

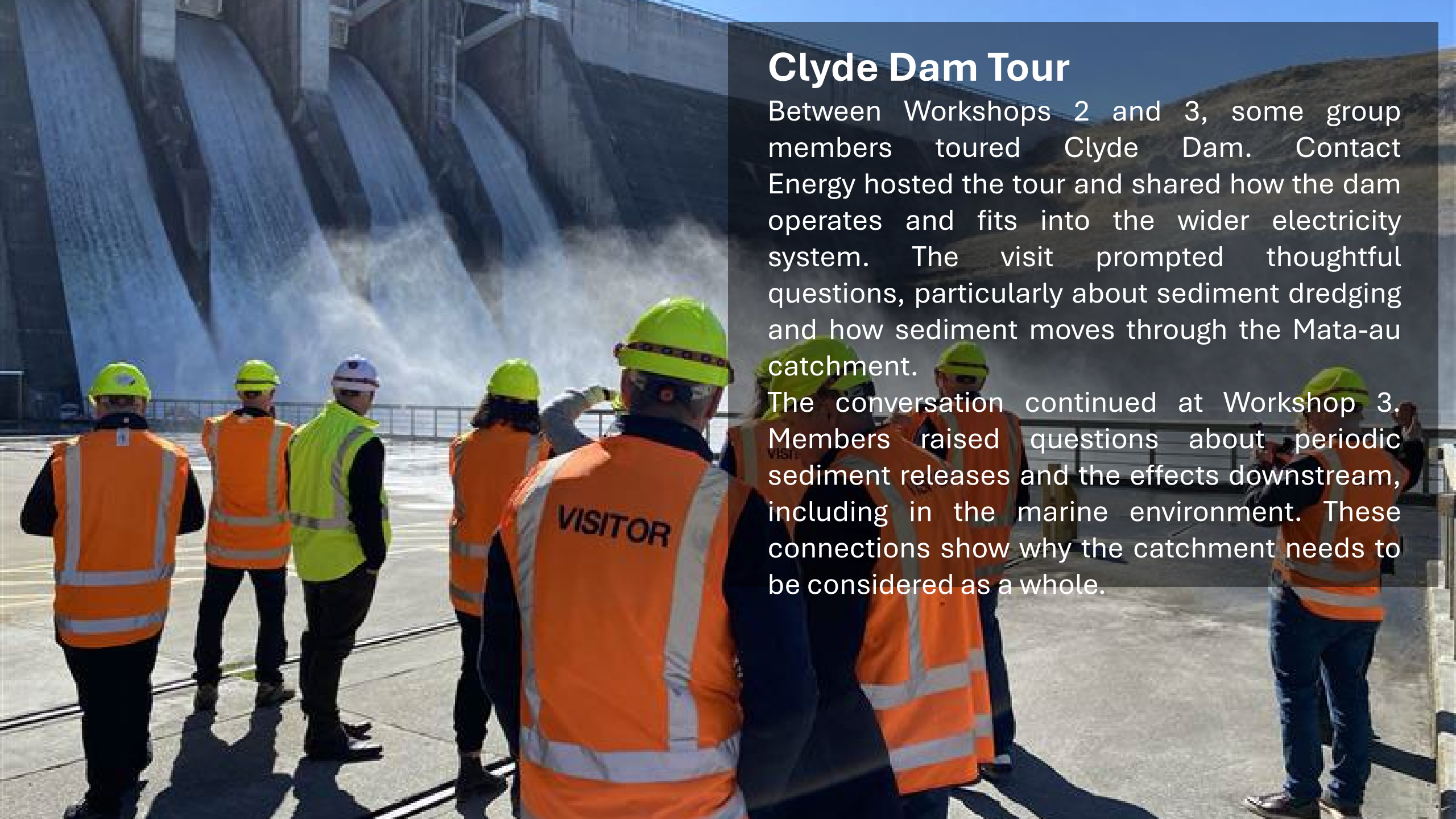


Lower Mata-au/Clutha

Integrated Catchment Group Workshop 3

22 September 2026 – Balclutha

We gathered at the Cross Recreation Centre in Balclutha on a sunny, blue-sky day for our third workshop. Thoughtful conversations and a real willingness to share knowledge and different perspectives helped us explore what is affecting the catchment, develop draft goals, and begin shaping a shared vision for its future.

