

ASHBURTON WATER MANAGEMENT ZONE COMMITTEE AGENDA

A **Meeting** of the Ashburton Water Management Zone Committee will be held as follows:

DATE: Tuesday 27 August 2024

TIME: 1.00 pm

VENUE: Council Chamber, Te Whare Whakaterere
2 Baring Square East, Ashburton

MEETING CALLED BY: Hamish Riach, Chief Executive, Ashburton District Council
Stefanie Rixecker, Chief Executive, Environment Canterbury

ATTENDEES: Chris Allen
Adi Avnit
Clare Buchanan
Angela Cushnie
Bill Thomas
Sidinei Teixeira
TBC (Te Runanga o Arowhenua)
Arapata Reuben (Te Ngai Tuahuriri Runanga)
Jess Hobbs (Te Taumutu Runanga)
TBC (Tangata Whenua Facilitator)
Councillor Richard Wilson (Ashburton District Council)
Councillor Ian Mackenzie (Environment Canterbury)
Mayor Neil Brown (Ashburton District Council)

Zone Facilitator

Jaimee Grant

Tel: 027 220 2694

jaimie.grant@ecan.govt.nz

Environment Canterbury

Committee Advisor

Carol McAtamney

Tel: 307 9645

carol.mcatamney@adc.govt.nz

Ashburton District Council

Tangata Whenua Facilitator

TBC

Environment Canterbury

Ashburton Zone Committee Meeting

Tuesday 27 August 2024

Meeting Commences: 1.00pm

Order of Business

- 1 Welcome, Karakia
- 2 Apologies
 - Mayor Neil Brown
 - Adi Avnit
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 - Staveley Camp Forest Community Possum Trap Library
- 11 Other business
- 12 Close Meeting and Karakia

4 Register of Interests

Chris Allen	Farm owner of sheep, beef, lambs, crop Water resource consents to take water from tributary of Ashburton River and shallow wells Member of Ashburton River Liaison Group
Adi Avnit	Mid Canterbury Community Vehicle Trust - Treasurer
Clare Buchanan	Head of Environment & Innovation at Align Farm Align Farms holds an irrigation resource consent to take water from shallow wells hydraulically linked to the Ashburton river Align Farms holds MHV water and Fonterra Shares Align Farms suffered significant flood damage on their support block
Neil Brown	Mayor Acton Irrigation Limited - Director Irrigo Centre Limited - Director Acton Farmers Irrigation Co-operative Limited - Director Browns Farm Limited – Director and Shareholder
Angela Cushnie	Kanuka Mid Canterbury Regeneration Trust - Trustee Hinds Reserve Board Committee member Mid Canterbury Catchment Collective – Coordinator Secretary for Hekeao Hinds Lowlands Catchment Group
Jess Hobbs	
Ian MacKenzie	Environment Canterbury Councillor
Arapata Reuben	Trustee – Tuhono Trust Trustee – Mana Waitaha Charitable Trust Member - National Kiwi Recovery Group Rūnanga Rep – Christchurch – West Melton Water Zone Committee
Bill Thomas	Farm owner of Longbeach Estate Ltd (sheep, beef, lambs, arable, dairy) Member of Eiffelton Irrigation Scheme Hekeao/Hinds Water Enhancement Trust – Settler Director of Longbeach Estate & Longbeach Dairies
Sidinei Teixeira	Masters student at Lincoln University studying a Master’s in Water Resource Management Former Head of Science at Mt Hutt College and Chemistry teacher at Christ’s College Recipient of the Callaghan Innovation fund to conduct research on the impacts of the May/June 2021 rainfall event through MHV Water Passionate about the sustainable use of natural resources
Richard Wilson	Ashburton District Councillor Dairy Farmer at Hinds Shareholder in MHV Irrigation

5 Confirmation of Minutes

Unconfirmed Minutes

Minutes of a meeting of the **Ashburton Water Management Zone Committee** held on Tuesday 23 July 2024, commencing at 1.06pm in the Council Chamber, Te Whare Whakaterere, 2 Baring Square East, Ashburton.

Present

Councillor Richard Wilson, Councillor Ian Mackenzie, Chris Allen, Clare Buchanan (Acting Chair), Angela Cushnie, Jess Hobbs, Sidinei Teixeira (via MS Teams) and Bill Thomas.

Non attendance

Arapata Reuben.

In attendance

Environment Canterbury: Jaimee Grant (Facilitator) and Ashburton District Council: Carol McAtamney (minutes)

Department of Conservation: John Benn.

Two members of the public in attendance.

1 Welcome

Jaimee Grant opened the meeting with a Karakia.

Chairman Bill Thomas advised that he was intending to vacate the Chair for this meeting and appoint Clare Buchanan as the acting chairperson.

That the Chair vacate the Chair for the meeting and that Clare Buchanan be appointed acting chairperson for the meeting.

Thomas/Mackenzie

Carried

2 Apologies

That apologies for absence be received on behalf of Mayor Neil Brown and Adi Avnit, and for lateness on behalf of Chris Allen.

Buchanan/Thomas

Carried

3 Extraordinary Business

Nil.

4 Register of Interests

Nil.

5 Confirmation of Minutes

Amendment

It was noted that the project details for the Wakanui Beach Crew Group funding application were recorded incorrectly in the circulated minutes, the resolution should have read:

- **Wakanui Beach Crew Group**

That the Ashburton Water Zone Committee recommend that the application for funding from the Wakanui Beach Crew Group to assist with a feasibility study on refilling the Wakanui Creek be declined.

Buchanan/Thomas

That the minutes of the Ashburton Water Management Zone Committee meeting held on 23 April 2024, incorporating the above amendment, be taken as read and confirmed.

Thomas/Wilson

Carried

5.1 Matters Arising

Nil.

6 Correspondence

Inward:

Letter from Environment Canterbury Chief Executive, Dr Stefanie Rixecker dated 10 May 2024.

Outward:

Letter to Environment Canterbury Regional Planning Manager, Andrew Parrish dated 10 July 2024.

7 Public Contributions

Nil.

8 Balmacaan Stream Diversion to Lake Camp Proposal

Presentation received from Vanessa Wright (presented on behalf of the Lake Clearwater Hut Holders Association), Tony Moore (Aquatic Club Chairperson), Geoff Hyde (Chair of Lake Clearwater Hut Holders Association).

Presentation to provide the Zone Committee with information on a proposal and gain advice from the Committee on how to re-instate the diversion from the Balmacaan Stream into Lake Camp.

Resolved:

That the Ashburton Water Zone Committee write to the Ashburton District Council, Environment Canterbury and Te Rūnanga o Arowhenua seeking their support for the Lake Clearwater Hut Holders Association's proposal of reinstating the diversion of water from Balmacaan Stream to Lake Camp to address the low water levels.

Thomas/Cushnie

Carried

9 Mixed Protection Assets Installed in the Ashburton Catchment

Greg Stanley, Regional Lead – Braided Rivers Revival (slideshow circulated separately to the agenda).

Provided an update on the works installed as part of the Berm Transition Project between December 2020 and December 2023.

Chris Allen joined the meeting at 2.25pm

Resolved:

That the Ashburton Water Zone Committee receive the presentation on the Berm Transition project.

Cushnie/Wilson

Carried

10 Zone Committee Updates

Progress reports for four projects that have received funding from the Zone Committee Action Plan budget were circulated with the agenda:

- HHWET native plant maintenance project – Hekeao Hinds Water Enhancement Trust
- Adele Webb Ashburton River Planting – Adele Webb
- Pudding Hill Stream Weed Control – ADC

- Wairuna run-off project – Hekeao Hinds Lowland Catchment Group

It was agreed that advertising for grant applications for Zone Committee Action Plan Budget be undertaken advising of a closing date. A workshop to allocate the funds is to be scheduled for September/October and recommendations for funding to be confirmed in November.

Resolved:

That the committee receives the updates.

Allen/Thomas

Carried

11 Other Business

Rakaia Catchment Environmental Enhancement Society

That Angela Cushnie be appointed as the Zone Committee representative on the Rakaia Catchment Environmental Enhancement Society.

Buchanan/Allen

Carried

The Rakaia Catchment Environmental Enhancement Society are holding their AGM on 22 August, if members have any items they would like included on the agenda to advise Angela.

Capturing and Preserving Historical and Community Knowledge

That it be confirmed if Environment Canterbury have an archivist.

Allen/Cushnie

Carried

The Committee discussed how to ensure accurate and comprehensive documentation of historical and community knowledge for future use e. in planning processes, and how to access historical documents and reports relating to catchments such as the Ashburton and Hinds.

Next meeting

The next meeting of the Ashburton Water Zone Committee will be held in the Ashburton District Council Chamber Hine Paaka at 1:00pm on Tuesday 27 August 2024.

The meeting closed at 3.20pm with a Karakia by Jaimee Grant.

Dated this 27th day of August 2024 _____ (Chair)

HUI/MEETING: Ashburton Water Management Zone Committee	
AGENDA ITEM NO: 8	KAUPAPA/SUBJECT: Lake Camp
KAITUHI/AUTHOR: Jaimee Grant	WĀ/MEETING DATE: 27 August 2024

Purpose

To update the Ashburton Water Zone Committee on the outcomes of the Ashburton District Council's workshop and meeting about Lake Camp, and to provide information on Lake Camp's hydrology.

Recommendation

That the Ashburton Water Management Zone Committee receives the information on Lake Camp and provides feedback.

Report

1. Background

At their 23 July meeting, the Committee received a presentation from the Lake Clearwater Hut Holders Association (LCHHA). The presentation proposed consents be applied for to divert water from Balmacaan Stream to Lake Camp to increase the lake's water level. No party had been confirmed to apply for the consent.

The Committee expressed their support for the proposal and drafted three letters to Environment Canterbury, Ashburton District Council and Te Rūnanga o Arowhenua. These letters noted the Committee's support and encouraged the recipients to support the proposal in their respective capacities.

On 14 August, the Ashburton District Council held a workshop so the Council could discuss receive scientific opinion on the low water levels following LCHHA's request. Presentations were provided by Fish & Game South Island, Environment Canterbury and Department of Conservation. A copy of the workshop notes are attached as **Agenda Item 8.1**.

The Council deferred confirming any next steps until the Council's 20 August meeting when the Mayor's Report is received. The 20 August agenda notes a recommendation "that Council, should it decide to pursue an application for consent to divert Balmacaan Stream into Lake Camp, call for an Officer's report to understand the costs and implications."

Recordings of the workshop and meeting can be found under [Council Meeting Agendas and Minutes on the Ashburton District Council website \(ashburtondc.govt.nz\)](https://www.ashburtondc.govt.nz/council-meeting-agendas-and-minutes).

2. Ashburton District Council update

Cr Richard Wilson will report back on the outcomes of the Ashburton District Council's 20 August meeting. The outcomes were not known at the time this agenda was compiled.

3. Hydrology of Lake Camp – presentation by John Waugh

John Waugh is a retired Hydrologist and former member of the Ashburton Water Zone Committee. John was invited by the Chair to present to the Committee on the hydrology of Lake Camp. The presentation will cover some observations and background about its regime.

Council Workshop

14 August 2024



Lake Camp Ōtautari Workshop – 14/08/24

Council workshop held on Wednesday 14 August 2024, in the Hine Paaka Council Chamber, 2 Baring Square East, Ashburton, commencing at 12.30pm.

This workshop was live-streamed.

Present

Mayor Neil Brown; Councillors Leen Braam, Carolyn Cameron, Russell Ellis, Phill Hooper, Lynette Lovett, Rob Mackle, Liz McMillan, Tony Todd and Richard Wilson.

ECan: Elaine Moriarty (Surface Water Scientist) and Judith Earl-Goulet (GM Catchment Implementation) and Peter Scott (Chair)

DOC: Tony Preston (Operations Manager)

Central South Island Fish & Game: Steve McKnight (CEO).

In attendance

Jane Donaldson (GM Compliance & Development, Toni Durham (GM Democracy & Engagement), Neil McCann (GM Infrastructure & Open Spaces), Sarah Mosley (GM People & Facilities), Ian Soper (Open Spaces Manager) and Phillipa Clark (Governance Team Leader).

Approx 12 members of the public

Purpose

- Council will receive scientific opinion and discuss the low water levels in Lake Camp, following the Lake Camp Hut Holders Association's request for consents to be put in place to divert water into the lake from the Balmacaan Stream.

Presentation

- Powerpoint presented by Elaine and Judith (*copy of ppt circulated*)
- Questions from Council responded to by the ECan, DOC and Fish & Game reps

Key points:

The Lake

- Lake Camp is public conservation land, vested in ADC.
- Low lake levels exist across the region. 59% of groundwater wells are currently low to very low (not typical for this time of the year). ECan are working with stakeholders and are acknowledging the difficulty this is causing.
- Not meeting water quality requirements – none of the lakes are.
- Only 4 years of water level records available. Levels have fluctuated around 3.5m over this period (includes heavy rain event in May 2021).
- With Lake Camp, would expect that with continued monitoring would be able to see in real time when it is close to / a distance away from emptying. That may be a question for NIWA.
- NIWA is forecasting a wetter, and colder summer this year (La Nina). Lake Camp is not in danger of drying up – level has risen slightly as of today.

- In 2015 there was a collapse of the kākahi (freshwater mussels), but the lake would have to drop another 5 metres before getting to the start of where the main population of kākahi are. There's a high density (up to 300/m²). Lake Heron has exposed kākahi beds – that's nature taking its course.
- Arowhenua would likely have the best information on this, locally.
- Mussel survey done in partnership with iwi – stable population, happy with levels of increase between 2 surveys so not concerned.
- Some trout released in the past, but not now. Also, some salmon illegally released. A good population of small perch.
- Lake Clearwater has more streams that allow trout to spawn. Reason for putting diversion in place was to put a spawning stream into Camp. Now not stocking the lake so no need for that.
- Lake Clearwater is not lowering to the same level as Lake Camp – but it's about 14 times the size and, as a bigger lake, is more resilient to change and drought.
- Would need further assessment to know whether/where water is travelling underground between Lakes Camp and Clearwater. They were connected at some stage.
- Surface water connected down Mt Possession Street – some underground, natural flow to the wetlands.
- Difficult to assess the true floor of the lake – not possible to know the depth of muddiness from images.
- Can't comment about Lake Emma, but ecological assessment shows the highest values are in the wetlands, around the fan and Lake Emma (compared to Lake Camp).
- It is a concern that if water is diverted and takes an unnatural diversion into Lake Camp, what the impact will be on that system. Where Balmacaan currently goes underground, its on the part of the fan that tips towards Lake Camp – hard to prove but possible that the water ending up in Lake Camp is groundwater. DOC's position is to let the water take its natural course.
- In an ecological sense, Lake Camp has been reacting and responding like this for hundreds of years. While the visual impact and recreational impact of water loss is high, there is still a lot of depth and that's what puts Lake Camp in good stead. This is a natural process.
- Even if a consent was in place, there wouldn't be water getting into Lake Camp because of the lack of water in Balmacaan Stream.

