State of our Gulf 2014 POPULAR SUMMARY



Hauraki Gulf Marine Park Ko te Pataka kai o Tikapa Moana Te Moananui a Toi



Hauraki Gulf Forum Tikapa Moana Te Moananui a Toi

THE STORY FROM 2011

"The Gulf has undergone an incredible transformation over two human lifespans. That transformation is continuing in the sea and around the coast, with most environmental indicators either showing negative trends or remaining at levels which are indicative of poor environmental condition.

Further loss of natural assets will occur unless bold, sustained, and innovative steps are taken to improve the management and utilisation of its resources, and to halt progressive environmental degradation."

– State of our Gulf, 2011

INDICATOR UPDATE

"This update shows that while some environmental improvements have occurred over the past three years, the cumulative impact of all activities is still pointing towards the suppression of environmental values at low levels, and progressive environmental decline..."

Fishing has one of the greatest influences on the marine ecosystem. The status of many stocks is not known relative to fisheries targets. Snapper stocks have improved from historical lows (11% of unfished biomass), but at the current 19% remain well below the level needed for maximum sustainable yield (40%) and associated healthier ecosystem functioning.



Crayfish are sustainably managed and are expected to rebuild to a level recorded around 1980 (about a fifth of the legal-sized crayfish estimated in 1945 before crayfishing intensified). The abundance and size of remaining crayfish means they no longer play a significant ecological role in reef areas. There are marked differences in the composition and productivity of reefs inside and outside marine reserves.



Crayfish size (carapace length mm)

Large areas of the seabed of the outer Gulf are regularly disturbed by bottom trawling. The footprint of scallop dredging has expanded in the past three years into previously undredged areas known for their biological diversity.



Nitrogen loads entering the Firth of Thames from Hauraki Plains rivers are significant and increasing, which is consistent with the plains having one of the highest stocking rates for cows in the country. A recent study on changing land use suggests nitrogen loads will continue to increase to 2020. A long term study of the water column in the Firth of Thames suggests nitrogen inputs cause seasonal elevation in carbon dioxide, corresponding sags in oxygen and increasing acidification. Further research on the potential effects of this on shellfish and marine life is warranted.

Sediment is a serious contaminant. Its footprint from the Hauraki Plains extends across the Firth of Thames and into Tāmaki Strait. Monitored sites scattered among estuaries and harbours around the Gulf are becoming muddier, with associated changes to benthic communities in a number of these. Three quarters of monitored Auckland water quality sites, showed deteriorating trends in total suspended solids between 2004 and 2013.



Heavy metals like copper, lead and zinc frequently exceed low level sediment quality guidelines in Auckland's older urban estuaries and the south-eastern Firth of Thames.

Marine invasive species are easily spread, extremely difficult to control, and could affect the entire Gulf. Four new species have been reported since 2011: one of them, the Mediterranean fanworm, is know to cause serious problems.

Bryde's whales are being killed by ship strike more often than the resident population can sustain. Three further deaths have been reported since 2011.



Seabirds such as the endemic black petrel and the fleshfooted shearwater are being caught in commercial long line fisheries faster than they are breeding. Recreational fishing is also likely to pose a threat.



Mammalian predators have now been eradicated from 36 islands in the Gulf, enabling acceleration of restoration programmes with high community involvement.

Tāmaki kainga ika me nga wheua katoa – Tāmaki where you eat the fish, bones and all.

(In reference to how plentiful and succulent the fish in Tāmaki once were.)

RESPONSE UPDATE: **GOVERNANCE**

"A range of management actions have occurred since 2011. Some of these are likely to reduce impacts on the Gulf, or at least slow environmental decline. Others will increase pressure on the Gulf, and potentially hasten environmental decline. This highlights the need for better integration..."

Land use: The proposed Waikato Regional Policy Statement and proposed Auckland Unitary Plan seek to reduce the effects of land-based activities on freshwater and coastal systems, through establishing environmental standards.

Freshwater: The National Policy Statement for Freshwater seeks to maintain or improve the overall quality of freshwater within a region, but very low bottom lines are set for ecosystem functioning and nutrients, and there are weak links to estuarine quality.

Fisheries: Current fisheries practices are largely geared towards the management of individual species, and in most cases the lowest acceptable target for fish stocks has become the default.

Marine protection: Progress on implementing a Marine Protected Areas Policy and Implementation Plan has been slow and initiatives to identify areas remain ad hoc and contested. 0.3% of the Gulf is currently fully protected in marine reserves.

Aquaculture: The 2011 aquaculture reforms increase the potential for water quality decline in the Firth of Thames, by providing for fish farms that could produce nitrogen equivalent to one third of current riverine inputs. Applications for approximately 5000ha of additional shellfish aquaculture come off hold at the end of 2014. If granted they would double the current area of the Gulf in marine farms, significantly altering the natural character of the Firth of Thames.

