

## Research Proposal

### A. PROJECT TITLE

#### CP. 1.2 Ecosystem based management (EBM) enabling narratives for New Zealand.

### B. PROJECT TEAM

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### C. ABSTRACT

This project will support the Challenge SLT to develop NZ-specific narratives about what the practice of EBM might look like in multiple contexts – both now and in the future – and how its uptake can be supported. Marine management continues to evolve in NZ through Māori initiatives, community-initiated projects, business innovations, marine spatial planning and regional development programmes. Narratives of EBM-like marine management will assist in articulating to Maori and stakeholders, including the general public, what EBM might mean for them, and how they could be involved in future. The project will also explore options for new governance arrangements that could assist in the implementation of EBM. Narratives and governance scenarios will be shared widely using multiple media.

### D. RELEVANCE TO CHALLENGE OBJECTIVE

Designed to progress initiatives implementing ecosystem based management, building off insights about opportunities available through NZ's current legal frameworks and informed by research from across the Challenge, this project uses an iterative process to examine how implementation of ecosystem based management is taking place in NZ, and how it could be better supported.

## E. INTRODUCTION

Social scientists are increasingly realising the value of narratives and stories: they can be used to “communicate with, influence and engage audiences; they serve as artefacts to be investigated in terms of content, actors, relationships, power and structure; they can be used to gather information, provide insight, and reframe evidence in ways that more science-ordered formats miss” (Moezzi et al., 2017, p1). In this project we collect stories of EBM-like marine management from those involved, analyse them for the insights and evidence that they can provide, and then use these narratives to further communicate to research end-users about EBM in ways that are tangible, meaningful and memorable.

Narratives we will explore and seek to share will include EBM and related marine and coastal management approaches currently being trialled, as well as ‘speculative narratives’ that capture idealised or expected EBM-type approaches within NZ’s plausible futures. Further, we explore alternative governance frameworks that are compatible with EBM principles that can better support the widespread adoption of EBM-supportive practices in multiple contexts. This project will be inclusive of the practices of investment, application of labour and technology, and market making that translate environmental resources into social values i.e. what is normally understood as economy. The project will thus assist in creating links between EBM and developing the Blue Economy.

The research will help progress NZ’s enactment of EBM, focusing on the knowledge-policy-implementation divide.

## F. AIMS

To support the Challenge SLT to develop narratives and improve implementation for ecosystem based management in NZ, our two interrelated aims are to:

- 1) extend the reach of the national conversation about NZ specific practices of ecosystem based management; and
- 2) to propose alternate governance scenarios that will better support a shift toward ecosystem based management.

## G. PROPOSED RESEARCH

Three work packages will engage with current marine governance experiments to explore the limits and opportunities of ecosystem based management supportive narratives. Our methodology responds to calls for knowledge production processes that are attentive to the role of research in enabling possibilities for transformation towards sustainable development goals (Fam et al 2017). Hence we have designed three work packages to work in a nexus of cultural expression, economic development planning, speculative planning, enactment of legislation, and scientific representations of ecosystems. This project is designed to be agile and iterative and will work with direct guidance from the challenge SLT.

### **Work package 1: Developing EBM narratives.**

We will use thematic analysis of in-depth interviews and document analysis to articulate narratives from 8-10 EBM-like case studies.

First we will identify, with the assistance of SLT researchers, Kahui, TAGs, and using a snowballing approach, where EBM or near-EBM is already occurring in NZ, at different scales and locations (using the EBM definition to help decide what is or isn't included).

From this mapping of near-EBM examples (including Maori, community, commercial, regional council, government level examples if available) we will (with the SLT) create a shortlist of case studies (possibilities already identified include in Hauraki Gulf, Kaikoura, Taranaki, Kaipara, Eastern Bay of Plenty, Tasman/Golden Bay and Otago).

Where agreement to be involved is given, we will review any already-existing documentation then undertake interviews (or analyse existing interviews) seeking to explore and record their 'story'. This will include who is involved, the rationale for pursuing an EBM-like management approach, the drivers and barriers to realisation, collaborations, use of science and mātauranga, EBM practices, and aspirations for environmental, social and economic outcomes. 'Speculative narratives', i.e. idealised or desired EBM-type approaches, will also be gleaned from this material (i.e. differentiating between 'what is' and 'what could be').

Where feasible and mutually agreed, we will gather audio and visual material (e.g. photographs, short videos) that can be later used for communication in WP3.

From this work we will develop pared-down storylines that convey the different expressions of EBM and its principles in different contexts and scales. With SLT we will reflect on how the examples generated in WP1 epitomise (or not) the features of EBM as per the current Sustainable Seas definition. I.e., does reality reflect the aspiration, and if not what is preventing it?

