

<https://researchcommons.waikato.ac.nz/>

Research Commons at the University of Waikato

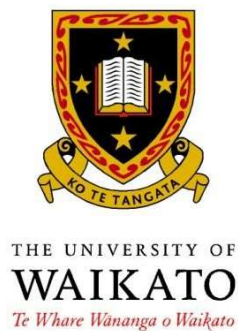
Copyright Statement:

The digital copy of this thesis is protected by the Copyright Act 1994 (New Zealand).

The thesis may be consulted by you, provided you comply with the provisions of the Act and the following conditions of use:

- Any use you make of these documents or images must be for research or private study purposes only, and you may not make them available to any other person.
- Authors control the copyright of their thesis. You will recognise the author's right to be identified as the author of the thesis, and due acknowledgement will be made to the author where appropriate.
- You will obtain the author's permission before publishing any material from the thesis.

Relational Engagement in Engineering: Developing an Indigenous Engagement Framework for
Practice with Mana Whenua in Aotearoa New Zealand



A thesis submitted
in fulfilment of the requirements
for the degree of
Master of Engineering
at
The University of Waikato
by
Benjamin James Poulsen

2026

Abstract

Engagement with mana whenua (territorial rights holders) is a vital part of competent engineering practice across Aotearoa New Zealand. Despite the existence of a large number of Indigenous Engagement Frameworks (IEFs), engineers seeking to engage face challenges in accessing, interpreting, and applying the available guidance in ways that respect Māori (Indigenous New Zealander) authority. Therefore, the research conducted here aims to the development of a practical IEF and accompanying spatial map to support early and culturally appropriate engagement with Māori.

Through a literature review and interviews with iwi (nation) representatives and museum curators, the study identified key gaps in accessibility and usability of existing frameworks. Many of the IEFs reviewed assumed a certain level of prior knowledge and experience from the user, which limited their effectiveness for engineers unfamiliar with engagement processes. Interviewees further emphasised the importance of relational engagement in achieving culturally appropriate and effective outcomes.

While engineers often rely on structured processes, the interviews found that effective engagement with mana whenua requires flexibility, time, and relationship-building. Rather than prioritising one approach over the other, the most effective result will come from finding a balance between structured processes and relational practice. The research highlights the need for practical guidance that supports engineers in navigating relational and culturally grounded engagement practices.

An iterative design process was used for the development of the IEF and accompanying spatial mapping tool, which were presented in the form of a practical booklet and interactive map that balances the desire for procedural guidance with prompts that encourage relationship-building. The study also demonstrates the practical and theoretical value of using site-specific taiao (environment) knowledge within engineering contexts, while emphasising the relational and reciprocal nature of engagement. Limitations of the study and opportunities for future research, such as including iwi-led spatial mapping and the potential for a reciprocal engagement framework, are also discussed.

This thesis contributes to a culturally grounded IEF designed to support engineers in conducting respectful and effective engagement with mana whenua.

Acknowledgements

I would first like to express my sincere gratitude to my supervisors, Dr Danielle Bertram and Dr Mahonri Owen, for their guidance and patience throughout this research. Your academic insight and steady support strengthened both this study and my development as a researcher. I am also grateful to my cultural advisor, Dr Roger Lewis, whose wisdom, generosity, and willingness to guide difficult conversations helped shape the direction and integrity of this work.

I extend my heartfelt thanks to the iwi (nation) representatives and museum professionals who generously shared their time, knowledge, and lived experience. Your openness, trust, and willingness to engage in meaningful kōrero (talk) made this research possible. I acknowledge that the value of this thesis rests upon the knowledge you chose to share, and I am sincerely grateful for your contribution.

I would also like to thank the administrative and ethics staff at the University of Waikato who assisted with approvals, documentation, and logistical processes throughout the research. Your support behind the scenes ensured the project could proceed smoothly and responsibly.

I am grateful to HERA for their financial support through scholarship funding, and to the University of Waikato for providing the academic environment in which this research was undertaken. Thank you also to the Ahuora team for the opportunity to work alongside you and apply this research within a practical context.

To the Lewis family, thank you for welcoming me into your home and for your kindness and support during my time living with you.

To my family, my father, Lois, Annalese, Adam, Fiona, and in loving memory of my mother, thank you for your encouragement, support, and belief in me throughout this journey. Your guidance and reassurance have shaped who I am, and I carry that with me in all that I do.

And to my partner, Cherry, this thesis would not have been possible without you. Thank you for your patience during the tough days, your reassurance during moments of doubt, and your constant encouragement when the work felt overwhelming. You listened, you supported, and you believed in me even when I struggled to believe in myself. I am deeply grateful for the strength and stability you brought to this journey.

Contents

Abstract	i
Acknowledgements	ii
List of Figures	ix
List of Tables	xi
Glossary	xii
Chapter 1. Introduction	1
1.1 Research Aim.....	2
1.2 Thesis Outline	2
Chapter 2. Literature Review	4
2.1 Review Method.....	5
2.1.1 Selection of Frameworks	5
2.1.2 Evaluation Criteria	5
2.1.3 Data Management	6
2.2 Government Frameworks.....	6
2.2.1 Te Tari Whakatau	7
2.2.2 Waikato Regional Council.....	7
2.2.3 Auckland Council	8
2.2.4 Waka Kotahi NZ Transport Agency	9
2.2.5 Bay of Plenty Regional Council	9
2.2.6 Horizons Regional Council.....	10
2.2.7 New Zealand Planning Institute.....	11
2.2.8 Environmental Protection Authority	12
2.2.9 Te Puni Kōkiri.....	12
2.3 Research and Institutional Frameworks.....	13

2.3.1	Hennessey	13
2.3.2	Te Aronui - Auckland University of Technology	14
2.3.3	University of Otago.....	15
2.4	Mana Whenua Group Frameworks	15
2.4.1	Te Rūnanga o Ngāti Ruanui Trust	15
2.4.2	Maniapoto	16
2.4.3	Te Rūnanga o Ngāti Awa.....	17
2.4.4	Te Runanga o NgāiTakoto	18
2.4.5	Ngāti Whātua Ōrākei	18
2.4.6	Ngāi Tai ki Tāmaki	19
2.4.7	Waikato-Tainui	20
2.4.8	Central North Island Forests Iwi Collective	21
2.4.9	Hineuru	22
2.4.10	Poutama.....	22
2.4.11	Ahipara Takiwā.....	23
2.4.12	Te Uri o Hau	23
2.4.13	Tiaki Tāmaki Makaurau – Conservation Auckland.....	24
2.4.14	Te Kawerau ā Maki Trust	25
2.4.15	Ngāti Whanaunga.....	26
2.4.16	Ngāti Porou Ki Hauraki	26
2.4.17	Ngāti Pūkenga Iwi Ki Tauranga Trust	27
2.4.18	Ngāti Hauā	28
2.4.19	Raukawa.....	28
2.4.20	Ngā Pōtiki	29
2.4.21	Ngāti Tūwharetoa.....	29

2.4.22	Waitaha	30
2.4.23	Ngāti Kea Ngāti Tuara	30
2.4.24	Ngāti Whare	31
2.4.25	Ngāti Kahu	32
2.4.26	Ngāti Whakaue ki Maketu	32
2.4.27	Ngāi Te Ahi.....	32
2.4.28	Te Taiwhenua o Heretaunga	33
2.4.29	Ngāti Tamateatutahi – Ngāti Kawiti	33
2.4.30	Rangitāne	34
2.4.31	Ngāti Tama.....	34
2.5	Industry and Other Frameworks	35
2.5.1	Mauri Model	35
2.5.2	Aggregate & Quarry Association of New Zealand.....	36
2.6	Research Gaps.....	36
2.6.1	Government Frameworks.....	36
2.6.2	Research and Institutional Frameworks.....	37
2.6.3	Mana Whenua Groups	38
2.6.4	Industry and Other Frameworks	40
2.6.5	Summary of Gaps	40
2.7	Conclusion	41
Chapter 3.	Spatial Identification of Iwi Areas of Interest and Marae Locations	42
3.1	Introduction.....	42
3.2	Approach to Spatial Mapping	43
3.2.1	Initial Boundary Compilation Process	43
3.2.2	Ethical and Conceptual Issues in Representing Rohe.....	44

3.2.3	Selection of Te Puni Kōkiri Dataset	44
3.3	Map Development Process	45
3.3.1	From Waikato to National Scope.....	45
3.3.2	Technical Design	47
3.3.3	Managing Overlapping Areas of Interest.....	49
3.4	The Final Interactive Map.....	50
3.5	Discussion	51
3.5.1	Combining Individual Iwi Boundaries.....	51
3.5.2	Implications of Using Te Puni Kōkiri Data	52
3.5.3	Purpose and Limitations of the Map	52
3.5.4	Benefits and Risks of Spatial Tools for Engagement	53
3.6	Conclusion	53
Chapter 4.	Interviews	54
4.1	Introduction.....	54
4.2	Ethical Framework and Cultural Safeguards	54
4.3	Development of Interview Questions	55
4.4	Participant Groups and Interview Design	56
4.4.1	Interview Procedures	56
4.4.2	Mana Whenua Interviews	57
4.4.3	Museum Curator Interviews	57
4.4.4	Rationale for Separate Interview Schedule	58
4.5	Participant Findings	58
4.5.1	Iwi Representative 1	58
4.5.2	Iwi Representative 2	61
4.5.3	Iwi Representative 3	63

4.5.4	Museum Representatives	66
4.5.5	Summary	69
4.6	Thematic Synthesis	70
4.6.1	Early Engagement and Continuity	70
4.6.2	Relational Authority and Identifying the Right People	70
4.6.3	Tikanga and Kawa Are Locally Defined	70
4.6.4	Capacity, Resourcing, and Institutional Constraints	70
4.6.5	Mātauranga Māori, Pūrākau, and Whakapapa as Environmental Knowledge	71
4.6.6	Frustration with Procedural or Compliance-Based Engagement	71
4.7	Conclusion	71
Chapter 5. Indigenous Engagement Framework		73
5.1	Introduction	73
5.2	Purpose and Rationale	73
5.3	Intended Audience and Use	74
5.4	Foundations of the Engagement Framework	76
5.5	Development of the Engagement Framework	77
5.5.1	Initial Structure and Content Development	77
5.5.2	Iterative Development and Refinement	77
5.5.3	Balancing Practical Guidance and Cultural Integrity	79
5.5.4	Visual Presentation and Cover Development	80
5.6	Final Framework and Booklet Overview	86
5.7	Key Outcomes	95
5.8	Limitations	95
5.9	Conclusion	96
Chapter 6. Conclusions		98

6.1	Identifying Gaps.....	98
6.2	Key Findings from Interviews	99
6.3	Development of the Framework	100
6.4	Contributions to Knowledge and Practice	100
6.5	Limitations and Future Research	101
6.6	Broader Implications.....	102
6.7	Concluding Statement.....	103
	References.....	104
	Appendices.....	112
	Appendix A — Participation Form.....	112
	Appendix B — Original Questions.....	113
	Appendix C — Mana Whenua Interview Questions	114
	Appendix D — Mana Whenua Introduction Sheet (English).....	116
	Appendix E — Mana Whenua Introduction Sheet (Te Reo Māori)	118
	Appendix F — Museum Interview Questions	121
	Appendix G — Museum Introduction Sheet	123
	Appendix H — Iwi Representative 1 Interview Summary	124
	Appendix I — Iwi Representative 2 Interview Summary	126
	Appendix J — Iwi Representative 3 Interview Summary	128
	Appendix K — Museum Interview Summary	129
	Appendix L — Original Draft of Booklet.....	132

List of Figures

Figure 1. AUT's tāniko pattern framework.

Figure 2. Examples showing different interpretations of Raukawa iwi boundaries.

Figure 3. Map showing national iwi areas of interest sourced from Te Puni Kōkiri.

Figure 4. Map of Waikato iwi and their boundaries.

Figure 5. Map of Waikato iwi showing that a single area of land can be of interest to multiple iwi.

Figure 6. Different scale levels showing marae.

Figure 7. Larger zoomed-in layers.

Figure 8. Darker areas indicate overlapping iwi areas of interest.

Figure 9. Screenshot of the final interactive map.

Figure 10. An example of one of the many changes made from the first draft to the final copy.

Figure 11. Original design for front and back cover of the booklet.

Figure 12. Version two of the front and back cover.

Figure 13. Version three of the front and back cover.

Figure 14. Final version of the front and back cover.

Figure 15. Original design for the internal pages.

Figure 16. Second draft for internal pages.

Figure 17. Final design of internal background.

Figure 18. The shift from the original to the final design.

Figure 19. Front and back covers of the Māori Engagement for Engineers booklet.

Figure 20. Booklet section detailing the rationale for Māori engagement and the guiding rights and responsibilities.

Figure 21. Booklet section describing the potential project benefits of effective Māori engagement.

Figure 22. The foundational building blocks for effective Māori engagement.

Figure 23. Guidance on when Māori engagement should occur and who should be involved.

Figure 24. The IAP2 framework outlining progressive levels of engagement.

Figure 25. A structured process outlining the key stages of engagement.

Figure 26. Further phases in the engagement process.

Figure 27. Final phases of the engagement process.

Figure 28. Expected procedures and appropriate conduct during engagement.

Figure 29. Further guidance on engagement practices.

Figure 30. Final guidance on engagement practices.

Figure 31. Pre-contact checklist for engagement.

Figure 32. Checklist for appropriate conduct before, during, and after engagement.

Figure 33. Template for constructing a personal pepeha.

Figure 34. Templates for different formats of mihi.

List of Tables

Table 1. Assessment of Government IEF's Against Key Criteria.

Table 2. Assessment of Research and Institutional IEF's Against Key Criteria.

Table 3. Assessment of Mana Whenua Group IEF's Against Key Criteria.

Table 4. Assessment of Industry and Other IEF's Against Key Criteria.

Glossary

Unless otherwise indicated, all definitions are sourced from *Te Aka — Māori Dictionary*. Alternative sources are identified by superscript numbering, with references provided below the table.

Māori Word	Translation	Definition
Ahi kā	Continuous inhabitants	Burning fires of occupation, continuous occupation - title to land through occupation by a group, generally over a long period of time.
Aotearoa	New Zealand	North Island - now used as the Māori name for New Zealand.
Aroha	Love	To love, feel pity, feel concern for, feel compassion, empathise.
Hapū	Kinship group	Section of a large kinship group and the primary political unit in traditional Māori society. It consisted of a number of whānau sharing descent from a common ancestor, usually being named after the ancestor, but sometimes from an important event in the group's history.
Harakeke	New Zealand flax	Phormium tenax - an important native plant with long, stiff, upright leaves, and dull red flowers.
Hikoi	March	A walk, typically used for protest.
Hui	Meeting	A gathering or assembly of people for discussion, decision-making or a meeting often held for a specific purpose within Māori culture.
Ingoa	Name	A name or designation given to a person, place, or thing, used to identify and refer to that entity in language and culture.
Iwi	Nation	Often refers to a large group of people descended from a common ancestor and associated with a distinct territory.
Kai	Food	Food or a meal, and it also functions as a verb meaning to eat or consume in te reo Māori.

Kaimoana	Seafood	Seafood or edible marine resources, including fish, shellfish, and other food gathered from the sea.
Kaitiaki	Guardian	A guardian or caretaker, often of the environment, resources, or cultural taonga, who exercises responsibility and stewardship in accordance with tikanga Māori.
Kaitiakitanga ¹	Guardianship	It is a way of managing the environment, based on the Māori world view.
Kaitohutohu	Instructor	An advisor, guide or instructor who provides direction, counsel, or expert guidance to others.
Kanohi-ki-te-kanohi	Face-to-face	Face-to-face interaction or meeting, emphasising direct, personal engagement in communication and relationship-building.
Karakia	Prayer	A prayer, incantation, or ritual chant used to invoke spiritual guidance, protection, or blessings.
Kaumātua	Elder	An elder of a whānau, hapū, or iwi who holds knowledge, authority, and responsibility for guidance, leadership, and the preservation of tikanga.
Kaupapa	Plan	A plan, policy, approach, or underlying principle that guides action or thought, often used to describe a framework or philosophy.
Kaupapa Māori	Māori approach	An approach or framework that is grounded in Māori values, principles, and worldviews, guiding actions, research, or decision-making in ways that uphold Māori knowledge and tikanga.
Kawa	Local protocol	Customs of the marae and wharenui, particularly those related to formal activities such as pōwhiri, and speeches.
Kia ora	Hello (informal)	Kia ora can mean hello, good morning, good afternoon, and thank you.
Koha	Gift	A gift, contribution, or offering given voluntarily, often to acknowledge hospitality, support a gathering, or show respect.

Kōrero	Talk	To speak, talk, or discuss, and can also refer to a conversation, narrative, or formal speech.
Kōrero tuku iho	History	Stories, narratives, or knowledge passed down through generations, often orally, preserving history, genealogy, and cultural traditions.
Koruru	Carved face	Carved face on the gable of a meeting house, often representing the ancestor after which the house is named.
Mahi ngātahi	Collaborate	Collaborative work or working together cooperatively towards a shared goal.
Mana	Authority	Authority, prestige, spiritual power, or influence that a person, group, or object possesses, often gained through lineage, achievement, or leadership.
Mana motuhake	Independence	Self-determination, autonomy, or the authority and independence of an individual, group, or iwi to govern and make decisions according to their own values and tikanga.
Mana whenua	Territorial rights holders	Power associated with possession and occupation of tribal land.
Manaakitanga	Hospitality	The process of showing respect, generosity, and care for others.
Māori ²	Indigenous New Zealander	The Polynesian people native to New Zealand.
Marae ³	Meeting place	A marae is a fenced-in complex of carved buildings and grounds that belong to a particular iwi, hapū or whānau.
Mātauranga	Knowledge	Knowledge, wisdom, understanding, or skill.
Mātauranga Māori ⁴	Māori knowledge	The knowledge, comprehension or understanding of everything tangible or intangible [such as spiritual and metaphysical values] that exists across the universe from a Māori perspective.
Maunga	Mountain	A mountain or significant elevated landform.
Mauri	Life force	The essential quality and vitality of a being or entity.

Mihi	Greeting	A greeting, introduction, or speech of acknowledgment that often expresses respect, connection, and identity, typically used at the beginning of a meeting or formal occasion.
Moana	Ocean	A large body of water, such as the sea or ocean.
Pā	Fortification	A fortified village or settlement, often located on a hill or strategic site, traditionally used for defence and habitation.
Pākehā	New Zealand European	Foreign, European, exotic - introduced from or originating in a foreign country.
Papatūānuku	Mother earth	She is a mother earth figure who gives birth to all things, including people.
Pepeha	Introduction	Set sayings known for their economy of words and metaphor and encapsulating many Māori values and human characteristics.
Pono	Honesty	To be true, honest, righteous, or morally correct, reflecting integrity and authenticity in thought, word, and action.
Pou ārahi ⁵	Leader	People who provide guidance, supervision and direction to others.
Pōwhiri	Welcome ceremony	A formal welcome ceremony, usually on a marae, involving speeches, song, haka, and rituals to greet and integrate visitors.
Pūrākau	Traditional story	A traditional story, legend, or narrative that conveys cultural knowledge, history, values, or spiritual lessons.
Rangatiratanga	Chieftainship	The right to exercise authority.
Rohe	Iwi boundary	The geographic boundary or territory of an iwi, hapū, or community, often defining areas of authority, identity, and customary rights.
Rūnanga	Council	Assemblies called to discuss issues of concern to iwi or the community.

Taiao ⁶	Environment	Te taiao is the natural world that contains and surrounds us — the land, water, climate, and living beings. It refers to the interconnection of people and nature.
Tangata Tiriti ⁷	People of the Treaty	Those who belong to this land by right of Te Tiriti o Waitangi/the Treaty of Waitangi.
Tangata whenua	People of the land	People born of the whenua, i.e. of the placenta and of the land where the people's ancestors have lived and where their placenta are buried.
Tangihanga ¹	Funeral	The enduring Māori ceremony for mourning someone who has died. It is commonly called a tangi, which also means to weep, and to sing a dirge (a lament for the dead).
Tāniko ²	Tapestry	A Māori ornamental border of a mat.
Taniwha ¹	Water spirit	Supernatural creatures in Māori tradition, similar to serpents and dragons in other cultures. They were said to hide in the ocean, rivers, lakes or caves.
Taonga	Treasure	Anything prized - applied to anything considered to be of value including socially or culturally valuable objects, resources, phenomenon, ideas, and techniques.
Tapu ⁸	Sacred	Tapu is the strongest force in Māori life. It has numerous meanings and references. Tapu can be interpreted as ‘sacred’, or defined as ‘spiritual restriction’, containing a strong imposition of rules and prohibitions. A person, object or place that is tapu may not be touched or, in some cases, not even approached.
Te Ao Māori	The Māori world view	The way with which Māori live, see, and interact with the world around them through their cultural lens. This interaction exists in both the physical and spiritual worlds.
Te Orokohanga ⁹	The creation story	Most commonly, the story of Maui fishing out Aotearoa New Zealand’s North Island from the sea.
Te reo Māori ¹⁰	The Māori language	The indigenous language of Aotearoa, New Zealand.
Te Tiriti	The Treaty	Short form for Te Tiriti o Waitangi.

Te Tiriti o Waitangi ¹	The Treaty of Waitangi	An agreement made in 1840 between representatives of the British Crown and more than 500 Māori chiefs.
Tekoteko	Carved figure	Carved figure on the gable of a meeting house, figurehead (of a canoe).
Tēnā koe	Hello (formal)	Hello to one person.
Tika	Justice	To be correct, true, upright, right, just, fair, accurate, appropriate, lawful, proper, valid.
Tikanga ¹¹	Customs	Behavioural guidelines for living and interacting with others.
Tino rangatiratanga ¹²	Self-determination	Refers to Māori control over Māori lives, and the centrality of mātauranga Māori.
Tuna ¹³	Eel	A generic Māori word for freshwater eels.
Tūpāpaku	Deceased person	Corpse, deceased, cadaver, deceased person's body.
Tupuna	Ancestor	A person from whom another is directly descended.
Tūpuna	Ancestors	Plural of tupuna.
Urupā ¹⁴	Burial ground	An area of land where the dead are buried.
Wāhi taonga ¹⁵	Treasured place	"Placed treasure" due to their high intrinsic values and critical role they have in maintaining a balanced and robust ecosystem.
Wāhi tapu	Sacred place	A place subject to long-term ritual restrictions on access or use, e.g. a burial ground, a battle site or a place where tapu objects were placed.
Waiata ²	Song	A Māori song usually commemorative of some important event.
Waka ²	Canoe	Broadly: a Māori seagoing craft.
Whakahauia ¹⁶	Consult	Seek feedback on options or designs.
Whakamanahia ¹⁶	Empower	Allow iwi to lead or have final decision-making authority ensuring full alignment with iwi values and priorities.

Whakamōhio	Inform	To let know, tell, notify, acquaint, teach, instruct, inform, introduce.
Whakapapa	Genealogy	Reciting whakapapa was, and is, an important skill and reflected the importance of genealogies in Māori society in terms of leadership, land and fishing rights, kinship, and status. It is central to all Māori institutions.
Whakataukī	Proverb	Proverb, significant saying, formulaic saying, cryptic saying, aphorism. Like whakatauākī and pepeha, they are essential ingredients in whaikōrero.
Whakaura ¹⁶	Involve	Include Iwi in projects discussions a decision-making.
Whakawhānaungatanga	Relationship-building	Process of establishing relationships, relating well to others.
Whānau	Family	Extended family or family group.
Whānaungatanga	Relationship	A relationship through shared experiences and working together which provides people with a sense of belonging.
Whare taonga	Museum	Literally a "house of treasures".
Whenua ¹	Land	The Māori word for land, whenua, also means placenta. All life is seen as being born from the womb of Papatūānuku, under the sea. The lands that appear above water are placentas from her womb. They float, forming islands.

¹ Te Ara — The Encyclopedia of New Zealand

² Merriam-Webster Dictionary

³ 100% Pure New Zealand

⁴ Waikato Regional Council

⁵ Education Review Office

⁶ Taiao Ora

⁷ Network Waitangi Ōtautahi

⁸ Intellectual Property Office of New Zealand

⁹ Upper Hutt City Council

¹⁰ Te Puni Kōkiri

¹¹ University of Otago

¹² Te One (2021)

¹³ NIWA

¹⁴ Toitū Te Whenua

¹⁵ Mahaanui Kurataiao Ltd

¹⁶ Te Rūnanga o Ngāti Awa

Chapter 1. Introduction

Traditional Indigenous knowledge is increasingly recognised as a valuable means of strengthening environmental management and decision-making. These knowledge systems, developed over hundreds of years of lived experience with local ecosystems, provide viewpoints that complement scientific and technical approaches (Berkes, 2012; Smith, 1999). Disciplines such as engineering, planning, and environmental science increasingly recognise that Indigenous knowledge can contribute to more sustainable and culturally informed decision-making (McAllister et al., 2019; Wilkinson et al., 2020).

With Aotearoa New Zealand's significant Indigenous population and rich cultural identity, Indigenous knowledge is highly valued and is reinforced by the constitutional and cultural significance of Te Tiriti o Waitangi (the Treaty of Waitangi). Te Tiriti (the Treaty) established an official relationship between Māori (Indigenous New Zealanders) and the Crown and affirms Māori as mana whenua (territorial rights holders) within their traditional lands. As a result, Māori participation in environmental governance and resource management has become an increasingly important expectation within policy and professional practice. Concepts such as mātauranga Māori (Māori knowledge), kaitiakitanga (guardianship), and rangatiratanga (chieftainship) are now widely recognised in environmental planning and decision-making frameworks (Durie, 2004; Harmsworth & Awatere, 2013; Hikuroa, 2017).

Engineering and infrastructure projects often affect land, water, and ecosystems that are culturally, environmentally, and historically significant to Māori communities. As a result, engagement with Māori is recognised as an important aspect of responsible and competent engineering and development practice. Effective engagement can support culturally informed decision-making, build new or strengthen existing relationships between engineers and mana whenua groups and individuals, and contribute to a more sustainable environmental practice. There is an increasing expectation that engineers consider mātauranga Māori alongside technical knowledge when designing and implementing infrastructure projects or undertaking work that may affect natural or cultural landscapes (Wilkinson et al., 2020).

However, despite this growing recognition of the importance of engaging with Māori, significant challenges remain in the accessibility, initiation, and implementation of engagement processes.

Many professional and academic organisations operate within structured and time-driven environments, where consultation often occurs too late in the project lifecycle or is treated as a procedural requirement rather than a relational process. Although several Indigenous Engagement Frameworks (IEFs) have been developed for professionals and government agencies, they vary widely in accessibility and usability. Many existing IEFs assume an existing level of knowledge and experience of engagement from their users, which can be difficult for engineers or professionals unfamiliar with engagement processes to apply effectively.

As a result, a gap exists between the growing expectation for meaningful and effective engagement with Māori and the practical ability of engineers and other professionals to carry it out. Many engineers require clearer guidance on how to initiate and conduct engagement in ways that are respectful, culturally informed, and practically applicable within project environments.

Therefore, this research aims to develop an IEF and an accompanying spatial mapping tool to assist engineers and other professionals in initiating and conducting respectful and culturally appropriate engagement with mana whenua throughout Aotearoa New Zealand.

1.1 Research Aim

The aim of this research is to develop a usable and accessible IEF to support engineers and other professionals in initiating respectful and meaningful engagement with mana whenua across Aotearoa New Zealand. The framework is intended as an introductory guide for practitioners who may lack the knowledge, experience, or existing relationships that are required for engagement. By providing accessible guidance and spatial tools, the research seeks to support earlier and more culturally appropriate engagement practices in engineering contexts.

1.2 Thesis Outline

Following this introduction, the thesis is structured as follows: Chapter 2 (Literature Review), Chapter 3 (Spatial Identification of Iwi Areas of Interest and Marae Locations), Chapter 4 (Interviews), Chapter 5 (Indigenous Engagement Framework), and Chapter 6 (Conclusions).

Chapter 2 presents a critical literature review of IEFs from various sectors across Aotearoa New Zealand. It examines frameworks developed for use by government agencies, academic and institutional engagement guidelines, iwi-developed engagement guidance, and industry-specific

guidelines. These resources are reviewed to identify strengths, weaknesses, themes, and gaps in current engagement guidance.

Chapter 3 describes the development of a national-scale spatial map detailing iwi areas of interest, marae (meeting place) locations, and regional council boundaries. This chapter outlines the process from compiling individual iwi datasets to the use of a nationally authoritative source of data, highlighting the technical, cultural, and conceptual challenges of representing indigenous territories within a western cartographic system. The resulting map is designed to be a tool for assisting professionals during early engagement planning by helping users identify relevant mana whenua groups.

Chapter 4 outlines the interview component of this research. It discusses the ethics approval process, the development of the interview questions, and the structure, content, and conduct of the interviews. The findings are presented thematically, focusing on topics such as early engagement, mana whenua authority, tikanga (customs), and procedural approaches to engagement.

Chapter 5 presents the IEF developed through this research. It explains how the information gathered from the literature review and interviews was used to construct the framework including the rationale behind each design choice, the intended audience, the framework limitations, and its position as a practical tool for use during the engagement process. The chapter positions the framework as a starting point for engagement rather than a complete replacement of traditional engagement methods.

Chapter 6 concludes the thesis by summarising the key findings of the research and reflecting on the development and application of the proposed IEF. It revisits the key research objectives and discusses how the findings contribute to improving the practice of Indigenous engagement across the engineering sector with Aotearoa New Zealand. Finally, the chapter also discusses the limitations of the research and identifies opportunities for future work showing further refinement and research could be beneficial.

Chapter 2. Literature Review

Government policy requirements and Treaty-based obligations, including the Resource Management Act 1991 and the Crown's responsibilities under Te Tiriti o Waitangi, have pushed IEFs to be used increasingly throughout Aotearoa New Zealand to guide interactions between a variety of organisations and Māori (NZTA, 2021). Many frameworks such as those provided by Te Tari Whakatau (2018) and Te Puni Kōkiri (2025) typically show ways to support more respectful, transparent, and effective engagement by outlining expectations for working with mana whenua. However, the guidance and usability of these frameworks can vary considerably depending on their origin and intended purpose.

Therefore, this chapter examines a wide range of IEFs currently available throughout Aotearoa New Zealand. The frameworks reviewed represent the different approaches to Māori engagement across contexts such as policy, planning, research, and development. The review critically analyses these frameworks to identify patterns, strengths, limitations, and gaps in the current available processes. Particular attention is given to four key aspects: initiation guidance, tikanga, partnership approach, and practical support. These criteria were identified as the main issues central to meaningful engagement, particularly for those who are inexperienced and unfamiliar with the Māori engagement process (Te Puni Kōkiri, n.d.; Ministry for the Environment, 2018).

Four framework categories were reviewed: government, research and institutional, mana whenua groups, and industry. Government frameworks include national departments such as Waka Kotahi and local authorities such as the Waikato Regional Council. Research and institutional frameworks include university engagement guidelines and frameworks produced through academic works. Mana whenua groups provide the majority of the frameworks reviewed, as this category includes frameworks produced by iwi, hapū (kinship group), and multi-iwi and multi-hapū collectives. Finally, industry frameworks include guidance developed by professional organisations that engage with Māori in specific sectors. Reviewing frameworks from each of these sectors allows for a holistic understanding of how Māori engagement is currently approached.

By comparatively reviewing these frameworks, this chapter establishes an evidence base for understanding how Māori engagement is currently guided across different contexts. Further, the insights gained from this review will inform the development of a more holistic IEF presented later

in this thesis (Chapter 5), which builds on existing strengths while addressing the limitations of the current literature.

2.1 Review Method

The purpose of this review is to analyse the content, context, structure, and usability of existing frameworks in order to identify strengths, weaknesses, limitations, and gaps in guidance for engaging with Māori. The review was designed to ensure a consistent approach to analysis while remaining sensitive to the cultural context in which these frameworks were developed. Frameworks were selected from multiple sectors and evaluated using criteria designed to assess their practical guidance for engagement

2.1.1 Selection of Frameworks

IEFs were selected from four primary categories: government frameworks, research and institutional frameworks, mana whenua frameworks, and industry frameworks. Government frameworks included documents produced by national government departments and regional councils. This ensured that engagement protocols influenced by legislation and policy were represented across multiple levels of government.

Research and institutional frameworks included both university IEFs and academic publications on engagement, providing an academic perspective on engagement practices. As Māori engagement involves both professional organisations and Māori communities, the inclusion of mana whenua frameworks ensured that Māori perspectives on engagement were represented alongside institutional viewpoints. Whereas industry frameworks provided insight into how professional organisations approach Māori engagement in practice.

In total, 45 IEFs were reviewed. The selection criteria included relevance to environmental management and planning processes, as well as accessibility and availability. Frameworks were included regardless of their level of detail in order to capture the range of guidance currently available, including cases where frameworks provide limited practical direction for engagement.

2.1.2 Evaluation Criteria

Each framework was assessed using four primary key indicators of an effective and complete IEF:

- Initiation guidance — Does the framework clearly explain who to contact, how contact should occur, and when engagement should begin?
- Tikanga guidance — Is there an explanation of the cultural protocols the user should observe?
- Partnership approach — Does the framework emphasise relationship-building and collaboration as central elements of engagement?
- Practical support — Are tools, templates, examples, or step-by-step guidance provided to assist users in navigating the engagement process?

A standardised template was used to ensure consistent evaluation of all frameworks, with results recorded in a comparative table. Notes were also taken on each framework's clarity, accessibility, performance against the four criteria, and any additional strengths or limitations observed.

2.1.3 Data Management

The information gathered from each framework was organised into the four sector categories (government, research and institutional, mana whenua, and industry). Using comparative analysis, several recurring themes were identified across frameworks, including early engagement, kanohi ki-te-kanohi (face-to-face) engagement, continuous feedback, and adherence to Te Tiriti o Waitangi (the Treaty of Waitangi) obligations. Observations of gaps in guidance were recorded to support recommendations for future best practices.

The methodology prioritised a critical approach, meaning that each framework was evaluated not only on its procedural guidance but also on its potential to support meaningful engagement. This approach enables a holistic understanding of the current state of IEFs in Aotearoa New Zealand and provides a foundation for identifying best-practice models.

