



Environmental
Protection Authority
Te Mana Rauhi Tāiao

Guide to the
mātauranga
framework

mātauranga guide



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This is a guide to help you use the mātauranga framework (the framework) as a tool to understand, test and probe mātauranga when it is presented as evidence. The first part of the guide provides context to the framework, including:

- a range of descriptions of mātauranga
- explanations of Te Tiriti o Waitangi (The Treaty of Waitangi) principles and He Whetū Mārama
- legal context
- the EPA's statutory frameworks
- mātauranga evidence
- an overview of Māori cultural concepts, values and practices.

The second part of the guide helps you to use the framework itself, and includes suggestions about other questions you could consider to help you test and probe mātauranga evidence.

Contents

01	Context	03
	What is mātauranga?	04
	Te Tiriti principles and He Whetū Mārama	05
	Outcomes for He Whetū Mārama	05
	Legal context	06
	EPA's statutory frameworks	07
	Mātauranga evidence	10
	An overview of Māori cultural concepts, values and practices	14

02	Using the framework	18
	He aha ngā hononga?	19
	What is your connection?	
	He aha ngā pānga	20
	What are the impacts?	
	He aha te mātauranga?	21
	What is the mātauranga?	
	He aha ngā whakangāwaritanga	22
	What are the mitigations?	
	Conflicting evidence	22

	Glossary	23
	References	25

Context

01

Mātauranga¹ can be described as the pursuit of knowledge and comprehension of Te Taiao – the natural environment – following a systematic methodology based on evidence, and incorporating culture, values, and world view (Hikuroa 2017).

What is mātauranga?

Mātauranga is defined by Sir Hirini Moko Mead as Māori knowledge. He discusses mātauranga and its relationship to tikanga as follows:

“In point of fact tikanga Māori cannot be understood without making use of mātauranga Māori. All tikanga Māori are firmly embedded in mātauranga Māori, which might be seen as Māori philosophy as well as Māori knowledge. While mātauranga Māori might be carried in the minds, tikanga Māori puts that knowledge into practice and adds the aspects of correctness and ritual support. People then see tikanga in action, and they do it, feel it, understand it, accept it and feel empowered through experience. Tikanga Māori might be described as Māori philosophy in practice and as the practical face of Māori knowledge” (Mead 2016).

Mātauranga has its own unique characteristics which are as valid as, but different from, other knowledge systems, including science. However, some disregard mātauranga, because they perceive it as “myth and legend, fantastic and implausible”. In fact, mātauranga includes knowledge generated using techniques consistent with a scientific approach, but which are explained according to a Māori world view (Hikuroa 2017).

In an article entitled *Mātauranga Māori – the ūkaipō of knowledge in New Zealand*, Dr Dan Hikuroa – a member of Ngā Kaihautū Tikanga Taiao (Ngā Kaihautū), and senior lecturer in Anthropology at the University of Auckland – puts it like this:

“Pūrākau [traditional Māori narratives] and maramataka [the Māori calendar] comprise codified knowledge and include a suite of techniques empirical in nature for investigating phenomena, acquiring new knowledge, and updating and integrating previous knowledge. They can be both accurate and precise, as they incorporate critically verified knowledge, continually tested and updated through time” (Hikuroa 2018).

Mātauranga pertains to universal phenomena of life experienced by all living beings, not only to knowledge specific to human beings. It makes no distinction between the spiritual and material worlds, which are conceived of as constantly interacting with one another.

“Mātauranga...is essentially a system of knowledge and understanding about Māori beliefs relating to creation, the phases of creation and the relationship between atua (supernatural guardians), and tangata (mankind). This relationship or whakapapa (genealogy) determines the way people behave in the context of their environmental ethnical practices” (EPA 2016).

Mātauranga has a strong oral tradition – it is transmitted in a variety of forms, including whakapapa, waiata, haka, whakataukī, pūrākau, kōrero tuku iho, and whakairo. Whakapapa is a central principle that connects and orders the universe, linking the physical and spiritual worlds, tracing the universe back to its origins (Walker 1993).

Mātauranga embraces intergenerational continuity. Drawing on the knowledge of ancestors, it allows contributions to knowledge in the present to be passed on to descendants in the future. It can therefore be dynamic, regenerative, and capable of evolving to respond to modern day situations.

