## Fisheries system indicators to support ecosystem-based fisheries management in Tīkapa Moana / Hauraki Gulf

The fisheries of the Hauraki Gulf, and the system that supports them, are highly valued but show signs of degradation.

Revitalising the Gulf is the Government's action plan to restore the mauri of the Hauraki Gulf through a more holistic process of ecosystem-based fisheries management (EBFM). Central to the concept of EBFM is broadening the values that fisheries management considers and trying to achieve balance in a space with multiple values and activities.

This document summarises a project to evaluate potential indicators describing the health of the Hauraki Gulf fisheries system. The indicators evaluated provide a toolbox to assist Fisheries New Zealand with decisions about monitoring the health of the Gulf. Read the full guidance document on the Sustainable Seas website, including a list of the indicators evaluated.

## Indicators lead to better understanding and communication

In 2020, Aotearoa New Zealand's Sustainable Seas National Science Challenge funded a project involving Māori partners, stakeholders, and government agencies to make progress in putting EBFM into action. The objective of the project was to evaluate indicators (and associated monitoring of them) that could be used to better understand and communicate changes in status of the components of the Hauraki Gulf fisheries system. These components include values, stressors, and management actions. Central to the evaluation process was co-development, which was facilitated by a co-development group that included mana whenua.

Summary

## Complementary frameworks can support different contexts

The indicators were co-developed in a hierarchy. The process was started by developing a framework that aligned with the Hauraki Gulf Fisheries Plan. This framework contained three 'desired outcomes' that covered the ecosystem that supports fisheries, the fisheries themselves, and the engagement and support for mana whenua and local communities to participate in governance.

Co-development partners and subject matter experts suggested candidate indicators that aligned with these desired outcomes. We then evaluated and rated more than 150 candidate indicators using a traffic light system. This system provided flexibility (and transparency) when we assessed each candidate indicator against a series of assessment criteria.

In parallel, indicators of particular significance to mana moana were also developed in a similar framework. This framework, Te Niho Tanhiwha, is designed so that individual hapū can subsequently add specific place-based context. Te Niho Taniwha extends from overarching principles (Ngā mātāpono), through pillars of success (Ngā pou), to the indicators (Ngā tohu) themselves. Both Te Niho Taniwha and the codevelopment-group-led indicators use a traffic light system to evaluate the usefulness of each indicator.

## Broader indicators support ecosystem-based fisheries management

The indicators evaluated in the full guidance document represent substantial progress towards ecosystem-based fisheries management (EBFM) as they capture a much broader socio-economic-cultural ecosystem than is currently considered within the scope of fisheries management. Single species indicators will continue to be a part of those considerations.

We have also made substantial progress in the journey towards EBFM more generally through greater engagement, education, and awareness of others' perspectives.

From here, Fisheries New Zealand can select a suite of indicators. Associated monitoring recommendations can also be considered and monitoring initiated. Ultimately, Māori still need to be enabled as kaitiaki alongside existing management and the management actions of Revitalising the Gulf need to be implemented. This will only be possible through greater cross-government coordination.