2.2 Government Frameworks

Government-led IEFs reflect the regulatory and policy expectations for engagement with Māori in Aotearoa New Zealand. These frameworks are typically designed to meet legislative and Te Tiriti obligations. As government agencies often employ engagement specialists, their frameworks also tend to emphasise relational engagement.

2.2.1 Te Tari Whakatau

Te Tari Whakatau's (2018) framework focuses on relationship building. The framework is built on three main principles: engage early, be inclusive, and think broadly. Applying these principles helps professionals engage respectfully with tangata whenua (people of the land), ensuring that mātauranga Māori and other Māori perspectives are considered throughout the project process.

The first principle, engage early, highlights the importance of seeking Māori perspectives as soon as possible. Early engagement helps build positive relationships by encouraging trust and rapport from the beginning of a project. Further early engagement is crucial for effective partnerships where the participants have shared goals and demonstrate mutual respect.

The second principle, be inclusive, aims to ensure Māori voices are heard and valued. Te Tari Whakatau (2018) emphasises that inclusion involves more than simply providing opportunities for Māori input; it involves listening to and incorporating mātauranga Māori into the decision-making process. This principle empowers Māori communities by ensuring that their perspectives and knowledge influence the direction and outcomes of proposed projects.

The third principle, think broadly, encourages professionals and researchers to widen their scope and consider all potential contributors to a project. This principle ensures that a wide range of stakeholders contribute insights during the engagement process. By adopting this principle, professionals and researchers can ensure that multiple perspectives are considered, ultimately improving the project outcomes.

However, while the three key principles provide strong guidance for the engagement process, an important aspect is overlooked. The framework does not provide advice on how to make initial contact or identify the relevant person to approach. It assumes that the professional or researcher is already familiar with the tangata whenua who should be engaged and knows whom to contact. This omission is a significant oversight, as identifying correct contacts early in the engagement process is vital for relationship building and establishing effective communication.

2.2.2 Waikato Regional Council

The Waikato Regional Council (2017) has created an IEF that focuses on long-term partnership with Māori communities, emphasising a commitment to going beyond minimum legal

requirements. It emphasises the importance of mana-enhancing (authority-enhancing) relationships by acknowledging that partnerships with mana whenua, iwi, and hapū are vital to research and development in Aotearoa New Zealand.

The framework focuses on local iwi and tikanga to ensure the appropriate voices are heard. Further, it recognises that engagement with Māori varies from place to place, iwi to iwi, and hapū to hapū.

The Waikato Regional Council also aims to increase Māori representation within the planning and governance processes. This allows Māori perspectives to be incorporated at all levels of decision-making. The council is clearly focused on aligning its governance practices with the principles of Te Tiriti o Waitangi.

However, the framework provides limited guidance on how engagement should occur. The council does provide a list of iwi and hapū active within the Waikato region, which may be of assistance. While this provides a starting point for identifying potential contacts, it offers little further direction. Further, the framework does not provide strategies for initiating contact or navigating tikanga, which may create difficulties for professionals or researchers who lack experience engaging with Māori.

2.2.3 Auckland Council

Te Kaunihera o Tāmaki Makaurau — Auckland Council (n.d.) developed guidelines to support engagement within its own governmental processes. The framework outlines general principles, including guidance on when engagement should occur, and provides a high-level overview of the benefits and potential costs of Māori engagement. It also emphasises the importance of early engagement and includes a local iwi map to help identify which iwi are associated with particular areas.

However, the framework is largely surface-level and practical support for effective engagement is limited. While the map suggests who may need to be engaged, it does not provide explicit steps for identifying which mana whenua groups to contact in specific contexts. It also lacks guidance on tikanga, appropriate engagement practices, and strategies for building and maintaining relationships over time.

As a result, the framework offers limited support to individuals with less experience in the Māori engagement process, particularly in situations where relationship-building and adherence to local tikanga are essential.

2.2.4 Waka Kotahi NZ Transport Agency

Waka Kotahi NZ Transport Agency (n.d.) provides one of the more comprehensive IEFs, demonstrating a strong commitment to the principles of Te Tiriti o Waitangi and building genuine partnerships with Māori.

A key strength of this framework is that it clearly distinguishes mana whenua as partners rather than stakeholders. This acknowledges that Māori have tino rangatiratanga (self-determination), aligning with the Te Tiriti o Waitangi expectation of partnership.

According to Waka Kotahi (n.d.), engagement is a relationship-based process that requires long-term commitment, mutual respect, and shared decision-making. The framework also includes engagement requirements, such as understanding local context, whakapapa (genealogy), and tikanga. It also provides guidance on how to build and maintain relationships with mana whenua groups throughout the lifetime of a project.

However, this framework lacks step-by-step guidance on the practical implementation. Further, the document contains a significant amount of information, which may make it difficult for professionals to navigate which could discourage its use. For those inexperienced in engagement, the amount of information in this document can be overwhelming. Without a clear pathway or checklist to follow, it is difficult for professionals to use, making it hard to determine what specific actions should be taken or how to approach the relevant steps in engagement.

Despite these limitations, Waka Kotahi (n.d.) stands out for its commitment to partnership and its aim to include Māori perspectives in decision-making.

2.2.5 Bay of Plenty Regional Council

The Bay of Plenty Regional Council (2011) provides a guide specifically for its staff on engaging with Māori. The guide focuses on mandated requirements, such as those in the Resource Management Act (RMA) and the Local Government Act. This approach can come across as

obligatory rather than voluntary. However, the document does recognise the value of engagement by emphasising that working in partnership with Māori can lead to better outcomes.

A strength of this guide is its use of the different levels of engagement provided by the International Association of Public Participation (IAP2), which are inform, consult, involve, collaborate, and empower. By using these levels, the Bay of Plenty Regional Council provides a useful tool for staff to plan how they will engage, enabling a more consistent approach. The guide also identifies who within the organisation needs to engage, supporting accountability and ensuring that all staff members are aware of their responsibilities.

The framework does, however, provide little in the way of practical guidance on how to make initial contact with mana whenua groups. While it explains how to identify the right iwi, hapū, or individuals for a particular situation by listing iwi authorities and trust boards, it does not provide tips on how to approach each group. This framework assumes that staff already understand who to contact and how to approach them, which could make it harder for those unfamiliar with the engagement process. It would have been useful to include some simple, practical advice on these first steps to make the guide more useful, especially for staff who are unfamiliar with local tikanga or have not engaged with Māori before.

The Bay of Plenty Regional Council also has a framework for river management (n.d.) that includes a checklist and a step-by-step engagement process. This process is designed to help staff with the practical steps involved in engagement. However, the guidance is very specific to the Bay of Plenty Regional Council, so it offers little support for those outside the organisation or for professionals in other sectors.

2.2.6 Horizons Regional Council

Horizons Regional Council (n.d.) only provides limited guidance on engagement. Rather than offering a detailed framework or practical tools, the Council's advice mainly consists of a brief explanation and a list of internal contacts who can engage on behalf of those who need to make contact.

While this might be useful for staff already familiar with internal processes, it offers little help to external professionals who may be looking to understand how to initiate and carry out engagement themselves.

The lack of clear guidance on how to approach Māori communities or individuals, which tikanga to follow, or how to build and maintain respectful relationships, limits the resource's usefulness. There are no step-by-step processes, checklists, or examples to support people new to Māori engagement, and no explanation of key values or principles important to engagement. The framework directs users to internal representatives without offering foundational information or engagement principles. The resource appears to centralise engagement in a small group rather than encouraging broader understanding and capability-building across the organisation or sector.

This approach may unintentionally create a barrier to effective engagement by reinforcing dependence on a few individuals rather than helping others take responsibility for culturally appropriate engagement. For Horizons Regional Council to better support meaningful and consistent engagement with Māori, a more detailed, transparent, and accessible framework would be valuable. Including practical advice, cultural protocols, and examples of best practice would help ensure that engagement is handled correctly.

2.2.7 New Zealand Planning Institute

Te Kōkiringa Taumata — New Zealand Planning Institute (n.d.) discusses enhancing Māori participation in the RMA processes through iwi participation and consultation requirements. This approach addresses the inconsistency of current engagement and establishes the need for a more consistent basis for iwi and councils to collaborate from the outset of planning. The suggested requirement for councils to invite iwi to formally engage ensures transparency, while the emphasis on incorporating Māori perspectives into decision-making aligns with the principles of Te Tiriti o Waitangi.

However, it is important to note that the proposals discussed by Te Kōkiringa Taumata (n.d.) remain recommendations rather than enforceable mandates. Without statutory backing, councils are not legally required to implement these practices, which may allow existing inconsistencies in Māori engagement to continue. The voluntary nature of the proposed practices may result in uneven application across different regions, depending on the willingness and abilities of individual councils. As a result, the potential benefits of improved iwi participation could be undermined by a lack of accountability and follow-through.

2.2.8 Environmental Protection Authority

The Environmental Protection Authority (EPA) (n.d.) outlines a Māori engagement strategy that demonstrates a strong commitment to partnering with Māori. The strategy is built around Te Tiriti o Waitangi principles and seeks to incorporate mātauranga Māori into decision-making processes. It includes a range of engagement methods, from informing to co-design, and shows the importance of long-term relationships, mutual learning, and Māori involvement in governance.

A strength of the strategy is its focus on proactive, intergenerational thinking, where decisions are made with long-term impacts in mind, looking ahead 3, 30, and 300 years. However, while the strategy is conceptually strong, it provides limited step-by-step guidance for those unfamiliar with Māori engagement. It assumes users already know how to approach communities and establish relationships, which may be a barrier for newcomers. More practical guidance would improve its usability.

2.2.9 Te Puni Kōkiri

Te Puni Kōkiri — Ministry of Māori Development (2025) offers an IEF that is structured in a clear and accessible way, comprising five main sections: a brief overview of engagement, a more detailed exploration of engagement, an engagement strategy template, a participant feedback form, and a self-review form. This structure provides a straightforward pathway for users to develop engagement strategies and reflect on their processes, supporting a more systematic approach.

A key strength of the framework is its inclusion of practical tools such as templates and feedback forms. This helps individuals and organisations plan and evaluate their engagement activities, promoting accountability and continuous improvement in engagement practices.

However, despite these practical elements, the resource falls short in several important areas. It does not offer guidance on identifying the appropriate iwi, hapū, or Māori representatives to engage with, nor does it provide advice on making initial contact or establishing culturally appropriate relationships. It overlooks the importance of self-awareness in the engagement process, such as understanding and articulating one's role and identity as a researcher or professional in relation to engagement.

Without addressing these aspects, the resource assumes a level of familiarity and relationship-building experience that may not exist for all users. This gap could limit the effectiveness of the engagement strategies developed using the resource, particularly for individuals or organisations who are new to engaging with Māori or are unfamiliar with local tikanga and expectations. Expanding the guidance to include advice on initiating contact and building relationships would significantly enhance the resource’s practical applicability and cultural integrity.

2.3 Research and Institutional Frameworks

Research and institutional frameworks tend to focus on principles, values, and best-practice approaches to engagement. While they often provide strong conceptual foundations and ethical direction, their level of practical guidance and accessibility varies considerably. This section reviews research and institutional frameworks and examines how effectively they balance academic perspectives with practical usability.

2.3.1 Hennessey

Hennessey (2024) presents an IEF designed for the construction industry, with a particular focus on incorporating mātauranga Māori into the design and construction process. While the majority of engagement frameworks are broader in scope and view engagement as a holistic process, Hennessey (2024) is primarily concerned with surface-level, aesthetic integration rather than developing a model that incorporates mātauranga Māori in ways that meaningfully influence project processes and outcomes.

A strength of Hennessey’s framework is its iterative approach. It views engagement as an ongoing relationship rather than a one-off consultation or procedural requirement. It encourages professionals and researchers to build relationships throughout the design and construction phases. This continued engagement helps ensure Māori perspectives are not only incorporated into the initial designs but are refined and maintained throughout the project lifecycle, which can strengthen relationships with tangata whenua.

However, Hennessey (2024) does not provide guidance on how to initiate engagement or whom to contact. Despite this limitation, the framework provides useful insights into how cultural aesthetics and Māori design principles can be incorporated into projects to benefit professionals, researchers, and Māori communities.

2.3.2 Te Aronui - Auckland University of Technology

Te Aronui (n.d.), developed by the Auckland University of Technology (AUT), provides a values-based approach to honouring Te Tiriti o Waitangi within the university. Built around a tāniko (tapestry) (Figure 1) pattern symbolising the pursuit of knowledge, the framework emphasises the mātauranga Māori and relational values of tika (justice), pono (honesty), and aroha (love) and their relationship to institutional structures and processes. By prioritising Te Tiriti, AUT affirms mana motuhake (independence) and positions its commitment within a Māori worldview that is iterative, relational, and inclusive of all iwi, regardless of their Treaty-signing status.



Figure 1. AUT's tāniko pattern framework.

Further, Te Aronui (n.d.) links together multiple tiers of Māori values, principles, and enactments to embed Te Tiriti obligations throughout the university. The framework outlines clear pathways for action, including encouraging Māori leadership, enabling Māori aspirations, and addressing institutional racism. Principles such as whānaungatanga (relationships), manaakitanga (hospitality), and kaitiakitanga guide how AUT staff and students work together to uphold Te Tiriti, encouraging positive outcomes for both tangata whenua and tangata Tiriti (people of the treaty).

However, while Te Aronui (n.d.) outlines important values for engagement, it lacks a clear, step-by-step guide on how to engage and who to engage with. It sets a strong foundation but doesn't provide practical guidance on identifying appropriate iwi or hapū or on navigating the engagement

process. This can make it challenging for professionals unfamiliar with tikanga or Māori engagement expectations to apply it effectively.

2.3.3 University of Otago

The University of Otago (2022) has an IEF that provides an outline of engagement with Māori. It discusses concepts such as kaupapa Māori (Māori approach) and the importance of aligning engagement with Māori worldviews. However, these ideas are only briefly mentioned and not explored in depth. The framework includes a number of guiding questions and encourages professionals to reflect on their experience of engagement.

While the document identifies who to engage with, this information is provided through links to external resources rather than with context or advice on how to build relationships with mana whenua or relevant iwi and hapū. Further, the framework does not include guidance on making initial contact or establishing trust, both of which are vital parts of the engagement process. As with several other frameworks, it assumes a level of familiarity and confidence with Māori engagement processes that many users may not possess. Without guidance on tikanga or approaches to engagement, the framework may be underutilised by those unfamiliar with Māori organisations or engagement expectations.

In practice, this framework serves more as a prompt for internal reflection than as a practical guide to engagement. While it raises useful questions about purpose, timing, and relationships, it offers limited support for users seeking clear, actionable guidance on engaging respectfully and meaningfully with Māori communities.

2.4 Mana Whenua Group Frameworks

Mana whenua group frameworks provide a vital alternative view to engagement. These frameworks were written by tangata whenua to guide engagement with mana whenua. In contrast, the frameworks discussed previously are often broader and may overlook place-based knowledge, tikanga, and lived experience.

2.4.1 Te Rūnanga o Ngāti Ruanui Trust

Te Rūnanga o Ngāti Ruanui Trust (2014) has an iwi-developed, industry-specific framework tailored towards the petroleum and minerals industry. While the framework is sector-specific,

many parts could be applied in other engagement contexts, such as its explanation of how to identify the correct iwi and hapū for engagement. These practical elements strengthen the framework in terms of accountability and clarity during the engagement process.

However, this framework is highly procedural and places little emphasis on relationship-building, a key aspect of culturally appropriate engagement. This reduces the framework's usefulness in situations where long-term partnerships are necessary

2.4.2 Maniapoto

The Maniapoto Māori Trust Board (2018) provides an IEF to guide a wide range of users, including councils, resource users, consultants, government agencies, businesses, community organisations, schools, tertiary institutions, non-government organisations, and individuals. The framework is designed to support engagement with Maniapoto when a change occurs, or is proposed, in the use or management of natural resources, or when reviewing policy or developing new legislation. These triggers are clearly defined and supported by a flowchart that outlines when the engagement plan should be used. This approach encourages users to consider engagement early and consistently across a range of situations.

One of the framework's strengths is its clear explanation of who within Maniapoto to approach. It states that initial engagement should begin with members of the Maniapoto Māori Trust Board, who represent the collective interests of local whānau (family) and hapū. This helps to ensure engagement occurs through recognised representatives, avoiding fragmented or ad hoc approaches. The plan also provides a step-by-step guide for carrying out engagement, offering a procedure for users to follow.

The framework is focused primarily on environmental matters, reflecting Maniapoto's strong connection to whenua (land) and natural resource management. It offers Maniapoto's perspectives and expectations, helping external parties prepare more effectively for engagement.

However, the framework has some limitations. It does not explicitly reference tikanga, nor does it offer practical examples illustrating what culturally appropriate engagement looks like in practice. While the document is comprehensive, its length may be a barrier for some users, particularly those seeking concise and accessible guidance.

The Maniapoto framework stands out for its clear structure, guidance on when engagement should begin, and identification of appropriate representatives to approach. It provides a solid foundation for engagement that could be further enhanced by including cultural protocols, practical examples, and more explicit reference to tikanga Māori values that underpin effective and respectful engagement.

2.4.3 Te Rūnanga o Ngāti Awa

Te Rūnanga o Ngāti Awa (2019) provides an IEF designed to support interactions with their iwi across a range of situations, particularly regarding resource management and development projects. The document sets out a series of engagement principles, including engaging early, providing sufficient and clear information, reviewing the engagement plan before initiating contact, keeping the iwi informed throughout the project, and establishing a feedback loop. These principles look to support respectful and informed engagement, while also making expectations clear to external organisations.

This framework stands out because it includes its own version of the IAP2 spectrum of engagement. It categorises engagement into five levels: whakamōhio (inform), whakahauia (consult), whakaura (involve), mahi ngātahi (collaborate), and whakamanahia (empower), with examples of appropriate engagement methods for each. This acknowledges that the intensity and nature of engagement should vary depending on the nature of the project. The guide also provides a specific list of circumstances that trigger the need for engagement and includes a list of Ngāti Awa's statutory acknowledgement areas.

Despite these strengths, the framework falls short in several areas. While it offers contact details for engagement, it does not provide guidance on how to make culturally appropriate contact, such as the language, tone, or protocols that should be used. It also does not include any reference to tikanga or other cultural values that may shape engagement expectations. There is no explicit partnership approach outlined, and the guide lacks tools or resources to support professionals in preparing for or evaluating their engagement. As a result, although the document is clear and accessible, its practical usability is limited for those unfamiliar with iwi engagement processes or local cultural norms.

Te Rūnanga o Ngāti Awa's engagement guide presents a well-structured introduction to engagement expectations, particularly in relation to principles and engagement levels. However, it would benefit from the inclusion of more detailed guidance and practical support to assist users in developing respectful and effective engagement strategies.

2.4.4 Te Runanga o NgāiTakoto

Te Runanga o NgāiTakoto (n.d.) focuses on how the iwi approaches environmental and cultural protection, rather than serving as a detailed guide for how others should engage with them. The resource highlights several key aspects that support their engagement processes, including the use of cultural impact assessments and cultural monitoring in situations such as excavations, where active oversight is needed to protect the whenua. These tools help identify potential impacts while ensuring iwi values and responsibilities are upheld throughout the project's life.

The document also promotes the use of heads of agreement, which are formal statements that set out the roles and obligations of all parties involved. This approach encourages transparency and mutual accountability, while reflecting a clear commitment to partnership. NgāiTakoto also emphasise the importance of kanohi-ki-te-kanohi engagement, which aligns with the relational values central to many Māori worldviews and reinforces the importance of building trust through direct and personal interaction.

While the document clearly outlines the iwi's environmental engagement policy and explains how it aligns with four key legislative frameworks (He Korowai for enhanced conservation, Te Hiku Conservation Board, Te Oneroa a Tohe Beach Board, and Te Hiku Social Accord), it lacks a step-by-step guide or checklist for external users. There is also no section outlining tikanga or cultural protocol expectations, nor are there practical tools to assist those unfamiliar with iwi engagement. While the document mentions a partnership-based approach and provides valuable context for understanding NgāiTakoto's governance environment, it offers limited support for professionals seeking to initiate culturally appropriate engagement with the iwi.

2.4.5 Ngāti Whātua Ōrākei

Ngāti Whātua Ōrākei (2018) outlines its expectations for engagement on matters concerning land, air, or water within their rohe (iwi boundaries). The document emphasises early notification as a proactive and respectful step towards partnership. This may be achieved through a simple

notification of proposed plans, programmes, or projects. While this preference for early engagement is clearly stated, the framework itself offers limited practical guidance on how this should occur. For instance, although kanohi-ki-te-kanohi communication is strongly preferred, there is little guidance on who should be contacted or how initial approaches should be made.

A notable aspect of this framework is Ngāti Whātua Ōrākei's explicit rejection of collective mana whenua forums. The document argues that such forums risk presenting a single voice that erases the unique perspectives of individual iwi and disregards tikanga. Instead, the iwi encourages direct engagement with Ngāti Whātua Ōrākei to build meaningful relationships based on mutual respect. The framework also expresses a desire to formalise relationships with organisations over time, suggesting a long-term view of partnership.

Despite these clear principles, the document is not user-friendly. It lacks a step-by-step process, a checklist, or examples that would assist users unfamiliar with iwi engagement. As a result, while the values are clearly articulated, the framework offers limited practical support for those seeking to engage appropriately.

2.4.6 Ngāi Tai ki Tāmaki

Ngāi Tai ki Tāmaki (2022) provides a clear process for when and how engagement should occur, particularly in relation to plan reviews, resource consent applications, and mining or drilling licences. The framework states that early engagement is expected, and that the level of involvement required from Ngāi Tai ki Tāmaki will vary depending on the nature, complexity, and potential impacts of the activity.

A notable strength of this framework, which is missing from many others, is the clarity around who to contact and how to initiate engagement. Direct discussion is welcomed, and an application form is provided to streamline the process. This approach helps simplify the initial stages of engagement, which are often unclear in other frameworks. Continued engagement is also encouraged throughout the duration of a project, reinforcing the idea that iwi input should not be limited to the initial stages.

The framework sets an expectation that those wishing to engage with Ngāi Tai ki Tāmaki should first familiarise themselves with their taiao (environment) plan, Take Taiaomaurikura (Ngāi Tai ki Tāmaki, 2022). This requirement supports more informed and respectful engagement by

encouraging applicants to understand Ngāi Tai ki Tāmaki's values and environmental priorities before initiating contact.

Despite these strengths, the framework offers little guidance on tikanga or how to engage in a culturally appropriate way. There is also minimal reference to relationship-building or long-term partnership, which limits its usage in contexts where trust and ongoing collaboration are critical. While the administrative elements of engagement are well covered, the framework would be strengthened by a stronger emphasis on cultural practices, relational principles, and a warmer, more personal approach, rather than the highly bureaucratic version presented.

2.4.7 Waikato-Tainui

Waikato-Tainui (2014) offers an engagement guide that recognises widespread inconsistencies in the way Māori are engaged and considered in decision-making processes. The document argues that Māori concerns are often undervalued or incorrectly weighted and seeks to promote stronger recognition of iwi interests in environmental planning and resource use. While the guide states that tikanga is central to the engagement process, it does not provide specific guidance or examples on how to integrate tikanga into practice.

A key strength of the framework is its emphasis on early engagement and relationship building. Waikato-Tainui strongly encourages pre-application meetings and notes that involving iwi early can prevent larger issues from arising later in the process. To support this, they recommend preparing a draft preliminary report at the start of engagement. This report should be co-developed with Waikato-Tainui and include a description of the proposed activity, an assessment of how it aligns or conflicts with Waikato-Tainui's environmental plan, and initial suggestions for how any conflicts might be addressed.

The framework also outlines the process for assessing proposals, noting that Waikato-Tainui may choose to support, conditionally support, or reject an application based on the outcomes of engagement. A flowchart is included to show the key steps in the engagement process, providing structure. However, the document falls short in terms of specifying who within Waikato-Tainui should be contacted or how engagement should be initiated, which may pose difficulties for those unfamiliar with the iwi's organisational structure or processes.

While Waikato-Tainui's guide reinforces the value of relationships and early involvement, it would benefit from clearer, more practical guidance, particularly on initiating contact and applying tikanga. Without this, the framework assumes a level of prior experience that not all users may have.

2.4.8 Central North Island Forests Iwi Collective

The Central North Island Forests Iwi Collective (CNI) (2018) uses a set of engagement principles developed to support appropriate interaction with the iwi collective, which includes Ngāi Tūhoe, Ngāti Tūwharetoa, Ngāti Whakaeue, Ngāti Whare, Ngāti Manawa, Ngāti Rangitihi, Raukawa, and affiliate Te Arawa iwi and hapū. The framework outlines six key principles: engage early; engage kanohi-ki-te-kanohi; provide sufficient and clear information; keep the iwi collective informed; recognise that impacts are not limited to cultural matters; and ensure there is a feedback loop throughout the process. These principles show a commitment to ongoing, transparent, and respectful communication.

A strength of this framework is its recognition that engagement must occur early and directly, and that impacts should be considered broadly, not only in cultural terms, but also in social, environmental, and economic terms. The inclusion of a feedback loop shows the importance of mutual accountability. The principles also highlight a partnership approach, indicating that iwi should not be treated as stakeholders or consultees, but as partners in decision-making.

However, the framework lacks important information in several areas. While it provides a clear explanation of when engagement should occur, it does not specify who within the CNI should be contacted or how that contact should be initiated. There is also no reference to tikanga or how cultural protocols might guide the engagement process. The document provides no practical tools, templates, or examples to assist users with implementing the principles in real-world situations.

While the CNI framework presents strong engagement values and a broad partnership-based approach, it would benefit from more detailed guidance on initiating contact, greater cultural context, and practical support to help ensure its principles can be applied effectively by those unfamiliar with iwi engagement.

2.4.9 Hineuru

Hineuru Iwi Trust (2022) clearly sets out its expectations for iwi engagement, with a consistent emphasis on early contact and direct communication. The document discusses historic issues with engagement, noting that Hineuru have often been misidentified as a hapū or grouped with neighbouring iwi, which has limited meaningful participation. To address this, the framework reinforces the need for direct engagement with Hineuru and stresses that this is essential for building a respectful relationship.

The engagement approach is a partnership model that aligns with Hineuru's broader iwi development strategy, which seeks to advance economic, cultural, environmental, and social outcomes. Early engagement is seen as a proactive tool to identify and resolve potential issues before significant investment occurs, which not only benefits Hineuru but supports efficiency in project development. While the Trust recognises that collective iwi forums may have some value, they maintain that direct kanohi-ki-te-kanohi engagement is preferred, particularly for matters affecting their rohe.

The document states a set of engagement principles, including early engagement, personal contact, reviewing the iwi's strategic plan, providing clear and sufficient information, maintaining communication, acknowledging the full range of potential impacts, and establishing a feedback loop. These principles focus on respectful and accountable engagement.

Although the framework clearly promotes a culturally grounded approach and references the legal obligations under the Resource Management Act, it lacks specific practical tools such as templates or steps for engagement. The inclusion of principles, relationship-focused values, and direct instructions on who to engage with make it a strong and accessible guide for those looking to engage with Hineuru in a meaningful and appropriate manner.

2.4.10 Poutama

Poutama (2010) does not provide a full IEF instead offers a general statement. This statement outlines strong expectations of recognition, authority, and participation. It rejects crown-led determination of when Poutama is affected, stating clearly that Poutama are the only ones with the authority to say this. The document states that Poutama are an affected party in all RMA matters within their rohe and assert their right to all relevant documentation and appropriate funding to

evaluate proposals. While the document emphasises partnership and full participation in project management, it offers little tikanga or procedural guidance.

2.4.11 Ahipara Takiwā

The Ahipara Takiwā (2023) engagement framework provides clear and practical guidance for external parties seeking to engage with the iwi. It outlines when engagement is appropriate, how contact should be initiated, and who to contact. Initial engagement is well explained, with contact details provided and communication encouraged via writing, email, or phone. Engagement is expected for any activity that may affect cultural values, traditional practices, or natural resources.

A key strength of this framework is its emphasis on meaningful engagement built on mutual pride and respect. It promotes relationship-building and stresses that government representatives should adhere to their agency's formal engagement policies. Private and commercial parties, including researchers, are encouraged to review the environmental plan before engagement, which supports informed interactions.

Ahipara Takiwā (2023) also includes a practical example of successful engagement, which helps ground the framework in real-world applications. However, the framework does not provide any reference to tikanga or any specific cultural protocols, which limits its ability to guide culturally safe engagement practices.

The Ahipara Takiwā framework is well-structured and accessible, with a strong focus on early, respectful, and informed engagement. It could be further strengthened by integrating tikanga-based guidance to support culturally appropriate interactions.

2.4.12 Te Uri o Hau

Te Uri o Hau (2011) has a relationship-focused engagement framework built on the principles of honesty and trust, mutual respect, communication, and empowerment. These principles highlight their expectations for meaningful relationships with the Crown, research institutions, resource consent applicants, and the wider community. The emphasis is not only on formal processes but on the quality of the relationships themselves.

A core component of this framework is the importance of early involvement in policy development and resource management planning. This reflects Te Uri o Hau's expectation that engagement

must begin before decisions are made, allowing for quality contributions rather than symbolic consultation. The document also specifies that effective consultation must recognise the roles of traditional hapū, marae, and whānau, reinforcing a tikanga-aligned approach.

The framework also outlines some practical steps for engagement. It recommends that marae be used as venues for hui (meeting) and explains local councils will maintain an up-to-date list of relevant contacts for communication. Communication should be comprehensive, covering both formal representatives and local ahi kā (continuous inhabitants).

While the document is strong on values and expectations, it provides limited procedural guidance or examples of how engagement should occur. There is also little detail on how to initiate contact or navigate different stages of a project. Te Uri o Hau’s framework highlights the importance of respectful, early, and relationship-based engagement, and acknowledges cultural context through its recognition of whānau, hapū, and marae representatives.

2.4.13 Tiaki Tāmaki Makaurau – Conservation Auckland

Tiaki Tāmaki Makaurau – Conservation Auckland (n.d.) is a relatively complete and well-resourced IEF developed specifically for Auckland Council staff. It outlines a three-step process for engagement with mana whenua, consisting of preparation, communication and relationship-building, and taking the journey together. These stages are built on an emphasis on early involvement, partnership, and culturally grounded practice.

The preparation stage highlights the importance of internal readiness and encourages staff to consult the Environmental Services Department to determine which iwi and hapū should be contacted and to better understand their priorities, desired outcomes, and tikanga. This support structure creates accountability within the organisation and helps ensure that engagement efforts are appropriately informed. The framework includes a “Know Your Iwi” section, which provides some practical advice for making contact with mana whenua.

In the communication and relationship-building section, the framework reinforces the importance of long-term relationships, stating that these are mutually beneficial for both Council and mana whenua. It stresses the importance of allowing adequate time for engagement processes and encourages staff to avoid rushed or superficial interactions. The document also identifies that facilitation support is available through Council staff, which can help establish early trust and

navigate protocol during initial hui. These built-in support mechanisms reflect an understanding of institutional responsibility and reinforce the importance of sustained engagement rather than transactional consultation.

A significant strength of the Tiaki Tāmaki Makaurau (n.d.) framework is its inclusion of guidance on making initial contact, tikanga-based engagement practices, partnership principles, and practical tools. In contrast to many high-level strategies that offer abstract or largely aspirational statements, this document provides usable steps and access to both internal personnel and external resources.

However, its usability is somewhat weakened by a lack of cohesion in presentation. While the document is rich in content, it is structurally fragmented, making it difficult to navigate and extract relevant information quickly. This reduces its overall accessibility and may discourage less experienced staff from engaging fully with the guidance provided.

Despite this limitation, the framework shows a commitment to meaningful mana whenua engagement within Council practice. It offers a practical, place-based approach that helps translate policy intentions into real engagement. Its integration of institutional support and practical facilitation makes it one of the more functionally complete IEFs currently used within local government in Aotearoa New Zealand.

2.4.14 Te Kawerau ā Maki Trust

Te Kawerau ā Maki Trust (1995) presents an older version of the engagement process that is formal and highly procedural, lacking the relational or culturally grounded elements found in more recent IEFs. The document outlines a step-by-step process involving the submission of a formal letter describing the proposed activity, likely impacts, the information required from the iwi, and an accompanying map where relevant. An iwi representative then responds, and a follow-up letter is expected to explain how iwi input has been incorporated.

The framework also lists potential scenarios where iwi engagement is expected and states that the Trust will determine its level of involvement depending on the specifics of the project. However, there is no guidance on who should be contacted or how respectful engagement should be initiated. It appears that some contact information may once have been included but was removed and not

replaced. There is no mention of tikanga, which may leave professionals uncertain on how to conduct themselves.

The framework reads more like a legal protocol than a user-friendly engagement guide. While it provides procedural clarity in relation to correspondence and response, it lacks depth in terms of relationship-building, tikanga, and practical support.

2.4.15 Ngāti Whanaunga

May et al. (2019) prepared an IEF on behalf of Ngāti Whanaunga. The framework is built around six principles: engage early, know why, be clear, know how, tikanga, and embrace partnership. These principles explain how respectful engagement should occur and encourage a clear approach to working with the iwi. The framework outlines when engagement is required and what information should be provided, helping external professionals understand the iwi's minimum requirements.

The document covers a wide range of important aspects of engagement, including the role of tikanga and the need for partnership. These are addressed only briefly and without practical examples. While contact details are provided, there is little guidance on how to make the initial approach or which tikanga to follow. Even with the contact information provided, the lack of step-by-step guidance or practical support may limit the accessibility of the framework for less experienced users.

The framework presents engagement with Ngāti Whanaunga in a somewhat transactional manner rather than as a deeply relationship-based process. The tone is formal and businesslike, and although it references partnership, it lacks the relational depth or cultural grounding often seen in more comprehensive frameworks. Greater clarity around tikanga and more practical tools would strengthen the framework and better support the development of meaningful, long-term relationships.

