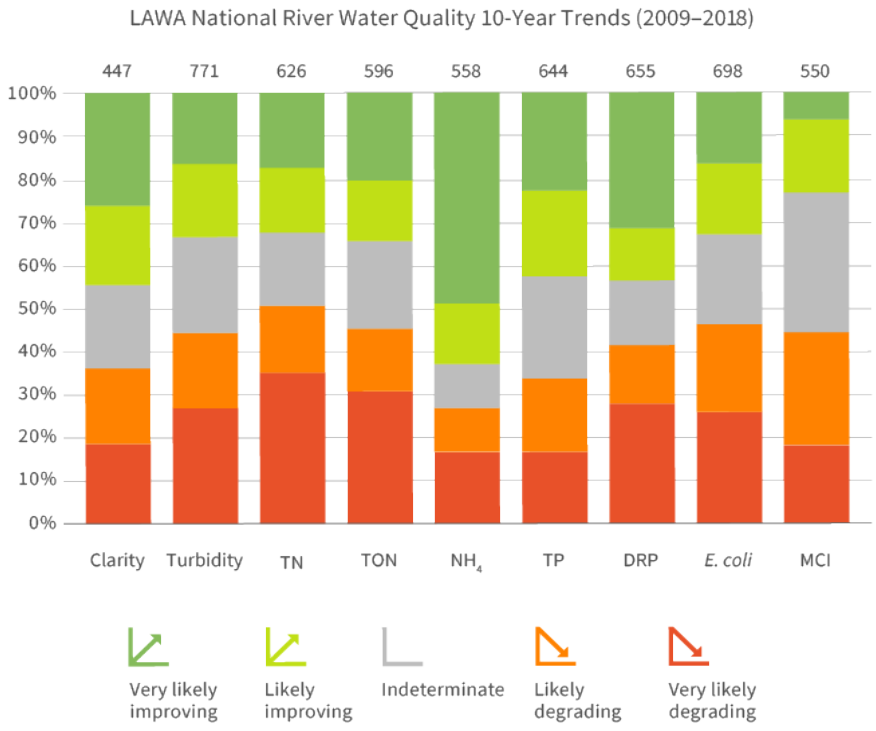
Our three biggest environmental challenges

- Climate change
  - Zero Carbon Bill passed
  - Climate Change Commission in place
- Biodiversity
  - Predator control funding
  - Wilding pines and wallaby controls in Budget
- Freshwater
  - Today's announcement



If New Zealand, with all its advantages can't overcome these problems, then who can?

Timeline

LATE 90s TO EARLY 2000s

- New Zealand's population grows 17 per cent from 1996 to 2012, driving a 10 per cent increase in urban land area.
- Changes in international trading conditions, resulting from the Uruguay round of the General Agreement on Tariffs and Trade, drive increase in dairying, including intensification and conversion of sheep and beef farms to dairy. This leads to rapid expansion in fertiliser application, irrigation and other intensive farming practices.

2002

- Dairy cattle numbers increase from 3.8 million in 1994 to over 5.1 million in 2002.

2004

- **Parliamentary Commissioner for the Environment Morgan Williams identifies decreasing water quality arising from increasingly intensive farming in his report *Growing for good*.**

2006

- Work begins on a National Policy Statement for Freshwater Management (Freshwater NPS).

2007

- OECD Environmental Performance Review of New Zealand recommends introducing baseline regulations on water quality, and economic approaches to water allocation among users.
- Freshwater Iwi Leaders Group formed to advance the interests of all iwi in relation to freshwater through direct engagement with the Crown.

2008

- National Environmental Standard for Ecological Flows and Levels proposed. This was later put on hold.
- Proposed Freshwater NPS referred to a Board of Inquiry, chaired by Judge David Sheppard.

2009

- Land and Water Forum (LAWF) established, bringing together industry groups, electricity generators, environmental and recreational NGOs, iwi, scientists, and other organisations with a stake in freshwater and land management to collaborate around freshwater management.

2010

- Sheppard Board of Inquiry provides its recommendations on the Freshwater NPS to the then Minister for the Environment.
- First LAWF report released. Identifies a set of outcomes and goals for freshwater management and recommends a number of policy changes to achieve those.

2011

- Freshwater NPS gazetted requiring that the 'overall quality of fresh water' in all regions of the country be maintained or improved and that the life-supporting capacity of water bodies including their associated ecosystems is safeguarded.

