhancing indigenous biodiversity and ecosystems without a resource consent. However, the plan does still enable wetland restoration work via the planting of indigenous plants, and any associated deposition and disturbance of any natural material up to 10m3, or removal exotic plants without agrichemicals, as a permitted activity. We were also successful in getting policy wording for water quality amended to be more consistent with the requirements of the NPS-FW, NZCPS and RPS. We were also successful in getting changes made to ensure maimai are not unnecessarily removed because of being deemed as unused or redundant structures. The hearing for this plan will take place in February where we will present a submitter statement summarising our original submission highlighting our outstanding concerns with the proposed plan.

Whangamarino Working Group meetings

Dani been attending the Whangamarino Working Ground meetings and workshops. This is Waikato Regional Council led, with the working group made up of representatives from F&G, DOC, WRA, Waikato-Tainui, Hapu, landowners, community, WDC, and WRC. The purpose of the group is to contribute to the development and delivery the Whangamarino Action Plan, this has a number of objectives, including

- Reduced frequency and severity of anoxic events.
- Reduced frequency and severity of harmful algal blooms.
- Reduced sediment and nutrient loading from the catchment into Lake Waikare and Whangamarino Wetland.
- Improved management of pest fish and plants.
- Improved management of flood control and land drainage assets.

At the Decembers meeting the process for the development of the Whangamarino Action Plan (WAP) was discussed, the objectives set, and delivery plan looked at. The first draft of this is aimed for 29th Jan. Early Jan meeting established the Engagement Groups (Science; Iwi; Landowner; Community Engagement groups), and identifying the wider stakeholders for the wetland and how to best work with them. This engagement process is to go out to the groups to assess the catchment issues, catchment objectives, and response options.

Environment and Sustainability Grant
Adam gave comment on the final round of the Environment and Sustainability Grant for Fonterra's mitigation in the Oraka catchment.

Project 1221: Council Land

Stone Jug Road maintenance
The stone jug property was sprayed, and the charging system fault was diagnosed. A new charging regulator is required to fix the solar charging system.

OUTPUT 3: PARTICIPATION

Project 1311: Access negotiation

Access fund donation
Additional funds for a bequest has been offered to support the Auckland/Waikato Fish & Game Council Access fund. Once formalised the bequest will be presented to council to be accepted as per the doners wishes.

General access requests
There have been several phone calls for access information, primarily relating to areas parents can fish with kids (vacation spots), backcountry trips and where to fish near Auckland.

Waipapa Dam Boat Ramp
There has been no official update on the Waipapa Boat Ramp from DOC. However, the gate has been cut open by an unknown person and no further construction at the site has taken place. The new boat ramp has been completed with an improved road and parking area.

Pinedale access
Adam has been working with Fonterra staff to formalise access to the Oraka at Pinedale. The access is behind a locked gate and may require a sign to explain parking.

Moakurarua Stream access
Adam received a request for information on the Moakurarua Stream access. This request was followed up with Walking Access and a request for consent conditions was submitted to the Overseas Investment Office.

Project 1331: F&G Newspapers

Magazine Articles
Dani and Beau are currently drafting articles for the 2025 game supplement.

Project 5341: Other publications

The fallacy of catch and release fishing article
An article was published in the Reel Life Newsletter informing anglers of the potential harm of catch and release fishing during warm summer temperatures as per the council request to educate anglers on the subject.

OUTPUT 4: PUBLIC INTERFACE

Project 1442: Public Awareness/Advocacy

Fishing Access
With Access being one of our key objectives, Beau and Dani looked into how we can improve our access information for licence holders. WAMS primarily hosts this information (in the form of points). We contacted WAMS about (1) updating the fishing access points they host for us, (2) adding new access points, and (3) adding new fields to the access points (e.g., photos). They are very keen to work with us and believe all of this is possible. However, they want this to be at a national level (i.e., they don't want each region trying to update their data separately. Here, an annual update of access points seems like the best approach – where each region can change its data before it all gets sent as one big file to WAMS. This has been proposed for discussion at the next managers meeting, with Beau proposing to coordinate this.

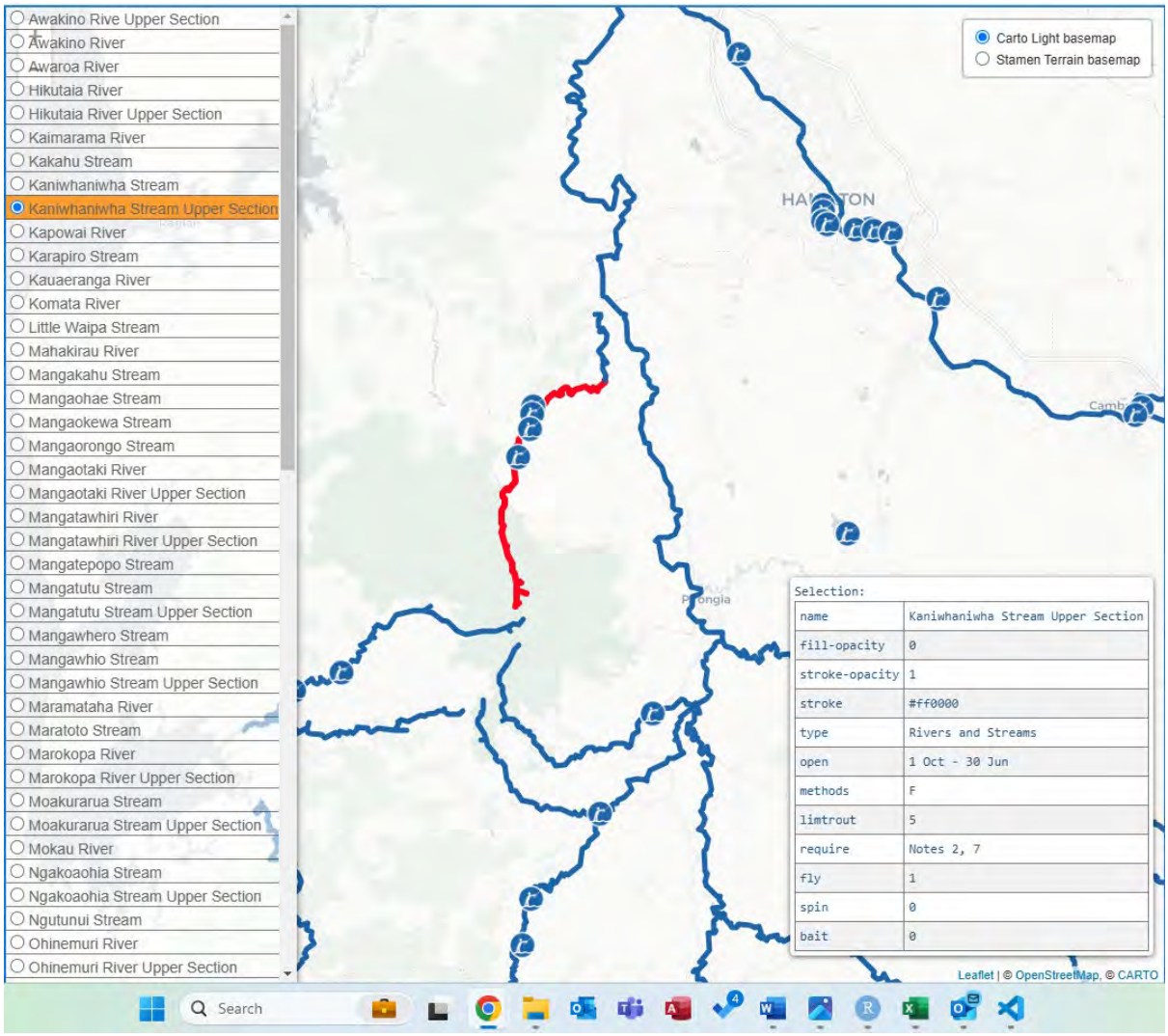

Figure: Example of the free Leaflet web mapping tool that could be used to host our access and regulation data.

With mapping in mind, we also explored how to better communicate complicated regulations to our licence holders. Having regulations presented on a map seems logical. Here, we investigated how Shapefiles (data in the form of lines on a map) could be used to represent rivers (and, in turn, regulations). We developed a dataset of the rivers and streams from our regional regulation booklet, which could then be linked to the relevant regulations. We discussed hosting this type of data with WAMS, and they were open to it. However, like with the access points, they would want this at a national level, which would mean getting river shapefiles for every region. Unfortunately, this is likely a bit of an ask, especially considering they have moved to a new mapping system that does not use shapefiles.

While there are arguments for and against the new mapping system, one potential downside is cost, as its development is outsourced to a consultant. In addition, other regions currently cannot search for rivers, filter by method etc. Beau looked into Leaflet, a free tool for building web apps, and was able to create a simple example to showcase that we may be able to do this in-house. You can preview a mock-up of the leaflet map by visiting

https://beaufishgame.github.io/FishMap/ . This can naturally be replicated for gamebirds, given that regulations are often specific to sub-regions (e.g., “north of the harbour bridge”).

OUTPUT 5: LAW ENFORCEMENT

Project 1511: Ranging/Training

Online ranging
Adam interviewed an angler accused of fishing without a licence and posting multiple photos and videos online. The investigation is ongoing and the summary of facts will be written in early February.

Goose cull
Staff were approached for approval to allow a goose cull on Lake Rotokauri by the WDC. The Lake is crown owned and manged by WDC but there is no record of the delegation to of authority to allow hunting being transferred to Fish & Game although in practice the delegation has been granted to the local Fish & Game Ranger.

Ranging effort
Adam made 23 contacts and 10 licence checks primarily in the Cambridge area. One verbal warning for a young angler with two assembled rods was given.

OUTPUT 8: PLANNING REPORTING

Project 1841: National liaison

Grass carp investigation
Adam assisted DOC in an investigation into the illegal release of grass carp into the Quarry Lake at Lake Pupuke. The carp have been in the lake for some time and after their release the lake experienced significant algal blooms. The local RC Yacht Club had requested a release that was denied by Auckland Council. Adam assisted the investigation by interviewing two of the RC club members. It was determined that the statute of limitations had expired and there were no grounds for continuing the investigation.

Biosecurity review
Adam assisted the national office with a submission on the review of the Biosecurity Act. There has been a proposal to allow regional pest management plans to trump sports fish and game management plans potentially allowing sports fish to be listed as pests. This would be a completed shift in power and could be used to allow trout to be listed as pests along with course fish.

OUTPUT 9: ADMINISTRATION

D. Klee
Chief Executive

Financial Report for February 2025 Meeting

Licence Sales as of 22 January 2024

Fish: Fish licence sales started slowly across the board this year but have steadily picked up in the North Island. Our region is currently sitting just above where it was at the same time last year. Some of the South Island regions are still well down, in particular North Canterbury and Southland.

Other revenue received during November 2024 - January 2025

Zon Gun Hire: $659 from zon gun hire fees.

Interest : $10,443 from interest including maturation of a 6 month term deposit. This has been re-fixed.

Sale of John's vehicle: $20,869 for the sale of Johns vehicle, less the $869 deposit captured in the last Financial report.

Legal Funding Reimbursement: $4,554 reimbursement from the Whangamarino section128 and healthy rivers legal funds.

Prosecution/Fines: $6,293 As highlighted in the bi-monthly report for the November meeting we received some significant fines and court costs for the prosecutions we undertook in Thames. In this instance we will almost be cost neutral.

Rates Remission; I successfully obtained an ongoing rates rebate for the stone jug road property due to the public good we were creating through facilitating access.

Expenditure during November 2024 - January 2025

Vehicle; Danis new vehicle, $49,699. Due to the 8-month delay selling Johns old vehicle while it went through 3 repairers, we are nearly a year behind where we would normally be in turning over vehicles. I will assess our budgets closer to the end of this FY and will hopefully turn over another vehicle then.

Vehicle Maintenance; These costs continue to rise significantly and will require an adjustment in the 25/26 budget. I noticed that despite having sold John's boat in July and having updated sea flux, NZC have continued to invoice us for 2 vessels. We have sought partial reimbursement for the past 5 invoices.

RMA: $4,559 for Healthy Rivers and The Whangamarino Weir, offset by NZC reimbursements.

Banding: $3,611 volunteer refreshments, BBQ food, land-owner gifts and feeding payments. Previously John was doing a 2-hour round trip daily to feed the ducks in Helensville**.** We are now paying Wendy Youngs, grandson to feed the birds instead. The extra $600 will be well an truly offset by reduced vehicle running expenses not to mention the reduction in staff time which was an inefficient way to manage the site.

Fish Releases; 10,252.80 for the purchase of Fish and transport costs from Eastern F&G for the lake Arapuni release.

Annual Report/Audit. 1,140.87 for Ben's assistance in the Annual Audit. This was useful, especially as I had taken over halfway through the financial year.

Prosecutions: 5,631 for legal fees associated with the Thames prosecutions, offset by income from fines and legal fees.

Fish Tags: $939 for 1000 fish tags to use on the Whakapapa/Whanganui tagging project. This will be taken from the Whanganui River Fund.

David Klee

Chief Executive

Account Transactions

Auckland/Waikato Fish & Game Council
For the period 1 November 2024 to 31 January 2025

Date	Description	Debit	Credit
Annual Report/Audit			
19 Nov 2024	Ben Wilson - Annual report assistance	1,140.87	0.00
Total Annual Report/Audit		**1,140.87**	**0.00**
Banding/Shovler Study			
03 Dec 2024	Department of Conservation - Bands (2000)Pliers	1,784.00	0.00
20 Dec 2024	Mitre 10 Mega - Cable ties for banding	19.41	0.00
20 Dec 2024	Mitre 10 Mega - Equipment for banding	11.74	0.00
20 Dec 2024	Mitre 10 Mega - Equipment for banding	133.09	0.00
10 Jan 2025	PaknSave - Banding supplies	367.96	0.00
10 Jan 2025	Danielle Lelievre - Overalls for banding	65.21	0.00
10 Jan 2025	Burton's Butchery - Banding supplies	27.83	0.00
17 Jan 2025	PaknSave - Banding supplies	227.87	0.00
17 Jan 2025	Beau Jarvis-Child - Liquor Centre	50.43	0.00
17 Jan 2025	Beau Jarvis-Child - Basketique	34.78	0.00
17 Jan 2025	Danielle Lelievre - Food for banding weekend	41.00	0.00
18 Jan 2025	Mitre 10 Mega - Banding items	23.58	0.00
18 Jan 2025	4 Square - Banding Supplies	38.69	0.00
18 Jan 2025	Muriwai Beach Camp - Accommodation during banding	117.08	0.00
20 Jan 2025	Armoury Young - Cost for feeding grain for banding	600.00	0.00
22 Jan 2025	Temu - Cable ties for banding	68.70	0.00
Total Banding/Shovler Study		**3,611.37**	**0.00**
Business On Line Saver			
Opening Balance		**359,714.75**	**0.00**
30 Nov 2024	Westpac	576.53	0.00
31 Dec 2024	Westpac	448.64	0.00
Total Business On Line Saver		**1,025.17**	**0.00**
Closing Balance		**360,739.92**	**0.00**
Commission on Sales Fish			
30 Nov 2024	Eyede Solutions - Commission - Fish	711.43	0.00
31 Dec 2024	Eyede Solutions - Commission - Fish	731.43	0.00
Total Commission on Sales Fish		**1,442.86**	**0.00**
Council Meeting Expenses			
11 Nov 2024	HCS Hamilton Limited - Lunch 16th November	292.50	0.00
11 Nov 2024	HCS Hamilton Limited - Delivery	15.00	0.00
Total Council Meeting Expenses		**307.50**	**0.00**
Equipment Purchases (Under 2000)			
01 Nov 2024	Adam Daniel - PB Tech HamiltonScreen cover for phone	57.94	0.00
Total Equipment Purchases (Under 2000)		**57.94**	**0.00**
Expense - Drift Diving Surveys			
21 Jan 2025	Waikato Hunting & Fishing - Socks for drift diving	126.07	0.00
Total Expense - Drift Diving Surveys		**126.07**	**0.00**
Expense - Fish Releases			
28 Nov 2024	Eastern Fish and Game Council - 1+ Rainbow Trout	7,680.00	0.00
28 Nov 2024	Eastern Fish and Game Council - Oxygen	47.50	0.00
28 Nov 2024	Eastern Fish and Game Council - Fin Marking (Ad clip)	300.00	0.00
28 Nov 2024	Eastern Fish and Game Council - Delivered to Lake Arapuni	583.30	0.00
28 Nov 2024	Eastern Fish and Game Council - 2+ Rainbow Trout	1,642.00	0.00
Total Expense - Fish Releases		**10,252.80**	**0.00**
Expense - Fish Surveys			
15 Jan 2025	AliExpress - Tape measures	20.05	0.00
28 Jan 2025	hallprint - Fish tags	939.13	0.00
Total Expense - Fish Surveys		**959.18**	**0.00**
Expense - Game Bird Control (Zon guns)			
01 Nov 2024	NZ Post - Courier for zon gun 21073277Troyden Kuter	9.68	0.00
22 Nov 2024	NZ Post - Zon gun courier - 15043932	13.23	0.00

04 Dec 2024	NZ Post - Courier for zon gun: 15043627	13.23	0.00
04 Dec 2024	NZ Post - Courier for zon gun: 21073276	13.23	0.00
20 Dec 2024	NZ Post - Zon gun - 18063346	13.23	0.00
20 Dec 2024	NZ Post - Zon gun - 15043635	13.23	0.00
Total Expense - Game Bird Control (Zon guns)		**75.83**	**0.00**

Expense - Habitat Works F & G Land

30 Nov 2024	Cartrack NZ - Cartrack	15.00	0.00
01 Dec 2024	Vince Chin - Armstrong Smarter SecurityPadlock	62.87	0.00
12 Dec 2024	Adam Daniel - Mitre 1012/12/24Screws for cabin	2.17	0.00
19 Dec 2024	Adam Daniel - Burnsco19/12/24Battery	347.83	0.00
05 Jan 2025	Cartrack NZ - Cartrack sub	15.00	0.00
Total Expense - Habitat Works F & G Land		**442.87**	**0.00**

Field Equipment Maintenance

14 Nov 2024	Garmin - David Klee - Satellite sub	17.39	0.00
14 Nov 2024	Garmin - Adam Daniel - Satellite sub	17.39	0.00
19 Nov 2024	Garmin - Beau Jarvis-Child - Satellite sub	17.39	0.00
14 Dec 2024	Garmin - David Klee - Satellite sub	17.39	0.00
14 Dec 2024	Garmin - Adam Daniel - Satellite sub	17.39	0.00
19 Dec 2024	Garmin - Beau Jarvis-Child - Satellite sub	17.39	0.00
31 Dec 2024	New Zealand Fish & Game Council - Seaflux Monthly Charge- December	120.00	0.00
14 Jan 2025	Garmin - David Klee - Satellite sub	17.39	0.00
14 Jan 2025	Garmin - Adam Daniel - Satellite sub	17.39	0.00
19 Jan 2025	Garmin - Adam Daniel - Satellite sub	17.39	0.00
Total Field Equipment Maintenance		**276.51**	**0.00**

Game Bird Habitat Trust

Opening Balance		**0.00**	**56.59**
30 Nov 2024	Eyede Solutions - Habitat Stamp	0.00	8.70
31 Dec 2024	Eyede Solutions - Habitat Stamp	0.00	13.04
Total Game Bird Habitat Trust		**0.00**	**21.74**
Closing Balance		**0.00**	**78.33**

Income - Designated Waters

30 Nov 2024	Eyede Solutions - Designated Waters	0.00	16.63
Total Income - Designated Waters		**0.00**	**16.63**

Income - Game Bird Control (Zon guns)

26 Nov 2024	Jo Sheriden - Zon gun hireSerial: 24073247Picked up -25/11/24Returned	0.00	20.00
26 Nov 2024	Alistair Hill - Zon gun hireSerial: 15043627Picked up - 15/11/2024Returne	0.00	22.00
17 Dec 2024	Cairra Farms Ltd - Zon gun hireSerial: 18063346Picked up - 19/11/24Retu	0.00	54.00
17 Dec 2024	Cairra Farms Ltd - Courier costs	0.00	9.25
07 Jan 2025	Alex Colquhoun - Zon gun hireSerial: 24073247Picked up - 11/12/24Retur	0.00	52.00
07 Jan 2025	Alex Colquhoun - Zon gun hireSerial: 18063349Picked up - 11/12/24Retur	0.00	52.00
07 Jan 2025	Troyden Kuter - Zon gun hireSerial: 21073277Picked up - 31/10/2024Retu	0.00	128.00
07 Jan 2025	Troyden Kuter - Courier costs	0.00	9.68
07 Jan 2025	Grant Richardson - Zon gun hireSerial: 15043931Picked up - 26/11/24Ret	0.00	78.00
28 Jan 2025	Faye Bayer - Zon gun hireSerial: 15043627Couriered - 3/12/24Returned c	0.00	104.00
28 Jan 2025	Faye Bayer - Zon gun hireSerial: 21073276Couriered - 3/12/24Returned c	0.00	104.00
28 Jan 2025	Faye Bayer - Courier costs	0.00	26.46
Total Income - Game Bird Control (Zon guns)		**0.00**	**659.39**

Interest Income

30 Nov 2024	Westpac - Interest	0.00	195.39
30 Nov 2024	Westpac - Interest	0.00	32.40
30 Nov 2024	Westpac - Interest	0.00	576.53
13 Dec 2024	Westpac - Interest	0.00	3,075.07
31 Dec 2024	Westpac - Interest	0.00	101.53
31 Dec 2024	Westpac - Interest	0.00	15.26
31 Dec 2024	Westpac - Interest	0.00	448.64
25 Jan 2025	Westpac - Term deposit 087	0.00	5,998.90
Total Interest Income		**0.00**	**10,443.72**

KiwiSaver Employer Contribution

01 Nov 2024	Superannuation	1,182.56	0.00
15 Nov 2024	Superannuation	1,182.56	0.00
29 Nov 2024	Superannuation	1,323.68	0.00
13 Dec 2024	Superannuation	1,182.56	0.00
27 Dec 2024	Superannuation	1,182.56	0.00

10 Jan 2025	Superannuation	1,182.56	0.00
24 Jan 2025	Superannuation	1,182.56	0.00
Total KiwiSaver Employer Contribution		**8,419.04**	**0.00**

Legal Funding Received NZFGC

27 Nov 2024	New Zealand Fish & Game Council - Reimbursement:S J OngleyInv:HR 0	0.00	1,466.97
14 Jan 2025	New Zealand Fish & Game Council - Reimbursement:Kahu EnvironmentIı	0.00	537.50
18 Dec 2024	New Zealand Fish & Game Council - Whangamarino Weir reimbursement	0.00	1,200.00
06 Nov 2024	New Zealand Fish & Game Council - Whangamarino Weir reimbursement	0.00	1,350.00
Total Legal Funding Received NZFGC		**0.00**	**4,554.47**

Legal/Court Prosecutions

04 Nov 2024	Stainton Chellew - Prosecution - Joel and Trevor Christensen	1,522.28	0.00
18 Dec 2024	Stainton Chellew - Fees - Prosecutions	4,034.78	0.00
23 Jan 2025	Jasmine Thai Resturant - Dinner - delivering summons	74.87	0.00
Total Legal/Court Prosecutions		**5,631.93**	**0.00**

Liason Advocacy

02 Nov 2024	Cool as Coffee - Coffee	4.35	0.00
05 Nov 2024	Smoking Chack - Sika show	15.65	0.00
26 Nov 2024	Hothouse Communications Limited - 21/11 - Make individual headers, cha	70.00	0.00
Total Liason Advocacy		**90.00**	**0.00**

National Liaison

14 Nov 2024	Blue Star Taxis - Taxi - Managers meeting	62.70	0.00
14 Nov 2024	Patterson's Restaurant - Drink for managers meeting	11.30	0.00
14 Nov 2024	Hamilton Airport - Managers meeting	9.30	0.00
15 Nov 2024	South Bar - Managers meeting	19.83	0.00
18 Nov 2024	New Zealand Fish & Game Council - Reimbursement for expenses - mani	0.00	91.83
29 Nov 2024	Woolworths - Ice	3.13	0.00
29 Nov 2024	Woolworths - Supplies for take a kid fishing	65.64	0.00
01 Dec 2024	PaknSave - Supplies for take a kid fishing	65.32	0.00
Total National Liaison		**237.22**	**91.83**

Office General

02 Nov 2024	Wheel Good Coffee - Supplies for Sika show	4.85	0.00
02 Nov 2024	Gourmet Shuttle - Supplies for Sika show	15.65	0.00
02 Nov 2024	Bunnings - Sika show supplies	86.51	0.00
03 Nov 2024	Wheel Good Coffee - Supplies for sika show	9.71	0.00
03 Nov 2024	Wheel Good Coffee - Supplies for Sika show	4.85	0.00
08 Nov 2024	Arlo - Camera sub	13.03	0.00
08 Nov 2024	Adam Daniel - Coffee	18.26	0.00
15 Nov 2024	Roslyn Simmonds - Meeting supplies	29.19	0.00
21 Nov 2024	PaknSave - Kitchen supplies	29.46	0.00
28 Nov 2024	Adobe System Software - Acrobat Pro	29.99	0.00
28 Nov 2024	Adobe Systems Software - Acrobat Standard	19.22	0.00
29 Nov 2024	Redstripe Limited - 11 Nov 2024 Task/Ticket: Auckland Waikato Fish & G	62.50	0.00
29 Nov 2024	BP Connect - Drinks	11.74	0.00
30 Nov 2024	Allied Security - Alarm Monitoring	43.72	0.00
30 Nov 2024	Eastern Fish and Game Council - November subscription - Xero accountii	72.25	0.00
30 Nov 2024	Eastern Fish and Game Council - Additional Employee Charges	6.00	0.00
08 Dec 2024	Arlo - Camera sub	13.03	0.00
09 Dec 2024	Fifo Supermarket - Kitchen Supplies	24.50	0.00
12 Dec 2024	Bunnings - Hitch lock	29.13	0.00
12 Dec 2024	Bunnings - Hitch lock return	0.00	29.13
15 Dec 2024	Allied Security - Alarm response - 14/12/24	77.10	0.00
15 Dec 2024	Allied Security - Alarm monitoring	43.72	0.00
19 Dec 2024	Adam Daniel - Woolworths19/12/24Coffee	5.91	0.00
20 Dec 2024	Mitre 10 Mega - Batteries for smoke alarm and car key	22.58	0.00
28 Dec 2024	Adobe Systems Software - Acrobat standard	19.27	0.00
28 Dec 2024	Adobe Systems Software - Acrobat Pro	29.91	0.00
28 Dec 2024	Eastern Fish and Game Council - December subscription - Xero accountii	72.25	0.00
28 Dec 2024	Eastern Fish and Game Council - Additional Employee Charges	6.00	0.00
08 Jan 2025	Arlo - Camera sub	13.03	0.00
08 Jan 2025	Adam Daniel - Fifo Supermarket8/1/25Coffee	8.69	0.00
09 Jan 2025	David Klee - Reduced to clear9/1/25Coffee	7.83	0.00
10 Jan 2025	Roslyn Simmonds - Office supplies	22.40	0.00
28 Jan 2025	Adobe Systems Software - Acrobat Standard	21.90	0.00
28 Jan 2025	Adobe Systems Software - Acrobat Pro	29.91	0.00

Total Office General		**904.09**	**29.13**
Office Maintenance			
12 Nov 2024	Green Acres - Lawnmowing3/11/24	92.17	0.00
18 Nov 2024	Green Acres - Lawnmowing17 November 2024	92.17	0.00
16 Dec 2024	Fire Security Services - Service/inspection of fire extinguisher	12.00	0.00
17 Dec 2024	Green Acres - Lawn Mowing14 December 2024	92.17	0.00
23 Dec 2024	Adam Daniel - Enviro NZ23/12/24Dumping rubbish	63.47	0.00
23 Dec 2024	Adam Daniel - Mitre 1023/12/24Wire rope grip	3.48	0.00
07 Jan 2025	Green Acres - Lawnmowing5/1/25	92.17	0.00
Total Office Maintenance		**447.63**	**0.00**
Office Power			
06 Nov 2024	Meridian - Power	176.07	0.00
06 Dec 2024	Meridian - Power	143.34	0.00
06 Jan 2025	Meridian - Power	149.55	0.00
Total Office Power		**468.96**	**0.00**
Office Premises Rates (inc Water)			
20 Dec 2024	Hamilton City Council - Metered water	112.70	0.00
17 Jan 2025	Hamilton City Council - Rates - 156 Brymer Road	48.48	0.00
Total Office Premises Rates (inc Water)		**161.18**	**0.00**
Office Purchases (Under 2,000)			
20 Dec 2024	Mitre 10 Mega - BBQ	382.63	0.00
Total Office Purchases (Under 2,000)		**382.63**	**0.00**
Photocopier			
19 Nov 2024	Canon - Photocopier	226.53	0.00
19 Dec 2024	Canon - Photocopier	16.92	0.00
19 Jan 2025	Canon - Photocopier	2.75	0.00
Total Photocopier		**246.20**	**0.00**
Postage			
08 Nov 2024	NZ Post - Zon gun courier - 23073282	4.41	0.00
08 Nov 2024	NZ Post - Zon gun courier - 23073282	4.41	0.00
19 Nov 2024	NZ Post - Zon gun courier - 18063346	9.25	0.00
09 Dec 2024	Roslyn Simmonds - Postage - Shirt to North Canterbury	10.00	0.00
22 Jan 2025	Roslyn Simmonds - Nawton Stationery22/1/25Courier	13.48	0.00
24 Jan 2025	Roslyn Simmonds - Courier items for summons	18.43	0.00
Total Postage		**59.98**	**0.00**
Prosecutions Fines			
21 Nov 2024	Ministry of Justice - Ridgeway/Kevin/Philip	0.00	108.00
21 Nov 2024	Ministry of Justice - Povey/Andrew/Richard	0.00	1,900.00
26 Dec 2024	Ministry of Justice - Ridgeway/Kevin/Philip	0.00	108.00
26 Dec 2024	Ministry of Justice - Schulte/Dean	0.00	3,925.00
26 Dec 2024	Ministry of Justice - Shelley/Joshua	0.00	45.00
23 Jan 2025	Ministry of Justice - Ridgeway/Kevin/Philip	0.00	135.00
23 Jan 2025	Ministry of Justice - Shelley/Joshua	0.00	72.00
Total Prosecutions Fines		**0.00**	**6,293.00**
Rates - F & G Land			
04 Nov 2024	Horizons Regional Council - Refund from Stone Jug Road, Kakahi	0.00	585.03
11 Nov 2024	Auckland Council - Rates - 147 Bethells road	161.98	0.00
Total Rates - F & G Land		**161.98**	**585.03**
RMA			
05 Nov 2024	Resourced AF Limited - Prepare for and attend project team meeting, incl	1,350.00	0.00
06 Nov 2024	New Zealand Fish & Game Council - Whangamarino Weir reimbursement	0.00	1,350.00
26 Nov 2024	S J Ongley - Healthy Rivers - Conference	1,466.97	0.00
03 Dec 2024	HCC - Carpark - Meeting	1.96	0.00
03 Dec 2024	Sentinel Cafe - Meeting	3.04	0.00
16 Dec 2024	Resourced AF Limited - Whangamarino Weir: Review updated consent cc	1,200.00	0.00
18 Dec 2024	New Zealand Fish & Game Council - Whangamarino Weir reimbursement	0.00	1,200.00
31 Dec 2024	Kahu Environment - Healthy RiversPlanning services	537.50	0.00
Total RMA		**4,559.47**	**2,550.00**

Salmon/Designated Waters Endorsement			
Opening Balance		**0.00**	**62.35**
30 Nov 2024	Eyede Solutions - Salmon Endorsement	0.00	4.16
31 Dec 2024	Eyede Solutions - Salmon Endorsement	0.00	12.47
Total Salmon/Designated Waters Endorsement		**0.00**	**16.63**
Closing Balance		**0.00**	**78.98**
Staff Training			
29 Nov 2024	Pantry D Bakery - Supplies for trip	56.77	0.00
Total Staff Training		**56.77**	**0.00**
Stationery			
22 Nov 2024	OfficeMax - Stationery	32.53	0.00
22 Nov 2024	OfficeMax - Paper	30.10	0.00
Total Stationery		**62.63**	**0.00**
Telephone/fax/internet			
01 Nov 2024	PureLink - Voice services	69.00	0.00
07 Nov 2024	one.nz - Broadband - Broadband	118.00	0.00
10 Nov 2024	Spark - 0800 - 0800 Phone	20.00	0.00
12 Nov 2024	Beau Jarvis-Child - Broadband - Beau Jarvis-Child	82.59	0.00
17 Nov 2024	one.nz - A Daniel - Broadband - Adam Daniel	99.96	0.00
19 Nov 2024	David Klee - INV-NZL-1089321-97982-51September - October 2024	138.26	0.00
19 Nov 2024	David Klee - INV-NZL-1150354-67257-38October - November 2024	138.26	0.00
19 Nov 2024	David Klee - INV-NZL-1214298-20825-36November - December 2024	138.26	0.00
23 Nov 2024	one.nz - Mobiles - Mobiles	358.29	0.00
30 Nov 2024	Danielle Lelievre - Broadband - Danielle Lelievre	100.00	0.00
02 Dec 2024	PureLink - Inv-1043790 - Voice services	69.00	0.00
07 Dec 2024	one.nz - Broadband - Broadband	118.00	0.00
10 Dec 2024	Spark - 0800 - 0880 Phone	20.00	0.00
12 Dec 2024	Beau Jarvis-Child - Broadband - Beaus Jarvis-Child	82.59	0.00
17 Dec 2024	one.nz - A Daniel - Broadband - Adam Daniel	109.28	0.00
19 Dec 2024	David Klee - INV-NZL-1279810-99854-55December - January 2025Broad	138.26	0.00
23 Dec 2024	one.nz - Mobiles - Mobiles	307.09	0.00
06 Jan 2025	PureLink - Voice services	69.00	0.00
07 Jan 2025	Danielle Lelievre - VoyagerInv:65490419Broadband - 31 December 2024	100.00	0.00
07 Jan 2025	one.nz - Broadband - Broadband	118.00	0.00
10 Jan 2025	Spark - 0800 - 0800 Phone line	20.00	0.00
12 Jan 2025	Beau Jarvis-Child - Broadband	82.59	0.00
17 Jan 2025	one.nz - A Daniel - Broadband - A Daniel	108.66	0.00
19 Jan 2025	David Klee - INV-NZL-1349860-28309-45Broadband	138.26	0.00
Total Telephone/fax/internet		**2,743.35**	**0.00**
Trend Counts			
09 Jan 2025	Waikato Aviation - Trend flight	3,593.00	0.00
16 Jan 2025	Waikato Aviation - Trend coiunt	2,669.00	0.00
Total Trend Counts		**6,262.00**	**0.00**
Vehicle Fuel & RUC			
07 Nov 2024	NZ Transport Agency - RUC - MGE86	803.86	0.00
11 Nov 2024	NZ Transport Agency - RUC - NSM958/QKG972	2,004.24	0.00
30 Nov 2024	BP Oil New Zealand Limited - Diesel	1,189.81	0.00
30 Nov 2024	Z Energy Limited - Diesel	294.89	0.00
31 Dec 2024	BP Oil New Zealand Limited - Diesel	910.90	0.00
31 Dec 2024	Z Energy Limited - Diesel	490.63	0.00
15 Jan 2025	NZ Transport Agency - RUC - QDK979 - Adam Daniel	671.69	0.00
Total Vehicle Fuel & RUC		**6,366.02**	**0.00**
Vehicle Maintenance			
12 Nov 2024	B Select Te Rapa - 255/70R17 BS 693	1,416.88	0.00
12 Nov 2024	B Select Te Rapa - REMOVE OLD TYRE FROM RIM, FIT NEW TYRE, B/	170.44	0.00
12 Nov 2024	B Select Te Rapa - TYRE WISE MINISTRY FOR THE ENVIROMENT SCI	26.60	0.00
12 Nov 2024	B Select Te Rapa - Wheel speed sensor	113.04	0.00
12 Nov 2024	B Select Te Rapa - LABOUR TO CALIBRATE WHEEL SENSOR	120.00	0.00
12 Nov 2024	B Select Te Rapa - WHEEL ALIGNMENT STANDARD CAR	65.00	0.00
12 Nov 2024	Norwood - Tractor repair	440.84	0.00
18 Nov 2024	Research Motors Ltd - WOF - MGE86	65.00	0.00
30 Nov 2024	New Zealand Fish & Game Council - Seaflux Monthly Charge- November	120.00	0.00
11 Dec 2024	Repco - Trailer coupling	16.52	0.00
12 Dec 2024	Adam Daniel - Burnsco12/12/24Trailer coupling lock	24.35	0.00
23 Dec 2024	Norwood - Tractor repairs	434.91	0.00

14 Jan 2025	Adam Daniel - Mitre 10 Mega14/1/25Window screen wash	7.38	0.00
22 Jan 2025	B Select Te Rapa - 5w30 VERTEX PREMIUM OIL	157.22	0.00
22 Jan 2025	B Select Te Rapa - OIL FILTER (GENUINE)	39.13	0.00
22 Jan 2025	B Select Te Rapa - Fuel Filter (Genuine)	312.17	0.00
22 Jan 2025	B Select Te Rapa - AIR FILTER (GENUINE)	65.22	0.00
22 Jan 2025	B Select Te Rapa - LABOUR SERVICE COMPREHENSIVECarry out serv	222.61	0.00
22 Jan 2025	B Select Te Rapa - ENGINE FLUSH	23.48	0.00
22 Jan 2025	B Select Te Rapa - ONE SHOT WINDSCREEN WASHER ADDITIVE	5.22	0.00
22 Jan 2025	B Select Te Rapa - COPPER SUMP PLUG WASHER	4.35	0.00
Total Vehicle Maintenance		**3,850.36**	**0.00**

Vehicle Registration

11 Dec 2024	NZ Transport Agency - Rego - QKG972 - Beau jarvis-Child	205.67	0.00
14 Jan 2025	NZ Transport Agency - Rego label replacement	6.90	0.00
24 Jan 2025	NZ Transport Agency - Rego - 4L892	46.03	0.00
Total Vehicle Registration		**258.60**	**0.00**

Vehicles

Opening Balance		**218,933.17**	**0.00**
07 Nov 2024	Benjam Reshef - Deposit - NMU609	0.00	3,478.26
07 Nov 2024	Benjam Reshef - Deposit - NMU609	0.00	8,695.65
07 Nov 2024	Benjam Reshef - Deposit - NMU609	0.00	8,695.65
06 Dec 2024	Ford New Zealand - Vehicle - QYY362	49,699.67	0.00
Total Vehicles		**49,699.67**	**20,869.56**
Closing Balance		**247,763.28**	**0.00**