2.4.16 Ngāti Porou Ki Hauraki

Ngāti Porou ki Hauraki (2015) provides a brief statement focused on asserting their rights within the Marine and Coastal Area (MACA) and emphasising their expectation to be included in all consultation processes that affect their rohe. The document discusses the iwi's concern for local

area management, specifically surrounding fisheries and natural resource management. A notable inclusion is the expectation that consultancy payments may be required for access to mātauranga Māori, which shows the value of Indigenous knowledge and the need to appropriately resource iwi contributions.

Unfortunately, the framework lacks significant information. There is no guidance on how to initiate engagement or who to contact. Tikanga is not discussed, and there is no reference to relational or partnership-based principles. The document operates more as a formal statement of interest and position rather than a user-friendly framework for guiding effective engagement.

2.4.17 Ngāti Pūkenga Iwi Ki Tauranga Trust

Ngāti Pūkenga Iwi Ki Tauranga Trust (2013) provides a brief, sector-specific engagement framework that outlines expectations for government agencies, local government authorities, and private interests. The framework places responsibility on professionals to be aware of and follow relevant engagement practices, such as the Local Government Act for councils and departmental engagement policies for government agencies.

The framework provides little information specific to Ngāti Pūkenga itself. In some respects, this may be seen as a strength, as it suggests a degree of flexibility and openness regarding how engagement may occur. For businesses or private individuals who may be less familiar with engagement, the framework recommends checking whether their activity is covered by the iwi management plan. Users are also encouraged to contact Ngāti Pūkenga directly, with contact details and a follow-up process clearly outlined. This makes the initial step into engagement accessible and reasonably well supported. Practical support is also provided through an example of best practice, which is often missing in other frameworks.

However, the document does not refer to tikanga. Engagement is treated primarily as a procedural activity, and the cultural values that underpin meaningful partnership are not addressed. The framework is perhaps too efficient, and it would be strengthened by integrating tikanga and relational elements to encourage deeper understanding and respect.

2.4.18 Ngāti Hauā

Ngāti Hauā's iwi management plan (Conroy & Donald, 2018) gives a detailed, principle-driven framework for engagement. It follows a structure found in several other iwi frameworks, with six key principles: engage early, kanohi-ki-te-kanohi, provide sufficient and clear information, review the plan before engaging, keep us informed, and provide a feedback loop. These principles emphasise the importance of transparent communication, and that genuine engagement builds meaningful relationships over time.

The document clearly states when engagement for each potential organisation is required and what information should be provided. Contact details are included which help with initial engagement. While the framework serves as a reference document, it states that it does not replace the need for direct, personal engagement with Ngāti Hauā. This highlights the value placed on relationship-building interactions rather than relying solely on written consultation processes.

A strength of the framework is its clarity around expectations, including the purpose of engagement and the emphasis on keeping Ngāti Hauā informed throughout the process. However, like several similar documents, it does not include practical tools or step-by-step instructions to support inexperienced users. Additionally, while the principles are relational, tikanga is not explicitly referenced or explained.

2.4.19 Raukawa

The Raukawa Environmental Management Plan (2015) is a structured approach to engagement, with the Raukawa Environment Group listed as the first point of contact. This group plays a gatekeeping role, determining the appropriate level of engagement for external parties. Raukawa also acknowledges that overlapping interests with other iwi may arise and indicates that guidance will be provided on appropriate engagement protocols in such cases.

The framework uses a set of engagement principles, including commitments to good faith, cooperation, timely and effective participation, open and transparent communication, and the avoidance of surprises. These principles show a strong emphasis on building productive and evolving relationships while meeting obligations and reducing unnecessary delays or costs.

Early engagement is encouraged, and the plan includes both a detailed checklist of information requirements for professionals and a step-by-step guide to the engagement process. However, the document does not provide specific instructions for initiating engagement beyond basic contact details, nor does it explain tikanga. This may limit the framework's usability, particularly for those unfamiliar with Raukawa's specific expectations.

2.4.20 Ngā Pōtiki

The Ngā Pōtiki Resource Management Plan (Conroy & Donald, 2019) adopts a relationship-oriented approach to engagement. It emphasises that engagement is valued as a means of building relationships and mutual understanding. While the plan includes contact details, it lacks clear guidance on how to initiate engagement or identify the appropriate representatives.

Ngā Pōtiki use five core principles of engagement: engage early, provide sufficient and clear information, review the iwi management plan before initiating contact, keep Ngā Pōtiki informed throughout the process, and maintain a feedback loop. These principles are consistent with themes found across Māori engagement frameworks, which reinforce transparency, preparation, and ongoing communication.

The framework also includes the IAP2 spectrum of engagement, which explains the expected level of interaction depending on the context. It explains when engagement is required, what information must be presented, and what external parties can expect during the process. These elements provide helpful direction for both planners and professionals engaging with the iwi.

However, the plan does not incorporate tikanga, which limits its value for those unfamiliar with cultural protocols. Nevertheless, its emphasis on relationship-building and early communication contributes meaningfully to consistent and respectful engagement.

2.4.21 Ngāti Tūwharetoa

The Ngāti Tūwharetoa Environmental Iwi Management Plan (2003) clearly prefers partnership over consultation, demonstrating strong alignment with the principles of Te Tiriti o Waitangi. The document outlines the goals of engagement, reinforcing the iwi's commitment to meaningful relationships rather than transactional exchanges.

A strength of this framework is its incorporation of tikanga. It not only references cultural protocols but also provides specific examples, offering clear insight into the iwi's expectations and cultural context. This gives a culturally grounded engagement process that respects Ngāti Tūwharetoa values.

The plan also offers practical advice to guide engagement. While it provides useful direction, it lacks a step-by-step guide, which may limit its usability for professionals unfamiliar with iwi engagement processes. Nevertheless, the framework offers sufficient detail to support informed and respectful interactions.

2.4.22 Waitaha

Waitaha (2014) offers an engagement framework aimed at two sectors: government and business/private interests. While the framework specifically addresses government engagement, it provides very little information for private-sector users beyond instructing them to make contact for more information. Further, although the plan offers more information for government users, it remains relatively limited in comparison with other frameworks.

A major strength of this framework is its use of three levels of engagement, each with examples. The levels of engagement are: initial, for minor resource consent; secondary, for more in-depth resource consent; and full, for major resource consent. It also provides indicative timeframes, so users understand what to expect from the schedule of engagement.

However, this framework omits several important details. While it instructs users to initiate contact by phone or email, it does not specify who should be contacted. The framework also states that users should follow tikanga but offers no explanation of what this means in practice. It also does not clearly indicate whether a partnership-based approach is preferred.

2.4.23 Ngāti Kea Ngāti Tuara

George (2016) provides a framework for Ngāti Kea Ngāti Tuara that focuses on the group's relationship with government agencies, specifically with the Department of Conservation and the Bay of Plenty Regional Council. These relationships support joint management arrangements for pest control and the protection of indigenous species and historic resources, such as wāhi tapu (sacred place) and wāhi taonga (treasured place).

The framework follows the five IAP2 levels of engagement: inform, consult, involve, collaborate, and empower. These levels allow the mana whenua group and the council to work together effectively, ensuring that Ngāti Kea Ngāti Tuara have an appropriate level of influence on all relevant council projects.

A major advantage of this framework is the use of example situations that will require engagement, such as resource consent, water management, and natural hazards and civil defence management. It also provides useful information regarding the appropriate level of engagement, the preferred method of engagement, and the specific offices and people to contact, including their contact details.

However, the framework does not address tikanga. There is no explanation of how professionals should conduct themselves during engagement, and there is limited practical support for those unfamiliar with the process.

2.4.24 Ngāti Whare

Ngāti Whare (2011) provides different guidelines for engagement for three groups: government departments, local government authorities, and businesses or private interests. For both government departments and local government authorities, the guidelines rely heavily on legislative requirements. Both national and local government representatives are instructed to follow their own written policies when engaging with Ngāti Whare.

The guidance for businesses or private individuals is more informal in tone. Professionals are asked to make contact via email or phone, after which a Ngāti Whare representative will discuss the project and determine who within the iwi should be involved with further discussions.

Ngāti Whare (2011) also sets out three levels of consultation. The first, initial consultation, is used to begin all engagement efforts and is primarily intended for minor projects, although it may lead to further engagement. The second, secondary consultation, is typically used where cultural impact reports or resource consents are required. The third, full consultation, applies where Ngāti Whare input is required throughout a project, particularly when waterways are involved.

There are several omissions in this framework. There is no mention of tikanga or of what is expected of those seeking to engage. There is also no discussion of building relationships or

growing partnerships. However, the inclusion of contact details does provide some practical support at the beginning of the engagement process.

2.4.25 Ngāti Kahu

Ngāti Kahu (2012) provides an engagement plan that is very similar to that of Ngāti Whare (2011). It includes the same three categories of engagement partners (government departments, local government authorities, and businesses or private interests) as well as the same three levels of engagement (initial, secondary, and full). Ngāti Kahu (2011) also has the same omissions, particularly the lack of guidance on tikanga and partnership approaches.

2.4.26 Ngāti Whakaue ki Maketu

Ngāti Whakaue ki Maketu (2018) provides a brief but effective engagement framework. It emphasises the value of building relationships and developing an understanding of their issues and values. Like many other frameworks, Ngāti Whakaue ki Maketu (2018) sets out five key principles: engage early, provide sufficient and clear information, review the hapū management plan before engaging, keep them informed about projects and plan changes, and provide a feedback loop. Contact details are also provided for those seeking to engage.

However, due to the brevity of the document, several key aspects are absent. There is no reference to tikanga, which may make it difficult for those unfamiliar with engagement to know how to conduct themselves. There is also no practical support, such as a checklist or template, to assist with the process.

2.4.27 Ngāi Te Ahi

Ngāi Te Ahi (2013) addresses two categories of organisations that may wish to engage: government agencies, both central and local, and business or private interests. Government organisations are expected to follow the principles of Te Tiriti o Waitangi and relevant legislation, including the Local Government Act (2002), the Resource Management Act (1991), and the Historic Places Act (1993).

Those with businesses or private interests are guided to contact the hapū in writing for any matter, not only those specifically listed in the management plan. While the detailed process is not outlined

in the framework, it states that a person will be provided to assist the user throughout the engagement journey. This practical support may make the process more transparent.

Ngāi Te Ahi (2013) also provides a list of contacts for different engagement requirements, along with an explanation of which departments handle particular issues. The framework also outlines three levels of engagement (initial, secondary, and full) and provides examples of what to expect at each level. The only omission is an explanation of tikanga to be followed at each level. This gap may, however, be partly offset by the provision of a named person to guide engagement.

2.4.28 Te Taiwhenua o Heretaunga

Te Taiwhenua o Heretaunga (2008) provides a relatively comprehensive IEF. It includes a detailed explanation of what to expect from the engagement process and outlines a range of implementation tools, methods, and mechanisms, some of which may be interpreted as examples of tikanga. The framework also emphasises the value of engagement and lists potential benefits.

However, despite its breadth, the framework omits several key components. It does not state who should be contacted or how to contact them. The framework also reads as relatively clinical, which reduces its accessibility. A concise summary or checklist of key engagement steps would improve its usability.

2.4.29 Ngāti Tamateatutahi – Ngāti Kawiti

Ngāti Tamateatutahi – Ngāti Kawiti (2015) has a relatively complete and user-friendly IEF. It places strong emphasis on relationship-building, specifically meaningful relationships. The framework includes a list of environmental interests, hapū actions, aspirations, and environmental triggers. These inclusions help users understand the importance of engagement with Ngāti Tamateatutahi – Ngāti Kawiti.

The framework also uses the five IAP2 levels of engagement: inform, consult, involve, collaborate, and empower, which are widely used throughout Aotearoa New Zealand. Each level represents a progressively deeper commitment to engagement and partnership. As with other frameworks, each engagement effort is treated individually and fits within one of these five levels of engagement.

This framework also lists examples of potential engagement situations, noting the likely level of engagement required and what the process may look like. Contact details are also provided for

different engagement situations. Finally, this framework includes a list of entities that already have a relationship with Ngāti Tamateatutahi – Ngāti Kawiti, further highlighting their commitment to building meaningful relationships.

However, there are some omissions. Tikanga is not mentioned, so those unfamiliar with engagement may struggle initially. In addition, the inclusion of a list of fees in relation to engagement may make the engagement process appear more transactional than relational, or business-like rather than guided by manaakitanga (hospitality).

2.4.30 Rangitāne

Rangitāne (2023) provides engagement advice for those applying for resource consent. As this framework is focused specifically on resource consent applicants, it lacks depth in many of the important areas of engagement. It does, however, explain the importance of early engagement clearly and gives examples of its benefits, such as building good working relationships, identifying whether cultural or environmental values are affected, and ensuring compliance with legislation.

Beyond this emphasis on early engagement, most other aspects of engagement are absent. There is no mention of tikanga, no contact information, no guidance on engagement, and no practical support of any kind.

2.4.31 Ngāti Tama

Ngāti Tama ki Te Waipounamu Trust (2018) provides a comprehensive and user-friendly IEF. It addresses all four criteria used in this review: initiation guidance, tikanga, partnership approach, and practical support.

The framework includes contact details along with a list of steps to take leading up to engagement. These include determining if engagement is necessary, reading certain sections of the iwi management plan, establishing how the proposed activity can be aligned with Ngāti Tama aspirations, and finally, making contact with Ngāti Tama to determine the required level of engagement.

There are two flowcharts which provide excellent practical support. The first flowchart explains when the management plan should be used. The second sets out the information needed for

engagement and provides a step-by-step guide through each stage, from preparation through to finalisation.

The framework also includes best practice principles that may be interpreted as expected tikanga. These principles strike a good balance between transactional and relational elements, maintaining a professional tone while also emphasising relationship-building.

Overall, Ngāti Tama's (2018) framework stands out for its clarity, practicality, and balance between cultural and procedural aspects. By providing clear initiation guidance, detailed procedural tools, and an emphasis on respectful relationship-building, it offers a strong model of Indigenous engagement that could inform best practice across Aotearoa New Zealand.

2.5 Industry and Other Frameworks

Not all frameworks fit neatly within the categories of government, research, and mana whenua frameworks. There are some frameworks that have been developed by specific industry groups or organisations, while others aim to integrate Indigenous perspectives within broader decision-making models rather than focusing solely on engagement processes. This section reviews frameworks that fall outside the main categories identified earlier but still contribute to the understanding of Indigenous engagement practices.

2.5.1 Mauri Model

Feek & Morgan (n.d.) explore the Mauri (life force) Model as a culturally grounded decision-making framework that integrates Indigenous Māori values with Western scientific ideas. The framework emphasises sustainability across four dimensions: environmental, cultural, social, and economic well-being. These dimensions are evaluated using the concept of Mauri as a performance metric.

Mauri, described as the binding force between the physical and spiritual realms, sits at the centre of the framework. By using mauri as a measure of well-being, the model enables sustainability to be assessed beyond conventional monetary-based indicators.

However, a limitation of the Mauri Model is its lack of explicit guidance on how to engage stakeholders effectively during the decision-making process. While the framework incorporates

stakeholder perspectives and conducts sensitivity analyses, it does not offer practical methods to facilitate collaboration or address potential conflicts among diverse groups.

2.5.2 Aggregate & Quarry Association of New Zealand

The Aggregate & Quarry Association of New Zealand (n.d.) provides an engagement framework presented largely in a question-and-answer format. This format addresses an aspect of engagement that is consistently overlooked: how to make initial contact.

The framework offers practical guidance on identifying which iwi and hapū should be involved in a project and emphasises the importance of contacting multiple relevant parties where appropriate. This includes both established contacts and other relevant groups to ensure a more inclusive and comprehensive engagement process.

However, while the framework helps clarify the initial stages of engagement, it provides limited guidance on the broader engagement process. It does not address appropriate conduct, cultural protocols, or how relationships should be built and maintained over time. As a result, its usefulness may diminish once the initial stage of contact has been completed.

2.6 Research Gaps

This review was conducted with the purpose of critically evaluating various IEF's across Aotearoa New Zealand, with particular attention given to four key aspects: initiation guidance, tikanga, a partnership approach, and practical support. The following comparisons show the similarities and differences between each of the reviewed frameworks across the sectors: government, research and institution, mana whenua, and industry.

2.6.1 Government Frameworks

A total of nine government sector frameworks were reviewed. A key strength shown by Table 1 is the strong emphasis on a partnership approach (88.89%). This shows that at the government level, there is a priority on building relationships with Māori during the engagement process.

Conversely, initiation guidance (11.11%) and practical support (22.22%) are extremely limited. This is unsurprising, as government agencies often employ their own engagement specialists who assist with engagement internally. As a result, detailed public guidance is often limited, with the expectation that internal personnel will provide support when required.

Tikanga guidance is provided in approximately half of the frameworks (55.56%), showing that tikanga is recognised as important but not always treated as a core component of engagement guidance.

These results suggest that while government frameworks provide clear direction on relational engagement and partnership, they frequently lack practical tools and explicit instructions. This appears to reflect a reliance on internal personnel and institutional processes rather than providing clear public-facing guidance.

This creates a potential gap for external users, particularly professionals who may be unfamiliar with Māori engagement processes and require clearer initiation guidance and practical support.

Table 1. Assessment of Government IEF's Against Key Criteria.

Framework	Initiation Guidance	Tikanga	Partnership Approach	Practical Support	Sector
Te Tari Whakatau	✗	✓	✓	✗	Government
Waikato Regional Council	✗	✓	✓	✗	Council
Auckland Council	✗	✗	✓	✗	Council
Waka Kotahi NZ Transport Agency	✗	✓	✓	✗	Government
Bay of Plenty Regional Council	✗	✓	✓	✓ (Internal)	Council
Horizons Regional Council	✗	✗	✗	✗	Council
New Zealand Planning Institute	✗	✗	✓	✗	Planning
Environmental Protection Authority	✗	✓	✓	✗	Environmental Regulation
Te Puni Kōkiri	✓	✗	✓	✓	Government
Total	1/9	5/9	8/9	2/9	
Percentage	11.11%	55.56%	88.89%	22.22%	

2.6.2 Research and Institutional Frameworks

Three research and institutional frameworks were reviewed (Table 2). These frameworks emphasised partnership approaches (100%), but none provided initiation guidance or practical

support (0%). Tikanga was presented in only one framework (33.33%). This shows a strong theoretical or relational focus in academic and institutional approaches but provides minimal guidance for users seeking practical steps or tools for engagement.

Similar to government frameworks, institutions may have their own internal engagement experts, reducing the need to include detailed procedural guidance within the frameworks themselves. As a result, these frameworks offer valuable conceptual insights but provide limited practical guidance for professionals unfamiliar with Māori engagement processes.

Table 2. Assessment of Research and Institutional IEF's Against Key Criteria.

Framework	Initiation Guidance	Tikanga	Partnership Approach	Practical Support	Sector
Henessay	✗	✗	✓	✗	Research
AUT	✗	✓	✓	✗	University
University of Otago	✗	✗	✓	✗	University
Total	0/3	1/3	3/3	0/3	
Percentage	0%	33.33%	100%	0%	

2.6.3 Mana Whenua Groups

Mana whenua engagement frameworks were sometimes difficult to locate. However, many iwi and hapū include engagement frameworks within iwi or environmental management plans. As these documents are commonly hosted on regional council websites, a substantial number of frameworks were accessible for this review. In total, 3 mana whenua IEFs were reviewed and compared (Table 3).

Initiation guidance (67.74%) and a partnership approach (64.52%) were seen as priorities within these frameworks. However, less than half included practical support (41.94%), with tikanga (19.35%) being surprisingly low. This pattern suggests that mana whenua frameworks aim to be accessible, but they often assume a certain level of cultural literacy from the user before engagement begins.

Table 3. Assessment of Mana Whenua Group IEF's Against Key Criteria.

Framework	Initiation Guidance	Tikanga	Partnership Approach	Practical Support	Sector
Te Rūnanga o Ngāti Ruanui Trust	✓	✗	✗	✓	Iwi / Petroleum & Minerals
Maniapoto	✓	✗	✓	✓	Iwi
Te Rūnanga o Ngāti Awa	✓	✗	✗	✗	Iwi
Te Rūnanga o Ngāi Takoto	✗	✗	✓	✗	Iwi
Ngāti Whātua Ōrākei	✗	✓	✓	✗	Iwi
Ngāi Tai ki Tāmaki	✓	✗	✗	✓	Iwi
Waikato-Tainui	✗	✗	✓	✓	Iwi
Central NI Forests Iwi Collective	✗	✗	✓	✗	Iwi Collective
Hineuru	✓	✗	✓	✗	Iwi
Poutama	✓	✗	✓	✗	Hapū Collective
Ahipara Takiwā	✓	✗	✓	✓	Iwi
Te Uri o Hau	✓	✗	✓	✗	Iwi
Tiaki Tāmaki Makaurau	✓	✓	✓	✓ (Internal)	Council
Te Kawerau ā Maki Trust	✗	✗	✗	✗	Iwi
Ngaati Whanaunga	✓ (Brief)	✓ (Brief)	✓ (Limited)	✗	Iwi
Ngāti Porou Ki Hauraki	✗	✗	✗	✗	Iwi
Ngāti Pūkenga Iwi Ki Tauranga Trust	✓	✗	✗	✓	Iwi
Ngāti Hauā	✓	✗	✓	✗	Iwi
Raukawa	✓ (Partial)	✗	✓	✗	Iwi
Ngā Pōtiki	✓ (Partial)	✗	✓	✗	Iwi
Ngāti Tūwharetoa	✗	✓	✓	✗	Iwi
Waitaha	✗	✗	✗	✓	Iwi
Ngāti Kea Ngāti Tuara	✓	✗	✓	✗	Iwi
Ngāti Whare	✓	✗	✗	✓	Iwi
Ngāti Kahu	✓	✗	✗	✓	Iwi

Framework	Initiation Guidance	Tikanga	Partnership Approach	Practical Support	Sector
Ngāti Whakaue ki Māketu	✓	✗	✓	✗	Hapū
Ngāi Te Ahi	✓	✗	✓	✓	Hapū
Te Taiwhenua o Heretaunga	✗	✓	✗	✗	Iwi
Ngāti Tamateatutahi- Ngāti Kawiti	✓	✗	✓	✓	Hapū
Rangitāne	✗	✗	✗	✗	Iwi
Ngāti Tama	✓	✓	✓	✓	Iwi
Total	21/31	6/31	20/31	13/31	
Percentage	67.74%	19.35%	64.52%	41.94%	

2.6.4 Industry and Other Frameworks

Two frameworks from industry or other professional organisations were reviewed (Table 4). Both frameworks partially addressed initiation guidance and tikanga (50% each), but partnership approaches and practical support were absent (0%). It should be noted that two frameworks are not sufficient to establish any meaningful trend, so these figures should be interpreted cautiously.

Table 4. Assessment of Industry and Other IEF's Against Key Criteria.

Framework	Initiation Guidance	Tikanga	Partnership Approach	Practical Support	Sector
Mauri Model	✗	✓	✗	✗	N/A
Aggregate & Quarry Association	✓	✗	✗	✗	Mining
Total	1/2	1/2	0/2	0/2	
Percentage	50%	50%	0%	0%	

2.6.5 Summary of Gaps

Partnership approaches were the most consistently addressed aspect of Māori engagement across all sectors. Initiation guidance, tikanga, and practical support were inconsistent depending on the sector. This indicates that each sector has different expectations of the user, with some frameworks assuming a basic level of knowledge of tikanga, while others rely on internal experts to assist with engagement, reducing the need for a fully developed framework.

This creates significant gaps for users unfamiliar with the overall engagement process. These patterns demonstrate the need for a more holistic framework that addresses every aspect of engagement without assuming any prior level of knowledge or experience from the user.

2.7 Conclusion

This literature review analysed IEFs from across Aotearoa New Zealand, specifically examining frameworks from government, research and institutional, mana whenua, and industry groups. The review used a comparative and critical approach, examining how these frameworks articulate engagement principles, processes, and support. These patterns reveal shared approaches to Indigenous engagement, as well as gaps in knowledge, clarity, guidance, and practical application.

A key theme across the various IEFs was a strong emphasis on partnership and relationship-building. This shows that there is widespread recognition of the importance of collaborative and meaningful engagement. However, this relational focus is often not supported by appropriate practical guidance. Aspects such as initiation guidance, tikanga, and usable tools were absent from many frameworks, presenting a challenge for those unfamiliar with the engagement process. Frameworks that included these aspects often assumed a level of experience and knowledge that users may not have, limiting their accessibility.

Frameworks developed by mana whenua groups often offered clearer initiation guidance, including points of contact, but frequently lacked explanations of tikanga, assuming an existing base of cultural understanding from the user. Industry frameworks were the least accessible, with only a small number available for review, as many are internal documents not publicly accessible. These patterns show that while engagement is widely recognised as important, its implementation remains uneven.

Overall, the literature reveals a clear gap between the intention of Indigenous engagement and its practical implementation. The absence of a comprehensive framework that incorporates the four key aspects of engagement (initiation guidance, tikanga, a partnership approach, and practical support) underscores the need for a more holistic approach. These findings provide the foundation for the development of a new IEF that builds on existing strengths while addressing the limitations identified across the current literature.

Chapter 3. Spatial Identification of Iwi Areas of Interest and Marae Locations

3.1 Introduction

A web-based spatial map was developed to support site identification and engagement planning across Aotearoa New Zealand. This chapter addresses the question of who should be engaged, which complements Chapter 5, where the focus shifts to how engagement should occur.

It is currently difficult for engineers and other professionals to understand which mana whenua groups hold authority or historical relationships with a particular area. Not knowing who to engage with can cause delays, ineffective consultations, or lead to engagement with the wrong individuals. The development of a spatial tool, in the form of an interactive map, addresses this concern by providing a simple way for professionals to identify the appropriate mana whenua group or marae to engage with.

The map was created using ArcGIS to bring together iwi areas of interest, marae locations, and regional council boundaries across Aotearoa New Zealand. The spatial data showing the iwi areas of interest and marae locations were sourced from Te Puni Kōkiri, which is a nationally recognised and authoritative dataset. Regional council boundaries were sourced from Stats NZ and were included to provide an administrative context, so it was clear which council could assist with engagement should that be needed.

The map is designed as an exploratory tool rather than an authority on iwi boundaries, recognising that iwi areas of interest may overlap and that western mapping systems cannot effectively capture the whakapapa and lived experience associated with each section of land. This chapter documents the methodological decisions that guided the map's development, outlines the development process, presents the final output, and reflects on what this approach means in real engagement contexts.

3.2 Approach to Spatial Mapping

3.2.1 Initial Boundary Compilation Process

An early methodological decision was to attempt to compile iwi boundaries manually by combining multiple individual boundary datasets. This involved sourcing boundary information from a range of iwi-specific materials, reports, and publicly available spatial datasets, and then attempting to merge these into a single spatial layer.

This approach proved technically difficult and conceptually problematic. Technically, the datasets varied widely in format, scale, projection, and quality. Some sources showed generalised boundaries (Figure 2a), while others showed more detailed (Figure 2b), or highly simplified interpretations (Figure 2c). Boundaries did not align cleanly, and in many cases, overlapped or left gaps when merged. These inconsistencies made it difficult to construct a single coherent and technically reliable spatial dataset.

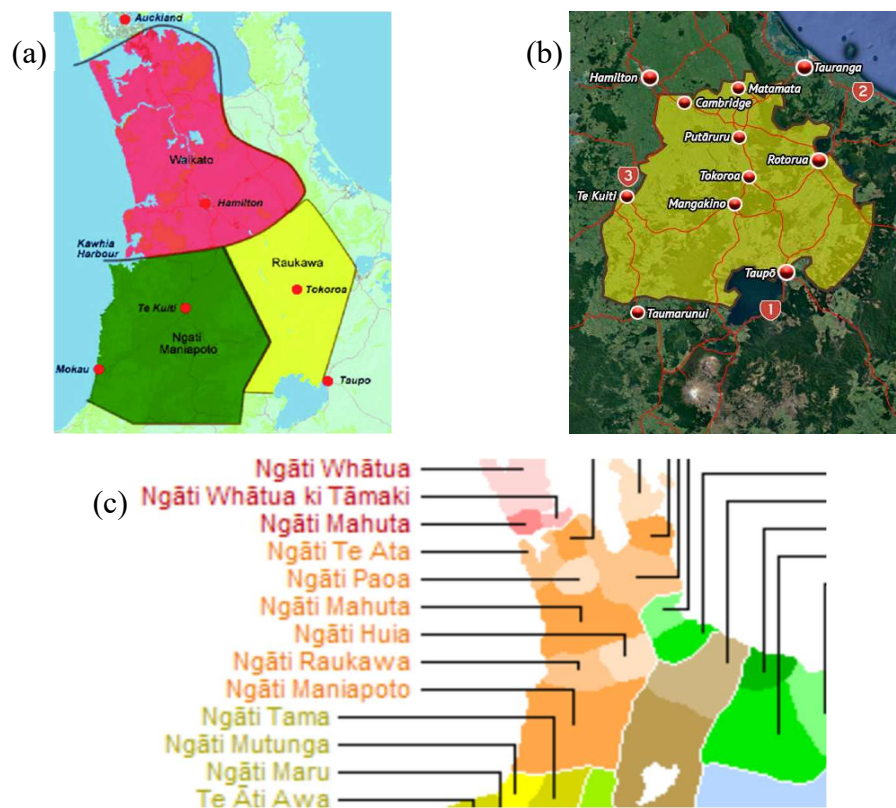


Figure 2. Examples showing different interpretations of Raukawa iwi boundaries.

Conceptually, the process raised deeper issues about authority, representation, and legitimacy. The act of digitally fixing iwi boundaries risked presenting rohe as settled and uniform, when in reality, they are shaped by whakapapa, historical movement, contested claims, and Treaty settlements. The attempt to impose a single, standardised boundary layer highlighted the tension between Indigenous territorial realities and the simplifying tendencies inherent in mapmaking.

3.2.2 Ethical and Conceptual Issues in Representing Rohe

The early process of compiling boundaries proved to be more than a neutral technical task. Rohe have dynamic boundaries that are affected by whakapapa, historical occupation, shared use, and treaty claims.

Placing fixed digital boundaries on iwi an hapū can imply exclusivity or territorial hierarchy when they may not exist. Many areas of land around Aotearoa New Zealand are shared among several iwi, with some sections of land being a part of the area of interest for more than ten iwi. Overlapping areas of interest are common, which shows the complex historical and genealogical relationships that exist throughout the country.

These concerns required serious ethical reflection. A change from “iwi boundaries” to “iwi areas of interest” was made to avoid a more definitive framing that can overlook the relational nature of rohe. This wording is used to emphasise that multiple iwi can have a relationship with the same whenua and reduces the risk of misunderstanding territorial authority.

3.2.3 Selection of Te Puni Kōkiri Dataset

Following the technical and conceptual challenges associated with manually compiling boundaries, the project shifted to using iwi and marae data sourced from Te Puni Kōkiri (Figure 3). This dataset offered a nationally recognised, standardised reference layer for both iwi rohe and marae locations that carries the authority of a government source.

This decision was driven by both practical and ethical considerations. Practically, the Te Puni Kōkiri dataset resolved many of the technical issues encountered when attempting to merge multiple independent boundary sources. Ethically, it provided institutional legitimacy and consistency, reducing the risk of misrepresenting iwi territories.

While this dataset does not resolve all conceptual issues regarding boundary representation, it provides a workable and defensible foundation for the purposes of this research. Importantly, the map is framed as a guide rather than a definitive territorial authority. It is intended to support initial engagement processes, not to replace direct consultation with mana whenua or iwi authorities.

Figure 3. Map showing national iwi areas of interest sourced from Te Puni Kōkiri.

3.3.1 From Waikato to National Scope

At this stage, the map was designed as a relatively simple spatial layer showing iwi boundaries within the Waikato region (Figure 4). The aim was not to create a technically perfect or highly detailed map, but rather a functional engagement tool that could help researchers, planners, and professionals identify mana whenua and relevant marae when initiating projects.

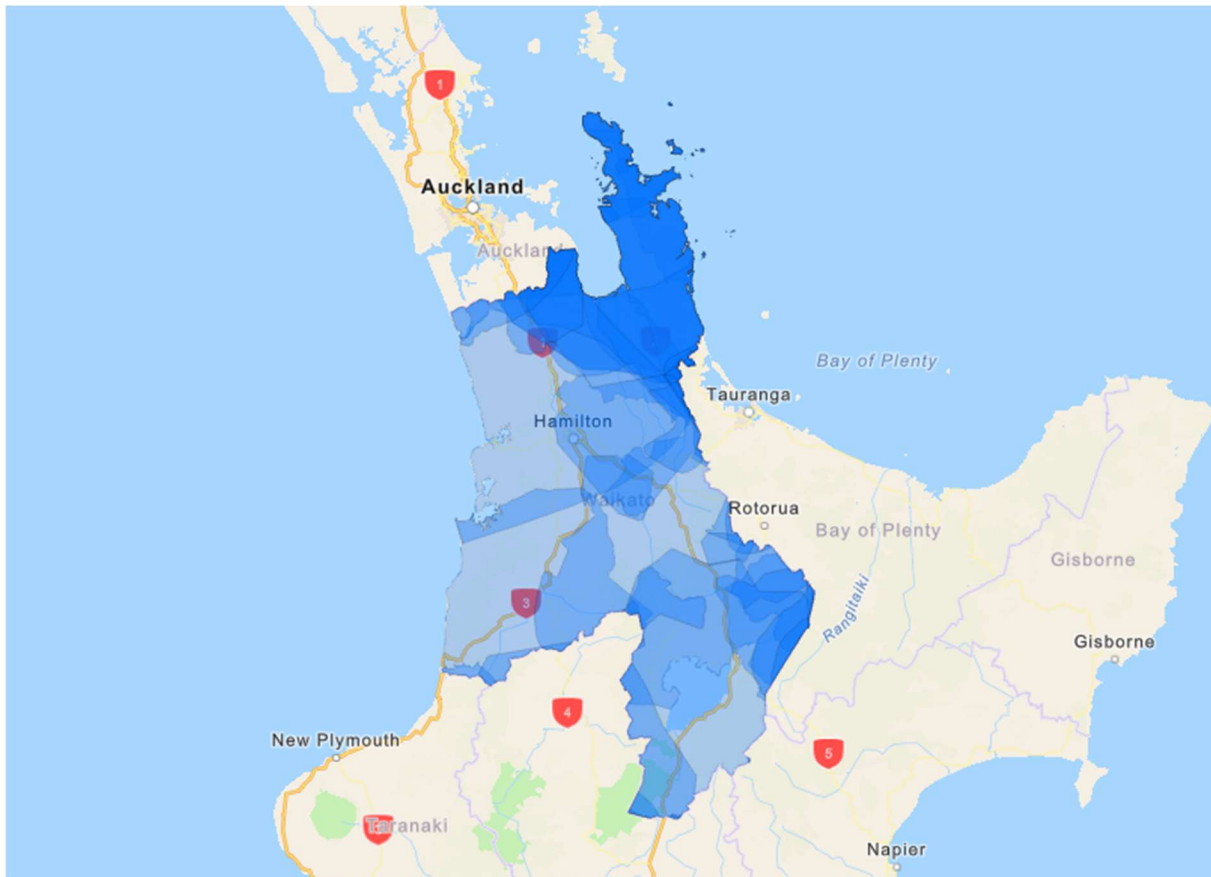


Figure 4. Map of Waikato iwi and their boundaries.