¹ Ngā Parirau choose to drop “Māori” from “mātauranga Māori”, as it needs no qualifier.

As landowners, kaitiaki, governors and managers of significant natural resources, Māori contribute a unique range of knowledge, skills, and experience. The insights from mātauranga can assist both robust, effective decision-making, and a holistic approach to environmental management.

While key principles and features of mātauranga are consistent between hapū and iwi, there are important regional and tribal differences. As members of Ngā Parirau point out, kaumātua from one rohe would not speak about the mātauranga from another rohe – mātauranga is, by its nature, local knowledge.

Different hapū and iwi have developed their own maramataka, for example, drawing on centuries of observation, prediction, and testing of this knowledge. Maramataka is used to schedule certain activities, such as planting and harvesting kai, gathering kaimoana, or fishing, as well as important rituals or hui. Maramataka varies among hapū and iwi, depending on factors such as local climate, flora and fauna.

So while some examples of mātauranga are specific to their locality, others may have national application.

Te Tiriti principles and He Whetū Mārama

He Whetū Mārama² is the framework that guides the EPA in undertaking our statutory and other obligations to Māori. It is guided by four principles of Te Tiriti o Waitangi (Te Tiriti):

- Waka hourua: Partnership
- Tiakitanga: Protection
- Whai wāhi: Participation
- Pito mata: Potential

At the EPA we recognise the unique relationship of Māori with the environment in Aotearoa New Zealand, their place as tāngata whenua – the people of the land – and the important role they play in New Zealand's economic, environmental, social and cultural wellbeing. As land managers, owners, guardians, and governors of significant natural resources, Māori can contribute a range of knowledge, skills and experience invaluable to environmental decision-making.

Through the application of Te Tiriti principles, every decision the EPA makes has the potential to contribute towards a shared understanding of Te Tiriti.

Waka hourua

The principle of partnership requires that the EPA act reasonably, honourably and in good faith to ensure the making of informed decisions on matters affecting the interests of Māori. This is a shared obligation on both the EPA and Māori.

In recognition of the principle of partnership, He Whetū Mārama visibly sits alongside the EPA strategy to guide the EPA.

Tiakitanga

This relationship is founded on the principle of active protection which requires the EPA to take positive steps to ensure that Māori interests, knowledge, and experience are valued in its decision-making and activities. This protection extends to Māori and their connection to the environment.

Whai wāhi

The principle of participation informs the development of EPA strategy, policy and process that enables the effective engagement and input of Māori.

Pito mata

The EPA applies the principle of potential in our day to day work. This principle recognises that EPA decision-making and activities have impacts on the direction for the future growth and development in a Māori cultural and economic setting. Often referred to as the 'principle of development', it is an acknowledgement that Te Tiriti in its application, is able to adapt to meet new circumstances and create new opportunities.

Outcomes for He Whetū Mārama

Collectively, these principles recognise the potential between the EPA and Māori for active participation to provide for partnership and protection.

The outcomes for He Whetū Mārama – of which implementation of the framework is a part – are informed decision-making and productive relationships.

Informed decision-making

EPA policy, process and decision-making is informed by Māori perspectives in a number of ways:

- cultural and Te Tiriti assessment of applications and proposals
- Ngā Kaihautū advice and assessment of the decision-making process generally, and for specific applications or proposals
- decision-maker and staff training and guidance to support the effective input of Māori perspectives
- operational policy, process and guidelines that provide for the effective involvement of Māori.

Productive relationships

The EPA maintains relationships that ensure Māori are productively involved in its decision-making and associated activities, through the following:

- applicant and industry relationship management and engagement facilitation
- iwi partnership management
- engagement with Te Herenga
- applicant training and guidance
- Māori training and guidance.

Legal context

The purpose of this section is to guide you in thinking about consistency with the law when taking into account mātauranga evidence in your decision.

The framework has been developed to assist you in making a statutory decision under the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 (EEZ Act) or Hazardous Substances and New Organisms Act 1996 (HSNO Act). Both of these Acts confer decision-making power on the EPA which can be delegated to individual decision-makers, or a committee of decision-makers. The relevant law provides boundaries around what you can do, as well as discretion.