BUDGET 2024/25					ACTUAL 2024/25 (as of 31/01/2025)			
Project	**Expenditure**	**Income**	**Net Cost**		**Expenditure**	**Income**	**Net Cost**	**Variance**
SPECIES MANAGEMENT								
POPULATION MONITORING								
Drift diving	3,520	1,500	2,020		126		126	(1,894)
Banding/shoveler study/wetlands study	13,500		13,500		3,611		3,611	(9,889)
Aerial transects	-		-					-
Trend counts	5,000		5,000		6,262		6,262	1,262
Fish surveys	2,000	1,000	1,000		959		959	(41)
Gamebird Research					-			
HARVEST ASSESSMENT								
Gamebirds					300		300	300
RELEASES								
Fish	18,300	5,000	13,300		10,366		10,366	(2,934)
CONTROL								
Gamebirds (zon guns)	1,000	1,000			76	701	(625)	(625)
HABITAT PROTECTION/MANAGEMENT								
RESOURCE MAN. ACT								
R.M.A	25,000	20,000	5,000		8,514	8,509	5	(4,995)
FISH & GAME PROPERTIES								
Council Land-maint,grass,fence,spray,	26,500	11,000	15,500		4,247	4,838	(591)	(16,091)
Rates	1,000		1,000		162		162	(838)
NON COUNCIL LAND								
Non Council Land	100,000	100,000						
MRP & Genesis mitigation monies	60,000	60,000				62,573	(62,573)	(62,573)
Trees	5,000	3,000	2,000		6,376			(2,000)
ASSESSING & MONITORING								
Assessment & Monitoring	1,000	-			25		25	25
PARTICPATION								
ACCESS								
Access negotiation							-	-
Signs/tracks etc	500		500					(500)
NEWSLETTERS								
Magazine/Newsletters	-		-					-
OTHER PUBLICATIONS								
Pamphlets	200		200					(200)
PUBLIC PROMOTIONS								
Displays/promotions/PR	500		500		93		93	(407)

	BUDGET 2024/25				ACTUAL 2024/25 (as of 31/01/2025)			
Project	**Expenditure**	**Income**	**Net Cost**		**Expenditure**	**Income**	**Net Cost**	**Variance**
COMPLIANCE			-				-	-
RANGING								
Ranging	500		500		212		212	(288)
RANGER TRAINING								
Training	500	500	-					
COMPLIANCE								
Legal	17,000	6,000	11,000		14,961	6,536	8,425	(2,575)
COUNCILS								
COUNCIL MEETINGS								
Meeting costs	2,000		2,000		644		644	(1,356)
PLANNING/REPORTING								
REPORTING/AUDIT								
Annual Report/Audit	16,000		16,000		1,141		1,141	(14,859)
NATIONAL LIAISON								
National Liason					145		145	145
ADMINISTRATION								
SALARIES								
Salaries	565,749		565,749		209,301		209,301	(356,448)
STAFF EXPENSES								
ACC Levy	2,300		2,300					(2,300)
Super/KS	33,995		33,995		12,558		12,558	(21,437)
Fringe Benefit Tax	7,000		7,000					(7,000)
Staff Training	4,950		4,950		57			(4,950)
Clothing	500		500					(500)
Reimb allowances	10,000		10,000					
OFFICE PREMISES								
Rent	1,500		1,500				-	(1,500)
Rates	1,420		1,420		1,013		1,013	(407)
Maintenance	20,000		20,000		932		932	(19,068)
Insurance (includes off equipment)	7,000		7,000					(7,000)
Power	2,000		2,000		867		867	(1,133)
OFFICE EQUIPMENT								
Purchases (Under $2,000)	2,500		2,500		383			(2,500)
Asset Replacement Funding								
Eqpmt Maintenance	1,500		1,500					(1,500)
COMMUNICATIONS/CONSUMABLES								
Telephone/fax	15,000		15,000		4,565		4,565	(10,435)
Postage	200		200		70			(200)
Courier								
Stationery	5,000		5,000		134		134	(4,866)
Photocopying	1,000		1,000		419		419	(581)

	BUDGET 2024/25				ACTUAL 2024/25 (as of 31/01/2025)			
Project	**Expenditure**	**Income**	**Net Cost**		**Expenditure**	**Income**	**Net Cost**	**Variance**
GENERAL								
Donations						50	(50)	(50)
Bank Charges (Interest calc by NZC)					20		20	20
General Office expenses	5,500		5,500		1,433		1,433	(4,067)
Insurance - General								
Legal - General	1,350		1,350		480		480	(870)
Public Liability insurance	3,000		3,000		1,065		1,065	(1,935)
GENERAL EQUIPMENT								
Purchases (Under $2,000)	5,000		5,000		579		579	(4,421)
Asset Replacement Funding								
Equipment Maintenance	1,500		1,500		559		559	(941)
Equipment Insurance	-		-					-
Equipment Hire/rental/running expenses							-	-
VEHICLES								
Vehicle Maintenance	15,000		15,000		8,231		8,231	(6,769)
Vehicle Insurance	12,000		12,000					(12,000)
Vehicle Registration	1,000		1,000		291		291	(709)
Vehicle Fuel & RUC	40,000		40,000		10,328		10,328	(29,672)
	1,064,984	**209,000**	**854,984**		**311,505**	**83,207**	**228,298**	**(626,686)**

Transaction List

Mastercard Business Card - 5474-33**-****-*520

Current Balance as at 03/02/2025: $2,496.57 DR

Payment Date	Description	Reference	Debit	Credit
31/01/2025	WOOLWORTHS NZ 9432 DINSDALE NZL	993101	$315.34	
30/01/2025	ADOBE ADOBE DUBLIN IRL	993001	$21.90	
29/01/2025	Adobe Saggart Dubl IRL	992901	$29.91	
29/01/2025	NZ TRANSPORT AGENCY EC PALMERSTON NO NZL	992901	$52.94	
25/01/2025	JASMINESCAFE THAIRESTA TAUMARUNUI NZL	992501	$86.10	
22/01/2025	TEMU COM AUCKLAND NZL	992201	$79.00	
21/01/2025	Garmin Eastern Creek AUS	992101	$20.00	
19/01/2025	FOUR SQUARE PARAKAI PARAKAI NZL	991901	$44.49	
19/01/2025	Muriwai Beach Camp Gro Auckland NZL	991901	$134.64	
19/01/2025	PAK N SAVE MILL ST HAMILTON NZL	991901	$262.05	
19/01/2025	DIRECT DEBIT PAYMENT			$722.69
16/01/2025	Garmin Eastern Creek AUS	991601	$20.00	
16/01/2025	Garmin Eastern Creek AUS	991601	$20.00	
16/01/2025	NZ TRANSPORT AGENCY EC PALMERSTON NO NZL	991601	$772.44	
15/01/2025	aliexpress London GBR	991501	$23.06	
15/01/2025	NZ TRANSPORT AGENCY EC PALMERSTON NO NZL	991501	$7.94	
12/01/2025	PAK N SAVE MILL ST HAMILTON NZL	991201	$423.15	
11/01/2025	BURTON S BUTCHERY LI PAEROA NZL	991101	$32.00	
08/01/2025	ARLO 408 638 3750 IRL	990801	$14.99	
29/12/2024	Adobe Saggart Dubl IRL	992912	$19.27	
29/12/2024	Adobe Saggart Dubl IRL	992912	$29.91	
21/12/2024	Garmin Eastern Creek AUS	992112	$20.00	
21/12/2024	New Zealand Post Auckland NZL	992112	$15.21	
21/12/2024	New Zealand Post Auckland NZL	992112	$15.21	
19/12/2024	DIRECT DEBIT PAYMENT			$1,751.72
16/12/2024	Garmin Eastern Creek AUS	991612	$20.00	
16/12/2024	Garmin Eastern Creek AUS	991612	$20.00	
13/12/2024	NZ TRANSPORT AGENCY EC PALMERSTON NO NZL	991312	$236.52	
12/12/2024	BUNNINGS 9527 STH HA HAMILTON NZL	991212	$33.50	
12/12/2024	REPCO TE AWAMUTU NZL	991212	$19.00	
12/12/2024	BUNNINGS 9527 STH HA HAMILTON NZL	991212		$33.50
10/12/2024	FIFO SUPERMARKET HAMILTON NZL	991012	$28.18	
08/12/2024	ARLO 408 638 3750 IRL	990812	$14.99	
06/12/2024	New Zealand Post Auckland NZL	990612	$15.21	
05/12/2024	New Zealand Post Auckland NZL	990512	$15.21	
03/12/2024	HCC Carpark Hamilton NZL	990312	$2.25	
03/12/2024	SENTINEL CAFE HAMILTON NZL	990312	$3.50	
02/12/2024	Pak N Save Clarence St Hamilton NZL	990212	$75.12	
30/11/2024	Adobe Saggart Dubl IRL	993011	$19.22	
30/11/2024	BP CONNECT TIRAU TIRAU NZL	993011	$13.50	
30/11/2024	Pantry D Bakery Rotorua NZL	993011	$65.28	
29/11/2024	Adobe Saggart Dubl IRL	992911	$29.99	
29/11/2024	WOOLWORTHS NZ 9173 ROTORUA NZL	992911	$3.60	
29/11/2024	WOOLWORTHS NZ 9173 ROTORUA NZL	992911	$75.49	
28/11/2024	New Zealand Post Auckland NZL	992811	$15.21	
23/11/2024	PAK N SAVE MILL ST HAMILTON NZL	992311	$33.88	
21/11/2024	Garmin Eastern Creek AUS	992111	$20.00	
20/11/2024	New Zealand Post Auckland NZL	992011	$10.64	
19/11/2024	DIRECT DEBIT PAYMENT			$2,032.78
16/11/2024	Garmin Eastern Creek AUS	991611	$20.00	
16/11/2024	Garmin Eastern Creek AUS	991611	$20.00	
16/11/2024	South Bar Christchurch NZL	991611	$22.80	
15/11/2024	Blue Star Taxis Chch Waltham NZL	991511	$72.10	
15/11/2024	Hamilton Airport Cafe Hamilton NZL	991511	$10.70	
15/11/2024	Pattersons Retaurant Burnside NZL	991511	$13.00	
12/11/2024	NZ TRANSPORT AGENCY EC PALMERSTON NO NZL	991211	$2,304.88	
11/11/2024	PAYMENT RECEIVED THANK YOU NZL	690047		$2,000.00
09/11/2024	New Zealand Post Auckland NZL	990911	$5.07	
09/11/2024	New Zealand Post Auckland NZL	990911	$5.07	
08/11/2024	ARLO 408 638 3750 IRL	990811	$14.99	
08/11/2024	NZ TRANSPORT AGENCY EC PALMERSTON NO NZL	990811	$924.44	
05/11/2024	Smoking Chack Auckland NZL	990511	$18.00	
04/11/2024	WHEEL GOOD COFFEE HAMILTON NZL	990411	$5.58	
04/11/2024	WHEEL GOOD COFFEE HAMILTON NZL	990411	$11.17	
03/11/2024	COOL AS COFFEE HAMILTON NZL	990311	$5.00	
03/11/2024	GOURMET SHUTTLE AUCKLAND NZL	990311	$18.00	
03/11/2024	WHEEL GOOD COFFEE HAMILTON NZL	990311	$5.58	
02/11/2024	BUNNINGS 9527 STH HA HAMILTON NZL	990211	$99.49	
02/11/2024	New Zealand Post Auckland NZL	990211	$11.13	
01/11/2024	FIFO SUPERMARKET HAMILTON NZL	990111	$21.67	

Term Deposits

			Term	Start Date	Matures	Interest paid
~~0086~~	~~$300,000.00~~	~~5.20%~~	~~12 months~~	~~15 Dec 22~~	~~15 Dec 23~~	$15,600.00
~~0087~~	~~$100,000.00~~	~~5.20%~~	~~12 months~~	~~17 Jan 23~~	~~17 Jan 24~~	$5,250.00
~~0088~~	~~$200,000.00~~	~~5.40%~~	~~6 months~~	~~24-May-23~~	~~24-Nov-23~~	$5,444.38
~~0089~~	~~$200,000.00~~	~~5.70%~~	~~12 months~~	~~24 May 23~~	~~24 May 24~~	$11,431.23
~~0090~~	~~$300,000.00~~	~~5.75%~~	~~8 months~~	~~13-Jun-23~~	~~13-Feb-24~~	$11,578.77
~~0091~~	~~$200,000.00~~	~~5.74%~~	~~8 months~~	~~13 Jul 23~~	~~13 Mar 24~~	$7,674.30
~~0092~~	~~$300,000.00~~	~~6.10%~~	~~8 months~~	~~11-Dec-23~~	~~11-Aug-24~~	$12,233.42
~~0093~~	~~$200,000.00~~	~~6.00%~~	~~6 months~~	~~18-Dec-23~~	~~18-Jun-24~~	$6,016.44
0093	$300,000.00	6.05%	8 months	18-Jun-24	18-Feb-25	
~~0094~~	~~$200,000.00~~	~~5.95%~~	~~6 months~~	~~25-Jul-24~~	~~25-Jan-25~~	$5,998.90
0095	$200,000.00	4.60%	4 months	13-Aug-24	13-Dec-24	
0096	$200,000.00	5.75%	8 months	13-Aug-24	23-Apr-25	
0095	$200,000.00	5.25%	6months	13-Dec-24	13-Jun-25	

Cheque Account Reconciliation Summary

Auckland/Waikato Fish & Game Council
As at 31 January 2025
Cheque Account

DATE	DESCRIPTION	REFERENCE	AMOUNT
Totals Summary			
31 Jan 2025	Balance in Xero		337,591.99
	Plus outstanding payments		-
	Less outstanding receipts		-
	Plus unreconciled statement lines		-
31 Jan 2025	Statement balance (calculated)		337,591.99
31 Jan 2025	Imported statement balance		337,591.99
31 Jan 2025	Calculated balance out by		-
Balance in Xero			
31 Jan 2025			337,591.99
Statement Balances			
31 Jan 2025	Statement balance (calculated)		337,591.99
31 Jan 2025	Imported statement balance		337,591.99
31 Jan 2025	Calculated balance out by		-

Auckland Waikato Fish & Game Council 2025 Sports Fishing Regulations Review

Dr Adam Daniel & Beau Jarvis-Child

Auckland/Waikato Fish & Game Council

Submitted 30 Jan. 2025

Contents

1 Summary

Fish & Game regions are required to manage sports fish in accordance with the Conservation Act 1987 and the regional Sports Fish & Game Management Plan (SF&GMP). The Conservation Act 1987 and Auckland/Waikato Fish & Game Council SF&GMP require sports fish to be managed with the following principles:

1. Ensure that the sustainability of the resource has priority over utilisation.
2. A precautionary approach will be adopted in managing fish and game populations if information is lacking.
3. Maximise recreational opportunities for hunters and anglers.
4. Establish where necessary controlling mechanisms for access to, and use of, fisheries within defined carrying capacities manage and advocate for appropriate social carrying capacities.
5. Protect pressure sensitive remote or backcountry fisheries and to manage within those capacities to preserve high quality recreational experiences.

The 2025 fishing regulation review was unique as it proposed a national initiative to simplify regulations similar to Northland and Southland regions allowing all methods in most waterways with a conservative limit. The initiative was introduced to increase opportunity for anglers and to simplify complex regulations that are seen as a barrier to new anglers. The Southland Fish & Game Council were the first to implement simplified regulations, and although their licence sales have not increased, there have not been significant complaints, noticeable impacts to fisheries or dramatic shifts in anglers use (former fly fishing only areas have not been overrun with spin anglers).

The Auckland Waikato fishing regulations are complicated and seen as a barrier to new users. Staff frequently receive calls from anglers requesting clarifications on fishing regulations and requests for areas to fish with children. Currently, there are 5 fly fishing only, 72 spin fly, and 10 fly spin bait streams listed in the Auckland Waikato fishing regulations. There are 10 listed lakes that are open to all gear types aside from two reservoirs where bait is restricted for biosecurity reasons. In addition, there are 15 notes (additional rules) that can be applied to the 97 listed streams and lakes.

Anglers were consulted via the Reel Life Newsletter, Spring Flyer, and direct email. Remits were collected via an online survey or written letter (email or paper). The number of responses was relatively low with 168 respondents to the online survey, 31 emails, and no written submissions.

Most anglers agreed that simplifying regulations would be beneficial (72%). The most selected limit was two fish for both streams (51%) and lakes (31%; see section 3.2.1). Removing minimum size limits was less popular with 40% support and allowing year-round fishing had 55% support from anglers.

Fly anglers are the primary users of steam (63%) and backcountry fisheries in the Auckland Waikato region and strongly opposed sharing fly only areas with bait or spin anglers. Some fly anglers believed their superior skill should be rewarded with access to the best fishing areas and that allowing other gear types would reduce their enjoyment of the fishery, ruin sensitive fisheries and degrade waterways. Bait and spin anglers generally supported opening more water

to bait anglers and providing more opportunities for all anglers. The lack of legal fishing areas for elderly and young anglers who cannot fly or spin fish was raised as a significant concern.

There is valid evidence to support restrictions to protect backcountry fisheries with heavy angling pressure like the Whakapapa River. In addition, warm summer water temperatures are likely causing elevated mortality even in catch and release fisheries, making the fly fishing only restriction ineffective at protecting some sensitive fisheries like the Mangatutu, where drift dive surveys have documented declines in fish populations. The council has previously decided to manage catch and release mortality with education limiting the tools available for management. The Controlled Fisheries licence could be used to manage angler use in sensitive fisheries but must be approved by the minister and is not immediately available. Summer closures are also an option and have been used by DOC but would need to last from December through February during the peak of the fishing season. Annual summer closures would restrict fishing even when stream temperatures were safe for fishing, unnecessarily restricting angler use.

With the limited options available staff recommend:

1. Reducing limits to 2 trout for all water bodies to provide a conservative and uniform approach to harvest.
2. To retain most fly fishing only areas due to a lack of other angler use controls.
3. Retain traditional fishing season on sensitive fisheries only.
4. Remove minimum size limits.

The addition of bait fishing to spin and fly-only areas is largely a political decision and should be decided by the council as it would be unpopular with fly anglers but is unlikely to significantly impact fisheries with a two-fish limit. Option A would retain 24 spin fly areas with a two-fish limit open year-round, and option B would open all non-sensitive waterways to all methods with a two-fish limit year-round (full list in Table 5). All other notes and closed waters would remain the same.

2 Background

2.1 National initiative to consolidate and simplify rules

The 2025 rule changes have been unique due to a national push to simplify rules and make them consistent across regions while protecting sensitive fisheries. For example, Northland has opened their rivers up year-round with a two fish limit (two stocked lakes have a three fish limit) and Southland has retained most of their seasons but has opened nearly all rivers to all methods (fly, spin, and bait) with a two fish limit. The goal is to reduce the complexity of regulations as a barrier to participation and increase opportunity by allowing longer seasons and liberal gear restrictions. The results of the changes have not been significant, with no substantial increases in licence sales and little or no negative feedback from anglers. However, complex regulations have been raised as a barrier to participation in the Auckland Waikato region and well covered in international literature (Heyser & Messerli, 2022; Miller et al., 2003).

2.2 Legal requirements

The Conservation Act 1987 provides guidance on setting sports fish regulations based on sports fish and game management plans. The key points are to “have regard to sustainability” and to

“include such provisions as may be necessary to maximise recreational opportunities for hunters and anglers”. The specific provisions are as follows:

(17L (1)) The purpose of a sports fish and game management plan is to establish objectives for the management of sports fish and game, or both, within any region or part of any region.

(17L (4) (a)) “have regard to the sustainability of sports fish and game in the area to which the plan relates” and 17(L) (4) (c) “include such provisions as may be necessary to maximise recreational opportunities for hunters and anglers”

The Sports Fish & Game Management Plan for Auckland Waikato Fish & Game Region 2021 – 2031 has several key outcomes, issues, and policies (Appendix 1) around setting regulations that hinge on taking a conservative approach to managing sustainable sports fish populations, maximising angler and hunter participation while maintaining the quality of the recreational experience. The outcomes, Issues, objectives and policies are conflicting as they call for maximum opportunity, simple regulations, angling methods that cater for all users and maintaining a quality experience in pressure sensitive areas. The policies call for a conservative approach to ensuring sustainable sports fish populations and maintaining a quality experience by protecting pressure sensitive fisheries. The following are excerpts from the SF&GMP:

SF&GMP relevant outcomes:

1. To maintain sustainable populations of harvestable sports fish and game bird species.
2. To manage sports fisheries and game resources having regard to sustainability to meet the interests and recreational needs of present and future generations of anglers and hunters.
3. To encourage maximum angler and hunter participation while maintaining the quality of the recreational experience.

SF&GMP relevant issues:

1. There is a statutory requirement to manage sports fish and game to ensure species and population sustainability. There is an ongoing need for information on sports fish and game populations dynamics and factors affecting their abundance, including harvest, as well as a precautionary approach to their management. Declines in habitat quality and quantity may also lead to declines in fish and game habitat values and productivity. As such, there is a need to demonstrate a cautious management approach considering any perceived decline to the fish and game resource.
2. It is difficult to monitor all sports fish and game species and habitats to a desirable level of precision and therefore we must prioritise resourcing into areas and species where the populations are under greatest stress and where regulations are likely to influence population levels.
3. There is a demand for clear and simple angling and hunting regulations and some anglers and hunters want liberalisation of methods and season restrictions when sports fish and game populations allow for additional harvest.
4. Angling and hunting methods must cater for all including the young and the elderly. Young anglers and hunters in particular are an important market and are the future of the sports. They may need assistance to learn about sports fishing and game bird hunting.
5. Participation levels, user density and methods of angler access are impacting on the quality of recreational experience in some circumstances such as in ‘backcountry’ and ‘remote’ fisheries where wilderness values are important. Problems with fisheries at this

end of the recreational opportunity spectrum require active management to avoid conflicts between users over user densities or modes of access (e.g. aircraft or jet boats).

SF&GMP relevant objectives:

1. To manage sports fisheries and game resources having regard to sustainability to meet the interests and recreational needs of present and future generations of anglers and hunters.
2. To optimise angling and hunting opportunity and maintain or improve the recreational fishing and hunting opportunities available in Auckland/Waikato.

SF&GMP relevant policies:

1. Ensure that the sustainability of the resource has priority over utilisation.
2. A precautionary approach will be adopted in managing fish and game populations if information is lacking.
3. Establish where necessary controlling mechanisms for access to, and use of, fisheries within defined carrying capacities manage and advocate for appropriate social carrying capacities.
4. Protect pressure sensitive remote or backcountry fisheries and to manage within those capacities to preserve high quality recreational experiences.

Although the Auckland Waikato SF&GMP has been approved, the current document does not prioritise conflicting policies or give effect to the Conservation Act 1987 section 17(L) (4) (c) "include such provisions as may be necessary to maximise recreational opportunities for hunters and anglers". The first minister of Hunting Fishing (Tod McClay) repeatedly stated that he would like Fish & Game to "maximise recreational opportunities for hunters and anglers". Considering the policies in the SF&GMP and the requirements of the Conservation Act 1987 the following criteria, listed in order of importance, will be applied to evaluating the proposed rule changes.

1. Ensure that the sustainability of the resource has priority over utilisation.
2. A precautionary approach will be adopted in managing fish and game populations if information is lacking.
3. Maximise recreational opportunities for hunters and anglers.
4. Establish, where necessary, controlling mechanisms for access to and use of fisheries within defined carrying capacities, and manage and advocate for appropriate social carrying capacities.
5. Protect pressure-sensitive remote or backcountry fisheries and manage within those capacities to preserve high-quality recreational experiences.

2.3 Trout Populations

To manage trout populations, it is important to know the range of the population and potential overlaps with other populations. Unlike waterfowl where the population is managed as one unit there are hundreds of distinct trout populations in the Auckland Waikato region. The current regulations list 94 separate management units just for streams making the regulations relatively complex. The Wild Fish Tagging Program has provided essential information about both brown and rainbow trout populations within the region with over 4500 fish tagged in 28 waterbodies within the Auckland Waikato region since 1996.

Rainbow trout are the dominant species, making up 92% of tagged fish within the Auckland Waikato region. Tag returns have shown very little movement (<0.1%). The movement that has

been detected has been within the same river system for example, fish tagged in the Puniu have been recaptured upstream in the Mangatutu (likely spawning). The lack of movement between streams indicates that rainbow trout populations should be managed as distinct populations.

Although brown trout only make up about 8% of fish tagged in the Wild Fish Tagging Program (unpublished data) and 2% of fish counted on drift dives (Daniel, 2022) they are highly sought after by anglers. Brown trout are highly mobile within the Auckland Waikato region (Wilson & Boubee, 1996) with fish from the upper Waipa and Mangatutu travelling to the Waikato River during the winter to feed (Wilson & Boubee, 1996). The wild fish tagging program has detected similar movement, with 20% of brown trout tag recoveries occurring in other rivers, including fish from the Ngakoaohia being recovered in Lake Whangape. Although brown trout are highly mobile, the populations are thought to be distinct as the adult fish return to spawn in their natal streams (Charteris, 2015; Gabrielsson et al., 2014). Brown trout spawning habitat within the Waikato and Waipa systems was identified using otolith microchemistry, the primary spawning areas were the upper Waipa, Mangatutu and a third unidentified stream (Gabrielsson & Knight, 2014). Brown trout require slightly cooler water to initiate spawning and avoid spawning in some rivers, like the Puniu (Gabrielsson & Knight, 2014).

Due to the separate nature of fish populations in the Auckland Waikato region, it is important to manage each individual population based on the criteria listed in section 2.1. This has led to complicated regulations that are seen as a barrier to many inexperienced anglers.

2.4 Managing Anglers in the Auckland Waikato Region

The goal of most fishing regulations internationally is to manage the sport rather than the fish population. Although the Auckland Waikato SF&GMP does have provisions to manage the social aspects of fishing the primary focus is to set regulations that will ensure adequate fish populations (maintaining a precautionary approach). When considering the impact of regulation changes, it is important to consider the impact and proportion of angler time spent using each method (fly, spin, and bait). Auckland Waikato anglers have previously reported spending 63% of their time overall fly fishing in the Auckland Waikato region (streams), with spin fishing representing 27% of angling time and bait fishing 9% (A. Daniel, 2018). The Whakapapa & Whanganui River Angler Use Monitoring study photographed nearly 500 (primarily backcountry) river users and of the anglers photographed only 1% had retained fish (A. Daniel, 2017). Spin fishers represented 12% of the anglers captured in the study and 6% of them had dead fish (A. Daniel, 2017). Although there was a documented increase in retention of trout by spin anglers the overall retention was still very low, but retention alone does not represent the total loss of fish caused by fishing as catch and release fish is known to cause some fish mortality.

Auckland Waikato fisheries have been managed using three tools:

1. Bag limits to set a maximum number of fish taken.
2. Gear restrictions to reduce the number of anglers and to create fly fishing only waters to increase the enjoyment of fly anglers by restricting access to spin and bait anglers.
3. Season length to protect spawning and to let the fish rest to increase catch rates on opening day.

2.5 Catch and release

Catch and release fishing during the summer is likely to be the biggest killer of trout in the Auckland Waikato region's streams and is difficult to manage using traditional regulations. Due to relatively warm water conditions in the Auckland Waikato region, trout are highly susceptible

to post-release mortality. Aside from the spring-fed streams like the upper Waihou and Waimakariri, the only Auckland/Waikato streams that consistently stay below 19°C are high mountain waterways like the Whakapapa. About half of the overall fishing effort in the Auckland Waikato region occurs between December and March (Stoffels & Unwin, 2023) when temperatures are at their peak.

Trout generally move upstream to find thermal refuge and can only occupy about 16% of the overall habitat during peak summer temperatures. The limited movement of rainbow trout detected in the Auckland Waikato wild fish tagging program was upstream from mainstems like the Puniu to higher elevation and cooler tributaries like the upper Mangatutu. Anglers actively target fish as they are concentrated in the upper reaches of streams like the Awakino and Mangatutu. These thermal refuges are largely fly fishing only waters or mountain fisheries where it is assumed most anglers catch and release, like the Whakapapa and Whanganui fisheries (A. Daniel, 2017).

Mortality after release was traditionally thought to be caused by hooking injuries and believed to be very low but recent research has shown that heat related stress is a far greater threat to released fish in New Zealand and abroad (Boyd, 2008; Cowx, 2017; Havn et al., 2015) with maximum mortality rates of 16-30% for Rainbow trout. A study of trout caught and released in Lake Otamangakau when water temperatures were in excess of 19°C documented a mortality rate of around 30%. A similar study of trout caught in streams in Montana (USA) resulted in 20% mortality of released fish.

Recent analysis of the Wild Fish Tagging Database shows an 8% lower recovery rate for fish tagged during the late summer. This summer related loss (assumed to be heat related stress) is in addition to normal catch and release mortality. Considering our tagging team are some of the most experienced anglers in the region and well versed in fish handling the 8% additional loss during summer is likely a conservative estimate compared to the average angler.

To put this in perspective, competition anglers on the Whanganui averaged 39 fish each during 2020 national championships with top competitors landing 25 fish an hour. The Whanganui regularly reaches 19°C during the summer, and at 20% mortality after release, a skilled fly angler could kill the equivalent of a 5-fish limit in an hour without taking any fish home. The wild fish tagging team have been landing 6-19 fish a day per angler (mean 6.6) on the Mangatutu Stream, indicating a potential loss of 1.7 per trip (20 % mortality) even if all fish are released. Post release survival can also be significantly increased by air exposure (netting the fish and taking a photo) with mortality of 48% (Ferguson & Tufts, 1991) for fish held for 30 seconds which is about the average (Lamansky & Meyer, 2016) for released trout.

The Auckland Waikato council has previously decided to manage post release heat related mortality with education. The Department of Conservation has chosen to close Lake Otamangakau during peak temperatures in February and similar closures should be considered for streams like the Mangatutu and Puniu if the educational approach is not effective and drift dive monitoring data continues to show a decline in the trout population. Unfortunately, high temperatures exceeding 19°C can occur from December to March in many Auckland Waikato streams so setting fixed closed seasons could unnecessarily limit opportunity during the peak season. Exploring options to protect heat sensitive fisheries and studying the mortality rate of released fish in New Zealand streams would be prudent to inform future regulation changes.

2.6 Grouping populations for management

In an effort to keep the regulations as simple as possible, populations can be grouped so they can be managed with the same regulations. If standard limits and season lengths are set, it is possible to drastically reduce regulations, adhere to the policies in the SF&GMP and comply with the Conservation Act. For example, four groups of waterbodies can be sorted using the five criteria listed in section 2.2. The four groupings are as follows:

1) Closed waters
    a. Small hydro lake spawning tributaries
2) Sensitive or backcountry fisheries
    a. sensitive remote or backcountry fisheries
3) Controlled fisheries
    a. Sensitive fisheries or spawning streams
4) All other waters

By using constant bag limits and seasons when grouping fisheries into management classes the current regulations can be simplified. The grouped classes can be colour-coded to be displayed on a map, further assisting anglers in interpreting the regulations based on their location. The goal of using the groupings with a colour system is to eventually integrate the regulations into a phone-based mapping system like Pocket Maps (Figure 1).

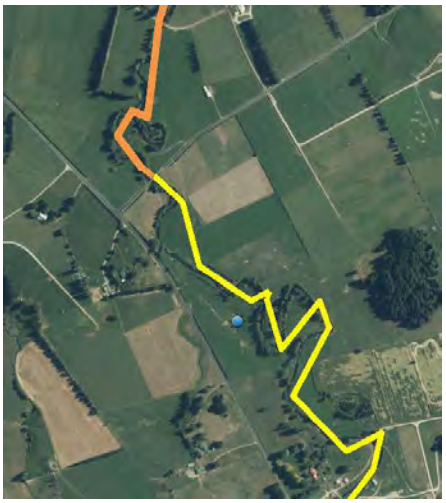

Figure 1. An example of the Mangatutu Stream with colour coded regulations.

2.7 Consultation

The potential for liberalising the Auckland Waikato regulations was communicated to anglers in the spring flyer, Reel Life and a direct email to all licence holders in the angler database (previous five years). Anglers were asked to provide feedback via an online survey (Appendix 1), written letter or email (Appendix 2). Considering the severity of the proposed changes, feedback was limited with 168 respondents to the online survey, 31 emails, and no written submissions.

The online survey received 157 respondents that specified their preferred fishing method, and the responses were dominated by dedicated fly anglers with 51% of respondents spending 90% of their time fly fishing, only 11% of respondents spend 90% their time spin fishing. In comparison the 2018 Auckland Waikato online angler survey that was sent using the same

Auckland Waikato angler database (all anglers that provided an email in the previous five years) had over 1000 respondents that indicated 37% time spent angling on streams was spin or bait fishing. It is not uncommon for user groups to be overrepresented in opt-in surveys and the proposal to eliminate exclusive fly fishing only water infuriated some anglers with one respondent labelling the proposed rule changes as “terrorism”. The most adamant objections were from fly fishing guides operating on the Whanganui and Whakapapa.

The Whanganui and Whakapapa fishery above Taumarunui has had a significant increase in angler use and added pressure from guides that have left the Taupō region due to increased fees. It would be prudent to learn more about the anglers in the area and where they are fishing to better manage the fishery.

3 Proposed Rule-changes and Staff Recommendations

3.1 Bag limits

3.1.1 Bag Limits Background

Bag limits are one of the primary tools used to limit fishing related trout mortality and most Auckland Waikato streams currently have a 5 fish limit with limits ranging from zero to no limit (for fish under 300 mm on some spring creeks). Unfortunately, fish mortality is also caused by catch-and-release angling (see section 3.2.1), so fishing pressure must also be considered even if a limit of zero is used. Although catch and release fishing is practised by most stream anglers, zero limits are discouraged for ethical reasons as a policy by the NZ Fish & Game Council.

3.1.2 Bag Limits Angler feedback

Anglers were asked what their preferred bag limit was, and the most common response for both streams (Figure 1) and Lakes (Figure 2) was 2 fish (Appendix 2). The mean response for steam limits was 2.6 and 3.5 for lakes, with lakes (Appendix 2).

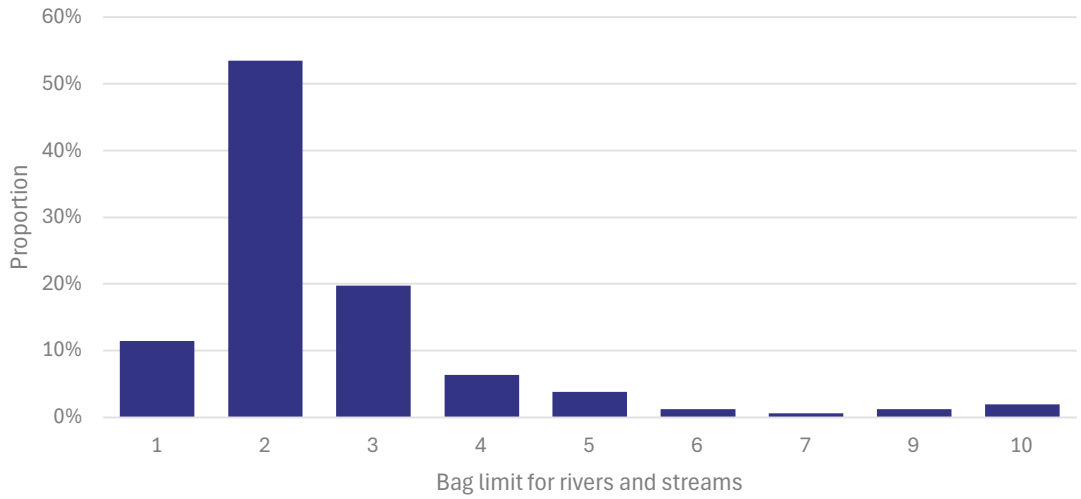

Figure 1: The distribution of responses regarding an appropriate, consistent bag limit on all rivers and streams (n=167; Appendix 2).

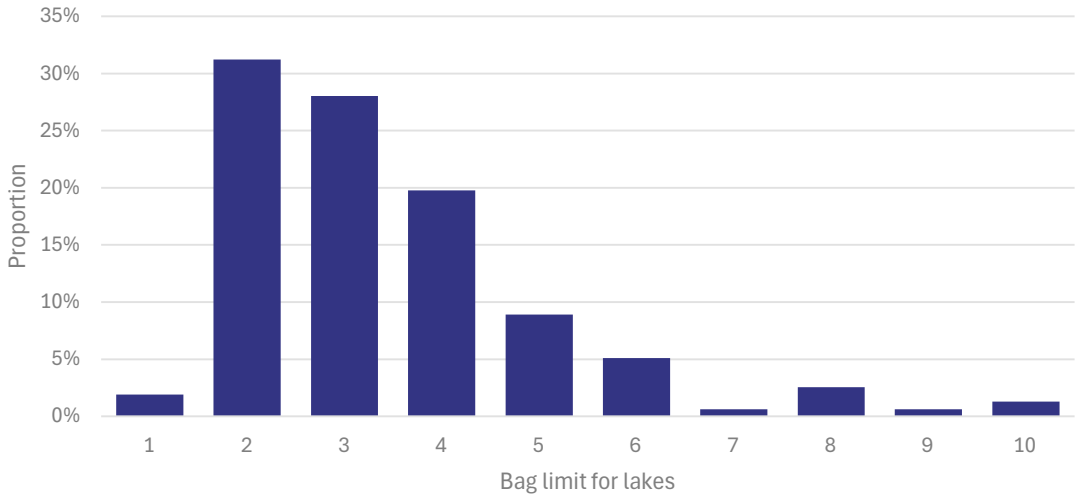

Figure 2: The distribution of responses regarding an appropriate, consistent bag limit on all lakes (n=167; Appendix 2).

3.1.3 Bag Limits Staff Recommendations

Considering the response from anglers for a 2 fish limit and a strong response in favour of simplifying regulations (72% in support; Appendix 2) staff recommend a two fish limit for all waterways. Although there are some sensitive fisheries like the Whakapapa that may justify lower limits to protect trophy fisheries, limiting access or fishing pressure are likely better tools considering the high proportion of anglers that practice catch and release in backcountry fisheries. Using a universal limit will greatly simplify the regulations and protect fisheries with only minor limitations on opportunity.

The Lake Arapuni stocking program is under review and staff have recommended a pause to the stocking program that could result in lower fish numbers over the next 3-5 years. Although a three fish limit could be applied to lakes the proposed changes to the Lake Arapuni stocking program have introduced considerable uncertainty that justify a conservative limit.

3.1.4 Fishing Methods Background

The primary users of streams and the core angling customers of the Auckland Waikato Fish & Game Council are fly anglers, so it is important to manage the fishery in line with existing policy without alienating our core customers. There are two policies in the Auckland Waikato SF&GMP that support restricting angling activity to protect fish populations in addition to maintaining the backcountry experience:

1. Establish where necessary controlling mechanisms for access to, and use of, fisheries within defined carrying capacities manage and advocate for appropriate social carrying capacities.
2. Protect pressure sensitive remote or backcountry fisheries and to manage within those capacities to preserve high quality recreational experiences.

Neither policy requires limiting access via gear type or to maintain fly fishing only areas. But The intent of the policies is to maintain “high quality recreational experiences” by limiting anglers. Under the participation section of the Auckland Waikato SF&GMP there are two relevant passages:

1. Angling and hunting methods must cater for all including the young and the elderly. Young anglers and hunters, in particular, are an important market and are the future of the sports.
2. Participation levels, user density and methods of angler access are impacting on the quality of recreational experience in some circumstances such as in 'backcountry' and 'remote' fisheries where wilderness values are important. Problems with fisheries at this end of the recreational opportunity spectrum require active management to avoid conflicts between users over user densities or modes of access (e.g. aircraft or jet boats).

Restricting fishing methods is commonly used to reduce angling pressure, reduce mortality and improve angler satisfaction by selecting methods thought to be less harmful with fewer participants. Although excluding spin and bait anglers theoretically reduces angling pressure by a third, one of the core objectives in the Auckland Waikato region is to separate fly anglers as many fly anglers appreciate the exclusive access to some of the region's best streams. Some fly anglers dislike sharing water with non-fly anglers, the following are excerpts from fly angler submission:

- Fly fishing is a "challenging art. As such there is a selection bias as to the types of individual who will choose to do so."
- "Spinning does not mix with fly fishing."
- "I personally see a correlation with littering and damage to vegetation, banks etc caused by people bait fishing."
- "I have talked many bait fishermen/ women here on the Whanganui and Whakapapa they all used Mussels from the supermarket and none of them had a License."
- "Unethical fishing because anyone can do it."
- "The rubbish left by bait fisherman will litter the side and stream eg the wharfs around the country are full of plastic bait bags."
- "Soft plastics and bait (try ganged koura tails) will slaughter the stocks because anyone can do it, no skill or interest in preserving the fishery is required."