This early version quickly showed both how useful the map could be and how difficult it was to get right. While it was possible to show rough iwi areas, it became clear that iwi boundaries are not neat or fixed. Many rohe overlap (Figure 5); some areas are shared, and boundaries have changed over time. By describing rohe as areas of interest rather than fixed boundaries, it acknowledges that much of the land is important to multiple mana whenua groups.

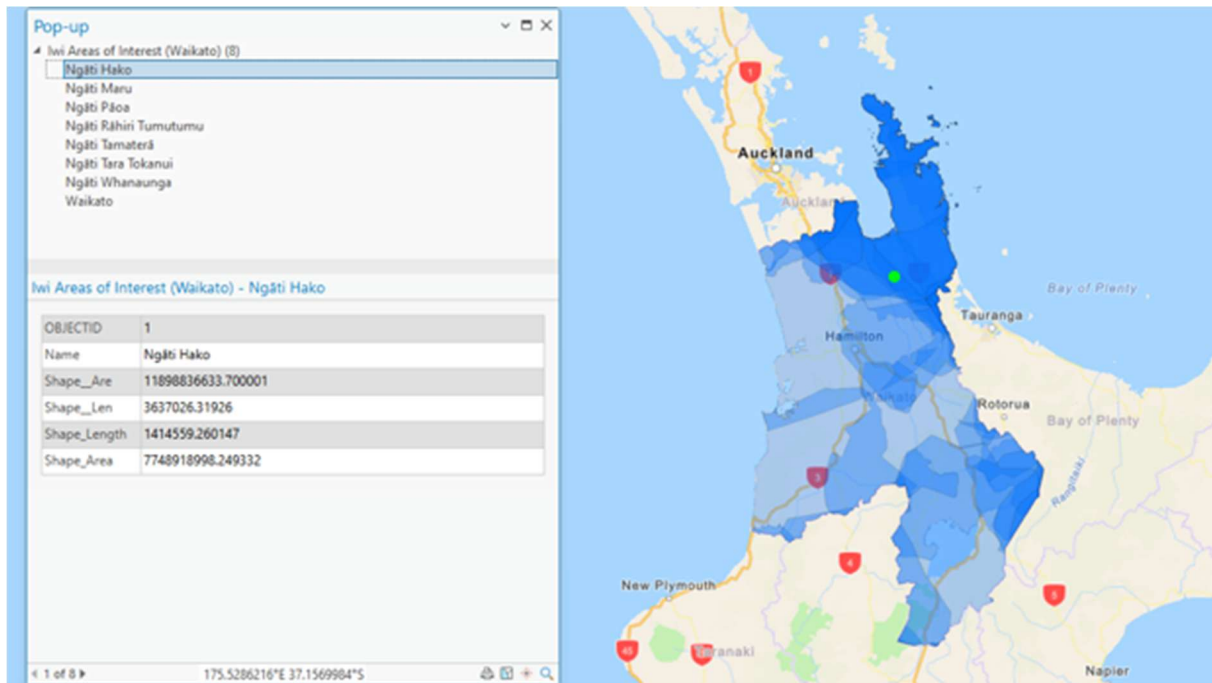


Figure 5. Map of Waikato iwi showing that a single area of land can be of interest to multiple iwi.

As the research progressed and the literature review expanded further to include IEFs from across Aotearoa New Zealand, it became clear that a Waikato-only map was no longer suitable. The decision was made to extend the map to include all iwi and marae throughout the country. This reinforced the role of the map as a general engagement tool rather than a case-study-specific visual aid.

3.3.2 Technical Design

The map was developed in ArcGIS Pro and published as an interactive web map through ArcGIS Online. The development process involved importing large spatial datasets, aligning coordinate systems, symbolising polygon and point layers, and configuring scale-dependent visibility. These technical steps were included to ensure that iwi areas of interest, marae locations, and regional council boundaries could be accurately displayed on a single accessible spatial map.

As the project expanded from regional to national scale, the density of marae and overlapping iwi areas of interest increased significantly. This created a challenge in visual clarity, so careful decisions were made about symbology, labelling, transparency, and colouring to prevent the map from becoming visually cluttered while still accurately representing overlapping spatial relationships.

One of the main technical challenges in the final build was that symbol scaling did not transfer cleanly from ArcGIS Pro into ArcGIS Online. In ArcGIS Pro, symbol sizes can be set to adjust as the user zooms in and out. However, when the project was published to ArcGIS Online, this scaling was lost, and the symbols remained fixed in size regardless of zoom level. This created usability problems where symbols that were an appropriate size at a national or regional scale (Figure 6a) were seen to be unusably small when zoomed into a single town or rohe (Figure 6b), while symbols sized for local viewing were too small to see when zoomed out.

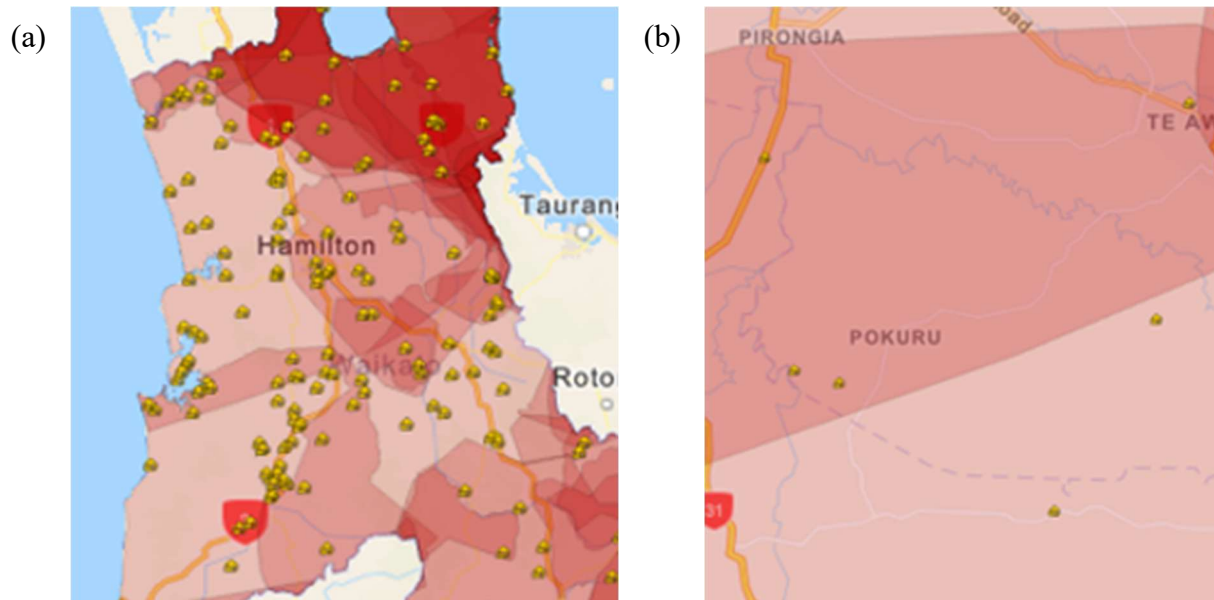


Figure 6. Different scale levels showing marae.

To work around this, multiple duplicate layers had to be created for marae points. Each layer was configured with different symbol sizes and visibility ranges, so that specific layers would only appear at certain zoom levels. For example, one set of layers displayed smaller symbols when viewing the whole country, while other layers displayed progressively larger symbols as the user zoomed into regions and local areas (Figure 7). This allowed the map to remain readable with appropriately sized symbols at different scales.

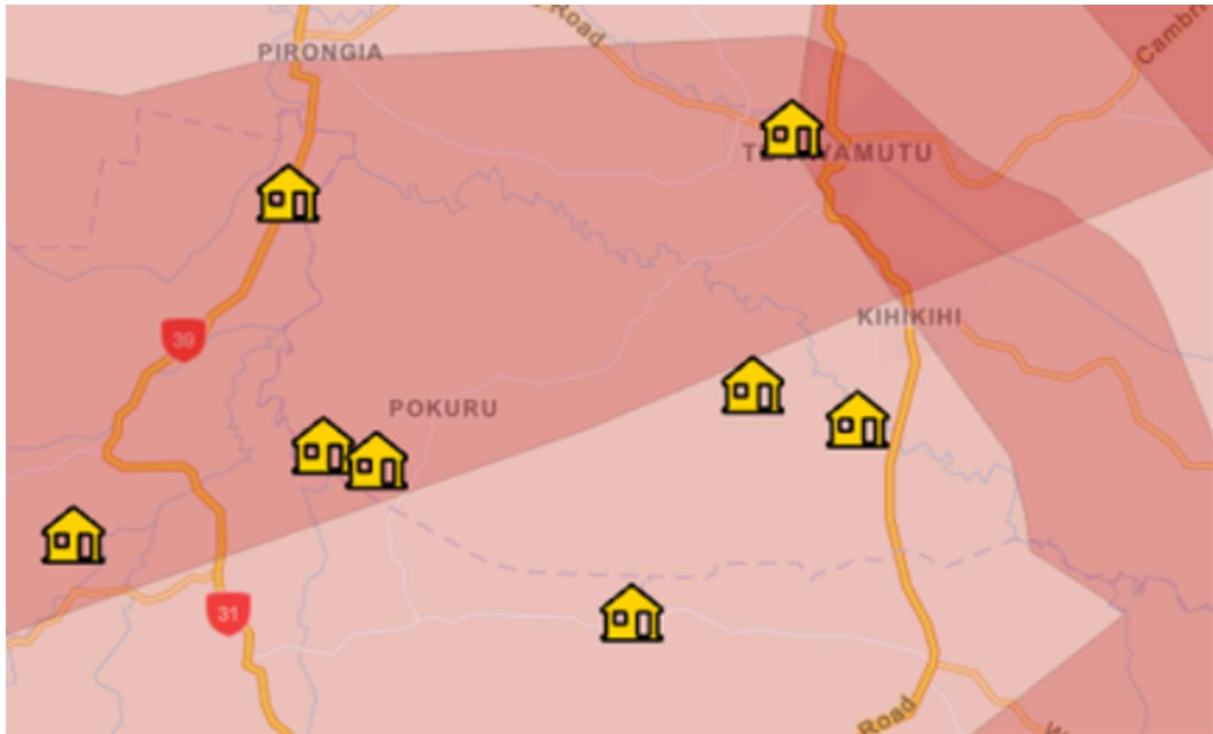


Figure 7. Larger zoomed-in layers.

Different colour schemes were applied to regions based on regional council boundaries. The intention behind this was to help users quickly identify which regional council area a particular iwi or marae sat within, and therefore which council could potentially assist with engagement processes or provide existing points of contact. This was particularly important once the map was expanded beyond Waikato to include all of Aotearoa New Zealand.

3.3.3 Managing Overlapping Areas of Interest

A key challenge in the map design was the representation of overlapping iwi areas of interest. To address this, 70% transparency was applied to iwi polygon layers so that areas with multiple overlapping interests appeared darker (Figure 8). This approach enabled overlapping spatial relationships to be shown without prioritising or obscuring any single iwi.

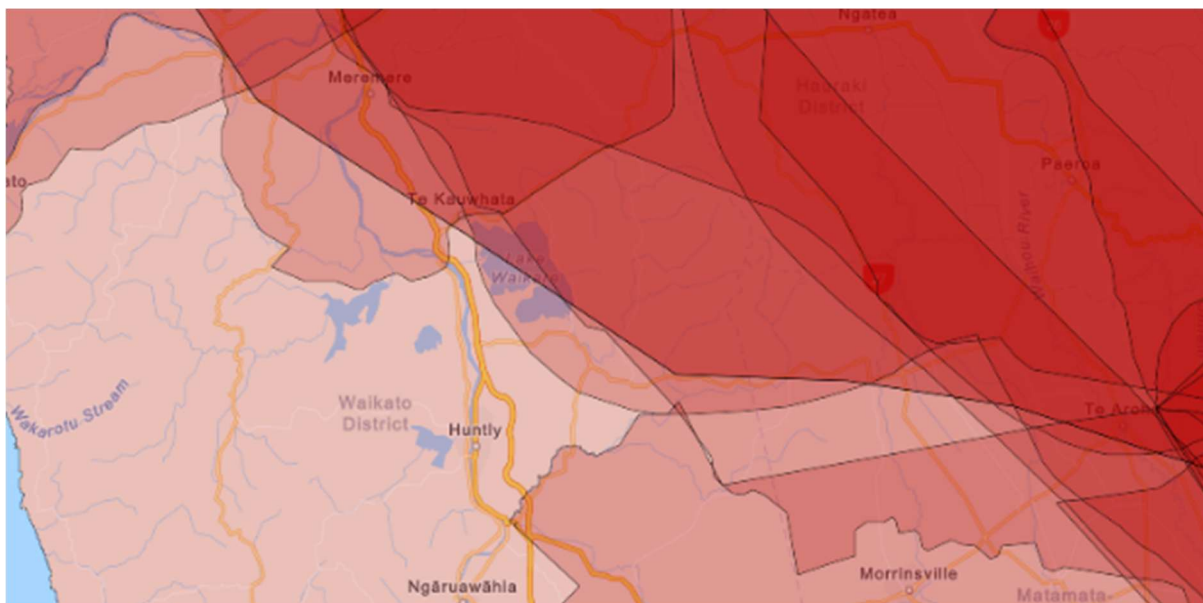


Figure 8. Darker areas indicate overlapping iwi areas of interest.

The intention of this approach was not to imply hierarchy or ownership, but rather to visually indicate places where engagement may be more complex or where multiple mana whenua groups may need to be consulted. This design choice reflects an ethical consideration in avoiding the imposition of fixed or exclusive territorial authority within a Western GIS framework. While layer transparency does not fully resolve the conceptual limitations of mapping relational territories, it provides a practical compromise that acknowledges overlap while maintaining clarity and usability.

3.4 The Final Interactive Map

The final version of the map (Figure 9) combines iwi areas of interest, marae locations, and regional council boundaries into a single interactive ArcGIS Online web application (arcg.is/10SHCr0). Where users are able to zoom, pan, toggle layers on and off, and click on individual areas to view associated information through pop-up attributes.

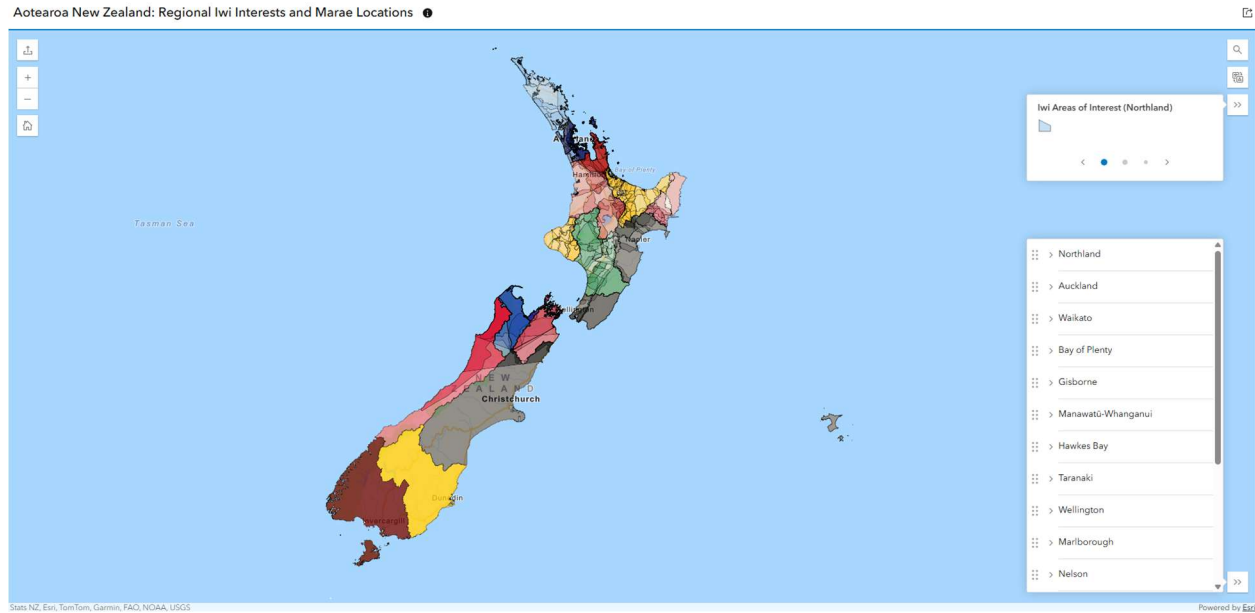


Figure 9. Screenshot of the final interactive map.

By this stage, the purpose of the map had moved beyond simply displaying locations. It has become a practical engagement support tool that helps users gain a general understanding of who they may need to engage with and the broader institutional context in which that engagement occurs.

The final map provides a starting point that helps users orient themselves spatially before initiating contact. It is designed to reduce the barrier of initial uncertainty, particularly for professionals unfamiliar with local mana whenua groups.

3.5 Discussion

3.5.1 Combining Individual Iwi Boundaries

The initial attempt to compile iwi boundaries proved to be technically and conceptually challenging and required careful handling due to cultural sensitivities.

Technically, datasets varied widely in format, scale, projection, and quality, and boundaries often conflicted or overlapped. Conceptually, attempting to set a hard boundary on iwi rohe risked portraying them as a settled or uniform area, when they are really shaped by whakapapa, historical movement, contested claims, and Te Tiriti settlements.

Due to Aotearoa New Zealand's storied past, much of the land is under dispute. There are very few areas which outright belong to a single iwi or hapū. These challenges show the difficulties of translating Indigenous territorial knowledge into static spatial representations and highlights the need for caution and ethical reflection when using geospatial tools in engagement planning.

3.5.2 Implications of Using Te Puni Kōkiri Data

Using data obtained from Te Puni Kōkiri addressed many of the technical and culturally sensitive issues presented while combining the different datasets. This dataset provided a nationally recognised and standardised reference layer, offering both practical reliability and institutional legitimacy and authority.

While the use of external data reduced the risk of misinterpretations, it did not fully resolve the conceptual issues surrounding overlapping territories or the relational and lived experiences of iwi. Because of this, the map is presented as a guide to iwi areas of interest, rather than an outright guide to territorial authority.

3.5.3 Purpose and Limitations of the Map

The final map is intended to be a practical starting point for identifying relevant iwi and marae when beginning the engagement process. It is designed to assist with early-stage research, planning, and consultation, particularly when professionals may be unfamiliar with local mana whenua groups.

However, the map is not presented as an outright representation of iwi territories. It does not resolve overlapping claims, historical grievances, or the full complexities of rohe and iwi relationships. Nor does it replace the need for direct engagement with iwi, hapū, or mandated representatives. It only shows areas of interest, meaning land that the iwi has a connection to, not necessarily ownership.

These limitations are consistent with the insights obtained from the museum and mana whenua interviews (Chapter 4) and the literature review (Chapter 2), which show that Indigenous knowledge and authority are relational, contextual, and activated through engagement rather than extracted from static datasets.

3.5.4 Benefits and Risks of Spatial Tools for Engagement

The development of this map highlighted both the value and the risks associated with representing Indigenous knowledge spatially. The map provides a tangible and accessible tool that can reduce barriers to initial engagement and support more informed project planning. At the same time, it has the potential to oversimplify Indigenous understandings of land by translating flexible, relationship-based concepts into fixed spatial boundaries.

This reflects a broader theme within the study: the challenge of translating Indigenous knowledge systems into usable tools without removing their relational and contextual foundations. The interactive spatial map, therefore, functions as both a methodological contribution and a critical reflection. It demonstrates how geospatial tools can support Indigenous engagement when used carefully, while also underlining the importance of humility, consultation, and ongoing refinement. The spatial map is designed to be used in conjunction with the IEF (Chapter 5), together supporting professionals in identifying who to engage with and how engagement should occur.

3.6 Conclusion

The construction of the iwi and marae map was an iterative and technically demanding component of this research. It evolved from Waikato-focused into a national-scale engagement tool. By shifting from manually constructed boundaries to Te Puni Kōkiri data and from a regional to a national scope, the map became more reliable and usable. At the same time, the process exposed the limitations of maps with hard boundaries when working with Indigenous territorial knowledge. The map is best understood not as a definitive authority, but as a practical starting point for engagement.

Chapter 4. Interviews

4.1 Introduction

This chapter describes the interview process including ethics approvals, interview question development, and the interviews themselves. This outlines how participant's perspectives were included to inform the development of the IEF. The interviews were conducted to gain insights on how engagement is experienced in practice, the Māori perspective on what makes successful engagement, and what challenges can be presented when engagement is treated as procedural rather than relational.

The chapter discusses the cultural safeguards that have been put in place to protect participants and respect their mana. It goes on to describe the development process used to create the question list used for the interviews and how those questions were adapted for different participant groups. The chapter then presents the findings from the interviews with participants representing mana whenua groups and museums, then identifies the various themes found across the interviews. The themes found throughout the interview process are the foundations for Chapter 5, where the findings are translated into an IEF for an engineering context.

4.2 Ethical Framework and Cultural Safeguards

This research was undertaken in accordance with the University of Waikato's Ethical Conduct in Human Research and Related Activities Regulations. As the project involved interviews with Māori knowledge holders, formal ethical approval was required prior to commencing data collection. Approval was granted by the University of Waikato Human Research Ethics Committee (HREC) under reference number STEM_HREC(2025)#6.

The ethics application required multiple iterations before final approval was granted. These revisions were made with the feedback provided by the committee, which focused on building cultural safety into the project, clarifying consent and withdrawal processes, and ensuring appropriate protection for Māori knowledge. Particular attention was given to aligning the research with Te Ara Tika — Guidelines for Māori Research Ethics, showing the project's relevance to Māori communities, marae, and mātauranga Māori.

The approved research involved semi-structured interviews with Māori knowledge holders who made themselves available to share any information they had. Participation was entirely voluntary, with consent obtained prior to each interview. Participants were either iwi members or museum representatives, and were provided with an information sheet specific to the section of the study they were participating in. The information sheet outlined the purpose of the research, what participation involved, their rights to decline to answer any questions, and their right to withdraw from the study at any time up to one week after receiving their interview transcript.

To protect the participants' confidentiality, no identifying information is used in transcripts or interview discussions. All participants are assigned coded identifiers, and consent forms are stored separately from interview data. Audio recordings, transcripts, and related data are stored on password-protected devices accessible only to the research team and are retained securely for a minimum of five years following project completion, after which they will be permanently destroyed.

Given that pūrākau (traditional story) and other indigenous knowledge carry a high amount of cultural sensitivity, it is vital to obtain explicit permission in the form of a participation form (Appendix A) from participants to use the information they have given. As part of the consent process, participants are informed that any information they consider sensitive or tapu (sacred) will be excluded from any records kept by the researcher unless specific authorisation is given. To ensure proper tikanga was used throughout the project, particularly around sensitive information, ongoing consultation with a cultural advisor was used.

Through an ongoing ethics process and careful reflection, this research sought to support participant wellbeing, honour cultural values, and uphold the principles of partnership and respect under Te Tiriti o Waitangi — The Treaty of Waitangi, while allowing mātauranga Māori to be meaningfully included in engineering research. These ethical safeguards directly shaped how mātauranga Māori could be translated into a practical engagement tool.

4.3 Development of Interview Questions

The interview questions used in this research were developed through an iterative process, with changes made based on the literature review and discussions with the project's cultural advisor.

The initial set of questions was deliberately broad and designed as a basis for more personal and informative questions. The original questions (Appendix B) focused on coastal erosion, existing protection methods, cultural significance, preferences for engineered versus natural solutions, openness to ecological interventions (such as seaweed), and potential benefits of green energy solutions for marae and local communities. These early questions provided a useful starting point but were extremely limited in their ability to capture relational, cultural, and engagement-based knowledge.

Through further research and different working angles, it became clear that a single set of questions would not be sufficient to adequately respect the different roles, knowledge systems, and responsibilities of the wide range of participants. As a result, the questions were expanded and divided into two categories: mana whenua and museum curators, with one tailored to identifying engagement requirements and the other to identifying knowledge systems. Both sets of questions remained aligned with the overall research aim.

4.4 Participant Groups and Interview Design

4.4.1 Interview Procedures

Participants were identified through existing professional contacts, familial connections, and geographic accessibility within the researcher's region. Selection was intentional as opposed to random, with participants chosen based on their leadership of Māori matters within iwi, museums, or local government. Inclusion criteria required participants to have experience in engagement processes involving mana whenua or institutional interaction with Māori communities. In total, five interviewees were selected for this study.

The interviews were conducted in a way that allowed participants to discuss what they felt was most important. All the interviews were in person and typically lasted one to two hours. The participants all consented to their interviews being recorded and transcribed which were then returned to the participant so they could make any adjustments they felt were needed prior to analysis in accordance with the withdrawal timeframe described in Section 4.2.

4.4.2 Mana Whenua Interviews

The interview questions for mana whenua (Appendix C) were redesigned to focus on whakawhānaungatanga (relationship building), ethics, and tikanga-based engagement. There was a shift from coastal engineering and technical solutions towards relationship, lived experience, whakapapa connection, and cultural knowledge questions. An introduction to the project was provided in both English (Appendix D) and te reo Māori (Māori language) (Appendix E) to participants prior to the interviews. The interviews themselves included introductory kōrero, relationship-building, discussions of experiences of the taiao, reflections on change, and expressions of hope, disappointments, and aspirations.

Questions relating to environmental change, such as coastal erosion, were reframed to help participants describe changes they had observed over their lifetimes and what those changes mean to them and their mana whenua group. This allowed environmental considerations to be discussed within a cultural and emotional context rather than a purely technical or formal one. Questions with binary answers were rewritten to invite more discussion on the answers. This meant participants were able to articulate what good decision-making, partnership, and care for a place looks like from their perspective.

The inclusion of pūrākau, whakataukī (proverb), and kōrero tuku iho (history) within the interview design was an extension of this relational approach. Rather than treating the requested environmental knowledge as data to be extracted, the questions recognised that Māori understandings of the taiao are embedded within their story through whakapapa. By asking participants how these stories inform present-day care for the taiao, the interviews created a place for mātauranga Māori to guide current and future responses to environmental change.

4.4.3 Museum Curator Interviews

Museum curators were identified as important knowledge holders. Each mana whenua group would have their own pūrākau whilst museum may hold the stories of many. As such, the interviews looked to understand the role of museums as intermediaries between traditional knowledge and modern research techniques.

A separate set of questions was devised for the interviews with museum representatives (Appendix F). The questions were accompanied by an information sheet (Appendix G) tailored to museum

curators. These questions were intended to reflect the curator's roles as kaitiaki (guardian) of mātauranga Māori and taonga (treasures), such as pūrākau, whakataukī, and other historical knowledge. These interviews focused on how pūrākau relating to the coast, waterways, and environmental change are collected, translated, stored, and shared within institutional settings.

The questions not only looked at the content of pūrākau held within the museum collection, but also the process of interpretation or translation. There was a focus on the issues of mana whenua authority, access protocols, and the handling of sensitive, restricted, or completely tapu knowledge. This was to acknowledge that pūrākau are deeply spiritual and are not just data; they are living knowledge that belongs to specific places and people.

4.4.4 Rationale for Separate Interview Schedule

Separating the interview questions into two sets allowed the research to respect different forms of expertise while maintaining conformity across the study. Mana whenua interviews prioritised relational engagement and lived experience while curator interviews focused on knowledge stewardship, interpretation, and institutional responsibilities. Together, these approaches provided a richer, more ethically grounded understanding of how mātauranga Māori, pūrākau, and lived knowledge can inform engineering decisions.

4.5 Participant Findings

The interviews revealed consistent themes around early engagement, relational authority, whakapapa-based knowledge, and frustration with procedural engagement models. These findings directly informed the framework's structure and content.

4.5.1 Iwi Representative 1

This interview (Appendix H) was conducted with a senior representative of an iwi, who holds multiple roles, including pau kuia for their Marae, Chair of their iwi, mana whenua representative at a local prison, and councillor at their regional council. Their perspective includes both ancestral knowledge and governance experience, offering a view of the intergenerational connection to whenua, taiao, and the processes of environmental and cultural oversight.

Connection to Whenua and Taiao

The participant consistently emphasised the importance of being physically present on the taiao to maintain a strong and meaningful relationship with the land. Living on the whenua and working around the marae were listed as key aspects of maintaining a connection, while absence from the land was described as a way of making the taiao seem more symbolic, with the burial of relatives being the only true link back to the land. The connection is emphasised through sensory triggers, such as the smells and sounds of the surrounding farms.

Key environmental taonga include local waterways, such as a local stream or river, which provide water and kai (food) in the form of tuna (eel). These waterways are continuously and actively maintained through collective practices of cleanliness and care. Kaitiakitanga was described as an everyday responsibility, defined by the actions on the marae, in the streams, and on the maunga (mountain), emphasising a relational approach to environmental protection.

Tikanga, Kawa, and Engagement

Throughout the interview, it was noted that engagement highlights the importance of respect and context. Kawa (local protocol) can change from iwi to iwi, hapū to hapū, whanau to whanau, and even person to person, but all interactions should protect mana (authority) and avoid presumptuous questions. Engagement should follow whakapapa, as initial contact is best made through kaumatua (elders) or those already connected to the whenua, while organisational matters should go to the iwi chair. Their iwi has a relational structure where knowing who to approach is just as important as knowing how to approach.

The representative emphasised early and continuous involvement of mana whenua in decision-making. It was explained that, for their iwi, plans should not be made before initial involvement. Co-development from the start allows for genuine collaboration and respects the expertise of the iwi. Such engagement makes sure culturally informed decisions align with environmental kaitiaki goals.

Historical and Generational Continuity

Connection to place is built by whakapapa. The participant spoke heavily about their connections through their tūpuna (ancestors). This highlights how the continued occupation by their whānau meant schooling, farming, and work tied them to the land. The nearby upbringing of their tupuna

(ancestor), the iwi tūpuna, was brought up as a point to show the ancestral significance of the whenua. Migration histories, such as a hikoi (march) to the south, were discussed as expressions of branching whakapapa rather than disconnection.

The interviewee also talked about the substantial environmental changes over their lifetime, including changes to the Waikato River, the loss of forests, the expansion of farmland, and the major energy infrastructure additions, such as the hydroelectric river dams and geothermal extractions. These shifts are seen as both positive and negative, which pushes further vigilance and advocacy for the taiao.

Lessons from Pūrākau, Whakataukī, and Whakapapa

Stories such as pūrākau or waiata (song) were described as important tools for transmitting knowledge, values, and history. Whakapapa was described not only as a record of human descent but as a relational system connecting all elements of the environment, including trees, waterways, whenua, and people. This emphasised the Māori worldview in which environmental stewardship is inseparable from cultural identity.

These stories give lessons in resilience, kaitiakitanga, and collective responsibility, giving everyday decision-making intergenerational weight. The interviewee highlighted that knowledge of whakapapa allows whānau to navigate engagements, assert authority, and strengthen relational ties both within iwi and with external groups.

Experiences of Inclusion and Exclusion

The interviewee discussed both moments of empowerment and frustration. Successful projects, such as the establishment of the marae, or involvement in energy projects, were sources of pride and demonstrated the iwi's ability to negotiate with government and industry. Conversely, bureaucratic challenges, overlapping iwi claims, and internal disagreements were sources of frustration, with difficulties surrounding politics, governance, and tikanga in managing resources and land rights. There was discussion around the differences in generations, where older generations were in a "take it or leave" situation when it came to situations requiring engagement, which often left iwi members short-changed.

The participant explained that current environmental engagement is strengthened by the knowledge and experience passed down from earlier generations. They noted that, in the past,

Māori had limited influence over major projects, whereas today there is more scope for negotiation, shared decision-making, and the exercise of mana whenua authority. This enables a better balance between economic, environmental, and cultural considerations.

Partnerships and Knowledge Sharing

Effective partnerships were described as those built from the beginning of a project, with mana whenua actively involved in planning, implementation, and monitoring. Genuine collaboration relies on transparency, open communication, and mutual respect with a focus on being entirely transparent about all aspects of the project. The representative also emphasised the importance of consulting multiple knowledge holders within iwi to capture diverse perspectives and cautioned against comparing or countering Māori views with mainstream perspectives, as these may be at odds.

The participant discussed being able to navigate the multiple cultures of Te Ao Māori (the Māori world view) and mainstream systems is rare but crucial, particularly in engineering and environmental contexts. Understanding cultural protocols, respecting kaumātua, and recognising relational authority are seen as fundamental to successful engagement.

4.5.2 Iwi Representative 2

This interview (Appendix I) was with a member of an hapū, that is a part of a local iwi and mana whenua of a well-known harbour. The interviewee is an active member of their marae and participates in local environmental management. They are also an employee of the regional council, serving as an advisor on their iwi relations team. Their perspective combines lived experience on the marae, ancestral knowledge, and ongoing involvement in the management of the harbour, including kaimoana (seafood) regulation and broader taiao management, along with experience and expertise on the bureaucratic side.

Connection to Moana, Whenua, and Taiao

The interviewee discussed how their connection to the harbour is whakapapa-based at its core, giving a continued relationship with the moana (ocean), whenua, and surrounding taiao. Physical presence on the marae and involvement in customary practices, such as monitoring kaimoana and participating in consent processes, further build this connection.