Balmacaan

- The activity to use Balmacaan to fill Lake Camp has been ongoing for many years. Fish & Game responded to non-compliance complaints made against them when they held the consent – addressing illegal diversion structures.
- Fish & Game's decision to relinquish the consent was in November 2019 (consent surrendered in January 2020). Publicly notified. Costs were escalating and there was low use (fishing licences) due to Covid. It didn't make sense to use licence-holder funds to satisfy demand for the diversion. Would suggest that the diversion point is no longer fit for purpose (water would have to be taken uphill to reach the diversion point) if a consent was applied for now.
- The impacts of the 2023/24 El Nino conditions can be seen. Recent flow gauging shows 46L/sec (below the medium flow that would allow water to be taken). Noted the median flow is around 150L/sec.

- Limited history of monitoring Balmacaan, but seeing that it comes downstream, spreads out into a fan across a wide catchment of gravel and groundwater.
- A potential, viable place for diversion may be near the DOC track. This would need a hydrologist to understand where the water is going. To get water to the diversion point, would need to build a dam.
- Without a diversion, the water in the stream heads towards Lakes Emma and Roundabout, but it's unknown if water is going into Lake Camp now. Water is running through a paddock near the DOC track. Other channels existed in the past. If there's enough water, it should be getting into the Lake.
- Water flowing on an alluvial fan like Balmacaan can be difficult to understand.

Consenting

- Is there a 'mood' for a consent? The community needs to have that discussion.
- The RMA allows for a multitude of values to be accounted for. Under the current Freshwater NPS there's a hierarchy of obligations which says for the health of the river first.
- ECan would want to work with the applicant to help with the consent application process. Discussion held prior to lodging a consent application means that the process to make a decision can be done relatively quickly. Time is needed to get specialist reports. The unknown is what information is needed and how long it will take to retrieve.
- Depending on what the proposal is, need to determine –
 - What you're asking for
 - How you plan to do it (heavy machinery?)
 - Assessments of likely hydrological and ecological impacts (moving water from Balmacaan to Lake Camp).
 - Skink / lizard report would be required.
- During the 60 year consent, there was very little monitoring – limited data.
- Cost of a consent could be \$25k-\$50k. ECan would talk to the applicant to give a clear idea of what information is needed, and what's already available. There's work that would happen between the applicant and the science team, as well as the consenting team.
- Whether non notified or publicly notified is based on a scale of significance. Would explore that in the pre-application process, but can't know that yet.
- Scientists would look at what impact there would be on the eco system of river – conversation with ECan / DOC. Plants growing in the lake would help aeration, as would wind and wave movement. ECan doesn't carry out wind monitoring. (There has been data presented on aeration by NIWA and DOC).
- The consent application may want to emphasise the value of recreation and boating safety. ECan doesn't have a regulatory role but will be encouraging boat users to observe safety with the challenges that reduced lake levels create.
- The legal pathway is the consent application. Consents allow the conversation to balance the values and judgement on how to get the best outcome while also enabling that the effect is less than minor (so Lakes Emma, Roundabout etc still have food supply). Consenting allows the balance to occur.
- Stakeholder groups will be brought together (consideration to be given to inclusion of the Ōtuwharekai working group) and will work in conjunction with DOC.

- It was noted that a local contractor has reportedly offered to assist clear the area and install a gate – demonstrating community interest and generosity that could help address some cost.
- But consideration would need to be given to the material that is on site – unlikely that the local material would be sufficient and engineering work would be required. An assessment (skinks) would need to be done before machinery is taken in. Would also need to look at the impact on the water receiving / water leaving environment.

Next Steps

The Mayor thanked the presenters and advised that his report to Council on 20 August will seek direction on whether Council wishes to pursue an application for consent to divert Balmacaan Stream into Lake Camp.

Post workshop note: on 20 August, Council resolved that an Officer's report be requested to understand the costs and implications of applying for a resource consent to divert Balmacaan Stream into Lake Camp.

The workshop concluded at 2.18pm.

HUI/MEETING: Ashburton Water Management Zone Committee	
AGENDA ITEM NO: 9	KAUPAPA/SUBJECT: HHWET Progress Update
KAITUHI/AUTHOR: Dr Brett Painter	WĀ/MEETING DATE: 27 August 2024

Purpose

To update the Ashburton Water Zone Committee on Hekeao Hinds Water Enhancement Trust Progress.

Recommendation

That the Ashburton Water Management Zone Committee receives this presentation and provides feedback.

Report

Hekeao Hinds Water Enhancement Trust (HHWET) are a community-led charitable trust established in 2019, currently governed by 11 Trustees representing Ashburton District Council (ADC), Environment Canterbury (ECan), Ashburton community, Hinds drainage district, Mid Canterbury Federated Farmers, Rangitata Diversion Race Management Ltd, and Ashburton District irrigation companies. Central South Island Fish and Game Council previously provided a Trustee and currently hold observer status. The Arowhenua Rūnanga Trustee position was occupied but is currently vacant. HHWET are funded by a targeted rate to Hekeao Hinds Plains landowners collected by Environment Canterbury. HHWET's goals are to:

- Target and protect drinking water supplies;
- Enhance groundwater quality;
- Improve baseflows to spring-fed streams and rivers for ecological, cultural, and social values; and
- Improve and sustainably manage groundwater storage (levels).

Learnings since 2016 and 2023/24 progress towards HHWET objectives are summarised in the following presentation attached as **Agenda Item 9.1**.

Hekeao Hinds Environmental Enhancement Initiatives



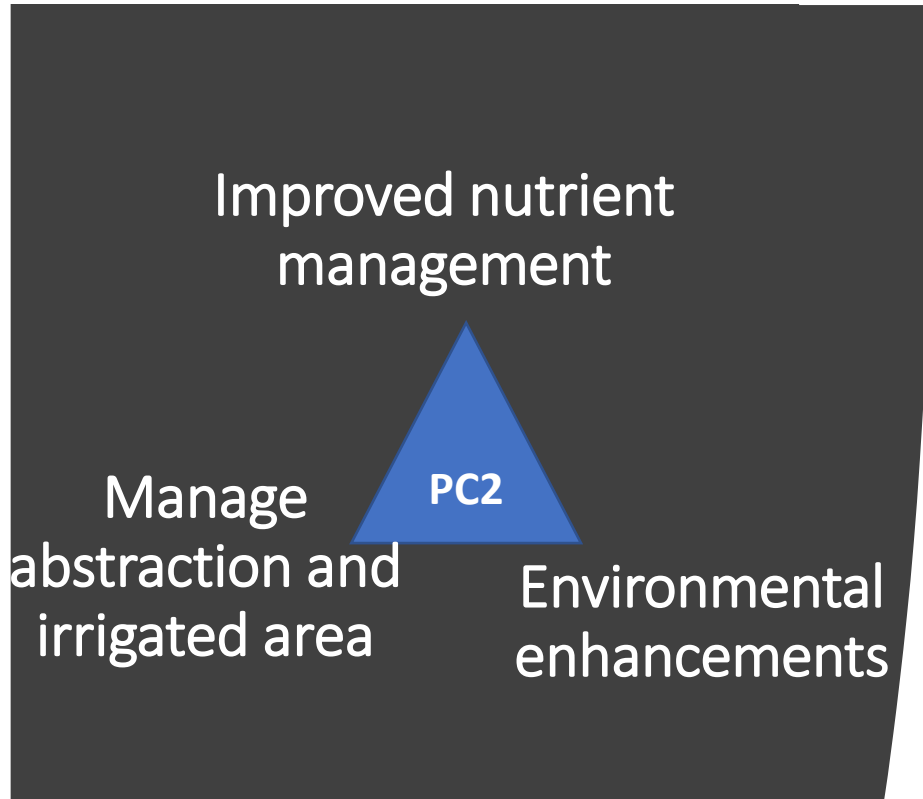
2023-24 Update

www.hhwet.org.nz





WATER ENHANCEMENT TRUST

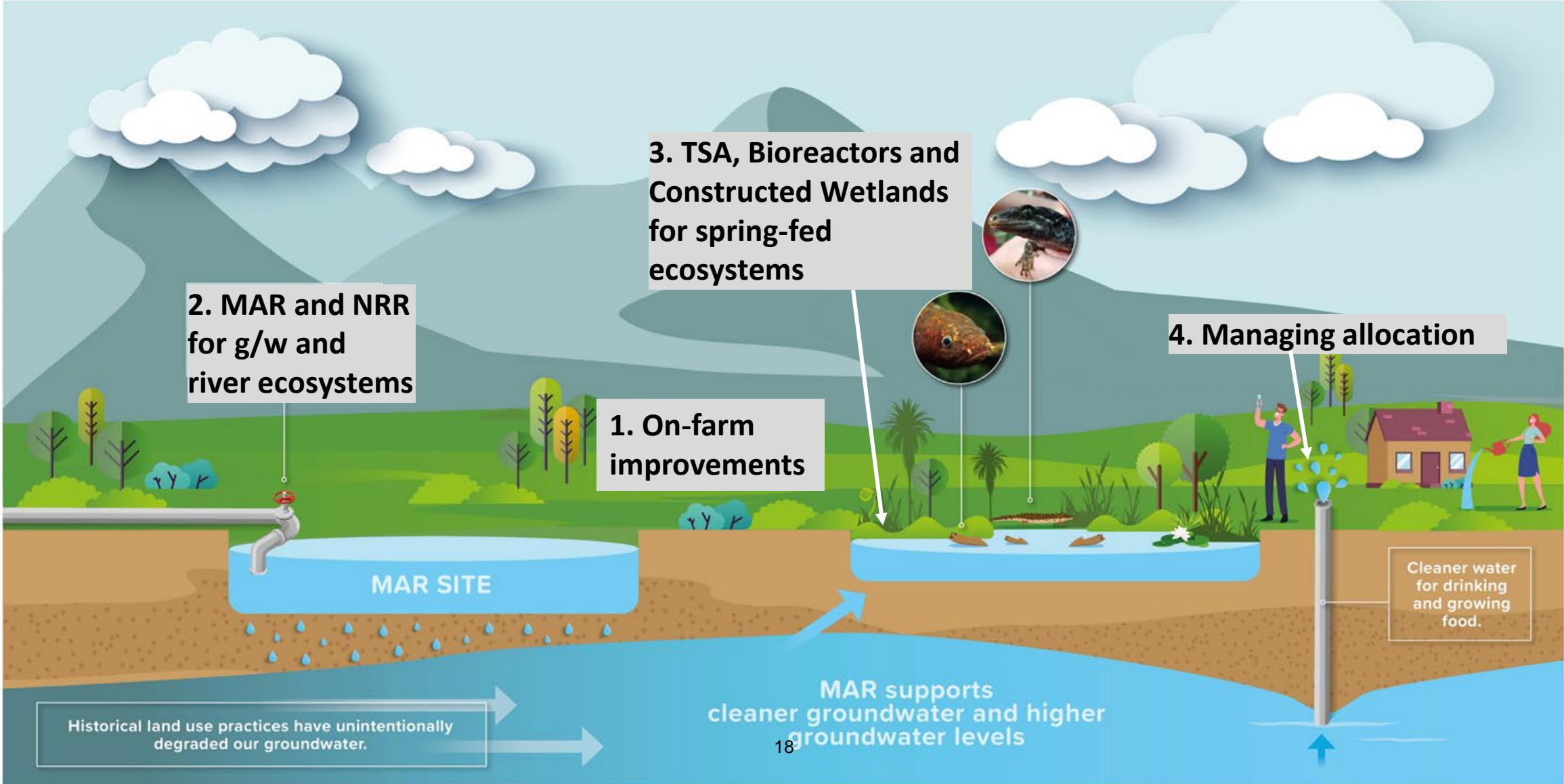


Target and protect	drinking water supplies
Enhance	groundwater quality
Improve	flows to spring-fed waterways for ecological, cultural and social values
Sustainably manage	groundwater levels

3 Key Questions

1. What progress is being made toward the Hekeao Hinds Plains PC2 water quality / ecosystem health targets?
2. What evidence is available for the contribution from environmental enhancements?
3. What are HHWET's next steps to accelerate PC2 progress?

Complementary initiatives to improve eco-system health in a reasonable timeframe (all locally funded)



HHWET Learnings Summary (2016-2024)

- Improved ecosystem health requires suitable water quality and water quantity and (where relevant) habitat via an Integrated Catchment Management approach.
- Available land use reporting shows nutrient leaching reductions are on track to meet 2030 PC2 targets.
- Catchment wide groundwater nitrate concentrations have stabilised since ~2015 but are not yet measurably decreasing. Rain events and variable lag times are key influences.
 - Groundwater nitrate concentrations in the “Tinwald plume” regularly exceed the NZ Drinking Water Standard and are affected by catchment nutrient management + local geology + cumulative groundwater abstraction.
- Ecosystem health is improving where waterways are influenced by enhancement projects (e.g., Hekeao Hinds River and Windermere Drain).
 - Cessation of Hekeao Hinds River mainstem takes has assisted river ecosystem health.
 - HHWET supplementary (rather than new) use¹⁹ consents reduce source water system impacts.

HHWET Business Case Addendum (2023/24)

In 2023, Macfarlane Rural Business (MRB) conducted an updated economic analysis to inform HHWET's review of targeted rate funding requirements. This analysis demonstrates that continuing HHWET enhancement activities **saves:**

- Hekeao/Hinds Plains landowners an additional one-off decrease in total capital asset value of **\$2.2 billion**.
- Hekeao/Hinds Plains farmers an additional annual reduction in farm gate profit of **\$108 million**.
- regional businesses an additional annual reduction in spending of **\$355 million**.