Fly fishing has historically been considered less harmful to fish and a good method for reducing angling pressure. However, in the Auckland Waikato region most anglers that fish streams are fly anglers (especially backcountry steams), so angler numbers are not substantially reduced. Catch and release fly angling during the summer may also be more harmful than other methods due to the increased number of fish landed. In terms of protecting fish populations or maintaining trophy fisheries, the use of fly fishing-only areas is questionable. The lower Whakapapa drift dive Monitoring reach is an easily accessible spin/fly fishing area with a two fish limit that holds just as many large fish as the upper Whakapapa monitoring reach (A. Daniel, 2021) that has a zero limit for rainbow trout, is fly fishing only and has very limited access. The high use and easy access of the lower Whakapapa River monitoring reach is likely mitigated by cold water allowing for high survival of released fish. If the Auckland Waikato council intends to use fishing methods to protect sensitive fisheries by reducing use, then spin only areas would be more effective due to the reduced number of anglers participating. However, if poor survival of released fish in warm rivers, like the Mangatutu, is the primary factor limiting the trout population closures, limiting access or landing limits (land two fish and you must stop fishing) are better management tools.

The Controlled Fishery Licence and Designated Waters Licence are both specifically designed to manage the carrying capacity of fisheries. By balloting fishing days or requiring an extra licence fisheries can be managed in a more equitable way with more certainty around angler

numbers. The Designated Waters Licence was created to reduce overseas anglers in areas where fisheries were overwhelmed and require at least 50% use by overseas anglers to justify the designation. No Auckland Waikato fishery would currently meet this threshold, and staff have never received a complaint about excessive numbers of overseas anglers. The Controlled Fishery licence is intended to allow a booking or ballot system to control angler use in overcrowded fisheries and could be used as a mechanism to reduce pressure on high quality streams with high angler use like the Whakapapa (Table 1). But the low angler use of the other fly fishing only areas is very unlikely to justify a controlled fishery designation (Table 1). Both The Controlled Fishery licence and the Designated Waters licence require ministerial approval and consultation managed by the minister's office as they are new fees that are imposed on anglers. Neither option would be available for the 2025/26 season, but staff could begin preparation for future consideration by the minister.

Table 1. Angler use (angler days) of current Auckland Waikato fly fishing only waters derived from (Stoffels & Unwin, 2023). The "% change in use" is the change in angler use from the 2014/15 to the 2021/22 national angler survey.

Stream	Angler days	% change in use
Whakapapa	3772	+29
Mangatutu	989	+60
Kaniwhaniwha	499	+60
Awakino	420	+10
Kakahu	126	+270
Ngakoaohia	90	+250

There has been a significant shift in spin angling over the last decade from spinners and hard lures (generally treble hooks) to soft baits (primarily single hooks). The Lower Waikato Fishing competition has been dominated by soft bait anglers since 2012 (Wilson, 2012). Although there is no indication that treble hooks significantly increase the mortality rate of released fish (A. Daniel, 2022a) the use of treble hooks is often cited as a reason spin fishing should not be allowed in sensitive fisheries. The use of treble hooks was reviewed and approved by the Auckland Waikato Fish & Game Council in 2022. Spin anglers are currently only excluded from the six streams listed in Table 1.

Bait anglers only represent about 9% (A. Daniel, 2018) of stream angling pressure in the Auckland Waikato region. It is assumed that bait anglers retain more fish and have higher hooking mortality of landed fish (compared to spin and fly fishing in the same temperature water) but the limited data available suggests bait anglers catch trout at less than half the rate of fly anglers (Lake Arapuni Fishing Competition unpublished data). Currently, bait anglers are restricted to lowland waters and can only fish 10 of the 87 listed streams or stream reaches in the Auckland Waikato region despite paying the same licence fee as all other anglers. Although concerns of elevated fish mortality when bait fishing are valid the low number of bait anglers would significantly reduce the impact of the method. The implementation of a low daily bag limit (two fish) would further mitigate the potential impact of bait angling.

3.1.5 Fishing Methods Angler feedback

The majority of respondents to the online survey and email where fly anglers who oppose opening fly only fisheries to other methods. Just over 60% of respondents opposed all methods on all rivers and there was a direct relationship between the proportion of time a respondent spent fly fishing and their opposition to the proposal (Figure 3).

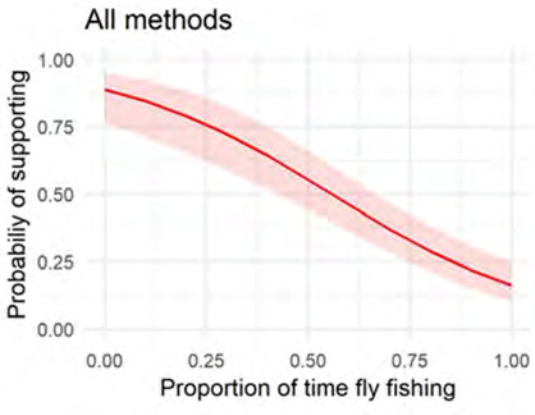

Figure 3: The estimated relationship between supporting fly, spin and bait fishing being allowed in all waterways and the amount of time spent fly fishing compared to other methods (Appendix 2).

Fly fishing guides that submitted remits strongly believed that if their clients see bait anglers, it will reduce their enjoyment and push anglers away from the Auckland Waikato region, reducing their income. Some fly anglers were so passionate they threatened to stop trout fishing altogether if they were forced to fish with bait anglers. Many fly anglers believe that fly-only waters are essential for preserving fishing quality, reducing overcrowding, and minimising the disturbance caused by other fishing methods in addition to reducing the impact of angling on fragile fisheries (Appendix 2 & Appendix 3). There is little evidence to backing most of the claims made in support of fly fishing only areas aside from reducing fishing activity that could be lowered by a third by excluding spin and bait anglers. However, the majority of backcountry stream anglers are fly fishers, so the restriction is not that effective for limiting angler use or reducing catch and release related mortality.

Fly anglers had several reasons for excluding other anglers and the following are quotes from remits:

- “To stop meat hunters from overfishing rivers with fragile eco systems.”
- “I consider fly fishing the ultimate and that anglers progress to this. Therefore, it is something to aim for.”
- “Spin fishing is inhumane and ruins fisheries. There are enough spin fishing opportunities already.”
- “Fly fishing in New Zealand has a legacy that should be protected, not just for international, but among local residents.”
- “It's a sports fish, not a meat fishery.”
- “I think it's important to have access to a few reaches of fly only water as this makes it more enjoyable.”
- “Increasing the variety of angling methods, will increase angling pressure.”
- “Spin fishers have no etiquette.”
- “The advancement of lures and soft bait methods which include products containing high amounts of HDPE, micro plastics and rubber.”
- “As a landowner with private water I get frustrated walking down to see the mess spin fishermen leave.”

Anglers were asked to specifically list the steams that they would like to be designated as fly fishing only. The existing fly fishing only streams were specifically listed in angler submissions

aside from the Kakahu that was covered in a request to retain all existing designations. The waterbodies that were specifically requested as fly fishing only water are listed in Table 2.

Table 2. Anglers' submissions on streams that should be fly fishing only. Streams in yellow are currently fly-fishing-only waters or have sections that are fly-fishing only.

Suggested fly fishing only waters
All existing fly-only areas
All headwater streams
Awakino (above Mahoenui)
Hunua Reservoirs
Kaniwhaniwha
Mangatutu
Moakurarua
Ngakoaohia
Pirongia Mountain Streams
Puniu above Bayley Bridge
Waihou
Waipapa above the falls
Waipa above Otorohanga
Waitawheta (Above Franklin Road)
Whakapapa
Whanganui above Taumarunui

Spin and bait anglers were generally supportive of opening more rivers to all methods and staff have received several complaints from anglers with families that there are very limited opportunities to fish in quality steams with kids in the Auckland Waikato region due to gear restrictions that prohibit bait. Due to high temperatures in lowland streams where bait is legal, it is very difficult to catch trout with bait in the Auckland Waikato region during the summer, including the summer school holidays. The lack of quality fishing areas for beginners often leads to unsuccessful attempts to teach kids to fish. Submitters also expressed their concern that elderly anglers were excluded as some could no longer fly fish. Staff have been assisting one such angler who is in a wheelchair and unable to spin or fly fish. The angler has purchased a full-season licence for over 40 years but does not have any accessible bait fishing water available near his home and has been asking for help to find a location where he can fish legally. Anglers in support of opening more water to spin and bait fishing submitted the following comments:

- "It means the nicest rivers are only available to be fished by a specific group and particularly affects junior anglers. For example, I cannot take my children fishing to my two favourite rivers as they don't yet have the skill to fly fish. At the least make it legal to fish with a bubble and fly in fly only rivers. "
- "Having fly only waters could also discriminate against those with less money, as in general fly gear is more expensive."
- "Fly fishing only proposals smack of elitism."
- "I fish for trout with all methods and I find it quite frustrating not being able to bait fish in most waters. It's a great way to get kids involved but I can only do this in a few places

that are generally not that scenic or enjoyable for the kids. So, more bait fishing waters please. “

- “All rivers should be available for fishing to all anglers, such as those that can't fly fish”
- “Fly fishing is difficult physically for smaller folk especially a lot of women, and those not confident wading. Soft bait fishing makes it more accessible to all.”
- “I would say that allowing spin and fly together is good, but keep bait fishing separate for the lower areas.”
- “With a reduced limit there is no need to restrict fishing method.”
- “As we get older (pensioners) it becomes very difficult to fly-fish. Spin-fishing is a lot easier on the old joints. Also, access without overhanging trees and bushes can often make fly-fishing almost impossible. Please change the rules from fly-fishing only as we oldies also enjoy trout fishing.”
- “Absolutely No (i.e. we need to get rid of this exclusive approach) - comment as to why. While the reason in the article was touted as a way of reducing fishing pressure, I believe retaining flyfishing only waters continues to encourage an elitist attitude among some. I also think it creates a lack of opportunities in some areas due to lack of readily accessible waters (i.e. close to home) for non-fly fishers.”

3.1.6 Staff Recommendations Methods

There is justification for imposing restrictions on the Whakapapa River to control angler use in an effort to “ensure a high-quality recreational experience”. The continually increasing angler use (Stoffels & Unwin, 2023) and added pressure from guides pose a threat to the region’s top fishery. Unfortunately, a controlled fishery designation is not immediately available but preparing for a controlled fishery to be considered by the minister is prudent. In the meantime, it is recommended that the upper whakapapa (1 km above the Ohinetonga Road) be designated for fly fishing only, and the lower river remains for fly and spin fishing.

There is also justification to protect fisheries from heat related mortality (catch and release in addition to population level impacts). These sensitive fisheries (Table 3) would ideally have heat related restrictions due to increased probability of high angler related mortality during warm periods between December and April. The stream reaches are also considered important spawning sites so winter closures are also justified. Although the Auckland Waikato Council was the first in the county to ban fishing competitions above 19°C an educational approach was adopted for recreational anglers. There is limited monitoring of stream temperature with real-time monitoring only available for two of the sensitive fisheries currently making compliance difficult. Heat related restrictions would also be unpredictable with some stream temperatures rising by 4°C during a hot day. Ramping up heat related mortality education amongst anglers and consulting on practical solutions to manage heat stressed fisheries with anglers is highly recommended.

Considering the lack of other tools to manage heat related stresses and the strong desire amongst fly anglers to maintain fly fishing only areas it is recommended that the listed streams are designated fly fishing only in their upper reaches with winter closures. The upper Waipa is notably missing from the list and is heat sensitive in addition to being a critical spawning stream. The lack of access on the upper Waipa has resulted in low fishing pressure that will adequately protect the fishery. The Kakahu has also been dropped from the Fly fishing only waters due to low angler use.

Table 3. Backcountry and pressure sensitive fisheries recommended to be fly fishing only in the Auckland Waikato region.

Stream	Section	Season
Awakino	upstream of Mahoenui Bridge	1 Oct - 30 Jun
Kaniwhaniwha	upstream of Quarry Road	1 Oct - 30 Jun
Mangatutu	upstream of Lethbridge Road	1 Oct - 30 Jun
Ngakoaohia	upstream of Pirongia/Kawhia Bridge	1 Oct - 30 Jun
Whakapapa	upstream of 1 km upstream of Ohinetonga Rd	1 Oct - 30 Jun

The designation of streams currently listed as fly fishing and spin fishing (controlled fisheries; Table 4) is primarily a political rather than a species management decision. If we assume that heat related stress will be managed via an educational approach and a conservative limit is in place, adding bait fishing onto the remaining waters would likely have a minimal impact. In terms of additional fishing pressure, bait anglers are a small proportion (<10%) of the overall angler use, and southland staff indicated there was no significant shift in gear type when their regulations were liberalised. The increased opportunity would be welcomed by parents of young anglers, the elderly and beginners. However, there is a risk that some fly anglers would be upset.

Table 4. Controlled fisheries requiring additional consideration in the Auckland Waikato region.

Stream	Section
Kakahu	
Kaniwhaniwha	downstream of Quarry Road
Little Waipa Stream	(Horahora Road Bridge deemed to be the mouth)
Mangaohae	
Mangatepopo	
Mangatutu	downstream of Lethbridge Road
Mangawhio Stream	
Maramataha	
Moakurarua	upstream of Honikiwi Road
Okauaka	
Ongarue	upstream of Waimiha Stream confluence
Piopiotea	
Pokaiwhenua Stream	
Puniu	upstream of Seafund Road Bridge
Tawarau	Above power station intake
Tumai Stream	
Waione	
Waipa	upstream of State Highway 3 Bridge
Waipapa River	above lower falls
Waitawheta	upstream of end of Franklin Road
Whakapapa	downstream from 1 km upstream of Ohinetonga Rd
Whakapapa-iti	
Whakapapa-nui	
Whanganui	upstream of Whakapapa River confluence

Considering the political nature of the decision two options have been prepared for council A) Controlled fisheries are Fly and Spin only, and B) All other lakes and rivers open to fly, spin and bait. Option A is largely based on social considerations with a slightly more conservative approach in terms of protecting fish stocks and a far more socially acceptable approach for fly anglers. Option B is just the opposite as it is far more likely to upset fly anglers than damage

fisheries. Fish can recover quickly form dramatic declines in population and eradication of a population is only possible with poison or a significant natural disaster so even a catastrophic error in setting regulations can be reviewed the following year and rectified without long term damage to a fishery. Table 5 gives an example of "Option A" and "Option B" as they would appear in the regulations.

Table 5. "Option A" (upper) showing potential Auckland Waikato regulations with sensitive fisheries, controlled fisheries and all other waters. "Option B" (lower) is an example of potential Auckland Waikato regulations with only sensitive fisheries and all other waters with the exception of the Whakapapa.

Option A				
Stream	Reach	Open	Method	Limit
Awakino	upstream of Mahoenui Bridge	1 Oct - 30 Jun	F	2
Kaniwhaniwha	upstream of Quarry Road	1 Oct - 30 Jun	F	2
Mangatutu	upstream of Lethbridge Road	1 Oct - 30 Jun	F	2
Ngakoaohia	upstream of Pirongia/Kawhia Bridge	1 Oct - 30 Jun	F	2
Whakapapa	upstream of 1 km upstream of Ohinetonga Road	1 Oct - 30 Jun	F	2
Whakapapa	downstream of 1 km upstream of Ohinetonga Road	1 Oct - 30 Jun	FS	2
Kakahu		All year	FS	2
Kaniwhaniwha	Downstream of Quarry Road	All year	FS	2
Little Waipa Stream	Upstream of Horahora Road Bridge	All year	FS	2
Mangaohae		All year	FS	2
Mangatepopo		All year	FS	2
Mangatutu	downstream of Lethbridge Road	All year	FS	2
Mangawhio Stream		All year	FS	2
Maramataha		All year	FS	2
Moakurarua	upstream of Honikiwi Road	All year	FS	2
Okauaka		All year	FS	2
Ongarue	upstream of Waimiha Stream confluence	All year	FS	2
Piopiotea		All year	FS	2
Pokaiwhenua Stream		All year	FS	2
Puniu	upstream of Seafund Road Bridge	All year	FS	2
Tawarau	Above power station intake	All year	FS	2
Tumai Stream		All year	FS	2
Waione		All year	FS	2
Waipa	upstream of State Highway 3 Bridge	All year	FS	2
Waipapa River	above lower falls	All year	FS	2
Waitawheta	upstream of end of Franklin Road	All year	FS	2
Whakapapa-iti		All year	FS	2
Whakapapa-nui		All year	FS	2
Whanganui	upstream of Whakapapa River confluence	All year	FS	2
All other rivers & lakes		All year	FSB	2

Option B				
Stream	Reach	Open	Method	Limit
Awakino	upstream of Mahoenui Bridge	1 Oct - 30 Jun	F	2
Kaniwhaniwha	upstream of Quarry Road	1 Oct - 30 Jun	F	2
Mangatutu	upstream of Lethbridge Road	1 Oct - 30 Jun	F	2
Ngakoaohia	upstream of Pirongia/Kawhia Bridge	1 Oct - 30 Jun	F	2
Whakapapa	upstream of 1 km upstream of Ohinetonga Road	1 Oct - 30 Jun	F	2
Whakapapa	downstream of 1 km upstream of Ohinetonga Road	1 Oct - 30 Jun	FS	2
All other lakes & rivers		All year	FSB	2

3.2 SEASON LENGTH

3.2.1 Season Length Background

The intention of a closed season is to protect spawning fish and to allow fish to remain undisturbed and increase catch rates on opening day. Opening day has also been used as a marketing tool to increase hype for the new season with the aim of increasing licence sales. Most Auckland Waikato streams fish better in the summer when fish are concentrated in the upper reaches of streams so fishing pressure is low during the opening. Rangers rarely see large numbers of anglers on opening day aside from the Whakapapa.

Trout spawning season in the Auckland Waikato region is from May to September, with peak spawning in June and July for brown and rainbow trout, respectively. Protecting trout spawning is critical, but most spawning occurs in small tributaries or the very upper reaches of catchments that are not always fished by anglers. The Mangatutu is an exception where groundwater upwelling attracts significant mainstem spawning. It is unlikely that extending the fishing season would have a significant impact on spawning but monitoring potentially impacted spawning sites would be prudent if the fishing season is extended. If small spawning tributaries are identified in the future closures similar to the hydro lake spawning tributaries would be prudent.

3.2.2 Season Length Angler feedback

Angler feedback about year-round fishing season included concerns about overharvesting, increased pressure, and making trout wary. Overall, 55% of anglers supported year-round seasons. Overharvesting and increased pressure are unlikely to be a factor during the New Zealand winter due to reduced fishing activity, high water and the dispersal of fish. Trout spread out to take advantage of cool water temperatures after spawning dramatically reducing fish densities with rainbow trout moving downstream and most large brown trout migrating to more productive feeding areas in big systems. Fish do bite more frequently and are less likely to spook when they encounter fewer anglers (Young & Hayes, 2004) but due to the low turnout for opening day this is not a significant concern for Auckland Waikato fisheries.

3.2.3 Season Length Staff Recommendations

The Sensitive fisheries listed in Table 3 include the major Auckland Waikato spawning streams that justify a closed season. However, a closed season is difficult to justify for other open streams as the hydro lake spawning streams are permanently closed to fishing, and most other spawning areas are inaccessible. The increased opportunity of year-round fishing outweighs the potential impacts on streams as it is unlikely to significantly affect fish recruitment due to the

nature and timing of trout spawning. Many brown trout spawn during the open season now without any apparent disruption to the species. There is potential for unforeseen exploitation of spawning sites, so monitoring for unforeseen disruption of significant spawning sites is prudent.

3.3 SIZE RESTRICTIONS

3.3.1 Size Restrictions Background

Minimum size restrictions are generally used to ensure some trout grow large enough to spawn. However, from a population perspective, it is far better to remove small trout (<300 mm) than large fish in terms of reproduction and angler satisfaction. Requiring anglers to remove large fish can be detrimental because fecundity is positively linked to fish size and weight (Asim Bazaz et al., 2022). Although there is a valid argument that retaining trout less than 300 mm is pointless in terms of consumption it would be far better for anglers to take small fish in terms of preserving the population.

Several spring creeks currently have no limit on trout under 300 mm to increase opportunity for anglers, but drift dive data has shown boom and bust cycles in the Waihou River, indicating that at times, the spring creeks experience low recruitment (A. Daniel, 2022b). It is also extremely uncommon for anglers to take multiple small fish in areas with no limits.

3.3.2 Size Restrictions Angler feedback

Of the anglers that completed the online survey, only 40% agreed with removing size restrictions and there were a handful of comments relating to ethical concerns about taking undersized fish in addition to a suggestion to create a slot limit to protect trophy fish. The two primary concerns from angler feedback are captured in the following comments from anglers:

- “I would not support removing the size limit. Anglers often self regulate when they see people poaching tiny trout. I have experience on south Waikato streams with people taking dozens of 10cm fish, what meat do you get from this?”
- “I propose that a maximum size limit be imposed as well. This will protect our trophy fish.”

3.3.3 Size Restrictions Staff Recommendations

Size Restrictions, in addition to a conservative limit, are not necessary to manage Auckland Waikato fisheries and may be counterproductive when most anglers would prefer to catch large fish. Considering fecundity is around 3 eggs per gram of fish, it would take approximately 8 fish under 300 mm to equal the fecundity of one 2 kg fish, so from a management perspective, allowing anglers to take smaller fish as part of their limit is better for the fishery. A slot limit to protect large fish is a good suggestion but our only trophy fishery (Whakapapa River) has no shortage of large fish. If drift dive monitoring detected a change in the density of large fish or the council designated new trophy fisheries, that lacked large fish, slot limits would be a good management tool.

4 APPENDIX 1: SPORTS FISH AND GAME MANAGEMENT PLAN

Sections of the Sports Fish & Game Management Plan for Auckland/Waikato Fish & Game Region 2021 – 2031 relevant to setting regulations.

4.1 Species Management

- (Species management (8.0)) Regulations need to take a precautionary approach to avoid over harvest.
- (Outcome (8.1)) To maintain sustainable populations of harvestable sports fish and game bird species. Throughout the region, publicly owned and managed fish and game resources are thriving within natural habitats and areas. Wild fish and game resources maintain a population which produces sufficient numbers for a self-sustaining annual harvest in the long term.
- (Issues (8.2.1)) There is a statutory requirement to manage sports fish and game to ensure species and population sustainability. There is an ongoing need for information on sports fish and game populations dynamics and factors affecting their abundance, including harvest, as well as a precautionary approach to their management. Declines in habitat quality and quantity may also lead to declines in fish and game habitat values and productivity. As such, there is a need to demonstrate a cautious management approach in light of any perceived decline to the fish and game resource.
- (Issues (8.2.4)) It is difficult to monitor all sports fish and game species and habitats to a desirable level of precision and therefore we must prioritise resourcing into areas and species where the populations are under greatest stress and where regulations are likely to influence population levels.
- (Objectives (8.3.1)) To manage sports fisheries and game resources having regard to sustainability to meet the interests and recreational needs of present and future generations of anglers and hunters.
- (Objectives (8.3.3)) To optimise angling and hunting opportunity and maintain or improve the recreational fishing and hunting opportunities available in Auckland/Waikato.
- (Policy (8.4.1) Achieve sustainability through the following approach:
  A. ensure that the sustainability of the resource has priority over utilisation (i.e., utilisation will be dependent on sustainability)
  B. in the absence of reliable information or in the face of uncertain information, a precautionary approach will be adopted in managing fish and game populations
  C. management decisions will be based on the best available information
  D. the absence of information will not be used as a reason for failing to adopt management measures.

4.2 Angler and Hunter Participation

- (Angler and Hunter Participation (10)) Protection of the quality of the angling experience, which in some areas includes feelings of solitude, remoteness and appreciation of natural surroundings and high-water quality, must remain a priority

for the Council. Too much angling pressure can diminish the perceived value of the backcountry fishery. Similar pressures also impact on hunting.

- (Outcomes (10.1)) To encourage maximum angler and hunter participation while maintaining the quality of the recreational experience.
- (Issues (10.2.1)) There is a demand for clear and simple angling and hunting regulations and some anglers and hunters want liberalisation of methods and season restrictions when sports fish and game populations allow for additional harvest. Angling and hunting methods must cater for all including the young and the elderly. Young anglers and hunters in particular are an important market and are the future of the sports. They may need assistance to learn about sports fishing and game bird hunting.
- (Issues (10.2.2)) Participation levels, user density and methods of angler access are impacting on the quality of recreational experience in some circumstances such as in 'backcountry' and 'remote' fisheries where wilderness values are important. Problems with fisheries at this end of the recreational opportunity spectrum require active management to avoid conflicts between users over user densities or modes of access (e.g. aircraft or jet boats).
- (Objectives (10.3.1)) To minimise and simplify regulations controlling angling and hunting so that they do not become an impediment to participation, but not at the expense of precautionary management.
- (Objectives (10.3.6)) To manage potential conflicts between recreational users over modes of access and methods.
- (Objectives (10.3.7)) To provide opportunities for new anglers and hunters to participate in sports fishing and game bird hunting.
- (Objectives (10.3.11)) To set limits on angler or hunter use of fisheries and hunting areas where pressure of use threatens or adversely affects the quality of recreational experience and to actively manage those areas for their key characteristics.
- (Policies (10.4.1)) Review tri-annually angling and hunting conditions and assess them for their relevance, clarity and simplicity.
- (Policies (10.4.)) Liaise with other regions over the annual review of angling and hunting conditions and to seek consistency between regions.
- (Policies (10.4.10)) Establish where necessary controlling mechanisms for access to, and use of, fisheries within defined carrying capacities.
- (Policies (10.4.1)) Monitor, manage and advocate for appropriate social carrying capacities to protect pressure sensitive remote or backcountry fisheries and to manage within those capacities to preserve high quality recreational experiences and the spectrum of fishing and hunting opportunity in Auckland/Waikato.

4.3 Administration and Statutory Servicing

- (Policy (12.4.3) Invite anglers and hunters, and iwi to participate in Anglers Notice and Game Gazette reviews.

5 APPENDIX 2 ANGLER RULE CHANGE SURVEY REPORT

Angler Rule-change Survey 2024

By Beau Jarvis-child

5.1 Methods

5.1.1 Questionnaire

There were two avenues for licence holders to provide feedback on the proposed rule change. They could either email Adam Daniel or complete an online questionnaire hosted by SurveyMonkey. Licence holders were informed of these two options via the Spring Flyer (email) and a separate specific email. The questionnaire was structured to present information on the rule change (summarised from the broader write-up in the spring flyer) and included information about each rule. Participants were asked if they supported each component (yes/no) and whether they supported the wider goal of simplifying the rules. There were also opportunities for open-ended feedback. This report primarily focuses on the responses to the survey.

5.1.2 Analysis

Support for each rule change was estimated based on the proportion of time spent fly fishing compared to other methods. We hypothesise that people would feel differently about some regulation changes depending on their preferred fishing method. Here, we combined spin and bait partly because we had little data on people who spent a lot of time bait fishing compared to other methods and partially because it is the spin and bait regulations proposed to be liberalised. A logistic regression model was used to estimate the levels of support against time spent fly fishing, and Poisson regression was used when modelling suggested bag limits. Content analysis was used to analyse the open-ended responses. Each response was coded based on the key themes/sentiment, allowing key themes to be identified along with their frequency.

5.2 Results

5.2.1 Respondents

We received 168 responses to the survey. Of these, 157 respondents provided complete data (e.g., also indicated their preferred fishing method).

We cannot assume that this collection of respondents is a random sample of the licence-holder population. Given the nature of the rule change proposal, it is likely that dedicated fly-only-fishers may hold stronger feelings and, therefore, be more vocal. To try to account for this, we collected information on respondents' fishing preferences and, where possible, described the results with respect to these preferences.

For those who responded to the survey, fly fishing was the most preferred method – with about half of respondents spending 90% or more of their time on this method. In comparison, only 11% of respondents spend 90% or more of their time spin fishing. Bait fishing was the least

preferred method, with 83% never bait fishing. While people have their preferences, most (60%) enjoy a combination of methods (Figure 1).

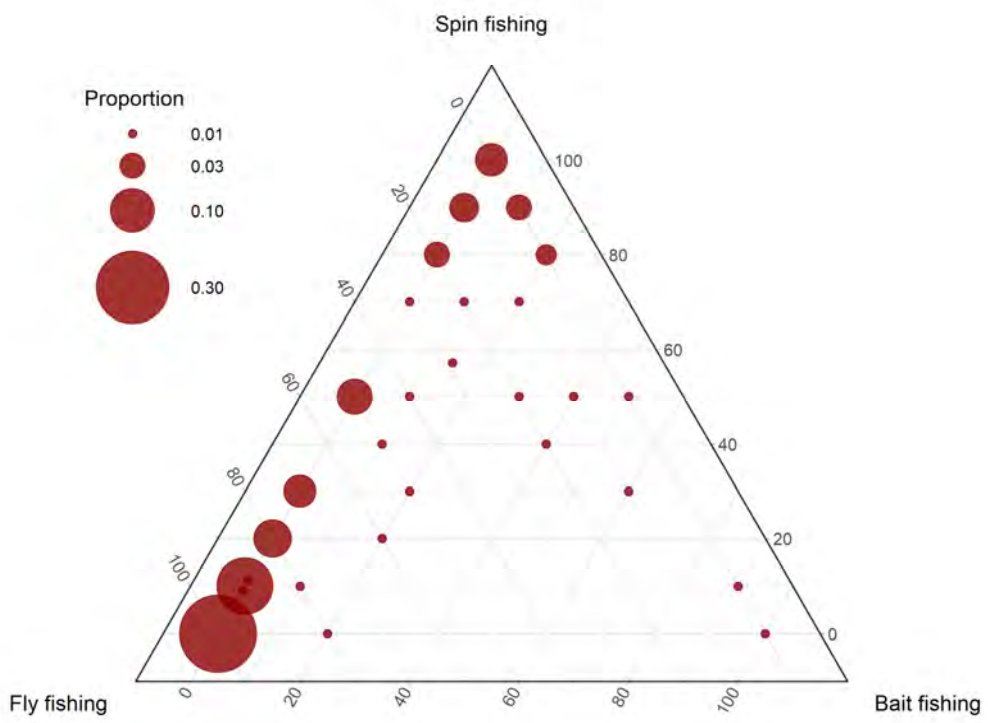

Figure 1: The distribution of preferences in fishing methods of the survey respondents (n=157). The position of the points indicates how much time individuals spend either fly, spin or bait fishing, while the size of the points indicates the proportion of the sample this was associated with.

5.2.2 Quantitative Survey Results

Across the board, most survey respondents supported simplifying the regulations to make the sport more accessible (72% on average). While support for this did lessen for those who spent more time fly fishing, it was still in the majority (Figure 1). In addition, there was widespread support for reduced bag limits across all waterways as a primary method of restricting harvest, which increased slightly for those who spent more time fly fishing (Figure 2).

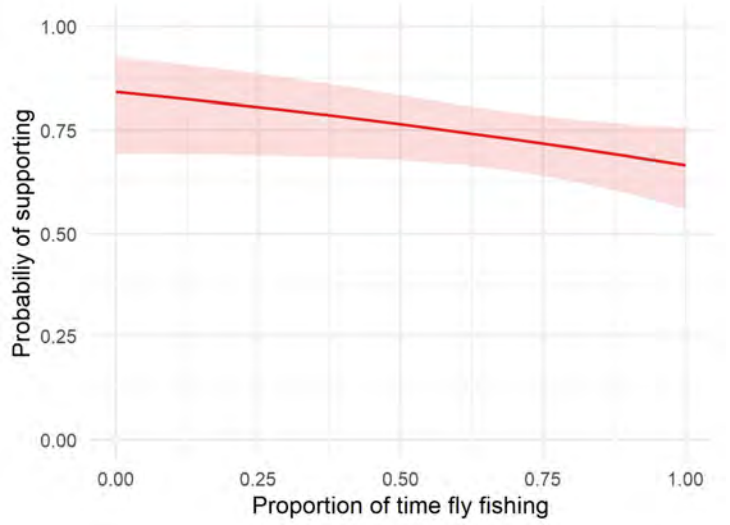

Figure 2: The predicted proportion of individuals that supported simplifying the rules to make the sport more accessible based on how much time they spent fly fishing compared to other methods.

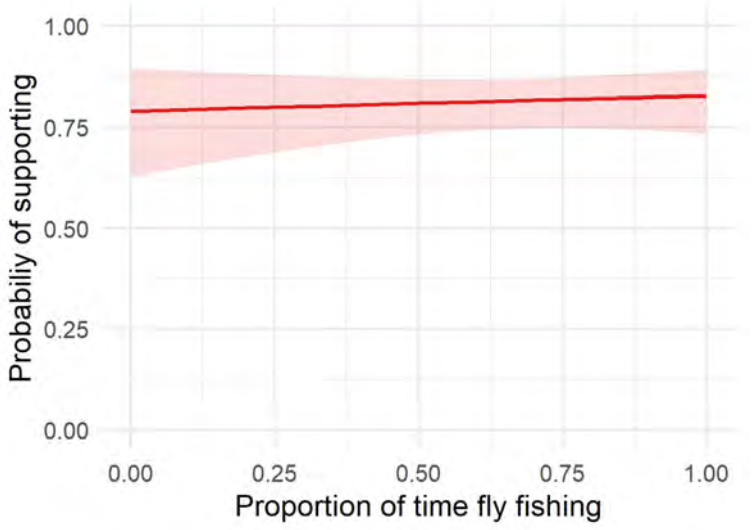

Figure 3: The predicted proportion of individuals that supported reduced bag limits across all waterways as a primary method of restricting harvest, based on how much time they spent fly fishing compared to other methods.

However, regarding the specific rules, the responses were less consistent (Figure 4). Support for allowing all methods in all waterways varied significantly depending on people's preferred method of fishing. Those who spent more time spin or bait fishing were highly supportive, whereas those who spent more time fly fishing were much more likely to be unsupportive (Figure 4). Overall, given the higher presence of fly anglers in the responses, just under 40% of anglers supported this rule change on average.

Overall support for a year-round season for all waterways (albeit with a few exceptions) and support for consistent bag limits across all waterways was similar. While people, on average, the majority supported these changes (54% for year-round season and 64% for consistent bag limits), those who spin or bait fish were slightly more likely to support these changes, while those who spent more time fly fishing were slightly less likely to be supportive.

Support was generally weaker for removing size restrictions across all waterways, and there was less of a difference based on fishing methods. On average, only 40% supported this. Again, spin and bait fishers had slightly more support than fly fishers (Figure 4).

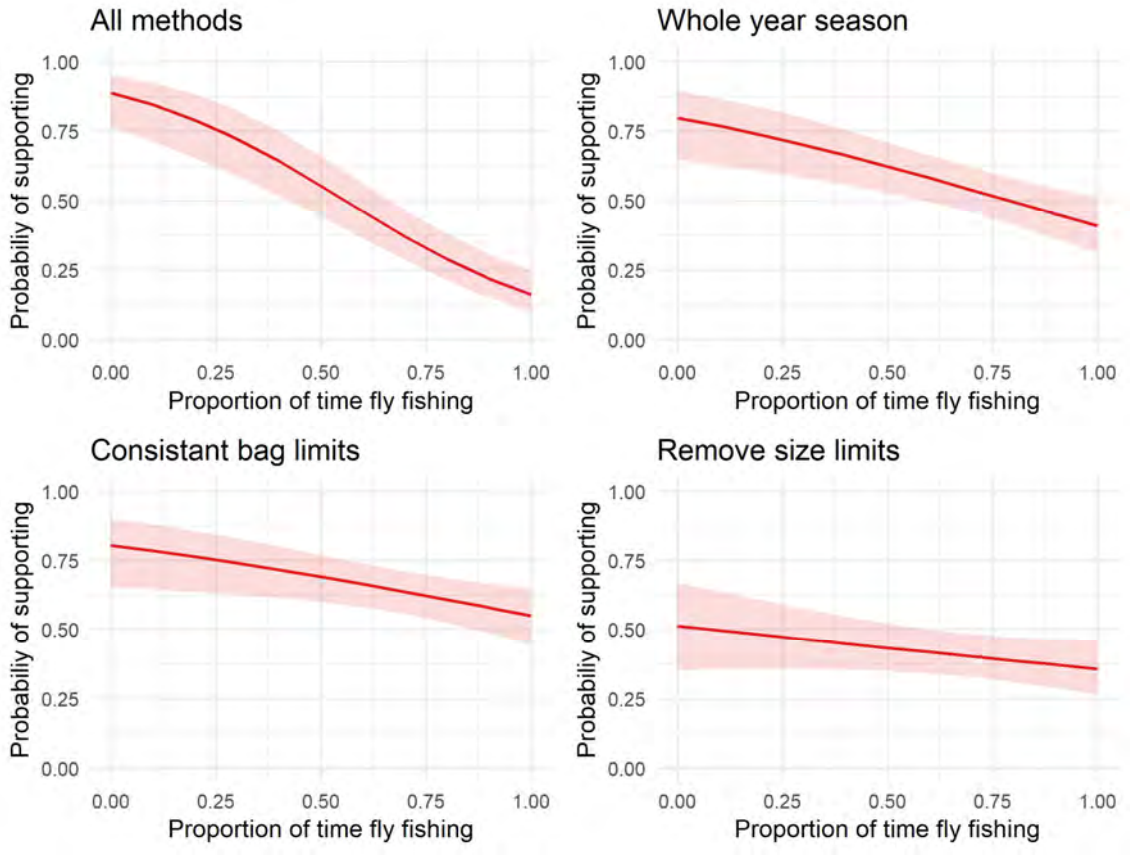

Figure 4: The estimated relationship between supporting a rule change and the amount of time spent fly fishing compared to other methods. All methods = "support fly, spin and bait fishing being allowed in all waterways". Whole year season = "support a year-round season for all waterways (albeit with a few exceptions)". Consistent bag limits = "support consistent bag limits across all waterways". Remove size restrictions = "support removing size restrictions across all waterways".

The average response regarding an appropriate limit across all waterways was 2.6 for rivers/streams and 3.5 for lakes. The most common response for both was 2. The distribution of responses is shown in Figures 5 and 6. For lakes, responses did not change significantly between fly fishers and bait/spin fishers. However, for rivers and streams, those who spent more time fly fishing had, on average, slightly lower proposed limits (p=0.036).

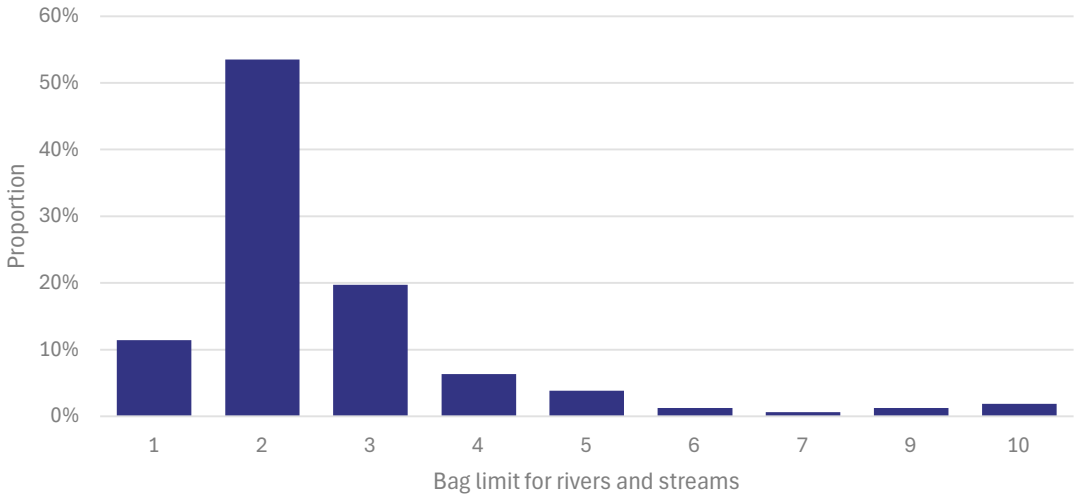

Figure 5: The distribution of responses regarding an appropriate, consistent bag limit on all rivers and streams (n=167).

