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Evaluation | Analytics | Insights

Prepared for:

THRIVING SOUTHLAND
Tōnui ana te whenua. Tōnui ana te takata.
A thriving, prosperous land. A thriving, prosperous people.

Supporting catchment mitigation processes

Summary report

April 2025

Scarlatti.co.nz

Contents

Acknowledgement

We would like to extend our sincere thanks to everyone who generously shared their time, experiences, and insights during this work. Your contributions helped shape our understanding of the catchment group projects and helped us to articulate the good practices outlined in this report. We've tried to reflect what was shared with us as accurately and thoughtfully as possible.

We'd also like to thank the Thriving Southland team for their support in coordinating the interviews.

Introduction

Context

This document has been prepared by Scarlatti to present the insights from interviews conducted as the main deliverable of research to understand and document what is essential for enabling catchment-wide land use choices and decision-making.

Through this work, Thriving Southland sought to understand how selected catchment groups achieved success in their communities. The focus was on documenting the engagement processes and identifying key steps that led to stronger member participation and meaningful catchment projects. Informed by an initial document review (see Appendix A, page 1919), key questions to be answered were:

- What does this process of enabling a catchment-level thinking / conversation look like?
- What approaches (activities and resources) were taken to get everyone off-farm and talking?
- Which individuals were key drivers who acted as facilitators or leaders during this process?
- What are the barriers to catchment-level collaboration, and how can they be overcome?

Thriving Southland recommended the following projects to be included in this research:

- Understanding your Landscape's Resilience: Beyond Regulation (Mataura Catchment Group)
- Targeted Solutions to Balfour's Environmental Challenges (Balfour Catchment Group)
- Understanding the movement of nutrients (Edendale Aquifer Group)
- Carbon Neutral Dipton (Greater Dipton Catchment Group)

An overview of the projects, including their achievements to date, can be found on page 3.

Interview methodology

Between February and March 2025, 11 interviews were conducted with farmers and rural professionals involved in the four catchment group projects, along with one interview with the Thriving Southland team. Interviews were conducted either in person or online, depending on the interviewees' preference, and each lasted approximately one hour.

Participants were selected in collaboration with Thriving Southland to ensure a mix of perspectives across roles and catchment groups. A semi-structured interview format (see Appendix B, page 2121) guided the conversation while allowing flexibility for interviewees to share their own experiences.

Outputs

The outputs of this research include:

- A detailed report on the interview findings (this document)
- Two infographics highlighting key insights for:
  - Other catchment groups, especially those planning similar environmental projects
  - Stakeholders working with catchment groups.

Catchment group projects overview

Catchment group projects	Understanding your Landscape's Resilience: Beyond Regulation (Beyond Regulation)	Targeted Solutions to Balfour's Environmental Challenges (the Balfour project)	Understanding the movement of nutrients	Carbon Neutral Dipton
Catchment group	Mataura Catchment Group	Balfour Catchment Group	Edendale Aquifer Group (EAG)	Greater Dipton Catchment Group
Indicative timeline	Early 2022 – Mid 2024	Since April 2022	Since March 2024	November 2022 to May 2023
Project overview	Funded by the Agmardt Food and Fibres Aotearoa New Zealand Challenge, Beyond Regulation identified targeted mitigations to reduce environmental impacts while aligning with each of the three case study farms' goals and supporting their financial resilience. It was undertaken in collaboration with Land and Water Science Ltd (LWS) and Thriving Southland.	The Balfour project has gone through several phases since the catchment group started with the aim of reducing groundwater nitrate levels on the Balfour Fan. Phase one involved working with LWS to understand nitrate issues at the catchment scale. This led to targeted investigations into how nitrates enter key waterways and the identification of priority mitigation sites. The project is now in its third phase, with mitigations being installed with support from DairyNZ.	Formed just over a year ago, EAG launched this foundation project to better understand how nutrients, particularly nitrogen, move through the catchment. With support from a range of industry partners and local businesses, the project focuses on two areas: identifying effective on-farm nitrogen mitigations (in partnership with DairyNZ), and working with LWS to assess the catchment landscape and identify optimal wetland sites.	The Greater Dipton Catchment Group worked with five farmers and their buddy farms to explore practical ways to reduce greenhouse gas emissions on farm. The project took detailed landscape information and, in conjunction with farm consultants, verified existing greenhouse gas emissions, assessed and developed viable options for each farm to reduce greenhouse gases and increase sequestration using relevant software.

Catchment group projects	Understanding your Landscape's Resilience: Beyond Regulation (Beyond Regulation)	Targeted Solutions to Balfour's Environmental Challenges (the Balfour project)	Understanding the movement of nutrients	Carbon Neutral Dipton
Outcomes to date	• Provided three case study farms with a spectrum of tailored and practical options to consider, ranging from system optimisation to land use changes. • Led to some practice changes that happened at the individual case study farm level. • Held field days to communicate project findings to the wider catchment. • One of the case studies sparked broader conversations in the region and contributed to the formation of the Edendale Aquifer Group.	• All of the properties on the Balfour Fan had their farm mapped, and the information will be valuable for their current planning and in the future. • Received extremely high engagement from the community and resulted in the group being awarded the Environmental Action in Water Quality Improvement award. • At least four or five wetlands and several other physical edge-of-field interventions have been planned, with some currently under construction. A field day is tentatively planned in May to showcase the progress.	• Have been undertaking Nitrate Testing Monthly Sessions since October 2024. • Held a field day in collaboration with DairyNZ in April 2025, sharing the data collected and modelling results of the five case study farms with the wider community. • The group managed to pull together strong funding and industry support.	• Modelling work completed for five case study farms and discussed with their buddy farms. • Contributed to the thinking and some changes made by the case study farms. • Held field days to communicate project findings to the wider catchment. • The project attracted significant media attention, including coverage on national radio, and established connections with other groups working on similar initiatives.

Findings

This section presents insights from interviews with farmers and rural professionals involved in the four catchment group initiatives. We focus on:

- Factors that enabled community buy-in and engagement
- Key challenges faced
- Lessons from project implementation.