2012

- LAWF second and third reports released, which set out a framework for setting limits and managing within limits.
- Parliamentary Commissioner for the Environment Dr Jan Wright releases *Water quality in New Zealand: Understanding the science* as a basis for assessing policy interventions.
- Waitangi Tribunal begins inquiry into claims led by the New Zealand Māori Council and 10 co-claimants about Māori rights and interests in freshwater and geothermal resources (Wai 2358).

2013

- Supreme Court dismisses appeal from the New Zealand Māori Council and others about the proposed sale of shares in state-owned enterprises that use freshwater.
- Parliamentary Commissioner for the Environment Dr Jan Wright releases *Water quality in New Zealand: Land use change and nutrient pollution* noting the need to address the link between land use and water quality (an update of this report was published in 2015).

2014

- Freshwater NPS updated, including a National Objectives Framework and national bottom lines for water quality. Safeguarding water bodies for human health for recreation added alongside requirements for ecosystem health.
- Dairy cattle numbers peak at 6.7 million.

2015

- Parliamentary Commissioner for the Environment Dr Jan Wright recommends further improvements to the Freshwater NPS in the report *Managing Water Quality*.
- LAWF fourth report on maximising the economic benefits from freshwater while managing within limits and other issues released.

2017

- **OECD *Environmental Performance Review of New Zealand* recommends accelerating implementation of water management reforms, ensuring water quantity and quality limits are sufficiently ambitious, and expanding the use of economic instruments to encourage more efficient water use and reduce pollution.**
- *Our fresh water 2017* – first dedicated report on the state of freshwater from the Ministry for the Environment and Statistics New Zealand shows freshwater is under pressure, including that in monitored rivers, nitrate-nitrogen was worsening (55 per cent) at more sites than improving (28 per cent).
- Growing public concern about water quality is reflected in opinion polls* and becomes one of the top issues in the election campaign.
- Freshwater NPS amended including setting targets for improving swimming water quality and better direction about recognising Te Mana o te Wai in freshwater management.
- LAWF provides incoming government with an assessment of key freshwater management challenges.

DECEMBER 2017

- Ministers ask LAWF for further advice on what can be done between now and 2020 to 'hold the line'; on a nationally-driven system for allocating nutrient loads in a fair way; and how best to address sediment.

JUNE 2018

- **LAWF reports to Ministers, recommending changes to the current regulatory regime, including the Freshwater NPS and the Resource Management Act. It also recommends prioritising action in at-risk catchments. It was unable to reach agreement on the allocation of nutrient discharge rights in polluted catchments.**

OCTOBER 2018

- Ministers launch Essential Freshwater work programme.

* stuff.co.nz/Massey University Election Survey, Water New Zealand, Colmar Brunton.