Key taonga include shellfish, tuna, flounder, and watercress, which are all central to whānau practices and have been impacted by changes in land use and environmental conditions over time. Iconic landscapes, such as their maunga and awa, provide sensory cues that evoke memories and a sense of home.

Tikanga, Kawa, and Engagement

The representative described tikanga as the foundation of engagement. Initial meetings may include karakia (prayer), whakataukī, whakawhānaungatanga, and, potentially, a pōwhiri (welcome ceremony) followed by kai. Once relationships are established, interactions may occur remotely through online meetings, but observing protocols early builds mutual respect and trust. Engagement should be early, active, and continuous, which means mana whenua are involved from the beginning of the project. They note that the best ways to make contact are generally marae email addresses and chairpersons.

Experiences of Inclusion and Exclusion

The interviewee highlighted both empowerment and frustration in engagement processes. Effective participation from the outset enables sharing of knowledge, whakapapa, and authority, reinforcing the kaitiaki role of mana whenua. Conversely, exclusion from projects, such as the unnotified water monitoring by NIWA (National Institute of Water and Atmospheric Research), introduces conflict and a complete relationship breakdown before it even begins. These experiences show the need for proactive engagement to uphold cultural, environmental, and professional integrity.

Lessons from Pūrākau, Whakataukī, and Whakapapa

Stories, metaphors, and traditional knowledge provide guidance on environmental matters, hazard awareness, and sustainable practices. Pūrākau, such as those referencing taniwha (water spirits) or floodplains, are interpreted as culturally embedded environmental lessons that often align with practical outcomes in engineering and land management. These narratives reinforce intergenerational responsibility, resilience, and culturally informed decision-making. Pūrākau are not just stories; they are lessons.

Governance, Decision-Making, and Future Priorities

The interviewee emphasised that mana whenua should have a greater role in policy development, regulation, and decision-making regarding the harbour. Current frameworks often have government agencies in control, whereas their iwi want to shape policies directly to protect the moana, ensure marae longevity, and build a sustainable future. Priorities include mitigating environmental impacts, ensuring safe and enduring marae, and generating opportunities for employment and financial development for iwi and hapū members.

Partnerships and Knowledge Sharing

Effective partnerships are long-term and built on shared goals and mutual respect. Working together requires full transparency and an appreciation of the harbour as a culturally and environmentally significant site. The interviewee stressed how important it is to consult multiple marae and hapū in the area, recognising that each group holds their own tikanga, mātauranga (knowledge), and relational authority around the harbour. Successful engagement allows engineers to navigate both Te Ao Māori and mainstream systems while aligning with the values and priorities of both.

Reflections on Engagement Process

The participant described the interview as positive and highlighted the importance of providing clear context and objectives for future hui to facilitate meaningful alignment among researchers, engineers, and mana whenua priorities. They welcomed tools, such as publicly accessible maps of iwi and marae, to facilitate engagement and ensure accurate and inclusive consultation.

4.5.3 Iwi Representative 3

This interview (Appendix J) was with a third iwi representative, and it looked at how whakapapa, mātauranga Māori, and lived experience shape mana whenua relationships with the whenua, moana, and taiao. The kōrero provides an iwi-specific perspective on kaitiakitanga, engagement practices, and decision-making. There were discussions on both historical contexts and modern-day challenges. The interview also delved into meaningful partnership, including capacity, values alignment, and recognition of Indigenous expertise in environmental management and planning processes.

Connection to Whenua, Marae, and Taiao

The interviewee spoke about their iwi's deep relationship with whenua, marae, and freshwater systems, which are grounded in whakapapa and intergenerational knowledge. Their marae was described as a place where identity, responsibility, and discipline are learned through observation, correction, and participation. Memories of kaumātua (elders) and the everyday experiences on and around the marae were discussed. They recalled how whānau and hapū members learned to carry themselves as representatives of the iwi directly from their kaumātua. This connection goes beyond place-based attachment to a much wider understanding of their iwi's historical role within cultural movements, showing collective accountability and the expectation of excellence when acting on behalf of the iwi.

Freshwater systems, like their local streams, were identified as key taonga that historically sustained the iwi through food gathering, washing, and trade. These waterways supported inter-iwi relationships and exchanges with distant iwi and others. The interviewee noted significant environmental degradation over their lifetime, particularly declining water quality, which has led to the loss of customary food practices and a shift towards restoration-focused kaupapa (plan).

Kaitiakitanga and Mātauranga Māori

Kaitiakitanga was described as a responsibility that comes from whakapapa, not something that can be chosen or applied as a technical tool. Pūrākau, like Te Orokohanga (the creation story), shape iwi views of the taiao as whānau, where rivers, land, mountains, and the sea are understood as ancestors and even in the modern day where places like the Whanganui River or Mount Taranaki are legally recognised as people. From this perspective, caring for the environment is about maintaining relationships, with people seen as part of the natural world rather than separate from it.

The interview also highlighted that environmental change is noticed not only through physical damage, but through changes in how people talk about the environment. The shift from “living with” the environment to “restoring” it was described as a sign that balance has been lost. This was seen as a call to strengthen kaitiakitanga based on mātauranga Māori and knowledge grounded in place.

Engagement Processes and Capacity

Engagement with this hapū was described as working within modern iwi and marae structures that developed after Treaty settlements. Marae, iwi, and hapū are now represented through formal roles such as chairs, secretaries, and trusts, so it is important that external groups take the time to identify and approach the correct people who have authority to speak. Contacting the wrong person was described as damaging to trust and often results in engagement going nowhere.

The interviewee also explained that limited capacity is a major challenge. Many mana whenua representatives are unpaid and manage engagement work alongside jobs, whānau commitments, and tangihanga (funerals). When responses are slow or people cannot attend, this was described as a lack of time and resources, not a lack of interest. Providing koha (gift), kai, and acknowledging people's time are basic signs of respect, along with being clear about the purpose of the engagement, what is being asked, and how the relationship will benefit both sides.

Decision-Making, Voice, and Recognition of Expertise

The interviewee spoke of frustration with engagement that does not lead to real outcomes, especially when kaumātua give their time and share knowledge but nothing follows. This was described as a waste of effort and goodwill, and as something that causes people to disengage over time. There was particular concern that some external groups do not understand the value of kaumātua, who were described as holding highly specialised knowledge that cannot be replaced. Kaumātua were compared to chief executives within their own cultural context, with deep knowledge of whakapapa, pūrākau, and mātauranga Māori.

Being left out of decision-making was often explained as a result of limited time and resources rather than intentional exclusion. Even so, the absence of mana whenua voices was seen as weakening the credibility of environmental decisions, as it removes the descendants of the environment from decisions about their own tūpuna.

Partnership and Future Priorities

An effective partnership was described as being based on relationships and shared values, not one-off transactions where information is extracted and not reciprocated. Whānaungatanga was seen as essential and requires time, meeting in person, and space to build understanding on both sides.

Strong partnerships allow mana whenua to see their values and perspectives reflected throughout a project, not just at the beginning.

Looking ahead, the interviewee identified capacity building, shared values, and working together from the start as key priorities. Capacity building was described as providing proper resourcing, supporting future leaders, and making it easier for mana whenua to take part. Shared values, particularly seeing the environment as family rather than a resource, were seen as critical for working through tensions between economic goals and care for the environment. Without this shared foundation, genuine shared decision-making was described as difficult to achieve.

4.5.4 Museum Representatives

This interview was with two museum representatives (Appendix K) and provides a look into how mana whenua knowledge, authority, and engagement are applied in practice, both within a museum context and in a professional context. Their insights show how cultural knowledge and institutional processes offer lessons for future engagement with iwi and hapū in research, planning, and development projects.

The Value of Pūrākau in Environmental Decision-Making

M1 (Museum Representative 1) and M2 (Museum Representative 2) repeatedly reinforced that pūrākau are not just stories; they are practical, place-based knowledge about land, water, and settlement patterns. M2 explained that historical site selection for marae, pā (fortification), and urupā is based on generations of environmental observations. Research by the interviewer mapping marae locations against areas at risk of erosion emphasised this point by showing that nearly all marae have been placed on safer ground, highlighting Indigenous foresight in risk management.

Several examples showed the consequences of ignoring this knowledge. For instance, the Matatā Ngārara flood and repeated motorway failures at Meremere and Cambridge showed that disregarding pūrākau and mana whenua advice can be costly and environmentally damaging. M1 emphasised that these outcomes are not abstract; they involve financial loss, engineering setbacks, and community disruption. These examples build on the argument that Indigenous knowledge functions as a science in its own right, offering predictive insight into environmental hazards.

Land Use, Soil, and Tupuna Knowledge

M2 detailed the ways in which soil, topography, and historical land use were considered by tupuna. Choices around the location of urupā, cultivation, and pā were informed by soil fertility, stability, and long-term sustainability. At Tamahere, a burrow pit was repurposed to mix soils for gardening, showing sophisticated ecological management. Also, the careful site selection of urupā shows that land use decisions were guided by both practical and spiritual factors to ensure the safety of tūpāpaku (deceased person) while still using the land for food cultivation.

These examples show the combination of scientific observation and cultural knowledge. M2 stated that this knowledge is relational and site-specific; it is held within mana whenua networks, such as whānau or hapū, rather than fully recorded and displayed publicly. While museums may hold taonga, fragments of knowledge, or complete knowledge held in closed collections, the best understanding remains with the people of the land, underlining the importance of direct consultation and relationship-building.

Institutional Tensions and Recognition of Authority

A major part of the interview was a discussion concerning the disconnect between cultural authority and institutional recognition. M2 holds a Queen's warrant as a kaumatua, giving him formal authority in the Te Ao Māori, yet this is not officially acknowledged by the museum or council. This situation indicates a wider institutional tension, where cultural responsibilities and expertise are undervalued and unrecognised in Western organisational structures.

M1 stated that this misalignment has contributed to burnout among staff, as individuals balance multiple roles such as curator, pou ārahi (leader), or kaumatua without sufficient support or proper recognition. The creation of the pou ārahi role as a full-time, paid position is an example of an intentional attempt to align institutional responsibility with cultural authority, making sure that knowledge remains while limiting reliance on volunteer labour or informal arrangements.

Evolving Māori-Led Disciplines and Professional Engagement

Both representatives spoke about the growing presence of Māori expertise in certain fields, from architecture and design to engineering and environmental planning. Within these disciplines, there seems to be an increasing desire to incorporate pūrākau and taiao knowledge into decision-making.

For example, consulting with mana whenua and kaumatua has informed engineering solutions, such as the sea wall at Maketū marae and erosion mitigation plans at Taharoa.

These examples show that Indigenous knowledge is not just a cultural preservation, it has real, measurable results when practically applied. They noted that succession planning and capacity-building are critical. Understanding this knowledge relies on having skilled people who can interpret and apply pūrākau effectively within institutional and professional contexts. Without active engagement and training, taonga and stories risk becoming static objects rather than living guides for decision-making.

Repatriation, Autonomy, and the Future of Whare Taonga

The representatives also discussed the shifting views of Māori cultural autonomy. They stated that it is becoming increasingly common for iwi to house their own taonga and curate their pūrākau in iwi-led whare taonga (museums). This movement shows broader aspirations for self-determination and control over cultural heritage, while ensuring that knowledge remains connected to place and people.

Both representatives brought up some of the challenges to this transition. Expertise, resources, and succession planning are limited, and museums currently act as an intermediate step, providing a safe place for taonga while iwi develop the needed capacity to manage collections independently. The interview showed that engagement is not just about objects or archives, but about sustaining living knowledge systems, ensuring that pūrākau continue to inform decision-making.

Relational Engagement and Practical Knowledge

The interview highlighted how important relationships are for accessing and using Indigenous knowledge. They spoke about their wide networks of kaumātua, iwi authorities, and technical experts who help with access to pūrākau and knowledge of the taiao. Places such as Maketū marae and Taharoa show what can be achieved when engineers, iwi, and local authorities work together to design solutions that respect both cultural knowledge and environmental realities.

M2 stressed that working in a relational way takes patience, respect, and recognition of tribal authority. They explained that knowledge does not simply sit in records, but is brought to life through relationships, conversation, and shared experience. For researchers and professionals

wanting to work ethically with Māori knowledge, this highlights the importance of listening, learning, and co-developing solutions, rather than extracting information in isolation.

4.5.5 Summary

Across all interviews, there were several themes that became apparent regarding engagement with mana whenua, environmental management, and decision-making. Participants continuously emphasised that connection to whenua, moana, and taiao is grounded in whakapapa and this connection is strengthened through lived experience, physical presence, and knowledge handed down from their tūpuna. Kaitiakitanga was described as a responsibility passed down through ancestry. Environmental knowledge exists in pūrākau, whakataukī, and everyday practice, which gives tangata whenua place-based expertise in waterways, resource management, and long-term sustainability.

Engagement was consistently described as relational rather than procedural. Early and ongoing relationships with mana whenua was seen as essential, with discussions from the beginning preferred over consultation after decisions have been made. Participants highlighted how important it is to identify and approach the correct people while respecting tikanga and allowing time for whakawhanaungatanga. Failing at this would contribute to mistrust, disengagement, and project delays. Capacity constraints, unpaid cultural labour, and institutional misunderstandings of Māori authority were identified as ongoing challenges, particularly where cultural expertise is undervalued within Western organisations.

The interviews also showed that mātauranga Māori has real and practical applications in engineering. Some examples that were discussed include erosion mitigation, infrastructure placement, harbour management, and land-use planning, all using site-specific knowledge held by Māori. The interviewees stated that successful partnerships are built on transparency, shared values, mutual respect, and recognition of mana whenua authority. Where these conditions are met, engagement strengthens both outcomes and trust.

Collectively, these findings reinforced the need for a framework that helps support professionals in initiating engagement in a respectful way that recognises relational authority and integrates mātauranga Māori into decision-making. The insights gained directly informed the structure, tone, and design of the Indigenous Engagement Framework developed in this research.

4.6 Thematic Synthesis

Across all interviews, there were several themes that were consistently reiterated that relate to how engineers and other professionals engage with Māori. Each interview provided insights into iwi-specific experiences, but there were themes that were continuously repeated that built a foundation for the IEF development in Chapter 5.

4.6.1 Early Engagement and Continuity

Potentially the most common theme to be emphasised is that engagement should begin early, before any major decisions have been made and before the direction of the project has been finalised. Late engagement can be seen to undermine trust and would result in fewer opportunities for genuine collaboration. Participants emphasised that engagement should be on-going and not a one-off event, that required continued communication, follow-through, and accountability.

4.6.2 Relational Authority and Identifying the Right People

Approaching the right people through the right pathways is essential for effective engagement. The participants described several factors including whakapapa-based connections, kaumātua leadership, and iwi/hapū leadership structures that determine who has the authority to speak on certain matters. Approaching the wrong person can be damaging to trust and may result in disinformation or ineffective engagement.

4.6.3 Tikanga and Kawa Are Locally Defined

Participants recognised that tikanga and kawa can vary depending on iwi hapū, whānau, and context. This shows that a uniform approach to engagement can be inappropriate and it is better for individuals to contact iwi representatives and ask about appropriate conduct rather than assuming what is correct. While there are situation specific tikanga and kawa to be followed there is always basic rules to engagement such as to show humility, listen and show awareness to the fact that mana whenua are experts when it comes to their rohe.

4.6.4 Capacity, Resourcing, and Institutional Constraints

Limited capacity was raised as a potential barrier to engagement. Participants noted that the individuals who take on the responsibility of engagement within mana groups often have other, external responsibilities that can interfere with their availability such as outside employment,

whānau commitments, or tangihanga meaning that slow responses or rescheduled hui should not be considered offensive. Many of the interviewees also highlighted that there may be a mismatch in expectations between Māori and non-Māori organisations including timelines and compliance-driven approaches that may have an effect on the quality of engagement.

4.6.5 Mātauranga Māori, Pūrākau, and Whakapapa as Environmental Knowledge

Mātauranga Māori is considered to be place-based knowledge that is grounded in whakapapa relationships between people and the taiao. pūrākau and whakataukī are considered to carry practical environmental insights, including hazard awareness and long-term land and settlement knowledge. The museum representatives stated that this knowledge belongs to specific mana whenua groups and should not be treated as data to be extracted.

4.6.6 Frustration with Procedural or Compliance-Based Engagement

Participants found that engagement being treated as a procedural step as opposed to a relationship building opportunity was a source of frustration. Several of the interviewees stated that if engagement does not result in any change or influence, it could lead to disengagement. Meaningful engagement is considered to require transparency, shared decision-making, and follow-through on promises.

4.7 Conclusion

This chapter has looked at the ethical considerations, interview questions, and interview findings that have been key to this research. The interview process was designed to protect culture, participants, and mātauranga Māori while respecting mana whenua authority. Ethics approval, information sheets, participant consent processes, and ongoing cultural guidance made sure that the research was conducted in a way that treated Indigenous knowledge as living, relational knowledge rather than extractable data.

The interviews consistently found that engagement with Māori is relational, not procedural. Both mana whenua and museum representatives stated that early involvement, correct identification of authority, following tikanga, and the recognition of whakapapa are all considerations in environmental responsibility. Mātauranga Māori was described as practical, predictive place-

based knowledge, often found in pūrākau, lived experience, and intergenerational occupation and kaitiakitanga. Trust and outcomes were improved in situations where engagement was transparent, values-based, and collaborative. Conversely, when engagement was treated as compliance-driven or tokenistic, it led to frustration and eventual disengagement.

Participants also discussed several realities that can influence engagement. Capacity limitations, unpaid cultural labour, and misunderstandings of Māori knowledge and authority were seen as ongoing challenges. Examples of successful partnerships demonstrated that when mana whenua are involved from the outset and their knowledge is meaningfully integrated in decisions, engineering and environmental outcomes are improved. This shows the need for practical guidance that supports professionals to move beyond consultation toward genuine relationships.

The themes identified throughout this chapter including early and continuous engagement, relational building, tikanga and kawa as locally defined, capacity awareness, and recognition of mātauranga Māori as legitimate environmental expertise form the foundation of the next chapter. Chapter 5 brings these findings together and translates them into the structure, principles, and tools that make up the IEF for engineers.

Chapter 5. Indigenous Engagement Framework

5.1 Introduction

The engagement framework and accompanying booklet were developed to provide engineers and other professionals with an accessible and usable starting point for engaging with Māori. While there is an increasing recognition of the importance of Māori engagement, many professionals often experience uncertainty about how to begin the process respectfully. A lack of certainty can lead to delays or disrespectful conduct.

The framework was designed to address these challenges by offering a tailored approach specifically for engineers. It focusses on early engagement, identification of appropriate mana whenua groups, understanding of roles and responsibilities, and navigating tikanga in a professional setting. By using the insights gained from the interviews and literature review, the framework provides a structured yet flexible tool to support meaningful engagement, bridging the gap to engagement.

5.2 Purpose and Rationale

The engagement framework (and accompanying booklet) was created to provide a usable starting point for engaging with mana whenua in engineering and research contexts. Throughout this research, it became clear that while there is strong recognition of the importance of engaging with Māori, there is far less clarity about how to begin that process in a respectful way. For many professionals, especially those without existing relationships with iwi or marae, the first steps of engagement can feel uncertain, intimidating, or unclear.

A recurring theme across interviews and case studies was that engagement often begins too late, is treated as a compliance step, or is approached without a proper understanding of tikanga. In several examples, participants described situations in which engagement was rushed or driven more by project timelines than by relationship-building. These issues were not always due to bad intent, but to a lack of guidance.

Due to these factors, this author has developed a framework in the form of a booklet as a practical tool to help professionals move from engagement in theory to engagement in practice. Much of the available literature focuses on abstract concepts like partnership, participation, or co-design

without providing examples of how they would look in practice, whereas this proposed framework focuses on engagement in a real-world setting. This includes how to identify the appropriate mana whenua groups, how to make initial contact, how to approach first meetings, and how to understand the different roles of iwi organisations, marae committees, and kaumātua.

Another key factor for creating this framework is the dispersion of current information, with most iwi and organisations having their own IEFs. These frameworks are often difficult to find, with the majority being buried in iwi environmental management plans. These existing frameworks are inconsistent, with some containing a large amount of useful information while others lack basic components. As a result of this, professionals working across multiple rohe will be working from fragmented data consisting of contradictory or missing information. The framework, therefore, aims to provide professionals with a solid foundation for addressing these challenges.

The proposed framework's construction was heavily influenced by the recognition that engagement should be fundamentally relational. Engineers tend to prefer a procedural approach to every aspect of their projects. Relational and procedural approaches are contradictory, so combining the two proved to be a unique challenge. To address this, checklists were introduced to assist with early engagement and relationship-building.

Finally, the engagement framework was presented in booklet form to function alongside the iwi and marae map developed in Chapter 3. While the map identifies the territorial boundaries of iwi and the locations of marae, the framework provides guidance on how to initiate and navigate engagement once these groups have been identified. Together, these tools are intended to lower the barrier to early, respectful engagement and to encourage practitioners to move beyond minimum compliance toward more genuine partnership-based approaches.

5.3 Intended Audience and Use

The framework and booklet are primarily designed to assist professionals who are required to engage with, or would benefit from engaging with, Māori, but who do not necessarily have a strong background or existing relationship with mana whenua groups. This includes engineers, planners, environmental consultants, researchers, and local government staff who are often responsible for initiating engagement but are not specialists in cultural or relationship-based work. In most cases,

these professionals are expected to engage well without having any experience, training, or guidance on what is actually involved.

The engagement framework was designed for use in the earliest stages of a project, before key decisions have been made and engagement is constrained by factors such as design, budget, and timelines. All interview participants emphasised that engagement is most effective when it begins early, even if this is also the stage where the professional may feel least confident. Early engagement encourages professionals to seek advice and build relationships before a project progresses past any irreversible stage, particularly formal stages such as consenting, design finalisation, or public consultation.

While the framework was written specifically with Civil Engineers in mind, the information contained is not limited to this single sector. The guidance is relevant across a wide range of contexts, including, but not limited to, infrastructure projects, environmental management, land development, research, and policy work. The intention of the framework is that it can be used across industries throughout Aotearoa New Zealand, helping the user ask better questions and approach engagement more thoughtfully, even as tikanga changes.

The framework was never intended as an authoritative guide to Māori engagement. It does not replace iwi-specific engagement frameworks, direct advice from mana whenua, or cultural or environmental impact assessments. Instead, it is designed to work alongside these resources to help users take the first steps, which may seem unclear or intimidating. The framework encourages users to treat engagement guidance as locally defined and to recognise that mana whenua are the experts in their own rohe.

In practice, the framework is intended to be used flexibly rather than followed step by step. Users may refer to different sections at different points in a project, depending on their role, level of experience, and the stage of engagement. Some may use it as a quick reference before making initial contact, while others may return to it throughout a project as relationships develop. This flexibility shows that engagement does not follow a single pathway and that meaningful relationships require ongoing attention rather than one-off actions.

5.4 Foundations of the Engagement Framework

The content in the framework was influenced by a combination of data from the interviews, existing engagement frameworks, and literature reviewed as part of this study. The sections of the framework were developed in direct response to the issues, examples, and frustrations raised by participants during the interview and research process as they discussed their experiences and expectations regarding Māori engagement. Many recurring themes, such as the importance of early engagement, relationships over process, and the risks of treating engagement as a box-ticking exercise, are embedded within the structure of the framework.

The strongest influence on the framework's direction came from the interview participants. Their wide range of expertise as museum curators, council employees, iwi board chairpersons, educators within the marae space, elected regional councillors, Māori Queen-appointed kaumatua, and engagement experts provided valuable insights into the requirements for effective engagement. They explained that engagement is often accompanied by institutional constraints, unclear roles, and mismatched expectations between Māori and non-Māori organisations. These conversations also revealed informal knowledge that contributes to successful engagement, such as knowing whom to speak to, how to make first contact, and when to step back and simply listen. The framework aims to bring this knowledge to the surface in a structured way that supports users with limited engagement experience.

Existing iwi and organisational engagement frameworks also provided valuable information for the construction of this framework. In Chapter 2, a wide range of existing frameworks from mana whenua groups, government agencies, and professional organisations were reviewed. While these frameworks contained important guidance, variations in detail, scope, and intended audience highlighted inconsistencies in accessibility and application. Many were written for specific organisational or regional contexts, limiting their transferability. These differences informed the development of a framework that synthesises common principles while remaining flexible enough to recognise the authority and unique tikanga of individual mana whenua groups.

As stated in section 5.3, the framework is not intended to be a definitive authority on Māori engagement. Rather, it draws on the experiences, perspectives, and needs of those involved in engagement to provide structured guidance without prescribing rigid rules. Its purpose is to help

users understand the context of engagement, ask informed questions, and approach relationships with awareness of tikanga and mana whenua authority.

5.5 Development of the Engagement Framework

5.5.1 Initial Structure and Content Development

The original draft (Appendix L) of the engagement framework was shaped by the recurring issues found during the interviews and literature review. It was clear there would be difficulties for any professional looking to begin engagement without a specialist there to assist. The review of the current literature (Chapter 2) identified gaps in who to contact, what tikanga to follow, how to make first contact, and what to expect during the engagement process. The early draft attempted to answer these questions by clearly explaining the early stages of the process, with a focus on preparation, awareness, and relationship-building.

That content was organised into sections that could be read independently, with the following headings: ‘Foundations of Māori Engagement’, ‘Rules of Engagement’, ‘When Do We Engage?’, ‘Who Do We Engage With?’, ‘What Steps Do I Need to Take?’, and ‘Roles and Responsibilities’. This structure was intentional, as the framework was originally designed to serve as a reference rather than a book to be read cover to cover. The sections were developed to address common points of confusion, such as understanding mana whenua and kaitiaki roles, recognising the difference between consultation and engagement, and appreciating the time and resourcing required to engage appropriately.

The initial draft used unrefined wording because the priority at this stage was to gather the information in one place. It also served as a conceptual foundation for the refinement that followed.

5.5.2 Iterative Development and Refinement

The development of the engagement framework was an involved, iterative process, with changes made based on feedback from engineers, engagement experts, and general users. Multiple versions were produced before the framework reached its final form. Each iteration included revisions that affected clarity, structure, deletions, additions, and assurances of cultural appropriateness. Rather than being a one-off output, the framework evolved through cycles of testing, reflection, and refinement.

Early versions of the framework were overly complicated and contained detailed explanations of concepts. While these explanations were accurate and comprehensive, feedback indicated that the complexity of the information made it difficult to read and digest. In response, concepts such as whakapapa, kaitiakitanga, and manaakitanga were explained in a much shorter, easier to understand translation. These revisions allow users to understand key principles without compromising their meaning.

Revisions included restructuring sections (Figure 10), separating complex material into clearer components, and removing any ideas that overlap. This meant users could quickly understand the principles without sacrificing cultural integrity. Each section was refined repeatedly to ensure the clearest possible explanation of each point. These changes and revisions were not a reduction of cultural integrity, rather a change in how the information was communicated.



Figure 10. An example of one of the many changes made from the first draft to the final copy.

Other refinements involved reorganising the content to follow the steps expected to be taken during engagement, allowing users to follow the booklet as a coherent guide. Feedback from engagement

experts helped ensure that tikanga and relationship building were prioritised, while feedback from general users helped clarify the language and structure.

Throughout this iterative process, the key principles remained unchanged. What evolved was not the information, but how it was presented, articulated, and ordered so that it could be more easily interpreted by users. Each iteration reinforced the importance of balancing cultural integrity with professional usability.

5.5.3 Balancing Practical Guidance and Cultural Integrity

The biggest challenge in developing this IEF was finding the balance between practical guidance and respectfully representing Māori values, tikanga, and authority. Throughout the iterative development process, there were difficulties in making the framework accessible and usable to users unfamiliar with the engagement process without oversimplifying key aspects while keeping with tikanga. The iterative process helped with refining the wording within the framework to ensure it meets the needs of the user by providing the most accurate information possible.

Gaining feedback from engineers throughout the process was vital, as they pointed out that the wording needed to be clearer. This means the framework can provide clear, concise guidance applicable to real projects. Engineers tend to like checklists and procedures, but the engagement specialists and Māori interviewees repeatedly stated that meaningful engagement cannot be reduced to a checklist. The framework, therefore, needed to be palatable to those who prefer working with procedures, while still communicating that the act of engagement should be relational.

To try to overcome this contradiction, a deliberate choice was made to incorporate practical tools like checklists and prompts, while explicitly treating them as entry points to engagement rather than definitive steps. Setting up the framework like this helped to align how engineers typically approach an unfamiliar process. To align with Te Ao Māori, these checklists and processes are framed in a way that encourages discussion and reflection rather than compliance. The framework repeatedly reinforces to users that these tools are intended to support initiating relationships with tangata whenua.

There were important decisions to be made about the language used. Early drafts included more detailed explanations of Māori concepts, which were deemed too dense or intimidating for

inexperienced users. This led the author to realise that, while this was a booklet about Māori, it would not be used by Māori. The language was therefore refined to ensure clarity while retaining conceptual clarity. This change in focus reflects an effort to meet the users at their current level of understanding while encouraging a deeper understanding of engagement over time.

Balancing practical guidance and cultural appropriateness required a significant number of iterations, with each version moving closer towards a usable solution. The final version shows a conscious effort to meet users where they are, while meeting all the requirements for meaningful engagement. By maintaining a clear focus on relationships, authority, and respect, the proposed framework aims to support better practice without reducing Māori engagement to a set of technical requirements.

5.5.4 Visual Presentation and Cover Development

The visual design of the booklet was vital as it needed to be readable and clearly positioned for its intended audience. The design could not be treated purely as aesthetic, as it needed to convey purpose, audience, and tone. Both the cover and the internal pages went through multiple iterations, reflecting feedback from potential users, with particular care taken not to cause any cultural offence.

Cover Design and Aesthetic Choices

The design of the front and back covers went through several iterations as feedback from both Māori and intended users showed how valuable first impressions are to the experience. The first version of the booklet cover (Figure 11) included visual elements that referenced Māori culture before colonisation, which were seen as inappropriate for a booklet intended for engineers. Feedback from the project's cultural advisor said this made it look as if Māori were stuck in pre-colonial times, so the decision was made to remove the references from the design.

In response to the feedback, the decision was made to remove any reference to precolonial images. This change was intended to avoid reinforcing simplistic representations of Māori as belonging solely to the past. There were also changes made to the foliage present, as it was pointed out that palm trees do not match the Aotearoa New Zealand natural aesthetic. This resulted in the second draft, which featured a natural landscape with ferns (Figure 12).



Figure 11. Original design for front and back cover of the booklet.

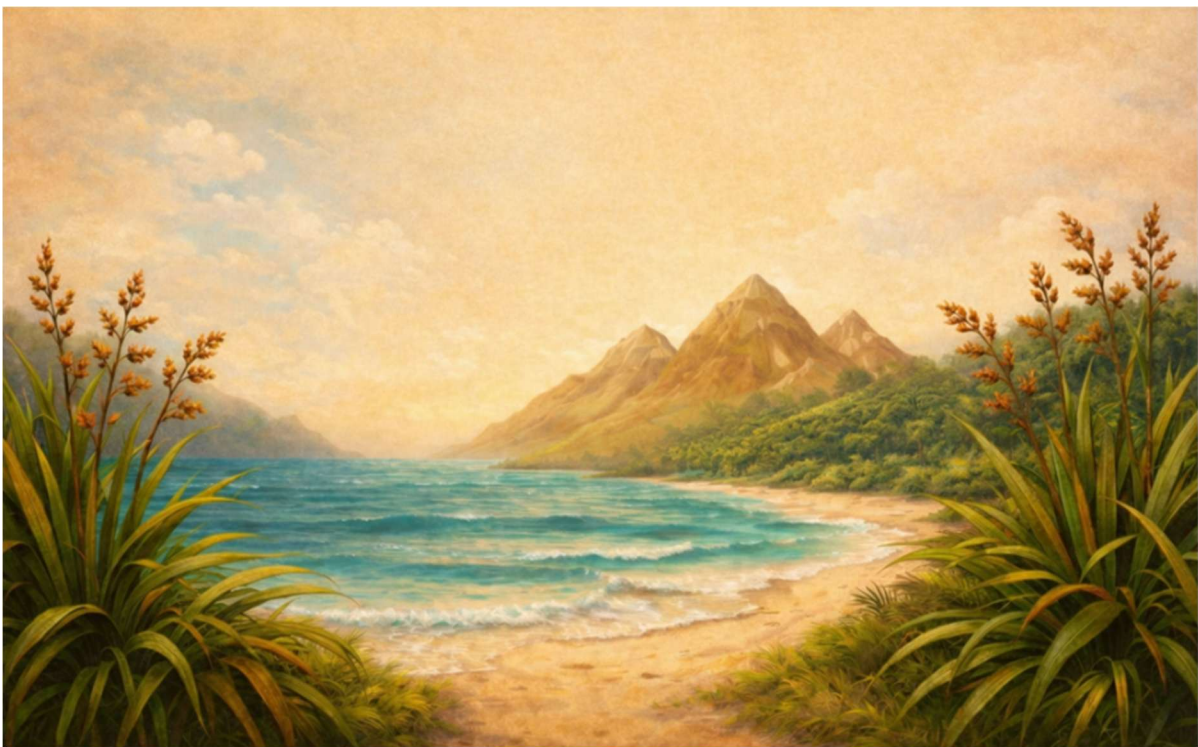


Figure 12. Version two of the front and back cover.

The second draft effectively addressed the concerns raised but came with its own list of concerns. Primarily, it showed an unrealistic version of Aotearoa New Zealand. Comments made stated that the mountains, the ocean, and bushland are all unlikely to be seen in any one place. The suggested change was to focus on a single landscape type rather than combining multiple environments. The chosen landscape was bushland, which is a common sight around the country (Figure 13).