Hekeao Hinds on-farm improvements

(Sources: Scheme submissions, landowner submissions, MRB report)

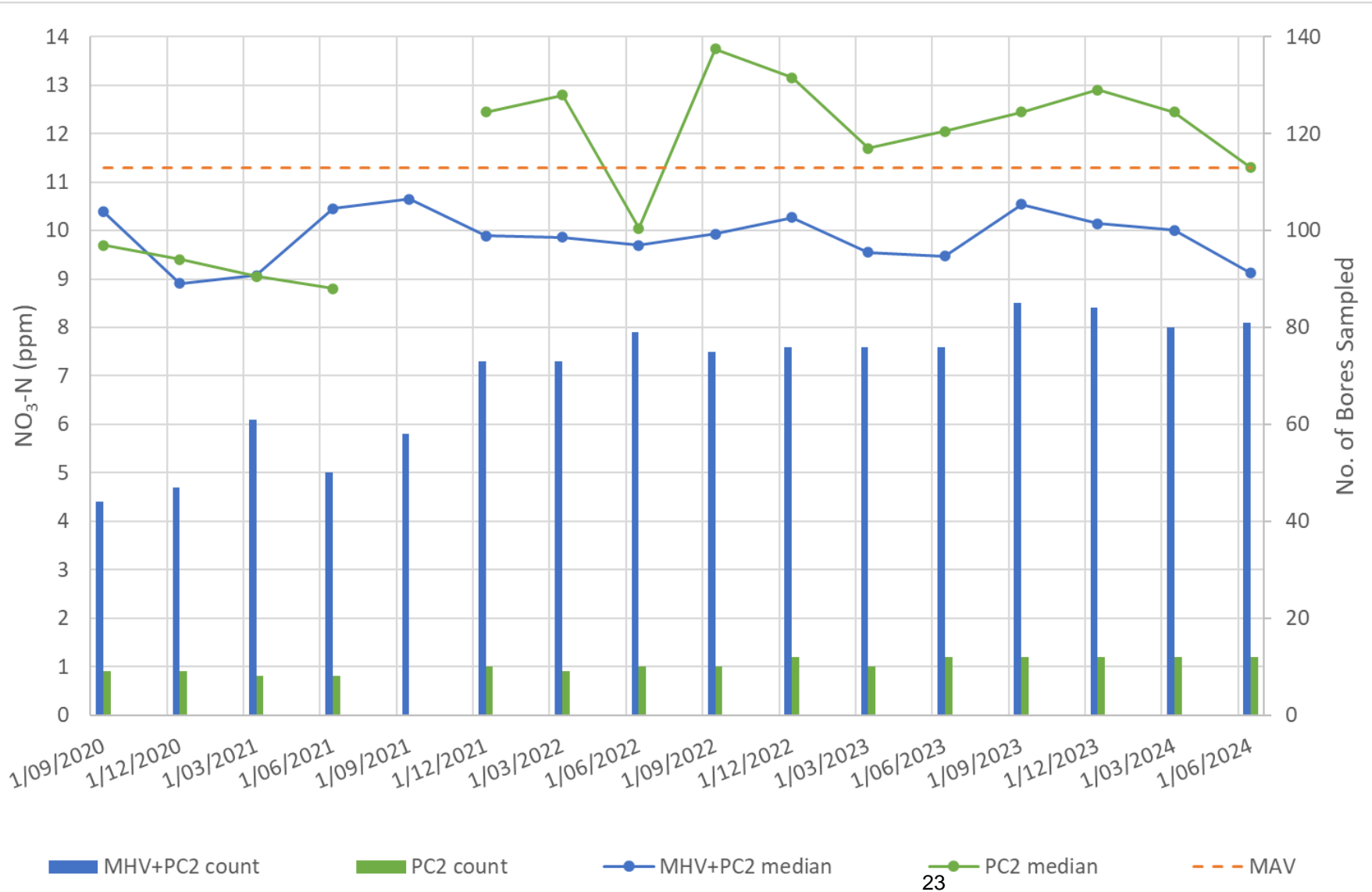
- Irrigation Scheme progress:
 - 87-94% are at least A Grade and increasing percentage at Advanced Mitigation (MHV, BCI)
 - On track (BCI) or already achieved (MHV) 2025 and 2030 PC2 nutrient leaching reduction targets
 - Positive progress toward PC2 targets (Mid Canterbury Independent Irrigators, individuals)
- Specific improvements include:
 - Technology/infrastructure (irrigation/effluent upgrades, soil moisture monitoring, variable rate irrigation/fertiliser)
 - Monitoring (ground and surface water, soil N, irrigation system, radiometric surveys, breeding trials)
 - Management (Intensive Winter Grazing Plans, catch crops, plantain, reduced stocking, minimal tillage)
 - Biodiversity (fencing of waterways and high leaching zones, native planting, new wetlands, mahinga kai gathering)

Hekeao Hinds Community Initiatives

- **Mid Canterbury Catchment Collective (9 catchment groups, 4 in Hekeao/Hinds)**
 - Local monitoring, knowledge sharing, enhancement projects and collective responsibility
 - Constructed wetland and eClean bioreactor trials
- **Hekeao Hinds Science Collaboration Group**
 - Radiometric surveys and Vadose Zone monitoring System project
 - Irrigation nutrient recycling trial
 - Catch crop trials
- **Post graduate research**
 - Water Quality and Ecological health of farm drains (Louis Martin, MSc)
 - Statistical modelling of groundwater chemistry to understand source water combinations (Sidinei Teixeira, MWORM)
 - Transport in groundwater of microbial pathogens from Hekeao/Hinds MAR (Madeline Inglis, MSc)
 - Hekeao/Hinds nitrogen drivers and solutions (Justin Legg, PhD)

2020-24 Hekeao Hinds groundwater monitoring (MHV+PC2 vs PC2)

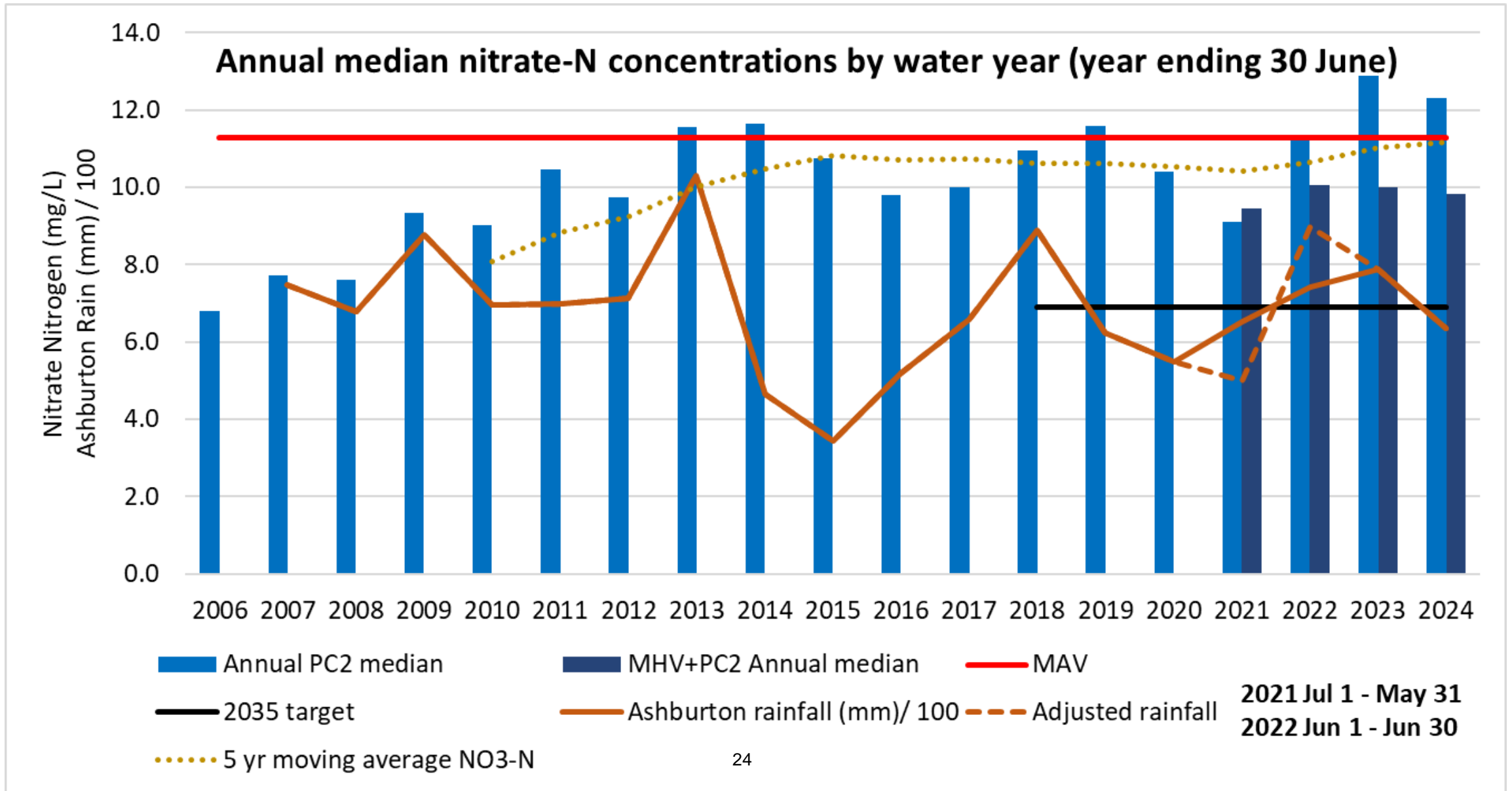
(median of the site medians of 'shallow' bores screened within 30 m of the water table)



- More bores in MHV+PC2 dataset = less unexpected variation
- MHV+PC2 dataset has lower median in wetter years, but not necessarily in drier periods (e.g., late 2020 - mid 2021)

Hekeao Hinds Nitrate-N concentrations

(Key contributing change factors – rainfall, land use management, MAR)

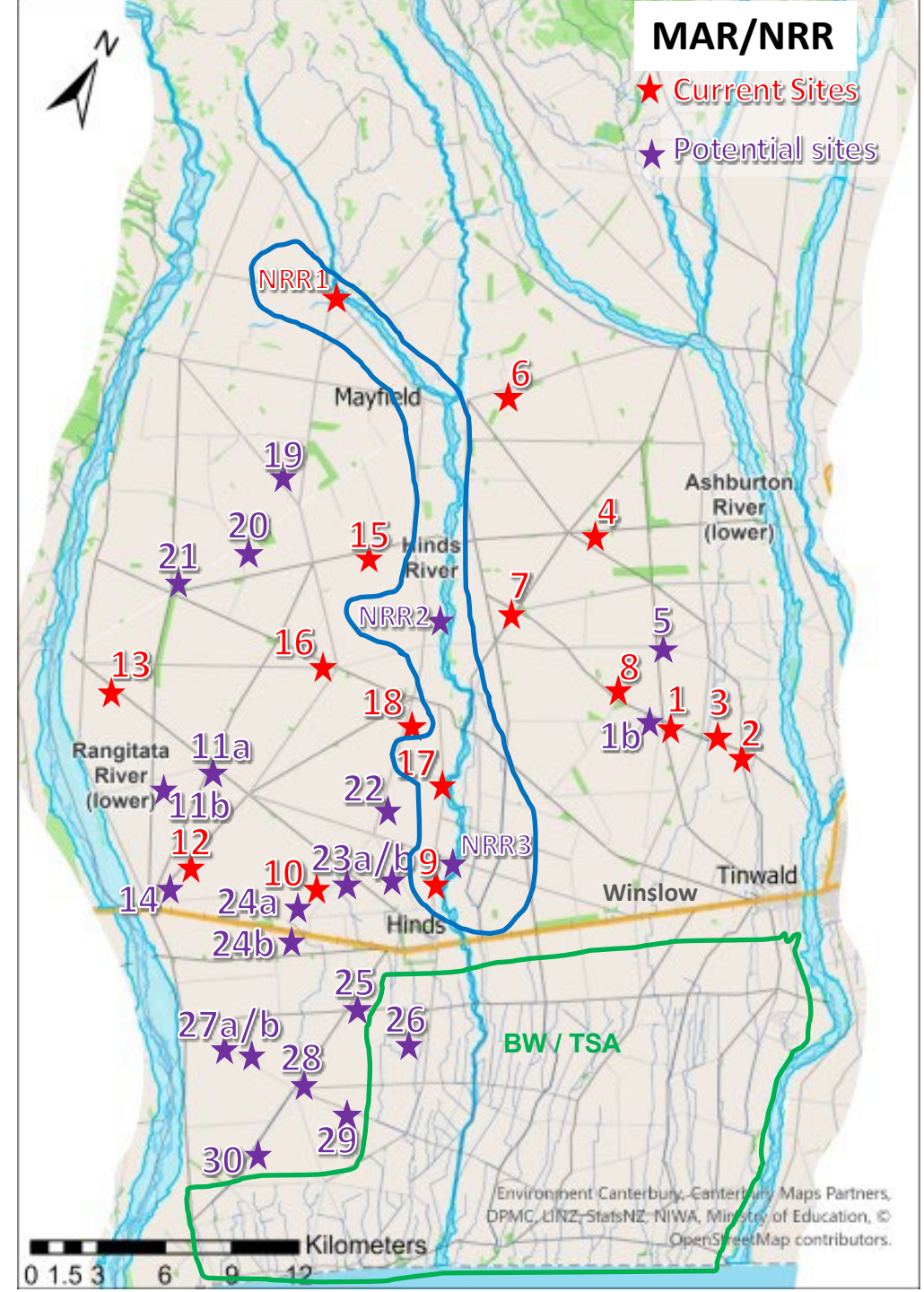


Environmental Enhancements

1. NRR – Near River Recharge
2. MAR – Managed Aquifer Recharge
3. TSA – Targeted Stream Augmentation
4. BW - Constructed wetlands and bioreactors

2025 ZIPA PC2 Target: 3.8 m³/s ave MAR/NRR flow (max 6 m³/s)

- Current max MAR/NRR flow = 0.5 m³/s
- Proposed max MAR/NRR flow = 3.7 m³/s (ave 2.4) via consents lodged in December 2022
- Shortfall covered by TSA / BW