Managing all of our waterways

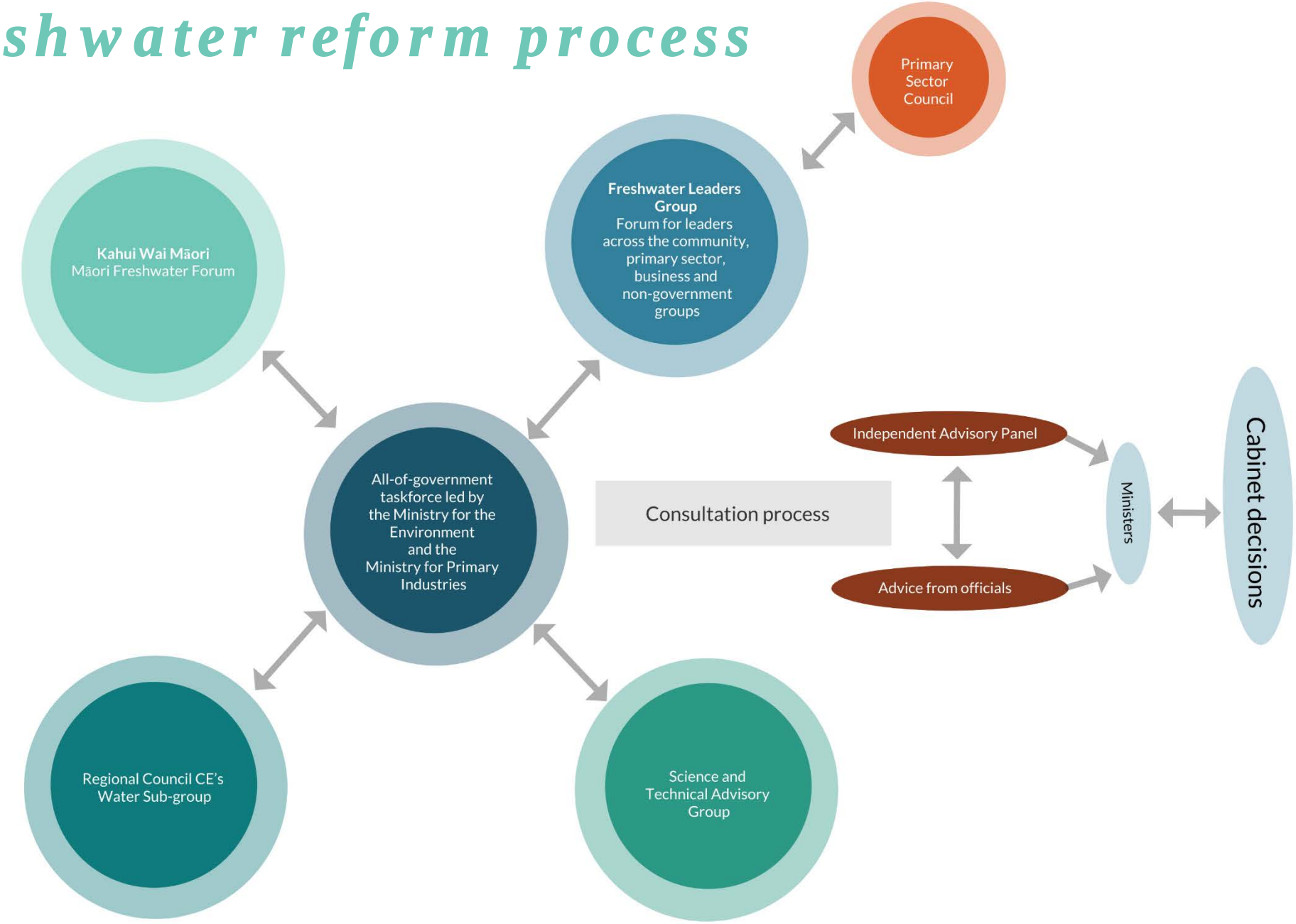
- Waterways in urban, farming, and forestry areas are polluted by contaminants
- Sources of pollutants are sediment, nutrient, heavy metals, and pathogens
- The same water quality standards apply in urban and rural areas
- This freshwater package will be progressed alongside a wider reform of our Three Waters system (drinking water, wastewater and stormwater)
- Urban centres are investing in upgrading their water systems – e.g. Auckland city is bringing forward nearly $1 billion of investment to stop storm water overflowing into the harbour and contaminating beaches.

Our freshwater promises

- Stop further degradation
- Show material improvements within five years
- Reverse past damage within a generation so that all of New Zealand's waterways are in a healthy state.

All New Zealanders should be able to swim in their local river without fear of getting sick

Freshwater reform process



Advisory groups

Freshwater Leaders Group
Dr John Penno (Chair)
Aidan Bichan
Dr Alison Dewes
Allen Lim
Bryce Johnson
Corina Jordan
Gary Taylor
Graeme Gleeson
Dr Hugh Logan
Lees Seymour
Mandy Bell
Dr Marc Schallenberg*
Marnie Prickett
Professor Nicola Shadbolt
Peter Weir
Professor Richard McDowell
Stephanie Howard
Tom Lambie
Traci Houpapa*
Vaughan Payne*

Kāhui Wai Māori
Kingi Smiler (Chair)
Annette Sykes
Hon Dover Samuels
Professor Jacinta Ruru
Dr James Ataria*
Mahina-a-rangi Baker*
Millan Ruka
Paul Morgan
Riki Ellison
Dr Tanira Kingi*
Traci Houpapa*

Science and Technical Advisory Group
Ken Taylor (Chair)
Dr Adam Canning
Dr Bev Clarkson
Dr Bryce Cooper
Dr Chris Daughney
Dr Clive Howard-Williams
Dr Daniel Hikuroa
Graham Sevicke-Jones
Professor Ian Hawes
Dr James Ataria*
Dr Jenny Webster-Brown
Dr Joanne Clapcott
Dr Jon Roygard*
Mahina-a-rangi Baker*
Dr Marc Schallenberg*
Dr Mike Joy
Rawiri Smith
Professor Russell Death
Dr Tanira Kingi*