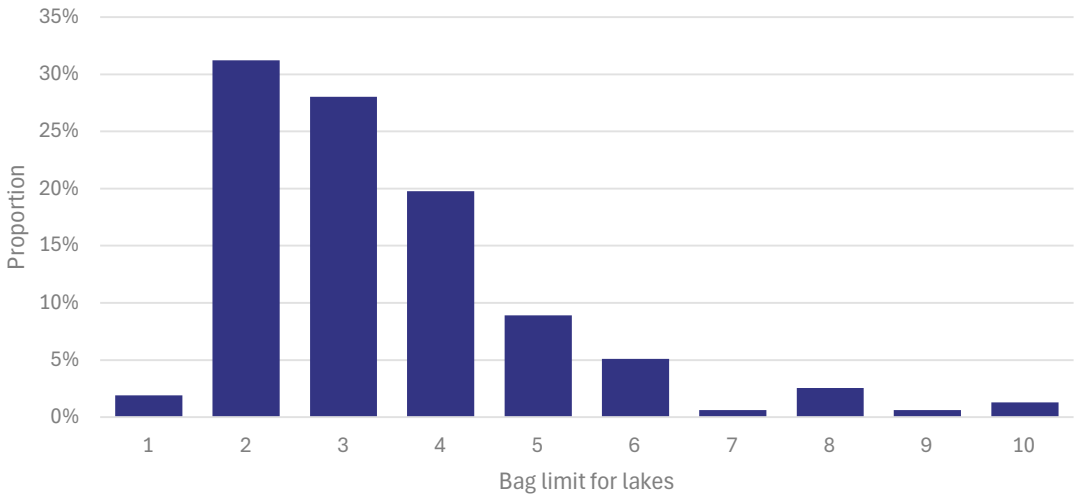

Figure 6: The distribution of responses regarding an appropriate, consistent bag limit on all lakes (n=167).

5.2.3 Qualitative Survey Results

5.2.3.1 Fly only – where?

Many respondents suggested that fly-fishing-only regulations should be enforced in all headwaters (n=40), smaller streams and backcountry areas (n=11). In addition, some responses highlighted specific waters, namely:

Suggested fly-only waters
Mangatutu
Waitawheta
Moakurarua
Kaniwhaniwha
Awakino (above Mahoenui)
Whakapapa
Upper Whanganui
Waipapa above the falls
Waipa below Otorohanga
Puniu below Bayley Bridge
Whanganui below Taumarunui
Pirongia Mountain Streams
Waihou
Hunua Reservoirs
Manganui o te Ao
Ngakoaohia
Tawarua River Headwaters

Table 1: Suggested fly-only waters.

5.2.3.2 Fly only – why?

In the open-ended responses, those supporting fly-only waters perceived them as both favourable for the environment and fisheries and necessary for the sport's legacy. Those who were against fly-only waters cited elitism and unequal opportunities. More specifically:

For those that support fly-only waters, fly fishing is widely perceived as a more sustainable method, as it puts less pressure on fisheries and the environment (n=26). Many respondents highlighted the inhumane aspects of spin and bait fishing, such as the use of treble, which they perceive results in higher mortality rates for fish (n=13). Fly fishing is also seen as less invasive, avoiding introducing foreign food and pollution into ecosystems (n=3), and is better suited for sensitive or backcountry rivers (n=8). The emphasis on catch-and-release practices further reduces the harvest and supports sustainable fishing (n=5). In addition, fly fishing is regarded as a prestigious and challenging sport, with many respondents emphasising the need for fly-only waters to protect its legacy and heritage (n=18). With respect to tourism, some believe it is necessary to promote New Zealand's iconic natural areas and trophy fisheries to overseas anglers (n=5) who desire an enjoyable and exclusive experience with few crowds (n=7). Respondents also expressed concerns about methods not overlapping well, with spin fishing disturbing the experience of fly anglers and creating conflicts (n=6). This is in part because of the perception that fly fishing fosters respect for the environment and other anglers (n=4) and is seen as a pursuit of skill and sport, contrasting with spin fishing's association with harvesting for food (n=4).

Many responses expressed concerns that fly-only regulations create inequalities by favouring specific groups while discriminating against others. Several respondents (n=7) argued that fly-only waters disadvantage children, juniors, and beginners, for whom spin fishing is often more accessible and easier to learn. Others mentioned that fly-only areas discriminate against lower-income anglers, as fly fishing is perceived as more expensive (n=5). Additionally, some respondents (n=3) noted that spin fishing is easier for older individuals and women, who may find fly fishing more physically demanding. Several individuals (n=4) criticised the elitist nature of fly-only waters, calling for the dissolution of this attitude and the need for more inclusive opportunities. A few respondents (n=4) agreed that bag limits would be a more equitable way to manage harvests rather than restricting specific methods, arguing that this approach would ensure fair opportunities while protecting fisheries.

5.2.3.3 Additional Restrictions.

Here, licence holders were asked what additional restrictions they would recommend. Many respondents supported designating certain rivers or sections as fly-only, notably trophy or spawning rivers, with some naming specific examples like the Whakapapa and Mangatutu Rivers (n=18). Of those, several emphasised that fly-only rivers should also be catch-and-release (n=7). Bag limits were another frequently mentioned topic, with many advocating for limits tailored to specific rivers or conditions (n=8) and others suggesting a general two-fish limit (n=7). Reducing bag limits during spawning seasons was also a common suggestion (n=5), while some supported increasing limits in overpopulated fisheries (n=2) or lowering them to protect trophy fisheries (n=3). There was strong support for catch-and-release policies in sensitive or spawning areas (n=10), with some advocating for a complete catch-and-release approach in these zones (n=6). A few respondents called for a ban on treble hooks (n=3) and the mandatory use of barbless hooks (n=2). Protecting spawning streams through stricter regulations or closures also featured prominently (n=9).

Several participants highlighted the need for region- or river-specific regulations, arguing against a “one-size-fits-all” approach (n=12). Some preferred to leave current rules unchanged (n=5), while others trusted Fish & Game to make decisions informed by scientific research (n=4). Size restrictions to protect breeding fish were also suggested (n=4). Across the responses, there was strong overall support for conservation measures based on sustainable harvest and scientific evidence (n=8).

5.2.3.4 Open-ended feedback

The opportunity for open-ended feedback garnered a wide range of responses, some more relevant to the rule change than others. Often, respondents restated their perspectives from previous questions. The responses are summarised as follows:

Access Issues:

- Many respondents emphasised the need for improved access to rivers, streams, and public fishing areas. Overgrown vegetation, restricted access, and privatised land crossings were mentioned. Suggestions include clearing scrub, building tracks, and adding stiles for fence crossings.

Regulation Complexity:

- While some support simplifying fishing regulations, others feel the current system works well and is not confusing for experienced anglers. Concerns exist that blanket rules fail to account for the unique characteristics of individual rivers and lakes.

Fishing Methods:

- Divisive opinions on expanding bait and spin fishing:

    - Supporters believe it encourages younger and new anglers.
    - Opponents argue bait fishing leads to overharvesting, unethical practices, and gut-hooked fish, particularly in sensitive waterways.

Treble Hooks and Barbless Rules:

- Many advocate for banning treble hooks due to the damage they cause, especially to fish released back into the water. Some propose expanding "barbless hook-only" waters.

Seasonality and Bag Limits:

- Concerns about opening waters year-round include fish overharvesting, increased pressure, and making trout wary.
- Others favour maintaining seasonal closures to give fish a recovery period.

Fly Fishing Perception:

- Some respondents view fly-fishing-only regulations as elitist, while others advocate for preserving fly fishing as a high-skill tradition.

Cost and Licensing:

- Suggestions include pro-rata license fees, better license enforcement, and simpler renewal processes.
- High costs were cited as a barrier to participation, especially for families and retirees.

Youth and Future Anglers:

- Encouraging younger generations is a recurring theme, with ideas like more bait-fishing areas for kids and accessible urban fishing locations.

Environmental Concerns:

- Pollution in lakes and rivers (e.g., agricultural runoff) is seen as reducing fish quality and size.
- Calls for sustainable fisheries management, such as catch-and-release rules in headwaters and limiting fish harvest during spawning.

Tourism and Behaviour:

- Concerns about overfishing and bad etiquette were linked to bait fishing practices, with comparisons made to popular areas like the Twizel canals.

6 APPENDIX 3 EMAIL REMITS

Adam

My Name Is John Dickson and I am a fisherman in the Hamilton area

I would like to give my thoughts to the proposed changes to the fish and game regulations

It is actually the first time I have made a formal submission on any topic, But I feel obliged to do so given the interest in the fishing community

I have had some conversation with Nigel Juby and hence have some understanding of the rationale behind the proposed changes

As a medical practitioner, who works in a field of constant change, I am aware of some principles that are relevant here

Firstly, it is our natural inclination to dislike change. When offered an alternative way of doing things, even though they may prove better, we are often at first reluctant to take them on.

Secondly, very often if a change is made to solve a particular problem, it is often replaced by other problems, some of them unintended and unexpected

This leads to the third principle "If it isn't broken, don't fix it"

I note the comment regarding the hundred regulations that apply in this region. Looking on your website, they mostly relate to closed season details and the regulations relating to how we fish are relatively few.

In that regard, I don't I don't think they are unnecessarily complicated

The proposed changes regarding the opening or closing of seasons seem reasonable. Having said that in this area, there is reasonable access to winter fishing. Furthermore, we have the blessing of the proximity to the Taupo region with some of the best winter fishing in the world

I myself like the seasonality of fishing where there is a place in time for things

Therefore, I do not have any particular objection to that change, but in my heart would prefer to leave things as they are

I take the point that a possibly significant cause of fish mortality is fishing in hot conditions with the metabolic cost of a fish being caught is often unsurvivable. Particularly as this is the period where brown trout are more likely to spawn. In that regard, it would make more sense to close some fisheries in late summer. Doing so as likely to result in a march on parliament by fisherman and hence this is probably an issue best dealt with by education rather than regulation.

I feel differently about the proposed changes to open all fisheries to all styles of fishing. Flyfishing, even though perhaps the most effective way to catch fish, is a challenging art. As such there is a selection bias as to the types of individual who will choose to do so. I suspect that opening all fisheries to spin and bait fishing will see more fisherman who fish primarily to provide for the table and rather than the art of fishing or the wilderness experience. Therefore, I think you will find there will be more fisherman who are less respectful of fish health or indeed, the fish and game regulations. I can see scenarios where local bait or spin fisherman pop down to a rivers best pools once a week or so to extract the bigger fish , with potential conflict over access.

The Southland experience, where I gather similar changes have proved not to be problematical, may be different from here where we have a larger population base.

Perhaps that is an unkind social judgment reflective of my own biases. Furthermore you might say it is not our place to judge on such variables. Nevertheless this change has the potential to possibly reshape the fishing experience.

It seems to me that there is ample opportunity for fisherman who prefer those methods and Fish primarily for the table to do so under the current regulations. And keeping the concept of the third principal above (Not changing things in a way that may have unexpected and unintentional consequences, unless there is a clear advantage to doing so), I think that I would oppose this change and would prefer things to be left as they are

Finally thank you, and your team for the many hours of unpaid work that you perform on our behalf in the interest of the fishery and fishermen.

John

Hi Adam,

I think it is great to simplify the rules for rivers. I assume the rules for lakes will remain as they are?

My view on the proposed rules:

Year-round season on most rivers (excluding spawning areas)

Agree, I think fish should be left to spawn in peace so identifying the spawning areas is critical.

No restrictions on gear (spin, bait and fly on all streams)

Totally agree.

I don't see a reason for one method to be favoured over the others. I personally own fly gear for the purpose of fishing the "fly only" waters and that happens very very rarely.

All these rules here and there put parents and children off freshwater fishing in my view. Kids can't try what they want and is easy - have to be guided all the time - this is allowed, this is not.

2 fish daily limits for all rivers

Neutral on this one - maybe make it 3 or 4 fish if the 5 fish limit is an issue.

Small limit favours locals and they have the opportunity to go often anyways.

The reality for me:

I live in South/East Auckland.

A fishing trip is minimum $100 in petrol driving south and I would like to bring something home after such expense.

I can't afford to go often, majority of my trips are blanks anyways just to reinforce the above.

When I go, I spent a lot of time trying to find access to the river, searching for a farmer to ask for permission, etc...

As a result I go to the lakes more often than rivers.

Thanks again!

Regards,

Klim

I am in favour of bait fishing on all waters, it will bring more people to the sport who will probably become fly fishers.

Kind regards,

Stuart Buchanan

Hello Adam.

I have just, through a third party, read the basic framework of possible or proposed changes to the AKL/ WAIKATO chapter of F & G.

Whilst I totally agree with your comment regarding a multitude of conflicting regulations I feel a blanket opening of everything including bait fishing is just pushing the parcel way too far. We are so fortunate in this country to have such magnificent waterways and part of that pleasure is to have seasonal and fly only restrictions in some areas. To kill off spawning fish in sensitive back country rivers where there are no releases makes little sense. When it becomes a financially driven decision to perhaps just sell more licences it probably strikes a nerve with passionate fly fishermen who I'm sure represent a high percentage of ongoing annual licence sales.

By all means simplify the regulations in some of the less significant non-trophy waters but do stand firm on closed seasons for rivers like the Whakapapa, Whanganui above the confluence, and other important waterways and some tributaries. How would duck shooters react without an opening day to look forward to. Fly fishermen probably feel the same.

I have purchased a licence every year for almost sixty years and I guided professionally out of Rotorua for 20 years. I am still an associate member of the NZPFGA. During this time we operated a lodge with an exclusively high end US fishing clientele. NZ arguably offers one of the world's finest wild fisheries. I would even argue for "catch and release" only in some of our rivers, an extremely common compliance in other countries. We need to look after our wild fisheries for the next generation. Let's not change for change sake.

At 80 years of age I still look forward to opening day. With the Taupo winter fishing option for North Islanders we are well catered for during the closed season. As for bait fishing.....probably best kept for eels and coarse fish!

Just my thoughts.

Tight lines

Simon..... <*)))><

Simon Robertson

Rotorua Trout Safaris Ltd.

3a/38 James Cook Crescent

Remuera 1050

T: 027 2896442

Associate member : NZPFGA

Couple of points. I agree re changes to catch limits, fish size limits etc. Such changes are part of ongoing fisheries management and would likely need to continue to change in response to fish population changes.

I don't agree with allowing all fishing methods in all places. I don't think there is any groundswell of demand for changes to allow bait fishing or spinning in fly-only water. Maybe there are some tweaks that could be done on some streams but I am fully in favour of retaining the status quo. I believe that the argument that the system needs simplifying is coming from the top and not from the anglers.

Closing streams in winter is a management issue again so I would fully respect Fish and Game making the call on streams that should be closed.

Regards

Steve Davis

ps I couldn't find the survey!

Having read through the proposed rule changes I wish to comment.

Having fished for many years I do not support the removal of fly fishing only areas. Apart from being easier to take trout, spinning does not mix with fly fishing. The method disturbs the water more and covers water more quickly putting flyfishers at a disadvantage with respect to enjoying their sport. All the fly fishers I know release their fish when fishing in the Auckland area streams. My experience of spin fishers is that they kill their catch. I note your argument about survival of released fish but do have some scepticism of how real this is.

If the rules are changed I would be keen that this is for a trial period to see how it does work in practise

Thanks for this and your other great work

Jonathan Cross

Hi Auckland/Waikato Fish and Game Council, I have no problem with the move to simplify the fishing regulations in our area.

I am comfortable with liberalisation of fishing methods but would prefer the upper reaches to be fly-fishing only.

I am happy with a consistent bag limit [2 fish] but am concerned that some of the back-country rivers will not be able to tolerate this level of harvest [e.g. upper reaches of Whakapapa River] , while others such as Waihou will remain overcrowded with fish.

I am not comfortable with the known spawning streams being fished all year long.

My concern with the proposed changes is that the fishing pressure is very different in different parts of the country and the proposed changes do not reflect the different demographics and fishing pressures.

Tom Watson

Hi Adam,

I trust you are well. I was looking for the survey but could not find it in relation to a submission.

Only comment my end is and it might sound exclusive. But I think the Whakapapa should be fly fishing only not bait or spin. I've seen recent pics from anglers using soft plastics and due to the nature of the equipment would say the fish will be damaged or not survive. I promote barbless where I can. I'd hope such a good fishery could be preserved for the future.

Thanks.

Rob Vaz

Please find my feedback on the proposed changes/survey questions found on your website. I think it is very positive creating more consistent rules which also helps the self-regulating nature that the Waikato needs when fish and game do not have the capacity to monitor our vast range of waterways. I am concerned with the introduction of bait to streams but I think the rest seems sensible and well thought out.

Thanks for giving members the chance to participate.

Q1 Methods of take

Your evidence on the catch rate comparable to other methods seems valid. I would comment that the main concern I would have with limiting the restrictions to allowing for bait fishing is largely due the way these fishermen fish which does not align with other methods of fishing. Bait fishing parking up on a river restricts others ability to use the waterway and compared to a fly or spin fishermen who moves frequently allowing more fishermen per area the fishing methods are not comparable allowing people to fish next to eachover. I personally see a correlation with littering and damage to vegetation, banks etc caused by people bait fishing compared to other types.

Talking with local Iwi suggest they have concern with tuna being likely to be caught with bait which is of concern to me as we need to protect, prioritise actions to improve our native species.

I also have concerns with foul fishing (foul hooking fish on purpose during spawning) in shallow spawning streams with spin fishing methods which may create Canadian like issues.

Recommendation for trout

1. For fishing on lakes all methods accepted, experianced fishermen generally move onto more untouched areas so the easiest access or most common to be fished should be the least restricted to get people started.

2. fishing on main rivers all but bait

3. fishing on small shallow streams fly fishing only, protects the amenitify value for dedicated experianced anglers who show these areas alot of respect.

Q2 Closed season

Trout are introduced species and reduce the ability for native species to thrive. As a farmer I see what the trout eat in my waterway during spawning so more than happy to allow people to remove a few extra from the population in these small farm streams. It does not seem right to restrict fishing on small waterways which hold hundreds of trout in 50m spacings during spawning.

Q3 Consistent bag limits

Agree, 2 fish per person seems sensible. Allows boat fishermen to catch a good feed per boat for the family and a solo angler is not commonly taking more than 2.

Recommendation - Increase the size limit and allow 3 per person

Q4 Size restrictions

If the principle of sustainable fishing means holding other anglers to account and having a clear standard of acceptance I would not support removing the size limit. Anglers often self regulate when they see people poaching tiny trout. I have experiance on south Waikato streams with people taking dozens of 10cm fish, what meat do you get from this?

Thanks For the information , Comparing Southland with Auckland for a survey is looking for something that suits your needs the population numbers are so vastly different .

And yes the Spin anglers are a concern in the use of treble hooks should be banded and if you looked at Wellington with a slot limit introduced they are banning triple hooks so they can be released . This is down to you to educate that fisherpersons will catch more fish with a single hook or spinning with a fly .

I agree about the fishing to hot a water , in Slovenia they close all smaller streams if the reach 20c not just com people . Is very hard if we have organised a comp people have booked acom travelled , marked beats and cannot move venues because we need permission .

Please let my know when you stop duck shooters because they are to good a shoot

Thanks Adam Peter Scott will be sending out letters to councils impacted

Thank you Adam and yes I have talked to you on the River did not consider you a ranger sorry . what about the whakapapa / Whanganui bait/ no closed session . Peter

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Peter Scott <peter@hanak.co.nz>
Subject: Auckland/Waikato Fish & Game - Proposed changes to fishing regulations .

1/ To many Regulations there may be to many but if you do not police any what does it matter weather you have 2 or 100 , last time I saw a Ranger was at least 12 year ago and he was a volunteer ranger on the Ohinemuri

2 / only one significant spawning stream the Mangatutu does someone your board like this stream , Unfortunately you control what may be the best combine river in the world the Whakapapa / Whanganui and you treat it like it is not significant . This may be your only real Trophy water .

3/ Bait fishing I have talked many bait fishermen/ women here on the Whanganui and Whakapapa they all used Mussels from the supermarket and none of them had a License , but of course your rangers would know that .

4/significant spawning stream , looking after the Ohinemuri is very important with this river being closest to the biggest population in NZ the upper Waipa ,there are many streams as important as the Mangatutu and I really like that stream

5/ simplifying regulation and opening river up year round why not do that with hunting , duck shooting let me know when you drop opening day for duck shooting

I will be writing a letter to your board and to the Fish and Game council spent the weekend fishing/ Teaching with you new Chairwomen

6/ like the picture is it the Mangatutu

Hi Adam, good to talk to you today although the fact that I had to call you to understand what is actually proposed illustrates the central problem with this proposal.

This proposal lacks an explicit rationale. What is the problem which Fish and Game is trying to resolve and why do they believe that this proposal will resolve that problem?

Simplifying the regulations implies that the existing regulations are a problem. How are they a problem? How do you know they are a problem?

To say that Southland made these changes and nothing bad happened there is hardly a rationale. What problem was Southland trying to solve? Why did they believe that simplifying the regulations would solve that problem? What has been the positive impact of these changes in Southland - were angler numbers dropping and have license sales in Southland increased as a result of the simplified regulatory environment?

I understand that Fish and Game commissioned a report which is the driver behind these changes. Why haven't members been told about this report? Why is this report not available to members?

The level of detail provided is dismal. There is an implication that all the fly only zones with the exception of the Mangatutu will disappear. That's a very significant change for fly fishermen but I only managed to get into the detail of that by talking to you. If you are consulting about change then your members deserve something more detailed than the few paragraphs provided.

For fly fisherman a reduction in fly only water is a very significant change which needs a carefully thought through and explicit rationale.

There should be a consultation document which outlines the perceived problem, the proposed changes and why Fish and Game believe these changes will impact positively on the problem. This is a minimal requirement for any competent organisation consulting about change today.

Towards the end of our call, I asked you for an update on the organisational changes that Fish and Game have been talking about in recent years. I asked because it has been clear for a long time that Fish and Game needs a much more professional approach. The poor quality of this consultation effort illustrates the urgent need for an organisational refresh.

Please don't take this personally Adam. I have always found you easy to approach, very knowledgeable and helpful. Unfortunately, I don't feel the same way about Fish and Game as an organisation.

As a fly fisherman I feel that this proposal signals a significant shift in the alignment of my interests with the direction of travel within Fish and Game. I am struggling to understand why I should continue to be a subscribing member.

Concerns.

1. Transfer of disease and pest species via contaminated baits.
2. Fish rendered nonviable to release due to deeper hooking with use of bait.
3. Devaluation of the trout fishing sport.
4. A limit reduction to 2 per day is too lean, unfair for many who cant fish often and seems unnecessary. I question my own participation in the future if the limit is only 2. I am not greedy, but there will be times depending on effort and related expenses where 2 is insufficient and unfair.
5. Policing. Unlicensed people can just say that they are eeling.

Possible solutions to the above in order.

1. With simplification of regulations, make it blinding clear and very strict that baits used must be from the same waterway or heavy penalties.
2. No solution if bait is used.
3. Reduce the cost of license accordingly. By 50% in my opinion, especially with a daily catch limit of only 2.
4. Make the daily catch limit 4 fish per day.
5. Running lines only, but, why can't someone use a rod for eels if they desire to?

Positives.

1. Revitalizing trout fishing.
2. Simplification of regulations.
3. Am presuming the cost of licenses will be reduced

Good luck.

Erin Hampson-tindale

Hey Adam.

Sorry mate. Just lastly, but I must add

I was sitting here having my coffee this morning and another feeling that came over me around the idea of allowing bait fishing for trout after having more time to process my thoughts.

I think broad bait fishing will devalue the sport. Trout fishing has a certain sophistication and class to it, which gives it value and in turn creates revenue based on the fact that it is a privilege to undertake in the sport and thus, we buy our licenses.

The fact that trout are actually an introduced pest that gorges on all that's native and indigenous is irrelevant given that in reality, money rules.

I think normalizing bait fishing for trout will seriously degrade and devalue the sport.

Cheers mate.

Erin

Hello Daniel and thanks for the oppertunity to comment on proposed changes to fishing regulations in the Auckland/Waikato region. I am an obsessed fresh water angler having fished NZ waters over the last fifty plus years beginning my adventure in the Wellington Fish and Game region on the Otaki river. I believe there is oppertunity for all methods, fly, spin and bait to apply on our New Zealand lakes and rivers having progessed as a young angler from spin fishing to fly fishing which has been my preferred method over the last 40 or so years. I say preferred method as not to sound elitest, as I love promoting our great outdoors to our younger anglers, the voices of our future sport. I have been involved with childrens fly fishing events at the Tongariro National Trout Centre over the last 30 years. Fishing the pond advocates for fly fishing providing a quality experience for the children involved.

What concerns me with the overall feeling of these proposed Fish and Game regulation changes is the open door policy of these changes and the effect this may or may not have on our National Angling Jewels our unique and unspoilt rivers and lakes of NZ. If simplifying the regulations for the Auckland /Waikato regions is aimed at making it simple for anglers to understand the regulations and simply get more anglers on the water and increase licence sales, it will probably achieve its aim but at what expence to the future wellbeing of our present great fisheries. The past great work and dedication of Fish and Game management will I believe largely have been ignored at the prospect of a quick fix and fingers crossed approach.Managers in the past would have thought of this if it was that simple but they had a clear vision (I believe) of Fish and Games future and most importly of the future wellbeing of our rivers and lakes, their environmental outcomes, their habitat protection and kaitiakitunga for future anglers.

The fact that some changes have already been implimented by Southland Fish and Game and so far have had no adverse effect means nothing, yet! I am not against change here but I am against blanket, as mentioned quick fix change. Anglers in general are passionate about their sport and the environment, they return year after year to their favourite lake or river because of a number of authentic, positive reasons not just fish numbers. International anglers visiting our waters will judge us for sure, like why are

they now charged more to fish in what has become an anything goes unprotected river. A blanket change may create a tide we can't turn. I would be most interested to be involved in any future discussions, Thanks for your time and Tight Line

Peter Wilton, Taupo.

Adam

Whoever could have anticipated Fish & Game would ever encourage trout roe and hooked cicadas and soft plastics being used on prime back-country streams instead of prosecuting that activity

Not even a proposal to preserve any streams for ethical fishing. Wow.

'For the children'?....I'm left speechless.

The fix for this is political, inside and outside Fish & Game.

You might get away with this for a little while but not forever.

Regards

Tim Blanch

Hi Adam

Just did the survey and wrote in it that I would be happy to join a discussion group if there were any, but I don’t think the survey can get back to its participants? Anyway, I would like current (there are hardly any: 5 river sections out of 80!!) fly-only waters to remain and I would like a potential universal bag to be higher than 2; in the survey I said 4 but perhaps I could live with 3.

Cheers

J

Hello Adam

Any long term hard stats on the " impact on fish stocks" or just loose observation by people in favour of unethical fishing because anyone can do it?

The legalisation of jigging in Lake Taupo and the Rotorua lakes has been a disaster. Tourist operation party boats love it, 'we all get to kill a fish'. I see the same deep holes fished daily, 365 days a year, weather permitting.

When they have bait, release will be impossible with deeply swallowed hook ups.

I'm a foreigner who has made 60+ fly fishing trips to NZ.

If this stupidity becomes actuality I see that ending in a couple of years, there's always Alaska.

You might like to look at sophisticated Nth American trout management. Try your approach with the premium trout streams there and there will be a revolt.

Why would you want to push the resource?

"You won't know what you got til it's gone".

Regards

Tim Blanch

This proposal will destroy the fishery

allowing bait on almost all streams will disincentivize people to take up fly fishing

catch and release will become redundant as bail is usually taken down into the gut

the rubbish left by bait fisherman will litter the side and stream eg the wharfs around the country are full of plastic bait bags

regards steve besley

Good morning

I am a trout fisher in the Waikato and King Country area and licence holder for 50 years. Over this time I have seen many changes in both the fish populations in various streams as well as the fishing pressure. For example, 30-50 years ago there was an abundant population of brown trout in the upper Waipa catchment, with many fish migrating into the head waters as summer advanced. These days the Morakurarua and upper Waipa are predominantly rainbow fisheries with a smaller population of brown trout. Similarly the ratio of browns to rainbows has shifted to a lesser degree in the Mangatutu and Puniu rivers. There is generally a reduction in mayfly hatches on these and other streams and even lace fly numbers are greatly diminished compared to decades ago. Younger fishers will not be aware of the wonderful fishing we enjoyed through the 70's and 80's in particular, although the fishing can still be excellent.

I am keen to see younger folk get into the sport, and to this end it's great that there are opportunities for spin and bait fishing throughout the district. However some fisheries are quite susceptible to over fishing and also the experience in the headwater fisheries can be destroyed by indiscriminate and uncontrolled fishing pressure. I am very aware that with the increase in catch and release philosophy, the fish in some of our smaller streams become increasingly shy and difficult to catch as summer progresses. In fact It's almost possible to "label" some of the fish as having been caught before, judging from their behaviour. This is especially true in areas that are fished almost on a daily basis.

On a number of occasions I have had a day's fishing destroyed by spin anglers marching along the river banks in full view and covering great distances of river with a few casts into each pool before rapidly walking on up river, leaving long stretches of river disturbed - effectively for the rest of the day. On smaller rivers, spin fishers and fly fishers do not often share the same approach to leaving the river as undisturbed as possible.

I believe that sensitive smaller streams in the headwaters should be designated as fly only. Making all fisheries open to all methods runs the risk of destroying a special experience for everyone. Fly only fisheries are not "exclusive" in fact the opposite, as their very existence encourages younger people to take up fly fishing in order to enjoy the very special surroundings and quiet enjoyment of these pristine places. There are lots of opportunities for "all method" fishing in the larger rivers and lakes, but the small streams in particular need to be protected for the unique experience available in those areas. There is a significant risk in relaxing rules to a level of all methods, everywhere. All sports and recreations by and large have self imposed rules to make sure participants can enjoy themselves but within certain boundaries of behaviour etc.

There are very few fly only waters in the district currently. When these were designated in the past, it was for good reason. In particular, I would encourage a fly only rule upstream of Toa's bridge on the Waipa, for the upper Mangatutu above the quarry, and for the Moakurarua above Honikiwi. The very nature of these small streams means that they can only tolerate limited fishing effort. An attempt to increase numbers of

people fishing such areas will spoil the experience for everyone. Nobody wants to spend the day fly fishing up a small stream behind a group of spin fishers.

Close seasons are essential to allow rivers to have a “rest” especially during spawning times. Catching slabby fish post spawning is easy and inexperienced fishers may find this rewarding without realising the damage that can be done. Some rivers are more vulnerable to fishing pressure than others, so catch limits should be tailored to suit, and indeed should be varied regularly to reflect fish populations etc.

I would be worried if a “any method” and "no close seasons" philosophy was then adopted for game birds and whitebait, just to increase availabilty for everyone ! How about "all methods" on the Taupo rivers, say the Tongariro for example.....

The intention to increase angler access to rivers is great and I applaud Fish and Game’s work regarding this. The relaxation of rules and regulations however may well prove to be detrimental. We are all custodians of our very special fishery and need to preserve a good experience for everyone in the future.

I will also complete the on-line survey

Mike Goold

Hi Adam

Thanks for the opportunity to make a submission on the rule changes.

The points I would like to make are these:

Bait fishing would create a static fishing environment in a number of our waterways more suited to a mobile fishing approach, this then denies other anglers opportunity.

Bait fishing could increase a higher mortality in small fish with the hook causing internal damage and the inability to remove the barbed hook to avoid this.

Bait fishing will increase angler pressure on waterways, a sort of dumbing down the approach and impacting on other more sporting approaches, we see it on US waterways.

Bait fishing would increase fish take in rivers that during higher flows and turbidity currently fish have some degree of protection with the current approaches being much less effective during this time.

The baits available today must have a greater impact on fish numbers than when the bait was a worm on a hook approach, this could mean more fish caught and and an angler upsizing while on the water with smaller fish discarded as they sought to achieve this. Again younger fish becoming victims of this approach.

Some cultures here will welcome this with groups decending on waterways currently protected by the current legislation. Bringing a take all they can approach. We see this consistently in the saltwater fisheries.

Some rivers such as the Arapuni and Mangatutu need rules to protect not just the fish numbers but the experience of fishing such waters. Two that I believe should be totally catch and release with flyfishing only.

Large groups taking over a fishery already occurs with the NZ Sport flyfishing organisation virtually ticketing waters for their competitions excluding others from such waters this would only get worse with allowing bait fishing.

I would like to see the winter spawning rules brought forward a month to end of May in sensitive fisheries especially giving those fish that have already moved into these environments added protection especially with the possible threat of bait fishing occurring.

A two fish limit should be applied to ALL sports fishing in the region in all waterways as a stand alone rule change not as a means to allow the other changes to occur unless a no keep catch and release approach,

many if not all waterways are in a poorer environmental state then twenty years ago the Waikato Regional Council water quality testing reflects this and a change to a two fish limit is overdue already with habitat degregation and ongoing concern and reality.

I feel we need to bring in changes to better protect fisheries rather than add to the fishing pressure waterways that have high water temperatures where fish experience stress should be closed during key times ok it might deny holiday makers their access but that should be seen as a privilege not a right.

The current regulations are not that difficult to understand what could be rather the issue is anglers ignorance of the rules a simple willingness to understand that they cannot just do what they want rather as with all other environments people enter that comes with responsibilities.

I was in Hawkes Bay when similar rivers which were once flyfishing only were opened to spinning and the numbers of spinning sets sold in retail rapidly increased as families with recently occupied lifestyle blocks decended on waterways,

removing the quality experience from those who had previously enjoyed a better quality experience.

If this is driven to increase license sales I would rather pay more for a license rather than allowing more pressure on waterways by dumbing down the approach our decreasing wild fisheries need more protection rather than pressure.

I would like instead the focus of F and G to be on access to waterways with a better fishing experience for those who value what such an experience brings. I feel a bait fishing rule would mean much of this (including access would be lost) as angling pressure increases especially those where there is currently a delicate balance between access and angler numbers.

Thanks for taking the time to read through my views.

Regards

Mark

Good afternoon

I am a keen fly fisher, but I try to avoid eating fish; not for ethical reasons: but I just do not enjoy the taste.

The result is that the proposed changes to the bag limits have no effect on me. I suppose that makes me a trophy fisher.

Most of our fisheries have a lower size limit. I propose that a maximum size limit be imposed as well. This will protect our trophy fish. The survival rate should be high as most fly fishers have a high ethical standard and will take great care to return fish to the water in a healthy state to give someone else a chance to experience the thrill of a trophy fish.

Two big attractions for overseas fishers are the size and ease of access to our trout. Killing a large trout is removing genetic growth potential out of the gene pool. The remaining pool is poorer for this. In any event, I understand that smaller (just size) fish taste far better that the bigger fish.

As a last point, I believe that the current bag limits for both fresh and salt species should be reviewed to truly sustainable levels.

Kind regards

Chris Glass

Hi Adam,

I trust you are doing well.

A lot of food for thought great newsletter.

Notes: losing access lower Waipapa this is also a safety issues if people can't access the boat ramp to save a life?

Whakapapa still noticeable pressure early season

This should be a fly fishing only river or designated waters so Europeans can't stay there for weeks.

Thanks,

Rob Vaz

I think u should keep the ngakohia as it is the fish need a rest after spawning people sneak in there and spin fish it's fly only water it's sad that stream has gone down hill over the last few years Johnny

Replying to the changed does it mean the pirongia streams

With be open year round? Personally I think that's a terrible idea they hardly have many fish in them if people take 2 out each time there will be none left the fish numbers have dropped considerably in the last 5 years I think this change will ruin the little pirongia stream

Thanks johnny

You do understand this proposal will rapidly destroy premier trout fishing in NZ ?

Regardless of the food available the gene for 'bigness' must survive in numbers or silly little fish prevail.

Soft plastics and bait (try ganged koura tails) will slaughter the stocks because anyone can do it, no skill or interest in preserving the fishery is required.

"You know not what you do". A trout fishing tragedy will result.

Regards

Tim Blanch

The new changes sound great.maybe frustrating for seasoned anglers,no one likes change but this change may benefit all anglers higher population in numbers and higher catch rates if the limit is two fish per person.

Kind regards,

Shane Michael.

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Mallard and Grey Duck Population Status

Beau Jarvis-Child 2024

1 SUMMARY

This report's primary objective is to estimate the mallard and grey duck population by banding and other appropriate techniques. Grallard population size is an important metric for gamebird managers, and understanding the factors that influence it is key to moving towards an adaptive gamebird management framework. The Auckland Waikato Fish & Game Council estimates grallard population size from data generated by the gamebird harvest survey (GBHS) and from a banding programme which have run from 1993 and 2002, respectively. Population size is calculated based on the assumption that we know two things:

1. How many birds in total were harvested each year.
2. What proportion of the population was harvested.

In this report, population estimates were generated from 2002 to 2024. Estimates suggest that while the grallard population has decreased from historical levels, it remains relatively stable in recent years. Harvest rates fluctuate considerably from year to year while total harvest remains relatively stable, indicating that outside (i.e., environmental factors) are likely to have a significant effect on changes in the population. However, no links between population dynamics and environmental data were identified. Efforts to identify potential effects and ways to improve how we estimate population size will continue to be investigated.

2 METHODS

Grallard population size ($\widehat{N}$[1]) is calculated for each year using the Lincoln[2] estimate, which states that if we know the proportion of the population harvested (harvest rate $\hat{h}$) and the total harvest $\widehat{H}$ then, we can estimate the total population by dividing $\widehat{H}$ by $\hat{h}$ however, it is more commonly written as:

$$\widehat{N} = \frac{b\widehat{H}\hat{\rho}}{r}$$

Where b is the number of newly banded birds, r is the number of newly banded birds shot in the proceeding season (also called first-year returns), $\widehat{H}$ is the estimate of total grallard harvest, and $\hat{\rho}$ is the probability of band reporting.

Estimates of total harvest are estimated from the Game Bird Harvest Survey (GBHS), which runs over several periods that span the gamebird season. In each period, a minimum of 120 adult and junior full-season licence holders are phoned and asked about how many ducks they harvested We estimate the average grallard harvest per person for each period. The sum of all periods represents the average harvest per person throughout the season. This can be multiplied by the number of licence holders to get an estimated total harvest for the year.

Values for b and r are known; however, because not all bands get reported, we must correct for non-reporting each year by estimating the non-reporting rate $\hat{\rho}$. Previously, data to estimate $\hat{\rho}$ was collected as part of the GBHS, and a three-year average was used because estimates had high uncertainty and fluctuated considerably from year to year. This year, we ran an SMS survey that aimed

[1] The “hat” notation signifies an estimated quantity.