The findings are organised by common themes and presented as practical lessons to help other catchment groups starting similar projects. The themes highlight what's required for catchments to work together and begin having challenging conversations. These conversations – such as how to compensate farmers for retiring land for wetland development that benefits the wider catchment – often ultimately depend on decisions made outside the catchment (e.g., regulations). Selected interview quotes are included throughout, with minor edits for clarity.

1. They were driven from the ground up

The success of these projects relied heavily on farmer engagement. This engagement was built gradually over time. Generally, they began with a small group of interested farmers who were the foundation for wider participation.

Engagement was built through time and patience

As cliché as it may sound, time played a crucial role in allowing relationships to develop within the groups and for other external enablers to emerge (e.g., funding, technology, human resources). The Balfour project, which received the Environmental Action in Water Quality Improvement award in 2024, is an example of how success lies in patience and persistence. With 100% involvement from key farms on the Balfour Fan, the project made progress in addressing water quality as a catchment group. However, this level of engagement wasn't achieved overnight. The conversation around nitrogen began nearly 20 years ago, with a few enthusiastic farmers pushing for actions at different times. Despite these attempts, progress was slow, and tensions remained between different types of farms, which made collaboration difficult. The formal establishment of the catchment group in late 2020 marked the beginning of real progress. However, it still took the group a few years and several project phases to reach the point where wetland construction has started.

> *When we started back in 2008, everybody was interested in the first two meetings, and then there was "it's not my problem – I don't contribute to this". The way to do this, as I told another catchment group leader at a field day, is just slowly chipping away at it, inviting them to things, and time. It took us 12 years.* Interviewee from the Balfour project

During the first year of its establishment, the group focused on defining its purpose and building the proposal for a catchment-wide project. The Balfour project then moved through two phases: Phase one involved gaining a better understanding of the issue at the catchment level, with scientists from LWS helping farmers to piece together the puzzle. This work then led to more detailed investigations about how the nitrates get into the Waimea Stream and the Longridge Stream, and the identification of key sites for best mitigation opportunities. The community's involvement gradually increased as more information became available, but the process was far from straightforward. One interviewee described it as a "rollercoaster". For example, early on, many farmers were reluctant to share their farm

data and nervous about how it might be used. Some farmers who are now actively engaged had only come on board a couple of years ago after years of conversations and trust-building.

Currently, the Balfour project is in its third phase, where mitigations are being installed.

A similar pattern was seen in the Dipton group. Initially, the idea of undertaking a carbon project was discussed, but it was placed on the back burner until funding was secured and awareness of climate change grew. This waiting period also allowed farmers in the catchment to get to know each other and form connections.

> *If we went right back to the start of the catchment group, some people probably didn't even know each other. It probably worked better that we didn't launch the group and do the project straight away, even though it was suggested. We got to know each other through a whole lot of little bits and pieces during that period [and] got a better connection.* Interviewee from the Carbon Neutral Dipton project

To keep the momentum going, it's essential to recognise progress in these less tangible areas. Sometimes, new catchment groups can be too eager to achieve on-the-ground change, either because of their strong social responsibility or through comparing themselves to other groups who have appeared to achieve more progress. Just as in farming, seeing actual results takes time. Start by understanding the problems first and use this time to build engagement.

Another key takeaway from both examples is the importance of starting with the willing. Engaging farmers who are ready to act early on can help get things going and inspire others to join in. These farmers often emerge naturally and can provide their peers with examples of what might be able to be done. They demonstrate that change is not only possible but achievable. However, it is equally important to keep checking in with those who are hesitant, continually re-engaging them and offering opportunities for participation. The success of these projects was achieved by keeping the entire group moving forward, relying on the involvement of both the early adopters and the more reluctant participants.

> *As a catchment group, you see the solutions and your thinking goes forward, and if you are not looking back over your shoulder and climbing down the ladder to grab them and bring them back up, it causes trouble. It's patience… People like [group chairman] are fantastic – you need to have people like him who are happy to keep going back and pulling those people along.* Interviewee from the EAG project

Community ownership must be maintained as the project grows

As catchment group projects gain traction, a new challenge tends to emerge; how to involve more stakeholders to access the necessary resources without compromising the farmer-driven nature of the work. While many projects successfully secured funding and support from industry groups, interviewees stressed the importance of staying focused on the group's original purpose.

Understandably, different organisations tend to come with their own objectives and hope to be recognised for contributing to project outcomes. Attribution matters, but interviewees noted that how attribution is pursued can either support or undermine catchment-led projects. When external involvement tries to steer the project too much, it can pull the group in conflicting directions, potentially compromising project effectiveness.

One interviewee emphasised that this is where a trusted gatekeeper, such as the catchment coordinator, becomes essential. Their role is to manage external involvement in a way that protects the

group's integrity and ensures that farmers remain at the centre of decision-making. As the interviewee put it, "*Once you lose the farmers' trust, you lose the project.*"

Interviewees also highlighted that industry organisations should recognise that their input has the greatest impact (thereby allowing the strongest claim to attribution) when it enables and empowers communities, not when it tries to lead. Meaningful change in environmental outcomes relies on farmers, as they're the ones who ultimately make things happen.

> *We've used connections within the group to pull in support like free soil sampling, but in terms of that large funding support, [other catchment groups] have a lot more of that from some big players. You really have to fight to keep those farmers at the forefront of the decision making because once it's gone, you will lose farmers off the back left, right and centre. So that would be my number one piece of advice. Industries don't want this either – sometimes they try to do something good and they are actually harming. They need to realise that they should just leave it, let it happen naturally, and in the end, win.* Interviewee from the Balfour project

Across the four projects, farmers were intentionally kept at the centre and encouraged to take ownership by actively contributing their ideas. In Beyond Regulation and Carbon Neutral Dipton, case study farmers worked alongside consultants and led the brainstorming to decide on scenarios that could be modelled. In Balfour, the group itself shaped the focus of each project phase based on the evidence presented to them. Once mitigation options were developed, farmers were also empowered to decide what worked best for their farming business and had the freedom to opt out if a solution didn't fit. This flexibility ensured that farmers retained a sense of control over the direction of the work.