Regional Sector Water Sub Group
James Palmer (Co-Chair) *Hawke's Bay Regional Council*
Vaughan Payne (Co-Chair) *Waikato Regional Council*
Alan Livingston *Waikato Regional Council*
Andrew Robb *West Coast Regional Council*
Bill Bayfield *Environment Canterbury*
Clare Wooding *Local Government New Zealand*
Daran Ponter *Greater Wellington Regional Council*
Doug Leeder *Bay of Plenty Regional Council*
Fiona McTavish *Bay of Plenty Regional Council*
Iain Maxwell *Hawke's Bay Regional Council*
Dr Jon Roygard* *Horizons Regional Council*
Mike Scarsbrook *Waikato Regional Council*
Pat Dougherty *Nelson City Council*
Rachel Keedwell *Horizons Regional Council*
Rob Philips *Environment Southland*

* Denotes a person on more than one advisory group

Strong support for improvement

- 17,500+ written submissions
- Submitters strongly supported the Government's goal of improving freshwater quality
- There were different views on how to achieve that. Many in the rural community called for voluntary, ground-up approaches
- Many other stakeholders, Māori, and some farming leaders and companies, said this had not worked and we needed stronger regulation
- There was strong support for 'enforceable limits' particularly from environmental non-government organisations (NGOs) and Māori, linked to the need for measures to assist councils
- Widespread support for Te Mana o te Wai as a framework.

ACTION FOR
HEALTHY WATERWAYS
NGĀ MAHI MŌ
TE WHAKAORA WAI
TE MANA O TE WAI

Prioritising how we use our freshwater

- Te Mana o te Wai provides the guiding principles and a hierarchy of obligations
- Sustaining the health of water bodies before providing for essential human health needs, and then to commercial uses.

Instruments for change

- RMA – a new process for making regional freshwater plans
- New NES – holding the line
- New NPS – new bottom lines (attributes)
- Stock exclusion and water take measurement regulations
- Mandatory and enforceable farm plans.

RMA – new process for making regional water plans

- A compulsory planning process for all regional policy statements / plans that implement the 2020 Freshwater NPS or otherwise relate to freshwater
- Councils will still develop plan content in conjunction with communities and iwi but they must notify plans by **31 December 2024** (changed from 2023 to provide more time) and make final decisions within **two years of notification**
- Regional freshwater hearings panels will be established with enhanced hearings powers, made up of expert freshwater commissioners, council and tangata whenua nominees
- A Chief Freshwater Commissioner (an Environment Court Judge or retired Environment Court Judge) to oversee the process
- The freshwater hearing panels must make recommendations and the council makes final decisions on those recommendations
- Submitter appeal rights to the Environment Court are available where the council decision differs from the panel's recommendations - otherwise an appeal to the High Court is available on points of law.

New NES – holding the line

- Wetland and stream protection
- Interim intensification provisions - controlling quantity of intensification
- Controlling quantity and quality of risky practices (e.g. winter grazing and feedlots)
- Standards and requirements to provide for fish passage.

New NPS – holding the line and working towards outcomes over the longer term

- A suite of new attributes (eg, for sediment and macroinvertebrates (MCI)) to improve how ecosystem health is measured and managed. Councils will have to develop action plans and/or set limits on resource use to achieve these attributes
- New bottom lines for some of these attributes specify minimum standards, including a strengthened bottom line for nitrate toxicity, to provide better protection from nitrogen toxicity for 95 per cent of freshwater species (fish and macroinvertebrates), up from 80 per cent under the previous national policy statement, and a new bottom line for *E. coli* at swimming sites during the bathing season
- Avoiding further loss and degradation of streams and wetlands
- Benefits for native fish species, as well as valued introduced species such as trout and salmon, by improving the way we manage the habitat of these species, the quality of water they live in, and their access to and from the sea
- A total overhaul, including improved structure and drafting of the existing direction in the NPS-FM.

Mandatory and enforceable Farm Plans

- Regional councils and farming groups want mandatory farm plans
- Freshwater modules of Farm Plans (FW-FPs) document the actions farmers and growers will take to reduce risks and mitigate impacts their businesses have on freshwater environments
- They enable tailored actions for each farm e.g. critical source areas for sediment, or rules for winter grazing
- Mandatory and enforceable FW-FPs will be enabled through the Resource Management Amendment Bill 2019
- FW-FPs will be the first component of what could be multi-module farm plans
- Roll out of FW-FPs will start in the areas of most need first
- Once FW-FPs are put in place some of the interim regulatory interventions under the NES will no longer be required.