[2] Lincoln FC. 1930. Calculating waterfowl abundance on the basis of banding returns U.S. Department of Agriculture Circular No. 118

to improve estimates (the report is attached separately). We found that the verified reporting rate in 2024 was around 52%. Given that this may be the least biased estimate of $\hat{\rho}$ I chose to extrapolate these estimates back to all previous years. There are naturally limitations to this. However, it is worth noting that:

1. No significant trend was observed over time based on the GBHS data.
2. Eastern's verified reporting rates[3] are also consistent over time, albeit a bit higher at around 58%.

It is also worth noting that $\widehat{H}$, $\hat{h}$ and $\hat{\rho}$ have their associated uncertainty, which needs to be included in our estimate of $\widehat{N}$. More details on this are found in the paper by Alisauska[4]. Additionally, hand-reared birds were excluded from the analysis due to concerns that they were not representative (i.e., they were more likely to be harvested and more or less likely to be reported – depending on the site).

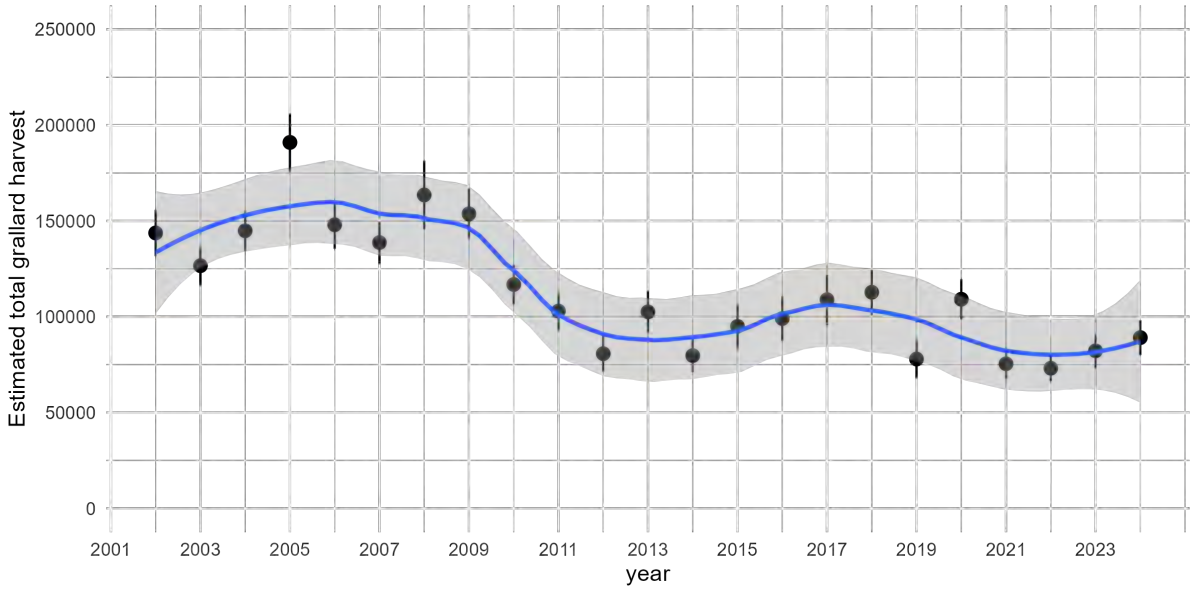


Figure 1: Auckland Waikato total grallard total estimated harvest $\widehat{H}$ from 2002 to 2024 (the years we have a banding programme) with 95% confidence intervals. The blue line is a floating average to help illustrate the trend over time.

[3] Which are also calculated in a way which means previous years data are used towards the current years estimate. Specifically a Bayesian approach with previous years estimates as priors.

[4] Alisauskas RT, Arnold TW, Leafloor JO, Otis DL, Sedinger JS. Lincoln estimates of mallard (Anas platyrhynchos) abundance in North America. Ecol Evol. 2014 Jan;4(2):132-43. doi: 10.1002/ece3.906. Epub 2013 Dec 18. PMID: 24558569; PMCID: PMC3925377.

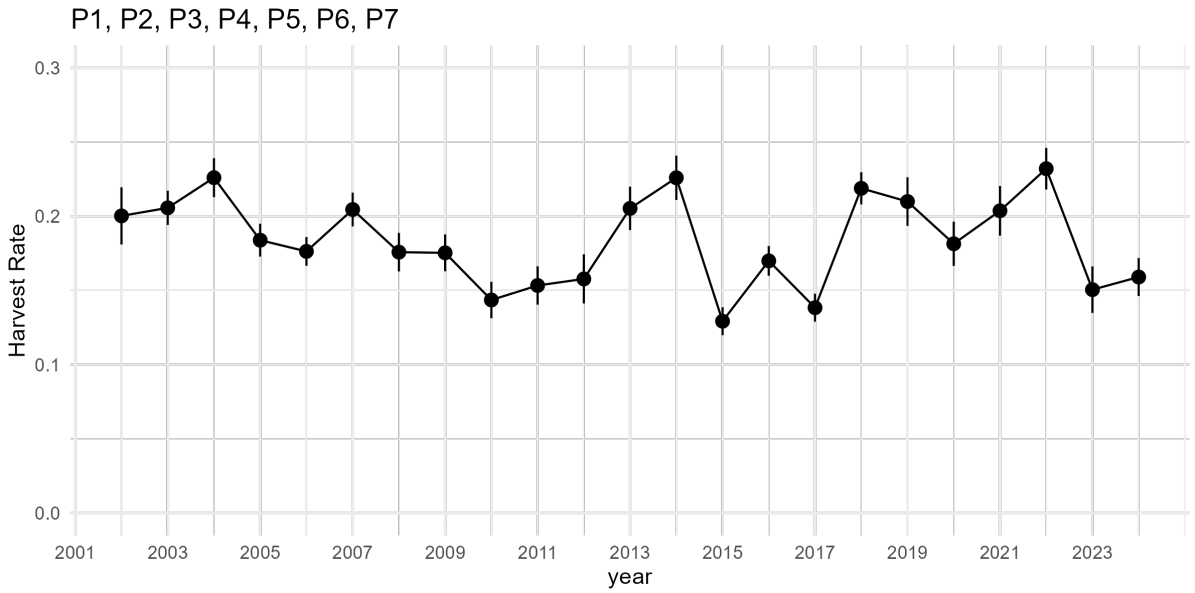


Figure 2: Estimates of grallard harvest rate $\hat{h}$ from 2002 to 2024 for all periods (P1-P7)). Harvest rates reflect the proportion of banded birds harvested within the first year and, assuming they are representative of the population, the proportion of the population that is harvested each year. Harvest Rates are corrected for verified non-response, which is estimated at 52% for years 2002-2023 and 56% for 2024 based on the 2024 SMS survey.

3 GRALLARD POPULATION ESTIMATES 2002-2024

Based on our estimates of $\widehat{N}$, it appears that the grallard population size has changed significantly over the last 22 years. There are two things to consider:

1. A hypothesised large-scale population collapse.
2. Year-to-year variation.

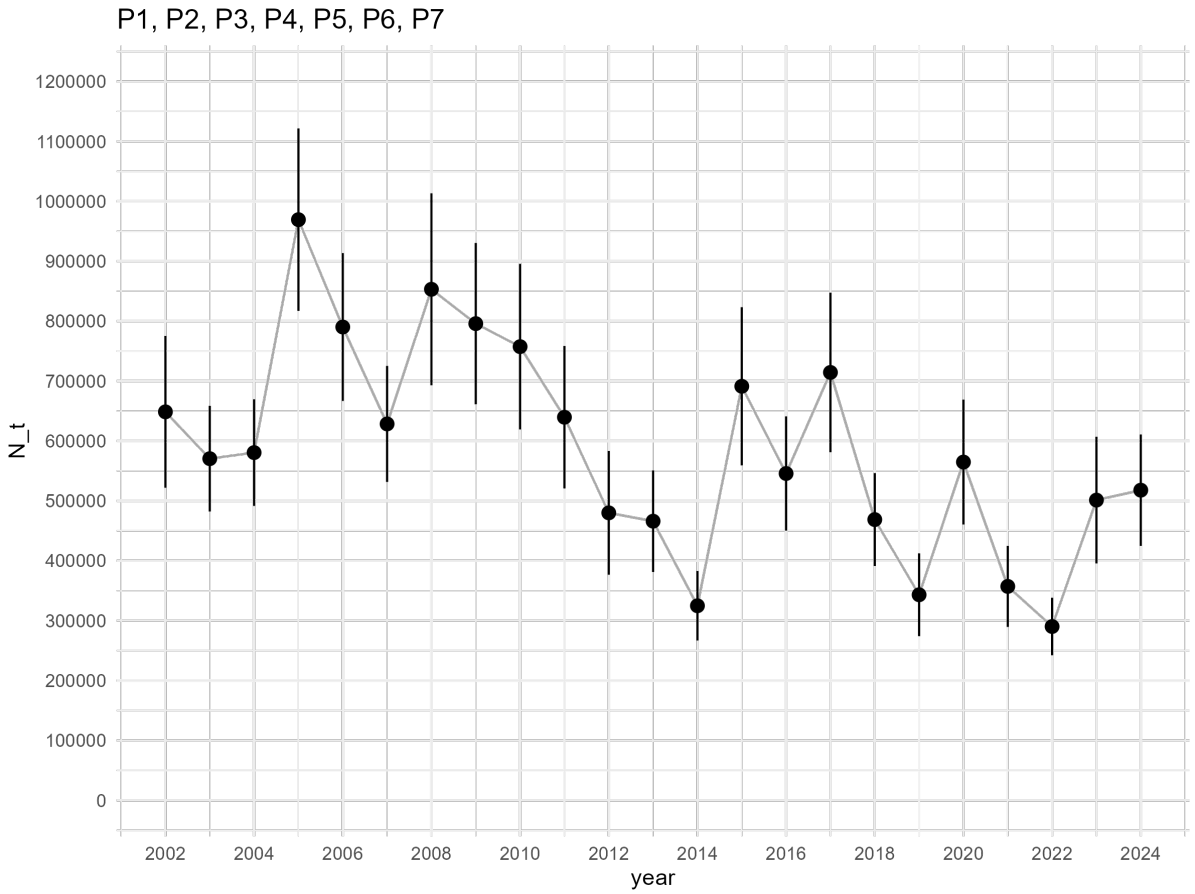


Figure 3: Auckland Waikato grallard population estimates $\widehat{N}$ from 2002 to 2024. $\widehat{N}$ is calculated using harvest estimates from periods 1-7 and bands retrieved during periods 1-7.

3.1 POPULATION COLLAPSES (CIRCA 2009)

Evidence for a large-scale population collapse comes from the fact that the harvest rate is relatively stable over time (albeit with significant year-to-year variation) (Figure 2) despite a significant reduction in harvest post-2009 (Figure 1). This indicates that the population underwent a considerable change in order for harvest rates to remain stable. In other words, after 2009, harvest dropped by around 50,000 birds, yet the proportion of the population harvested remained, on average, just below 20%[5]. This drop in harvest post-2009 may come as a result of more restrictive season regulations, which were put in place in response to the anticipated or due to environmental factors, e.g. drought, impacting grallard population size[6]. (discussed further in the harvest report). In addition, it is worth noting that without experimental controls (which are infeasible), we cannot say with certain that our estimates of

[5] Prior to 2009, the lowest estimate size was ~575k, and the highest was close to 1 million, whereas post-2009, the highest estimate was around 700k, and the lowest was around 300k.

[6] "A drought event lasted from November 2007 to April 2008, during which the Waikato experienced its driest January in a century. A shortage of feed caused by the drought increased the price of silage to four times its normal rate. The cost of the drought was believed to be $1.5 billion to the Dairy sector alone. The economic effect of the drought was one of the factors that threw New Zealand's economy into recession by mid-2008. Waikato had dry springs in 2009 and 2010, which resulted in a double drought. The drought led to the owners of the Waikato River hydro scheme, Might River Power, announcing a 10 per cent drop in hydro production for the December quarter. Dairy farmers were estimated to have lost an average $100,000- $150,00 in income over the previous three years due to consecutive drought events." https://www.waikatoregion.govt.nz/services/regional-hazards-and-emergency-management/drought/

population size are not also influenced by unknown or unmeasured factors that change over time (e.g., data collection, reporting rates, hunter behaviour).

3.2 UNDERSTANDING YEAR-TO-YEAR VARIATION.

It is interesting to note that, unlike harvest, harvest rate fluctuates significantly from year to year. Using an extreme example, estimates show that in 2014, we harvested between 21% and 24% of the population. The following year, despite the increase in total harvest, our estimates show we harvested between 12% and 14% of the population. The current hypothesis is that climatic conditions primarily drive annual changes in the grallard population. International literature has found strong links between droughts and mallard populations, and from an ecological perspective, the logic is sound. However, I have yet to find evidence in the data that lends itself to the idea of drought (i.e., rainfall, soil moisture deficit, etc.) as a predictor of grallard population size despite there being some significant events in recent years[7]. This may, in part, be due to variables such as rainfall being indirect and, therefore, blunt substitutes for the environmental factors that affect waterfowl. One can appreciate the lack of a relationship between population size and environmental conditions by comparing the population estimates with the drought index for Hamilton (Figure 4) while remembering that we are looking for a link between the population size in one year and the environmental conditions in the preceding year. Also, given the scale of the Auckland Waikato region, environmental conditions should likely be considered at more local scales—of which data are not always available.

Without a link between population size and environmental conditions, one may be inclined to question the quality of our population estimates. While there may be some bias in our estimates concerning the overrepresentation of juveniles (as discussed in the Appendix), the effect of this on temporal trends is minimal, especially in recent years (Figure 9). What is reassuring is the similarity observed when comparing our trends in estimated population size with the Eastern region estimates — which collect and analyse data independently from us. Like our estimates, Eastern Fish & Game observed a peak in numbers around 2005, a decline between 2010 and 2014, a large jump in 2015, and a relatively stable plateau at a reduced population from 2018 onwards (Figure 5). Similarities in population trends between neighbouring regions (with different harvest regulations) lend weight to the hypothesis that large-scale climatic patterns are the primary driver of changes to the grallard population. A combined analysis of banding data for North Island regions may improve our understanding of how environmental conditions impact the grallard population, bringing us closer to an adaptive management system.

[7] Efforts to date have looked at correlations between grallard population size, growth rate and harvest rate with seasonal rainfall, seasonal SPEI (drought index), and seasonal soil moisture deficit. Relevant seasons include the preceding winter, spring and summer (e.g., using a 3-month average) as well as looking at 3, 6 and 12-month averages for SPEI. Relationships post-2010 were also tested to examine more recent trends (i.e., post-collapse).

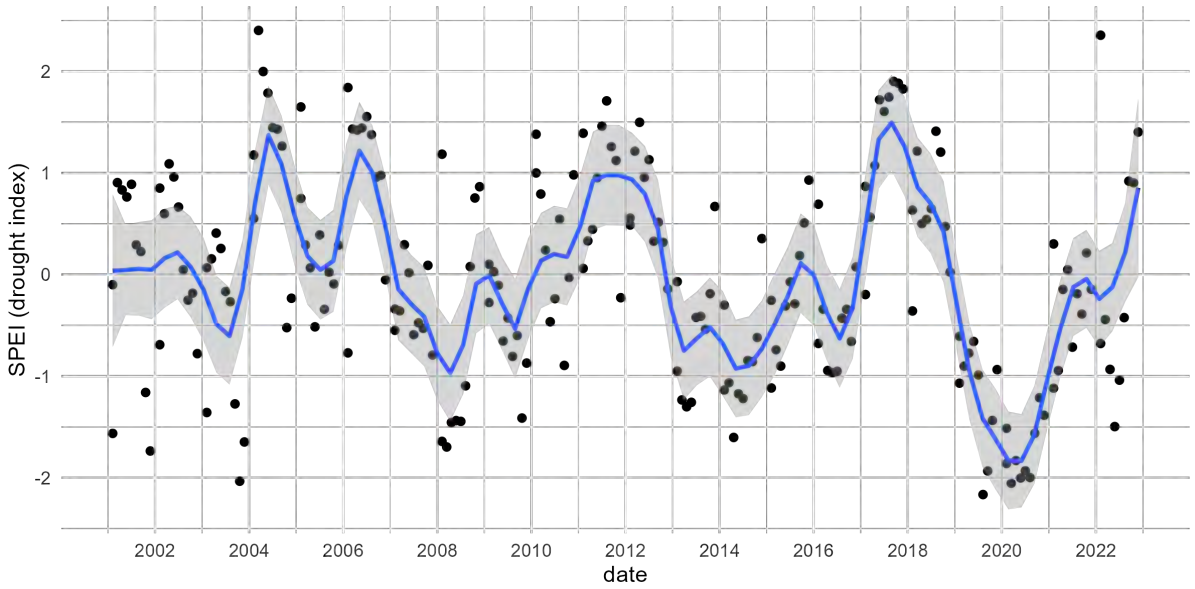


Figure 4: Standardised Precipitation Evapotranspiration Index (SPEI) for Hamilton 2002-2023. Here, values between -1 and 1 represent normal conditions, while values above 1 represent wet conditions and values below -1 represent dry conditions. Each point represents how wet or dry the previous 6 months were compared to the average. While 6-month averages may not best represent the temporal scale of environmental conditions that impact waterfowl, it is helpful to understand large-scale patterns over time.

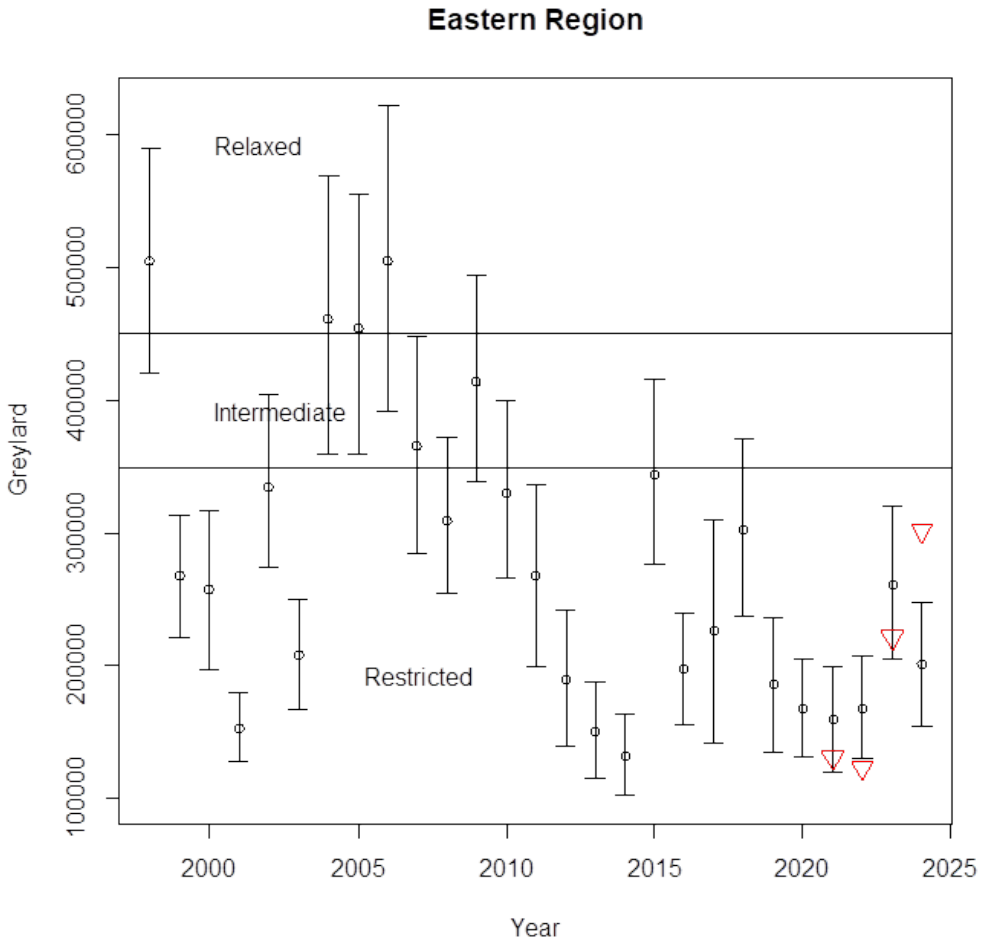


Figure 5: Grallard population estimates $\widehat{N}$ from 1998 to 2024 for the Eastern Fish & Game region.

4 APPENDIX

Having struggled to identify any links between grallard population dynamics and environmental conditions, I decided to take a more detailed look at the data – specifically harvest rate estimates, as these fluctuate considerably without apparent reason.

Firstly, we observe that adult harvest rates do not vary significantly by sex. For juveniles, harvest rates for males are often higher than for females, but this is not consistent for all years. The most significant difference is between adults and juveniles – shown separately in Figure 6.

It is not particularly surprising that juvenile harvest rates are often higher than adults –as they are naïve and therefore easier to target, particularly on opening weekend. Interestingly, harvest rates for adults and juveniles do not seem to follow the same pattern (unlike sex). For example, in 2014, when juvenile harvest rates peaked, adult harvest rates were near their lowest.

Most birds that get banded in the Auckland Waikato region are juveniles (Figure 7). While it is difficult to know the true adult–juvenile ratio in the population, the current sentiment is that the traps (and trap locations/time of year) do not result in a random sample, meaning that juveniles may be overrepresented in our banding data. If this were true, our harvest rate would likely be overestimated, and our population size would be underestimated.

4.1 POTENTIAL UNDERREPRESENTATION OF ADULTS

We can use a weighted average to correct for the underrepresentation of adults in our banding sample[8,9]. For the sake of argument, assuming the true ratio of adults-juveniles is 1:1, our estimate of the juvenile harvest rate would represent half of our estimate of the overall harvest rate (as opposed to the proportion of juveniles, which is around 90%). Figure 8 demonstrates the effect of a weighted average on population estimates. For 11 of the 23 years, using a weighted average increased the estimated population by greater than 100,000 birds (Figure 8). It is worth noting, however, that the weighted approach has little influence on estimates in the last 4 years – where adult and juvenile harvest rates are similar. It is also worth noting that our estimates are not meaningfully different trend-wise. While more accurate estimates are worthwhile, if trends in the population do not change, it is unlikely we will find a link with environmental factors that have previously been tested.

8 In other studies, $\widehat{H}$ and $\widehat{h}$ are calculated separately by age and sex, allowing for group-based population estimates (Alloche, 2016). However, such an approach is not possible as the GBHS does not differentiate by sex or age (nor could it), and the use of feather samples was deemed futile (D. Klee , personal communication).

9 The details of which are described on page 473 of D.L. Thomson et al. (eds.), Modeling Demographic Processes in Marked Populations, Environmental and Ecological Statistics 3, DOI 10.1007/978-0-387-78151-8 20,

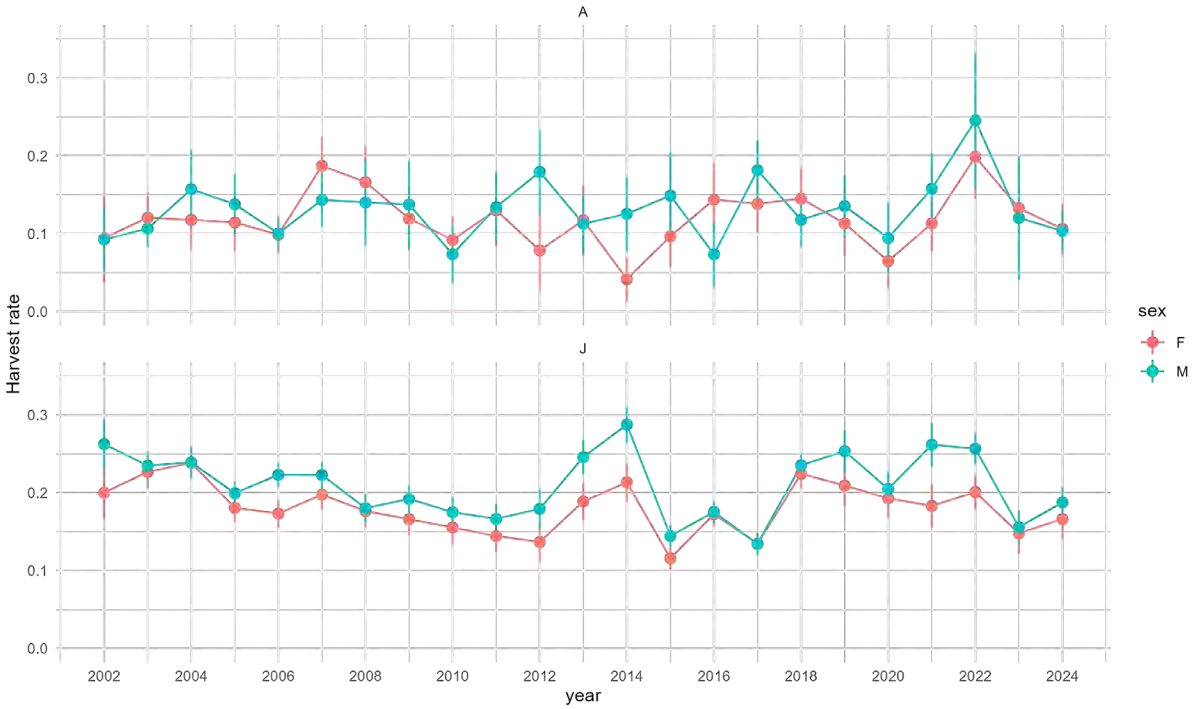


Figure 6: Estimates of grallard harvest rate $\hat{h}$ from 2002 to 2024 for all periods (P1-P7)) by sex (M = male, F= female) and age (A= adult, J= juvenile). Harvest rates reflect the proportion of banded birds harvested within the first year and, assuming they are representative of the population, the proportion harvested each year. Harvest Rates are corrected for verified non-response, which is estimated at 52% for years 2002-2023 and 56% for 2024 based on the 2024 SMS survey.

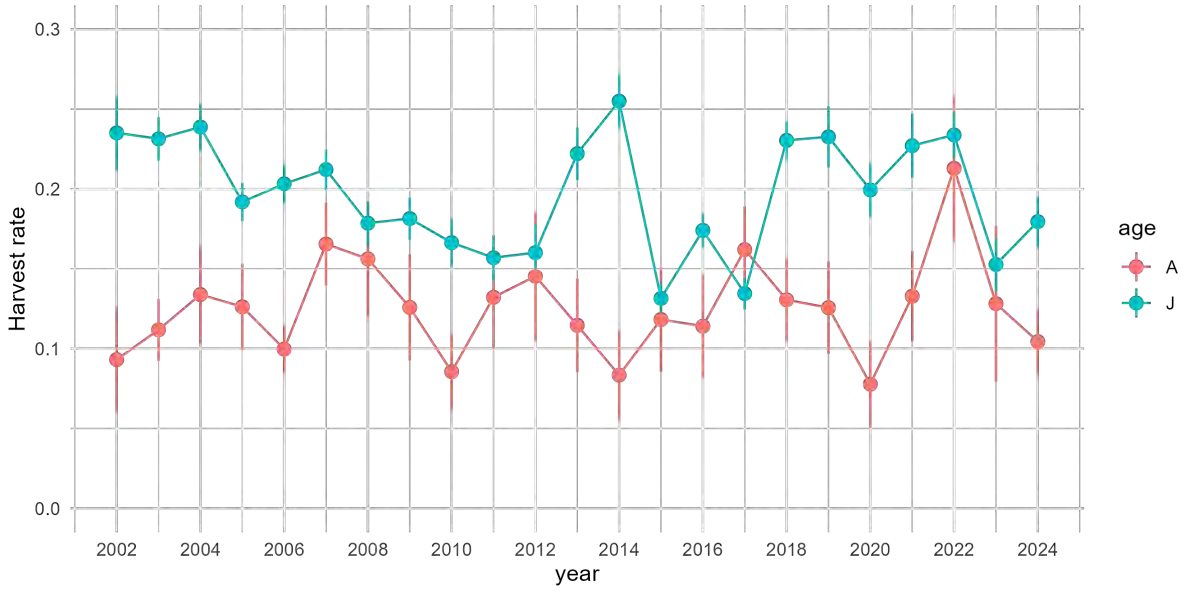


Figure 7: Estimates of grallard harvest rate $\hat{h}$ from 2002 to 2024 for all periods (P1-P7)) by age (A= adult, J= juvenile). Harvest rates reflect the proportion of banded birds harvested within the first year and, assuming they are representative of the population, the proportion harvested each year. Harvest Rates are corrected for verified non-response, which is estimated at 52% for years 2002-2023 and 56% for 2024 based on the 2024 SMS survey.

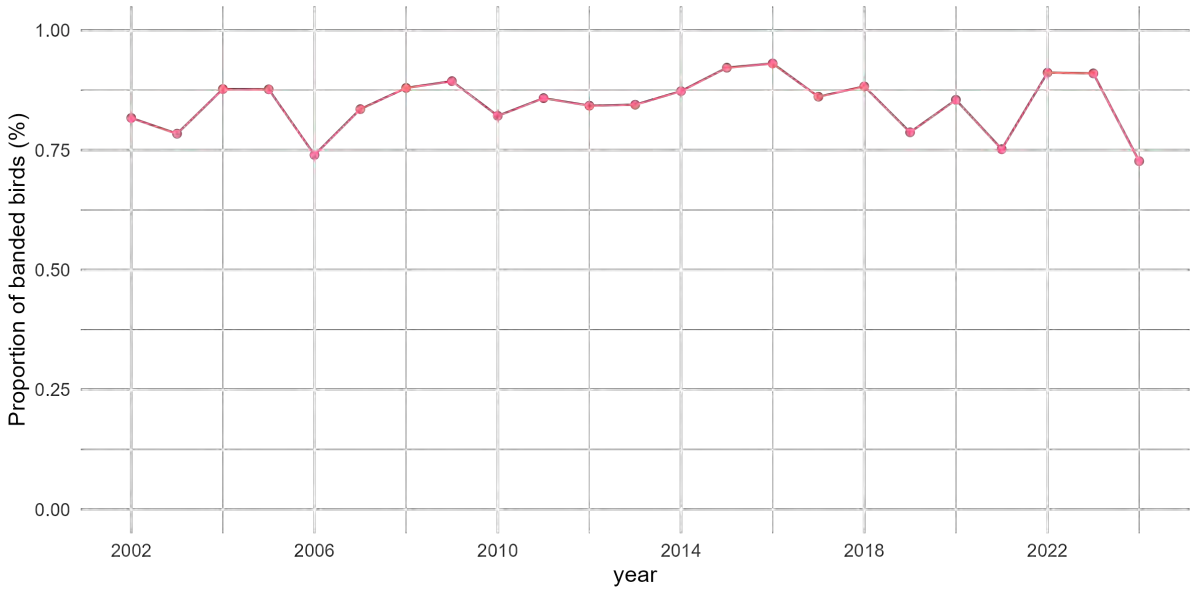


Figure 8: Proportion of banded birds that are juveniles from 2002 to 2024.

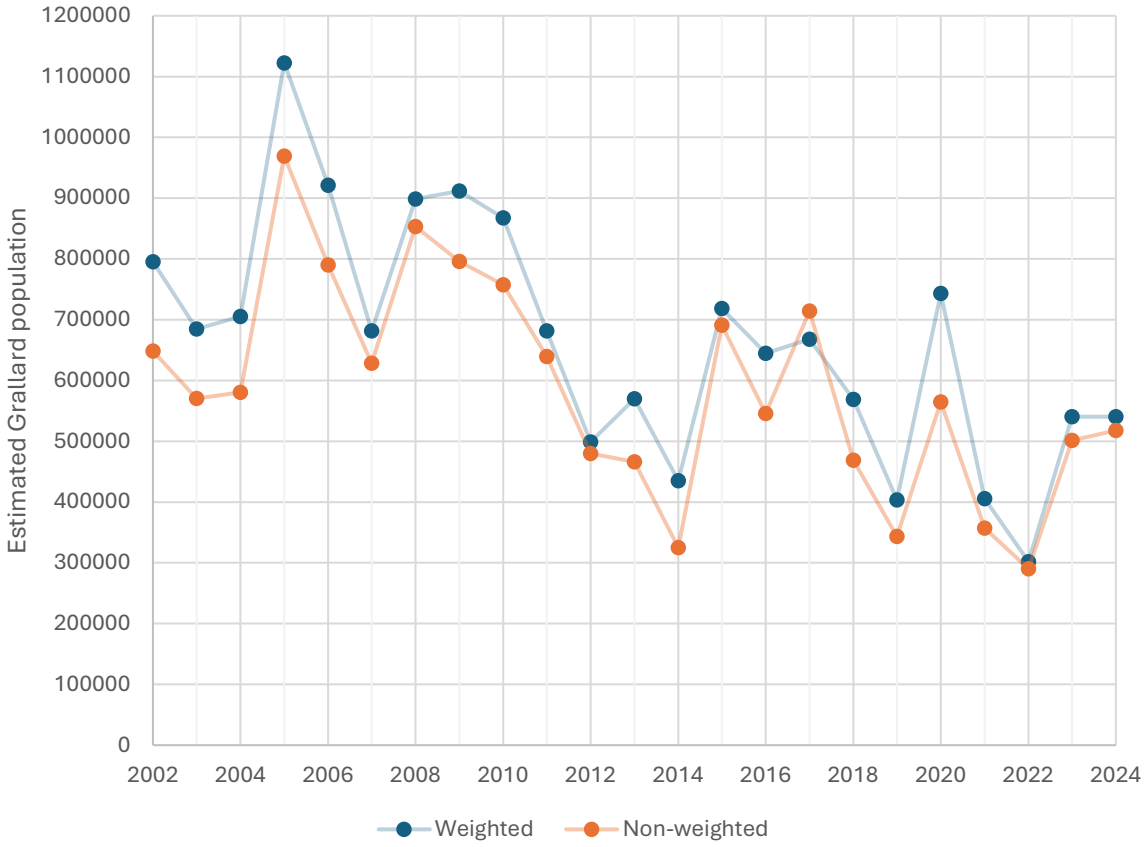


Figure 9: Grallard population estimates $\widehat{N}$ from 2002 to 2024 calculated assuming (1) a 1:1 adult-juvenile ratio (weighted) and (2) assuming that banding samples are representative of the population (non-weighted).

Gamebird Harvest Assessment Report

Beau Jarvis-Child 2024

1 SUMMARY

This report's primary objective is to estimate the mallard/grey harvest based on the Gamebird Harvest Survey (GBHS). As a secondary objective, the effect of season regulations on harvest and hunter activity is explored, and other estimates, such as survival rates, are presented.

A decrease in hours hunting waterfowl and grallard harvest coincides with more restrictive regulation making it difficult to determine if recent declines come as a result of fewer birds or more restrictive regulations, specifically season length. There is however evidence of a drop in harvest and more people shooting zero birds on opening weekend which we would not expect to come as a result of season length.

Estimates of cumulative harvest suggest trends are similar for short and long season when excluding opening weekend. If hunters are manipulating their behaviour to "make the most of" the shorter season, what we observe as "similar trends" may in fact represent a decline in hunter effort and harvest. Further work will investigate this by looking at neighbouring regions.

Bag limits have the most impact on opening weekend as they only restrict harvest for a small proportion of hunters during the rest of the season. Given that around 40% of harvest occurs on opening weekend, highly conservative bag limits, e.g. 2, could be very effective at reducing harvest – however, this would likely impact hunter satisfaction and compliance.

Grallard harvest per hunter per hour appears to cycle up and down between 1993 and 2024 which may be linked to climatic conditions. However the overall trend is downwards.

Survival estimates based on band return data show that survival is consistently lower for juvenile birds compared to adults while difference in sex are minimal. Further work is required to investigate if environmental factors or regulations are impacting survival.

2 SURVEY DESIGN

The Gamebird Harvest Survey is designed to estimate how many waterfowl are harvested each year. Due to recall bias (i.e., people forgetting), the dabbling duck hunting season is broken into survey periods depending on the season length to improve accuracy.[1] In each survey period, a random selection of at least 120 adult and junior full-season licence holders are phoned (i.e., the survey excludes children, day licence holders, landowner occupiers, and those who hunt without a licence). In period 1, randomly selected hunters are asked about the opening weekend harvest. In period 2 and onwards, randomly selected hunters are asked about their hunting in the preceding two weeks. We collect data from hunters regarding the regions they hunt in, how many birds they shot of each species during the survey period and the number of hours they hunted for. From this data, we can determine key metrics such as total harvest (necessary for population estimates), average hours spent hunting waterfowl (to gauge hunter engagement) and harvest per hunter per hour (an index of hunter success). It is worth mentioning that because a random selection of hunters are surveyed each period, estimates are first calculated at the period level (e.g., average opening weekend harvest) and then combined for whole season estimates. In some instances, daily estimates are calculated and aggregated. While this

[1] Barker, R. 1991. Nonresponse Bias in New Zealand Waterfowl Harvest Surveys. The Journal of Wildlife Management , Jan., 1991, Vol. 55, No. 1, pp. 126-131

benefits accuracy (i.e., reduces recall bias), it does mean that our ability to test whole-season effects is limited as we are often dealing with aggregated data[2].

The current report, based on the raw data, does not consider Auckland Waikato licence holders who hunt in other regions or hunters who come to our region to hunt. In the future, this will be possible if neighbouring regions are cooperative in sharing their raw data. However, a quick look at the summarised data indicates that the effect on estimates will likely be minimal, as those leaving and those coming in will more or less cancel each other out.

3 GRALLARD HARVEST

Trends from 1993-2024 indicate that grallard harvest is decreasing, which could be due to several factors, namely the number of hunters, hours hunted (hunter interest/season length), environmental conditions, population size and bag limits.

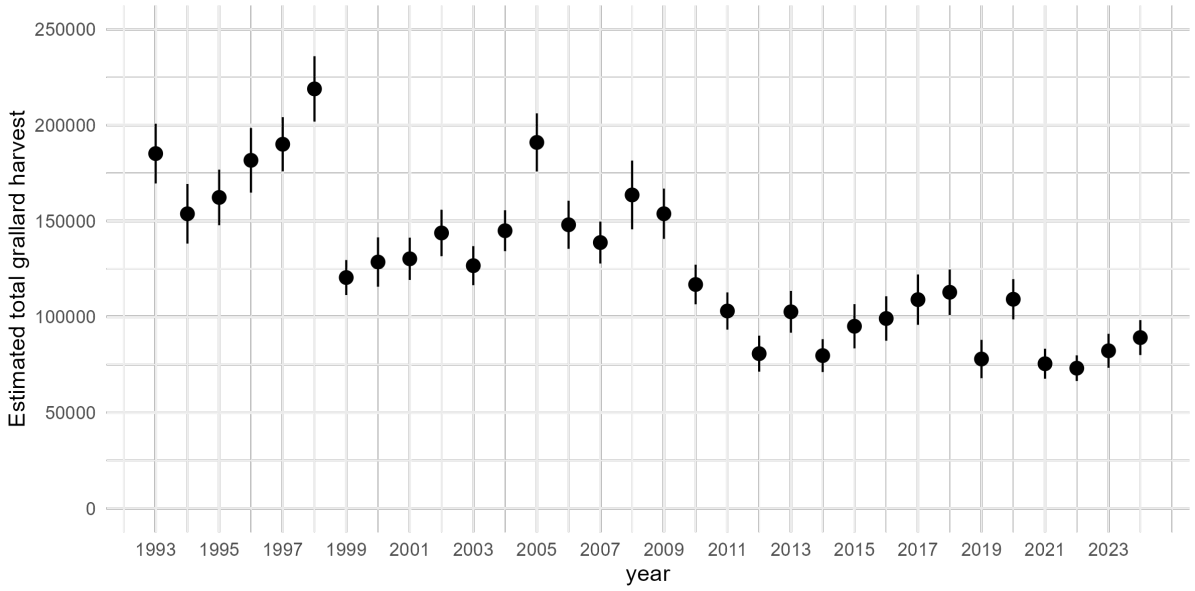


Figure 1: Total estimated grallard harvest from 1993-2024. Total harvest is calculated by multiplying the average junior and adult whole licence holder harvest by the number of adult and junior whole season licence holders each year. 95% confidence intervals are also included.