A group of people, mostly men, are standing on a concrete walkway at a dam. They are wearing high-visibility orange safety vests and yellow hard hats. One vest in the foreground has the word "VISITOR" printed on the back. They are looking towards a large concrete dam structure where water is cascading over several spillways, creating a misty spray. The background shows a clear blue sky and a dry, hilly landscape.

Clyde Dam Tour

Between Workshops 2 and 3, some group members toured Clyde Dam. Contact Energy hosted the tour and shared how the dam operates and fits into the wider electricity system. The visit prompted thoughtful questions, particularly about sediment dredging and how sediment moves through the Mata-au catchment.

The conversation continued at Workshop 3. Members raised questions about periodic sediment releases and the effects downstream, including in the marine environment. These connections show why the catchment needs to be considered as a whole.

Clyde Dam Tour



Seeing how things connect

We used "situation diagrams" to explore what is affecting the health of the catchment and why. They helped us trace connections between:

Drivers – the underlying reasons something happens, such as costs, rules, or changing weather.

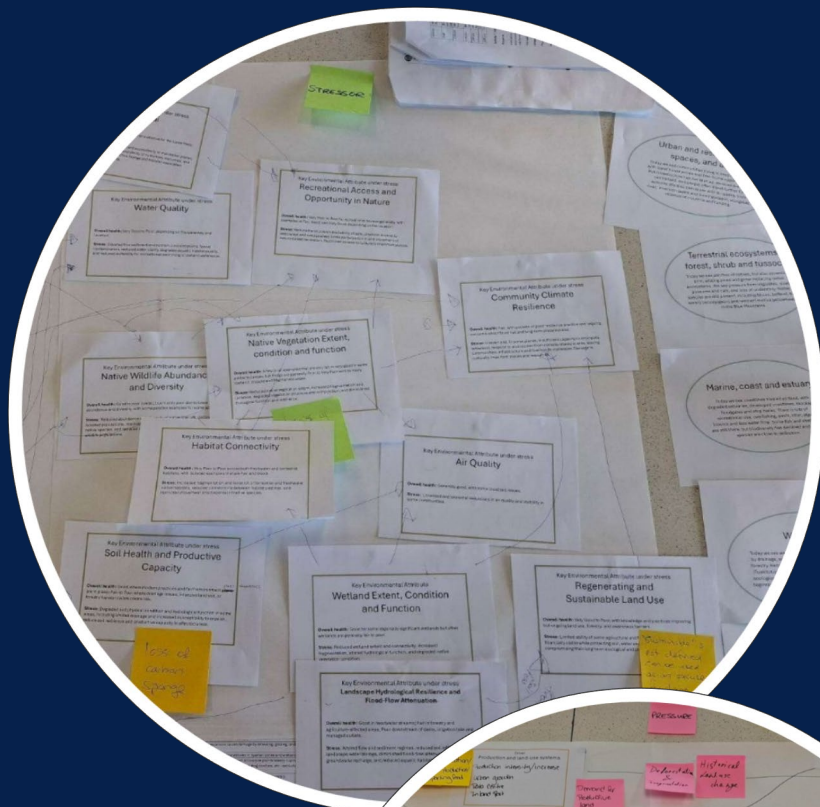
Pressures – activities or processes that affect the catchment, such as vegetation clearance or wastewater discharges.

Stressors – the resulting changes, such as increased sediment in rivers or loss of habitat.

From there, we looked at which parts of catchment health were affected and how several drivers and pressures can compound. A diagram can show several connected pathways, rather than a single cause and effect.



We worked in three table groups
And we had quite a lot to talk about!
The following pages capture the discussion.
Detailed diagrams are in production at ORC.



Urban, infrastructure and climate pressures

What's the story?

Table 1 explored how economic conditions, policy, development and climate change shape land use and infrastructure. Growing global demand for food, housing and services can intensify land use. The group considered developments such as the Inland Port, data centres and a prison, alongside the loss of native vegetation and habitat where land has been cleared.