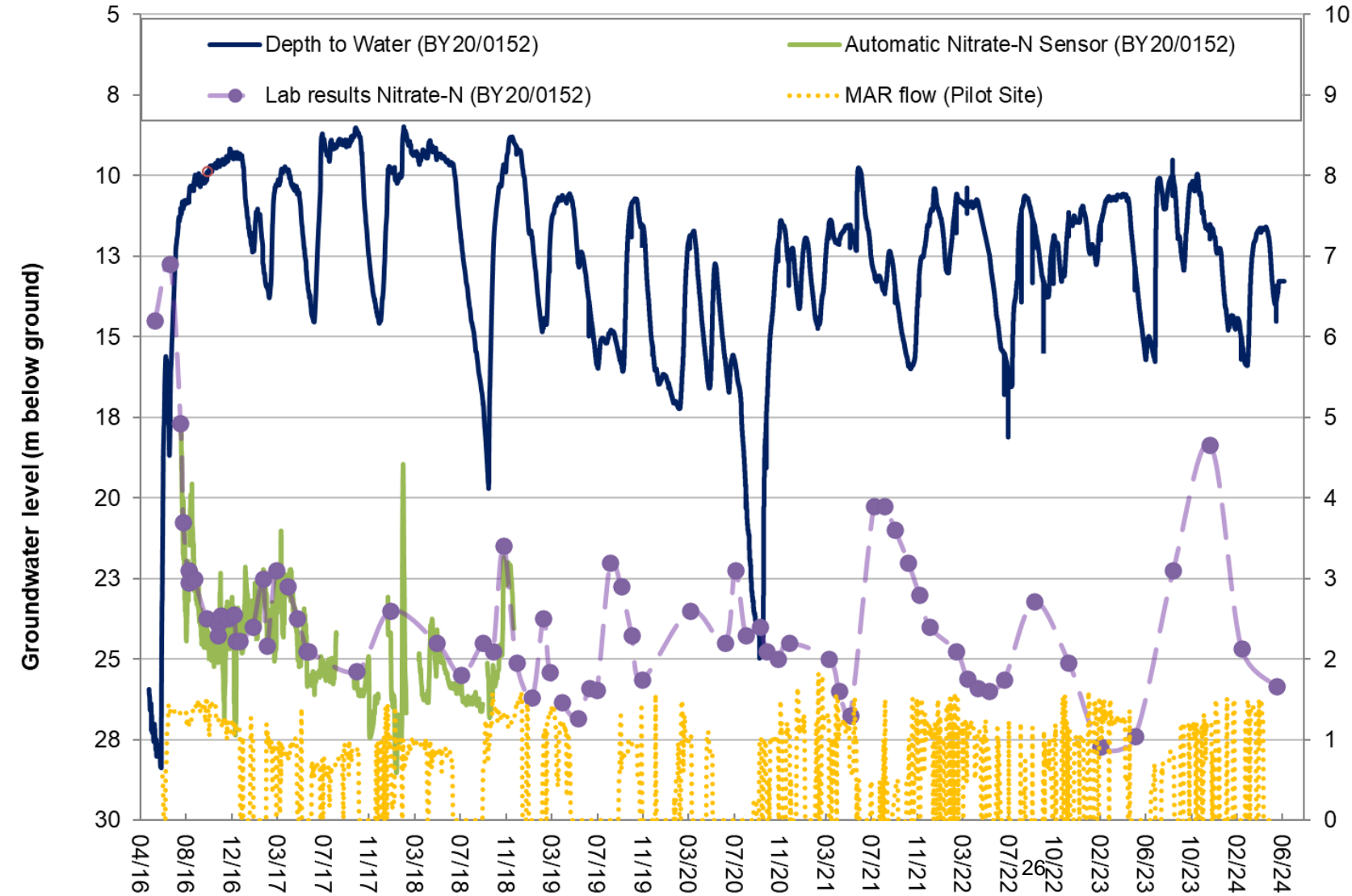


MAR01 - Lagmhor Pilot Site

(monitoring bore BY20/0152, 29 m deep and 1 km down-gradient)



Community planting
day 22 September

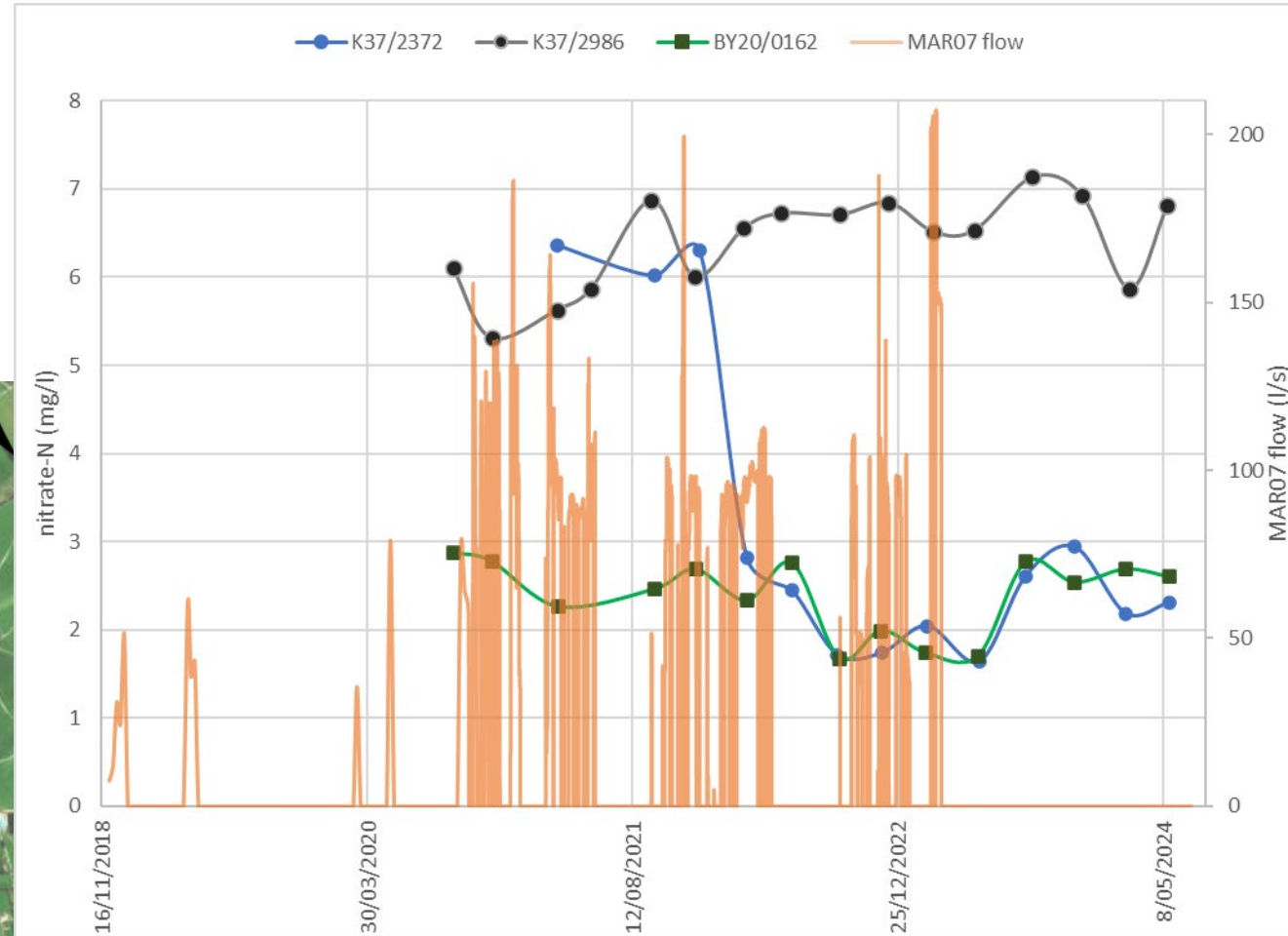


ACHIEVEMENTS:

- Fast groundwater level response to MAR
- Post MAR nitrate-N ~1-2.5 mg/l when operational and up to 4.7 mg/l otherwise
- No long-term effects from heavy rainfall events



MAR07 case study

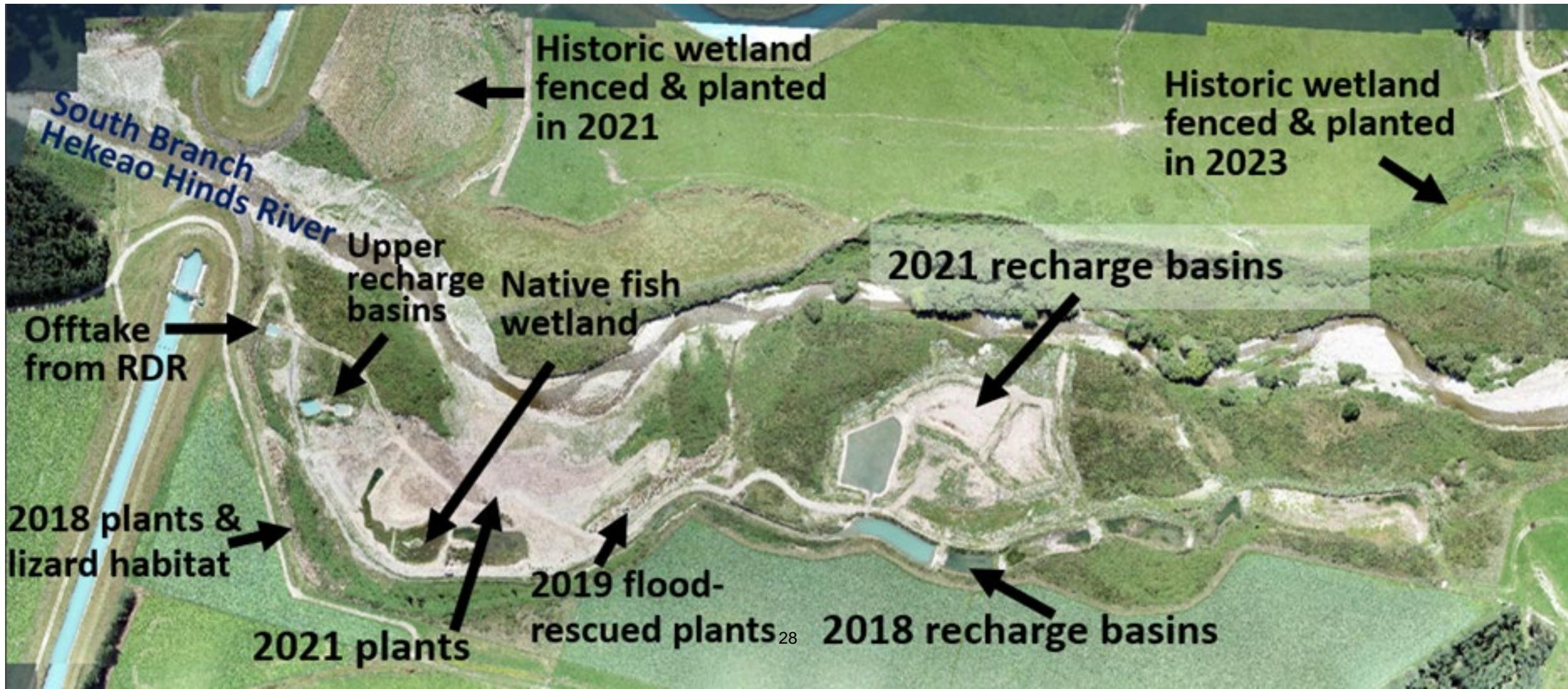


Lag time suggests similar groundwater velocity (~8 m/d) to MAR01 testing

Near River Recharge (NRR1)

Leaky basins to recharge shallow groundwater connected to a river system.

Enhancement of historical wetlands, native vegetation and habitat for fish, birds and lizards



NRR1 native vegetation

2023-24 maintenance supported by
Ashburton Water
Management Zone Committee



Upper Hekeao Hinds River and NRR1

Enhancing downstream
river health and
maintaining fish
populations during dry
periods.