The research, including the speculative narratives, will also provide valuable insights into barriers and support experienced with current governance arrangements, which will feed into WP2.

### **Work package 2: Governance scenarios for EBM implementation.**

A range of governance structures will be explored that provide fair, transparent and trustworthy procedures for establishing and realising EBM including the evaluation of investment in resource use within multi-use marine settings. This work will be carried out in conjunction with projects 1.2.1 and 1.2.2 on social license and projects 1.1.1 and 1.1.2 on participatory processes in Our Seas. This will enhance investment in the marine economy.

*This work package methodology and milestones will be iteratively developed with SLT.*

### **Work package 3: Communicating EBM narratives & governance scenarios.**

The rich descriptions of EBM and near-EBM examples (including written, digital and visual media) will be used for communication with Maori and stakeholders about what EBM might look like in the NZ context, and how this could be supported through alternate governance arrangements.

Diverse forms for communicating EBM narratives and governance scenarios will be explored and reviewed with the Challenge SLT and collaborators, including presentations, art-science exhibitions, videos, digital resources and hui. One commitment has already been made for an art-science exhibition in Nelson.

*This work package methodology and milestones will be iteratively developed with SLT.*

## H. RESEARCH ROLES

<b>Researcher</b>	<b>Organisation</b>	<b>Contribution</b>
<i>Alison Greenaway</i>	<i>Landcare Research</i>	<i>Project lead and primary researcher</i>
<i>Lara Taylor</i>	<i>Landcare Research</i>	<i>Kairangahau Maori researcher</i>
<i>Charlotte Šunde</i>	<i>Cawthron Institute</i>	<i>Researcher</i>
<i>Carolyn Lundquist</i>	<i>NIWA</i>	<i>Researcher</i>
<i>Others to be identified as the project develops</i>		

## I. LINKAGES AND DEPENDENCIES

As a project linking across programmes this work complements projects in most programmes. We are specifically making links from CP 1.1 and to CP 2.1. This alignment and ability to work with insights being developed across the Challenge is a key dependency of this project. As with CP 1.1, we will rely on advisors from SLT to provide connections and suggestions for appropriate alignments to be made. This project will be limited by the extent to which we are able to participate in ‘initiatives in train’ in the regions identified and through the professional networks identified.

## J. RISK AND MITIGATION

This research is low risk, with the main dependency being on SLT to support networking across the challenge, and the willingness of potential case studies to share their narratives. Disinterest from Challenge colleagues and concerns about time or financial limitations are expected. We will mitigate these to some extent by allocation of financial support (airfares and accommodation) for researchers and collaborators to attend meetings, interviews, seminars and make presentations with us. There are likely to be risks associated with the art-science exhibition in Nelson as this will take place in a public setting in the evening. A health and safety plan will be developed to work through plans for managing all the risks associated with this intervention and guidance will be sought from health and safety advisors from the organisations involved (Manaaki Whenua Landcare Research, NIWA, Cawthron and the relevant Councils). Intellectual Property and data management plans will be discussed and documented with collaborators. There is a very small risk that we will not be able to work as planned with these collaborators due to expectations of complete ownership of IP by the other parties involved

## K. ALIGNED FUNDING AND CO-FUNDING

To date there is no aligned funding or co-funding.

## L. VISION MĀTAURANGA (VM)

Co-research relationships established through CP 1.1 will be continued through this project. Hui will be held in at least 2 of the case study areas, aligned with current iwi/hapu marine management planning processes. The hui will assist the iwi/hapū to develop an understanding of what EBM could be and how it might inform their future management (and governance) plans. We also expect these

hapū and iwi to strengthen networks with relevant agencies and catalyse proactive/voluntary development of plans/strategies in anticipation of those future statutory-driven plans. The process of developing speculative narratives will be valuable for understanding the tensions, challenges, and opportunities for developing EBM that is attentive to / consistent with Māori rights, interests and values.

#### M. CONSENTS AND APPROVAL

Approval has already been granted by the Nelson Light Festival for an art-science exhibition. Social Ethics approval will be sought through Manaaki Whenua Landcare Research.

#### N. DATA MANAGEMENT

We will be guided by a Manaaki Whenua Landcare Research data management plan. Publicly accessible data will be shared with collaborators for the scenarios. Data gathered will be held on password secured computers in Manaaki Whenua Landcare Research, NIWA and Cawthron and will be disposed of within 5 years of the project's completion.

## P. REFERENCES

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- Fam, D., Riedy, C., Palmer, J. & Mitchell, C.A. 2017, *Transdisciplinary research and practice for sustainability outcomes*, Routledge, UK
- Greenaway et al (2017 in progress) *How current legislative frameworks enable Ecosystem Based Management (EBM) in Aotearoa New Zealand? A report for the Sustainable Seas National Science Challenge*.
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