Economic conditions influence outdoor burning, stormwater and wastewater systems, river works and coastal development. Ageing stormwater and wastewater infrastructure may struggle to cope with growing demand and heavy rainfall, increasing the risk of overflows and polluted runoff reaching waterways. River and floodplain works, dams, fords and culverts can change flows and restrict fish passage, while stormwater and wastewater can affect water quality. These choices involve trade-offs between community needs and environmental health.

Vehicles on beaches, dunes and wetlands can disturb wildlife and damage habitat. Burning household or farm plastics can pollute the air. More severe weather and rising seas add to flooding, erosion and drainage challenges. Past land-use change and changing farm practices also affect soils and productive land.

Changing community connections, mobility and knowledge influence how people prepare for and respond to flooding, coastal erosion and other extreme weather events. Education, Civil Defence and health and safety help, but their capacity can be constrained. The diagram showed how these pressures build across waterways, habitats, recreation and community resilience.



Urban, infrastructure and climate pressures

Below are the big themes for the situation diagram

Theme: Infrastructure affects water

Urban growth and ageing infrastructure → greater pressure on wastewater and stormwater systems. River and floodplain works, dams, fords and culverts → alter river flows and restricted fish passage. Together, these pressures can affect water quality and aquatic habitats.

Theme: Demand shapes land use

Economic conditions and growing demand for food, housing and services → more intensive production and development → greater demand for land and infrastructure → native vegetation and habitat may be cleared, water and soil may become less healthy.

Theme: Climate adds pressure to those choices

More severe weather and rising seas → greater flood, erosion and drainage challenges. Past river straightening and loss of floodplain space can make flooding worse → more pressure for river works. Planting along rivers can help slow flows and reduce flooding on farmland.

Theme: Behaviour and preparedness shape the wider effects

Burning plastics → poorer air quality; vehicles on beaches and wetlands → damaged habitat and disturbed wildlife. Changing community connections and knowledge → different levels of preparedness → effects on recreation and community resilience. Education and Civil Defence can help but it needs capacity and support.



Biological pressures

What's the story?

Table 2 looked at how the effects of invasive species and catchment health are related as a connected system.

The ways invasive species arrive and move through the catchment affect where they spread. Climate and other environmental conditions influence how readily they establish and spread. Knowledge and people's values shape central government priorities, which in turn influence the funding and capacity available for biosecurity work. As priorities change, so do the resources and public support for controlling pests and weeds, and this shapes what happens next. As invasive species spread, controlling them can take more time and resources.

Different species affect the ecosystem in different ways. Introduced predator mammals prey on native wildlife, while introduced fish can prey on or compete with native fish in vulnerable habitats. Rabbits browse and graze vegetation and disturb soils; deer, goats and pigs also trample habitats. Wilding conifers and other woody weeds change vegetation cover, while aquatic pests modify waterways and can contribute to habitat loss and fragmentation. Some introduced species, including sport fish and game animals, are also valued for recreation. Management therefore needs to consider those values alongside their effects on native species and habitats. How these species are controlled, and people's awareness of their impacts, influence the damage they cause.

These effects can build up in the same place, changing vegetation, soils, wildlife and habitat connections, including below ground in active soil biology. When invasive species have been widespread for a long time, shifting baselines can also make a degraded landscape seem normal.

Biological pressures

Below are the big themes for the situation diagram

Theme: How invasive species spread

Movement of people, animals and materials → pathways for invasive species to spread.
Changing climate and weather → conditions favour some species → more places where they can establish.

Theme: Why control gets harder

Shifting priorities of central government → limited funding and public support → limited control capacity → invasive species spread further → more time and resources needed for control → control capacity stretched further.

Theme: Different pests, connected effects

Predator mammals → fewer native wildlife.
Introduced fish in vulnerable native fish habitats → predation and competition. Rabbits, deer, goats, and pigs → browsing, trampling and soil disturbance. Willows, other invasive plants and aquatic pests → altered wetlands, waterways, and vegetation. Several of these pressures can act on the same habitat, including its soil biology.