[2] Limitations include (1) loss of individual-level variation (e.g., modelling the effect on average harvest vs on harvest), (2) reduced statistical power (e.g., more challenging to detect differences with a smaller "aggregated" sample size), (3) limit on potential covariates (e.g., you could not include hunter age in a model with aggregated data), and (4) "Ecological fallacy" whereby relationships observed in aggregated data do not match those found at the individual level.

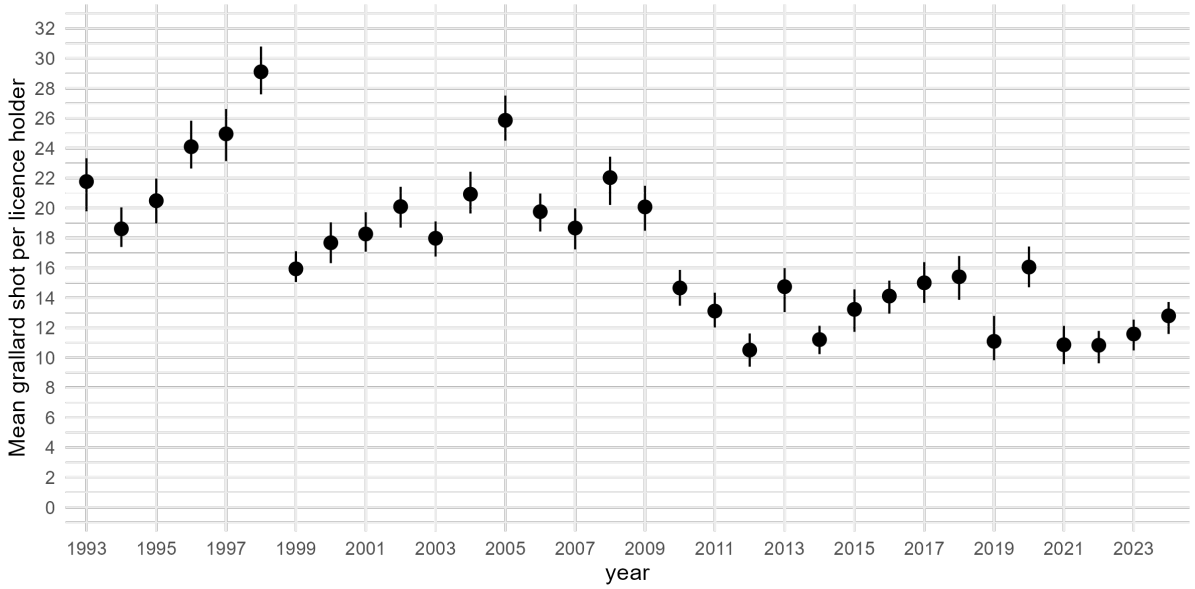


Figure 2: Estimated mean whole season grallard harvest per licence holder from 1993-2024. Annual averages are calculated as the sum of daily averages, and 95% quantile confidence intervals are generated from bootstrapping.

There was a drop in average and total harvest (Figures 1 and 2) around 2009. Around the same time, hunting regulations were made more conservative – going from an 8-week season to 4 weeks and a 10-bird limit to 6 (see Appendix, Figures 15 and 16). Therefore, the question is whether harvest is lower because there are fewer ducks to shoot (and therefore less hunter effort) or because more restrictive regulations effectively reduce harvest.

While there is some evidence that season regulations may be impacting harvest (discussed later), it is worth considering whether harvest has been affected outside of what we might expect from regulations. For example, consider how the average opening weekend harvest has changed over time (Figure 3). Here, despite the years before 2009 and 2012-2021 having the same bag limits (shown in blue), on average, the more recent period has consistently lower harvest estimates, indicating that something other than bag limits has reduced harvest. Further evidence of this can be observed in Figure 4 which illustrates that the proportion of hunters shooting zero birds on the Saturday of opening weekend doubles on average after 2009.

There are several potential theories as to what may have caused this. Some may argue that this drop aligns with the hypothesis that the population decreased around 2009 due to back-to-back drought events. It has also been suggested that this drop in harvest may be a result of a decline in hunter effort. However, the trends do not seem to match, whereby the trend in mean hours hunting waterfowl on opening weekend shows more of a general decline as opposed to a drop around 2009 (See Appendix, Figure 18). In addition, it has been suggested that the survey implementation changed around this time (e.g., before 2009, the selection of surveyed hunters may not have been perfectly random, and some group totals were entered (D. Klee, personal communication))[3]. While we cannot determine randomisation by looking at the data, we can check for outliers (e.g., group counts), of which there is an insignificant amount.

[3] The structure of the survey also changed around this time (i.e., the format of the database). However, considerable time has been dedicated to investigating whether this may have resulted in some inconsistency with nothing found. It is reassuring to note that other regions also experienced this change but did not observe a change in their estimates (e.g., Southland).

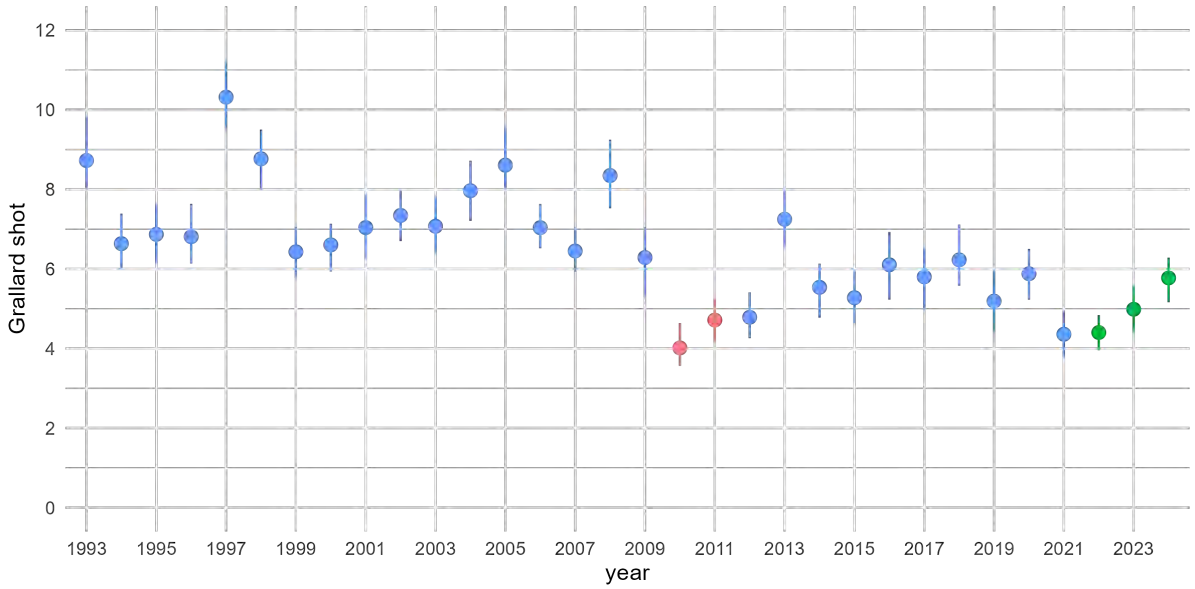


Figure 3: Estimated mean opening weekend grallard harvest per licence holder from 1993-2024. Years are coloured by mallard limit. Blue = 10, Green = 8, Orange = 6. Opening weekend averages are calculated as the sum of daily averages, and 95% quantile confidence intervals are generated from bootstrapping.

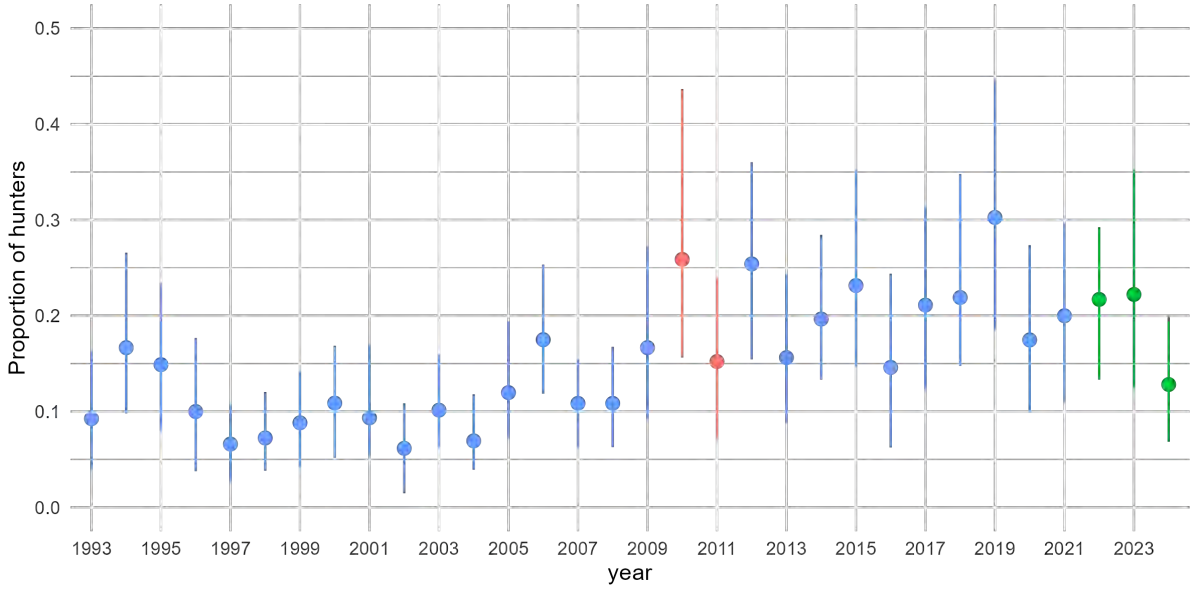


Figure 4: Proportion of hunters shooting zero grallards on the Saturday of opening weekend. Years are coloured by mallard limit. Blue = 10, Green = 8, Orange = 6. 95% quantile confidence intervals are generated from bootstrapping.

4 HOURS SPENT HUNTING WATERFOWL

How long people spend hunting gives us a good indication of social trends in waterfowl hunting and the effect of season regulations. By reducing season length, we effectively try to reduce the time spent hunting (and, in turn, reduce harvest). The average amount of hours spent hunting waterfowl has remained relatively stable over time, with a drop around 2009 corresponding to a hypothesised drop in population and more restrictive regulations (Figure 6). Specifically, before 2010, people spent, on average, 32 hours a season hunting, whereas, after 2009, hunters spent 24 hours a season hunting (Figure 6).

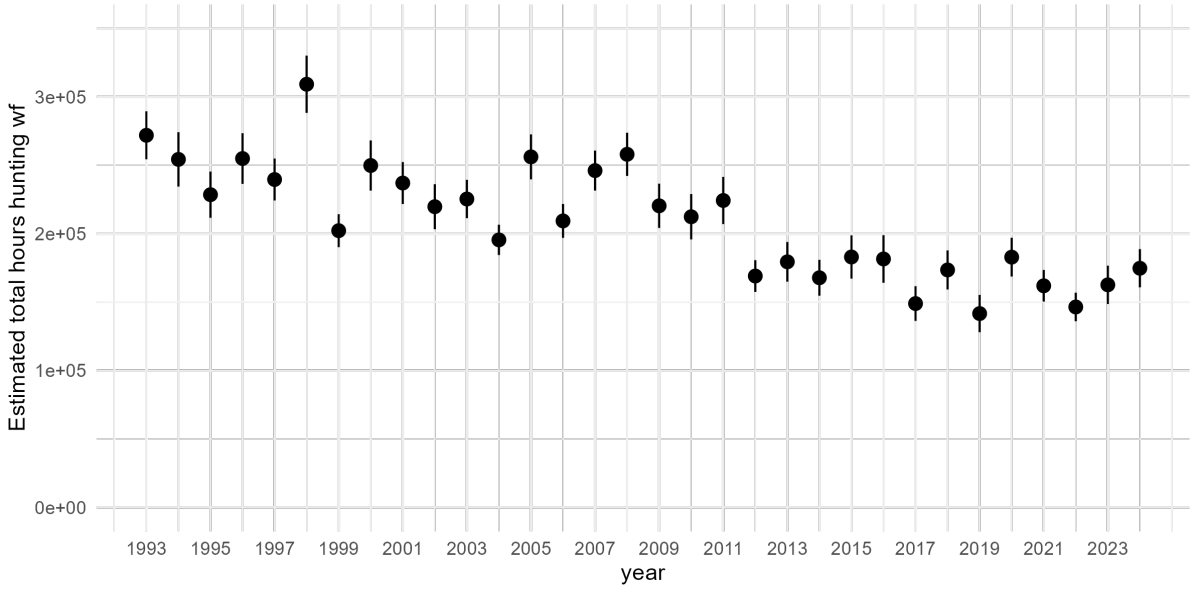


Figure 5: Total estimated hours hunting waterfowl from 1993-2024. Total hours hunting waterfowl is calculated by multiplying the average junior and adult whole licence holder seasonal hours by the number of adult and junior whole season licence holders.

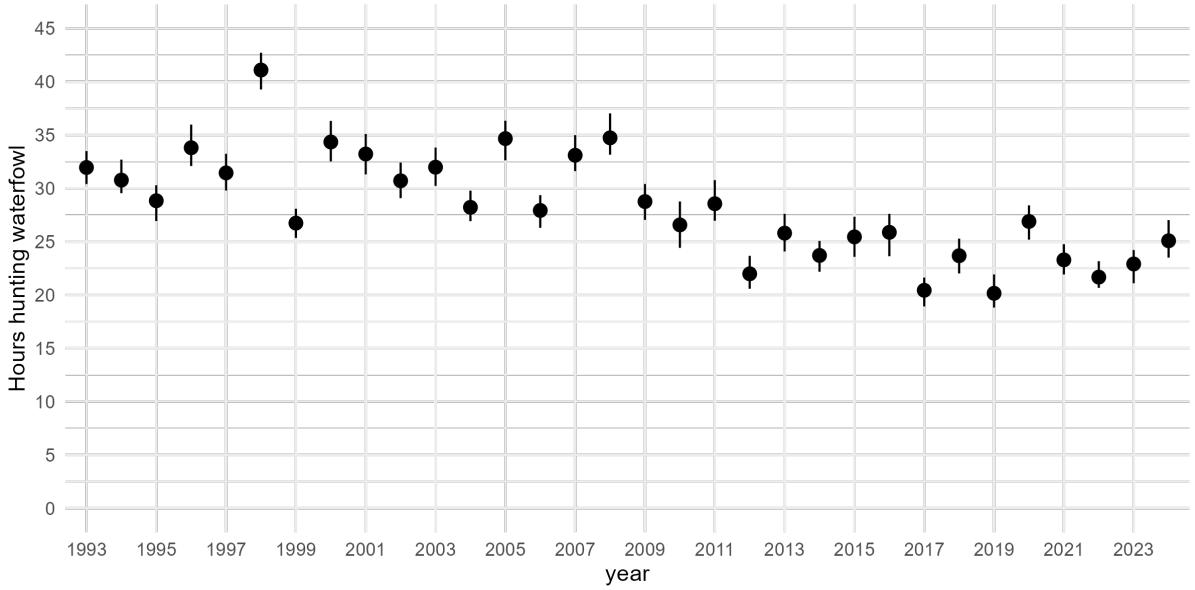


Figure 6: Average estimated hours hunting waterfowl per licence holder from 1993-2024. Annual averages are calculated as the sum of daily averages, and 95% quantile confidence intervals are generated from bootstrapping (one thousand iterations).

5 SEASON LENGTH

Figure 7 illustrates the cumulative mean daily grallard harvest and Figure 9 shows the cumulative mean daily hours spent hunting waterfowl between 1993 and 2024. Because the length of time people spend hunting and the number of birds they shoot are naturally linked, they follow similar patterns. Figure 7 shows that most of the harvest occurs on opening weekends and subsequent weekends, while the average harvest on weekdays is lower. Similarly, most of the hours spent hunting waterfowl occur on opening weekend and the subsequent weekends (Figure 9).

Comparing the cumulative mean harvest and hours hunting at day 30 between long and short seasons, it is apparent that, on average, our cumulative estimates are lower for shorter seasons, indicating that something other than season length has led to a reduction in harvest (Figure 7 and 9)[4].

Interestingly, when the opening weekend is excluded (Figure 8), the average harvest on day 30 (excluding outliers of 1995, 1998, and 2005) looks very similar when comparing long and short seasons, and even without removing the outliers, there is no statistically significant difference (p = 0.134). Similar patterns are found in cumulative hours hunting waterfowl.

Two things could be happening here. One hypothesis is that shorter seasons reduce the cumulative time spent hunting waterfowl after the opening weekend and consequently reduce the cumulative harvest. In other words, the line representing cumulative estimates of shorter seasons follows a similar trend/trajectory to longer seasons but is cut short by the early finish (Figures 8 and 10). In this scenario, we expect hunters to not manipulate their behaviour regarding how much they hunt depending on season length.

Another hypothesis is that, on average, hunter effort and subsequent harvest have decreased in recent years, potentially due to a drop in population. This drop in population size corresponds with a reduction in season length that influences hunters to manipulate their behaviour to hunt more (i.e., make the most of the shorter season). In other words, hours hunted and harvest have decreased in recent years, but it appears to be similar because it is condensed into the shorter season. In this scenario, one would consider season length to be less effective at influencing overall harvest.

Unfortunately, it is challenging to determine which of these two scenarios is the case without experimental intervention. Trends in opening weekend harvest may offer some clues, which would lend weight to the latter hypothesis; however, this is inconclusive. Future efforts will consider how neighbouring regions' hours hunted and harvest have changed over this period. Of particular interest is the Northland F&G Council, which has not reduced its season length like ours. In addition, we may be able to determine if hunters are manipulating their behaviour by investigating the number of days hunted (comparing long and short seasons).

Lastly it is worth noting that for shorter seasons, there seems to be a greater emphasis on closing weekends – which may boost hours hunted post-opening weekends to be slightly greater than what you would expect from a longer season (Figure 9). Another key takeaway from this is to think of seasons

[4] Opening weekend harvest is briefly discussed with respect to Figure 3.

as numbers of weekends rather than weeks, as most of the harvest occurs then. With this in mind, our current “four-week season” may be better thought of as a five-weekend season.

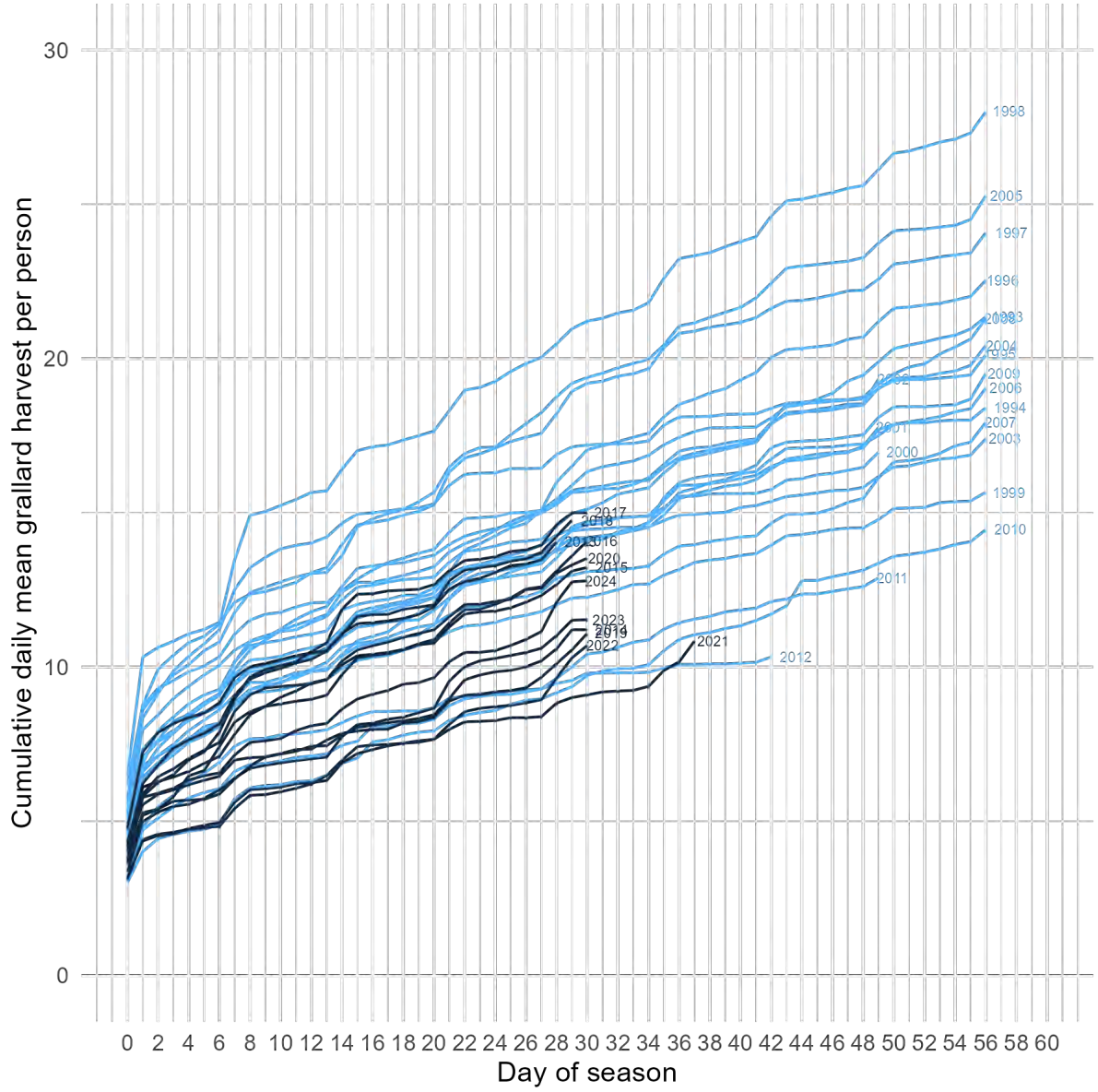


Figure 7: Cumulative daily mean harvest per licence holder from 1993-2024. Years with seasons greater than 40 days are coloured in light blue to illustrate differences between longer and shorter seasons. Where each year’s line ends correspond to the average grallard per person per season (as shown in Figure 2).

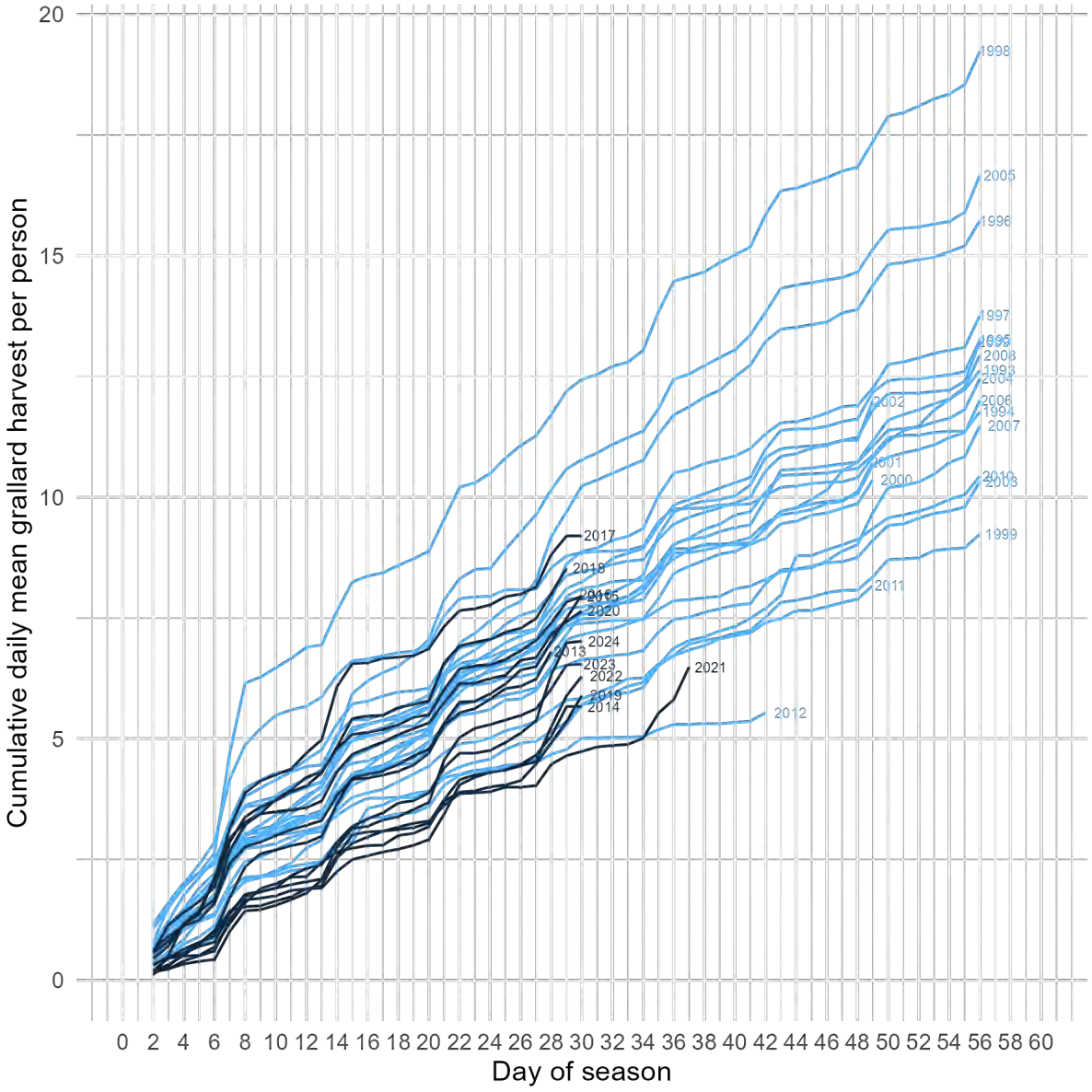


Figure 8: Cumulative daily mean harvest per licence holder from 1993-2024, excluding opening weekend. Years with seasons greater than 40 days are coloured in light blue to illustrate differences between longer and shorter seasons.

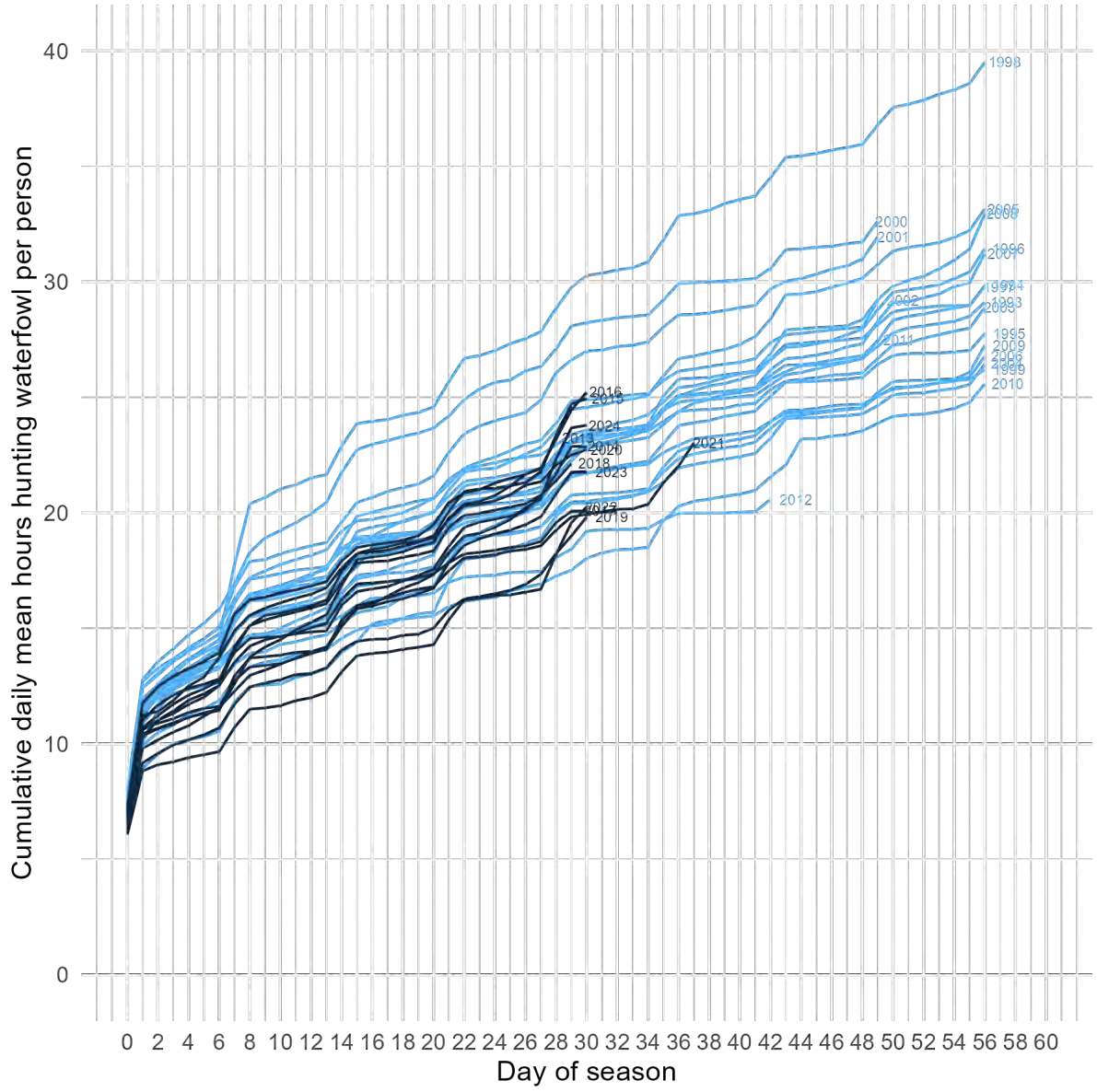


Figure 9: Cumulative daily mean hours spent hunting waterfowl per licence holder from 1993-2024. Years with seasons greater than 40 days are coloured in light blue to illustrate differences between longer and shorter seasons. Where each year's line ends correspond to the average hours per person per season (as shown in Figure 7).

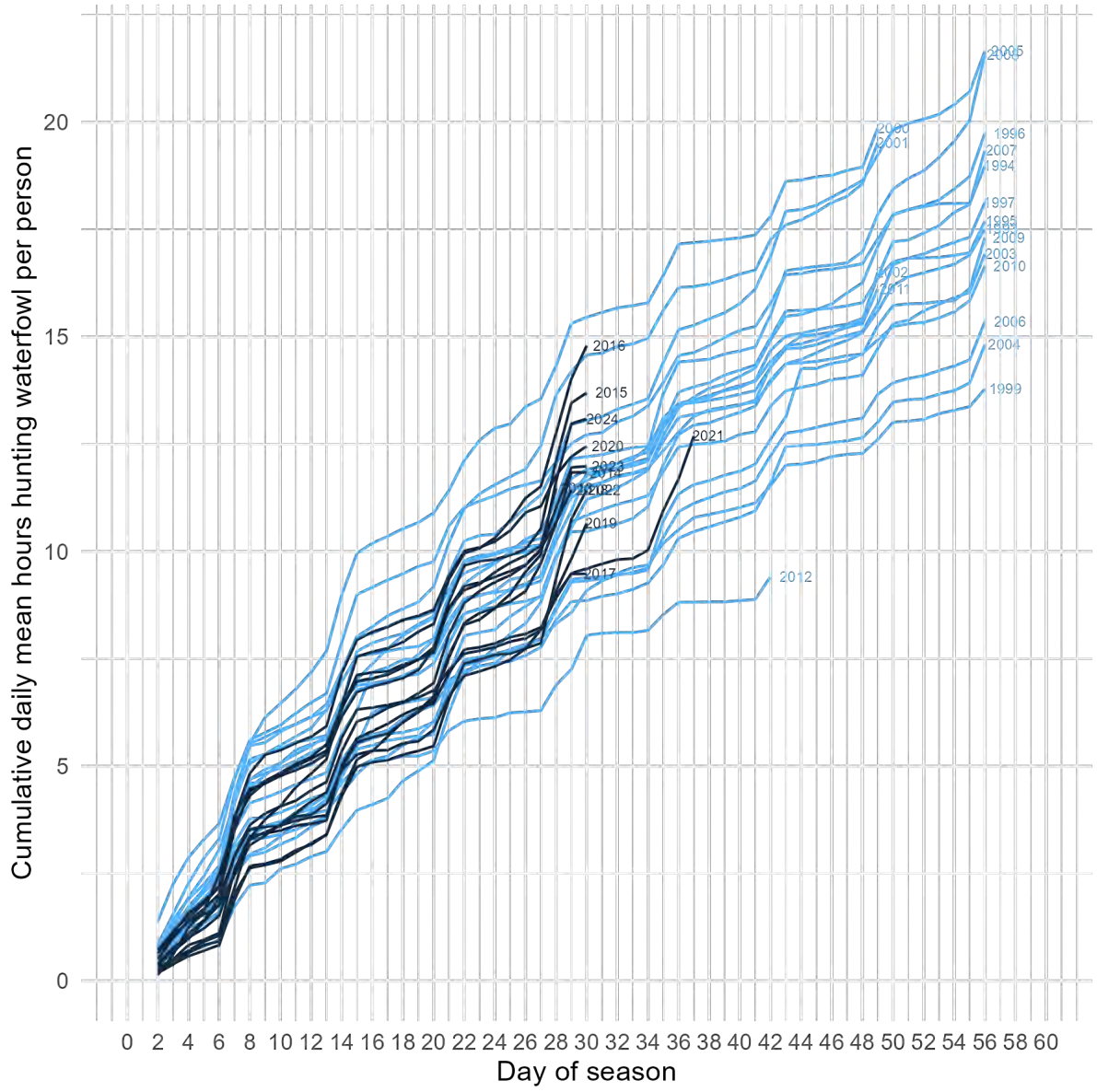


Figure 10: Cumulative daily mean hours spent hunting waterfowl per licence holder from 1993-2024, excluding opening weekend. Years with seasons greater than 40 days are coloured in light blue to illustrate differences between longer and shorter seasons.

6 BAG LIMITS

On average, just under 30% of the days hunted between 1993 and 2024 resulted in a hunter shooting zero grallard. With historic bag limits varying from 6 to 10, bag limits appear to only impact the top hunters. Because patterns in harvest vary between opening weekend and the rest of the season (Figures 11 and 12), the effect of bag limits will be considered for each.

For opening weekend, in years where limits of 6 and 8 birds were set, hunters, on average, shot more than 5 birds a day 23.5% of the time. For years with a limit of 10, this was 32% of the time. In comparison, for days outside of opening weekend, years with a limit of 6, 8 and 10 saw, hunters, on average, shoot more than 5 birds a day 8%, 9.7% and 11% of the time, respectively. Put another way, unless we reduce bag limits below 6, we are likely only able to manipulate around 25% of hunters on opening day and 10% of the hunters post-opening weekend.

As shown in Figures 11 and 12, as bag limits increase, fewer people make the limit, meaning that the effect of bag limits gets weaker the more liberal they are. For example, hunters who shoot over 5 birds a day on opening weekend will, on average, shoot one less bird a day with a limit of 8 compared to 10 (Table 1).

This may be best represented with a scenario based on previous year's data. Let's say there are 7000 hunters in 2025. 93% hunt the Saturday of opening weekend and 73% the Sunday. On Saturday, 30% shoot more than 5 birds, while on Sunday, 20% will. Using the averages shown in Table 1, we expect the opening weekend harvest for those who shoot over 5 birds under a 6, 8, and 10-bird limit to be around 18,000, 22,000, and 25,000, respectively. When compared to the total estimated harvest, this is not considerable. Naturally, much lower bag limits will impact total harvest (assuming compliance); however, it is necessary to consider this impact on hunter satisfaction. It is worth reiterating a few points:

1. that hunter satisfaction is generally higher when the limit is attainable[5].
2. that low bag limits are a useful means to communicate to hunters that the population is low.

Table 1: Average grallard shot per day by hunters that shoot more than 5 birds a day for opening weekend and the days following opening weekend under different bag limit restrictions (based on data from 1993 to 2024).

Limit	Mean grallard shot per day (OW)	Mean grallard shot per day (after OW)
6	6.11	6.07
8	7.47	7.2
10	8.43	7.76

[5] Unpublished work by M. Garrick

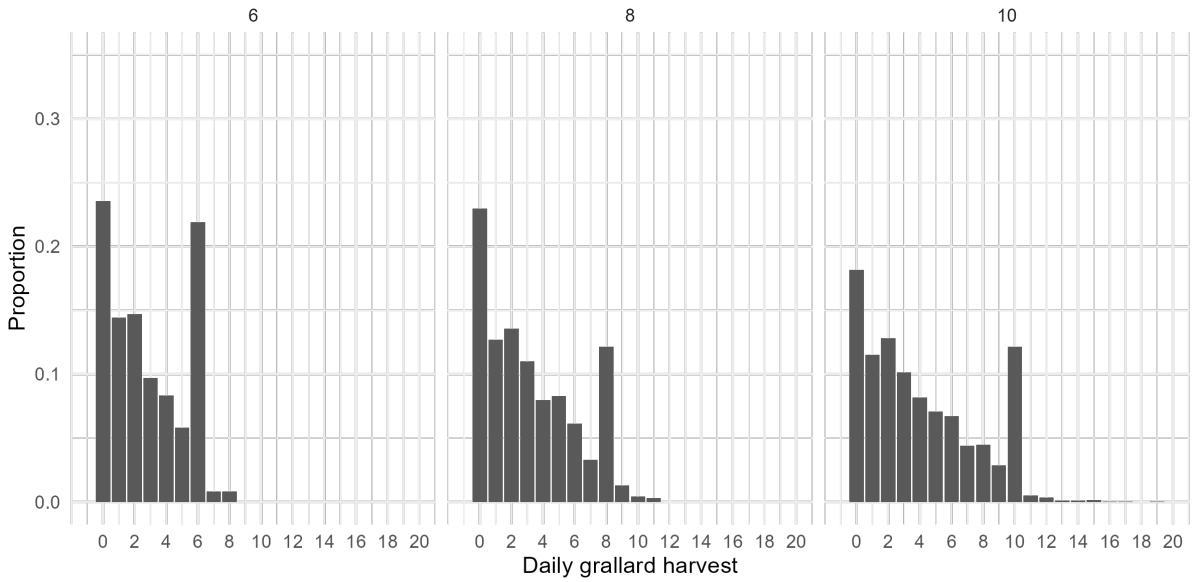


Figure 11: Distribution of daily grallard harvest under three bag limits (6 – left, 8 – centre, 10 – right) for opening weekend days 1993-2024.

