



Managing our estuaries

Frequently asked questions

What is this report about?

Since the first arrival of Polynesians on these shores, estuaries have been popular places to live near, and have served as magnets for outdoor recreation. But the health of these ecosystems has long been degraded by human activities. Estuaries receive and accumulate large amounts of whatever is emptied into them. Yet they fall between the cracks of our siloed management.

This report uses five estuaries as case studies to illustrate some of the environmental challenges they face, and how they are managed. The report identifies two points of leverage that could be employed to help overcome these issues. It also warns that climate change is an overarching pressure that will make today's problems even worse.

Why did the Commissioner decide to undertake this investigation?

Estuaries have been neglected compared to many other parts of the environment. There is no environmental policy dedicated to managing estuaries and they tend to be a low priority in the legislation that does apply to them.

It became clear through the investigation that issues crippling estuaries are already well documented, but action to address them has often stalled. The Commissioner decided to undertake this investigation in the hope that he could provide estuary managers with a way forward.

Are the problems really that bad?

Estuaries act as waste traps for pollution carried downstream by rivers and entering their waters from ports and coastal communities. Rather than diluting pollutants, estuaries allow them to accumulate. Yesterday's pollution can come back to bite us today.

Centuries of forest clearance have swollen the sediment loads entering our waterways, while in recent decades, intensive farming practices have resulted in unprecedented nitrogen levels flowing downstream. Population growth and the associated discharge of treated and untreated sewage and stormwater from houses and industry have led to further sedimentation and pollution.

A third of Aotearoa New Zealand's estuaries are at very high risk of damage from cumulative pressures, with some like New River Estuary and Te Hoiere/Pelorus Sound already showing signs of serious health issues.

What were the main findings?

Managing estuaries is about managing the pressures that cumulatively affect them. Yet the Resource Management Act 1991 and other legislative tools designed to control these pressures divide the environment up in ways that cut estuaries off from the landscapes of which they are part. The result can mean overlapping rules that are difficult to implement.

Rather than this piecemeal approach, estuaries require a robust management framework that treats estuaries and their catchments as a single identity. The investigation found that the best way to do this is to include estuaries as part of the freshwater management units within the National Policy Statement for Freshwater Management 2020, as many of the pressures that impact on estuaries arrive via the freshwater systems that feed them.

The report concludes that we must invest more in gathering high-quality data about estuaries and the sources of pollution and sedimentation that damage them, so that any management decisions we make are well informed, evidence based and enduring.

What's so special about estuaries? Why should I care about protecting mudflats?

Our estuaries are very special places. They are transitional zones where freshwater meets saltwater and new ecosystems form. They act as a nursery for many freshwater and marine animals – a permanent home for some, and a temporary resting place for others. They are also where we work, live, play and mahinga kai.

However, many of our estuaries are suffering from human pressures. For example, due to faecal contamination at New River Estuary, kaimoana is now collected with caution and waka ama groups practise tipping drills in local swimming pools rather than put their heads underwater in the river.

Why are estuaries falling through the cracks?

Estuary management is not about managing the body of water itself but managing the activities that affect it. That means considering all the activities that cumulatively impact on estuaries – regardless of where they are located – in an integrated way and with climate change in mind.

Estuaries do fall under the domain of the New Zealand Coastal Policy Statement, and local government can use it to make regional plans that include estuary protection. But it has no mandate to manage many of the activities in a catchment that affect the health of estuaries, and does not establish a bespoke management regime for them.

The National Policy Statement for Freshwater Management 2020 is attempting integrated management across entire catchments, and requires councils to set clear limits to deal with pollutants and undertake rigorous monitoring. However, it mainly focuses on freshwater like lakes and rivers. Estuaries can, but don't have to be, treated the same way. Once again, this leaves estuaries stuck in the complicated and somewhat murky legal territory between land and sea.

Can mātauranga Māori help us better manage our estuaries?

Estuaries are not currently managed using Māori concepts such as tikanga or mātauranga, and legislation that does include them prioritises them inconsistently.

Consultation with Māori revealed that the struggle for integrated landscape management is a very Pākehā problem – in te ao Māori, the landscape and the people within it are inseparable. Many hapū and iwi seek a return to an environmental management approach that encompasses all environments and activities, ki uta ki tai, which is starting to gain traction in the wider community.

What does the Commissioner recommend?

The Commissioner recommends that every estuary be included in one or more freshwater management units within the National Policy Statement for Freshwater Management. This would allow estuaries and their pressures to be managed together. Currently, this is voluntary. Two of the report's case study areas (Te Awarua-o-Porirua Harbour and New River Estuary), have already started moves in that direction.

The Commissioner also recommends establishing a robust monitoring system to help local government and communities make informed decisions. Ideally, this would be standardised, independently assessed and include metrics based on mātauranga Māori. This should apply to all the pressures that cumulatively impact on estuaries, as well as to estuaries themselves.

Won't this all change with climate change anyway?

Estuaries are particularly vulnerable to the looming threats of climate change, such as warming seas, ocean acidification, sea level rise, increased storm surges and further pressures coming downstream from land.

Climate change will force the migration of estuaries, and managers will have either to harden estuarine margins or allow them to move. From now on, any decisions made around the management of estuaries must consider the impacts of climate change.

Integrated management and robust monitoring will put us in good stead to make decisions with a long timeframe in mind.