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ENVIRONMENT SOUTHLAND

WATER:

Rapid Literature Review of Perceptions and Learnings from Collaborative Processes in NZ

environment SOUTHLAND REGIONAL COUNCIL
Te Taiao Tonga

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Disclaimer

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Introduction

This document provides a rapid evidence review of perceptions of water and the key learnings from other engagement process in New Zealand. Reference material has been sourced for recency and relevance but is by no means a complete and systematic review of the whole range of material available. The purpose of the document is simply to ensure learnings from other projects are taken into account in the shaping of the next stages of the community engagement process for Southland.

1.1 Key Learning Points

The engagement process should be governed by the following principles:

- Inclusivity (wide public involvement)
- Active participation
- Transparency and accountability
- Integration (incorporate iwi engagement at an early stage, avoid polarising approaches e.g. between urban and rural communities; actively fostering understanding)
- Efficiency (e.g. build on existing relationships)
- Flexibility and responsiveness
- Competence

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Perceptions of water

Public perceptions research shows that New Zealanders believe the standard of living in New Zealand is 'adequate to good' and better than in other developed countries. New Zealand is seen as a 'clean and green' land and the state of the New Zealand natural environment is also believed to be adequate to good[1].

However, despite reasonable perception levels overall, the state of rivers and lakes is viewed more negatively. Water related issues are consistently rated as the most important environmental issue facing New Zealand, while Greenhouse Gas Emissions and Climate Change are the most commonly identified global issue:

- Rivers, lakes and marine fisheries were rated as being in the worst state in comparison with the states of air, native bush and forests
- Rivers, lakes and groundwater were perceived to be the worst managed parts of the environment
- Farming is viewed negatively within this space. Management of farm effluent and runoff continues to be perceived very negatively; farming was perceived to be one of the three main causes of damage to freshwater and was also considered an important cause of damage to several other resources;

These views are significant as water holds a place of substantial importance for New Zealanders. Water values are strongly bound in tradition as well as economic, environmental, social and cultural considerations:

- economic – to create income and wealth, both efficiently and equitably (agriculture, industry, hydroelectric energy, fisheries, tourism)
- environmental and conservation– to support the country's biodiversity, the ecosystems and its services
- social/recreational and cultural – to respect the social and cultural meanings and uses of water for all New Zealanders.

Managing water and responding to the values New Zealanders hold is often referred to as a "wicked problem"; it is complicated by the relationships between values and uncertainty. Many of the relationships between aspects and values are often not immediately discernible or understood and they will be different for different groups in society. This combines with increasing competition for water use.

Determining appropriate action to take in freshwater management has to be an iterative process requiring broad engagement and deep consideration about the implications of possible choices on different stakeholder groups. To:

1. Understand society's preferences about how we use and value water,
2. Inform society on a scientific level, and to
3. Overcome inertia on the part of users and institutions.

1 Hughey, K.F.D., Kerr, G.N. and Cullen, R. 2016. Public Perceptions nof New Zealand's Environment: 2016. EOS Ecology, Christchurch. vi+82 pp. ISSN 2230-4967.

Broad stakeholder groups:

- Local government (policy makers and resource scientists from regional councils);
- Environmental government (agencies with statutory involvement in water management, including the Department of Conservation and Fish & Game New Zealand);
- Iwi (Mäori engaged in resource management);
- Water users – economic (groups and individuals using water under resource consents, such as irrigators, hydroelectricity generators and their consultants)
- Water users – social and recreational
- In-stream stakeholders (members of interest groups such as Forest & Bird and recreational groups).

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Current Issues

Freshwater management occurs in a complex context with a range of different social, cultural, economic and environmental aspects that interact in different ways and with different emphasis for different groups.

For example, environmental groups may focus on water abstraction where irrigators see problems of water availability and reliability. Farmers may see land use intensification as economic growth where recreational users see swimmability effects.