**December 2023:
below NRR1 – thousands of fish (bullies,
galaxiids, eel/s and trout)**

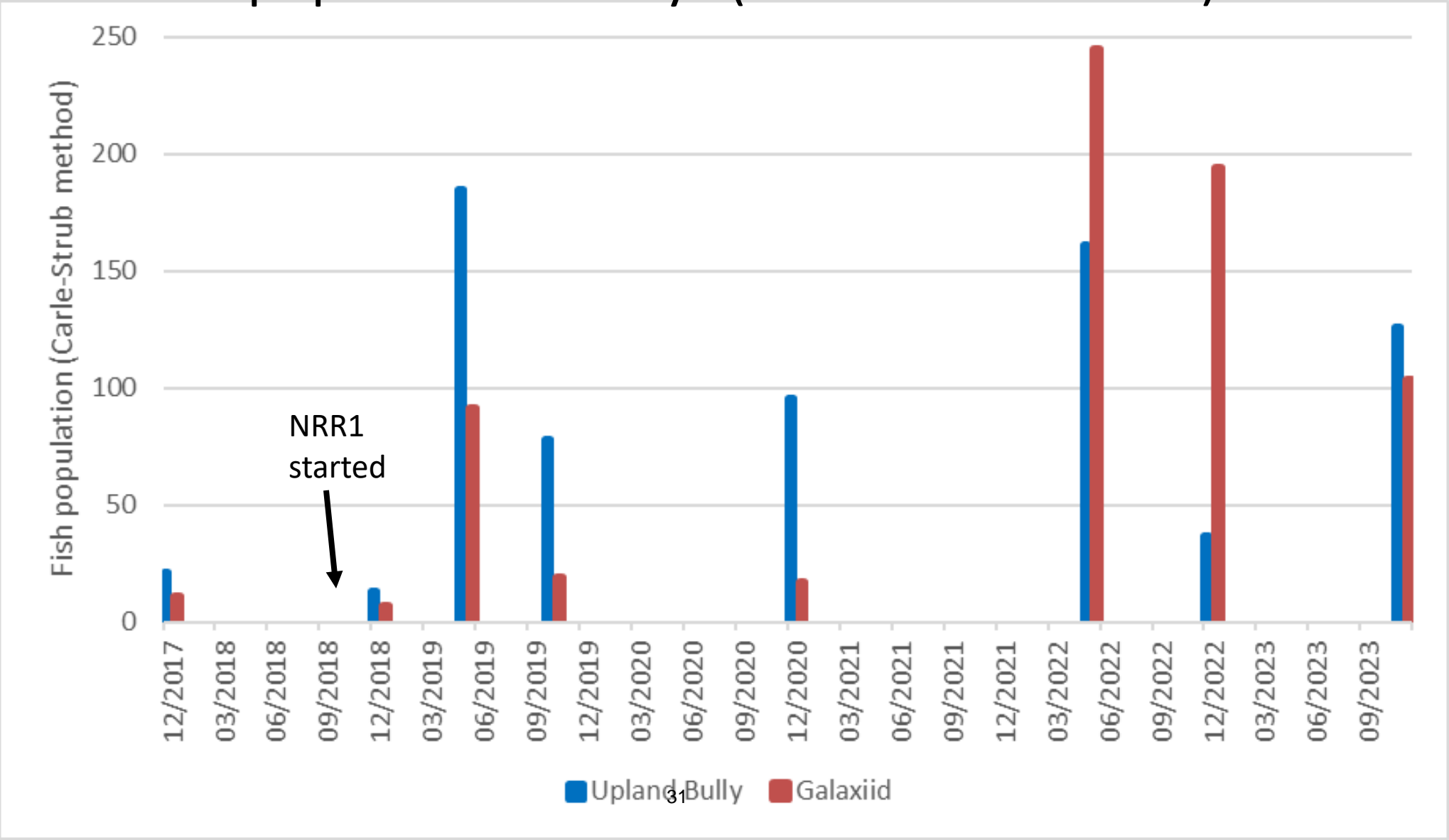


**December 2023:
no flow above NRR1**

Kōtuku / white heron at NRR1

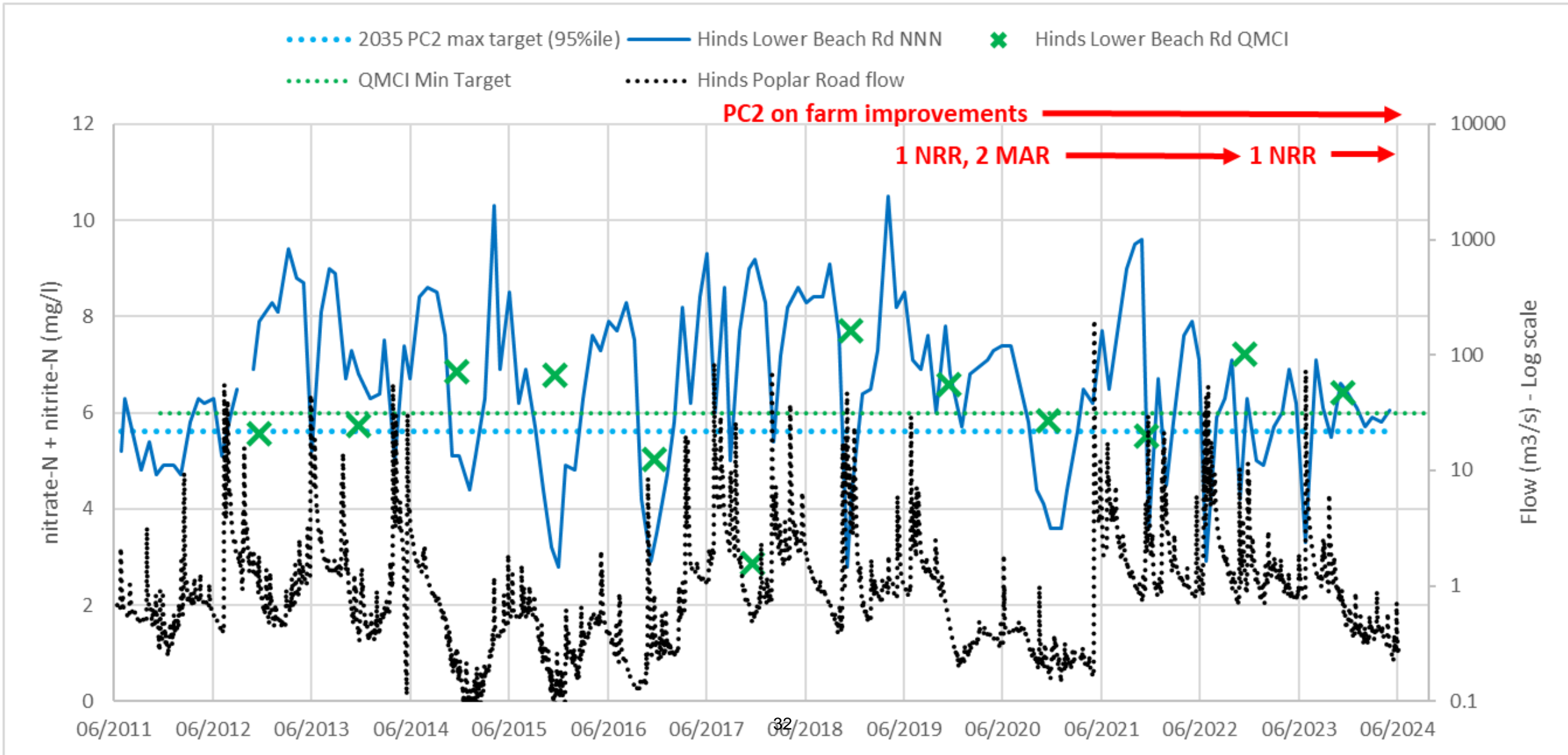
South Branch Hekeao Hinds River, Lower Downs Rd

Fish population surveys (CSI Fish and Game)



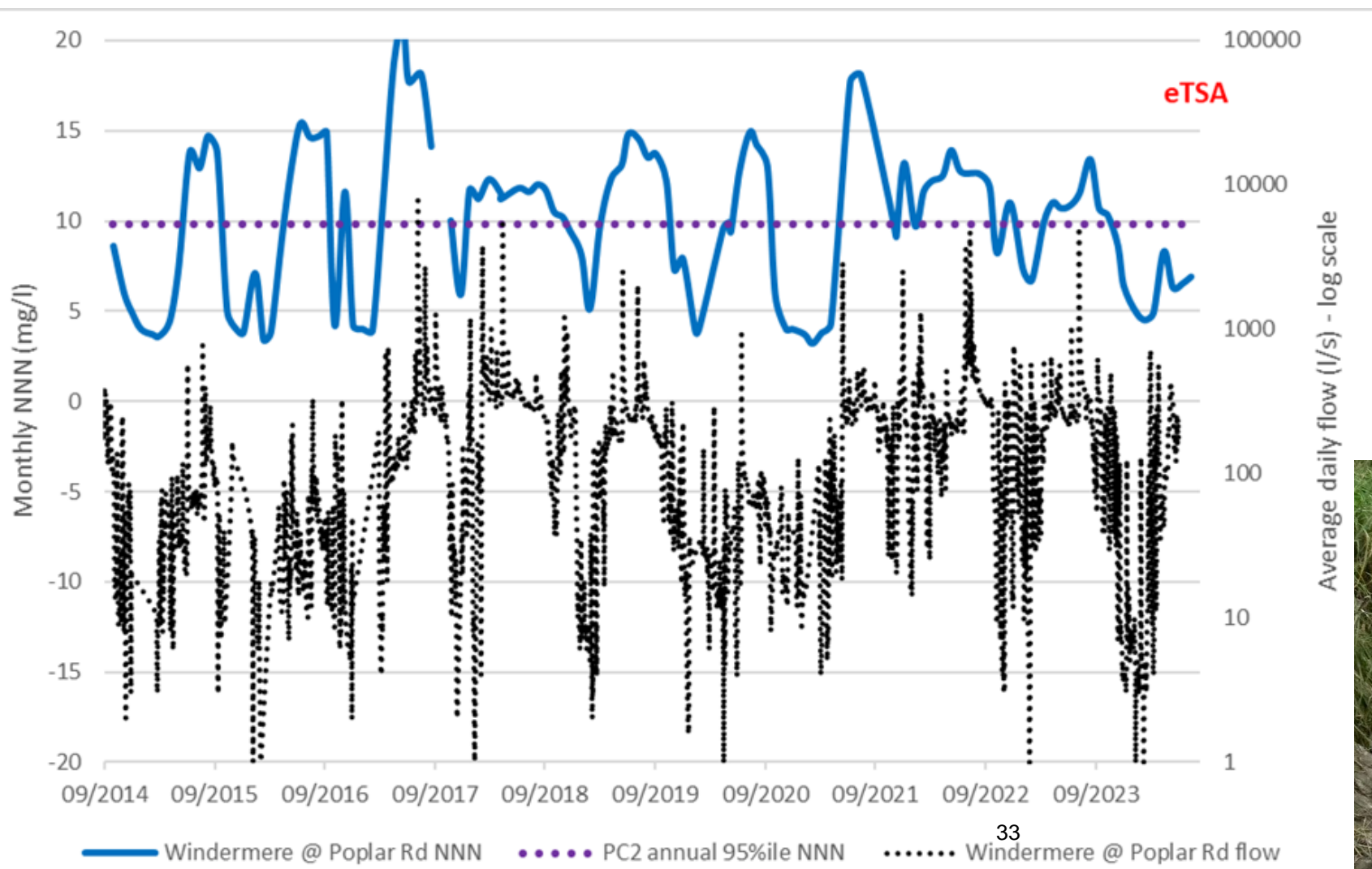
Lower Hekeao Hinds River

Sufficient water flow, quality and macroinvertebrates are all crucial for ecosystem health. All are improving.



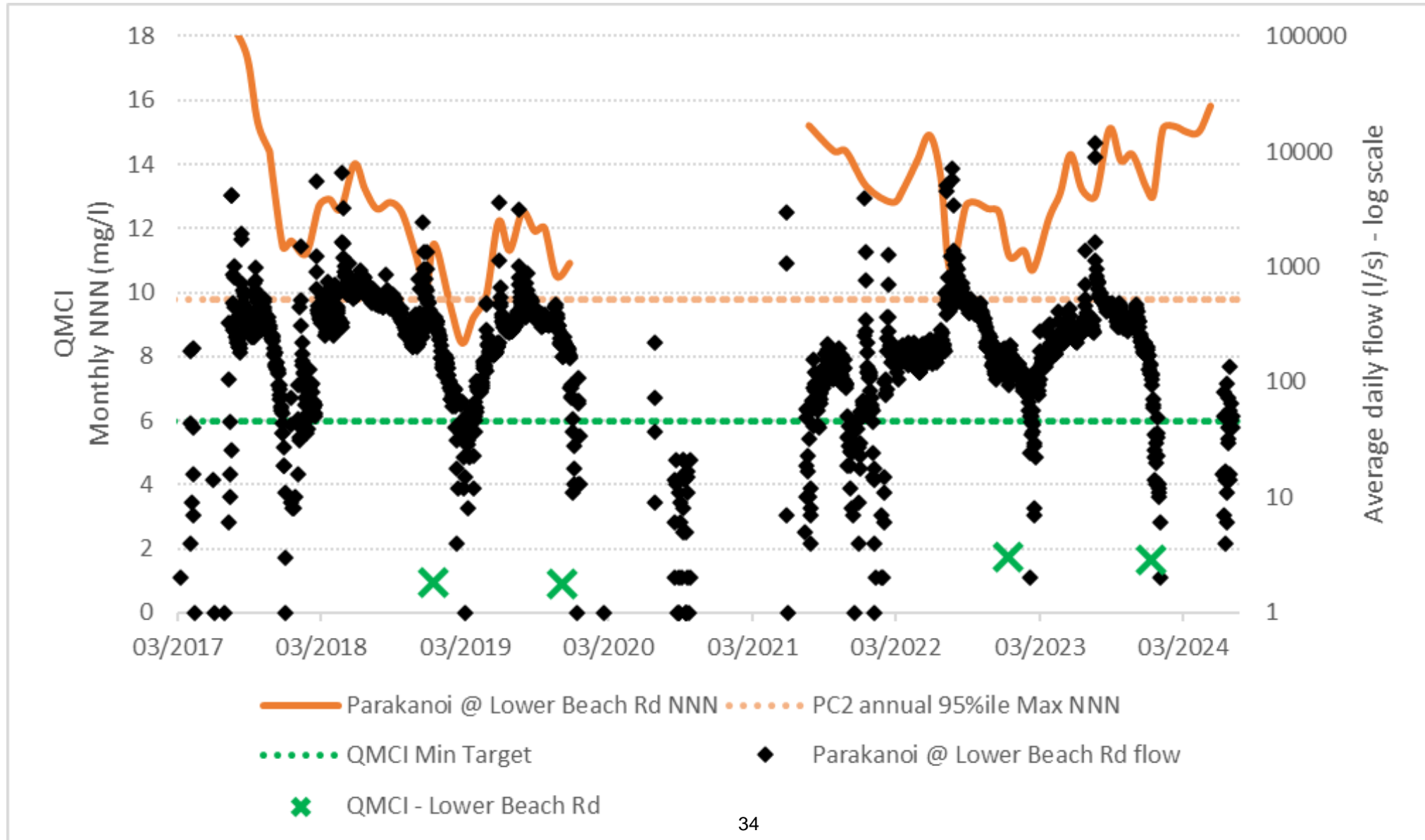
Enhanced Targeted Stream Augmentation – Windermere Drain (ECGIS/HDWP/AWZC/HH Lowlands CG/CSIFG/HHWET)

Using low nutrient groundwater, instream and riparian enhancements to improve ecosystem health