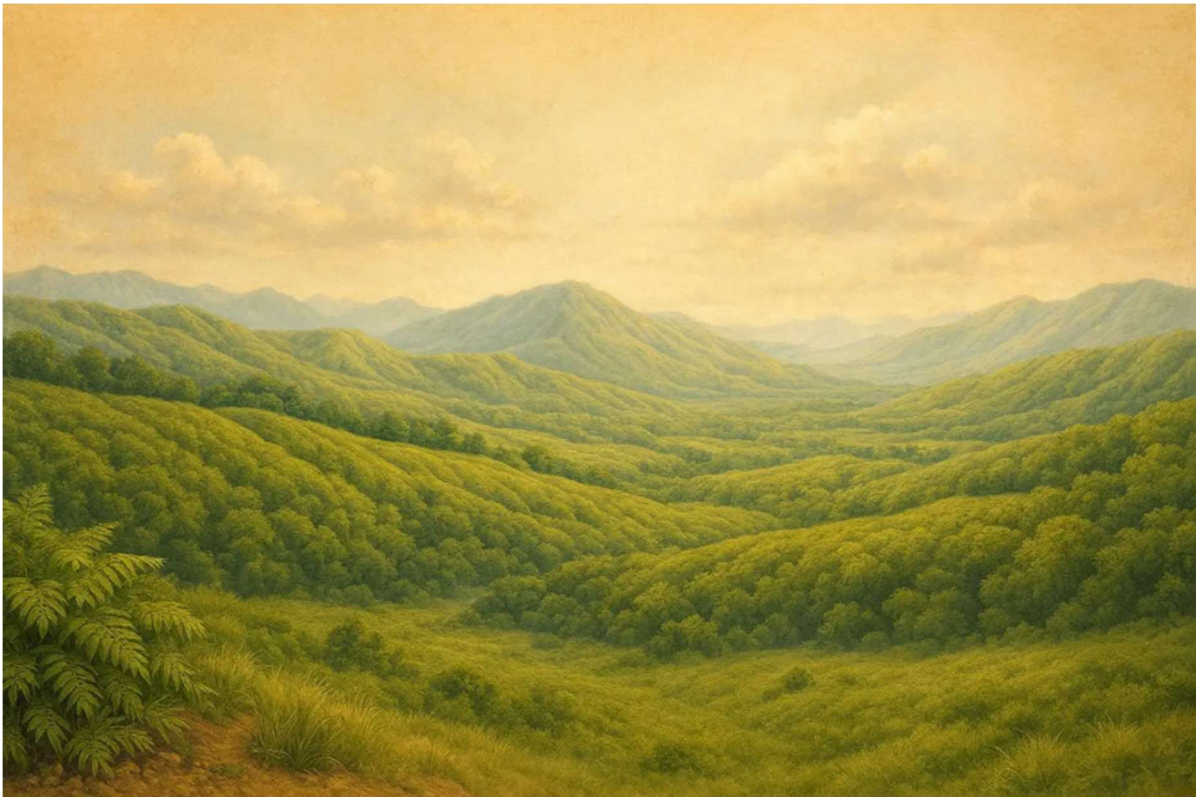


Figure 13. Version three of the front and back cover.

After the third draft was provided for review, another good point was raised. As this is a booklet intended primarily for engineers, the cover should appeal to them. Therefore, it was determined that it should contain an engineering project. In this case, a road under construction, which makes it obvious that engineers are the intended users (Figure 14). This helps position the proposed framework as a practical professional tool for engineers rather than a general cultural guide.



Figure 14. Final version of the front and back cover.

Internal Layout and Readability

The development of the internal pages was also affected by the iterative process. The earliest versions were inspired by including koruru (carved faces) and tekoteko (carved figures), as decorative elements (Figure 15). Upon reflection it was apparent that the use of such culturally significant symbols could cause offence if presented outside their proper cultural context and they were therefore removed in the second draft.

The new design incorporates images representing mountains and ferns, inspired by the natural landscape of Aotearoa New Zealand. These elements create a sense of place while remaining culturally neutral. The second draft also provided more space for text within the booklet (Figure 16).



Figure 15. Original design for the internal pages.



Figure 16. Second draft for internal pages.

User feedback said that the dark colours made the wording difficult to read. Attempts were made to change the font colour to a lighter shade or to provide a semi-transparent background for the text to increase readability. These changes made the overall design look cluttered and inconsistent. The decision was made to change the darker background colours to lighter ones. These adjustments became the final design for the background of the IEF (Figure 17).



Figure 17. Final design of internal background.

Further refinements looked at font size, spacing, and paragraph positioning. To make the information fit the design, font sizes were adjusted, and paragraphs were shortened and repositioned to help the reader through each page more comfortably with a more consistent design. The shift from the original cluttered layout to the final clean, easy-to-read design (Figure 18) was achieved over multiple iterations, with changes made after each round of feedback until the design received approval from the potential users.

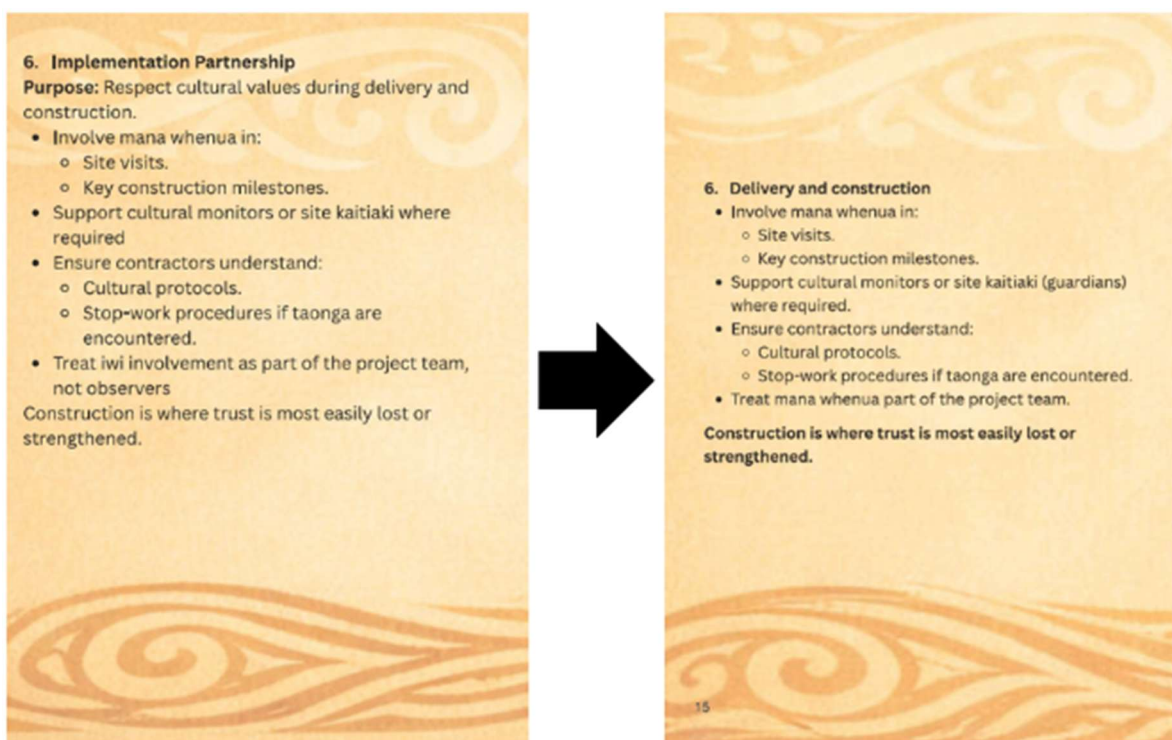


Figure 18. The shift from the original to the final design.

5.6 Final Framework and Booklet Overview

The final booklet (Figure 19 – 34) represents the practical translation of the information found through research and puts those findings into a usable engagement tool. Its structure and presentation are based on the foundations built during the literature review and interview results.

Accessibility was a key consideration to the construction of the framework. Many of the existing frameworks are overly academic in the wording and can appear to assume a certain level of existing knowledge from the user. Instead, the ideas are introduced using plain language while avoiding walls of text to encourage users to fully read the available information.

Visual presentation was seen as vital to the delivery of the framework. Many other frameworks are presented as sections of much larger reports like iwi or environmental management plans. The booklet is designed to be a short form, accessible, easy-to-read introduction to engagement. To make it more palatable to the user, clear headings, concise sections, and templates are used.

These design choices are in direct response to feedback from supervisors and the cultural advisor. The booklet's structure therefore aims to support informed, respectful, and effective engagement with mana whenua.



Figure 19. Front and back covers of the Māori Engagement for Engineers booklet.



Figure 20. Booklet section detailing the rationale for Māori engagement and the guiding rights and responsibilities.

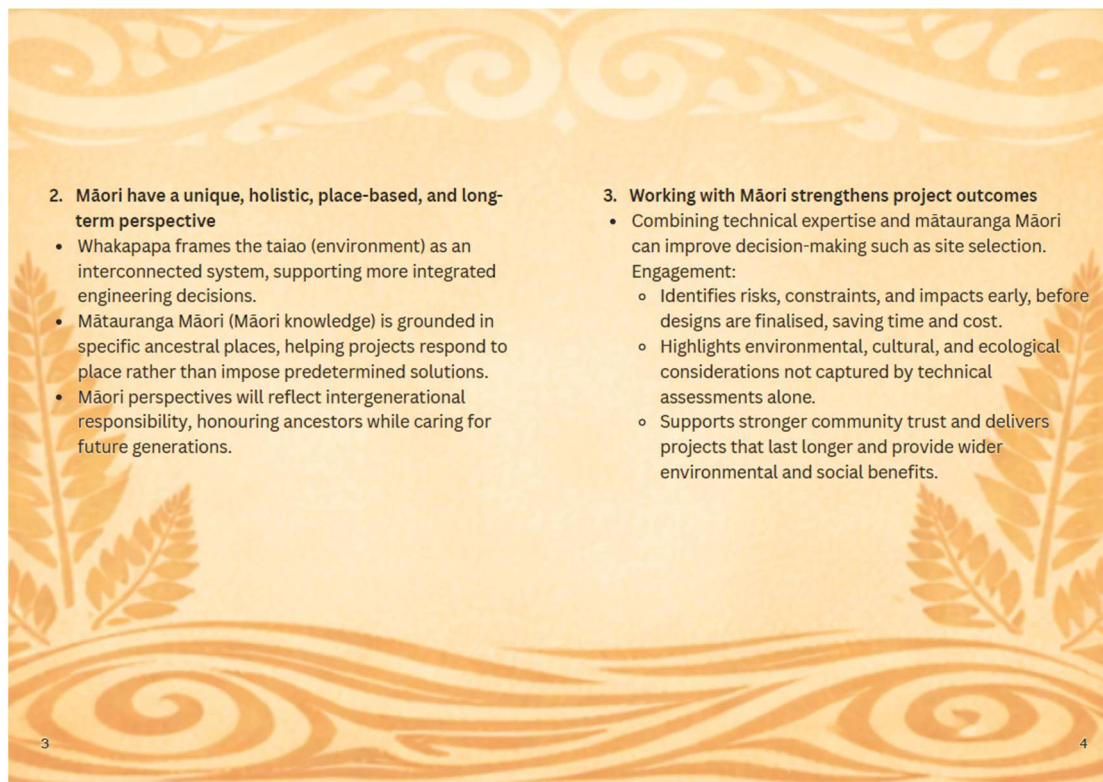


Figure 21. Booklet section describing the potential project benefits of effective Māori engagement.

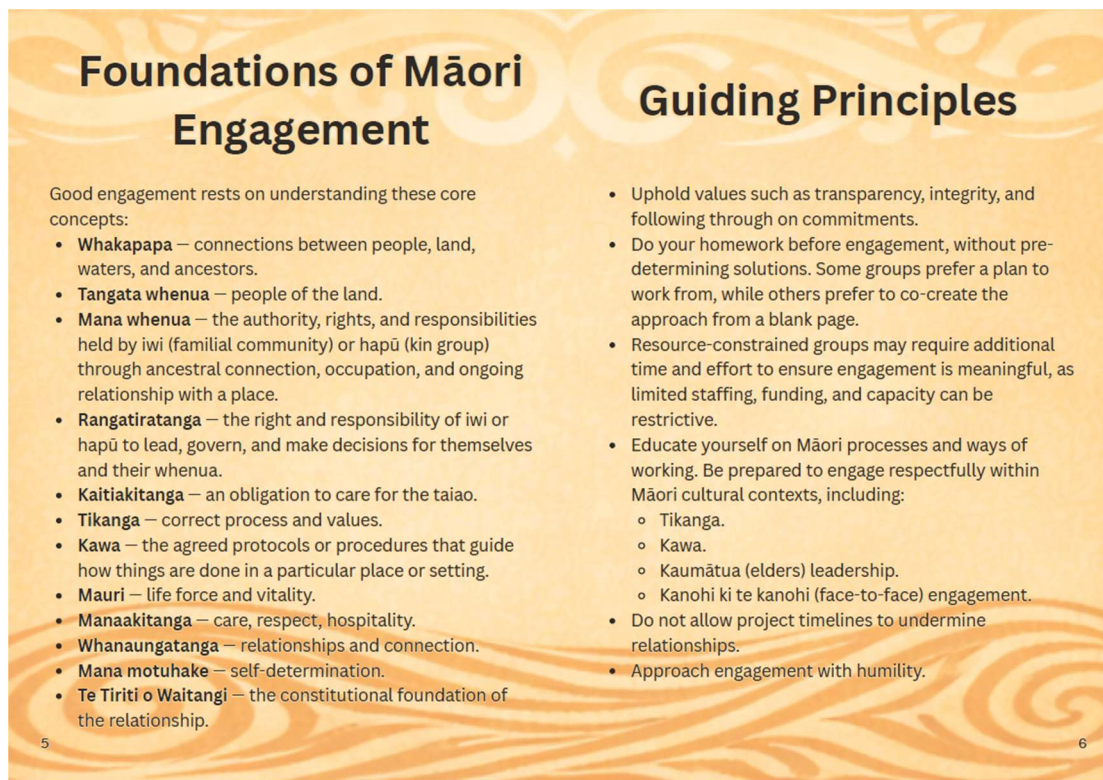


Figure 22. The foundational building blocks for effective Māori engagement.



Figure 23. Guidance on when Māori engagement should occur and who should be involved.



Figure 24. The IAP2 framework outlining progressive levels of engagement.

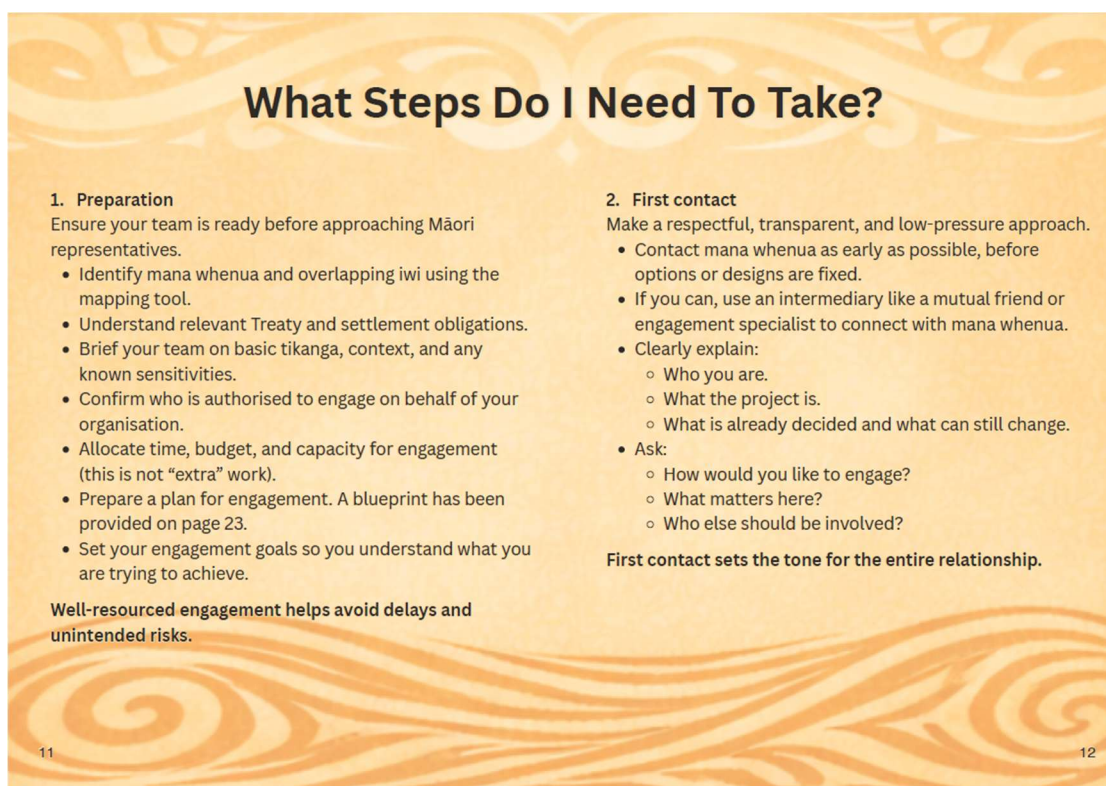


Figure 25. A structured process outlining the key stages of engagement.

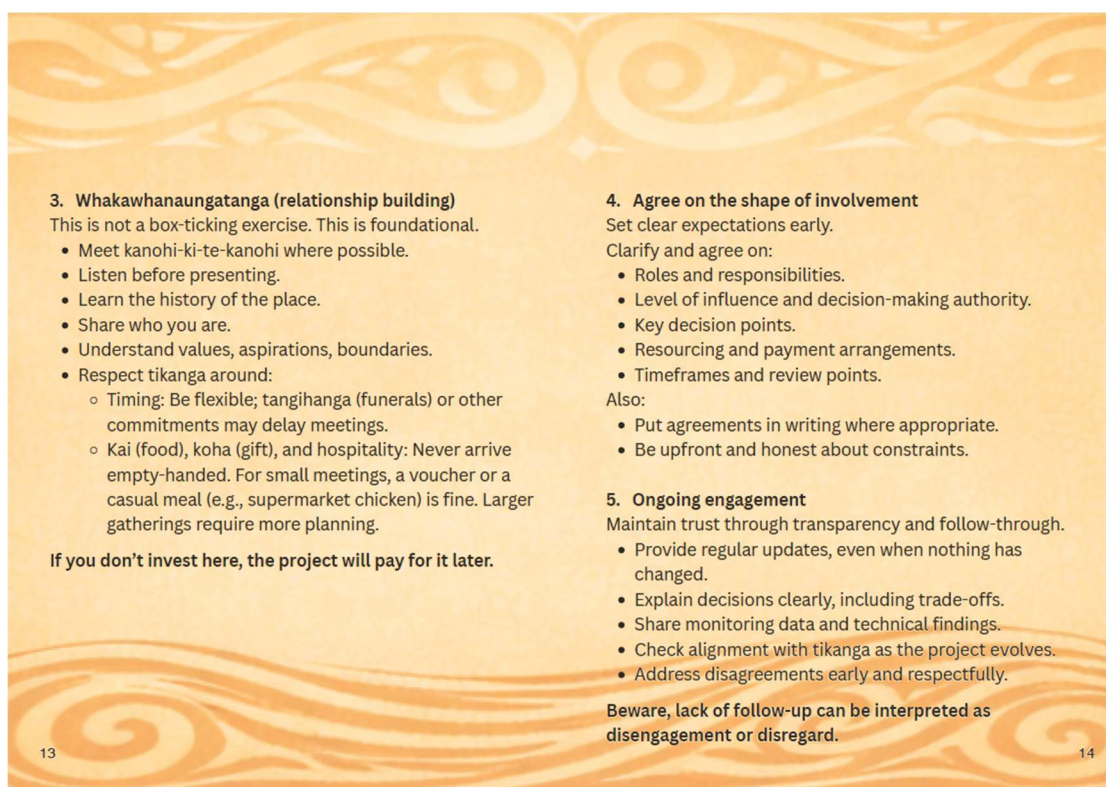


Figure 26. Further phases in the engagement process.

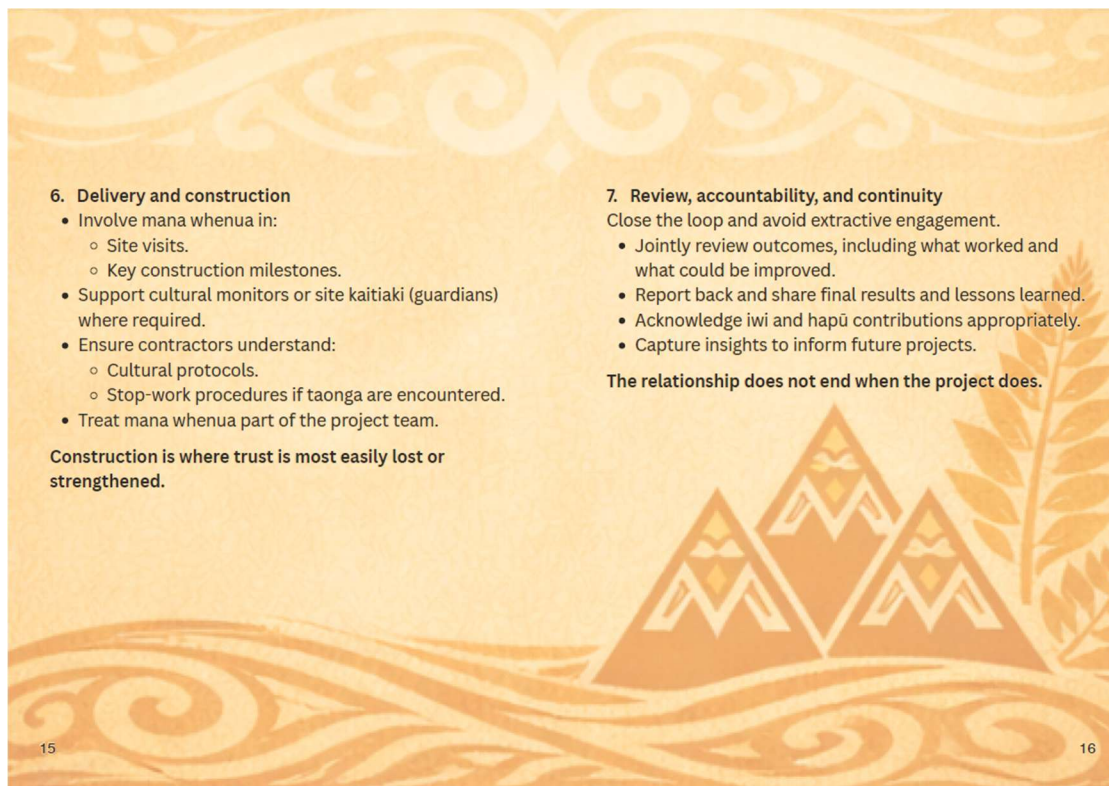


Figure 27. Final phases of the engagement process.

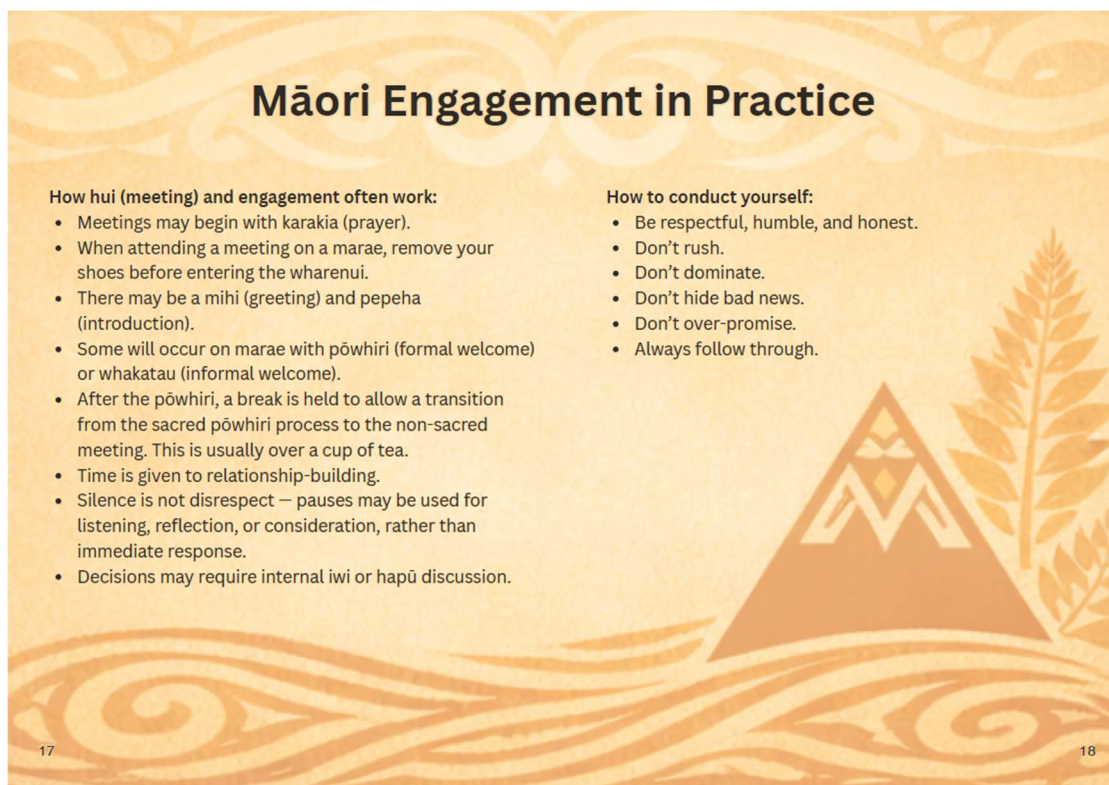


Figure 28. Expected procedures and appropriate conduct during engagement.

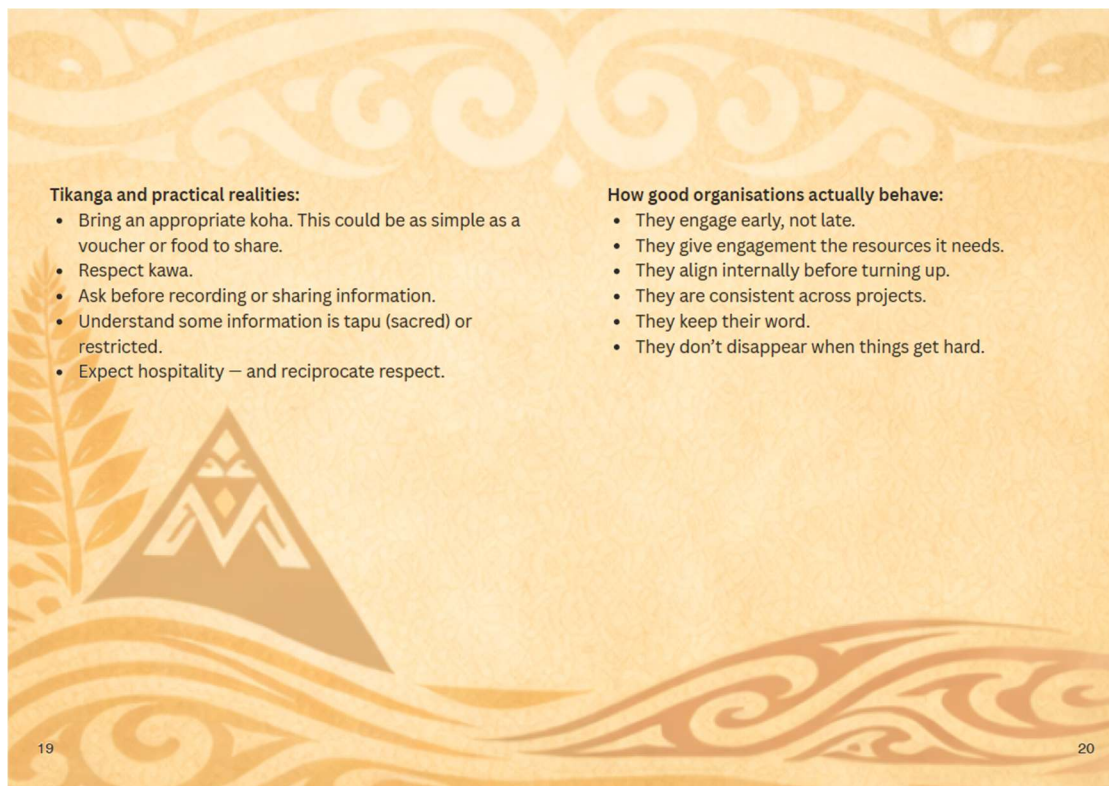


Figure 29. Further guidance on engagement practices.

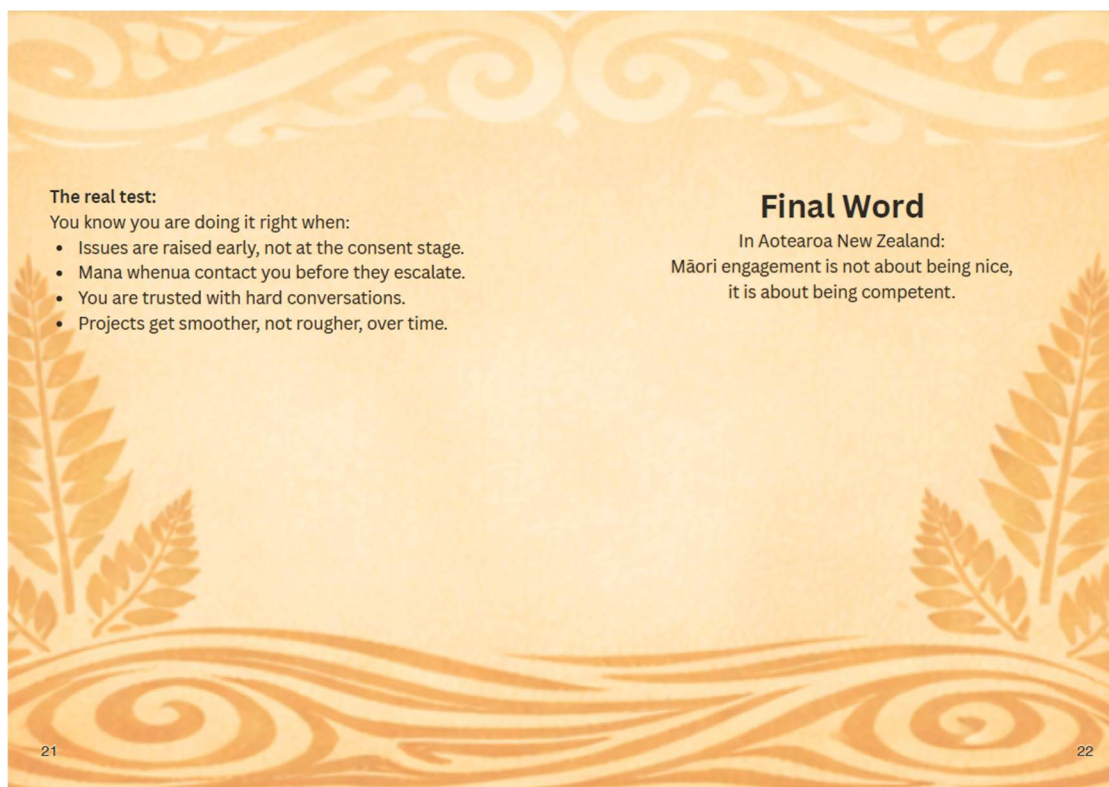


Figure 30. Final guidance on engagement practices.



Figure 31. Pre-contact checklist for engagement.

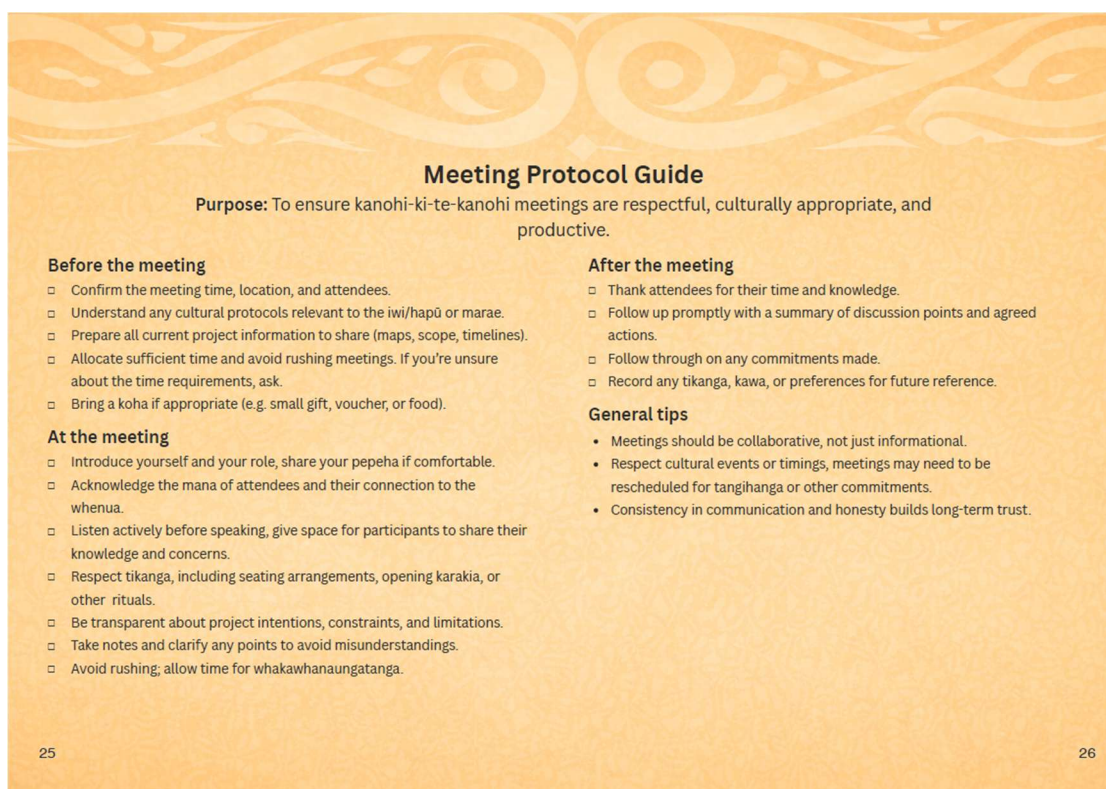


Figure 32. Checklist for appropriate conduct before, during, and after engagement.

Pepeha

Purpose: You may wish to say a pepeha as an introduction for yourself during meetings with Māori. Just fill in what is relevant to you. If a particular line does not apply to you, just leave it out.