Factors in the mix for a community considering water include:

- Water quality
- Water quantity
- Social and cultural wellbeing – including the difficulties in quantifying the values in recreational use, ecosystem health and diversity, aesthetics and amenity and cultural and spiritual values
- Financial security
- Adaptability – durability and flexibility of businesses and individuals to adapt land use and behaviours in response to drivers
- Agriculture (e.g. Irrigation, water storage, keeping stock out of waterways, land use intensification)
- Municipal and industrial sites as sources of contaminants
- Population size and forecast growth
- Urbanisation
- Water infrastructure (e.g. flood protection, irrigation, electricity generation)
- Technology – innovations on physical and economic technology
- Water allocation – access and distribution
- Land characteristics
- Weather – rainfall (water shortages and drought years), temperature, fire risk and climate change

Some of the potential impacts of water use that might be prioritised for management:

- Modification and destruction of riparian habitats and wetlands due to drainage, flood control, and land development and intensification;
- Reductions in suitable habitat due to altered flow regimes or water diversion caused by the needs of irrigation, hydropower and flood control;
- Effects on sensitive species and ecological processes due to water diversion, flood control and urban and agricultural runoff causing increased levels of sediment, nutrients, bacteria and toxicants.
- Contamination by urban, industrial and agricultural activities;
- Pest invasions: introductions of invasive plants, invertebrates and fish that alter ecological processes and displace native species;
- Creation of barriers to native fish migration such as dams, culverts and flood control gates;
- Depletion of native fish populations due to habitat loss and fishing pressures;
- Climate change impacts on flow regimes, groundwater levels, water temperatures, biotic invasions, and consequences for freshwater ecosystems;
- Cumulative effects of multiple stressors that can push ecosystems towards tipping points and increase resistance to recovery;

3.1 Urban vs rural

New Zealand's freshwater resources are strained by demands on both quality and quantity from land-use intensification, an increasing array of stakeholders, and legacy uses. Amongst the major drivers of growing concern in New Zealand has been addressing how far it is possible to balance these uses, achieve economic values and growth for a region, and meet cultural, conservation and recreation needs.

Where issues are perceived, rural land use practices are increasingly identified as one of the main causes of damage. Negative perceptions of industrialisation (power generation and discharges) and urban development (including sewage and stormwater) are much less often in the spotlight.

Perceived Causes of Damage[2]

Perceived Cause of Damage	Air	Native Land & Freshwater Plants & Animals	Native Forests and Bush	Soil	Beaches & Coastal Waters	Marine Fisheries	Marine Reserves	Fresh Waters	National Parks	Wetlands
Motor Vehicles/Transport	85.5%	4.2%	3.4%	2.3%	5.8%	1.3%	1.9%	1.5%	8.7%	3.2%
Household Waste/Emissions	22.5%	12.9%	3.2%	15.8%	21.4%	7.2%	7.7%	18.9%	4.8%	9.8%
Industrial Activities	71.4%	26.0%	14.2%	33.3%	19.8%	16.5%	13.1%	28.5%	8.6%	19.1%
Pests/Weeds	3.3%	46.8%	59.1%	17.0%	7.4%	6.4%	11.1%	21.5%	48.5%	37.8%
Farming	17.9%	55.2%	32.6%	48.0%	16.2%	8.5%	9.5%	59.0%	13.3%	42.4%
Forestry	2.1%	16.5%	41.0%	12.9%	2.5%	1.6%	2.1%	10.8%	20.4%	12.9%
Urban Development	19.5%	24.7%	29.3%	16.7%	23.4%	4.0%	7.2%	15.5%	13.6%	27.0%
Mining	4.1%	11.7%	20.3%	18.9%	3.4%	4.1%	4.2%	5.4%	19.6%	5.3%
Sewage/Stormwater	4.5%	24.4%	3.5%	16.8%	62.9%	38.0%	35.5%	43.5%	4.8%	26.6%
Tourism	1.5%	6.2%	15.1%	0.9%	14.6%	4.8%	12.8%	4.7%	39.0%	7.3%
Commercial Fishing	1.6%	3.9%	0.7%	0.5%	25.7%	78.0%	50.8%	3.5%	0.9%	0.9%
Recreational Fishing	0.2%	1.6%	0.6%	0.2%	7.4%	25.4%	28.1%	4.8%	0.9%	1.2%
Dumping of Solid Waste	7.0%	18.1%	12.1%	36.4%	22.9%	15.4%	15.8%	17.8%	13.0%	17.8%
Hazardous Chemicals	19.9%	16.6%	10.5%	39.4%	18.0%	17.5%	17.2%	22.2%	8.4%	15.7%
Other	1.6%	2.0%	3.8%	2.5%	2.9%	4.8%	7.3%	2.6%	7.6%	6.8%