Overall, the EPA has a broad mandate to take into account Māori perspectives (which may include, but are not limited to, those based on mātauranga), on any matter, including in its decision-making functions. The EPA can and should consider and use Māori perspectives in decision-making to the extent that they are relevant to any mandatory or permissive relevant consideration.

Relevant considerations

Sometimes an Act of Parliament spells out exactly how a person must act or decide in a particular situation, and sometimes it confers a degree of discretion. Statutes concerned with environmental decision-making often allow a relatively high degree of discretion by setting out a number of competing considerations for decision-makers to consider.

This reflects the nature of environmental decision-making. There is sometimes a focus on future effects and impacts that have not yet occurred. This might involve a level of judgement by the decision-maker based on a view of the issues supported by evidence, in the face of some uncertainty. The term “relevant consideration” can be thought of as something that can legitimately be considered in order to make the decision, because it is mandated or permitted by the words of the relevant statute. For evidence to be relevant, it needs to be relevant to a relevant consideration. This includes mātauranga evidence.

The flip-side is that a decision-maker cannot consider issues that in law amount to “irrelevant considerations” (things that the Act does not allow to be considered as part of the decision). Therefore, the decision-maker cannot factor in representations from submitters (or witnesses) about irrelevant considerations into his or her decision.

Information and evidence

As a decision-maker, you need sufficient information to form a view on all of the issues contributing to the decision you have to make. Sometimes you may find you do not have such information from the evidence or information provided to you. When you don’t have all the facts, or there is inherent uncertainty about what you are trying to decide, you may need to draw some inferences, and make assumptions.

Material information that is relevant to the ultimate issue to be decided is either going to be factual or opinion-based. An opinion is not factual. It is a conclusion (or set of conclusions) based on inference and assumption. Opinions are sometimes needed to manage technical complexity or to predict outcomes where there is inherent uncertainty. Expert opinion is often needed in environmental decisions which deal with the effects of regulatory approvals to carry out some sort of activity, often with controls or conditions.

Mātauranga evidence may be offered on the basis that it represents an expert opinion from which it is possible to draw a relevant factual or predictive conclusion, for example, about likely impacts, or about whether conditions or controls could manage those impacts.

Decisions need to be based on probative evidence that tends to prove or disprove the existence of facts, or that tend to prove or disprove a conclusion given in opinion evidence. This applies to mātauranga evidence in the same way that it applies to other evidence. You should therefore feel free to test and probe mātauranga evidence to test the facts that are asserted, or the expert opinions that are given, doing so from a mātauranga perspective (not a science perspective). The value of the evidence in proving or disproving relevant facts or a conclusion given in opinion evidence is known as “probative value”.

You are also able to clarify whether something that seems to be offered up as evidence is offered with a view to establishing or disproving a fact or a particular conclusion arising from expert opinion evidence. Sometimes a particular viewpoint or representation is offered more as an argument about what decision-makers should decide than as evidence. You are able to take such arguments into account, to the extent they relate to relevant considerations, but in some circumstances they may have no evidential value because they don’t tend to prove or disprove anything.

The framework does not give you any direction about how to weigh mātauranga evidence about relevant considerations against other relevant considerations. Rather, it provides you with the tools to test and probe mātauranga evidence, allowing you the discretion to then decide how to weigh this evidence. The principle that it is for the decision-makers who hear the evidence to weigh the evidence is well established in law.

Deciding the ultimate issue

As a decision-maker, you need to bring an open mind to the decision, and to act consistently with any boundaries set by the legislation. In this context you can bring your own understanding of the significance of the relevant issues. Ultimately a decision must be based on evidence, but could also involve judgement about trade-offs between competing values reflected in legislation.

For mātauranga evidence to be useful, it needs to be of value in establishing relevant matters of fact, or reliably indicating what future effects and impacts might be of a decision to grant a

regulatory approval. Where you are satisfied of its value, this can inform your thinking about the relevant consideration or considerations to which the evidence relates.

Deciding the ultimate issue is likely to involve an integrated assessment of all of the evidence and submissions on all relevant matters, and the exercise of judgement taking all of these into account in light of the scheme and purpose of the relevant legislation.

It will always be important to clearly identify the relevant matters being considered, the nature and extent of effects, and give clear, robust reasons for all material aspects of the decision.