Stock exclusion

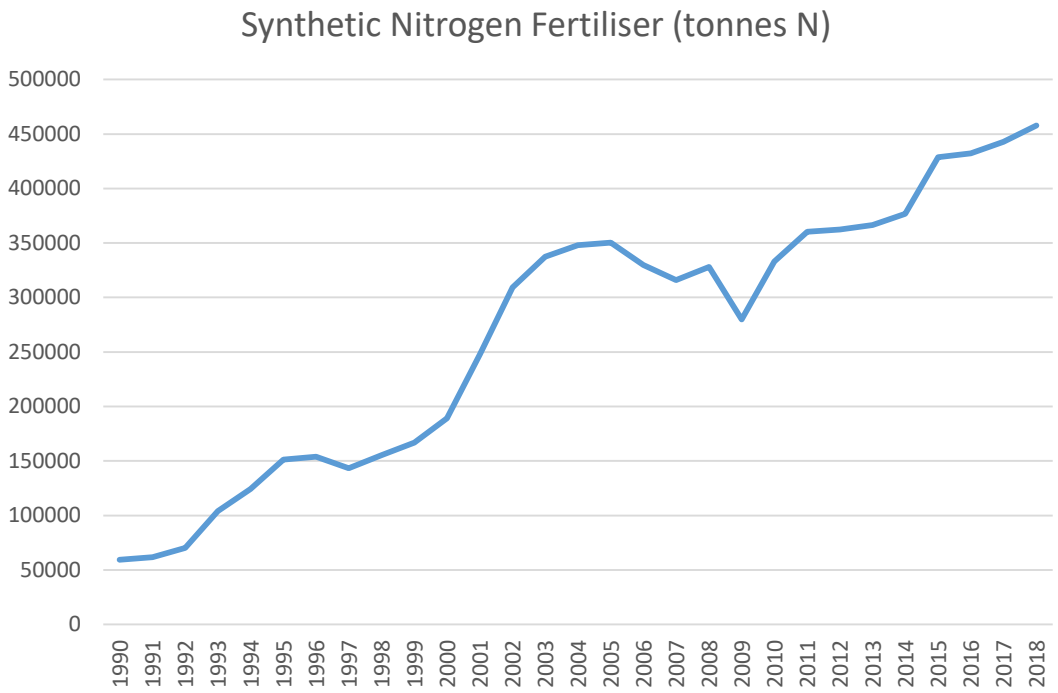
- Setback to be a minimum of 3m at any point
- Existing permanent fences remain in place (subject to freshwater farm plans)
- Dairy cattle and pigs must be excluded by 1 July 2023; beef cattle, dairy support cattle and deer by 1 July 2025
- Sheep remain excluded from the provisions
- Some of the proposed stock exclusion requirements in hill country will be managed through freshwater farm plans rather than national regulations.

Water-take measurement

- Amendments to the regulation requiring water takes to be measured
- All people taking water from aquifers, rivers and lakes must provide electronic records to councils daily
- Those taking more than 20 litres per second have two years to comply, others have up to six years.

Reducing excess Nitrogen in our waterways

- **Dissolved Inorganic Nitrogen** (DIN) - not progressing a bottom line for DIN at the moment, but specifying that levels will have to be maintained or improved, and increasing oversight of councils' implementation of requirements
- **Toxicity** - Applying stricter limits on nitrogen toxicity attributes and setting national maximum allowable levels (bottom lines) to provide better protection from nitrogen toxicity for 95 per cent of freshwater species (fish and macroinvertebrates), up from 80 per cent under the previous national policy statement
- **Input controls** – introducing a national synthetic nitrogen-fertiliser cap of 190kg N/ha/year for all pastoral farms in New Zealand. Dairy farmers to report annually to councils the weight of nitrogen applied per hectare. Agencies will collect and report information on annual usage of synthetic nitrogen fertiliser applied across New Zealand annually
- **Nitrates in drinking water** - a Ministry of Health-led taskforce is assessing whether more research is needed into links between nitrate levels and human health impacts and is due to report later this year.