Note: Percentages in each column do not add to 100% because respondents identified up to three causes for each environmental component.

2 Perceptions of the NZ Environment: Lincoln 2016

Perceptions between rural and urban areas have long been divided by the emphasis placed on different water values. For example, where most rural people see intensive dairy farming as increased productivity and economic growth, neighbouring urban areas see increased effluent run-off and nitrate leaching means their rivers are unsafe for swimming.

Urban issues caused by population density receive significantly less attention. The impact of increasing demand for water in residential areas, plus sewerage and stormwater needs should put dairy impacts into perspective but urban impacts are much less visible and levels of understanding between the two communities can be low:

- With increasing urbanisation people are less connected to rural areas and less aware of rural cycles and issues;
- The speed of change in the farming sector makes it difficult to stay up to date;
- There is a lack of understating about the economic relationship between urban and rural issues;
- There is also an assumption that city people do not understand or that rural people are at fault that can be polarising.

Social expectations for sustainable farming are clearly strong but greater understanding is also needed. To achieve conversation and the iterative process needed for water management evidence suggests a process that refers to the people of Southland, "we and us", not "us and them" would be beneficial.

4

Collaborative Approaches: Learnings from other projects

4.1 Key principles of community engagement in water management

The aim should be a positive and open approach that is responsive to local values and priorities and fosters shared ownership for water resources management solutions.

Inclusive and participatory	All stakeholders need to be identified and given the opportunity to be involved from the outset. Inclusive processes can build confidence in resulting policies and can increase buy in. Language use should be on in stakeholder terms not government speak
Transparent and accountable	Visible accounts of progress, clear feedback loops and transparent use of information and where feedback has been used ensure legitimacy and retains engagement
Integrative	Holistic approach that look at social, cultural, economic and environmental aspects together and allow respect for different view points to be developed. Integrative approach that does not confound any perceived 'us and them' relationships
Efficient	Not impeding of effective action.
Flexible and responsive	A process that incorporates learning as it goes and is responsive to new knowledge as well as managing risks, opportunities and threats.
Competent	Allows decisions to be based on sound evidence.

4.2 Drivers for participation

The benefits of community driven processes include ownership of issues and solutions, growth of community knowledge, production of stronger networks, wider community understanding of issues and viewpoints and a greater sense of empathy and community. Promoting these benefits should encourage engagement. Drawcards could include:

- Identifying the potential to improve water quality alongside farm sustainability
- Improving perceptions of farming within the non-farming community: "Most farmers feel attacked, especially those who have put a lot of effort into the environment, we are lumped in with the worst ones."
- Improving the local image with benefits to tourism
- Promoting the love of water and recreation
- Playing a part in being able to hand on the land in a better state for future generations

4.3 Achieving active participation

Build on existing relationships

For the farming sector, building on existing relationships that support the farming industry and where there is a good level of trust and goodwill will be important. For example collaborating at an early stage with agencies like Fed Farmers, Beef+Lamb and Rural Women NZ and establishing their buy in to the process could be very beneficial.

Capitalising on peer influence will also help, achieving the buy in of well-known and influential farmers in the community first will promote wider engagement.

Identify ways to create empathy

A friendly, local approach that builds connections and identifies collective goals is important. For example, on-farm community workshops where non-farmers and farmers from the community can walk the land, discuss farming challenges could be more effective at creating empathy and bringing people together than a town hall meeting. Processes should be mindful of creating 'us and them' (especially urban vs rural) divisions.