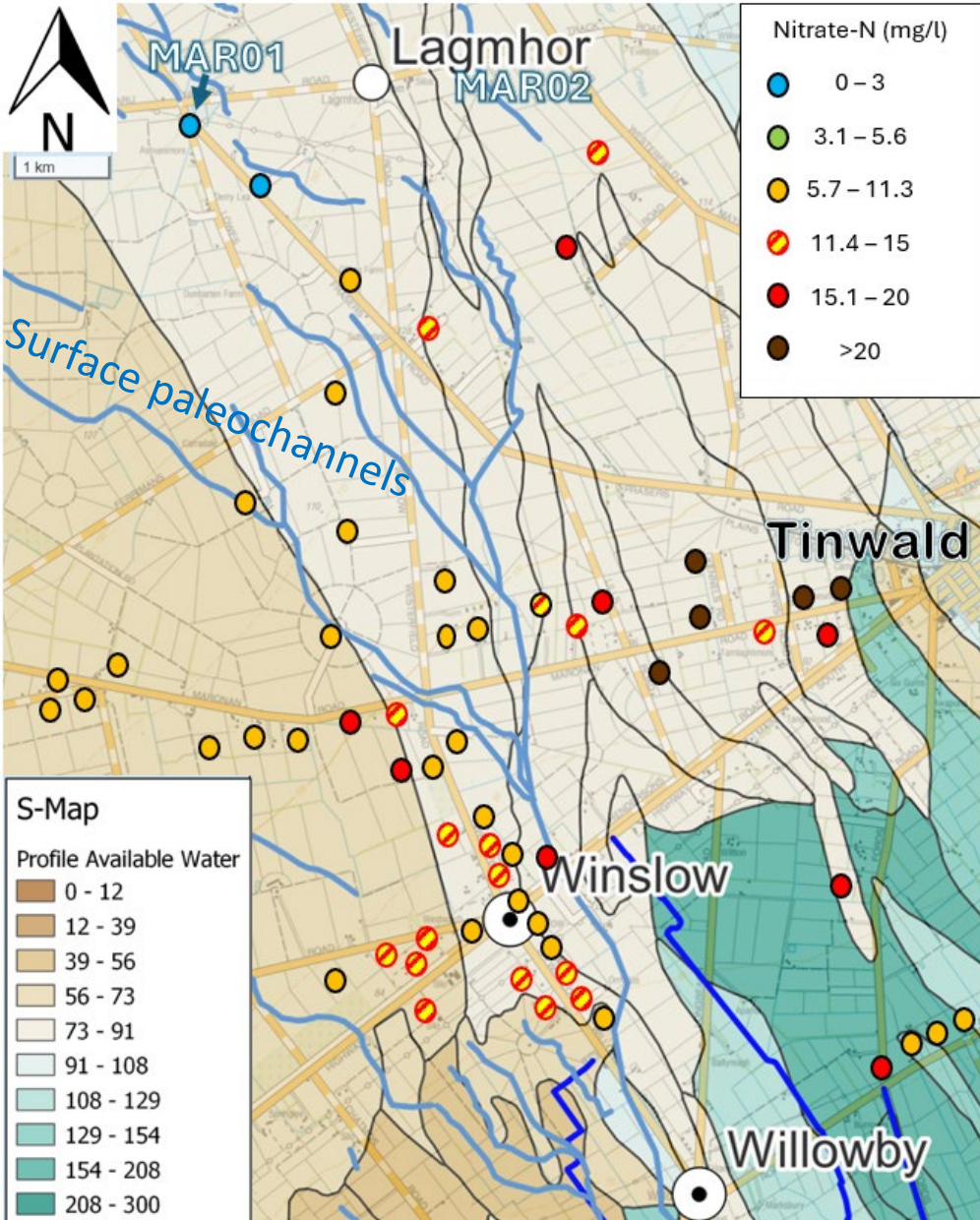
Key challenge – Parakanoi Drain

QMCI, water quality and quantity not currently meeting PC2 targets

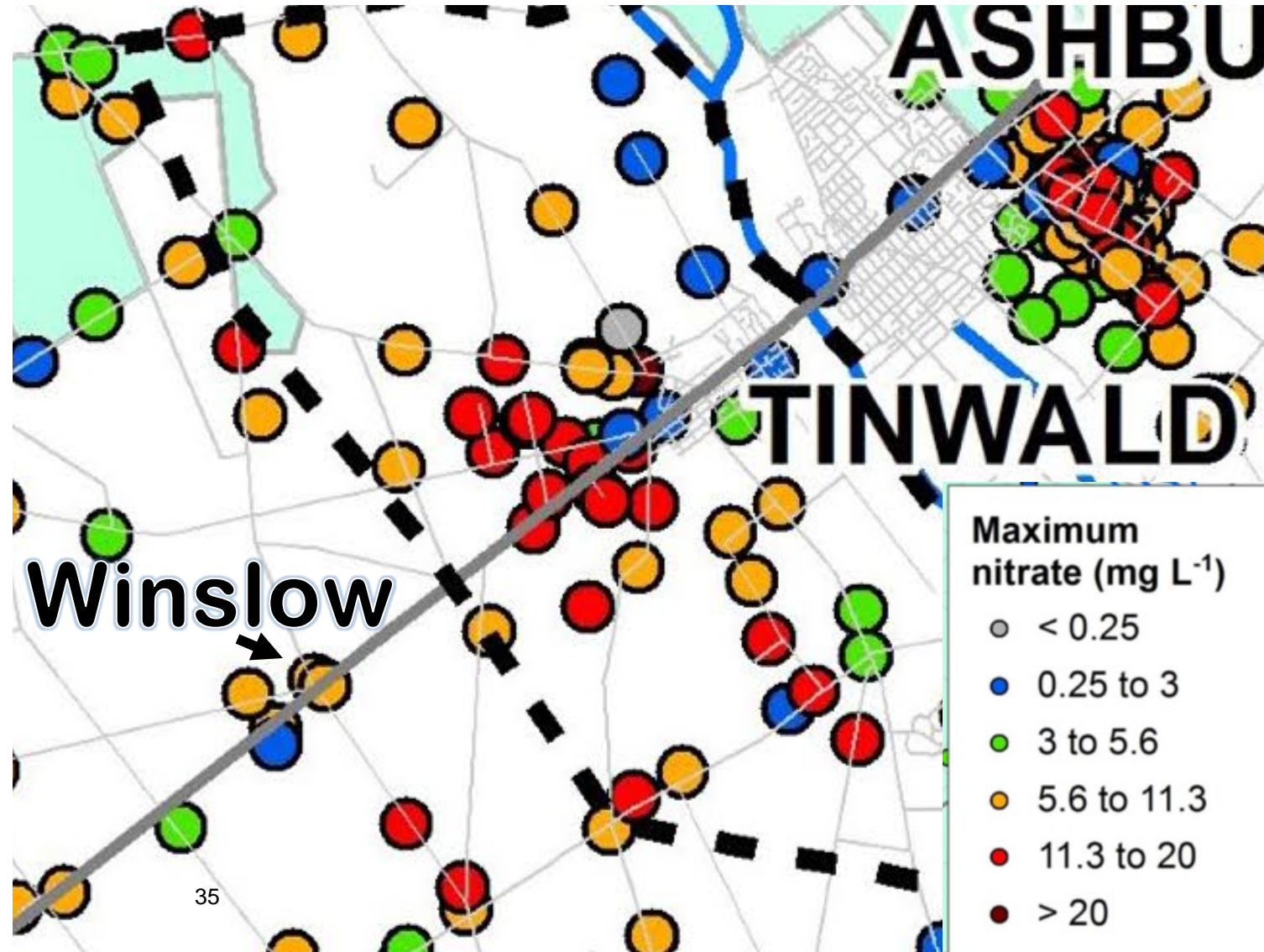


“Tinwald plume” surveys: high (& increasing) nitrate-N

Dec 2023-Jan 2024: 35-60 m deep bores (HHWET)



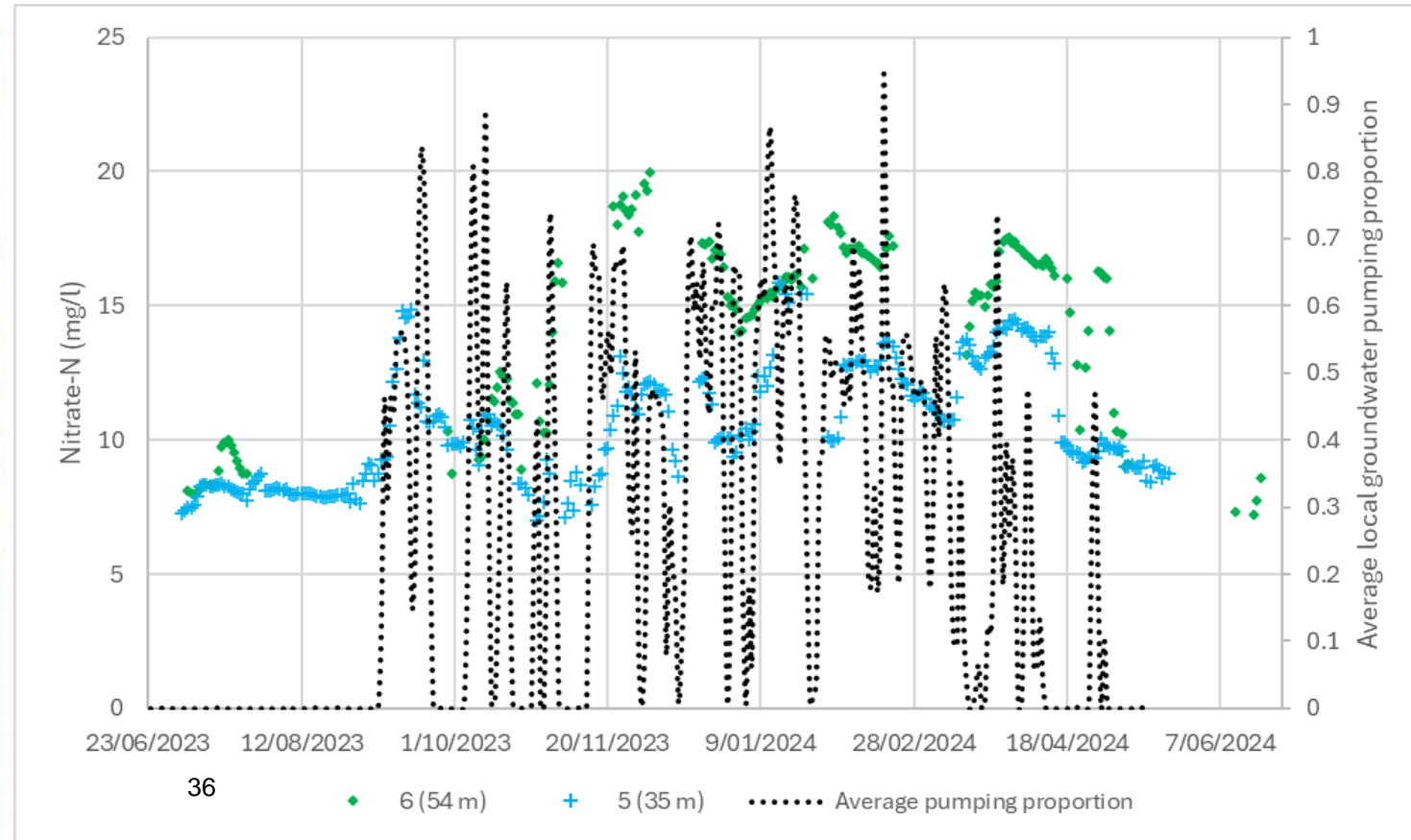
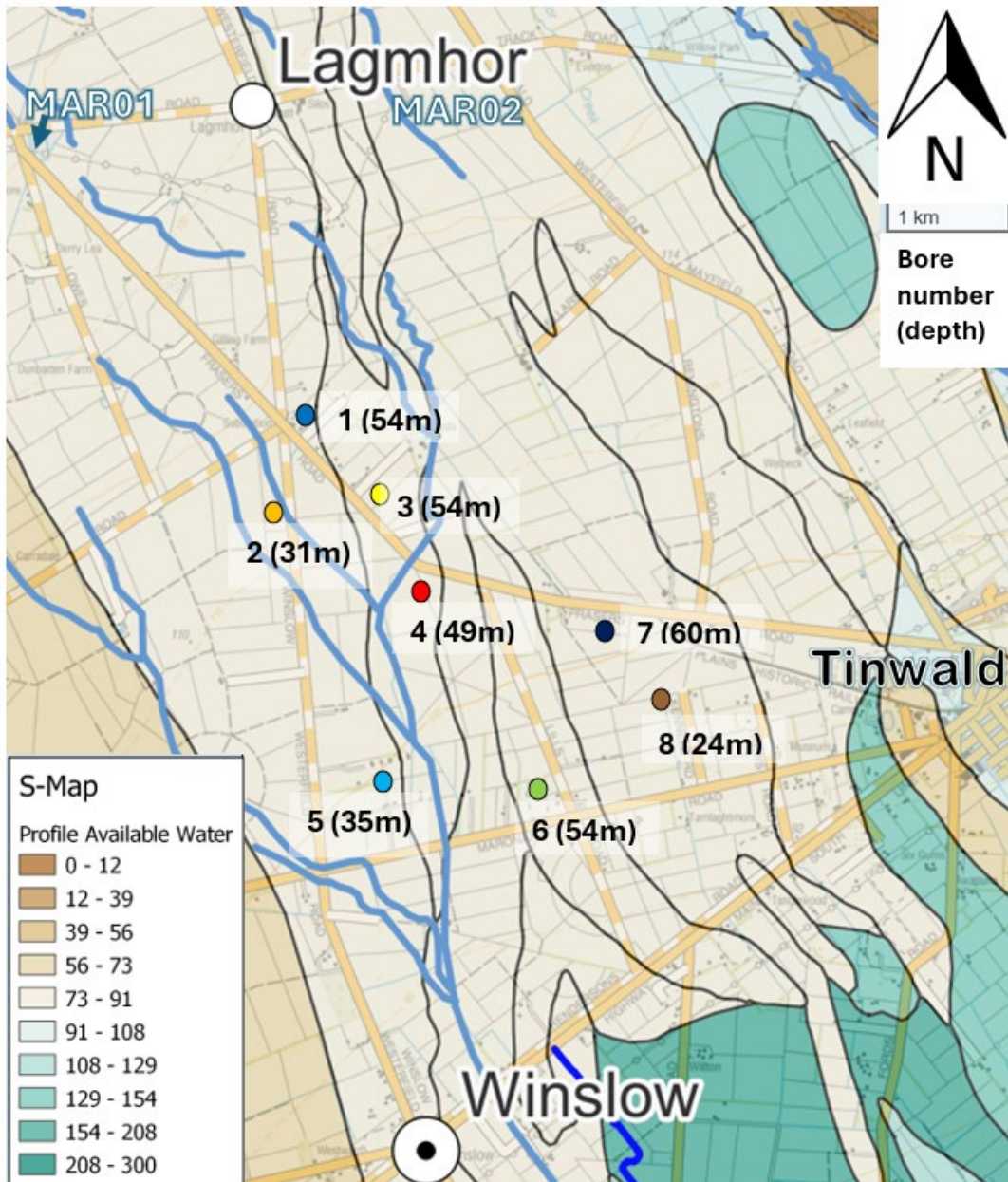
Max 1990 - 2017: all depths (Stewart & Aitcheson-Earl, 2020)