Seven fold increase in use since 1990

Swimming at local swimming spots

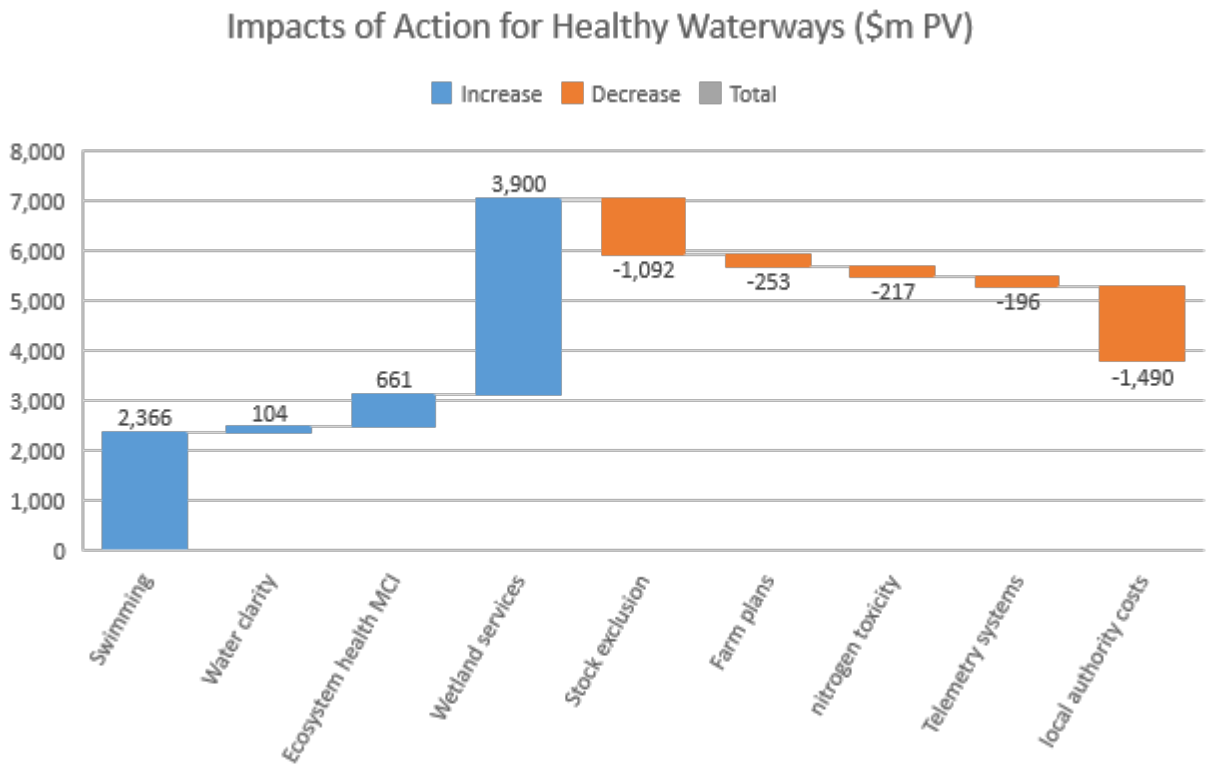
- All New Zealanders should be able to swim in their local river without fear of getting sick
- We are introducing a new attribute and national bottom line for *E. coli* that is applicable at swimming sites during the bathing season
- This change would mean efforts to improve *E. coli* will be increased for swimming sites.

Managing urban waterways

- The proposed changes to the Freshwater Management system apply in all areas – urban and rural
- Rules will prevent further loss of wetlands and stream habitat
- A suite of new attributes (eg, for sediment and macroinvertebrates (MCI)) will improve how ecosystem health is measured and managed
- The rules around wetlands, streams, and sediment are likely to have an impact on the way that urban development is managed. However, they also provide an opportunity for increased amenity value, flood mitigation, and improved stormwater management
- This package will be progressed alongside a wider reform of our Three Waters system (drinking water, wastewater and stormwater).

Impacts of the package

- Significant amount of environmental and economic analysis of the package
- Eleven reports prior to consultation, and a further 22 to inform final decisions – working with New Zealand's leading research institutes, universities, and private sector firms
- Changes made to the package since consultation have reduced the costs of the package by an estimated $3.4 billion (PV)
- Net benefits (benefits minus costs) estimated at $193 million per annum over 30 years ($3.8 billion Present Value, PV).



Investing in action

- 2019 – at risk catchments, Sustainable Land Use Budget package
- 2020 – more than $700 million directed at freshwater (including $100m for fencing, riparian planting and stock water reticulation); $367m for further on-farm action
- Accessible through primary sector groups, iwi, catchment groups, and councils.

Healthy waterways within a generation