Focusing on a local approach and making sure methods are on participants' terms and in participants' language will build capability and trust, enable and promote creativity and empower communities with a common goal.

Offer attractive incentives

Recognise time and energy commitments effectively. This may be through general vouchers or through sector specific incentives e.g. advice on producing FEPs or access to funding.

4.4 Challenges and Barriers to Effective Engagement

Challenges and risks include:

- Perceived transparency of the process
- Speed/momentum
- Knowledge levels/distance
- Ownership

Transparency

Identify a clear plan in which objectives, policies and methods are clearly defined so that the 'rules of the game' are clearly outlined, including limits on water allocation and water quality. Make sure vision and objective statements are explicit.

Clearly define how stakeholder values are being addressed and what trade-offs are being made/considered. Identify that the plan cannot be captured by one sector's interests.

Avoid broad narratives and directly connect to what is going on at the ground level. Highlight tangible, on-the-ground progress and show where community engagement has influenced it to create trust and confirm the ability of the community to influence policy.

Raise the public profile of the Council, promote the ability to take action through community engagement and show the capability to deliver.

Speed/momentum

Speed of process is important; maintaining broad community engagement is difficult where progress is slowed, recommendations are 'left on the shelf' or milestones are not visible or not visibly met. While participants feel empowered and that they are achieving progress on issues and are actively supported in their thinking and decisions, they are more likely to remain involved. Celebrating each milestone success on the journey is an important part of the process and is a key driver for participants to remain motivated and actively engaged

Knowledge levels/distance

Inform the community appropriately of the issues. Having little understanding of the current position or not perceiving a need for change based on incorrect facts will affect commitment. Similarly, perceived distance from the problem can affect engagement levels. For example, farms that are further away from rivers or have fewer waterways moving through the farm may have lower engagement levels.

Ownership

Unwillingness to face impacts and questions over whose responsibility they are to address can reduce engagement. Creating shared ownership and shared goals across stakeholders is important, as will be transparency around responsibility.

4.5 Learnings from Rere[3]

Gisborne's Wharekopae Water Quality Improvement Project (the Rere Project) engaged with Rere Farmers to try and raise water quality together to a swimmable standard. Farmer interest and participation in the project has been high, key learning include:

- Connecting water quality improvement with a local treasure supports engagement.
- Make a strong case for change to farmers, including clear links to farm practices at the outset.
- Ensure that the project aim has high appeal.
- Prioritise engaging those whose land is closest to the waterway concerned. Target influential farmers and community members to engage with first and encourage them to invite others in.
- Engage with iwi – understand cultural values and associations with the area
- Do the groundwork of community involvement from the start – proactively target those that don't come to workshops
- Farmers need to feel respected, valued and part of shaping an initiative in order to engage and build a sense of ownership
- Having a strong Beef and Lamb facilitation and engagement role was seen as being key to success; engagement may not have been as high if GDC was the sole agency inviting farmers to take part.
- Provide a range of incentives to engage
- Achieve some quick visible 'wins' and maximise the tangible results that can be gained; farmers and agencies need to see momentum and clear changes to stay engaged.
- Ensure good communication with farmers and keep the media spotlight away until there is something substantial to share. The project provided good publicity for farmers and all of the agencies involved, and created a sense of community action emerging around water quality. Keep sharing what is happening and get the results into the public arena.
- Identify success indicators for the project with farmers and create feedback loops that speak to those indicators.

3 https://www.mfe.govt.nz/sites/default/files/media/Fresh%20water/Final%20Rere%20Story%20Report%20July%202017.pdf

Some values and beliefs emerged from the Rere farming community that hold keys to understanding what will support farmer engagement and behaviour change on the ground.

- A strong sense of equality and for everyone to be treated equally
- A supportive community where people are keen to help each other out
- Pride as farmers and a passion for farming
- Optimism and ability to face challenges such as drought and storms (resilience and ability to adapt)
- Love for the land and generally strong bonds to land, water and animals
- Tendencies to skepticism, straight talking and cynicism
- A desire for action and tangible results alongside theory
- A desire for evidence and a need to be convinced to make significant changes.