EPA’s statutory frameworks

As an EPA decision-maker, you are dealing with mātauranga evidence as it intersects with the law. Although mātauranga itself is not subject to legal constraints, the statutory scheme may both allow for Māori perspectives and create legal boundaries.

The issues of relevance and probity of evidence, and the need for mātauranga to relate to the relevant considerations set out in the statute, are discussed above. There are also other ways in which statutory provisions or general administrative law principles may require or allow Māori perspectives to be taken into account, or place constraints on this.

The following two tables analyse significant aspects of the EEZ Act and the HSNO Act. They show the extent to which some of the more significant provisions in those Acts, or principles of administrative law require, allow, or constrain mātauranga being considered as an issue.

In addition to these specific provisions, it is worth noting that the EEZ Act recognises the principle of sustainable management in its purposes that, it could at least be argued, is aligned with a world view based on relatedness and the need for balance that is consistent with a Māori world view.

Table 1: EEZ Act or administrative law principles

Require or allow:	Constrain:
“Take into account” (expressly as part of recognising and providing for the Crown’s responsibility to give effect to the principles of Te Tiriti) the effects of activities on existing interests (EEZ Act ss 33 and 59) (<i>requires</i>). Treating existing interests separately from the environment, as required by the EEZ Act, allows decision-makers to take into account cultural and metaphysical aspects that go beyond western science in relation to effects on existing interests. In <i>Trans-Tasman Resources Limited v Taranaki-Whanganui Conservation Board</i> the Court of Appeal has described the obligation of decision makers to engage with existing interests under section 59 of the EEZ Act: <i>A decision maker is required to squarely engage with the full range of customary rights, interests and activities identified by Māori...</i> <i>...principles of the Treaty, including partnership and active protection, are relevant when assessing the effects of the proposal on existing interests protected by the Treaty, in the context of s 59. They are intrinsically relevant, having regard to the nature of those interests. And they can be seen as relevant matters that must be taken into account in assessing the effects of an activity on those interests pursuant to s 60(d).³</i>	There is limited room for social impacts to be considered apart from in relation to existing interests.
Where advice of Ngā Kaihautū is obtained, this is a mandatory consideration to which decision-makers must have regard. As stated in section 12(a) of the EEZ Act, a key way the EPA recognises and respects the Crown’s responsibility to give effect to the principles of the Treaty of Waitangi is by Ngā Kaihautū providing advice to marine consent authorities so that decisions made under this Act may be informed by a Māori perspective.	Discretion as to whether to obtain Ngā Kaihautū advice. Advice must be taken account of, but does not have to be followed. If the advice is not followed, robust reasons are required.

³ [2020] NZCA 86 [3 April 2020] at [170].

Te Tiriti principles may “colour” the way other provisions are interpreted. In <i>Trans-Tasman Resources Limited v Taranaki-Whanganui Conservation Board</i> the Court of Appeal stated that “...<i>Treaty principles require at the very least that reasons be given to justify a decision to override existing interests of this kind, absent the free and informed consent of affected iwi. The adequacy of those reasons can then be assessed by reference to the assurances given by the Crown to Māori under the Treaty</i>”.⁴	Te Tiriti principles are not separately considered in the absence of existing interests or other factors under section 59.
Mātauranga may inform evidence on any legally relevant consideration, for example, environmental effects and existing interests.	The definition of “environment” does not include effects and existing interests on people and communities (in contrast to the HSNO Act). Cultural perspectives on environmental effects need to relate to the natural environment. Evidence can relate to metaphysical aspects (for example, related to the mauri of land or water) but must show or tend to show something about effects on the natural environment. However, these matters may be considered in the context of existing interests.
Court of Appeal or review is likely to leave weighting of relevant considerations to decision-maker, instead of stepping into the decision-maker’s shoes.	If mātauranga relates to a relevant consideration, it will still need to be weighed against other relevant considerations, and there is not a presumption that it would be given primacy. In some circumstances a Court may set aside a decision which has failed to give adequate weight to a relevant factor of great importance, or which has given excessive weight to a relevant fact of no great importance.

⁴ at [171].

⁵ Under the EEZ Act, the term “environment” means the natural environment, including ecosystems and their constituent parts and all natural resources, of New Zealand, the exclusive economic zone, the continental shelf, and waters beyond the exclusive economic zone and above and beyond the continental shelf.