Kia ora tātou,
– Hi everyone

Ko [sea or river] te moana/awa
– My sea or river is [sea/river]

Ko [mountain] te maunga
– My mountain is [mountain]

Ko [ancestral voyaging vehicle] te waka
– My ancestors arrived on [vehicle]

Ko [people/nation] te iwi
– My people/nation is [iwi]

Ko [clan/extended family] te hapū
– My clan/extended family is [hapū]

Ko [ancestral home] te marae
– My ancestral home is [marae]

Ko [significant ancestor] te tupuna
– I am descended from [ancestor]

Ko [your name] tōku ingoa
– My names is [name]

If you would like help with pronunciation or help building your pepeha, you can:

- Download this app:



- Use this online dictionary:
 - maoridictionary.co.nz/

27
28

Figure 33. Template for constructing a personal pepeha.

Personal Introduction for Non-Māori

Kia ora tātou,
– Hi everyone

Nō [where your ancestors are from] ōku tūpuna
– My ancestry is from [place]

I whānau mai au i [place you were born]
– I was born in [town/city]

I tupu ake au i [place you grew up]
– I grew up in [town/city]

Kei [place you live now] ahau e noho ana
– I currently live in [town/city]

Ko [your name] tōku ingoa
– My names is [name]

Less Formal Introduction

Tēnā koutou,
– Hello everybody

Ko [your name] tōku ingoa
– My name is [name]

He [your job title] ahau o te
– I am a [job title]

29
30

Figure 34. Templates for different formats of mihi.

5.7 Key Outcomes

A key outcome to this Māori Engagement Framework was that the booklet was handed to staff at the Waikato Regional Council who have decided to add it to the Waikato Regional Council library. Council staff members can now refer to the booklet as a practical source to assist with engagement. The staff who decided it should be in the library were the council's internal engagement specialists which shows the quality of the final booklet and the frameworks relevance beyond this thesis.

Another outcome of this research is that the University of Waikato's School of Engineering has requested permission to print additional copies of the booklet for distribution to staff. This shows the framework's perceived value beyond the scope of this thesis and creates the potential for all engineering staff to access it as a practical resource for engaging with Māori.

5.8 Limitations

The Māori Engagement Framework booklet provides practical guidance for those looking to initiate and maintain relationships with mana whenua. Unfortunately, it does have some limitations that require acknowledgement. These limitations revolve primarily around the scope of the research and the nature of creating a one-size-fits-all approach to a context that varies greatly depending on who is involved. Recognising these limitations is vital for understanding how the booklet should be used and when other resources should be employed.

First, the framework does not replace iwi-specific, existing engagement frameworks or the authority held by any mana whenua group. Each group may have their own unique protocols and expectations that could contradict the booklet. The proposed framework should be used as preparation for users to approach engagement with respect and basic competence, not as a definitive authority for every situation. Users should still try to find the correct tikanga before any engagement opportunity.

Second, as the guide is designed for inexperienced users, much of the information has been simplified. Concepts like whakapapa and kaitiakitanga are presented in a palatable and accessible way so it does not overwhelm users. Sadly, this approach does not fully explain the depth or breadth held within the Māori knowledge system. While this simplification was necessary for the booklet to be useful to engineers and other professionals, it means that users must be careful not to treat it as an outright authority.

Third, the framework focuses on the relational side of engagement. There are some regulatory requirements outlined in Te Tiriti o Waitangi that are integrated into the booklet, but it does not cover every legal, environmental, or procedural obligation an engineer may face. Users should combine the booklet with any relevant standards, consent requirements, and any other project-specific guidelines.

Finally, the framework is limited by its own scope and testing. Feedback was gathered from the widest range of people available. Engineers, engagement experts, Māori leaders, council members and employees, and general members of the public were all consulted during the iterative development and testing process. Without consultation with every region and iwi across Aotearoa New Zealand, the framework cannot be considered entirely complete, as viewpoints will have been missed. To overcome this, the framework must be treated as a living document with changes being made as they become apparent.

By acknowledging these limitations, the framework positions itself as a starting point rather than a definitive solution. Its value is in providing accessible, practical, and culturally aware guidance that helps engineers and other users with ongoing learning and respectful engagement. Users are encouraged to use it as a foundation for building relationships, seeking advice, and adapting their approach to each unique context.

5.9 Conclusion

This chapter has shown the development of a practical guide to indigenous engagement used to support effective and meaningful engagement in an engineering context throughout Aotearoa New Zealand. The framework is based on reviews of existing frameworks and interviews with mana whenua representatives from various iwi and government organisations to ensure that cultural values, relationship principles, and usability are all reflected in the content and design of the booklet.

When used alongside the spatial map developed in Chapter 3, the framework helps with early, and culturally aware engagement. This supports decision-making that is both ethically and practically effective. While it does not replace iwi-specific guidance, the IEF works as a bridge for professionals unsure of the engagement process as it focusses on relationship building, respect for

mātauranga Māori, and procedural guidance. This practical tool translates research, interviews, and feedback into a format that enables the most effective engagement.

Chapter 6. Conclusions

This thesis has described, in depth, the development of an IEF to support respectful, effective, and culturally appropriate engagement with mana whenua throughout Aotearoa New Zealand within an engineering context. The study explored the challenges and opportunities in Māori engagement by examining existing IEFs through a literature review and developing culturally appropriate tools to assist professionals who may not have sufficient knowledge or experience in the engagement process. The research undertaken in this thesis contributes to the integration of mātauranga Māori within engineering decision-making.

6.1 Identifying Gaps

The literature review showed that numerous IEFs already exist, developed by and for government agencies, research institutions, mana whenua groups, and industry organisations. These frameworks vary widely in their usability, accessibility, clarity, and applicability. Many are embedded within larger documents, such as policy statements or environmental management plans, and often assume the user has an existing level of expertise or experience. As a result, these documents can be difficult for users with limited exposure to Māori customs and protocols to navigate.

The literature also highlighted a difference between the highly procedural approach often used by engineers and the more relational approach commonly employed by Māori. This tension created a key challenge: how to translate culturally grounded, relational engagement into guidance and practical tools that are accessible and usable for engineers, without oversimplifying a complex Indigenous knowledge system.

A recurring theme throughout both the literature review and interviews was that engagement often occurs too late, is frequently treated as a compliance exercise, and is approached without sufficient understanding of appropriate tikanga. Many existing frameworks also lacked clarity regarding who should be contacted, how initial meetings should be organised, and how mātauranga Māori can be meaningfully integrated into decision-making processes. These findings emphasised the need for a practical guide capable of bridging the gap between theoretical understanding and practical ability to engage.

6.2 Key Findings from Interviews

Interviews with iwi representatives and museum curators provided valuable insight into the real-world realities of Māori engagement.

The museum interviews highlighted how Māori history and knowledge are often communicated through pūrākau. These pūrākau were described as containing valuable, place-based environmental knowledge, including information about land stability, flood risk, soil fertility, and settlement patterns. The museum curators explained that ignoring this knowledge can lead to significant financial, social, and environmental costs due to infrastructure and cultural failures.

The museum curators also discussed the tensions within institutions regarding the recognition of cultural authority. They described receiving a Queen's warrant as a kaumātua for their institution, which was not valued by their Western organisation. This lack of recognition often leads to frustration within institutions when cultural expertise is not properly acknowledged. These differences between Māori authority and institutional structures show the importance of building a relational approach and cultural understanding into organisational practices. Iwi representatives emphasised the importance of clarity around roles, expectations, and early communication. Participants stressed that engagement must be relational rather than transactional, with sufficient time allocated for whakawhanaungatanga. Further, one of the iwi representatives who also worked in local government discussed practical constraints, such as imposed timelines and limited resources, noting that uncertainty around who to approach and how to initiate engagement can delay meaningful consultation. These perspectives showed the need for a structured yet relational framework that supports professionals in the engagement process.

Across all interviews, participants highlighted a growing demand for Māori expertise within professional disciplines such as engineering. Projects that incorporate mātauranga Māori were described as producing positive outcomes, such as improved erosion mitigation. Interviewees emphasised that this knowledge is relational and context-specific, held within networks of whānau and hapū, and best accessed through direct consultation with the appropriate knowledge holders. These findings informed the development of the proposed engagement framework, which emphasises relational engagement.

6.3 Development of the Framework

The development of the IEF was an iterative process informed by the literature review, interview findings, and feedback from engagement experts and potential users. The framework was designed to translate the relational principles of Māori engagement into guidance that could be understood and applied by professionals, particularly engineers who may be unfamiliar with the engagement process. Early iterations focused on identifying the key stages of engagement, including understanding mana whenua roles, making initial contact, and navigating early engagement processes.

Initial drafts of the framework were presented in a highly academic format, limiting their accessibility to non-academic users. Through multiple iterations, the structure and presentation of the framework were refined to improve clarity, accessibility, and usability while maintaining cultural appropriateness. The framework was ultimately structured to provide practical guidance without oversimplifying the relational and culturally grounded nature of Māori engagement.

Key design decisions included incorporating prompts and structured guidance to support early engagement stages. Careful attention was given to the language used throughout the framework to ensure that it remained appropriate for users with limited experience in Māori engagement, while still respecting the cultural context in which engagement occurs. The framework was presented in a booklet format to maximise usability for professional audiences, particularly engineers who are accustomed to structured project documentation.

The iterative development process was guided by the need to balance the procedural guidance expected by engineers with the relational focus emphasised by mana whenua representatives. Engineers often require a clear pathway through engagement processes, while mana whenua participants stressed that engagement cannot be reduced to a checklist. The final framework addresses this tension by presenting structured guidance as prompts that support relationship-building and dialogue, rather than as prescriptive steps or compliance requirements.

6.4 Contributions to Knowledge and Practice

This research contributes to both academic understanding and professional practice. It builds on the strengths of many existing IEFs across various sectors in Aotearoa New Zealand while identifying the inconsistencies and usability challenges that make these frameworks difficult for

professionals to apply in practice. The research demonstrates how traditional knowledge systems, such as pūrākau and place-based taiao knowledge, can meaningfully contribute to engineering decision-making. It also develops a practical engagement framework that can support engineers and other professionals in approaching engagement in a more relational and culturally appropriate way.

Beyond the practical outcomes, the thesis also contributes theoretically by examining the relational nature of engagement. It reinforces that Indigenous knowledge is closely connected to people, place, and community, and that ethical engagement requires ongoing relationship-building rather than one-off consultation. By balancing procedural expectations within engineering practice with the relational principles emphasised by mana whenua, this research provides a model for translating cultural engagement principles into applied engineering contexts without compromising cultural integrity.

6.5 Limitations and Future Research

While the proposed IEF provides a practical foundation for introductory engagement, several limitations remain. The framework is not intended to replace iwi-specific engagement tools or guidance and should instead be understood as a preparatory framework rather than an authoritative guide. In order to make the framework accessible and usable for professionals unfamiliar with Māori engagement, some concepts had to be simplified, which reduced the depth with which certain cultural aspects could be explored. The framework was presented in a booklet format to improve accessibility for professional users, but this inevitably required condensing complex ideas.

The scope of consultation was also limited by the accessibility of participants, with interviews primarily conducted with individuals located within the researcher's region. As a result, perspectives from other mana whenua groups across Aotearoa New Zealand were not fully represented within this study.

Future research should expand consultation to a wider range of iwi to strengthen the framework's legitimacy across a more diverse range of regions. Sector- and region-specific adaptations of the framework could also be developed to enhance its usability for professionals nationwide. These variations could include planning, architectural, environmental, and other scientific industries to

provide more focused guidance. Studies involving users applying the framework in practice would also be beneficial, as they would provide insight into how effectively the framework supports engagement and identify areas for future refinement.

A priority for future research should also be the development of a more accurate spatial map relating to iwi areas of interest. The map developed in this thesis relied on publicly available datasets due to the practical difficulties of compiling individual iwi boundary information. Improving this mapping would require collaboration with knowledge holders from iwi across Aotearoa New Zealand to ensure their areas of interest are accurately represented, as the authority over each iwi's boundaries ultimately rests with the iwi themselves.

Finally, engagement is relational and reciprocal, meaning that engagement must occur in both directions. This thesis focuses on the responsibilities of engineers and other professionals during the engagement process and does not address how mana whenua may approach engagement with professional sectors. There is therefore an opportunity for Māori-led research exploring how tangata whenua may engage with tangata Tiriti within professional contexts. As a non-Māori researcher, it would be inappropriate for this study to propose a framework for Māori communities. Any reciprocal framework must be led by Māori scholars, professionals, and iwi, ensuring alignment with tikanga, rangatiratanga, and community-defined priorities.

6.6 Broader Implications

This research has implications beyond the development of a single framework. It demonstrates that combining mātauranga Māori with engineering decision-making is both achievable and beneficial for all parties involved. The study shows that Indigenous knowledge is more than symbolic recognition; it represents a valuable source of place-based environmental knowledge that can inform engineering practice.

The thesis also highlights the need for a shift in perspective and practice within professional sectors, particularly within engineering. Engagement is often treated as a compliance-driven requirement, but this research suggests that it should instead be approached as a relational process. By emphasising early engagement, whakawhanaungatanga, and respect for tikanga, the research contributes to a pathway for professionals to move beyond procedural consultation toward more meaningful and culturally grounded engagement.

6.7 Concluding Statement

This thesis argues that engagement is not a procedural hurdle but a relationship. While engineers often work within systems that prioritise certainty, efficiency, and structured processes, meaningful engagement with mana whenua requires time, humility, and reciprocity.

The IEF developed in this research is not intended as a definitive guide or a replacement for iwi-specific engagement practices, nor is it a substitute for genuine relationship-building. Rather, it is designed as a starting point to support respectful early engagement and help reduce avoidable missteps in the initial stages of consultation. Ultimately, the responsibility for meaningful engagement does not rest in a framework alone, but in the willingness of professionals to listen, learn, and recognise the authority of mana whenua within their own rohe.

As Aotearoa New Zealand continues to evolve its understanding of partnership and shared stewardship, engineers and other professionals must continue to adapt their practices accordingly. This research represents one contribution to that ongoing journey.

References

- Ahipara Takiwā. (2023). [PDF]. *Ahipara Takiwā Environment Management Plan*.
www.terarawa.iwi.nz/files/pou-environmental/ahipara-takiwa/ahipara-takiwa-management-plan-december-2023-rev-2.pdf
- Auckland Council. (n.d.). *Engaging with mana whenua*. Retrieved April 16, 2025, from
<http://www.aucklandcouncil.govt.nz/building-and-consents/resource-consents/prepare-resource-consent-application/Pages/engaging-with-mana-whenua.aspx>
- Auckland University of Technology. (n.d.). [PDF]. *Te Aronui AUT Te Tiriti Framework*.
https://www.aut.ac.nz/_data/assets/pdf_file/0008/802925/Te-Aronui-v8.pdf
- Bay of Plenty Regional Council. (2011, August). [PDF]. *Engaging with Māori A guide for staff of the Bay of Plenty Regional Council* <https://atlas.boprc.govt.nz/api/v1/edms/document/A4595654/content>
- Bay of Plenty Regional Council. (n.d.). [PDF]. *Engaging with Māori | A Guide for Aotearoa New Zealand River Managers*. <https://www.resilientrivers.nz/files/1663119379139.pdf>
- Bay of Plenty Regional Council. (n.d.). *Engaging Māori*. Retrieved April 16, 2025, from
<https://www.boprc.govt.nz/your-council/working-with-iwi/engaging-maori/>
- Berkes, F. (2012). *Sacred Ecology* (3rd ed.). Routledge. <https://doi.org/10.4324/9780203123843>
- Central North Island Forests Iwi Collective. (2018). [PDF]. *He Mahere Pūtahitanga*.
www.waikatoregion.govt.nz/assets/WRC/WRC-2019/CNI-Iwi-Management-Plan.pdf
- Conroy, E., Donald, M. (2014). [PDF]. *Tapuika Environmental Management Plan*.
<https://atlas.boprc.govt.nz/api/v1/edms/document/A2551870/content>
- Conroy, E., Donald, M. (2018). [PDF]. *Ngāti Whakaue ki Maketu Hapū Management Plan*.
<https://atlas.boprc.govt.nz/api/v1/edms/document/A3044679/content>
- Conroy, E., Donald, M. (2018, September). [PDF]. *Te Rautaki Tāmata Ao Turoa o Hauā*.
<https://ngatihauaiwitrust.co.nz/publications/trust-documents/>

- Conroy, E., Donald, M. (2019). [PDF]. *Tūhoromatanui – Ngā Pōtiki Environmental Plan*. https://ngapotiki.org.nz/wp-content/uploads/2021/08/NP_EnvironPlan_14082019-1.pdf
- Durie, M. (2004). *Understanding health and illness: Research at the interface between science and Indigenous knowledge*. **International Journal of Epidemiology**, 33(5), 1138–1143. <https://doi.org/10.1093/ije/dyh250>
- Education Review Office. (2017, June). [PDF]. *He Pou Tātaki: How ERO Reviews Hospital-Based Education and Care Services*. <https://www.ero.govt.nz/sites/default/files/2021-04/He%20Pou%20Tatakai%20How%20ERO%20reviews%20hospital-based%20education%20and%20care%20services.pdf?utm>
- Environmental Protection Authority. (2022, July). [PDF]. *EPA's Māori Engagement Strategy July 2022 to June 2025*, <https://www.epa.govt.nz/assets/Uploads/Documents/Te-Hautu/Maori-Engagement-Strategy-2022-25.pdf>
- George, K. (2016). [PDF]. *Ngāti Kea Ngāti Tuara Iwi Environmental Management Plan*. www.boprc.govt.nz/media/564287/ngati-kea-ngati-tuara-iwi-environmental-management-plan.pdf
- Harmsworth, G. R., & Awatere, S. (2013). *Indigenous Māori knowledge and perspectives of ecosystems*. In **Ecosystem Services in New Zealand – Conditions and Trends**.
- Hennessey, C. (2024). *Adoption of Mātauranga Māori in Construction* [Unpublished report]. The University of Waikato.
- Hikuroa, D. (2017). *Mātauranga Māori—The ūkaipō of knowledge in New Zealand*. **Journal of the Royal Society of New Zealand**, 47(1), 5-10. <https://doi.org/10.1080/03036758.2016.1252407>
- Hineuru Iwi Trust. (2022, January 18). [PDF]. *Iwi Environmental Management Plan*. www.waikatoregion.govt.nz/assets/WRC/WRC-2019/Hineuru-Environmental-Plan.pdf
- Horizons Regional Council. (n.d.). *Engaging with Tangata Whenua in the Horizons Regional Council*. Retrieved April 16, 2025, from <https://www.horizons.govt.nz/managing-natural-resources/apply-for-consents/engaging-with-tangata-whenua-in-the-horizons-regio>

- Horne, M. (2011, August). [PDF]. *Ngati Whakaue ki Maketu Iwi Resource Management Plan Phase 2*. <https://atlas.boprc.govt.nz/api/v1/edms/document/A2551839/content>
- IPONZ. (n.d.). *Concepts to understand*. Intellectual Property Office of New Zealand. Retrieved February 12, 2026, from <https://www.iponz.govt.nz/get-ip/maori-ip/concepts-to-understand/>
- List of iwi. (2025). In *Wikipedia*. https://en.wikipedia.org/w/index.php?title=List_of_iwi&oldid=1299854083
- Mahaanui Kurataiao Ltd. (2017, June). [PDF]. *Wāhi Tapu me Wāhi Taonga in the Waimakariri & Rakahuri Catchments of the Takiwā of Te Ngāi Tūāhuriri Rūnanga*. <https://apps.canterburymaps.govt.nz/WaimakStoryMap/images/Wahi%20Tapu%20me%20Wahi%20Taonga.pdf>
- Maniapoto. (2018, July). *Maniapoto Environmental Management Plan*. <https://tenehenehenui.iwi.nz/3d-flip-book/maniapoto-environmental-management-plan-emp/>
- May, S., Renata, P., Baker, M. (2019). [PDF]. *Ngaati Whanaunga Environmental Management Plan*. www.waikatoregion.govt.nz/assets/WRC/NgaatiWhanaungaEnvironmentalManagementPlan9September2019.pdf
- McAllister, T. G., Beggs, J. R., Ogilvie, S., & Kirikiri, R. (2019). *Kua takoto te mānuka: mātauranga Māori in New Zealand ecology*. **New Zealand Journal of Ecology**, 43(3). <https://doi.org/10.20417/nzjecol.43.34>
- Merriam-Webster. (n.d.). Dictionary. Retrieved February 18, 2026, from <https://www.merriam-webster.com/>
- Ministry for the Environment. (1991, July 22). *Resource Management Act of 1991*. <https://www.legislation.govt.nz/act/public/1991/69/en/latest/#DLM230265>
- Ministry for the Environment. (2018, April). [PDF]. *Mana whakahono ā rohe: Guidance for iwi participation arrangements*. https://environment.govt.nz/assets/publications/Files/mana-whakahono-guide_0.pdf
- Natural Hazards Commission. (2024, October 31). *Iwi works with scientists to protect community from natural hazards*. <https://www.naturalhazards.govt.nz/news/iwi-works-with-scientists-to-protect-community-from-natural-hazards/>

Network Waitangi Otautahi. (2024, July 8). *Who are Tangata Tiriti?*

<https://nwo.org.nz/resources/who-are-tangata-tiriti/>

New Zealand Tourism. (n.d.). 100% Pure New Zealand. Retrieved February 18, 2026, from

<https://www.newzealand.com/nz/>

Ngāi Tai Ki Tāmaki. (2022, September). [PDF] *Ngāi Tai Ki Tāmaki Take Taiaomaurikura*.

<https://irp.cdnwebsite.com/bf9c2d9b/files/uploaded/NTKT%20Take%20Taiaomaurikura%202022.pdf>

Ngāi Te Ahi. (2013, June). [PDF]. *Ngāi Te Ahi Hapū Management Plan*. [https://atlas.boprc.govt.](https://atlas.boprc.govt.nz/api/v1/edms/document/A2551908/content)

[nz/api/v1/edms/document/A2551908/content](https://atlas.boprc.govt.nz/api/v1/edms/document/A2551908/content)

Ngāti Porou Ki Hauraki. (2015, September 12). [PDF]. *Marine and Coastal Area Plan*.

www.waikatoregion.govt.nz/assets/WRC/WRC-2019/Ngati-Porou-ki-Hauraki-plan.pdf

Ngāti Pūkenga Iwi Ki Tauranga Trust. (2013, August). [PDF]. *Iwi Management Plan*.

www.boprc.govt.nz/media/300790/Ngati-Pukenga-Iwi-ki-Tauranga-Trust-Iwi-Management-Plan-August-2013.pdf

Ngāti Tama ki Te Waipounamu Trust. (2018). [PDF]. *Ngāti Tama ki Te Waipounamu Trust*

Environmental Management Plan 2018. https://ngatitama.nz/wp-content/uploads/2019/07/76518-Enviromental-Plan-Stage-3.2_FINALpress-1-updated-image-August-2018.pdf

Ngāti Tamateatutahi-Ngāti Kawiti. (2015). [PDF]. *Ngāti Tamateatutahi – Ngāti Kawiti Hapū*

Environmental Management Plan. <https://atlas.boprc.govt.nz/api/v1/edms/document/A2547071/content>

Ngāti Tūwharetoa. (2003). [PDF]. *Environmental Iwi Management Plan*. [https://www.horizons.g](https://www.horizons.govt.nz/HRC/media/Media/Iwi%20and%20Hapu/Ngati_Tuwharetoa_Iwi_Environmental_Management_Plan_2003.pdf)

[ovt.nz/HRC/media/Media/Iwi%20and%20Hapu/Ngati_Tuwharetoa_Iwi_Environmental_Management_Plan_2003.pdf](https://www.horizons.govt.nz/HRC/media/Media/Iwi%20and%20Hapu/Ngati_Tuwharetoa_Iwi_Environmental_Management_Plan_2003.pdf)

Ngāti Whare. (2011, March 19). [PDF]. *Iwi Management Plan*. [https://atlas.boprc.govt.nz/api/v1/](https://atlas.boprc.govt.nz/api/v1/edms/document/A2552372/content)

[edms/document/A2552372/content](https://atlas.boprc.govt.nz/api/v1/edms/document/A2552372/content)

- Ngāti Whātua Ōrākei. (2018). [PDF]. *Te Pou O Kāhu Pōkere Iwi Management Plan for Ngāti Whātua Ōrākei*. <https://ngatiwhatuaorakei.com/media/zaall3nw/te-pou-o-ka-hu-po-kere-the-iwi-management-plan-for-nga-ti-wha-tua-o-rakei-2018.pdf>
- NIWA. (n.d.). *Tuna* | *Earth Sciences New Zealand*. Retrieved February 12, 2026, from <https://niwa.co.nz/freshwater/kaitiaki-tools/mahinga-kai-what-species-interests-you/tuna>
- NZ Wind Energy Association. (n.d.). *Iwi Engagement*. Retrieved April 16, 2025, from <https://www.windenergy.org.nz/iwi-engagement/>
- Port Nicholson Block Settlement trust (n.d.). *Rohe*. Retrieved February 16, 2026, from <https://www.pnbst.maori.nz/about-us/rohe/>
- Port Nicholson Block Settlement Trust. (n.d.). *Rohe*. Retrieved July 2, 2025, from <https://www.pnbst.maori.nz/about-us/rohe/>
- Poutama. (2010). [PDF]. *Te Whakapuakitanga o Poutama*. www.waikatoregion.govt.nz/assets/WRC/WRC-2019/2229425-Poutama.pdf
- Rangitāne o Tamaki nui-ā-Rua Charitable Trust. (2023). [PDF]. *Te Tapere Nui-o-Whātonga Cultural and Environmental Management Plan*. www.horizons.govt.nz/HRC/media/Media/Iwi%20and%20Hapu/Te-Tapere-Nui-o-Whatonga.pdf
- Raukawa. (2015). [PDF]. *Te Rautaki Taiao a Raukawa – Raukawa Environmental Management Plan*. www.waikatoregion.govt.nz/assets/WRC/WRC-2019/Raukawa_Environmental_Management_Plan_2015.pdf
- Smith, L. T. (1999). *Decolonizing Methodologies: Research and Indigenous Peoples*. Zed Books.
- Taiao Ora. (n.d.). *Understanting Te Taiao*. Retrieved February 12, 2026, from <https://www.taiaoora.nz/te-taiao>
- Te Aka. (n.d.). *Te Aka Māori Dictionary*. Retrieved February 18, 2026, from <https://www.maoridictionary.co.nz/>
- Te Ara. (n.d.). *Encyclopedia of New Zealand*. Retrieved February 18, 2026, from <https://teara.govt.nz/en>

- Te Arawhiti. (n.d.). [PDF]. *Guidelines for Engagement with Māori*. <https://whakatau.govt.nz/assets/Tools-and-Resources/Guidelines-for-engagement-with-Maori.pdf>
- Te Kawerau ā Maki Trust. (1995, May 11). [PDF]. *Resource Management Statement*. <https://gkz.f9f.myftpupload.com/wp-content/uploads/te-kawerau-a-maki-1995.pdf>
- Te Kōkiringa Taumata New Zealand Planning Institute. (n.d.). *Enhance Māori Participation*. Retrieved April 16, 2025, from https://planning.org.nz/Category?Action=View&Category_id=1230
- Te Mana o Ngāti Rangitihi Trust. (2011). [PDF]. *Ngāti Rangitihi Iwi Environmental Management Plan*. <https://atlas.boprc.govt.nz/api/v1/edms/document/A2552401/content>
- Te Maru o Ngati Rangiwewehi Iwi Authority. (2012, December 30). [PDF]. *Ngāti Rangiwewehi Iwi Environmental Management Plan*. https://www.boprc.govt.nz/media/270922/ngati_rangiwewehi_iwi_environmental_management_plan_2012_part_1_smallest.pdf
- Te One, A., & Clifford, C. (2021). Tino Rangatiratanga and Well-being: Māori Self Determination in the Face of Covid-19. *Frontiers in Sociology*, 6. <https://doi.org/10.3389/fsoc.2021.613340>
- Te Puni Kōkiri. (n.d.). *Iwi Areas of Interest* [Map layer].
- Te Puni Kōkiri. (n.d.). *Te reo Māori*. Retrieved February 12, 2026, from <https://www.tpk.govt.nz/en/nga-putea-me-nga-ratonga/te-reo-maori>
- Te Puni Kōkiri. (n.d.). *TKM | Tainui | Te Kahui Mangai*. Retrieved February 16, 2026, from <https://www.tkm.govt.nz/region/tainui/>
- Te Puni Kōkiri. (2025, February 25). *Crown engagement with Māori*. <http://www.tpk.govt.nz/en/a-matou-whakaarotau/maori-crown-relations/crown-engagement-with-maori/>
- Te Puni Kōkiri. (n.d.). *TKM | Iwi | Raukawa | Te Kahui Mangai*. Retrieved February 16, 2026, from <https://www.tkm.govt.nz/iwi/raukawa/>
- Te Puni Kōkiri.(n.d.). *TKM | Iwi | Taranaki Whānui ki Te Upoko o Te Ika | Te Kahui Mangai*. Retrieved February 16, 2026, from <https://www.tkm.govt.nz/iwi/taranaki-whanui-ki-te-upoko-o-te-ika/>

- Te Runanga O Ngāi Takoto (n.d.). [PDF]. *Te Iwi O Ngāi Takoto Environmental Plan*.
<https://ngaitakotoiwi.co.nz/wp-content/uploads/TRONT-Environmental-Plan.pdf>
- Te Rūnanga o Ngāti Awa. (2019, November 26). *Ngāti Awa Environmental Plan*.
https://issuu.com/terunangaongatiawa/docs/env000_na_environmental_plan
- Te Runanga o Ngāti Ruanui Trust. (2014, August). [PDF]. *Best Practice Guidelines for Engagement with Māori*. <https://www.nzpam.govt.nz/assets/Uploads/doingbusiness/engagement-with-maori-guidelines.pdf>
- Te Rūnanganui o Te Āti Awa (n.d.) *Te Ātiawa*. Retrieved February 16, 2026, from
<https://atiawa.com/te-runanganui-o-te-ati-awa/>
- Te Taiwhenua o Heretaunga. (2008). [PDF]. *Mana Ake Ngā Hapū o Heretaunga*.
www.hbrc.govt.nz/assets/Document-Library/Plans/Iwi-Hapu-Management-plans/20150520-Management-Plan-Mana-Ake-Nga-Hapu-o-Heretaunga-2015-published-by-Te-Taiwhenua-o-Heretaunga.pdf
- Te Tari Whakatau the Office of Treaty Settlements and Takutai Moana. (2018, October 01). [PDF] *Te Tari Whakatau*. <https://whakatau.govt.nz/assets/Maori-Crown-Relations-Roopu/6b46d994f8/Engagement-Guidelines-1-Oct-18.pdf>
- Te Upokorehe. (2012). [PDF]. *Te Upokorehe Iwi Management Plan*.
<https://atlas.boprc.govt.nz/api/v1/edms/document/A1436346/content>
- The Aggregate & Quarry Association of NZ. (n.d.). [PDF]. *Guidance for Engagement with Iwi*.
<https://aqa.org.nz/wp-content/uploads/Guidance-for-engagement-with-iwi.pdf>
- Tiaki Tāmaki Makaurau - Conservation Auckland. (n.d.). *Engaging with mana whenua*. Retrieved July 1, 2025, from <https://www.tiakitamakimakaurau.nz/get-involved/engaging-with-mana-whenua/>
- Toitū Te Whenua. (n.d.). *Urupā | cemetery*. Retrieved February 12, 2026, from
<https://www.lin.govt.nz/products-services/place-names/geographic-features/urupa-cemetery>
- University of Otago. (2017, November 23). *Societal lore (tikanga) in Māori culture*. Māori Ki Ōtākou Whakaihu Waka. <https://www.otago.ac.nz/maori/world/tikanga/lore>

- Upper Hutt City Council. (n.d.). *Te Orokohanga—The Creation Narratives*. Retrieved February 17, 2026, from <https://www.upperhutt.govt.nz/Welcome/Mana-Whenua/The-Creation>
- Waikato Regional Council. (2015, October). [PDF]. *Healthy Rivers Wai Ora Infosheet*. <https://www.waikatoregion.govt.nz/assets/WRC/Council/Policy-and-Plans/HR/FAQS/MAe-tauranga-MAe-ori.pdf>
- Waikato Regional Council. (2017). [PDF]. *Māori Engagement Framework*. <https://www.waikatoregion.govt.nz/assets/WRC/Council/Policy-and-Plans/11340016-Maori-Engagement-Framework-Guide.pdf>
- Waikato Regional Council. (n.d.). *Tai-ranga-whenua*. Retrieved February 12, 2026, from <https://www.waikatoregion.govt.nz/community/your-community/iwi/tai-ranga-whenua/>
- Waikato-Tainui. (2014, August). [PDF]. *Waikato-Tainui Environmental Plan*. <https://waikatotainui.com/wp-content/uploads/2022/08/Waikato-Tainui-Environmental-Plan-2013.pdf>
- Waitaha. (2014, September 28). [PDF]. *Iwi Management Plan*. <https://waitaha-iwi.org.nz/wp-content/uploads/2022/01/Waitaha-Iwi-Management-Plan-2014.pdf>
- Waka Kotahi NZ Transport Agency. (2021, December). *Engaging with Māori Policy*. <https://nzta.govt.nz/planning-and-investment/planning-and-investment-knowledge-base/202427-nltp-investment-requirements/202427-nltp-principles-and-policies/assessment-2/engaging-with-maori-policy?>
- Waka Kotahi NZ Transport Agency. (n.d.). [PDF]. *Hononga ki te Iwi // our Māori engagement Framework*. https://www.nzta.govt.nz/assets/planning-and-investment/docs/20-024_Hononga_ki_te_iwi_v10.pdf
- Wilkinson, C., Hikuroa, D., Macfarlane, A., & Hughes, M. (2020). *Mātauranga Māori in geomorphology: Existing frameworks, case studies and recommendations for Earth scientists*. *Earth Surface Dynamics*, 8, 595–618. <https://doi.org/10.5194/esurf-8-595-2020>

Appendices

Appendix A — Participation Form

Mātauranga Māori and Ocean Energy: A Sustainable Approach to Coastal Resilience

Participant consent form – Interview

By signing below, you acknowledge the following:

- I have read and understand the information provided on the information sheet.
- I consent to be interviewed and for the interview to be audio recorded.
- I understand my participation is voluntary and that I have the right to withdraw before or during the interview and up to one week after receipt of the interview transcript (approximately two weeks after the interview), without having to give a reason and without any consequences.
- I understand that my identity will remain confidential and will not be reported alongside any information I provide.
- I understand that the information I provide will be securely stored by the research team and will be used only for research purposes, including dissemination in journal articles, conference papers and posters, and in a master's thesis.