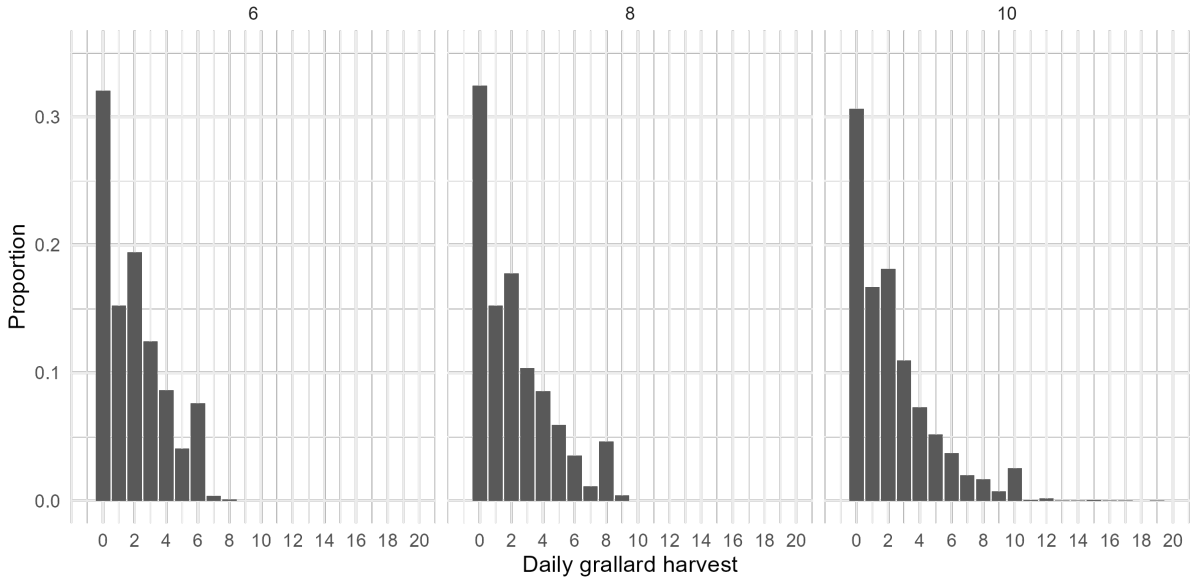


Figure 12: Distribution of daily grallard harvest under three bag limits (6 – left, 8 – centre, 10 – right) ***excluding*** *opening weekend days 1993-2024.*

7 GRALLARD PER HOUR

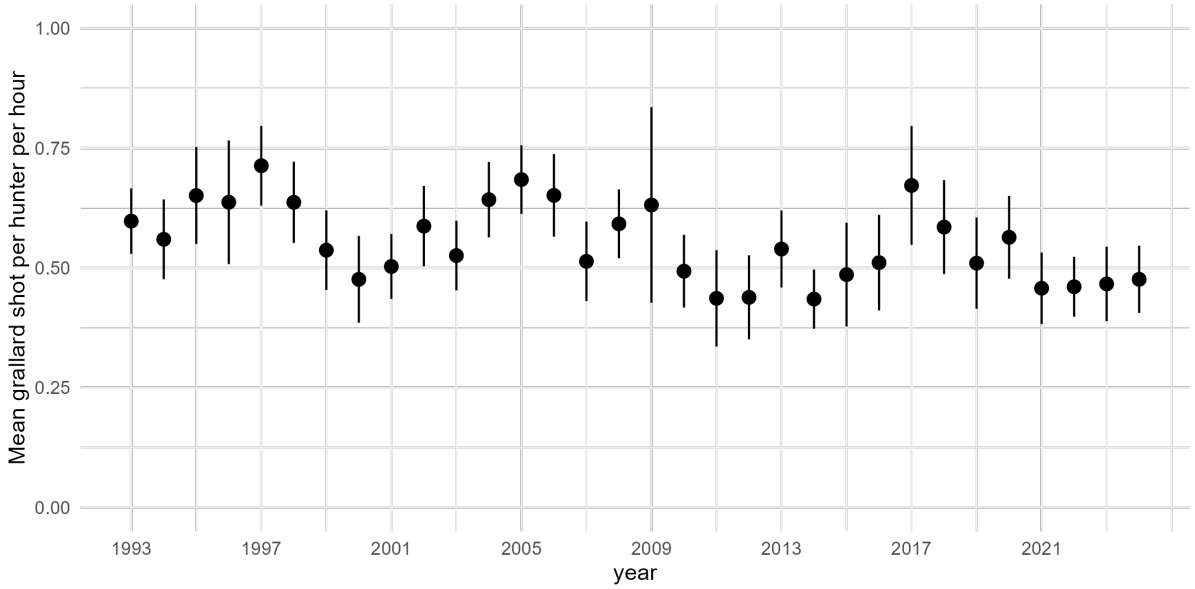


Figure 13: Estimates of average grallard harvest per hunter per hour from 1993 to 2024 with 95% confidence intervals.

Grallard per hunter per hour seems to cycle up and down from 1993 to 2024. On the whole this cycle is trending downwards. This decline may be partly due to a decrease in hunter effort, but the fluctuations from year to year (and decrease in recent years) are likely due to population size - driven by climatic conditions. Grallard per hunter per hour positively correlates with our estimates of the total grallard population, with the relationship between grallard per hour and population size being statistically significant ($p < 0.001$)[6].

8 SURVIVAL RATES

Survival rates are calculated from banding data and represent the proportion of the population that survives from one year to the next. Over the last 20 years, survival rates for juveniles have remained consistently low for both males and females at around 0.4. For adult males, survival rates have been consistent at around 0.6, while for adult females, survival has dropped below 0.5 since 2019.

Survival rates may remain stable while the population hypothetically collapses because duckling survival is the single most important variable governing population growth[7] which is not captured in our survival estimates. Environmental effects and season regulation can be included in predictors of the Burnham live-dead model, but further work is required to explore this fully. Initial results suggest that Autumn rainfall may have the largest effect on survival outside of differences in sex and age class, while the effect of season regulations is small at best. However, it is worth reiterating that we would

[6] This may come as a result of both estimates being generate from the same harvest data.
[7] J. Sheppard (2017). Breeding Ecology and Productivity of Mallards and Mallard-grey Duck Hybrids in New Zealand.

expect this, particularly for season length, if the drop to a four-week season coincided with the drop in the grallard population.

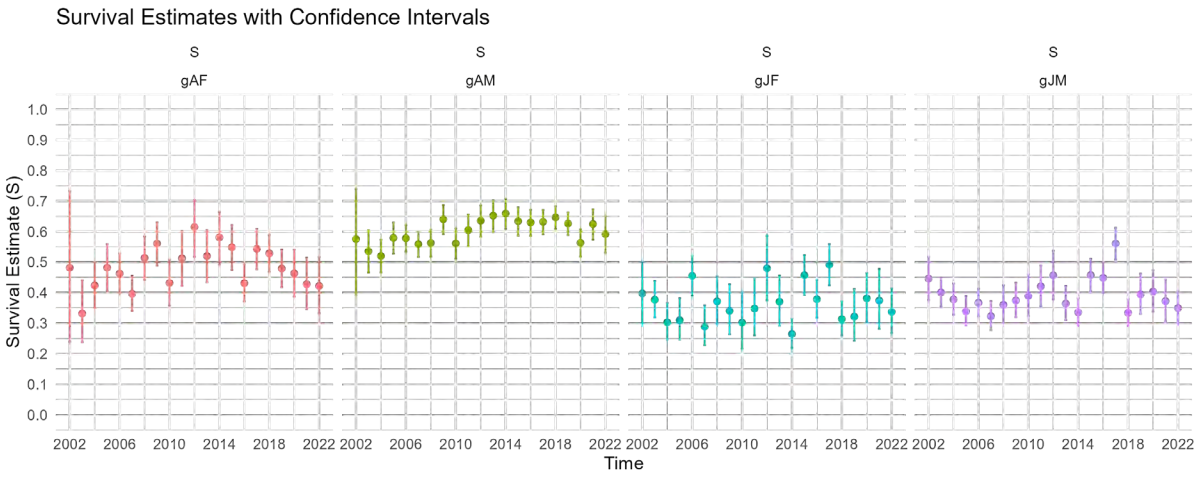


Figure 14: Estimates of survival (S) from 2002 to 2022 based on a Burnham live–dead model. AF (orange) = Adult females, AM (Green) = adult males, JF (blue) = juvenile females, JM (purple) = juvenile males. Survival estimates are distinct in terms of age, sex, and time combination. They are calculated in a model that assumes the other parameters (F, p and r) vary only by sex and age.

9 APPENDIX

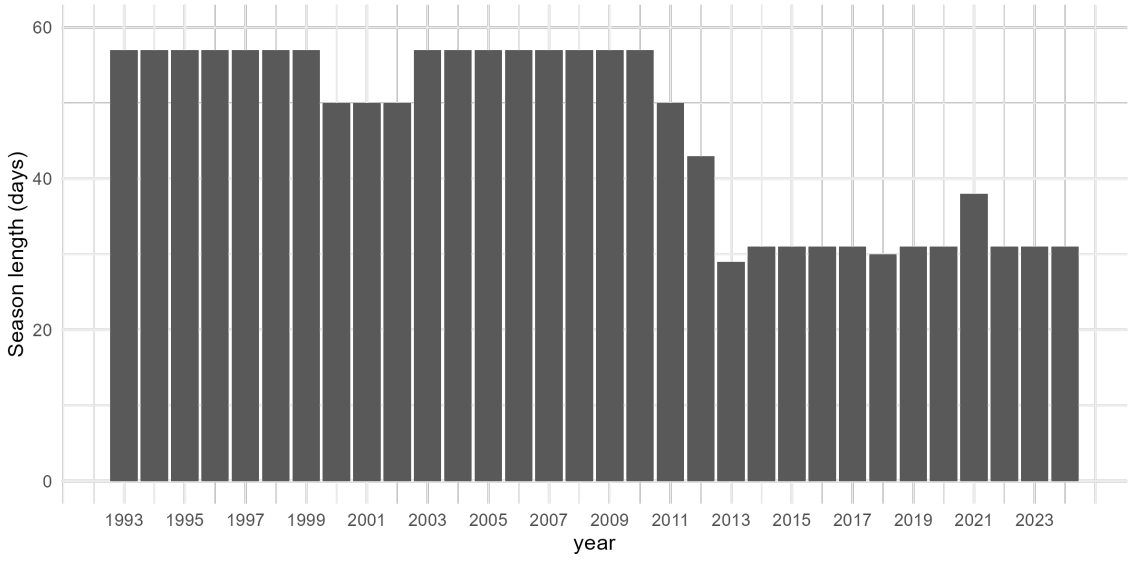


Figure 15: Auckland Waikato season length (days) 1993-2024.

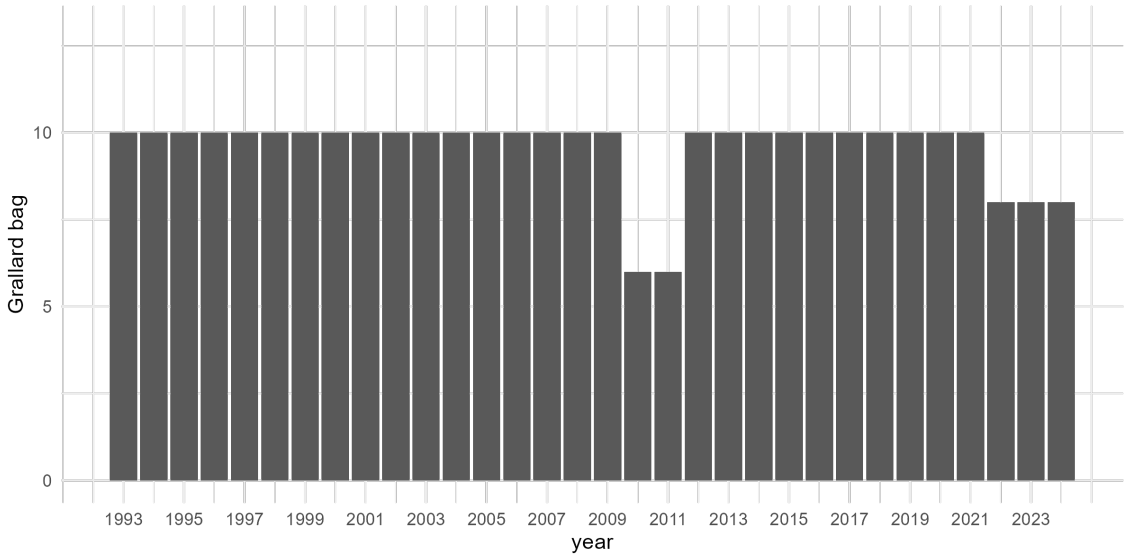


Figure 16: Auckland Waikato grallad bag limit 1993-2024.

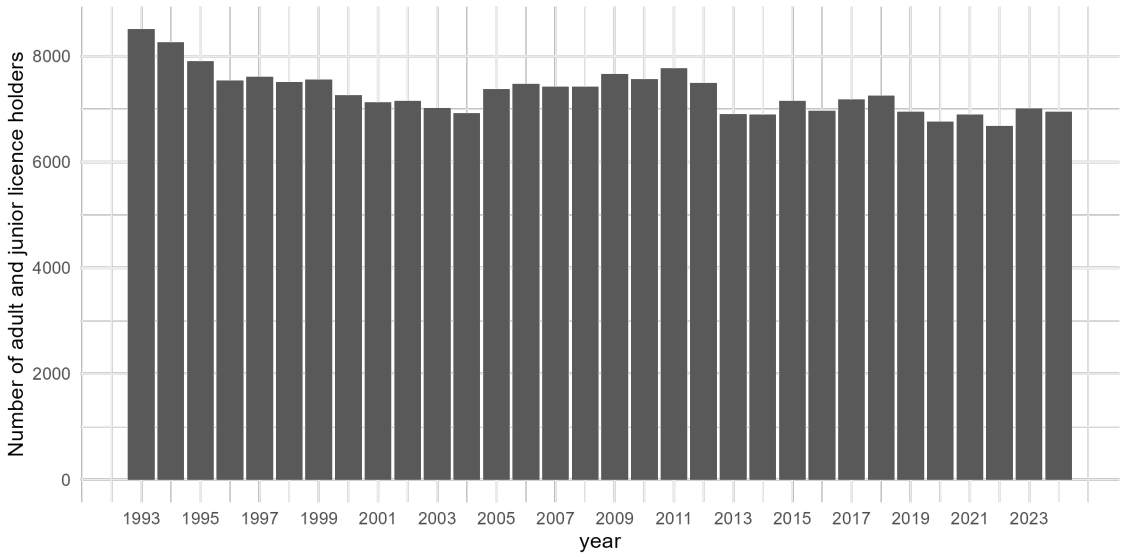


Figure 17: Auckland Waikato adult and junior full-season licence holders 1993-2024. Note that for 1995, the number of licence holders is unknown, and the average of the two surrounding years is imputed.

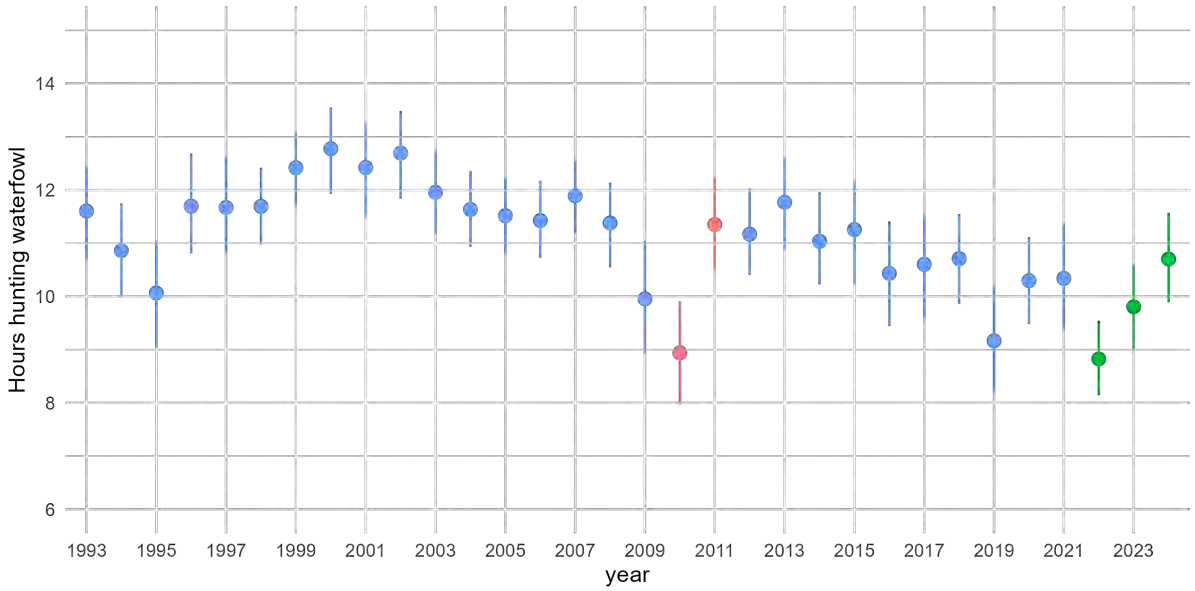


Figure 18: Estimated mean opening weekend grallard hours hunting waterfowl per licence holder from 1993-2024. Years are coloured by mallard limit. Blue = 10, Green = 8, Orange = 6. Opening weekend averages are calculated as the sum of daily averages, and 95% quantile confidence intervals are generated from bootstrapping.

SMS Band Reporting Rate Pilot

Beau Jarvis-Child 2024

1 SUMMARY

Total population is one measure Fish & Game councils estimate to manage waterfowl. In the Auckland Waikato region, a banding program has been run since 2002, which relies on hunters reporting bands from harvested birds. To estimate the total population, we assume the ratio of birds shot with bands out of all banded birds is equal to the ratio of harvested birds out of the total population. Because not all bands are reported, we correct for non-reporting in our population estimates via a reporting rate which is estimated separately each year. Historically, this has involved asking a random selection of licence holders if they shot and reported a banded bird as part of the Game Bird Harvest Survey (GBHS). However, with few people shooting banded birds each year, our annual sample size for reporting rate is small, resulting in considerable uncertainty. This pilot explores multiTXT, a bulk SMS technology, to administer this survey to increase both sample size and response rate. We used multiTXT to send SMS messages to 5587 licence holders, resulting in a 66.7% response rate. We estimated that 9.3% of adult and junior whole-season licence holders shot a banded bird (95% confidence interval from 8.4% to 10.2%). Of these, 58.6% (95% confidence interval from 53.3% to 63.7%) reported submitting the band information. The estimated verified reporting rate was lower, at 52% (95% confidence interval from 46.7% to 57.2%). We recommend this approach be repeated to understand the year-to-year consistency of reporting rates. Following this it would be a worthwhile approach to be administered every 2-3 years.

INTRODUCTION

Total population size is an important population parameter in gamebird management. Auckland Waikato Fish & Game generates data to calculate the total annual population size of mallard (*Anas platyrhynchos)* and grey duck (*Anas superciliosa*) via a banding programme that has run since 2002. Whilst the two species are differentiated during the banding process, it is accepted that due to hybridisation, it is often difficult to do this from visual inspection alone and, for the purpose of this report, will be referred to as *grallards* (D. Klee, 2012 banding report).

Estimated population size (N_t) in year t is estimated as follows: "Assuming that a banded bird is just as likely to be harvested as a non-banded bird, then the ratio of band returns (adjusted for non-reporting rate) from that year cohort should be the same as the ratio of birds harvested to the total population." It is calculated as:

$$N_t = \frac{b_t \rho_t H_t}{r_t}$$

Where N_t is the number of grallard in year t prior to the hunting season, b_t is the number of birds banded in year t, r_t is the number of bands returned from the b_t cohort in year t, ρ_t is the estimated reporting rate, and H_t is the number of mallards harvested in year t.

This report is focused on ρ_t; the reporting rate.

Historically, reporting rates were estimated based on questions asked in the latter period(s) of the annual game bird harvest survey. Hunters are asked if they have shot a banded bird during the game bird season and, if so, if they had reported it. Because sample sizes were small, a 3-year average was previously used. The validity of aggregating across years notwithstanding, these estimates were still associated with reasonable uncertainty (Figure 1).

Estimates from the two most recent harvest surveys also suggest that the phone surveys have a non-response rate of around 54% (based on calling 458 licence holders). Non-response bias is relevant because we may expect that those less likely to report bands are also less likely to engage in the harvest survey.

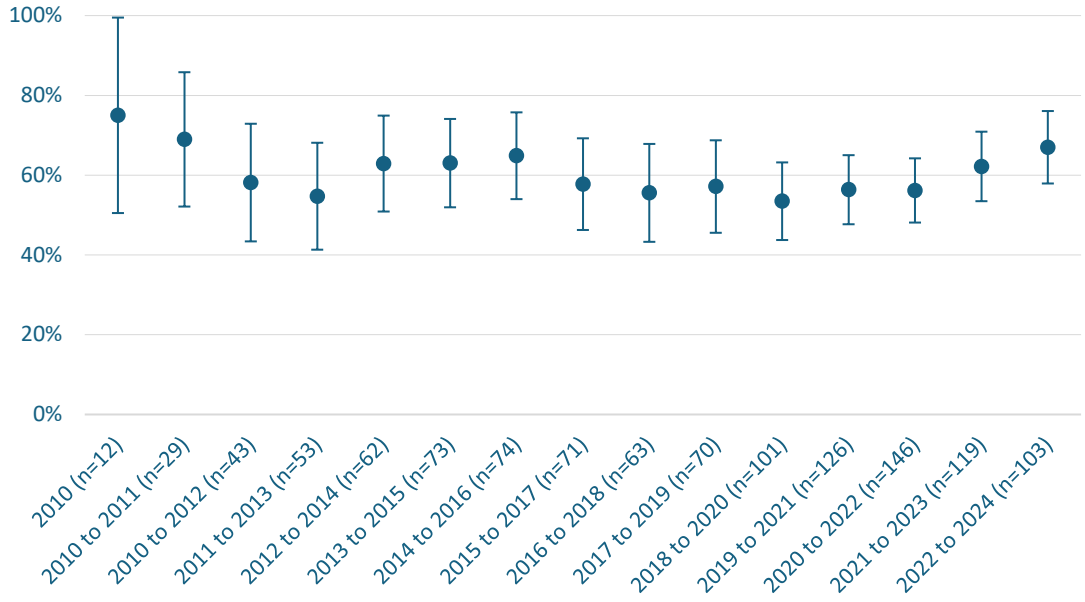


Figure 1: Estimated proportion of individuals who report bands calculated using a 3-year average of GBHS phone call data.

Uncertainty in estimates of reporting rate can have a significant effect on estimates of population size. For example, in 2024[1] the unverified reporting rate based on the harvest survey data (i.e., phone surveys) was 69%, resulting in a population estimate of 624k. However, there is considerable uncertainty in the reporting rate (95% confidence intervals spanned from 51% to 87% (see Figure 4)). The effect of variability on grallard population estimates is shown in Figure 2, where the upper limit of the estimated population confidence interval is 810k, and the lower limit is 432k—a difference of nearly 380k birds[2].

[1] Where H_t= 82605, b_t=3134 and r_t=285

[2] The results naturally improve when taking a 3-year average.

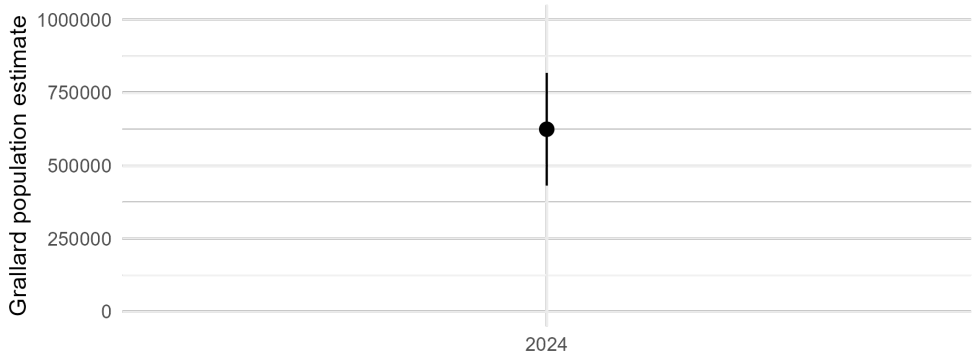


Figure 2: Estimated grallard population for 2024 demonstrating the effect of uncertainty in reporting rate estimates from GBHS phone call data. Reporting rate estimates for 2024 are taken from Figure 4. Note: the confidence intervals incorporate the uncertainty associated with our estimate of the reporting rate and the estimate of total gallard shot.

This report aims to improve on uncertainty and bias associated with these estimates by increasing both the number of people contacted (i.e., increase sample size) and improving survey non-response (i.e., the number of people who respond to the survey) via MultiTXT, an alternative method of collecting this data. The ability to easily send follow-up messages may also assist in generating a verified reporting rate.

MultiTXT is a messaging service operated by One NZ that allows bulk text (SMS) messages to be sent and received using a computer. Importantly, it may be programmed to respond automatically to keywords, and the messages can be exported into an Excel file.

2 METHODS

2.1 ONE NZ MULTITXT

Several providers offer bulk SMS technology for similar prices. One NZ was deemed the most suitable for this use case as it:

(1) did not charge licence holders to respond (which could reduce response rates) and
(2) offered automated (and immediate) responses to keywords, which was essential for increasing response rates on the follow-up question (see section 3.3 for more details).

2.2 SAMPLE FRAME AND SAMPLE SIZE

In 2024, Auckland Waikato had 6915 distinct adult and junior whole-season licence holders (i.e., excluding children and day licences). Not all licence holders have a recorded mobile number, which is necessary for multiTXT. Sometimes, people who have purchased licences for their friends or kids use their number, resulting in duplicates. After addressing these by selecting the oldest licence holder of the duplicates, there were 5729 licence holders in the sample frame[3].

[3] The sample frame could be improved by collecting more cell phone numbers and not allowing duplicate numbers when people purchase their licence.

The estimated sample size required to calculate the reporting rate with a 5% margin of error (and 95% confidence intervals) was close to 350. After correcting for the estimated proportion of people who shot a banded bird (13.5%, based on previous years) and the estimated survey response rate (50%, a conservative estimate based on the two most recent phone survey periods), the sample size was 7000. Based on this, we aimed to contact all the licence holders in the sample frame.

We informed licence holders about the upcoming SMS survey in the July edition of Auckland Waikato Both Barrels, gamebird digital newsletter to garner the best response rate. Prior to the survey being sent out, around 1300 people had viewed this newsletter.

2.3 QUESTIONNAIRE

The survey was designed to be as simple as possible with the hope that more people would participate. We also hoped that in asking people if they shot a banded bird separately from whether they reported it, people who had not reported a band would not be discouraged from responding.

The initial SMS read:

> *Hi #firstname#, Auckland Waikato Fish & Game here. We are interested to know if you shot a banded duck this season. Please reply (for free) "YES" or "NO".*

If they responded “Yes” (or some variation of), the automated follow-up SMS read:

> *Great! Have you reported this band yet? If you have, please reply (for free) "I have". If not, or if you're unsure, please reply "Not yet".*

If they did not respond or responded, “Not yet” (or anything other than “I have”), then no follow-up message was sent.

If an individual did not respond to the follow-up message after a period a second message was manually sent that read:

> *Hi #firstname#, Can you tell us if you have reported the band? Free text "I have" or "Not yet". Cheers, Beau from Fish&Game.*

Additionally, when the names of those who responded “yes” could not be matched to the banding database, another message was sent which asked for more details to help verify the band:

> *Hi #firstname#, Fish & Game here. Thank you for responding that you shot and reported a band. However, we could not match your name to any reported bands this season. Is there a chance it was entered under a different name, or was it from a previous year/different region? Cheers!*

2.4 CLEANING AND ANALYSIS

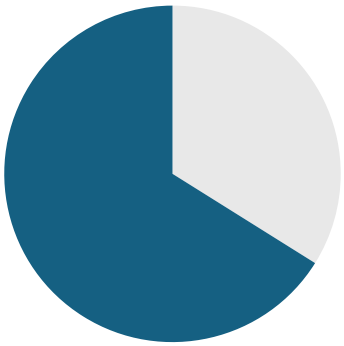
MultiTXT data (sent and received) was cleaned using R (statistical software). For each unique phone number, responses to “Did you shoot a banded bird?” and “Did you report it?” were coded first by searching for keywords (“yes” and “have”, respectively) and then manually checked.

Around 11 people did not respond to the second follow-up message. We checked their names against the banding database to determine if they had reported the banded bird they said they had shot.

Proportions (and 95% confidence intervals) of people who shot a banded bird and those who reported a band after they shot a banded bird were calculated via logistic regression (with no additional covariates).

3 RESULTS

We attempted to survey all 5729 licence holders that we had a unique mobile number for. Of these, 5587 received the initial question due to "bad" numbers or failed deliveries. We received five reports of people being unable to respond to the initial question, which may indicate a wider issue impacting the response rate (i.e., more people may have responded, but we did not receive the message). However, it is impossible for us to tell if someone tried to respond and could not. While One NZ could not diagnose the issue (a test message the following day to those with the error was successful), it may have been due to a momentary outage in their provider[4]. Despite this, 3727 people (66.7%) responded to the multiTXT survey.



66.7% of the 5587 who received an SMS responded.

From these responses, we estimated that 9.36% of adult and junior licence holders shot a banded bird during the 2024 season (95% confidence interval from 8.45% to 10.32%). Figure 3 shows the previous annual estimates calculated from the phone surveys alongside the 2024 SMS estimate.

[4] A potential solution may be to send batches of texts over a period of time, e.g., one day. In addition – an initial test run of 99 people garnered a response rate of 82%.

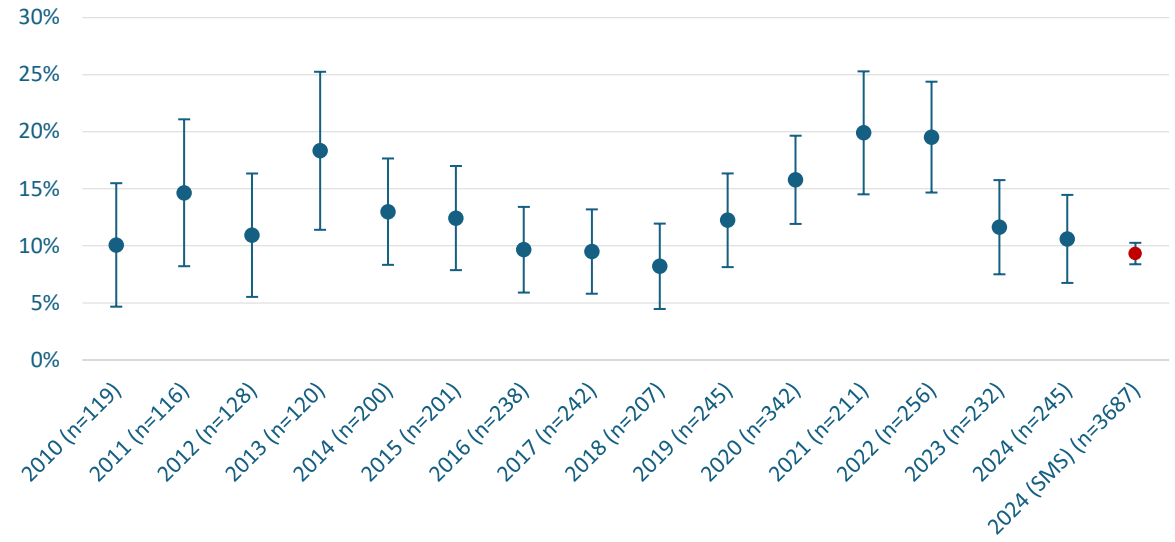


Figure 3: Estimated proportion of individuals who reported shooting a banded duck, calculated from GBHS phone calls (blue) and SMS survey (red) (95% CI).

Of the 346 individuals who reported shooting a banded bird, 58.6% (95% confidence interval from 53.3% to 63.7%) reported submitting the band information. Figure 4 shows the annual estimates of the reporting rate from 2010 to 2024 based on the gamebird harvest survey data (blue dots) and the 2024 SMS estimate (red dot).

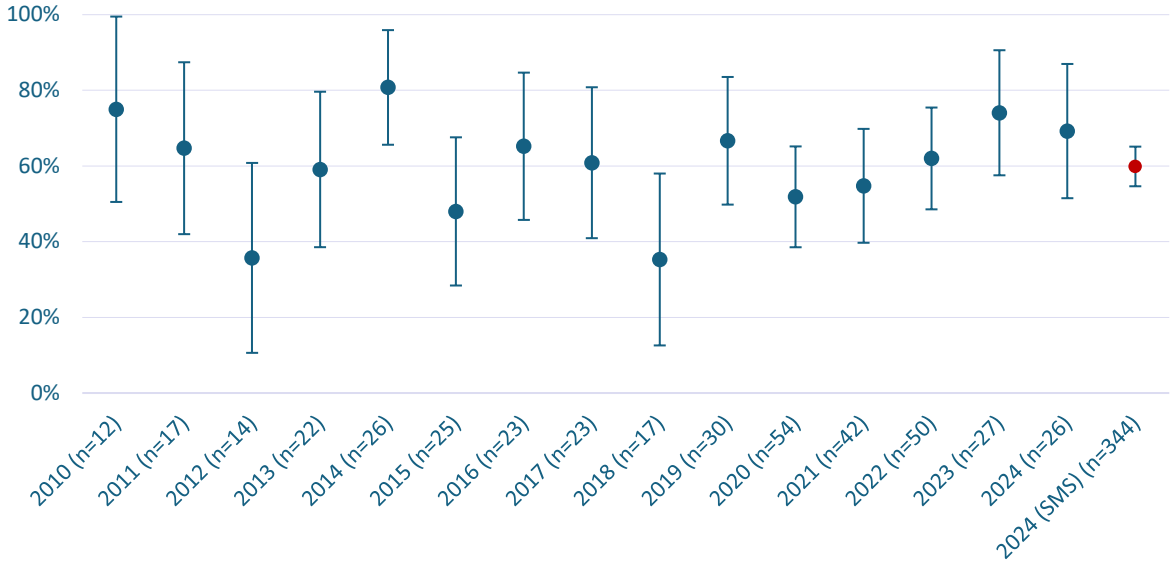


Figure 4: Estimated proportion of individuals who said they reported a band after reporting that they shot a banded bird, calculated from GBHS phone calls (blue) and SMS survey (red) (95% CI).

3.1 VERIFYING REPORTED BANDS

We know from previous years that what people say is not always true. We checked the names of those who reported submitting band information against our database of reported bands. First, 130 of the 206 individuals could be easily verified by matching first and last names to the banding database (including other North Island regions). A further 28 are verified manually by checking last names and

consulting the licencing database (e.g., checking addresses). For example, an adult may report via SMS they shot and reported a band; however, the band is reported under their child's name. Naturally, this only works if they share a surname. Sometimes, a submitted band may be reported on more than once. For example, a father and son shoot together; the father shoots a banded bird, and the son submits it. However, when responding to the SMS survey, they both report shooting and reporting a band. Assuming they share a surname and similar address – we can remove such duplicates (in this case, n=3).

Thirty-eight individuals (21%) could not be verified against the database of reported bands. These may be instances where the band in question has been reported (e.g., it has been reported under a family member's name whose name differs from theirs). There is also the possibility that they have not reported a band (e.g., they misread the question and have only reported bands in previous seasons).

A follow-up SMS was sent to these individuals to address this, and 25 (66%) responded. Of these, 12 (48%) provided alternate names and were verified, 10 (40%) could not be verified (e.g., duplicates), and 3 (12%) were removed as errors.

The verified reporting rate can be calculated under two assumptions:

(1) individuals who could not be verified did shoot a banded bird, and
(2) individuals who could not be verified did not shoot a banded bird.

Under the first assumption, the verified reporting rate was 49.7% (95% confidence interval from 44.4% to 54.9%). Under the second assumption, the verified reporting rate was 54.4% (95% confidence interval from 49.2% to 59.6%).

Since nearly 50% of the individuals who responded to the SMS asking for more details could be verified, the true verified reporting rate is likely somewhere in the middle: 52.0% (95% confidence interval from 46.7% to 57.2%).

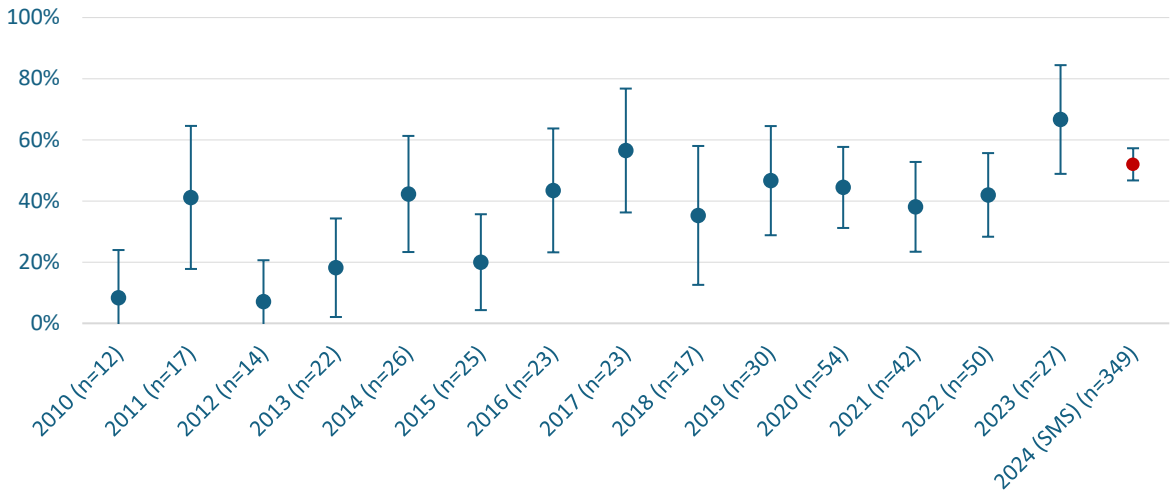


Figure 5: Verified reporting rate over time (i.e. the number of bands that could be verified against the database out of the number of individuals that reported shooting a banded bird based on GBHS phone calls (blue) and SMS survey (red) (95% CI).

3.2 Discrepancy between said reported and reported.

Technically, the current method measures the proportion of individuals who report bands when we are really interested in the proportion of bands that are reported. Assuming that the average number

of bands people don't report is equal to the number of reported bands, our estimates are unbiased. However, if, for example, individuals who collect more bands are more likely to report them (or if people give their bands to their friends to report), then a higher proportion of bands are being reported than people are reporting bands.

The SMS survey provides a unique opportunity to test this assumption as the text reminded some individuals who subsequently submitted their bands. Assuming they would have otherwise not submitted their bands, we can treat these individuals as a sample of those who "would not have submitted bands". From this, we can compare the mean number of bands that people submitted on their own accord to the mean number of bands for people who had to be reminded.

Individuals who reported bands on their own accord (i.e., submitted before the SMS survey started) submitted on average 1.31 bands (95% CI from 1.23 to 1.38), while those who were reminded by the SMS survey submitted 1.53 bands on average (95% CI from 1.2 to 1.86). No statistically significant difference was found (p=0.21)[5]. While this is worth investigating further, if possible, it is not immediately concerning.