> *We did have one farmer say, "Actually, no, I don't want to do it, not at this time," and that's fine. We're not here to make anyone do anything. It may very well be that down the line he relooks at it. Every step of the way, it's been about having the farmers involved, making sure it's their decision. Trusting that they're the ones driving it, rather than trying to ram it down their throats.* Interviewee from the Balfour project

A vital part of community ownership is social interactions. These played a role in engagement and reinforcing a community-driven approach. For example, field days often ended with a social component, with a beer and BBQ, where farmers could continue their conversations informally. These relaxed settings allowed farmers to ask questions, discuss the information they'd learned, and share experiences with their peers. It was in these casual exchanges, ideas were often solidified, and farmers convinced each other to take the next step.

A clear purpose brings people together, and flexibility keeps the project moving

A clear and shared purpose is essential for any successful project. A couple of interviewees stressed the importance of first defining what the group aims to achieve, before seeking funding or diving into action. This requires choosing a focus that resonates with everyone involved so that they can rally behind it. Otherwise, groups risk spending valuable project time figuring out their direction, leaving less time for actual implementation.

> *You can't just throw money and science into the groups and think that's going to trigger an action. They need to decide that they want it. The community has to have a reason to go looking for it.* Interviewee from the Balfour project

For instance, the Balfour catchment group knows that reducing nitrogen is their core objective. This also helped others involved to maintain focus, such as scientists, as sometimes they tend to want to address everything or issues that were discovered along the way (e.g., sediment and phosphorus). Too

many competing priorities can dilute momentum and confuse farmers. In addition, many solutions, such as wetlands, can often address multiple issues without the need to tackle everything simultaneously.

Sharing a similar goal as Balfour, EAG originally was part of the wider Three Rivers Group but later chose to become a more localised group. One reason for this was that the broader catchment covered multiple landscapes and faced a range of different challenges, which made it difficult for all farmers to find common ground and work collectively on one problem.

However, the implementation process must remain flexible to adapt to real-world challenges. As one interviewee noted, community projects are inherently "messy," involving diverse perspectives, heated discussions, and unexpected delays due to weather, regulatory constraints, or seasonal workload shifts on farm. These challenges aren't flaws but a natural part of working with people, and the knowledge gained along the way will only strengthen the project's outcome. Catchment group project leaders must stay flexible, responding to local conditions and members' needs while maintaining progress toward shared goals.

2. They were built on credible science

Science played a central role in all four catchment group projects. However, it wasn't just about collecting data or producing reports. What made science particularly powerful was how it was delivered to increase community buy-in: participatory, practical, and relevant to local conditions. Science helped farmers understand their land in new ways, built trust in the process, and, crucially, gave them confidence to take action.

> *Once all the questions were addressed and data gathered, it became a turning point for the group. Farmers started to ask really interesting questions. We had another field day with an impressive turnout. It's all the science that convinced farmers to give it a go.* Interviewee from the Balfour project

Science needs to be grounded in local reality to be useful

Each project made it a priority to generate locally relevant data using technologies like soil characterisation, radiometric surveying, and LandscapeDNA. This local relevance made sure the data farmers use to guide their decision-making and actions comes from their own land and systems. It was seen as more credible, especially when it clarified or corrected broader assumptions.

For example, the first phase of the physiographic work in the Balfour project gave farmers a more accurate picture of why the Balfour Fan was considered a nitrate hotspot. By analysing soil and landscape features, the group discovered that some of the council's information, including soil classifications and nitrogen movement into streams, didn't fit locally or was incorrect. Having access to information targeted specifically at the catchment gave farmers confidence that the science was working for their benefit.

> *If you jump that [first phase of science], it won't happen. You will not get the buy in. You may get that handful of farmers who are always going to be on board, but you won't get the wider community. We had 100% engagement in this project. Everybody was across it. I don't just mean everyone was ok with it – people were at meetings, and they came to make decisions around the project. Funding cycles come and go make this tricky but you can't miss steps. You can't jump the science because if you do that, farmers just don't trust what they are hearing. It's money well spent.* Interviewee from the Balfour project

Ground truthing was a term that came up often in interviews when discussing how science helped build buy-in. Farmers frequently made connections between the data and what they saw on their own land. In many cases, the evidence either confirmed what they already suspected or challenged their assumptions in a good way. When nitrogen loss first became a topic of concern in Balfour, there was tension and finger-pointing between different farm types (e.g., some blamed arable farmers for putting in too much nitrate, others dairy, especially given the timing of dairy expansion in Southland). But the science told a more nuanced story. It showed that soil and landscape characteristics played a significant role in nitrate movement, regardless of land use. That insight shifted the conversation from finger-pointing to a shared understanding that everyone has an impact on the issue, and that everyone has a role in working out solutions.

At the farm level, science supported buy-in by offering tangible, personalised insights to farmers in the project. Across Beyond Regulation, Carbon Neutral Dipton, and the Balfour Fan, each participating farm received tailored reports based on mapping and radiography of their individual properties. For some farmers, it sparked new thinking or contributed to changes in their management practice right away. For the rest, it offered a valuable reference point for the future, even if they weren't ready to act immediately. Farmers interviewed are all optimistic that this data will be a farm-level asset that will stay relevant as new funding opportunities emerge, or when the timing is right.

> *I was blown away by the details on the report, it shows things that I didn't recognise on the farm, which is really interesting… so the next stage will be, based on this report, we will circle back to it, probably in the winter, and start having a bit of conversation about what are some of the practice we can do on farm.* Interviewee from the Balfour project

> *We haven't made any big changes specifically from the project, but I think it's made us a lot more aware of the things that we can control in terms of our emissions. It's adding to the list of things that you're thinking about, like profitability and animal welfare, when you are making a decision and more at the forefront than it was previously.* Interviewee from the Carbon Neutral Dipton project

Science needs to be done *with* farmers, not *to* them

Farmers were involved in data collection and not just as attendees, but as co-creators of the process. For almost all projects, the process of developing science and collecting evidence was purposefully used as an opportunity to create ownership and engagement (e.g., give them a call asking for the opportunity to do water testing on their farm). This collaborative approach avoided the resistance that often comes when solutions are imposed from the outside.