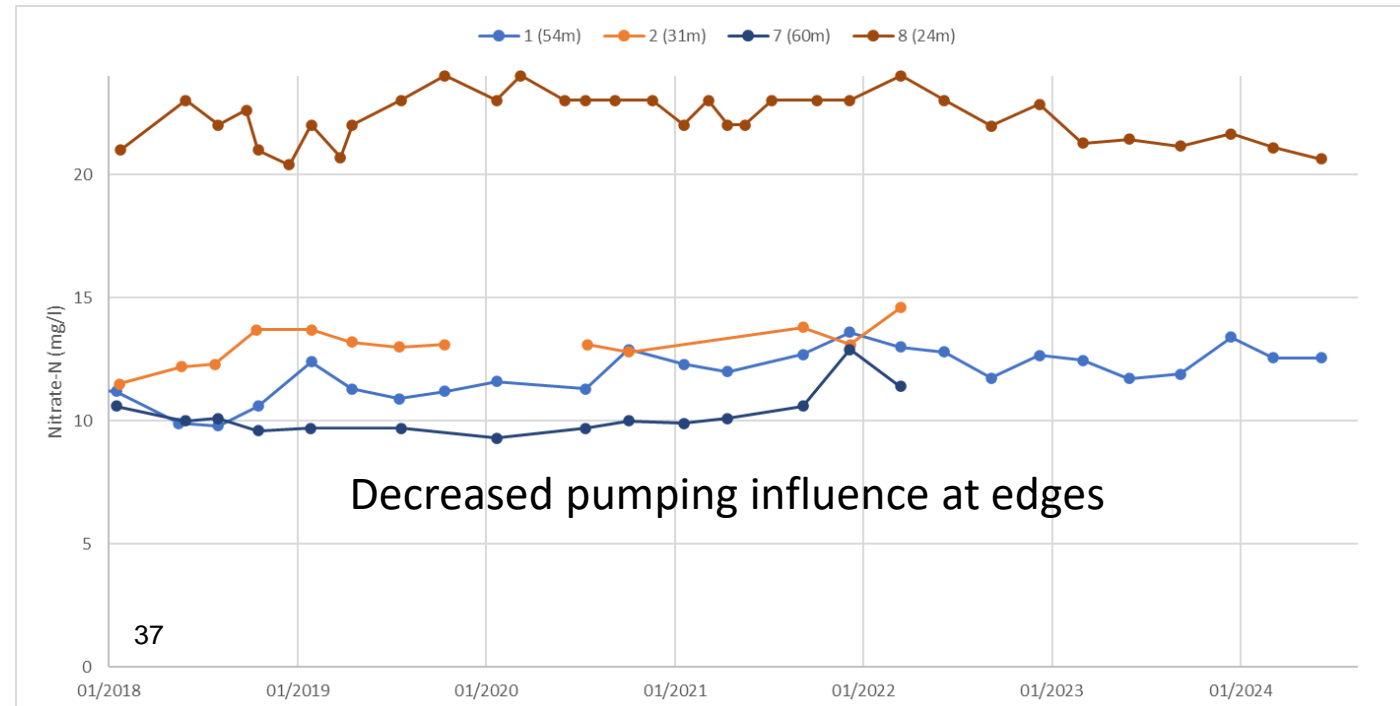
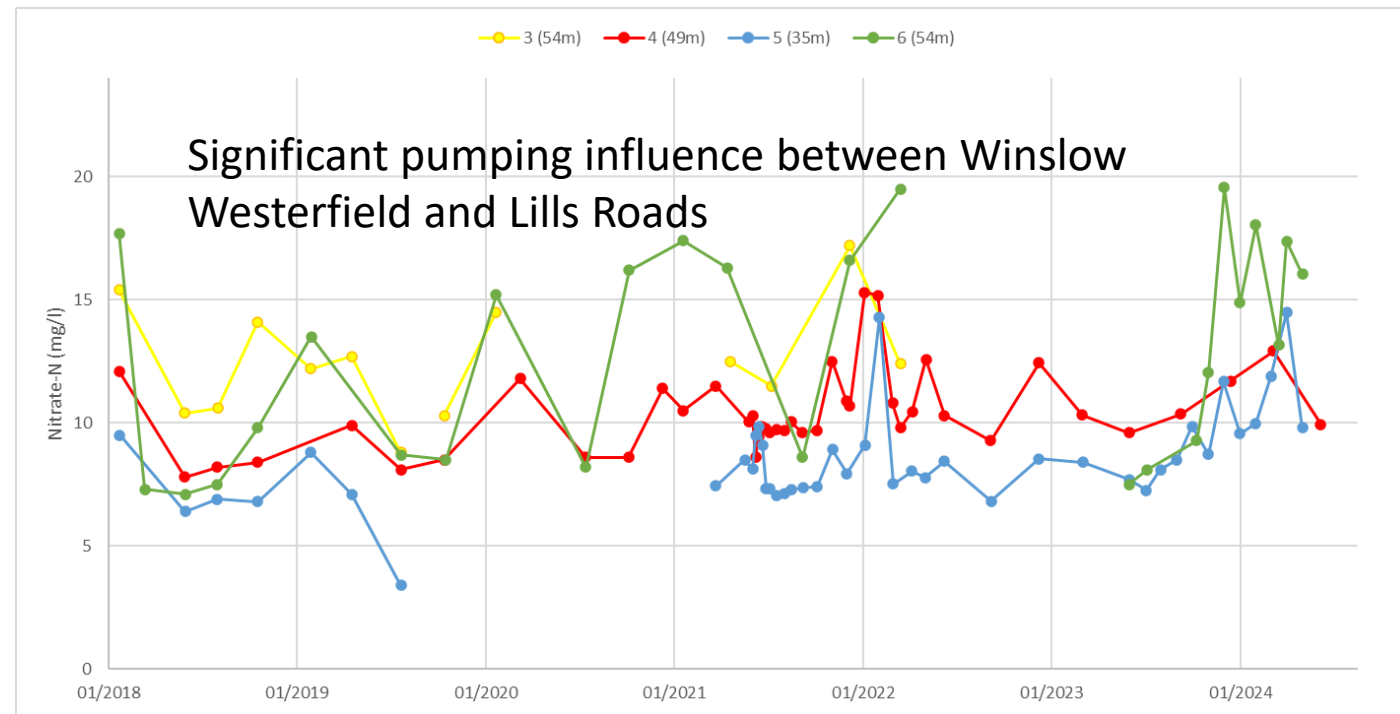
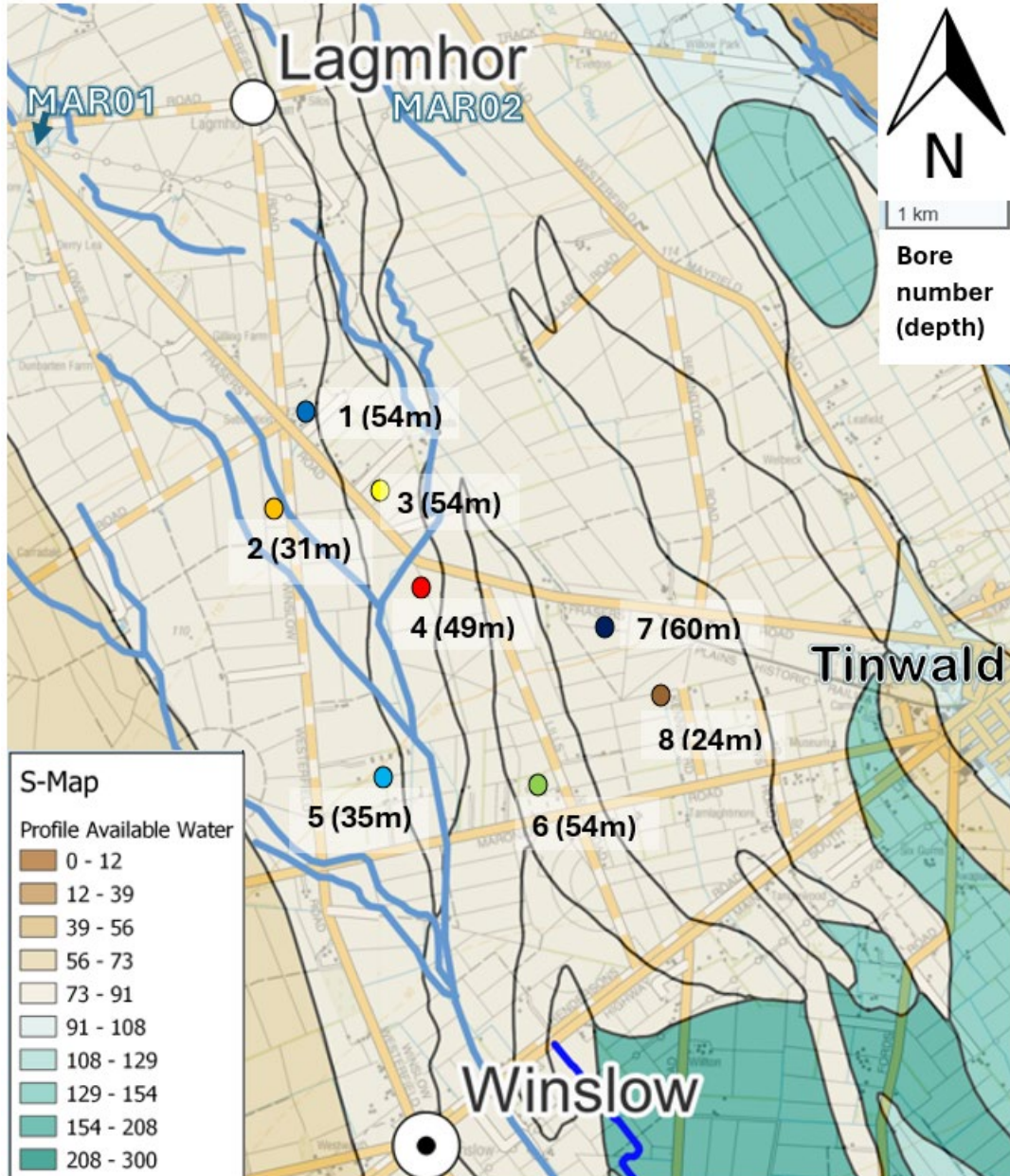
Cumulative groundwater pumping effects on nitrate-N

concentrations (2023-24)

Nitrate concentrations change quickly with cumulative pumping from the west, suggesting pumping causes groundwater approaching Tinwald to change direction. Marine sediments SE of SH1 likely exacerbating effects.



Groundwater pumping effects on nitrate-N concentrations (2018-24)



“Tinwald plume” challenges and opportunities

- Catchment nutrient accumulation from irrigation return flow
- Change from alluvial geology to marine sediments
 - Change in geology slows flow (3 wells assessed with mean groundwater ages of 12, 43 & 63 years)
 - Change in geology increases cumulative groundwater pumping effects on groundwater direction
 - Change in geology increases potential for nutrient retention, organic material accumulation and increased microbial activity
- Primarily individual domestic bores (**treatment recommended – NZDWS, WHO, 2022**)
- Catchment wide irrigation nutrient recycling
- Communicate drinking water challenge and support residents
- Increase MAR volume to reduce groundwater pumping impacts
- Understand and improve water race recharge effects (multi use water races)
- Enhanced Targeted Stream Augmentation for Parakanoi Drain

Next steps

1. New MAR / NRR consents, lodged December 2022. Hearing in October 2024.
2. eClean bioreactor trial beside Northern Drain – consented, with pre-operations underway.
3. Constructed wetlands on true right and left of lower Hinds, supplied from O'Shaughnessy's and Montgomery's Drains. Consent applications in preparation.
4. First pasture-base irrigation nutrient recycling trial from Spring 2024.
5. Monitoring and analysis: MHV/BCI/HHWET, catchment groups and Mid Canterbury Catchment Collective.
6. On-going enhanced TSA on the Windermere Drain with ECGIS.
7. New supplementary TSA consent applications underway for Hekeao/Hinds, Taylors, O'Shaughnessy's and Parakanoi Drains.
8. Continuation of Hekeao Hinds Science Group initiatives (including radiometric surveys, VMS project and catch crop trials) and post-graduate research.

HUI/MEETING: Ashburton Water Management Zone Committee	
AGENDA ITEM NO: 10	KAUPAPA/SUBJECT: Committee Updates
KAITUHI/AUTHOR: Jaimee Grant	WĀ/MEETING DATE: 27 August 2024

Purpose

To update the Committee on actions from the previous meeting, relevant information, and upcoming engagement opportunities.

Recommendation

The Zone Committee:

1. Receives the updates and provides feedback
2. Confirms the Committee will continue to use its 2021-2024 CWMS Action Plan, with any required amendments, until the requirements for a 2024-2027 CWMS Action Plan are clarified.

Report

1. Zone Committee Action Plan 2021-24 – confirm for use in 2024

This update provides the committee with an opportunity to discuss and confirm if any amendments are required currently to the committee's 2021-24 CWMS Action Plan.

With the current review of Zone Committees and the future needs for local leadership on freshwater management underway, it is recommended that the committee continue to use the 2021-24 Action Plan until the requirements for a 2024-27 CWMS Action Plan are clarified.

2. Environment Canterbury Representation review

Environment Canterbury Councillors represent different areas of Waitaha/Canterbury. Environment Canterbury is currently reviewing how fair and effective our representation arrangements are. Due to population changes, we need to make some changes before the next local body elections in October 2025.

The Local Electoral Act 2001 requires councils to undertake a representation review every six years.

For a regional council, the review must cover:

- The number of electoral areas – constituencies (local councils use wards)
- The boundaries of those constituencies and their names
- The number of Councillors to represent them.

To ensure effective and fair representation, there are four things we must consider:

- The number of people represented within each constituency area (population)
- The alignment of communities of interest within each constituency

- The alignment of constituencies to local council boundaries or wards
- How many elected Councillors should represent each constituency (each Councillor should represent roughly the same population +/- 10 per cent).

Ahead of the next local body elections in October 2025, Environment Canterbury Council is proposing that the Ashburton District area be combined with the current South Canterbury/Ōtuhituhi constituency, to form a larger Mid-South Canterbury/Ōtuhituhi constituency. This leaves Selwyn/Waikirikiriri as its own constituency.

It is proposed that the constituencies be called Selwyn/Waikirikiriri and Mid-South Canterbury/Ōtuhituhi. The proposal also includes realigning the Christchurch city constituency boundaries to the current Christchurch City Council wards.

Formal public consultation is now underway and closes **2 September 2024**.

For more information on the proposal and submitting, go to:

Your representation – Defining the lines | <https://haveyoursay.ecan.govt.nz/representation-review>

3. Ashburton District Council Representation Review

From Ashburton District Council website:

It's time to be vocal about local once again in the Ashburton District Council's Representation Review, ahead of the next local body elections in 2025.

Council is proposing three main changes to the current arrangements, following initial talks with the community last year, and the review document is now out for consultation until 21 July.

Council currently consists of a mayor and nine elected councillors. The district has an Ashburton ward with five councillors, and eastern and western wards with two councillors each. The Methven Community Board represents urban Methven.

Group Manager Engagement and Democracy Toni Durham said Council was legally required to review representation arrangements every six years.

“Initial feedback did not signal major changes to current arrangements with 72% of respondents saying they felt the community is well represented by nine Councillors.

“But we're looking at widening boundaries to cater for growth and reducing the numbers of Methven Community Board members to promote more contested elections.”

The Ashburton Ward boundary is proposed to be expanded to include newly-developed residential areas off Trevors Road, on the eastern side of Ashburton.

The boundary for the Methven Community Board is proposed to expand to include properties on the south-western periphery of the current Methven Community Board boundary.

Also under the draft proposal, the number of elected Methven Community Board members could change from five to four.

This is because a total membership of six (including two Western Ward councillors appointed by Council) is considered to be fair and effective representation for a community of this size and will promote contested elections.

The easiest way to provide your feedback is online at itsourplace.nz, but paper forms are also available from Te Whare Whakatare.

4. Waitaha Action to Impact fund - open for applications until Monday 2 September 2024

The Waitaha Action to Impact Fund is a contestable fund to support community organisations to deliver projects that align with our work and priorities through community engagement and action. It's now in its fourth year and during this time, has contributed more than \$1.1M to community groups to deliver tangible outcomes for our environment.

The fund aims to build community engagement and action for a better environment in the region. Funding has been given out to a range of community organisations for the past three years.

For the 2024/25 year, the fund has \$300,000 available and we are once again taking multi-year applications for between \$5,000 and \$30,000 per year for three years. This fund is not open to individuals, businesses, educational institutions, or government agencies. **Applications close Monday, 2 September 2024.**

For more information, go to:

[Waitaha Action to Impact fund | ecan.govt.nz](https://www.ecan.govt.nz)

5. Canterbury Regional Policy Statement (CRPS) development

Environment Canterbury undertook targeted stakeholder consultation on the draft CRPS in June/July 2024. This is done in accordance with the RMA Schedule 1, clause 3 (RMA S1C3).

Zone Committees were provided with a copy for their information. As zone committees are joint committees of the Council, they are precluded from making submissions on the Regional Policy Statement. Now that the RMA S1C3 submission period has ended, the planning team is currently redrafting the CRPS to incorporate some of the feedback it has received and will have further discussion with some of the key stakeholders as required. There has been a huge amount of feedback to read and process, and a summary, as well as verbatim content, is due to be presented to Councillors later this week (Thursday 15 August) - for their information/discussion only at the stage. The decision point in this process won't be until November.

When the proposed Canterbury Regional Policy Statement 2024/25 is publicly notified, stakeholders and the general public will have the opportunity to submit on the proposed RPS and provide subsequent evidence and/or speak to their submission before the hearing panel. The CRPS is expected to be notified in December 2024 or early in 2025.

6. Ashburton Water Zone Committee Action Plan Budget – now accepting applications until 13 September 2024

The Ashburton Water Zone Committee will be making recommendations to Environment Canterbury during 2024-25 on how to allocate \$50,000 of funding to help implement the Committee's [Action Plan](#). Environment Canterbury makes the decisions and administers the funding.

Do you have a project that will help improve water management, enhance biodiversity, or engage the community about water management and would like to apply for some funding? If so, please email Jaimee Grant, Zone Facilitator (Jaimee.grant@ecan.govt.nz) for funding application information including the funding criteria, and an application form.