Under the HSNO Act, the term “environment” includes (a) ecosystems and their constituent parts, including people and communities; and (b) all natural and physical resources; and (c) amenity values; and (d) the social, economic, aesthetic, and cultural conditions which affect matters stated in (a) to (c), or which are affected by those matters.

Table 2: HSNO Act or administrative law principles

Require or allow:	Constrain:
Shall “recognise and provide for” “the maintenance and enhancement of the capacity of people and communities to provide for their own economic, social, and cultural well-being and for the reasonably foreseeable needs of future generations (section 5).	Factors for determining applications vary for different applications, but do not expressly relate to Māori perspectives. Sections 6 and 8 would still apply (relationship of Māori, principles of Te Tiriti).
Shall “take into account “the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, wāhi tapu, valued flora and fauna, and other taonga” (section 6).	The degree of discretion for the application of sections 6 and 8 to apply varies between provisions (eg, under s 48 EPA may only decline section 47 applications [use in an emergency] if certain conditions apply).
Shall “take into account” the principles of Te Tiriti (section 8).	
Must take into account Ngā Kaihautū advice as evidence relating to Part 2 matters (Methodology).	-
Mātauranga may inform evidence on any legally relevant consideration.	-
Court, on appeal or review, is likely to leave weighting of relevant considerations to decision-maker, instead of stepping into the decision-maker’s shoes.	If mātauranga relates to a relevant consideration, it will still need to be weighed against other relevant considerations, and should not be given primacy. In some circumstances a Court may set aside a decision which has failed to give adequate weight to a relevant factor of great importance, or which has given excessive weight to a relevant fact of no great importance.

As a decision-maker, you can only take those representations on mātauranga into account to the extent it assists you with your overall evaluation of the “relevant considerations” allowed by the law. Where those representations are mixed in with probative evidence, you may test and probe for relevance.

decision-makers with this challenge, and provide you with the tools to help you test and probe mātauranga evidence.

Oral history often forms a core component of mātauranga evidence. It is useful to note that oral history is different from hearsay evidence, which is generally excluded from being given consideration because evidence or first-hand knowledge of the facts should be relied upon.

Mātauranga evidence

Unique characteristics of mātauranga evidence

Mātauranga evidence has its own unique characteristics, which may be useful to bear in mind as you receive this type of evidence. Mātauranga incorporates Māori philosophy and knowledge, including both tangible and intangible matters, and has a strong oral tradition. These characteristics might lead some to think of mātauranga evidence as subjective, or that it cannot be verified. On the contrary, mātauranga can be verified, and shown to have an empirical basis. The framework seeks to help you as

By contrast, oral history is an “accepted method of discourse on serious issues, and statements of whakapapa are very important as connecting individuals to their land”. The fact that there may be no written record does not diminish the value of any mātauranga evidence. In large part this is because of the rigorous process that knowledge goes through to become mātauranga. Whether it be through waiata, pūrākau, maramataka, or some other form of mātauranga, this process ensures that mātauranga is supported by observations and evidence that have been continually tested and updated over time.

6 Ngati Hokopu ki Hokowhitu v Whakatane District Council [2002] 9 ELRNZ 111 [EnvC] 9 ELRNZ 111 [EnvC]

It is useful to understand the relationship between mātauranga and tikanga Māori – mātauranga can be considered to form the knowledge base for tikanga Māori (Mead 2016). Tikanga Māori can be considered as a means of social control, including dealing with the correct way of behaving, and with processes for correcting and compensating for bad behaviour (Mead 2016). Tikanga Māori is often expressed through Māori cultural concepts, values and practices, including mana, manaakitanga, utu, and tapu.

You are likely to hear mātauranga evidence on tikanga Māori, which covers Māori cultural concepts, values and practices. This can include evidence about mahinga kai, fishing practices, or the relationship of an iwi to a waterway or area of land. It may also include broader Māori perspectives on issues relevant to the application, such as the impact of an application on health and wellbeing, resources, or economic development and sustainability.

Mātauranga evidence can include waiata, whakapapa, pūrākau, waiata, and whakairo. You may wish to ask questions about mātauranga that has been given in any of these forms.