Theme: What changes across the landscape

Combined habitat damage → fragmented habitats, declining native biodiversity and effects on productive land and recreation → degraded conditions become familiar → harder to recognise how much the landscape has changed.

Productive land and industry pressures

What's the story?

Table 3 followed land-management choices back to farm costs, debt, the need to stay profitable and incentives such as ETS returns. These pressures can drive more intensive production or forestry in places where it may affect soil, water and productive land. The group called for the “right tree in the right place,” rather than “trees at any cost.”

Changing seasons make the timing of farm work harder. Wetter winters and a late start to spring leave less time to graze, cultivate or apply fertiliser in suitable conditions. When everyone needs people and machinery at once, work may have to go ahead in not so ideal conditions. Working in poor conditions can send more sediment and nutrients into waterways and damage soil health. Water abstraction can add to low river flows.

The group connected the loss of tussockland and other native vegetation with faster-moving water, flooding and fragmented habitat. They also traced what happens to people when costs rise, seasons go badly and hard work brings little return. When costs rise and returns are low, financial stress can leave farmers less time and money to change practices or invest in soil and water improvements.

When people see mud or smell farm activity without understanding the decisions behind it, complaints and social media can deepen the divide between town and country. The group linked a loss of understanding and connection, to fewer chances to come together and a resulting decline in community wellbeing.



Productive land and industry pressures

Below are the big themes for the situation diagram

Theme: Costs shape land-use choices

High land values, debt and operating costs → needs to stay profitable → pressure for more output or attractive ETS returns → intensification of forestry on unsuitable land → possible effects on soil, water and productive land.

Theme: Changing seasons narrow the window

Wetter winters, late springs and extreme weather + limited people and machinery → less flexibility to work in suitable conditions → grazing, cultivation and fertiliser use become harder to time and coordinate → possible damage to soil and water → reduced productive capacity → more financial pressure.

Theme: Land and water changes compound the effects

Loss of tussock and native vegetation → faster runoff, greater flood risk and fragmented habitat. Water abstraction → lower river flows. These changes add pressure to land, waterways and communities.

Theme: Financial stress becomes community stress

Rising costs and difficult seasons → stress for farming families. When farming decisions are poorly understood, complaints and social media can deepen town–country tension → weaker connection and community wellbeing.



Turning the situation into goals

After exploring what is affecting the catchment and why, we asked what change we want to see. Each group returned to their situation diagram and identified the outcomes that mattered most. The groups needed to work together across tables to draft goals for healthier places and stronger communities.

These are starting points to test with the wider community before deciding what actions the plan should take.

The goals at a glance.

We will ask the rest of the community what they think via a survey before workshop 4.

Wetlands: Valued, resilient and biodiverse, with no further loss and restoration underway.

Air quality: Better understanding and fewer poor air quality days.

Soils: Living, resilient soils that hold water and carbon.

Habitats and wildlife: Connected habitats support more native wildlife and vegetation, with good fish movement.

Waterways: Improving water quality and quantity support drinking, swimming, mahika kai and sensitive species.