For example, in Carbon Neutral Dipton, modelling ideas were developed through brainstorming between case study farms and their buddy farms, then handed over to consultants to run the numbers. A Portable Nitrogen Tester purchased by EAG was circulated within the community every third Friday, and farmers were invited to bring their samples to get a free test.

As more evidence emerged, farmers became increasingly eager to be involved. In Balfour, one farmer noted that scientists or coordinators were rarely left to do the work alone. Farmers would come out with them, show them around the property, and take a more active role in the process.

> *When we were digging out the soil pits, they were out kicking stones with us and asking questions. There were a lot more buy in at that stage because they had their initial science piece, and they wanted to know more because it involved their farms, and they found it really useful.* Interviewee from the Balfour project

Fortunately, advancements in technology have made it much easier for scientists to involve farmers and show them something more tangible and / or in real time. As one interviewee praised the convenience of the Portable Nitrogen Tester used by EAG and noted, "*If you physically give farmers something, it starts that social interaction where people really start thinking about how they can do something about it.*" This has become especially true with tools like the physiographic analysis, which allows scientists to pinpoint the most effective locations for wetlands, and handheld measurement devices, which offer quick, real-time readings. These technologies have helped engage farmers in a way that makes the science feel more immediate and useful.

Science needs to lead to practical, system-aware solutions

For science to have a real impact on farms, it must be translated into practical solutions that make sense not just environmentally, but within the context of how a farm actually operates. An example of this is incorporating information and discussions on costs into the process.

When conversations about cost are transparent, there's usually less resistance and more willingness to give things a go. Both Beyond Regulation and Carbon Neutral Dipton recognised the key role of financial modelling in helping their case study farms make decisions, such as how suggested practices might affect capital investment, farm working expenses, and overall profitability. A few interviewees suggested that when investigating wetlands or forestry as solutions for farmers, more emphasis should be on how they can complement farmers' current farm system or business model, rather than solely focusing on environmental sacrifices.

> *What we would have liked more is to have [name of the rural professional] take into account the science and the specific farm and marry them up, like what they did for the individual case studies in Beyond Regulation. Because that's where you get the big benefits, and there's no point doing all of this work if it's not actually practical for the farmer.* Interviewee from the EAG project

At the catchment group level, prioritising action is key. Interviewees recognise that highly scientific, "gold-standard" solutions (such as large-scale wetlands) are ideal, but they're not always practical, particularly when costs are high and immediate benefits aren't clear. As one farmer pointed out, the priority should be to start somewhere, even if it means implementing simpler, more affordable solutions initially. These can always be expanded and refined over time as resources and knowledge grow. The goal is movement in the right direction. Farmers may not achieve the 90% nitrate reduction target with a basic wetland, but if the alternative is no action at all, they're still better off starting somewhere.

A couple of interviewees also recommended that catchment groups should carefully consider their communication strategy to avoid overwhelming or scaring farmers away. For example, one farmer suggested that instead of introducing the idea of a 65-hectare wetland from the start, it's more effective to present wetlands as a potential solution and hold off on discussing size until later. This approach gives farmers the space to engage and take the idea into consideration without feeling immediately burdened.

> *The biggest seller is farmers talking to other farmers. If you can get a couple of small ones built, farmers will go out and tell others — "I got this wetland or a wee pond put in. It's relatively simple. It doesn't have to take up a lot of area. You should have a look at it next time you go past it." Then they go, "It actually doesn't look as elaborate as I thought. Maybe I could do that."* Interviewee from the Balfour project

3. They had the right people in the right roles

Successful projects also had the right people involved. These people helped build momentum and ensure the work stayed relevant and on track.

The right catchment coordinator

A catchment coordinator can make or break a project. While qualifications and experience matter, it was clear from the interviews that the most effective coordinators brought much more than that. They were deeply connected to the community, brought the right personal qualities, and played a pivotal role in keeping things moving and grounded. Across the projects, several key traits stood out:

- **Grounded in the group's values and trusted by farmers.** The most effective coordinators weren't just working in the catchment; they were trusted because they embodied the group's values and advocated for farmers' interests. Being local often helps, as these coordinators are typically already part of the community fabric, with established relationships and understanding of local dynamics. However, what matters most is demonstrating genuine commitment rather than simply fulfilling a role.

  It's easier [for the catchment coordinator] to have those quiet conversations at kids' sports or school. It doesn't always have to be in a meeting. It just bubbles away. Interviewee from the Balfour project

  Her style works in the community, and everyone knows her. She knows when to push people as a community group and when to back off. Nothing happened over the spring because [name of the catchment coordinator] knows everyone was up against the wall, no point in asking people to do anything. Interviewee from the Balfour project

- **Skilled facilitators who could stay focused and keep things moving.** Catchment groups often brought together farmers with diverse personalities, so coordinators needed to have strong facilitation skills to manage group dynamics, defusing tension, and guiding groups toward consensus, whether in meetings or throughout the project's development.

- **Connected and resourceful.** Being attached to a catchment collective, in this case Thriving Southland, the coordinators across the four projects were able to tap into their professional knowledge and connections to help identify funding opportunities, avoid duplication, and apply lessons from elsewhere to avoid pitfalls and keep the project moving forward efficiently. They also often have a range of personal connections (because of work experience) that they can draw on.

  [The catchment coordinator's] experience and her knowledge of other projects were really valuable. We learned a lot from her. She put together a sheet of their project learnings from this other project she was involved in, and we were able to use that, so we didn't make the same mistakes. Some of those things as a group of farmers we wouldn't have thought of. Interviewee from the Carbon Neutral Dipton project

- **A gatekeeper between farmers and external parties.** When industry organisations or external experts were involved, coordinators played a vital role in managing those relationships. They ensured that the project remained grounded in the community's interests and that farmers felt safe and respected throughout the process. They helped set stakeholder expectations, clarify data use, and maintain transparency.