Applications close **13 September 2024**. The Zone Facilitator will advise applicants of the outcome by the end of 2024.

7. Zone Committee Action Plan Budget Progress Report: Staveley Camp Committee Community Possum Trap Library

Progress reports are a requirement for all recipients who receive funding from the CWMS Zone Committee Action Plan Budget. A progress report has been received from the Staveley Camp Committee for their Community Possum Trap Library which received funding last financial year. A copy of the report has been attached as **Agenda Item 10.1**.

8. Actions from previous meetings/workshops:

#	Received	Who	What
1.	23/04	J Grant	Provide Wakanui Hāpua information Environment Canterbury and Ashburton District Council have on file to Wakanui. <i>Will be completed in September.</i>
2.	23/04	J Grant	A letter be written to groups who have received funding for traps to obtain statistics and frequency of use of the traps. <i>Completed.</i>
3.	23/07	J Grant	Follow up on correspondence regarding Green Street Emergency powers. <i>Underway.</i>
4.	23/07	J Grant	Draft three letters in support of Lake Clearwater Hut Holders Association's proposal for Lake Camp to: <ul style="list-style-type: none"> • Environment Canterbury • Ashburton District Council • Te Rūnanga o Arowhenua <i>Completed.</i>
5.	23/07	Cr McKenzie	Check if Environment Canterbury has an archivist.

9. Zone Committee Calendar

24 Sept	Meeting/Workshop <ul style="list-style-type: none">• Zone Committee Action Plan Budget Application consideration
Oct	<i>No meeting/workshop scheduled</i>
26 Nov	Meeting <ul style="list-style-type: none">• Zone Committee Action Plan Budget recommendations• TBC

Zone Committee Action Plan Funding 2023-24:

Mid Progress Report July 2024

Project Profile

Title of Project: [Staveley Camp Forest Community Possum Trap Library](#)

Name of Grant Recipient: [Staveley Camp Committee](#)

Date of Funding Year: [2023/24](#)

Grant Agreement Number: [2023/2024 – 122](#)

Amount Granted: [\\$15,000](#)

Date of Grant: [April 2024](#)

Name of author of report: [Gen de Spa](#)

Contact Details: [Provided.](#)

Other Partners Providing In-kind and Funding (only if applicable)

Name of Funder	In Kind or Funding	Value (hours/dollar amounts)
ECan WAI Fund	Funding	\$30,000 The Trap Library is one of four deliverables out of this grant.
Gen de Spa	In Kind	22 hpw / \$31,680 pa Likewise, this contribution is spread across the whole regeneration project, not just the trap library

Agreed Grant Deliverables

Please list the Grant Deliverables as documented in the Canterbury Regional Council Grant Agreement. Indicate if the agreed deliverable/ milestones in the grant agreement have, or have not, been met through a short, high-level narrative on the status on each of the deliverables. If a deliverable has not been achieved, please state the reasons why.

Deliverable	Status	Comment
Grow the knowledge, interest and support of the Staveley Camp Forest Regeneration Project by encouraging and assisting the Foothills community with trapping	Achieved	We are certainly growing the knowledge, interest and support of the Staveley Camp Forest with the recent relationship which is blossoming between us and Mt Somers Springburn School. This began with an invitation to join the trap library, and while we are still working on establishing the trap library within the school and community, we have had multiple visits from the MSSS senior class who have been helping clear weeds in the forest and identifying and counting native birds.
Educate, encourage and assist with all aspects of native bush and bird vitality	Achieved	
Teach our library members how to use TrapNZ to monitor results (or provide other ways to do this (if necessary) and to use eBird to monitor birdlife	Achieved	Our trap library members are using TrapNZ and/or eBird for monitoring Currently only 13 trap library members as there is not a large necessity in Staveley for membership, hence our Trap library is expanding into collaborations with Methven Lions Birdsong Initiative and Mt Somers Springburn School.
Reduction in possum numbers through trapping	Achieved	Collectively we have caught 222 possums and 133 other predators since the trap library launch in November 2023

We did investigate options for generating income through animal carcass disposal to pet food, however, because of regulations around use of chemicals declarations for properties within 250m of traps this was ruled out.

Project Activities

Activity	Number of items/action	Location and/or # sites *Some types of projects will not have a specific, mappable location	Number of people engaged	Number of Volunteer days (1 day= 6 hrs)
<p>Trapping</p> <p>Trapping Training</p> <p>5-Minute Bird Count Training</p>	# traps 123	<p>NZTM Grid ref map and # hectares Trap NZ map attached but not a true reflection of hectares as area included all places Trap Library trapping had occurred but then includes areas trapping is not occurring. True reflection is 10ha of Staveley Camp plus 8 private properties or single traps plus three farms or larger areas where trapper with leg hold traps worked. Est. total 100 ha however only 10-12ha is ongoingly trapped at this stage.</p> <p>OF NOTE: Wasp control work has also been a major part of pest management in the forest and summer 2023-2024 saw 65 wasp nests found and eradicated; Map attached.</p> <p>Both contractors to Staveley Camp (Gen de Spa and Jan Kirini) attended NMIT/DOC Two Day Trainings for Predator Trapping Methods and 5-Minute Bird Counts in Feb 2024 and received certificates upon completion</p>	#volunteers 11 Plus 2 paid staff	#days 3900 trap nights
Youth Education	#events 5	# sites All at Staveley Camp except one at Mt Somers Springburn School	#participants 106	#days volunteers contribute to running the events 5
General Public Education	#events 1	# sites Staveley Camp	#participants 5	#days of volunteers contribute to running the event 1
Resources produced	Online resource, map, etc.	# users of resource		# days volunteer contribute to

	Media articles	Readers of the Ashburton Courier; Snowfed Ashburton Guardian, Rural Post delivery fliers		product development 1
	TrapNZ project	13 members plus outside interest		
	Prezi presentation https://prezi.com/p/edit/kpvn-3vrfdhr/	MSSS senior students Plus interested FB followers (349)		
	FB group https://www.facebook.com/groups/383209310724144	Trap Library members		
	Safety information, instructions, signage	Trap Library members		

Trapping Project and Data

If the project is a trapping project, or trapping is part of a larger project please supply data on the species caught, and total numbers of each species.

Predator Trapping Project Results (12-month period July 2022-23)	# Species Caught
Possums	222
Hedgehogs	16
Rats	92
Stoats	8
Weasels	1
Ferrets	0
Mice	15
Cats	1
Other	TOTAL 355

Original Budget

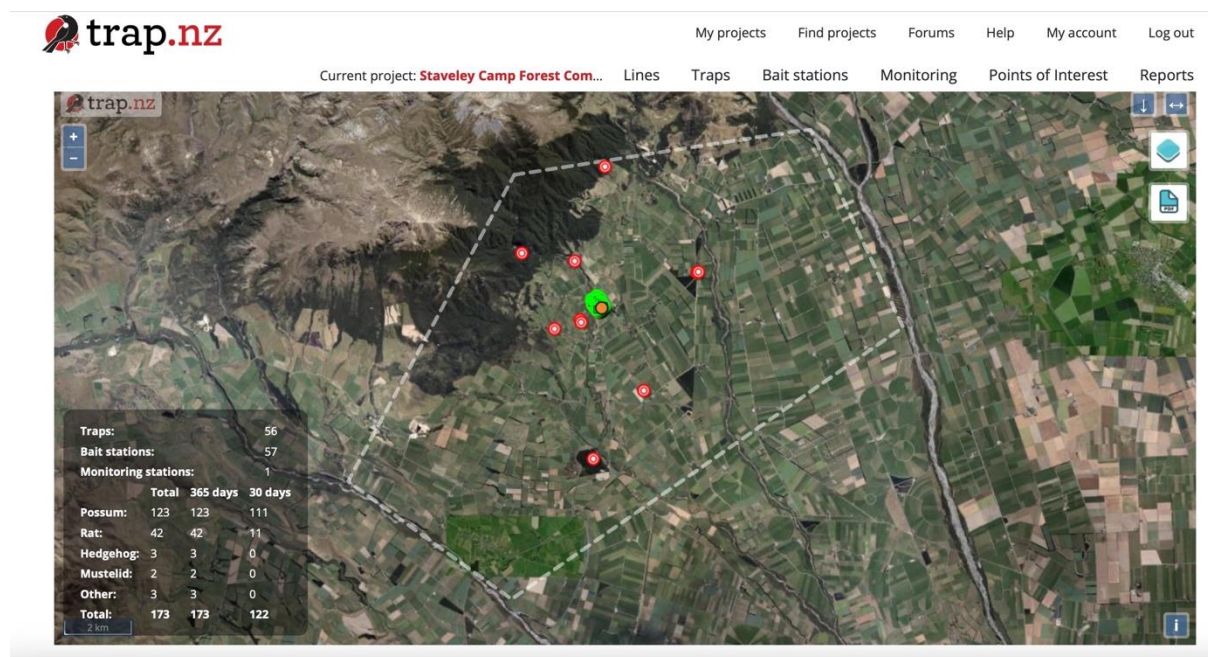
We are currently at the end of the financial year for most of our funding and are doing our final reporting for those. During the last financial year it became clear that some of the services we had budgeted for were not showing enough return and these services have since been discontinued, what has been paid out for these services has been allotted into the WAI Fund budget rather than the AHZC Trap Library budget (highlighted). Our traps, signs and library launch all happened before 26th Feb 2024,

when this grant agreement was signed and sealed, so these expenses have also been allotted to the WAI Fund.

As the funding from the Zone Committee goes through until June 2025, and because we operate on such tight margins, this budget is currently being kept in reserve and has yet to be spent.

We are intending to purchase two trail cameras to investigate exactly what predators we have here in the forest and specifically, the extent to which cats are a problem here, as we hope to ensure a safe breeding habitat for our kereru. We intend to learn how to get the most out of these cameras so that we can then share them within the Trap Library.

We are also working in collaboration with the Methven Lions Birdsong Initiative and intend to combine our financial resources (as suggested by the Zone Committee to the Methven Lions in part response to their application for funding). This is likely to mean more of this money will go towards traps and training than originally budgeted.



Location of most traps in Trap Library



Location of traps at Staveley Camp



Location of wasp nests found and eradicated during 2023-24 summer

Photos supplied separately:

Save 

SNOWFED

Like us on Facebook

SINCE 1986

Methven & Foothills Newspaper - owned by Mount Hutt College

Rāpare 5 Oketopa 2023 Thursday 5th October 2023

Putanga 36 Issue 36

Annie Jacobs

Community Possum Trap Library and shifting the balance



Left: Karen, Belinda, Ed and Gen in the weed-free part of the Staveley Campsite Native Forest

Extensive conservation work is being undertaken at Staveley Camp Forest in one of the last remaining remnants of native bush in Mid Canterbury.

Staveley and Alford Forest were heavily deforested by settlers in the 1800's and early 1900's with much of the housing in Ashburton built with timber from the area.

remove introduced weeds that are living in the forest.

On 25th November, they will be launching a community Possum Trap Library. This ties in nicely with the work that many of us are doing to assist New Zealand to become predator free, however it takes *continued on page 3*

Darwin's Barberry - the weed that looks pretty but strangles native forest

8

Possum Trap Library Launches

Save  Annie Jacobs

Did you know that possums can travel up to 33kms in a 24 hour period and that five possums eat the equivalent amount of food as a steer? Possums are not herbivores and will eat birds eggs, the chicks and other small birds.

Useful information such as this was shared by Tim Exton Regional Predator Free 2050 Ranger from the Department of Conservation, at the Possum Trap Library Launch on Saturday at Staveley, along with information about other pests and how to trap them humanely.

Tim brought along a variety of traps to demonstrate, teaching attendees at the launch about the different traps available and their purposes. Attendees were also shown how to effectively and safely set each trap without losing any body parts.

"For trapping to be effective, it is essential to understand animal behaviour for the particular type of animal you are trying to catch," explained Tim. "You can then put out the correct type of trap in the right place that will suit that animal and your catch rate will be significantly higher."

Hedgehogs are one of our most terrible predators on the eastern side of the South Island and are not the cute little things that we think they are. Unfortunately, in New Zealand, they do not have any natural predators, so wreak havoc on our native species. We are the only country in the world that have birds that have a beak that has a curve to right (Twisted Wrybills), - especially created for the birds to be able to forage under river stones and rocks.

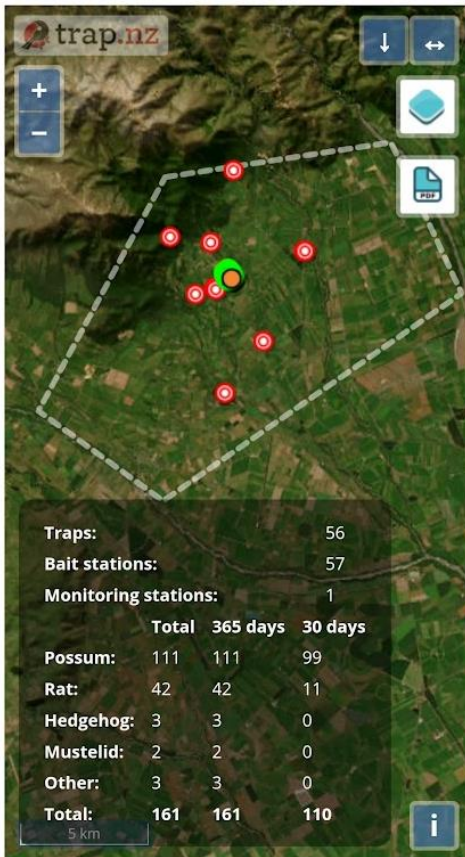
"One hedgehog will take out five wrybill nests in a night," said Tim who is involved with trapping hedgehogs in our unique braided river beds. "Hedgehogs are decimating the wrybill population."

continued on page 9



Displaying some of the traps that are available for different pests and predators

Back left: Graham Ayers, Mark Belle, Robbie Koller (Rakaia Gorge Fantail Trust), Tim Exton (Department of Conservation), Gen De Spa (Staveley Campsite Manager). Front: Jack Wall



Monitoring Results

Specific outcome focused examples

- *to sustain mistletoe* - 7-night possum chew card or wax tag index no greater than 10%
- *to reintroduce toutouwai (north island robin)* - reduce rat tracking indices at all surveyed sites within the project to less than 5% Footprint Tunnel Index (FTI).
- *to protect kiwi chicks < 1 kg* - reduce stoat tracking indices at all surveyed sites within the project to 0% Footprint Tunnel Index (FTI)

Monitoring Outcomes

Measures the conservation outcomes of predator control

- Are you meeting your conservation goals?
- Species-focused or ecosystem-focused
- Can take a long time
- Get advice!

Monitoring Outcomes

Examples

Whio:

- > 80% adult female survival
- > 50% nesting success, of 24 monitored pairs, 2014 – 2018.

Rock wren and kea:

- Increased survival and productivity each breeding season.

Powelliphanta (giant landsnail)

- To have stable or increasing colonies (> 10 snails/100 m²) of Powelliphanta