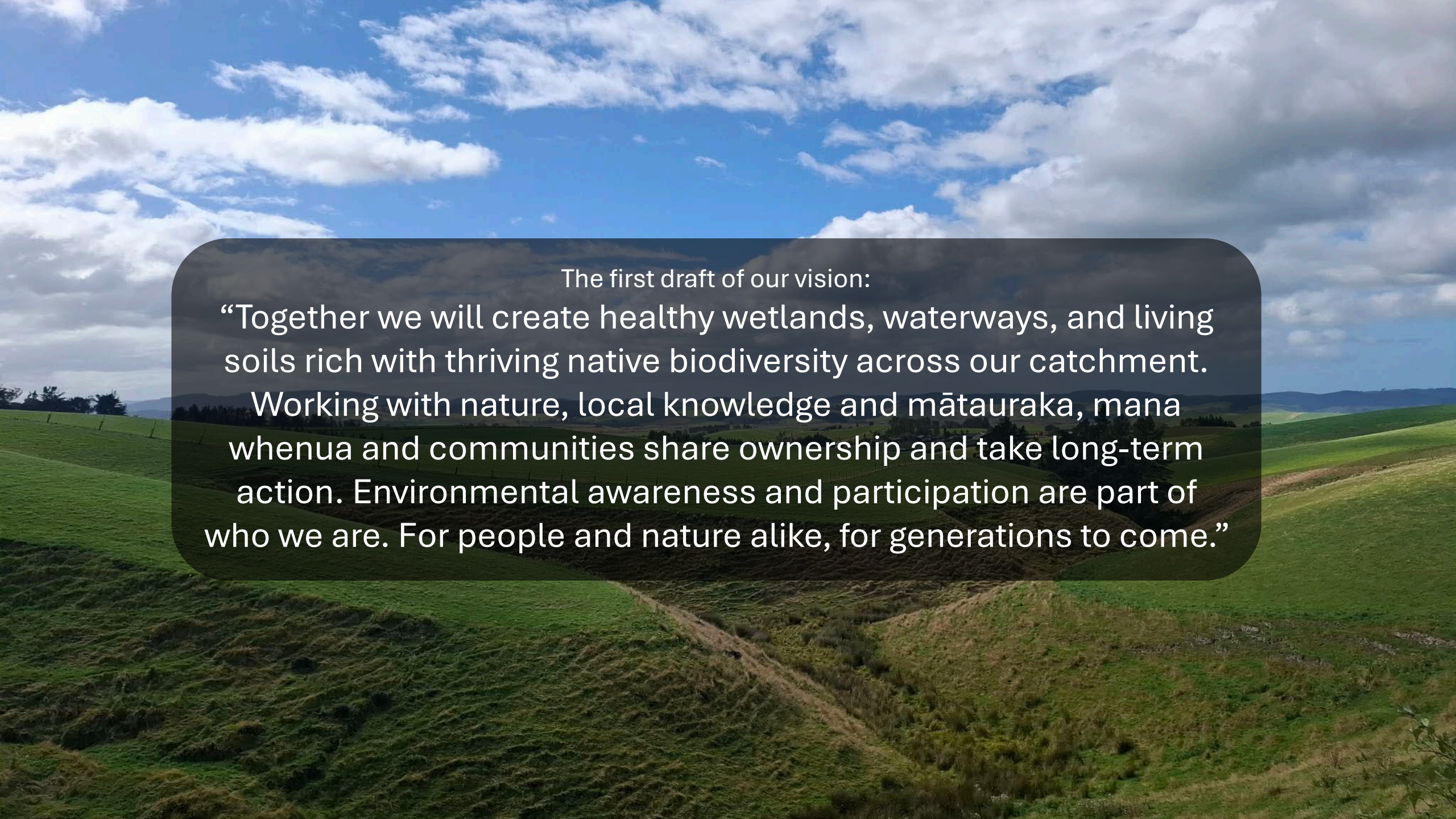
Community preparedness: Greater resilience to floods, coastal erosion and extreme weather by working with nature.

Recreation: Better access to nature and sustainable harvesting.