The right scientists and rural professionals

Interviewees highlighted several important traits when selecting the right subject matter experts for catchment group projects. The Dipton project went through a formal recruitment process for this, while others relied on referrals or word of mouth. While expertise is essential, other characteristics, such as communication skills and the ability to engage with farmers, were equally vital. One interviewee also advocated for more projects that allow consultants to invest time in upskilling in these areas.

- **Ability to communicate science effectively.** A crucial trait for scientists and rural professionals working with farmers was their ability to effectively communicate complex scientific concepts in a way that farmers could understand and engage with. One landscape scientist was consistently highlighted as a standout example of this ability across all three projects he was involved in.

  > *The last catchment meeting where they wanted all of us there, and all of us were there. What got everyone there was that [landscape scientist] had done so much science, and we learned so much and he was delivering what he had found out… [landscape scientist's] not a boring scientist either so that helps. He knows how to educate people and keep people's attention. If it weren't for [the landscape scientist] or if it were a different scientist who wasn't as good, we wouldn't have the same engagement or results.* Interviewee from the Balfour project

  This skill can be especially important in projects dealing with controversial topics. For example, when hiring consultants for the Carbon Neutral Dipton project, the group emphasised that one of the key criteria for the ideal candidate was the ability to communicate sensitive topics like carbon emissions effectively. The team knew that discussions around this could provoke strong reactions, so it was vital to have consultants who were not only knowledgeable but also able to stand up in front of a group of people and answer difficult questions.

- **Ability to build rapport with farmers**. As one interviewee noted, the most important trait for a consultant isn't always being the best scientist, but rather their personality and ability to make the learning process enjoyable for farmers. Using a local landscape scientist as an example, he praised how dedicated this person was to connecting with farmers in the field. At one field day, the landscape scientist led farmers in identifying sites and digging soil pits, which proved to be an eye-opening experience for many. "*Everyone walked away thinking – there's something in this,*" another interviewee noted. This scientist also likes to look for confirmations from farmers when he's explaining stuff, so that he knows he's pitching at a level people understand.

  To this point, having someone **local** or at least able to be physically present when needed is a great advantage. This proximity allows them to engage with farmers more easily, build trust, and provide on-the-ground support.

  > *Going out and standing there on the paddock gets everyone marching in the same direction, as opposed to a Zoom call, where everyone struggles to talk. When you can actually physically go and stand out there, I think it makes a difference.* Interviewee from the EAG project

- **Ability to take a systems approach.** One interviewee emphasised a key gap in rural professional services. There's a need for either more professionals with skills in combining farm systems and landscape features, or better training to help existing professionals develop these practical skills. They need to be able to consider the environmental outcomes, financial outcomes, and farmers' personal aspirations or goals for their business when identifying mitigation strategies.

Many forestry consultants, for example, focus on plantation forestry whole farm conversion perspective, not an integrated landscape perspective. And then you talk to somebody from MPI, and they think about it from a biodiversity perspective or a 'feel-good' perspective, but they're not thinking about it from a financial perspective. Interviewee from the Beyond Regulation project

- **Ability to meet project delivery needs.** Being able to fit within the project's timeline is crucial to ensuring timely progress and avoiding delays.

The right farmer champions

The projects also benefited from having capable and enthusiastic farmers act as champions to move the group forward and bring more people on board.

- **Willingness to take action and make things happen.** Several interviewees praised their peers for stepping up and driving initiatives, such as securing local business funding for project equipment and taking on advocacy roles.

  [One committee member] has got very little farming background, but she's young and keen and enthusiastic. She's taking on a wee bit of social media stuff, which didn't used to be a thing 10 years ago, and is really engaged, has a lot of energy and wants to do stuff. Reinvigorate everyone when you have someone like this coming onto the committee. Interviewee from the EAG project

- **Act with strong social responsibility.** As farmers themselves, farmer champions frequently used the phrase "*bang for buck*" to emphasise their goal of maximising environmental outcomes from every dollar spent.

- **Shared leadership**. Each of the catchment groups involved in the projects was driven by a group of farmers. Effective leadership requires a collective effort rather than relying on one or two individuals. Interviewees emphasised the importance of having clear roles to divide tasks and maintain momentum. For example, in the Balfour group, there is no single chair, and the role is shared among a few farmers who are all voluntarily committed to driving the project forward. This approach has helped ensure the project's sustainability.

- **Persistence and patience.** Catchment groups need farmers who are persistent in checking in with more reluctant participants and finding opportunities for them to engage, ensuring they aren't left behind.

The right case study farmers

Both the Beyond Regulation and the Carbon Neutral Dipton projects are based on case study farmers. Interviewees involved in these projects also shared their insights on how to best select case study farmers to maximise project impact.

- **Willingness to engage and stay involved during the project**, including:
  - Openness to share data and welcome people to their properties during field days
  - Willingness to learn and try new approaches.
- **Ability to make decisions on their farms**
- **Represent the makeup of the farm types in the catchment group**

In addition to these, some interviewees reflected on how **confidence and personality** can shape how effective a case study is in inspiring others. While it's easy to gravitate toward outgoing, articulate farmers, quieter or less confident participants can have just as much impact, especially when others in the community see someone relatable stepping up and succeeding. However, these farmers may need more encouragement and support to feel comfortable in the role. Taking the time to walk alongside them early in the process can help reduce hesitation and make participation more effective. Ultimately, the credibility and reach of the project are strengthened when case study farmers reflect not only the diversity of farm types, but also *the diversity of people* within the farming community.