Please indicate below if you would like to receive and review a transcript of your interview:

- ☐ Yes, I would like to receive a copy of the transcript.
- ☐ No, I would not like to receive a copy of the transcript.

Please sign and date below if you are willing to participate in this study.

Participant's signature

Date of participation

Interviewer's signature

Date of participation

Please indicate below if you consent to being contacted to participate in future research projects:

- ☐ Yes, I consent to being contacted about participating in future research projects.
- ☐ No, I do not consent to being contacted about future research projects.

Who can you contact if you have any questions or concerns?

If you have any questions about the research, please contact:

- Mr. Benjamin Poulsen: bp83@sudents.waikato.ac.nz (Lead Researcher)
- Dr Danielle Bertram: danielle.bertram@waikato.ac.nz (Supervisor)
- Dr Roger Lewis: roger.lewis@waikatoregion.govt.nz (Cultural Advisor)

Appendix B — Original Questions

Have you noticed significant erosion during your time at this location?

Do you feel the current protection methods have been effective?

Does this area hold any cultural significance?

Do you think an engineered structure or natural solution is more appropriate?

Would you be comfortable with the introduction of new aquatic life i.e. seaweed?

Would the community/marae benefit from a green energy solution?

Do you know any pūrākau?

Do you know the origins of these pūrākau (how would pakeha interpret these stories)?

If yes, is it appropriate to translate these pūrākau for public use?

Do we (UoW researchers) have permission to publish these pūrākau?

Are there any tapu zones in the area?

Appendix C — Mana Whenua Interview Questions

Introduction

- Tēnā koe, thank you for taking the time to answer these.
- The purpose of this kōrero is to listen to your experiences, knowledge, and aspirations in relation to the moana, whenua, and taiao.
- To me, respecting your values, issues as you see them, priorities, tikanga, connection to your place, and any stories you are comfortable sharing, is a foundation for a potentially fruitful collaboration, where you can consider if the benefits of green marine-based engineering suit you.

Whakawhānaungatanga

1. Kia ora (hello), can you tell me a little about yourself, your role on the marae or with your mana whenua group?
2. How does your mana whenua group stay connected to the moana, whenua, and taiao?
3. To ensure our kōrero feels tika and comfortable, what tikanga or kawa would you like us to observe when we meet like this?
4. What's the best way for people to reach out to your mana whenua group if they want to kōrero about these kaupapa?

Ngā Wheako

1. What sounds, sights, smells, or memories stand out when you think of this place?
2. Are there particular species, habitats, or taonga that your mana whenua group has always cared for that you would like to tell us about?
3. Who were the people or events that shaped your mana whenua group's connection with this place?
4. Over your lifetime, what changes have you seen along the coastline or in the taiao?

Ngā Whakaaro

1. When you think about these changes, what do they mean to you?
2. Were there times, during the engagement process or environmental protection projects, you felt excited about what was happening, or frustrated by what wasn't happening?
3. Have there been moments when you or your mana whenua group felt listened to, or left out, in decisions about this place?

4. What has uplifted you, or given you a sense of hope and strength, through these changes or projects?
5. Can you share what has left you disappointed, or times when the process has not met your expectations?

Ngā Kōrero

1. Are there pūrākau, whakataukī, or kōrero tuku iho that share lessons about this coastline or taiao?
2. Why are these stories, memories, or feelings important for your mana whenua group?
3. What lessons do they teach us about resilience, kaitiakitanga, and whakapapa?
4. What do these kōrero tell us about how to care for this place today?

Ngā Tumanako

1. From your point of view, what should change in the way decisions are made about this coastline and taiao?
2. If one thing could be done tomorrow, what would make the biggest difference for your mana whenua group?
3. What priorities should be at the top of the list for the future?
4. What does a good partnership or working together look like to you?
5. How can we walk alongside your marae in a way that feels tika and pono?

Hei Whakakapi

1. Are there other kaumātua, whānau, or knowledge holders you think we should also kōrero with?
2. Is there anything important we haven't asked that you would like us to understand?
3. How has this kōrero felt for you today?
4. What would make future hui like this

Appendix D — Mana Whenua Introduction Sheet (English)

About the researcher

- Ben is a Master's student at the School of Engineering at Te Whare Wānanga o Waikato – The University of Waikato.
- Ben is Pākehā (New Zealand European) but has strong family connections to the Te Tuhi whānau.
- Ben's father Claude was brought up by Te Aroha Te Tuhi (also known as Bert Tuhi).
- Te Aroha Te Tuhi is connected to Raukawa ki Wharepuhunga and Ngāti Apakura.

About the research

- This study is part of Ben Poulsen's Master of Engineering degree.
- He is researching coastal protection that integrates ocean energy.
- He will co-develop an Indigenous Engagement Framework that embeds tikanga and mātauranga.
- We focus on places connected to coastal marae.

Why this research is needed

- Historically, engineering frameworks have left Māori out.
- They have not made space for Māori perspectives, knowledge, and values. They have rarely trained engineers to work appropriately with iwi and hapū knowledge holders.
- This project is designed to correct that gap.

Why this matters for Māori

- You set the tikanga and kawa for how we meet and share.
- Iwi values and knowledge shape the design and decisions.
- Supports kaitiakitanga and long-term coastal resilience.

What we're asking

- A recorded kōrero (with your permission).
- We send you the transcript. You can correct or remove parts.

Time

- 30–120 minutes, at a time that suits you.
- Kanohi-ki-te-kanohi or online.

Your rights

- Participation is voluntary.
- You may withdraw at any time, and up to one week after you receive the transcript.
- You can choose to be anonymous.

How we handle your information

- We store data securely and keep your consent form separate.
- We replace your name with a code in transcripts and reports.
- We will not publish culturally sensitive/tapu content without your permission.
- We delete all study data five years after publication.

What you receive

- A summary of results on request.
- A chance to check accuracy and request changes or removals.

Next steps

- If you're open to an interview, please share a suitable time and any tikanga you want observed.
- We'll send the information sheet and consent form.

Contact

- Benjamin Poulsen (Lead Researcher): bp83@students.waikato.ac.nz
- Dr Danielle Bertram (Supervisor): danielle.bertram@waikato.ac.nz
- Dr Mahonri Owen (Co-Supervisor): mahonri.owen@waikato.ac.nz
- Roger Lewis (Cultural Advisor): roger.lewis@waikatoregion.govt.nz

Appendix E — Mana Whenua Introduction Sheet (Te Reo Māori)

He aha tāku e inoi atu nei ki a koe?

- Mehemea e pai ana koe ki te uiuinga: Tirohia tō wātaka
- Tukuna mai he wā pai me ngā tikanga e hiahia ana kia whāia.
- Ā, ka tukuna e ahau te puka pārongo me te puka whakaae.
- Ki te kore koe e wātea ana, e pai ana. Heoi, tēnā koa, whakamōhio mai kia kaua ahau e whaiwhai tonu i a koe.

Ko wai ahau

- He ākonga ahau o te Kura Pūhanga, Te Whare Wānanga o Waikato
- He Pākehā, heoi he mokopuna o te whānau Te Tuhi
- Nā Te Aroha Te Tuhi taku pāpa (Claude) i whāngai, i whakatupu.
- Nō Raukawa ki Wharepuhunga me Ngāti Apakura taku koroua.

Mō te aha te rangahau nei nā

- He wāhanga tēnei rangahau nō te Tohu Paerua Pūhanga a Ben Poulsen.
- Ka aro ki te tāhuri i te pūngao moana hei tiaki i ngā marae o te takutai me te takutai.

Tāu mahi

- Ko tāu - ka whakautu i ngā pātai e 26.
- He kōrero ka hopukina te reo (mēnā ka whakaae koe).
- Ka tukuna atu te tārua ki a koe. Ka āhei koe ki te whakatika, ki te tango wāhanga rānei.

Te hui

- E whakapaetia ana ka 30–60 meneti te roa o te wā o te hui.
- Heoi, mehemea e pai ana ki a koe koe kia rere tonu ngā kōrero - e kore e nui atu i te 120 meneti. Māu e tohutohu.
- Kanohi-ki-te-kanohi, tuihono rānei.

He aha te take o te rangahau

- Mai iho, ā, mohoa noa nei, karekau ngā Māori i whai wāhi ki ngā anga pūhanga.
- Kāhore ōna anga i āhei ki ngā tirohanga, te mātauranga, me ngā uara Māori.
- Kāhore ngā kaipūhanga e whakaakongia ana ki te āta mahi ngātahi me ngā pou mātauranga o ngā iwi me ngā hapū.
- Ko te tūmanako he timatanga tēnei ki te whakatika i aua tūāhuatanga.

He aha te painga ki te Māori

- Kei a koutou te mana o ngā tikanga me ngā kawa o ngā hui me ngā kōrero o aua hui.
- Ka nui atu te māramatanga a te hunga pūhanga ki te iwi Māori me āna tikanga, ōna uara, mātauranga hoki
- Ka kitea rā pea e ngā marae me ngā hapū o te takutai i ētehi taputapu ake anō hei hāpai i tā koutou tiaki i te takutai.
- Ka hangā ngātahitia tētehi Anga Whakawhiti Kōrero Taketake e ū ana ki ngā tikanga me te mātauranga.

Ō motika

- Kei a koe te tikanga kia uru mai koe ki tēnei rangahau.
- Ka āhei te noho ingoa-kore.
- Mehemea kua uru mai koe ki te rangahau, e pai ana kia unu i a koe anō.
- Heoi, ko taku inoi hei āwhina i a ahau ki te whakatutuki i ngā kawenga o te tohu paerua.

Te tiaki i ō kōrero

- Ka tiakina ngā raraunga ki te wāhi haumarū, ka wehea te puka whakaae.
- Ka whakakapia ngā ingoa ki tētahi wāhere i ngā tārua hui me ngā pūrongo.
- Kāore mātou e whakaputa i ngā kōrero tapu, tairongo rānei ki te kore e āta whakaaetia.
- Ka mukua ngā raraunga o te rangahau i muri i te rima tau i muri i te whakaputanga.

Ngā mea ka riro i a koe

- He whakarāpopototanga o ngā hua mehemea ka tono.
- He whai wā ki te tiroiro, ki te tono panoni, tango kōrero rānei.
- Ki te hiahiatia, ina oti te māka o te puka tuhinga tohu paerua, ka tuku he kape hiko ki a koe.

Whakapā mai

- Benjamin Poulsen (Kairangahau Matua): bp83@students.waikato.ac.nz
- Dr Danielle Bertram (Kaiārahi): danielle.bertram@waikato.ac.nz
- Dr Mahonri Owen (Kaiārahi-Tuarua): mahonri.owen@waikato.ac.nz
- Dr Roger Lewis (Kaitohutohu Ahurea): tewhanau.lewis@gmail.com

Appendix F — Museum Interview Questions

Introduction

For this research, I am interested in the role of pūrākau (Māori stories) in shaping knowledge about the environment, particularly the coast and waterways. Pūrākau are more than just stories; they carry whakapapa (genealogy), values, and lessons that guide relationships with the natural world and with each other. By engaging with pūrākau, we can gain insights into how past generations understood environmental change, resilience, and adaptation. In this interview, I would like to explore how pūrākau are cared for, interpreted, and shared within museum collections, and how they might inform approaches to coastal protection and environmental management.

Introductory Questions

1. Could you tell me about your role here and how you engage with Māori taonga (treasures), records, or pūrākau in your work?
2. What would you say is the importance of pūrākau in understanding Māori relationships with the ocean, coast, land, and waterways?

Knowledge of Pūrākau

1. Are you aware of any pūrākau, whakataukī (proverbs), or waiata (songs) within your collection, records, or networks that relate to histories, values, or relationships between people, places, and the natural world?
2. Are these pūrākau currently stored, displayed, or shared with the public and if so, how?
3. Do you know of pūrākau that speak to patterns of settlement, protection of land, or adaptation to environmental changes?

Translations and Interpretation

1. Are translations of these pūrākau available within your collection? If so, who provided them, and how are they contextualised?
2. How do you approach translation? Is it a literal translation, or do you incorporate cultural and metaphorical layers of meaning?
3. Are there examples where different mana whenua groups have offered different interpretations of the same pūrākau?

Ethics and Access

1. What considerations guide how pūrākau and related knowledge are shared, especially when researchers like myself request access?
2. Are there any pūrākau in your collection that are considered sensitive or restricted, and if so, what are the appropriate protocols for engaging with them?
3. What role does the museum have in upholding mana whenua authority over sensitive or restricted pūrākau, and what are the correct steps for researchers seeking engagement?

Link to Research Application

1. In your view, how might pūrākau inform the approach to environmental management or coastal protection?
2. Do you think museums have a role in connecting traditional knowledge with modern research projects, such as engineering or climate adaptation?

Closing

1. Are there mana whenua groups or knowledge holders you would recommend I approach to deepen this aspect of the research?
2. Is there anything important I haven't asked about pūrākau and their preservation that you think I should know?

Appendix G — Museum Introduction Sheet

Purpose of the Research

This project looks at how rising sea levels and coastal erosion affect coastal marae in Aotearoa New Zealand. The research explores ways to combine coastal protection engineering with mātauranga Māori to create sustainable, culturally appropriate solutions.

A key part of this study is understanding how pūrākau (stories), whakataukī (proverbs), and other forms of Māori knowledge describe environmental change and environmental disasters. These narratives may help modern engineering respond to environmental challenges.

Purpose of the Interviews

I am interviewing museum curators/employees to:

- Identify any pūrākau or whakataukī that relate to the ocean, coasts, or the environment.
- Learn about existing translations or interpretations of these narratives.
- Understand how these stories are preserved.

What Participation Involves

- A semi-structured interview (30–45 minutes).
- Questions will focus on pūrākau and how these are understood and translated.
- With your permission, the interview will be audio-recorded for accuracy.
- You may decline to answer any question or stop the interview at any time.

Use of Information

- The information will be used for my Master's thesis and related academic publications.
- Summaries may include references to pūrākau, but sensitive details will only be included with your consent.
- Any restrictions you place on the use of information will be respected.

Contact

If you have any questions, please contact:

Benjamin Poulsen – bp83@students.waikato.ac.nz

Supervisor: danielle.bertram@waikato.ac.nz

Supervisor: mahonri.owen@waikato.ac.nz

Appendix H — Iwi Representative 1 Interview Summary

Connection with Whenua, Moana, and Taiao

- Living on the whenua and working around the marae is core to the connection with the whenua.
- Tūpuna and whakapapa are an identity and prompt responsibility to the whenua.
- Every aspect of the environment is connected, whenua, forests, waterways, and animal species.

Observed Changes of the Taiao

- Significant changes over time.
 - Waterways have changed through things like damming.
 - Forests have been replaced by farms.
 - Geothermal resources have been harvested, reducing the amount of natural hot pools.
- These changes have caused mixed feelings.
 - Some sadness is due to the loss of natural features and resources.
 - Some pride is due to successful projects and preserving land and resources.

Engagement and Decision-Making

- For this mana whenua group, involvement in any project should be from the start, with a blank sheet, no existing plan.
- Partnership requires continued communication, transparency, and respect.
- Bureaucratic and mainstream processes often overlook Te Ao Māori.
- There are generational differences in approach. Previous generations were in a limited resources situation, often being told “take this or take nothing”. Current generations are in a position where they can negotiate.

Cultural Values & Practices

- Whakapapa is fundamental. It links people, whenua, waterways and everything taiao.
- Tikanga includes respect, precision in questioning, and recognising elders’ mana.
- Pūrākau, whakataukī, and waiata encode lessons on kaitiakitanga, resilience, and land stewardship.

Challenges and Frustrations

- Whenua with overlapping iwi can cause issues due to different priorities.
- Projects that were historically imposed by outsiders have caused loss or displacement for the people.

Aspirations & Priorities

- While the entire taiao is important, people and waterways stand out as fundamental. Environmental health cannot be separated from human actions.
- Values found in good relationships are inclusiveness, respectfulness, and collaboration.

Appendix I — Iwi Representative 2 Interview Summary

Engagement must begin before any activity occurs

- The main message is the need for early engagement.
- Mana whenua want to “walk the journey together,” not be informed after decisions are made.
- Failing to engage creates relationship damage and real-world conflict (e.g., NIWA chased out of the harbour).

Active participation and decision-making power

- Mana whenua want to be present at the decision-making table, not consulted after the fact.
- They want a role in policy and regulation development, not just site-level approval.
- Their long-standing relationship with their harbour should give them authority and responsibility as kaitiaki.

Importance of whakapapa, mātauranga, pūrākau and cultural safety

- Stories, metaphors, and whakataukī are practical environmental guidance, not myths.
- These knowledge systems ensure safety and sustainability.
- Marae locations, flood histories, taniwha stories, and tikanga all provide engineering-relevant ideas.

Transparency and accessibility enable good engagement

- Visibility matters: contact details, iwi boundaries, and identification tools online help with connection.
- Lack of clear pathways creates unintentional exclusion.

Partnership requires aligned aspirations

- True partnership means:
 - Shared goals.
 - Long-term commitment.
 - Respect for each other.
 - Avoiding transactional “in-and-out” engagements.

Collective engagement across multiple marae and hapū

- The harbour involves multiple hapū and marae, each with:
 - o Their own tikanga,
 - o Their own knowledge,
 - o Different preferences for participation.
- Understanding the harbour requires engaging with all of them, not just one.

Priorities for the future

- Protecting and sustaining the harbour.
- Ensuring marae resilience for the next 300-500 years at least.
- Creating employment and economic opportunities for mana whenua.
- Minimising impacts of activities on the moana.

What makes hui effective

- Clear context and outcomes provided up front.
- Alignment between engineering project goals and mana whenua priorities.
- Opportunities for mana whenua to see the benefits for their people and place.

Appendix J — Iwi Representative 3 Interview Summary

Cultural Connection & Worldview

- Rivers, mountains, and the sea, and species are considered tūpuna. Caring for the environment is inseparable from whakapapa.
- Pūrākau, especially Te Orokohanga, provide a foundation for the iwi's understanding of kaitiakitanga and environmental responsibility.
- The environment is seen as relational, not just a resource. It is a space to live with and give back to.

Engagement Practices & Whakawhānaungatanga

- Establishing trust and relationships through whakawhānaungatanga is a vital piece of early engagement.
- Communication must use accessible language. Avoid technical jargon.
- Engagement must reflect reciprocity and mutual benefit.
- Mana whenua must see themselves in project outcomes.
- Respect for the time of kaumātua and marae representatives is critical.

Environmental Stewardship

- Focus on freshwater systems and taonga species such tuna, watercress, harakeke (New Zealand flax).
- Environmental degradation such as poor waterway health has reduced traditional practices, motivating restoration and education efforts.
- Engagement in environmental projects helps with intergenerational knowledge and kaitiakitanga.

Institutional & Government Insights

- Values alignment is crucial. government priorities often clash with mana whenua values.
- Effective partnerships require collaboration.
- There should be an acknowledgment of overlapping iwi interests and history.
- Capacity constraints limit participation. Resourcing, succession planning, and education are necessary.

Appendix K — Museum Interview Summary

This discussion provides valuable insight into how Māori knowledge (pūrākau, whakataukī, and environmental understanding) intersects with institutional, engineering, and governance within Aotearoa New Zealand. The kōrero highlights both historical and current examples of how indigenous knowledge contributes to land management, infrastructure planning, and the stewardship of taonga, while also identifying challenges within Crown-owned institutions.

Māori Knowledge and Land Use

Traditional Māori knowledge has guided the selection of sites for settlement, cultivation, and burial. Historical patterns demonstrate that pā and marae were located in areas with stable and suitable soils, access to waterways, and fertile lands.

Stories such as the Meremere incident shows the consequences of ignoring Māori advice. Developers and engineers who disregarded local pūrākau suffered significant losses due to unstable terrain. This case, and others included in the discussion, highlight the importance of early engagement with mana whenua and the incorporation of indigenous knowledge into environmental planning.

Taonga and Pūrākau Stewardship

Taonga and pūrākau hold both cultural and practical importance. This discussion highlighted the challenges museums face in managing taonga while respecting Māori autonomy. Examples such as the Kauri Point collection show that while museums currently house many taonga safely, many iwi are attempting to build the financial and organisational capacity to reclaim and manage their collections independently.

Pūrākau Storage, Ownership, and Permission of Use

Pūrākau were repeatedly described as “taonga in their own right”, living knowledge that carries mana and must be treated with respect equal to physical artifacts. The question of how pūrākau are stored, accessed, and used is central to Māori data sovereignty and intellectual property rights.

Participants stressed that pūrākau should not be “stored away” in institutional archives without iwi consent or ongoing relationship with knowledge holders. Ownership of these narratives remains with the iwi, hapū, or whānau, and any use, particularly for education, publication, or digital storage, requires explicit permission and acknowledgment. Misuse or unauthorised circulation of pūrākau risks cultural harm and breaches of tikanga.

Institutional Dynamics and Māori Governance

The discussion also showed the structural challenges Māori face in Crown-owned institutions. The role of a kaumatua may not always be formally recognised by institutions like councils or museums, leading to conflicts and the risk of burnout among knowledge holders. “M2” highlighted their own experience being recognised as kaumātua but not formally acknowledged in institutional contracts, reflecting the broader tension between Māori authority and Western administrative systems.

Also, Māori governance structures often select representatives based on whakapapa, availability, or willingness, rather than professional experience. While this maintains cultural legitimacy, it can slow decision-making or reduce operational efficiency.

Collaboration Between Māori Knowledge and Western Disciplines

There is a growing trend for Māori expertise to be integrated into engineering, architecture, and environmental management. Ngā Aho, the national body for Māori architects and designers, shows the increasing presence of Māori perspectives in planning that respects environmental constraints and pūrākau. Māori engineers and consultants have led practical solutions for at risk marae, such as the erosion mitigation works at Maketū marae, where engineering ensured the long-term protection of both whenua and taonga.

These examples show that good and respectful engagement requires recognising both the authority of kaumatua and the technical contributions of Māori professionals. Early consultation with mana whenua is critical to avoid disasters and to create culturally and environmentally sustainable outcomes.

Repatriation and Māori Autonomy

There is a growing desire for iwi to take control of their taonga and cultural heritage. The discussion indicate that museums and councils will see an increase in repatriation efforts over the coming years, with Māori establishing their own where taonga. Success in this area depends on building capacity, expertise, and succession planning within iwi, ensuring that pūrākau remain living knowledge rather than archived artifacts.

Key Contacts and Case Studies

Several case studies and contacts were identified as valuable for further research or engagement:

- **Maketū Marae** - Example of collaborative erosion mitigation with Opus engineers.
- **Taharoa Coastline** - Illustrates conflicts between iwi and mining companies and impacts on coastal taonga.
- **Hamilton City Council kaumatua** - Queen-appointed kaumatua with expertise in taiao and pūrākau interpretation.
- **Ngā Aho** - National body of Māori architects and designers integrating environmental and cultural knowledge.
- **Kawhia Museum & smaller regional collections** - Key repositories and points of contact for taonga and pūrākau knowledge.

Lessons for Practice

- Indigenous knowledge provides practical and historical insights that can improve engineering and environmental management.
- Early, respectful, and ongoing engagement with mana whenua is critical for sustainable and culturally appropriate projects.
- Succession planning and training are essential to maintain the living knowledge of pūrākau and ensure that taonga are connected to people, not just institutions.
- Institutions must recognise Māori authority, expertise, and governance for effective collaboration and reduce conflicts or inefficiencies.
- Repatriation and the growth of iwi-managed taonga collections will continue to reshape how museums, councils, and other institutions operate.

Appendix L — Original Draft of Booklet

Why Māori Engagement Is Essential in Engineering

Māori engagement should not be an optional or cultural “add-on” to engineering projects in Aotearoa New Zealand. It should be essential for ethical practice, well advised decision-making, risk management, and long-term project success.

Māori Are Not Stakeholders - They Are Rights Holders

- Māori have rights under Te Tiriti o Waitangi – The Treaty of Waitangi along with responsibilities in relation to land, water, and coastlines.
- Māori have a genealogical connection to the land. They are the descendants of dozens of generations of people over several hundred years. Excluding their voices is excluding the voice most connected to the whenua (land).
- Decisions and discussions without mana whenua involvement are incomplete and vulnerable to challenge.

Māori Worldviews Are Place-Based System Knowledge

- Māori knowledge is long-term, place-specific, and intergenerational. Input from mana whenua can be extremely useful for making informed engineering decisions
- Mana whenua see rivers, coastlines, land, and species as interconnected systems, not isolated assets. Engaging with Māori will help provide a needed holistic view.
- Pūrākau often describe environmental behaviour, thresholds, and responsibilities.

Engineering without Māori Engagement Often Conflicts with Core Values

Interview findings consistently showed:

- Māori voices are often removed from decision-making process.
 - Engagement happens too late
 - Technical solutions are presented as non-negotiable
 - Māori are asked to react rather than co-design
- Many engineering frameworks prioritise:
 - Economic efficiency.
 - Asset optimisation.
 - Resource extraction.
- Māori frameworks prioritise:
 - Relationships with the environment.
 - Stewardship of finite resources.
 - Intergenerational responsibility.

Māori Engagement Improves Project Outcomes

Māori engagement leads to:

- Better site selection.
- More sustainable environmental performance.
- Increased community trust.

Mana whenua often points out:

- Impacts missed by technical assessments.
- Historical failures of previous infrastructure projects.
- Cultural and ecological constraints unseen in datasets.

Foundations of Māori Engagement

Effective Māori engagement is grounded in understanding the values, worldview, and principles that guide Māori relationships with people, communities, and the environment. Key concepts include:

- Whakapapa: Connections between people, land, and ancestry.
- Kaitiakitanga: Spiritual and ancestral responsibility to care for and protect the natural world.
- Tangata Whenua: The people with ancestral links to a place.
- Mana whenua: The authority and responsibilities that come from that relationship with the land.
- Tikanga: Customs, values, and correct ways of doing things.
- Kawa – Local protocols or procedures, often specific to marae.
- Mauri: The life force that sustains balance and vitality in all things.
- Rangatiratanga: The ability and responsibility to make decisions for one's people and land.
- Mana Motuhake: The right to self-determination and independence.
- Te Tiriti obligations: Responsibilities to work as Treaty partners, respecting Māori authority and rights.
- Manaakitanga: Showing care, respect, and hospitality to others.
- Whānaungatanga: Building and maintaining strong, whānau-like relationships.

Rules of Engagement

These are guiding principles for how to engage effectively with Māori, based on tikanga, tikanga-based relationships, and best practice approaches:

- Start with a blank sheet — Some prefer a plan, but the only way to know is to ask
- Honour whakapapa connections.
- Engage early, often, and continuously.
- Be transparent and upfront.
- Respect tikanga, kawa, and elder leadership.
- Share information openly.
- Build trust through kanohi-ki-te-kanohi.
- Prioritise relationships over timelines.

When Do We Engage?

- To put it simply, day one. You should be reaching out to iwi representatives as early as possible, before any plans have been made, before any sites have been selected, before any designs are locked in.
- Many mana whenua groups would prefer you have a plan already in place, but others like to be involved from the very beginning. The only way to find out is to reach out and respectfully ask.
- Engagement should be an on-going process, not just a ceremonial one-off at the beginning. Updates should be given, at a minimum, at:
 - o Concept development.
 - o Site selection.
 - o Design.
 - o Every construction milestone.

Who Do We Engage With?

- Ownership of land can be a foreign concept in Māoridom. It is more appropriate to refer to their land as “areas of interest”.
- On piece of land can have multiple groups attached to it. Use this map to make a list of who to contact. <https://arcg.is/mW0DW>
- The person you would usually try to contact would be the iwi or marae chairperson or the secretary. This is not always the case, however, so it is best to do the correct research before reaching out. This will be explained later in the document.
- Mandated iwi or hapū entities (e.g. Rūnanga , trusts, or environmental units) where they exist.

- Kaumātua and knowledge holders, particularly where mātauranga Māori, pūrākau, or place-based history is relevant.
- Iwi environmental or land trusts (e.g. mahi trusts) who are actively working with the whenua and taiao.
- Adjacent or overlapping iwi, where rohe or historical interests intersect, even if they are not the primary mana whenua.

Engagement should always be confirmed by asking iwi who the right people are to kōrero with, rather than assuming based on role or title alone.

What Steps Do I Need to Take?

This process links Māori engagement to the way engineers already work through a project. Each step builds on the last, if you skip any, it can cause delays, misunderstandings, or loss of trust.

1. Preparation

Purpose: Ensure your team is ready *before* approaching Māori representatives.

- Identify mana whenua and overlapping iwi using the mapping tool
- Brief the project team on:
 - o Basic tikanga and engagement expectations
 - o Known sensitivities or past issues
- Confirm who is authorised to engage on behalf of your organisation
- Allocate time, budget, and capacity for engagement (this is not “extra” work)

If asked, iwi will generally brief you on correct tikanga. You should still prepare as best you can to lessen the load on mana whenua which will assist in relationship building.

2. First Contact

Purpose: Make a respectful, transparent, and low-pressure approach.

- Contact mana whenua as early as possible, before options or designs are fixed.
- If you can, use an intermediary like a mutual friend or engagement specialist to contact with mana whenua. In Māoridom, being introduced is far better than cold calling.
- Clearly explain:
 - o Who you are.
 - o Why you are engaging.
 - o What stage the project is at.
- Share information upfront (maps, scope, constraints). Don’t try and hide anything. Being honest about your intentions will lead to a better long-term relationship.
- Invite early involvement.

- Ask how they would like to engage, including tikanga and kawa.
- Every iwi, hapū, and whanau will expect a different experience during engagement. It is important to ask what it is they expect at this early stage so you can act accordingly throughout the process.

First contact sets the tone for the entire relationship.

3. Whakawhānaungatanga (Relationship Building)

Purpose: Build trust and shared understanding before technical decisions. This is perhaps the most important part of engagement.

Proper partnership and relationship building shouldn't just be about the project. This is about relationships that will continue past the end date of the project.

- Meet kanohi-ki-te-kanohi where possible.
- Whakawhānaungatanga doesn't need to be formal. It should be a relaxed conversation where you can find out about other people.
- Take time to:
 - o Listen to place-based knowledge and concerns.
 - o Understand iwi values, priorities, and aspirations.
- Share:
 - o Project intent
 - o Your role and constraints honestly
 - o Explain who you are. If you can create your own pepeha (introduction), it will be helpful.
- Respect tikanga around:
 - o Timing: Be flexible; tangihanga or other commitments may delay meetings.
 - o Kai, koha, and hospitality: Never arrive empty-handed. For small meetings, a voucher or a casual meal (e.g., supermarket chicken) is fine. Larger gatherings require more planning.

Remember, this is the start of relationship. Be respectful, friendly, open, and honest.

4. Co-design Phase

Purpose: Shape the project collaboratively, with the level of iwi engagement guiding the approach. Each situation will require a different level of engagement.

Engagement Levels:

- Inform: Keep iwi updated, share information, ensure transparency.

- o Provide clear project context and objectives.
 - o Share timelines and key decisions.
 - o No expectation of direct input from mana whenua.
- Consult: Seek feedback on options or designs.
 - o Ask specific questions and gather iwi perspectives.
 - o Consider their input in project decisions.
 - o Feedback may influence, but iwi do not have final say.
- Involve: Include iwi in project discussions and decision-making.
 - o Jointly discuss options, risks, and opportunities.
 - o Regular updates and iterative input throughout design.
 - o Iwi perspectives actively shape solutions.
- Collaborate – Work in partnership to co-create solutions.
 - o Shared decision-making on key objectives and constraints.
 - o Combine engineering analysis with mātauranga Māori.
 - o Agree on principles, responsibilities, and monitoring together.
- Empower: Iwi lead or have final decision-making authority.
 - o Iwi take ownership of cultural and environmental aspects.
 - o Engineering team supports iwi-led solutions.
 - o Ensures full alignment with iwi values and priorities.

Benefits: Using the right engagement level reduces rework, conflict, and consent risk, while ensuring the project respects iwi values and knowledge.

5. Ongoing Engagement

Purpose: Maintain trust through transparency and follow-through.

- Provide regular updates, even when nothing has changed
- Explain decisions clearly, including trade-offs
- Share monitoring data and technical findings
- Check alignment with tikanga as the project evolves
- Address disagreements early and respectfully

Beware, silence is often interpreted as disengagement or disregard.

6. Implementation Partnership

Purpose: Respect cultural values during delivery and construction.

- Involve mana whenua in:
 - o Site visits.

- o Key construction milestones.
 - Support cultural monitors or site kaitiaki where required
 - Ensure contractors understand:
 - o Cultural protocols.
 - o Stop-work procedures if taonga are encountered.
 - Treat iwi involvement as part of the project team, not observers
- Construction is where trust is most easily lost or strengthened.

7. Evaluation & Long-Term Relationship

Purpose: Close the loop and avoid extractive engagement.

- Jointly review:
 - o Outcomes
 - o What worked
 - o What could be improved
- Share final results and lessons learned
- Acknowledge contributions formally
- Maintain relationships beyond the project lifecycle

Engagement does not end at project completion.

Roles and Responsibilities

Outlines who is responsible for what during the project:

- **Engineers:** Ensure design and construction meet technical, safety, and environmental standards while integrating cultural considerations.
- **Mana whenua / hapū:** Provide guidance on cultural values, tikanga, and site-specific knowledge. Support decision-making and monitoring of cultural effects.
- **Contractors:** Follow agreed protocols, implement designs responsibly, and maintain open communication with mana whenua and project teams.
- **Cultural monitors:** Observe and advise on construction activities to ensure compliance with tikanga and protection of cultural sites.
- **Project managers:** Coordinate all project activities, facilitate engagement, manage timelines and resources, and ensure cultural obligations are met.
- **Councils:** Provide regulatory oversight, approvals, and support compliance with planning, environmental, and Treaty obligations.