Creating a shared vision

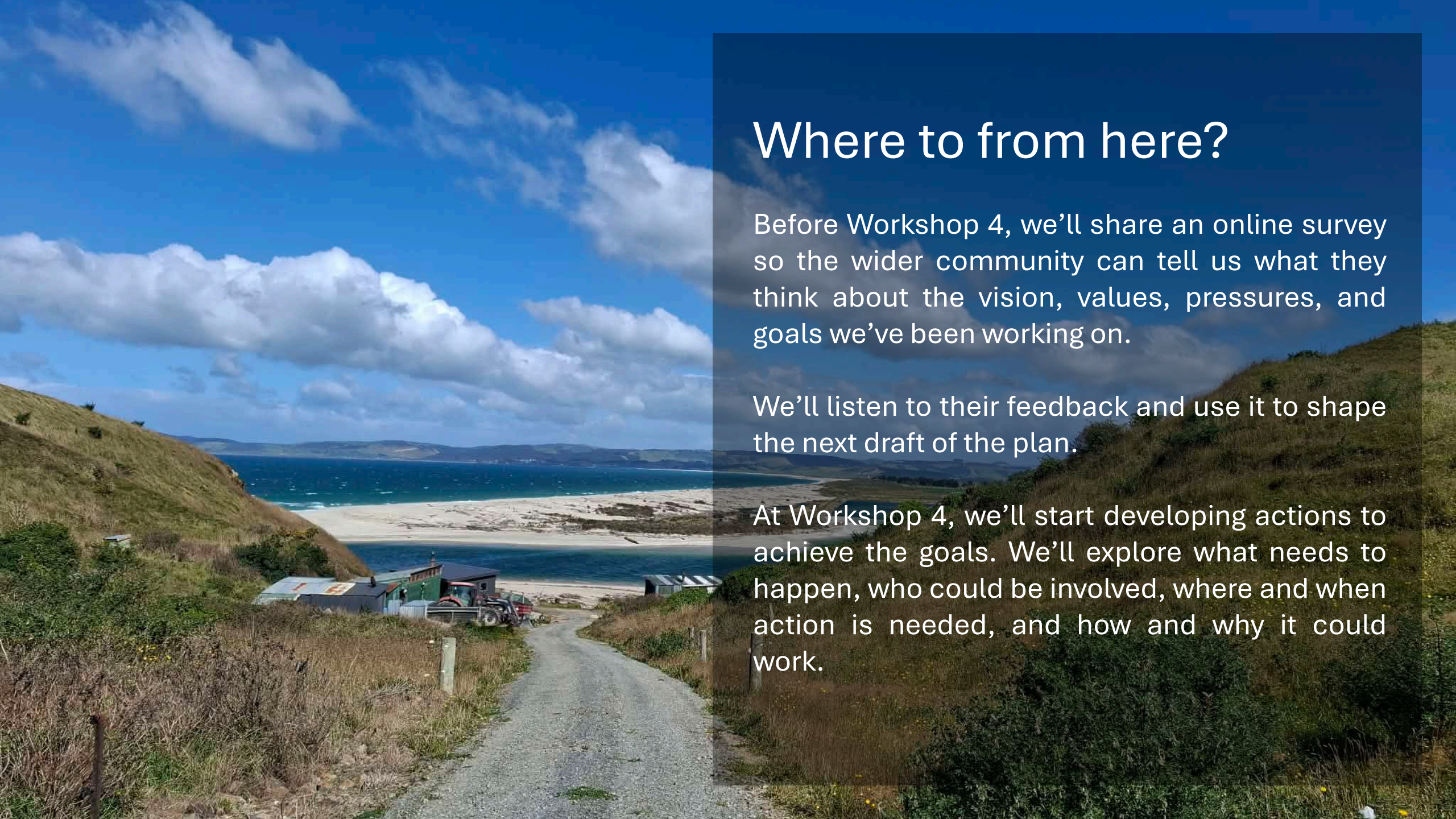
At Workshop 1, we brainstormed what we value about the catchment and what we hope its future could look like. This time, we brought those ideas back as words and phrases on cards. Working together, we moved the pieces around, added new ideas, and joined them into a draft vision statement for the plan. It captures the future we want to work towards across the catchment.





The first draft of our vision:

“Together we will create healthy wetlands, waterways, and living soils rich with thriving native biodiversity across our catchment. Working with nature, local knowledge and mātauraka, mana whenua and communities share ownership and take long-term action. Environmental awareness and participation are part of who we are. For people and nature alike, for generations to come.”

A scenic coastal landscape featuring a gravel path that leads from the foreground towards a sandy beach and the ocean. The sky is a vibrant blue, filled with large, white, fluffy clouds. In the distance, rolling hills and mountains are visible across the water. On the left side of the path, there are some small, rustic buildings and a red tractor parked nearby. The overall atmosphere is peaceful and open.

Where to from here?

Before Workshop 4, we'll share an online survey so the wider community can tell us what they think about the vision, values, pressures, and goals we've been working on.

We'll listen to their feedback and use it to shape the next draft of the plan.

At Workshop 4, we'll start developing actions to achieve the goals. We'll explore what needs to happen, who could be involved, where and when action is needed, and how and why it could work.