> *But you probably also make a bigger effect with the quieter farmers. It makes it really credible for other people in the community, seeing someone who doesn't hold themselves really highly, but is doing a really good job, take on this big thing and be public. If you've got the other end of the extreme, people may not feel associated with them. If all your farmers were like that, we probably wouldn't have had the same level of interest. It was good to have the range, as long as they all had a good attitude.* Interviewee from the Carbon Neutral Dipton project

4. They made space for the things that can often get overlooked

Project management

Effective project management is often an aspect that can get overlooked in community-led initiatives, but it is essential for keeping everything on track. Both the Carbon Neutral Dipton and EAG projects deliberately allocated funding for a paid project manager role to create a higher level of accountability. In both cases, the chosen project managers are also someone who's already known by the community, which added an extra layer of trust.

Community projects often rely heavily on farmer volunteers to be on committees and drive the work. Therefore, having someone in a paid role to manage logistics, chase down consultants for figures, and handle communications (the behind-the-scenes tasks) allowed these farmers to focus on what they do best: the hands-on, community-facing aspects of the project, where their greatest value lies.

Extension of the project outcomes

When asked about the project's success, interviewees from the Carbon Neutral Dipton project consistently highlighted its impact beyond the catchment. The project effectively built on both organic and planned efforts to extend its visibility and influence:

- **Planned communications.** Interviewees highlighted the importance of having a comms budget. They planned regular newsletters to keep people updated on the project progress and purposefully included high-level government officials in the mailing list. Multiple field days were also planned to engage people and share findings.
- **Personal connections.** Farmers also leveraged their existing connections to expand the project's visibility within the farming community. For instance, they spoke at a session at the South Island Dairy Event (organised by one of their farmers) and gained media exposure through Dairy Exporter. They also used Thriving Southland's media connections to secure a spot on the Hokonui radio station.

> *So often farmers getting negative publicity but there's so much positive stuff happening. People are just doing things on their own. A lot of farmers invest a lot of money in*

improvements just because they want to, not because anyone's making them do that. Really important to share that positive stuff. Interviewee from the Carbon Neutral Dipton project

- **Buddy farm system.** This is a unique structure that the Dipton group trialled. To ensure the project's benefits extended beyond the core case study farms, each participating farmer invited neighbours or friends with similar farm types to act as buddy farms. These farmers joined field days, contributed to project discussions, and followed the journey more closely. They were able to take the ideas from the case study farms home in real time and think about how this might work on their farms.
- **Organic opportunities.** Due to the topic of carbon being topical at the time, the project also received significant publicity through opportunities that popped up. Key farmers were featured on RNZ National and invited to speak at other catchment groups' events (e.g., WAI Wānaka)

Due to limitations with funding and time, project outcomes often tend to focus primarily on the immediate farmers or catchment group involved. However, it's crucial to consider from the outset how the outcomes can be extended beyond the core group (e.g., organising events, using a buddy system, budgeting for comms, etc). As one interviewee from Beyond Regulations pointed out, projects like this should evolve beyond just more case studies. Options like a second phase, focused on refining processes and scaling impact, should be considered to create lasting change.

5. They were backed by the support and resources they needed

A network of catchment groups

Having a central body like Thriving Southland was considered highly beneficial by several interviewees in several ways. Its presence helped establish a network of connected, well-supported catchment initiatives.

- **Oversight and knowledge-sharing.** With visibility across different groups and projects, Thriving Southland were able to connect ideas and opportunities, share lessons learned, and avoid duplication. For example, the Dipton project learned about the selection of case study farms from Makarewa Headwaters, and EAG and Balfour were able to link up because of their similar focus on nitrate loss.
- **Capability building.** Thriving Southland provide more organised support and training to their catchment coordinators and catchment leaders (e.g., facilitation skills).
- **Logistical and administrative support.** This includes managing invoices, liaising with funders, and keeping track of project progress.
- **Access to expertise.** Thriving Southland created a central point where farmers could connect with the right people.
- **Advocacy.** When issues arose that needed systemic attention, Thriving Southland could elevate them by passing concerns through council connections and making sure these conversations were happening at the right level.

We did strike some barriers around consent. Obviously, as a community, we would tackle it together. And this is where it's really great to have Thriving Southland involved because we can send this further up the chain to the team and the board, and they can talk to ES. And

those conversations are ongoing. If that was just farmers on their own, they would have just given up. Interviewee from the Balfour project

While Thriving Southland provided this framework for many groups to lean on in Southland, interviewees also noted that sometimes these supports can come from other places. For instance, DairyNZ supported the Balfour project by managing the paperwork and consent process for wetland installation, making it easier for farmers to participate. Other groups allocated paid roles to cover these support functions (e.g., paid project manager). Reviewing these projects also highlighted the need to keep up to date with what other farmers are doing outside of the region. An example of this was from the EAG group. Early on, EAG invited a Canterbury catchment group to speak about their experience. This also introduced them to the nitrate meter tool, which EAG later adopted for water testing with farmers.

Funding

Having access to funding is undeniably essential for the success of these projects. Funding allowed catchment groups access to science and technology, to hire the right people for the job, and to implement tangible solutions on the ground. But funding on its own did not bring success. The application of the lessons and themes outlined above, ultimately led to the success of the projects and catchment groups. Funding, along with driving a project from the ground up, building on credible science, having the right people in the right roles, making space for the things that can often get overlooked, as well as being backed by the support and resources required, made these project and the catchment groups effective and meaningful.

6. They don't shy away from tough challenges

Regulation holding back progress

The catchment groups interviewed are deeply committed to making a difference on the ground, but they reported often being held back by regulatory hurdles, particularly when it comes to installing wetlands or other edge-of-field mitigations. When asked about current and future challenges, nearly all interviewees pointed to the difficulties with regional and central government policies and consent processes. These barriers tend to show up in three ways: the cost and complexity of consents, motivation, and the disconnect from local realities.

In some cases, the **cost and complexity** of obtaining consents have significantly delayed projects or made them financially unviable. This clashes with the widely held view in these communities: that every dollar should be spent on the ground, delivering real results – the best *bang for buck*.