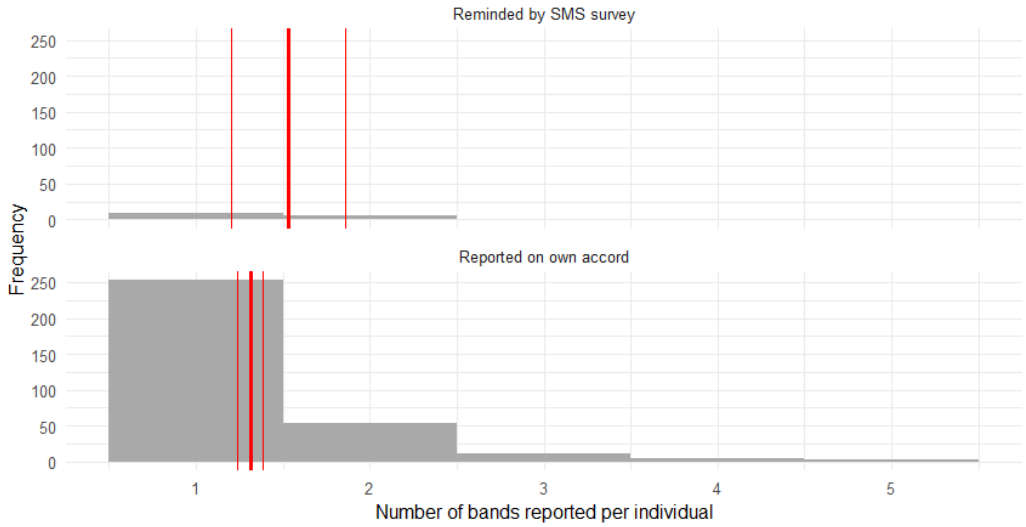


Figure 6: The distribution of bands reported per individual in the 2024 season comparing those who reported bands before and after the SMS survey started. Means are shown in red, with corresponding 95% confidence intervals.

3.3 ADJUSTED REPORTING RATE FOR 2024

The estimated verified reporting rate for 2024 was 52%. However, 16 individuals, potentially reminded by the SMS survey, subsequently sent in their band information. These were excluded from the analysis as they are not "natural" reporting. When included, the reporting rate for 2024 increases to 56.7%. This is mainly useful to know if we wish to extrapolate these estimates to other years that did not have an SMS survey. In other words, in 2024, we estimate a reporting rate of 56.7% given the presence of an SMS survey and 52% without one.

Figure 7 below shows the estimates of grallard population in 2024 based on the verified reporting rate and corresponding variability. Compared with Figure 2, the estimate of the grallard population has much smaller confidence intervals.

[5] With a small sample size of "reminded by SMS", more evidence is required to test this assumption fully.

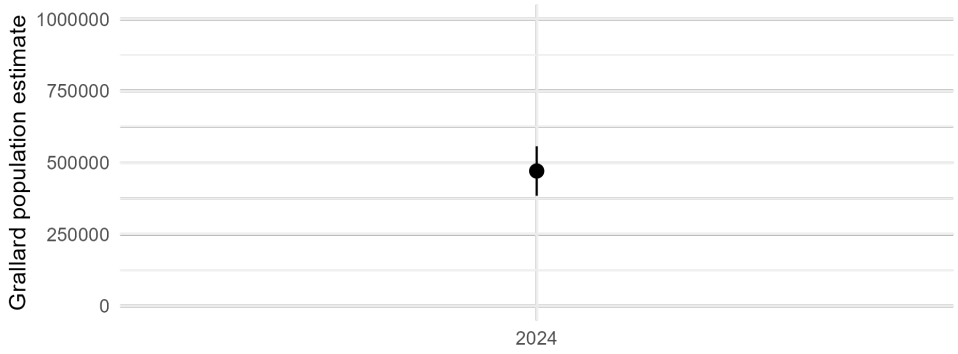


Figure 7: Estimated grallard population for 2024, demonstrating the effect of improved reporting rate estimates on confidence intervals due to the SMS survey. Reporting rate estimates for 2024 are taken from Figure 4 (red dot). Note: the confidence interval incorporates the uncertainty associated with our estimate of the reporting rate and the estimate of total gallard shot.

4 APPENDIX

4.1 ASSOCIATED COST

One NZ multiTXT relies on three associated costs: a $180 one-off set-up fee, a $20 monthly fee (which is only necessary to pay for the one month the survey is being administered), and an outbound SMS fee at around 11c per SMS. In total, 6368 outbound SMS were sent with an associated cost of $812, bringing the total cost to just over $1000. This was slightly higher than anticipated[6] – but the additional follow-up texts to verify bands were deemed worthwhile. One NZ still seems like the best option, and I had no issues with their software or support.

Realistically, this was probably a couple of weeks' work. In hindsight, there are many ways that this survey could be streamlined to reduce working hours. For example, manually checking the surnames and addresses of unverified bands to see if they had submitted them under their child's name is probably not as efficient as following up with all those whose bands could not be verified. Regardless, verifying bands will always be by far the most time-intensive process. However, if this were to be replicated in future years, one might expect that the associated time would be reduced given that the code has been written, etc.

4.2 LEARNINGS

Most people responded within the first day or two. However, some responded up to 26 days after sending the first SMS. Knowing this, waiting 3-4 weeks before even looking at the data would be worthwhile as it would eliminate the repetition of processes such as cleaning data and verifying bands. For example, the process could be structured as follows:

1. Send initial SMS to all users (with messages staggered over a day to hopefully avoid issues with them being unable to respond due to network issues).
2. Wait 3-4 weeks and download the data.

[6] GST excluded pricing worth noting..

3. Clean data and match names to the banding database (remember to include nearby regions).
4. Identify unverified bands and send a follow-up message. When asking about verified bands, it may be worthwhile asking for them to confirm whether they shot a banded bird this year.
5. Wait one week.
6. Download data from the follow-up message.
7. Manually verify the remaining bands.
8. Analysis data and write report.

The main issue with verifying bands is that one must assume that the band has not been reported until proven otherwise. Because getting proof is time-consuming and, at times, difficult, there remains the risk that unverified bands are misidentified.

Further research is required to test whether and how much reporting rates fluctuate year to year. Assuming they do not change dramatically, one could compromise by administering the survey every 2 or 3 years and interpolating the reporting rates in years without an SMS survey.

4.3 RECOMMENDATIONS

Overall, the multiTXT pilot was a success. We estimated the band reporting rate with a higher response rate and smaller margins of error. In addition, we verified many of the bands, which helped us better understand the true reporting rate and the discrepancy between people saying they reported a band and the bands that were actually reported. In Auckland Waikato, monitoring reporting rates using a multiTXT survey of all licence holders every 2-3 years would be worthwhile if it is found that reporting rates do not fluctuate significantly from year to year.

A nationwide SMS survey of reporting rates would allow all regions with banding programmes to get more accurate estimates with lower uncertainty. This would enable Fish & Game councils to better manage waterfowl in their region via less biased estimates of the total population. A nationwide survey also allows for comparisons in reporting rates between regions, which may help us to understand the factors that influence reporting rates.

Operational Work Plan

Every year Council reviews its OWP. The OWP is a legislative requirement under Section 26Q (3) of the Conservation Law Reform Act 1990. The mission statement captured in the OWP reads as follows.

"To manage and enhance sports fish and game resources on a sustainable basis in the recreational interests of anglers and hunters" (26Q (1)).

Last year Council set 5 strategic priorities for the coming year. Once agreed, these should ideally be set for 3 years to match council election cycles. This gives staff some certainty in terms of the direction the council is taking so that we can plan, budget and implement the operational components the underpin the overarching objectives of the OWP.

Auckland/Waikato Fish & Game's priority for 2024-2025 is to assign staff time and financial resources towards projects that improve or increase;

- Access making it easier for anglers and hunters to locate and utilise resources.
- Revenue through increasing participation and developing alternative sources of income.
- Water quality and quantity addressing, the pressures on our free-flowing water resources and the water quality of the Waikato Lakes and Wetlands.
- Greyllard populations and as a result, hunter opportunities.
- Communication with licence holders.

It was noted in the 2023-24 Audit Report that the reporting in our SSP did not always align well with the planned results in the OWP and this needs to be rectified. I have proposed several amendments to the draft 25-26 OWP which are captured as track changes in the following document. Where required I have provided comments for context and rationalising the proposed changes.

As councillors review the OWP it I urge you to differentiate between operations and governance. In this instance it is council role to set the overarching objectives of the OWP, however the finer details of how staff are to achieve the planned results are largely operational matters.

The final OWP does not need to be set until later in the year, however, it is required that a draft is finalised at the February meeting as this will be used to determine our draft budget for the 25-26 FY which is usually due with NZC in mid-March. Under the new budget setting proposal NZC will determine regional budgets at its April meeting. Depending on the outcome of that process we may need to review the OWP in May before finalising later in the year.

AUCKLAND/WAIKATO FISH & GAME

OPERATIONAL WORK PLAN

20254/20265

CONTENTS

1. INTRODUCTION

This Annual Operational Work Plan connects with Council's 2021 Sports Fish and Game Management Plan which is recommended to the reader who wishes to obtain an overview of issues within the region and the general priorities of Council.

The Management Plan backgrounds Council's evolution, its interaction with the wider community, the sustainable management of fish and game, the importance of habitat, issues, areas of conflict, future possible threats and conflict/threat/mitigation strategies.

The Auckland/Waikato Fish & Game Council region is unique in that the population it services is much larger than that of other Fish & Game Councils. The bulk of the population is centred north of the Bombay Hills with the major resource located southwards necessitating considerable travel and associated expense for the majority of gamebird hunters and freshwater anglers in the region. The composition of the population is also unique in that the bulk of such is urban, which has not had a close association with either the land or traditional field sports.

Auckland/Waikato sell 25% more game licences than any other Council which coupled with the essentially urban population, places additional pressures not experienced by other Councils on Auckland/Waikato's major income base. Moreover Auckland/Waikato is the only Council that owns a substantial area of wetland with over 1,700 hectares of endangered wetlands comprising some 15 properties.

Under its validating legislation, the Conservation Law Reform Act 1990, the Auckland/Waikato Fish & Game Council is required to:

(i) Formulate and adopt an Operational Work Plan (Section 26Q (3)).

(ii) Provide a report of its operations and financial statements audited by the Government Audit Office (Section 41 Public Finance Act 1989).

(iii) Produce a Statement of Objectives specifying the output to be produced by the Council which at the end of the financial year will be reported on via a Statement of Service Performance (Section 41 Public Finance Act 1989).

2. REPORT FORMAT

The following plan presents a series of goals grouped under nine functional areas, with each goal addressed through a series of objectives with costings attributed to them. Each costing is an imputed net cost made up of projected direct and overhead costs less income. Costs other than those specific to the functional area are indirect items of budgeted expenditure divided by the hours available in order to produce the estimated cost relative to time expended on each objective - consequently those costs are indicative only.

Appendix (I) shows Council's budget for 2025~~4~~/26~~5~~

Unless otherwise stated objectives are to be completed by the end of Councils financial year.

The attached Work Plan is based on Council employing a full-time Chief Executive, two field officers, a senior field officer, two Environmental Officers (2 part time positions, one being shared with Northland Fish and Game) and a part time Office Manager (0.75 FTE). Provision has not been made for the hundreds of hours and dollars donated to Council's operations by the twelve elected Councillors, 15 honorary rangers, Fish and Game Associations and other user groups who seek to put something back into their sport - all on an unpaid basis and without which the organisation would not survive. The Council is also increasingly dependent on the considerable efforts and long hours spent by researchers, often highly qualified biologists from North America, who are assisting on a voluntary basis with the council's research programme.

In preparing the plan three key aims are met namely

(a) The need to provide useful means of predicting and reviewing activities within an operational year within the context of longer term objectives contained in a Management Plan.
(b) The need to minimise the number of reports produced by Fish & Game Councils in meeting external and internal planning and reporting requirements.
(c) To ensure that the Operational Work Plan and Annual Report are complimentary to extent that the latter reports clearly against the objectives established in the Operational Work Plan.

To this end the Operational Work Plan has been set out in a form that is modular and will in turn constitute a large part of the Annual Report simply by adding relevant information at year's end.

It must be pointed out that the attached work plan is in no way finite or exact. With only seven paid employees and as so much of Council's work is reactive and dependant on voluntary assistance and alternative funding, flexibility is essential to meet Council's obligations to its licence purchasers.

3. MISSION STATEMENT

"To manage and enhance sports fish and game resources on a sustainable basis in the recreational interests of anglers and hunters" (26Q (1)).

~~4.~~ DETERMINING AUCKLAND/WAIKATO STRATEGIC PRIORITIES~~ FOR THE 2024-2025 YEAR~~

~~4.~~

In February 2025~~June 2024~~, the Auckland/Waikato Fish & Game Council reviewed it's OWP Strategic priorities ~~and programmes~~ for the following 3 years~~2024-2025 year~~. ~~This year~~, Auckland/Waikato Fish & Game Council aims to align ~~acknowledges that its key priorities need to align~~ its strategic priorities with the recently created New Zealand Fish & Game Council's strategic plan. ~~-~~

On top of fulfilling its statutory obligations, Auckland/Waikato Fish & Game's priority for 2025-2027 ~~2024-2025 is~~ is to assign staff time and financial resources towards projects that improve or increase;

- Access making it easier for anglers and hunters to locate and utilise resources.
- Revenue through increasing participation and developing alternative sources of income.
- Water quality and quantity addressing, the pressures on our free-flowing water resources and the water quality of the Waikato Lakes and Wetlands.
- Greylard populations and as a result, hunter opportunities.
- Communication with licence holders.

New Zealand Council's priorities are:

- **Unified and Enduring Organisation**, a national and regionally cohesive organisation built on a culture of shared values, trust and engagement. Delivering on a vision and purpose for stakeholders and Mana Whenua. Maintaining the statutory mandates that enable effective service delivery.
- **Attract and Retain Licence Holders**, deliver well-valued and cost-effective experience for licence holders by understanding their needs, providing simple and effective communication, making fishing and game bird hunting more attractive to a wider group of future participants.
- **Mana Whenua Connected**, Maori values are understood and reflected within Fish and Game with aligned advocacy and a positive collaborative approach that builds upon Te Tiriti obligations defined in Conservation Act.
- **Public Perception and Legitimacy**, understanding and reshaping public perception of Fish & Game NZ, angling and game bird hunting through positive messaging of natural environment protection, wild food harvesting and well-being through outdoor recreation.

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- **Healthy Species, Habitats, and Ecosystems**, Sports fish and game bird species are monitored, and sustainably managed, freshwater habitats are protected, and access to sustainable wild harvest opportunities are secured for future generations.

5. FUNCTIONAL AREA 1:

SPORTS FISH AND GAMEBIRD MANAGEMENT

Goal:
To maintain sustainable populations of harvestable species at levels to provide for angler and hunter satisfaction while mitigating adverse impacts of the species.

1.1 Sports Fish Management:

Council stocks lakes Pupuke, Parkinson's and Whatihua with trout as these waters have no natural recruitment and thus stocking is required to maintain productive trout fisheries. Trout liberations are also carried out in lakes Arapuni and Moana-nui to supplement natural recruitment which is considered to be low in both waters. Trout releases are monitored by marked or tagged fish, and assessing data from angling competitions and returns from individual anglers.

Council is currently investigating the use of sterile rainbow trout for fish releases. In 2019 rainbow trout ova were pressure tested to induce sterility and these trout were released into Lake Arapuni from 2020 to 2023. The fish were tagged, and we encourage anglers to report the capture of any tagged trout as this data will be crucial for the success of the project.

The bulk of the regions fisheries contain resident populations with abundant natural recruitment giving rise to angling opportunities not enjoyed in the more heavily fished regions. Angler surveys show the major attraction of the region's fisheries to be their un-commercialised wilderness qualities. Careful management is required to ensure that these important aspects are not over-exploited thus destroying the fisheries attributes.

Rainbow trout are abundant throughout the region in a wide variety of habitats that provide many different opportunities for trout anglers. Brown trout are typically limited in distribution to the large river systems and hydro-lakes, albeit in recent years they have colonised many rivers in the Coromandel Peninsula where they were previously absent.

Major river fisheries in the region are monitored by the wild trout tagging programme, drift dive surveys, and annual fishing competitions.

Coarse fish (rudd, perch and tench) are widespread throughout Council's region and attract a small but dedicated following of anglers.

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SPORTS FISH MANAGEMENT

Project 1.1.1 Drift Diving

Objective	Planned Result	Actual Result
To monitor the trout population in the major clear rivers and impact of management decisions.	Drift dive representative river sites. Report and recommendations to Council detailing population status and management implications.	

Project 1.1.2 Fish Surveys

Objective	Planned Result	Actual Result
Sports fisheries monitored using techniques that may include netting, electric fishing, spawning, fin clipped and tagging surveys.	Report and recommendations to Council detailing population status and management implications.	

Project 1.1.3 Fish Harvest Assessment

Objective	Planned Result	Actual Result
Fish harvest assessments estimated in major fisheries. .	Results analysed from fishing competitions to monitor both hatchery and wild fish catch rates and condition. Progress report to Council.	

Commented [DK1]: No mention of angler use survey?

Project 1.1.4 Fish Releases

Objective	Planned Result	Actual Result
Fish liberations undertaken where required to maintain productive trout fisheries in lakes where natural recruitment is inadequate.	Review Fish releases annually and report recommendations to council. ~~Fish liberated as required and reported to Council. Assessment report on the triploid programme prepared with recommendations to Council.~~	

Commented [DK2]: When?

Project 1.1.5 District Anglers Notice

Objective	Planned Result	Actual Result
District Anglers Notice reviewed triennially ~~approved~~ considering ~~based on~~ best	Monitor angler satisfaction and seek feedback prior to approving District Anglers	

available science and angler aspirations.	Notice. ~~approved.~~	

Budget $	**46,530**	**Actual:**

1.2 Gamebird Management

Council sells 25% more gamebird licences than any other Fish & Game Council.

Grey and Mallard populations in 2024 were estimated to be between 430k ~~,000~~and 610k ~~,000~~(point estimate at just over 500k~~,000k~~). This is similar to the previous year but considerably up from 2021 and 2020. However, estimates are still down from the late 2000s, when estimates reached as high as 900k~~,000k~~. Similar population trends have been observed in the Eastern Region, ~~R.~~which lends itself to the idea that the grallard population is primarily driven by environmental factors. However, we have yet to identify links between environmental factors (e.g., drought) and population size. In addition, an SMS survey was piloted with the aim of improving our estimates of band non-reporting. These estimates contributed to improving our population estimates (i.e., less uncertainty). ~~, which is reassuring from a monitoring perspective.~~

Paradise shelduck are present in good numbers throughout the region. The grazing by shelduck on emerging grass ~~necessitates~~ may require the holding of special seasons in February and March in specific areas within the region where shelduck numbers are considered to be too high. In February 2024~~3~~ Special Shelduck Seasons were held in north Auckland (north of the harbour bridge) but numbers ~~were too low to sustain a season in the King Country~~did not reach thresholds stipulated in council's policies to hold a special season in the King Country.

Prior to the commencement of the 2012 season considerable numbers of gamebirds were lost to botulism to the extent that such may have had a marked influence upon the population. Fish & Game staff have been successful in getting avian botulism plans inserted into conditions of consent for wastewater treatment plant applications, but compliance by plant operators is inconsistent. ~~However~~ M~~m~~ortality due to botulism can occasionally be high in some years, especially on the Hauraki Plains and the lower Waikato. The potential risk of High Pathogenic Avian Influenza reaching NZ is escalating. Mortalities associated with such an event are unpredictable but could be high. There is a risk that an uncontained outbreak could lead to a population crash in several game bird species, necessitating highly restrictive season conditions.

Swan numbers remain stable in most of the region, with a ~~protortinally~~proportionally high percentage of the total Waikato population found on the Taharoa Lakes, ~~–~~Aotea and Kawhia Harbours. ~~although a noticeable increase in swan on Lake Whangape was observed in the 2023 trend count.~~ It's possible that these birds have shifted due to changes in eel grass abundance, their primary food source in estuarine environments. Swan in the Nth Auckland counts have fluctuated markedly in recent years. Swan

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numbers in the Manukau Harbour occasionally reach numbers where culls are carried out by the Auckland Airport Authority.

~~Pukeko numbers have increased to the point where they are considered by many farmers and horticulturists to be a pest with council receiving frequent requests for their control.~~

~~With modern farming practices and dairy conversions utilising intensified spray usage and the increased use of clean farming techniques destroying rough cover and shrubby gullies the pheasant population is perceived as declining in intensively farmed areas. In maize growing areas adjoining uncleared gullies the pheasant population is growing.~~

Californian quail a popular gamebird to a number of hunters thrive in pine forests, however with changing forestry practices, the planned biological control of broom, along with the same threats posed to pheasant suggest an overall decline in the population.

GAMEBIRD MANAGEMENT

Project 1.2.1 Banding

Objective	Planned Result	Actual Result
To estimate the mallard and grey duck population by banding and other appropriate techniques.	Population estimate derived from mallard & grey duck banded at five sites. Report to Council.	

Project 1.2.2 Trend Counts

Objective	Planned Result	Actual Result
To monitor the swan, shoveler and paradise shelduck populations.	Monitor black swan, ~~shovele~~r and paradise shelduck populations within the Auckland/Waikato Region using aerial trend counts. Participate ~~and participating~~ in the national shoveler survey.	

Project 1.2.3 Gamebird Research

Objective	Planned Result	Actual Result
To monitor non-reporting rates of bands to improve population estimates. ~~To support research on game birds that leads to improved management Results and options.~~	~~Research projects on game birds by Fish & Game and universities supported . Participation in national mallard research committee. Report to Council on research outputs.~~Survey lic SMS. Estimate verified and non-verified rates. Report to Council.	

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Project 1.2.4 Gamebird Harvest Assessment

Objective	Planned Result	Actual Result
Monitor the harvest of mallard/grey ducks to produce a measure of hunter success and contribute to population estimates.	Estimate harvest of mallards/greys derived by implementation of the 2025~~4~~ hunter survey.	

Project 1.2.5 Gamebird releases

Objective	Planned Result	Actual Result
Gamebird releases by private individuals are encouraged and subject to appropriate statutory approvals.	New applications for properties with special conditions are vetted. Annual reports received from existing properties.	

Project 1.2.6 Game Gazette

Objective	Planned Result	Actual Result
Game regulations gazetted based on best available science & hunter aspirations with the objective of maximising substantial yield to hunters while maintaining gamebird population.	Game Gazette approved	

Project 1.2.7 Gamebird Control

Objective	Planned Result	Actual Result
The dispersal of congregations of gamebirds where they are causing unacceptable damage to farm crops.	Respond to crop and pasture predation reports within two working days.	

Project 1.2.8 Botulism and HPAI

Objective	Planned Result	Actual Result
Control of Botulism outbreaks	Respond to botulism outbreaks to minimise impacts on gamebird populations. Help prepare final HPAI response plan. Submit to council.	

Budget: $ 107,537 Actual:

FUNCTIONAL AREA 2:

SPORTS FISH AND GAMEBIRD HABITAT PROTECTION AND MAINTENANCE

Goal:

To protect and increase suitable habitat for sports fish and gamebirds to the extent necessary to provide for the recreational interests of hunters and anglers.

2.1 Habitat Works

2.1.1 Council lands

Council owns some 1,700 hectares of endangered wetlands comprising some 39 properties which are managed for waterfowl production and hunter opportunity. Responsibility for day to day property management has been vested in the local Fish and Game Associations and wetland user groups, with Council budgeting funds to maintain and enhance these properties. Council properties have some 125 constructed ponds on them providing hunting for approximately 500 hunters on any one day. Access for itinerant hunters is an important issue in the region. Each year additional to those hunters who drew a ballot on the ponds some 400 permits are issued to hunt on Council land. The bulk of permits are taken up by hunters from urban areas. Council lands provide an excellent opportunity to get started in waterfowl hunting. Council has recently acquired several additional comprehensive consents that facilitate the maintenance of council owned wetland habitat. These consents have timing restrictions, planning and reporting requirements.

Project 2.1.1 Council Lands

Objective	Planned Result	Actual Result
Overview and report to Council on property maintenance. Undertake works necessary to maintain and enhance Council's properties. Continue to oversee restoration projects on Councils properties.	Council properties maintained to an appropriate standard and compliant with Resource consent requirements.	

Budget: $85,878 Actual:

2.1.2 Other lands

Habitat work that enhances waterfowl productivity, and in particular greylards, is an ongoing focus for the Council, and involves a combination of directly enhancing wetland habitats including farm ponds, and supplying information and support to landowners and other groups.

Council provides direct assistance to landowners by way of advice on wetland development and riparian plantings and through securing contestable funds. Increasingly more time is spent on helping with a more complex consenting processes. In many instances the councils staff actively manage and implement projects on private land to maximise outcomes. Council also distributes some 5,000 trees per annum for habitat protection and enhancement, however national budgetary restraints have significantly reduced the number of trees distributed in recent years.

Council works closely with other agencies, including the Waikato Regional Council, DOC and Waikato RiverCare to create and maintain substantial areas of wetland habitat and to restore riparian margins on both public and private land.

Fish & Game clubs/associations throughout the region have habitat projects on non-council land and require advice/assistance from Fish & Game.

Project 2.1.2 Other Lands

Objective	Planned Result	Actual Result
Provide habitat assistance to land owners and assess habitat grant applications for presentation to Council and external habitat trusts. Utilise opportunities as they arise for habitat enhancement, creation and restoration in conjunction with Fish & Game Assoc's and other agencies.	Report to Council on opportunities for habitat enhancement, creation and restoration in conjunction with Fish & Game Assoc's and other agencies.	

Project 2.1.3 Trees

Objective	Planned Result	Actual Result
Annual tree order made up, received and delivered.	Trees delivered to Clubs and Projects.	

Budget: $71,026	**Actual:**

2.2 Resource Management Act

Advocacy for habitat using the provisions of the Resource Management Act is a significant aspect of Council's operations. Today development activities continue to reduce the quality and quantity of available habitat. Council vets several hundred resource consent applications per year making appropriate submissions/objections as required. Council is also actively involved in the planning process with the preparation of submissions on many of the plans produced by district and regional councils where they affect freshwater habitats, water quality and quantity, and ecosystem health.

~~When the RMA was passed it was expected local authorities would safeguard the environment as it affected Fish & Game interests, however this did not occur with very considerable amounts of Fish & Game staff time being expended in this area in order to safeguard hunter/angler interests both present and future.~~

In 2023~~2~~/24~~3~~ Council was involved in a number of high profile cases including presenting expert evidence at RMA hearings for both District and Regional plan changes. Some of these cases will still be active in 2025~~4~~/26~~5~~

Botulism outbreaks are becoming more prevalent with longer drier summers and can severely impact local game bird population levels. Council will advocate that all wastewater treatment plants that have oxidation ponds and come up for reconsenting have botulism management plans in place.

Land development primarily in the form of agricultural intensification and urban expansion continues to have an impact on the loss of wetlands and game bird and hunting opportunities and is a serious issue affecting water and habitat quality in the region.

Project: 2.2.1 Resource Management Act

Objective	Planned Result	Actual Result
• To advocate for the interest of Fish & Game in response to resource consent applications & planning processes. • To advocate for the protection and increase of sports fish and game habitats through statutory and non-statutory processes. • To advocate that all wastewater treatment plants that have oxidation ponds and come up for	Fish & Game interests are protected using the RMA. Report to Council on issues and Fish & Game response. Habitat for sports fish and game bird species is protected and increased.	Degraded wetlands have been fishable and safe for food gath wetlands are functioning at a le and diverse fish and game pop

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reconsenting have botulism management plans in place.		

Budget: $221,739 Actual:

~~2.3 Assessment & Monitoring~~

~~Council has requested that a Management Plan be prepared to maintain and enhance individual priority rivers.~~

~~**Project: 2.3.1 Assessment & monitoring**~~

~~Objective~~	~~Planned Result~~	~~Actual Result~~
~~Management plan to maintain and enhance trout habitat in the Pokaiwhenua River developed.~~	~~Report to Council on monitoring.~~	

~~**Budget: $12,295 Actual:**~~

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FUNCTIONAL AREA 3:

ANGLER AND HUNTER PARTICIPATION AND SATISFACTION

Goal:

To encourage maximum angler and hunter participation while maintaining quality of angler/hunter experience and satisfaction with Fish and Game management.

3.1 Access issues

Council administers balloted hunting on its own wetlands and via its association with Fish & Game Clubs and the Kopuatai and Whangamarino Wetland Associations is involved in management control of Lakes Okowhao, D, Cameron, Rotokauri, Kainui, Rangiriri Islands, Rayonier and Hancock forests, and the Kopuatai and Whangamarino Wetlands.

Council maintains a close liaison with local authorities and DoC to establish management plans and committees for crown lands to protect fish and game interests.

Council continues to monitor the situation regarding public land (reserve strips etc) over which hunters and anglers have legal access and as and where appropriate advocates on their behalf, now liaising with the newly established Walking Access Commission.

Habitat and Access are acknowledged as National Priorities that all Fish & Game Councils should be addressing. Auckland/Waikato having long been to the forefront of habitat issues.

Project 3.1.1 Access Negotiations

Objective	Planned Result	Actual Result
Angler and hunter access to the sport fish & gamebird resource is maintained and enhanced.	1 Permits are issued for balloted ponds before commencement of season. 2 As-of-Right access for licence holders & negotiated access where As-of-Right access not present. 3 Maintain Fish & Game presence on Wetland Management Associations. 5 Reported angler/hunter access problems reported to Walking Access Commission 6 One new permanent access point is established	

	annually.	
Access Fund	Maintain Access Fund as a restricted reserve for the purchase of land or easements to secure access in perpetuity for licence holders.	

Project 3.1.2 Signs/tracks

Objective	Planned Result	Actual Result
Brand standard access signage progressively provided at appropriate hunter & anglers access points subject to landowner approval where required.	Brand standard access signage replaced where required and new signage installed where appropriate.	
Conduct stocktake of current signage at access points and determine need for updates. Use updated access maps and ground truth.	Database created indicating where new signage is required and old signage needs to be replaced.	

Budget: $24,650	**Actual:**

3.2 Promotion

Regular contact with hunters and anglers plays an important part in retaining their interest. Councillors and staff regularly attend and address ward association and allied recreation group meetings. Production of Fish & Game magazines sent direct to all Auckland/Waikato licence holders prior to the game and fish seasons are considered an essential activity which is very well received by licence holders. Council also produces a monthly internet newsletter for anglers (*Reel Life*) and during the game season a monthly internet newsletter for hunters (*Both Barrels*). A 2023 survey of A/W licence holders indicated a rapid transition away from print media in favour of digital content.

Project 3.2.1 Magazine & Newsletters

Objective	Planned Result	Actual Result
The production and distribution of game and fishing magazine supplements to previous years licence purchasers before commencement of season.	Preseason magazine supplements produced and distributed.	

Project 3.2.1 Magazine & Newsletters

Objective	Planned Result	Actual Result
The production of online content including videos to better reach new and existing customers.	1. Film content, edit and post online. 2. invest staff time to establish and online audience and promote content across online platforms	

Project 3.2.2 Other Publications

Objective	Planned Result	Actual Result
1 To Contribute to "*Reel Life*" & "*Both Barrels*" e-zines & hunting/fishing magazines. 2 Undertake pre-season publicity for hunting and fishing.	1 Contributions made to "*Reel Life*" & "*Both Barrels*" & hunting/fishing magazines. 2 Pre-season publicity undertaken.	

Project 3.2.3 User Groups

Objective	Planned Result	Actual Result
Represent Council interests at fish and game associations/clubs in the Auckland/Waikato Region	Council represented at local fish and game associations/clubs.	

Budget: $46,832	**Actual:**

FUNCTIONAL AREA 4:

PUBLIC INTERFACE

Goal:

Acceptance of the recreation of sports fishing and gamebird hunting and community support for Fish & Game Council management.

Given that within its region approximately 40% of New Zealand's population is encompassed, which comprises the largest urban population in the country, Council well recognises the importance in its region of community support for its activities.

The importance of Auckland to Fish & Game interests has been identified by NZF&GC, who deem the raising of Public Awareness in Auckland an issue of national significance.

Council and staff are founding Trustees in the National Wetland Habitat Trust, Waikato Ecological Enhancement Trust, Waipa Peat Lakes and Wetlands Accord, Waikato District Lakes and Freshwater Wetlands Accord, South Waikato Rural Access Committee, Lower Waikato Enhancement Society, South Waikato Environmental Initiative Group, Lakes Rotokauri, D & Cameron Management Groups, and regularly attend Wetland Forums, Biodiversity Forums, Landcare and Rivercare meetings, Regional and local council sector liaison meetings and other like group meetings; organisations that not only provide benefits for fish and game habitat but also an important link in promoting acceptability of hunting and fishing.

Project 4.1.1 Liaison & Advocacy

Objective	Planned Result	Actual Result
Promotion of the interests of hunters and anglers with the public through the media.	1 Respond to inquiries for information and to issues affecting interests of anglers	

Liaison with appropriate organisations/ agencies in the interests of hunters and anglers.	and hunters through provision of suitable information to public media and sector interest groups. 2 Maintain liaison as required with appropriate organisations/agencies.	
Engage with iwi and Mana Whenua. Develop/maintain formal relationships with key iwi groups within the region and participate in Treaty Settlement processes that affect anglers and hunters. Continue to explore possibilities for collaborative projects, e.g. kids fishing and access projects	Submit on Treaty Settlements affecting angler/hunter access and develop relationships with key iwi groups and report to Council.	

Project 4.1.2 Displays/promotions

Objective	Planned Result	Actual Result
Promotion of the interests of hunters and anglers by displays and promotions.	Assist local fish & game associations with displays and promotions and attend national coordinated promotional events where applicable.	
Support Clubs and organisations in promoting kids fishing events.	Staff attend and seek sponsorship for kids fishing events.	

Budget: $32,115	**Actual:**	

FUNCTIONAL AREA 5:

COMPLIANCE

Goal:

To ensure compliance with hunting and fishing regulations, to protect the resource and Council's financial base.

Council administers some 15 warranted officers. Planned and coordinated law enforcement work is carried out by as many rangers as can be mustered at the time.

Active gamebird ranging on opening day is limited to staff and a small number of honorary rangers. Given the longer period that fishing activities are undertaken a better coverage of fishing activities is achieved.

New national policy documents are being developed including H&S requirements which will significantly impact the role of honorary rangers in our region. Council is continuing to provide feedback to National office to ensure practical options are identified and implemented.

Project 5.1.1 Ranging

Objective	Planned Result	Actual Result
The protection and enhancement of the region's fish and game resource through an effective enforcement programme.	Liaise with honorary rangers to undertake ranging coverage as required. Compliance checks by rangers throughout the year.	

Project 5.1.2 Ranger training

Objective	Planned Result	Actual Result
Rangers are properly trained including OSH requirements.	Organise professionally run training sessions so OSH requirements are met for all rangers.	

Project 5.1.3 Compliance legal

Objective	Planned Result	Actual Result
Offenders for fish and game offences are successfully prosecuted or go through formal diversion process.	Arrange prosecutions, present evidence and follow-up fine monies outstanding as necessary.	

Budget: $83,424	**Actual:**

FUNCTIONAL AREA 6:

LICENSING

Goal:

To produce and distribute legally correct licence forms by due date.

The sale of licences is Council's primary source of income. The administrative function of licensing has been contracted out however Council still maintains control over licences distributed and debt collection

Project 6.1.1 Licence Distribution

Objective	Planned Result	Actual Result
To issue fishing and hunting licences	1 Game and fish licences and supporting material prepared and dispatched one month prior to opening of seasons. 2 Legally binding contracts with personal guarantees maintained with all agents. 3 Database of licences sold maintained and reconciled against income received. Game and fish licences and supporting material prepared and dispatched one month prior to opening of seasons.	

Budget: $7,904	**Actual:**

FUNCTIONAL AREA 7:

COUNCIL/COMMITTEE/CLUB SERVICING

Goal:

To service Council, committees and clubs, to provide for the democratic management of the Fish & Game system.

Given the informal and personal level upon which Council functions Council is able to maintain good levels of communication within the organisation. Council has always maintained an efficient monitoring administrative system via its detailed budgeting and accounting system along with its Chief Executive's Report .

Project 7.1.1 Council Meetings

Objective	**Planned Result**	**Actual Result**
To provide effective management and operation of the Council.	1 Conduct at least six meetings of the Council that comply with all legal requirements. 2 Compile and distribute agendas and supporting papers at least seven days prior to meetings. 2 Distribute minutes and Newsbrief within ten days after Council meetings.	

Budget: $59,083	**Actual:**

FUNCTIONAL AREA 8:

PLANNING/REPORTING

Goal:

To ensure cost efficient and appropriate management of fish and game resources.

Council's Management Plan was approved by the Minister of Conservation on 13 October 2010. The Plan was revised and updated over the 2019/20 year, with consultation occurring over the 2020/21 year.

Project 8.1.1 Management Plan/OWP/Budget fee setting

Objective	Planned Result	Actual Result
Produce Annual Operational Work Plan in approved format to NZF&GC deadlines.	1 Adoption of a proposed Operational Work Plan for 20254/264 by August 20254.	

Project 8.1.2 Annual report/Audit

Objective	Planned Result	Actual Result
Produce Annual Report for the 2022/23 year and obtain Annual Audit within statutory time frame & present to Annual Public Meeting within required timeframe.	Annual Report produced and Annual Audit obtained within statutory time frame & present to Annual Public Meeting.	

Project 8.1.3 National Liaison

Objective	Planned Result	Actual Result
Maintenance of effective liaison with NZF&GC. Contribute to national programmes.	1 Process submissions and information to NZF&GC within requested deadlines. 2 Undertake national & inter-regional liaison as required.	

Budget: $55,870	**Actual:**

FUNCTIONAL AREA 9:

ADMINISTRATION/OVERHEADS

Goal:

Manage the business of Fish and Game in a cost effective and efficient manner.

Project 9.1.1 Administration/Overheads

Objective	Planned Result	Actual Result
Manage the business of Fish and Game in a cost effective and efficient manner.	Completion of all administration tasks as and when required.	

	BUDGET: $765, 964	**ACTUAL** Reallocated to Outputs 1-8

TOTAL NET COST **$855,984**
As per attached budget

Plus ARF **$ 25,840**

TOTAL APPROVED BUDGET: **$881,824**

OSH Report for February 2025 Council Meeting

Avian Influenza: We had presentations and discussions leading up to Christmas regarding the HPAI outbreak in Otago. Initially I was informed by the NZC CEO that banding would need to be cancelled, however after further dialogue and presentations by experts in the field it became evident that the outbreak was a different variant (H7N6) rather than the H5N1 variant that is causing concern around the world. At this stage the H5N1 variant is in Antarctica, and it does appear to be more of a case of when rather than if it will get to New Zealand. This has the potential have some significant implications, both for the species we manage and our monitoring approach.

For this year's banding programme, we adopted the finalised MPI risk assessment and updated our protocols accordingly. The C.E. purchased extra PPE (gloves, disinfectant and sanitizer). All volunteers attending the site via email to wear closed footwear and were further informed in a pre-banding briefing by the C.E. and staff. Wlodek from MPI who attend half of our banding days as part of their Low path AI screening programme was also invited to give updates. Given this region relies heavily on volunteers and we have many children attend banding days, managing H&S if the H5N1 variant arrives will be difficult. Volunteers and staff are literally in the cages with ducks so it will be difficult to eliminate exposure.

OSH discussions from monthly staff meetings.

January 2025

Accidents or near misses

None

Intentions log:

Continue to use the email version.

There is still a need for an app-based method and Dani explained that the national H&S committee is working on this. Adam has requested information in regards to the maritime project as we need to adopt a coherent approach for boating.

HPAI and Banding

Need to reach out internationally on what the protocol would be if an outbreak happens for duck banding.

Fatigue management. The C.E. asked staff how they were finding the long days they are working for during the duck banding project. Staff are making sure that they are rested before and after banding due to the long hours and driving time. Early morning and late-night events are shared out between

staff and turns are being taken driving. The C.E. suggested that staff should pull over and take break or nap if they feel tired when driving long distances.

Drift dive training

Drift dive training is to be scheduled late January.

Completed tailgate forms December/January staff

Date	Activity
9/01/25	Banding Hauraki Plains
20/01/25	Banding Parakai

Completed tailgate forms July-August volunteers

Date	Activity

David Klee
Chief Executive
30/01/2024