Testing and probing mātauranga evidence

As discussed above, testing and probing mātauranga evidence will assist you with establishing whether it is relevant to a legally relevant consideration and whether it has probative value.

One of the challenges you may face as a decision-maker is considering Māori cultural concepts, values and practices from a Māori point of view (rather than applying a conventional scientific lens, or a non-Māori world view, for example). The framework has been developed to assist you in taking this approach, while also helping you ensure that any mātauranga evidence is probative.

As an example, effects on an “existing interest” are a relevant consideration for decision-makers under section 59 of the EEZ Act. Existing interests are defined to include the interest a submitter has in “any lawfully established existing activity, whether or not authorised by or under any Act or regulations, including rights of access, navigation, and fishing”. Mātauranga evidence might be directed at proving that this interest exists or, if the existence of the interest is established, what the impact of a proposed activity will be on the existing interest.

For example, an applicant may propose to undertake an activity in a particular area of the Exclusive Economic Zone. A Māori submitter may come from an iwi for whom access to water, and customary fishing practices, are longstanding cultural practices.

They may present mātauranga evidence that the proposal would affect their ability to exercise kaitiakitanga. Discharges from the activity into the marine environment would degrade the mauri of the moana, and deplete traditional sources of kaimoana. This could compromise their ability to show manaakitanga to manuhiri, thereby diminishing their mana and rangatiratanga.

In this example, the decision-maker will need to engage with the concepts of mauri and kaitiakitanga, on the basis that they are legally relevant, because they relate to effects on the existing interest held by the iwi.

To take another example in the EEZ, relevant mātauranga evidence might be given on the biophysical effects of a certain activity on the environment. Understanding a concept such as kaitiakitanga, for example, could still be useful or necessary to assess the relevance and probative value of mātauranga evidence (eg, to understand the context for how an iwi has gathered evidence about biophysical effects it has observed in a particular area).

The Environment Court case of *Ngati Hokopu ki Hokowhitu v Whakatane District Council* provides some useful insights about the need for probative evidence and the application of knowledge systems such as western science to assist with bringing objectivity to what may otherwise (rightly or wrongly) be seen as subjective belief systems. The Environment Court suggested that a court can decide issues raising beliefs about values and traditions by listening to, reading and examining (among other things):

- whether the values correlate with physical features of the world (places, people)
- people’s explanations of their values and their traditions
- whether there is external evidence (eg, Māori Land Court Minutes) or corroborating information (eg, waiata, or whakataukī) about the values. External here means before the values became important for a particular issues and (potentially) changed by the value holders
- the internal consistency of people’s explanations (whether they contain contradictions)
- the coherence of those values with others
- how widely the beliefs are expressed and held.

7 (2002) 9 ELRNZ 111 (EnvC).

8 (2002) 9 ELRNZ 111 (EnvC) at [53].

The Court further observed that, in a Court context, values are ascertained by listening to and assessing evidence dispassionately with the assistance of cross-examination and submissions. It also referred to the rules of evidence (such as hearsay, witness bias and opinion evidence) as having value even when there is no legal requirement to apply these rules. The Ngāti Hokopu approach is valuable because it acknowledges:

- the idea that understandings and knowledge within Māori culture need to be understood in the context of that culture, and the meaning and sense of a Māori value should primarily be given by Māori; but
- this does not do away with the need for probative evidence, it only modifies the way that the evidence is to be tested and probed.

Legal risks in the handling of mātauranga evidence

The framework is designed to encourage you as a decision-maker to test and probe mātauranga evidence. That said, there are some legal risks around handling of mātauranga evidence.

A lot of these risks can be related back to more general principles about evidence. These legal risks cannot necessarily be stated as absolutes, as they depend on the facts of a particular case and some of the findings are in lower courts. They are outlined in Table 3 below.