> *Farmers found it really frustrating because we'd done so much work, and we knew the end result was going to be a real win for the environment. But these rules were just put there without taking into account the value of what was going to be created. That was a real frustration for farmers. They didn't want to go and spend tens of thousands of dollars on consents to put in something that was really going to benefit the whole of Southland.* Interviewee from the Balfour project

Rules can **demotivate** the very people who are willing to act. Some interviewees spoke about missed opportunities to bring people along, a role they believe the government should play by enabling, not obstructing, community-led change. One farmer spoke frankly about their concern that doing everything "right" up front might lock them into a future regulatory position (e.g., through grandparenting), with no way to demonstrate further reductions. Others also mentioned examples

where landowners scaled back or abandoned plans to avoid triggering regulatory thresholds or costly consents.

> *The edge-of-field stuff might end up really frustrating… Even if we get everyone engaged, if they can't actually go and build something, they are going to go — why am I doing this? Doing the right thing shouldn't cost you a lot of money and take a lot of time.* Interviewee from the EAG project

At times, the rules can be **disconnected from local reality**. Multiple interviewees described situations where science clearly identified a high-value wetland site, but council rules blocked action because of the ecological value that had developed in the area, even if that value was from a man-made or modified system.

The only solution to this challenge, as one interviewee highlighted, likely relies on the **leadership** inside the council to do the right things for their region. Even though this is out of the control of farmers and catchment groups, many have worked hard to bring council and agency staff on board, opening conversations and raising awareness about the unintended consequences of current regulations. These catchment groups understand the rules are designed to prevent harm, but they also see a missed opportunity when bureaucracy gets in the way of doing genuine good.

Challenging conversations take time and a system that backs it

Some of the most difficult conversations within catchment groups are not technical or scientific, but social. Examples raised by the interviewees are mostly centred around wetlands, including who claims mitigation benefits, long-term wetland maintenance (is this an asset or liability? How to maintain the wetland if the property sells?), and data sharing. There's no silver bullet for these types of conversations. However, the foundations for these tough conversations have been built through the themes outlined above. To continue to make progress, i.e., keeping these conversations ongoing while avoiding being stuck in them, groups need to continue prioritising simpler solutions, having good science, and building a strong foundation of trust. More work is needed to understand how to support these conversations over time. However, some useful insights shared by interviewees include:

- **Make it practical for farmers to implement.** It helps when mitigations that complement a farmer's current farm system, not against it, are prioritised. Focus on utilising marginal land or choosing options like bioreactors (smaller land footprint than constructed wetlands) makes action more achievable and less financially risky for farmers.
- **Make it low cost.** In the Balfour project, for example, paperwork and logistics are handled by DairyNZ to install wetlands, and funding was available so it's not a real cost burden, making it easy for farmers to say yes.
- **Let the evidence speak for itself.** The consensus from the interviewees is that farmers are generally much more aware of the importance of environmental sustainability now and are more open to exploring ways to improve their environmental outcomes. Once they can see the clear benefits to local waterways (why certain spots are being picked), many can get on board fairly quickly.
- **Build trust first.** Trust is often the foundational factor in whether farmers choose to take part. When they trust the science, and trust that the people involved have their back and won't hurt their business, they're more likely to engage.

- **Respect farmers' decisions.** A couple of interviewees reiterated the importance of giving farmers time and space to come on board in their own way. For example, even if some aren't ready to share data, simply having access to it helps them make informed decisions when the time is right.

More tangible ideas like **global consents, community lease models, or adjusted rates** for those who give up land have been discussed, but these ideas are hard to implement without the **right system** behind them. Until the broader regulatory and funding environment catches up with what farmers are trying to achieve on the ground, communities will keep hitting roadblocks. This highlights the need for regional and national systems that facilitate and support catchment-led decisions and on-farm changes.

> *In terms of the conversations, it's a tricky one, you can't get to the bottom of it. I suspect it's gonna be a conversation over the next 10 years. Farmers are all tight with budget at the moment. This is a conversation that needs to be had at the regional level or even the national level. Some communities may be able to do it because the land is not that valuable, but for areas that are valuable, farmers are unlikely to sell it for less than what it's worth to farm on it.* Interviewee from the Balfour project

Relationships with local rūnanga

Catchment groups see real value in working more closely with local rūnanga but acknowledge this hasn't always been easy. In many cases, engagement has been limited, often due to resourcing and capacity constraints on both sides.

Several interviewees shared their plans for moving forward or reflected on their wish that they had involved rūnanga earlier, especially when planning projects like wetlands, where cultural and environmental values align. Interviewees recognised that the key is to keep engaging, even if progress feels slow. Invite rūnanga representatives to events and hui, include them in committees, and offer chances to visit mitigation sites. Small, respectful steps can build the trust needed for stronger collaboration over time.

Appendix A: A summary of initial document review

This document has been prepared by Scarlatti as the first step in the research to understand and document what is essential for enabling catchment-wide land use choices and decision-making. For the detailed list of the documents being reviewed, please contact the Thriving Southland team.

Projects involved

The main focus of the research is the Understanding your Landscape's Resilience: Beyond Regulation project aimed at addressing the critical need for sustainable land management practices in the Mataura catchment. Funded by the Agmardt Food and Fibres Aotearoa New Zealand Challenge, this project identified targeted mitigations to reduce environmental impacts while aligning with farmers' goals and supporting financial resilience. It was undertaken in collaboration with Land and Water Science Ltd (LWS) and Thriving Southland. The success achieved by the Beyond Regulation project and the Mataura catchment has been a key inspiration for the current research.

In addition, Thriving Southland also recommended the following projects to be included:

- Targeted Solutions to Balfour's Environmental Challenges (Balfour Catchment Group)
- Understanding the movement of nutrients (Edendale Aquifer Group)
- Carbon Neutral Dipton (Greater Dipton Catchment Group)

Factors that contributed to the success of the projects

Based on the available documentation, there is strong evidence suggesting that the following factors have contributed to the success of these projects. It should be noted that most evidence comes from the Beyond Regulation project as it has significantly more documentation available than the others. Where relevant, examples from the other projects have been included to provide a broader perspective.