Spatial planning: The stakeholder-led Sea Change – Tai Timu Tai Pari process anticipates the formulation of a non-statutory plan by the end of 2015, which is then to be implemented in the rules and regulations of its sponsoring agencies.



RESPONSE UPDATE: **STAKEHOLDERS**

"The activities and behaviours of stakeholders... have a significant influence on environmental outcomes..."

On-farm *dairy* practices have improved, through effluent management, nutrient budgeting and riparian planting. Preventing phosphorous leaching is easier than for nitrogen. Intensification of the sector means overall nutrient loadings will continue to increase.

The *fishing* industry is addressing wastage and bycatch concerns, encouraged by new Ministry for Primary Industries measures, the introduction of 'precision fishing' techniques and codes of conduct. Seabird safe fishing is encouraged by Southern Seabird Solutions Trust and other partners.

Ports of Auckland and the shipping industry have introduced a voluntary protocol, focused on a precautionary speed limit, to reduce Bryde's whale strike in the Gulf.

Thousands of **volunteer** hours and significant funds are put into restorative projects on islands and coastal parks around the Gulf. A new 'conservation arts and education' park has opened on Rotoroa Island.

New community **trusts** are emerging, including the Revive our Gulf project to restore mussel reefs, and Friends of the Hauraki Gulf, to advocate for a marine reserve on Waiheke's northern coastline.

Councils and central government provide significant support for *community* action, through schemes such as Project Twin Streams, the Mahurangi Action Plan and the Peninsula Project.

> Ehara taku toa i te toa takitahi ēngari he toa takitini – It's not the work of the individual that creates success but the work of the collective.

RESPONSE UPDATE: TANGATA WHENUA

"There have been significant developments for tangata whenua since 2011 which assist in redressing historical issues, increasing recognition as kaitiaki, promoting involvement in decision making and safeguarding places and values of significance..."

Seven deeds of settlement have been signed between tangata whenua and the Crown in the area covered by the Hauraki Gulf Marine Park Act.

An agreement in principle has been signed between Hauraki iwi and the Crown.

Co-governance arrangements have been instituted or signalled for the maunga, moana, awa and other taonga of the region, and in steering group arrangements for the Sea Change – Tai Timu Tai Pari project.

Iwi have growing ownership interests in aquaculture, fishing, dairy farming and infrastructure assets around the Gulf.

Ngāti Whātua Ōrākei's Ōkahu Catchment Ecological Restoration Plan and Whai a te Mahere Taiao a Hauraki have articulated iwi visions for the environment, introduced mātauranga Māori and shaped relationships with management agencies.





KNOWLEDGE UPDATE

THE CHALLENGE FOR POLICY MAKERS

"Addressing the combined effects of suppressed environmental state, multiple and cumulative impacts, and high and increasing pressure will be technically and politically challenging..."

Legislative and institutional impediments exist for the achievement of integrated, ecosystem-based management.

The Sea Change – Tai Timu Tai Pari project is a bold and innovative non-statutory process where Gulf stakeholders will prepare a Marine Spatial Plan for the Gulf based on high environmental standards and strong community and mana whenua engagement. It is anticipated this plan will guide implementation through a complementary and effective regulatory framework in the sponsoring agencies.

Significant leadership will be required to deliver on this and the response framework the Forum identified as necessary for success in 2011.

- **R** A *regenerating* network of marine protected areas and island sanctuaries
- E Enhancement of fisheries with improved environmental outcomes
- M Mana whenua relationships reflected in resource management practice
- A Active land management to minimise inputs of sediments, nutrients and contaminants
- K Knowledge utilisation within an ecosystem-based management framework

He waka eke noa – A waka which we are all in, no exceptions.



The full report on the State of our Gulf 2014 is available from www.haurakigulfforum.org.nz

Under the Hauraki Gulf Marine Park Act 2000 the Hauraki Gulf Forum is required to prepare and publish, once every three years, a report on the state of the environment in the Hauraki Gulf, including information on progress towards integrated management and responses to prioritised strategic issues.

The Hauraki Gulf Forum is a statutory body charged with the promotion and facilitation of integrated management and the protection and enhancement of the Hauraki Gulf. The Forum has representation on behalf of the Ministers for Conservation, Primary Industries and Māori Affairs, elected representatives from Auckland Council (including the Great Barrier and Waiheke local boards), Waikato Regional Council, and the Waikato, Hauraki, Thames Coromandel and Matamata Piako district councils, plus six representatives of the tangata whenua of the Hauraki Gulf and its islands.

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