4.6 CWMS: representation, participation, accountability and transparency

There have been various assessments of the CWMS approach to community engagement in water management, some more positive than others. Concerns have related to representation, participation, accountability and transparency and link to how well those making the decisions are mandated by and connected to other members of the community who have a stake in the decisions.

The method incorporated a steering group of key stakeholders plus public involvement at four key stages. The structure has led to some criticism as to how effective and inclusive it has been in practice. The process has been seen as developer led, rather than democratic and community led. There has been dissatisfaction with the Mayoral Forum as not proportionately representative of regional preferences, dissatisfaction with the balance in composition of the Steering Group as developer dominated and dissatisfaction with stakeholders included as also developer dominated.

A lot of wider public involvement has been passive (people can apply for zone committee membership or sit in on meetings). There are also questions over the amount of influence people have as not a lot of decision are being made and most decisions are made outside the CWMS process.

Criticism has also been levelled at a lack of up to date, comprehensive information about the process and a lack of promotion and awareness raising so the process has potentially bypassed interested participants.

The lag time between action and outcomes is also identified as an issue. A significant investment in change has been made but people need to see progress if they are to keep investing.

Canterbury's approach has been identified as a hybrid of collaboration and the more traditional approach: 'Consult-Decide-Defend-Litigate'. Reviews conclude that Canterbury's approach faces questions about its legitimacy in the eyes of some stakeholders and the general public. It is identified as using collaborative methods but in a way that significantly constrains collaboration by limiting representation and accountability and prescribing collaborative behaviour.

Learnings for Southland

Open engagement to the wider community in an inclusive and active way. Ensure that people feel they are being treated fairly and are involved in decision making.

Highlight accountability and transparency. Keep timelines and progress clear and up to date. Maintain momentum and celebrate milestones completed. Transparently show how decisions are made.

Create empathy and understanding as a starting point. Educate and inform where needed but do this in the language of participants and on their terms (e.g. local, friendly, informal approaches). Ensure there are equal opportunities for participation between different community groups.

4.7 Bay of Plenty: Tools for Policy Development[4]

To provide an informed base for policy development the Bay of Plenty project started with a process to develop a shared understanding of how the system and process worked.

Causal loop diagrams developed participants' shared understanding of the system in which freshwater management occurs and assisted in defining the problems to be addressed by the policy process. It enabled easier identification of:

- factors over which there is no, or very little, influence (e.g. land characteristics, rainfall, temperature)
- factors over which there is more influence (e.g. irrigation, water allocation, technology and infrastructure)
- overarching aspirations for the catchment (encompassing multiple dimensions including mauri and sustainable development)
- desired socio-economic outcomes (e.g. community vibrancy, business adaptability)
- potential management options possible tensions or conflicting objectives and common patterns like virtuous or vicious cycles or unintended consequences of some actions (water quality and profitability)
- relationships that warrant further detail or analysis (e.g. through catchment modelling).

4 https://www.mfe.govt.nz/publications/fresh-water/practical-tools-and-frameworks-freshwater-policy-development

4.8 Impact of engagement

Establishing the impact of community engagement on perceptions of the planning process is difficult as attempts at engagement have been more or less successful.

The outcomes from any given planning process are also likely to be influenced by the history of conflict within a catchment, public perceptions about the health of freshwater bodies, and the design of a collaborative process including the amount of opportunity for public input. Where plans have been less inclusive of the wider community, less deliberative, less transparent and providing lower accountability policy development has poorer perceptions attached

There is some evidence to suggest that, across both collaborative and non-collaborative areas, people who are more engaged (medium or high level of participation in freshwater planning processes) perceive less agreement (greater conflict) about freshwater management than those who participate at lower levels or do not participate at all.

People who participate in freshwater management at a medium or high level may be less positive about freshwater management, they believe that there is less fairness in freshwater management, perceive lower levels of agreement over freshwater management, and have lower confidence that their interests will be taken into account by the regional council. However, this may be a reflection on the quality and inclusiveness of the engagement process.

5

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