- **Accessible technologies and expertise for farmers to make informed decisions.** The Beyond Regulation project enabled farmers to work with specialists in a range of fields and utilise data from advanced technologies that would otherwise be difficult to obtain (e.g., radiometric surveys, hydrology, landscape susceptibility mapping, and OverseerFM modelling). This allowed them to thoroughly understand the environmental challenges on their farm and the potential consequences of adopting certain changes. Similarly, the Balfour Catchment Group project also involved working with LWS to develop a high-resolution soil map using radiometric and digital terrain modelling so that land managers could use science-backed information and tools to make decisions about reducing their nitrate levels.
- **Effective decision-making based on both potential environmental and financial consequences.** Even though environmental benefits tend to be the main driver of land-use projects, both the Beyond Regulation and the Carbon Neutral Dipton projects highlighted the key role of financial modelling in supporting the adoption of changes (e.g., understanding the impact on capital investment and farm working expenses and how it compared to previous seasons). The highly positive feedback from the case study farmers reinforced this point.
- **Actionable recommendations.** Within a catchment, the land susceptibility could be vastly different. The Beyond Regulation project ensured the data collection and solutions were directly applicable at the farm level. Moreover, a spectrum of tailored and practical options

ranging from system optimisation (e.g., using alternative fertilisers or feeds) to land use (e.g., establishing wetlands) were provided, enabling farmers to select changes based on how achievable and effective they are.

- **Close collaboration and open discussion between farmers and experts.** For all three case study farms in the Beyond Regulation project, their goals and backgrounds were discussed and taken into consideration. Working closely with farmers during the process fostered trust and ensured the solutions were realistic, achievable, and aligned with the farmers' operational goals.
- **Peer-to-peer learning.** The Carbon Neutral Dipton project employed a "buddy system", where each of the case study farms worked with their neighbours and community members to brainstorm ways to reduce GHG emissions on their farm. This approach was highly regarded by case study farmers, buddies and the project team, enabling ideas to be exchanged and lessons from the project to be disseminated to the wider catchment in real time. The Beyond Regulation project also reported a farmer from the wider catchment examining their own practices as a result of learning about one of the case study farms.
- **Proactive extension planning.** All projects considered the ongoing engagement with catchment groups and farmers a cornerstone of their strategy to support the widespread dissemination of project findings and the adoption of sustainable practices. The approaches included field days, digital resources, social media, and focus groups.

Implications for the current research

While the above factors are essential for project success and there is evidence of farmers considering the broader environmental impact of their practices, this does not directly address the core focus of the current research. That is, there appears to be a gap in the documentation focusing on the actions or discussions at the catchment level. More importantly, there are few insights on what made having those conversations and a shift from considering changes at a farm level to a catchment level possible. The "what" (enablers), "who" (catalysts), and "how" (processes) that the research needs to identify and document include:

- What does this process of enabling a catchment-level thinking / conversation look like?
- What approaches (activities and resources) were taken to get everyone off-farm and talking?
- Which individuals were key drivers who acted as facilitators or leaders during this process?
- What are the barriers to catchment-level collaboration and how can they be overcome?

Appendix B: Interview guide

Below is the interview guide designed to explore the what, who, and how within exemplar catchment projects, with the aim of identifying practical takeaways and strategies that other initiatives could adopt to support catchment-wide land use choices and decision-making. The guide provided a flexible structure to support open, conversational interviews, ensuring key themes were covered while allowing space for interviewees to share their experiences and insights.

Project team / key personnel

These questions are designed for people who are closely involved in the administration of the project (e.g., project coordinator / manager, catchment group committee members) to gain a thorough and comprehensive understanding of how the project was designed and implemented to achieve the catchment level outcomes.

Theme	Possible interview questions
Introduction	Can you describe the project, its goals, and your involvement?
	What success has the project had? • Prompt success at the catchment level in particular • Prompt specific examples
Process	Can you walk me through the journey that the project went on, particularly how it arrived at the collective outcome you've achieved or observed?
Enablers	What factors or conditions stand out as being particularly important or influential?
	What resources or tools were essential for enabling this?
Catalysts	Who were the key people or groups that drove this shift to catchment-level thinking?
	What were the relationships or networks being built or accessed to make this happen? • Prompt the approaches or processes they used to build these relationships
Barriers	Was there anything that posed challenges during this process or limited the project from progressing this catchment level outcome further? • Prompt what they think could mitigate these challenges
Future advice	If you could replicate this project in another catchment, what would you prioritise or do differently to make this process better?
End	Thanks for your time! Is there anything else you would like to add before we finish the interview?

Farmers / other stakeholders

These questions are designed for people who participated in the project as case studies or observers (e.g., farmers, council members) to understand their perspectives on what made this project stand out compared to other initiatives in which they have been involved.

Theme	Possible interview questions
Introduction	How did you first hear about this project, and what was your initial impression of it?
	What was your involvement in the project, and how has it impacted your farm/work?
Personal changes	If you've made changes – What were the things you weighed up when you made those decisions?
Project outcome	Have you noticed any changes in your catchment because of the project (catchment-level discussions or practices)?

Theme	Possible interview questions
	Who have you connected or collaborated with as part of this project? • Prompt if any of these connections are new and if so, what made this possible?
Enablers and catalysts	In your experience, what do you think made this project different from other projects you've been involved in? Specifically, what do you think helped this project move toward catchment-level discussions / decisions, whereas others may not have progressed that far? • Prompt answers from their own perspective (e.g., what made them involved more or do more) and from what they heard / observed (e.g., what made more people participate and have this discussion)
	Were there other specific people, resources, or things they did in this project that stood out to you as making a real difference, and future projects or catchment groups could learn or consider doing as well?
Barriers	Was there anything that posed challenges during this process or limited you or the catchment from progressing further? • Prompt what they think could mitigate these challenges
Other experiences	Have you been involved in any other projects that prompted catchment-wide decisions or changes? • If yes, please give a brief overview / tell us about this experience • What helped prompt catchment-level discussions / decisions compared to other projects?
End	Thanks for your time! Is there anything else you would like to add before we finish the interview?