Table 3: Legal risks in the handling of mātauranga evidence

Legal risk broadly related to insufficient account of weight given to mātauranga evidence		Further comment
A decision-maker cannot ask someone to disprove mātauranga evidence.	The onus of proof is on the person bringing mātauranga evidence to establish the matters claimed in that evidence on the balance of probabilities.	Generally speaking, the relevant standard of proof is the civil standard, which is the balance of probabilities.
A decision-maker should be careful about rejecting mātauranga evidence.	Unless decision-makers have their own tikanga Māori expert, they should exercise care in rejecting mātauranga evidence. However, they are entitled to test and probe it to see if it establishes the point that the evidence is seeking to establish, prefer certain conflicting mātauranga evidence over other mātauranga evidence, or decide that they do not have to make a finding on the matter on which the evidence is given.	All of these points apply to evidence generally. Evidence should not be rejected lightly. However, there may be an extra risk of rejecting evidence unreasonably if it is in a field that decision-makers do not understand. Depending on the decision-maker, this might include tikanga Māori.
A decision-maker should not reject evidence on inappropriate grounds.	There are Court cases that have criticised the rejection of evidence: solely for the reason that the person giving the evidence is not wholly independent from the matters at issue, as experts in Māori matters will often not have full independence; solely for the reason there is no written record (although it is legitimate to question whether the evidence is inconsistent with existing facts), on the basis of hearsay because it is what someone was told by their elders, or because it was given by someone other than a mandated iwi representative.	Each case in which rejection of evidence was criticised has to be taken on its own facts but the general theme is that adjustments have to be made for the nature and characteristics of mātauranga evidence.

Legal risk broadly related to insufficient account of weight given to mātauranga evidence	Further comment
A decision-maker should not reject mātauranga evidence without giving rational reasons	If mātauranga is pivotal to a case, there is case law to suggest rational reasons should be given for rejecting it. However, finding that evidence does not support the point that is sought to be established, or making a decision which is different from that which was sought by the parties giving evidence, does not amount to “rejecting it”.
A decision-maker should try not to misinterpret mātauranga evidence	A decision-maker should not make a decision on a specific claim on the basis of mātauranga evidence that does not establish that claim. A decision-maker should take care in focusing on the isolated statements of one individual in oral questions to represent a hapu position on an issue. Where possible, decision-makers should try to consider tikanga Māori as a whole, for example, by bearing mind that there may be related tikanga Māori.

Potential contributing factors to errors of law

There are some factors that might wrongly lead decision-makers to going against the evidence, fail to take into account relevant evidence, or dismiss evidence without adequate reasons that, at the extreme end, could amount to an error of law. Some of the reasons that could be considered as possibly contributing factors are outlined below.

Predetermination or bias

Predetermination or bias means not hearing and evaluating the evidence with an open mind, or taking into account that it is legitimate to test the evidence for relevance and probative value.

Unconscious bias

Unconscious bias refers to a bias that is not deliberate, but happens automatically as you assess people and situations. It is informed and influenced by our background, cultural and personal experiences. It is important to note that unconscious bias would not necessarily amount to “bias” in legal terms, as this requires actions that exhibit actual bias or apparent bias. Unconscious bias requires awareness and effort to correct.

One aspect of unconscious bias is confirmation bias, which is the tendency to confirm your pre-existing assumptions and ideas by the way you select data, evidence and experience, further confirming your bias.

This is relevant to cultural misunderstandings about evidence. A lack of familiarity with a different cultural perspective can make it difficult to interpret or select from data or evidence presented to you, decide whether it is helpful, and avoid coming to incorrect assumptions and conclusions about the matter before you.

Lack of understanding

Lack of understanding means not having the necessary cross-cultural understanding to grasp the evidence that is being given. It is difficult to understand concepts that arise out of a language and culture that a person is unfamiliar with.

Application of standards that don't allow for cultural differences

The application of standards that do not allow for cultural differences can include discounting mātauranga evidence that is based on oral tradition, because it does not conform with the hearsay rule. Mātauranga experts will not necessarily have the same degree of

independence that scientific or technical experts have, because they are experts in their own culture. Failure to accommodate some of these differences can effectively mean that mātauranga evidence is entirely bypassed or discounted.

An overview of Māori cultural concepts, values and practices

As a decision-maker, it will help you to effectively test and probe mātauranga evidence if you are well-informed about Māori cultural concepts, values and practices.

A key aspect of Māori concepts, values and beliefs is the holistic nature of all things; that all concepts are linked, and are only effective when utilised in a holistic manner. The relationship between Māori and the environment, and all living things, is based on whakapapa.

This is important for you to bear in mind, because for Māori, potential impacts of any application would be conceptualised holistically. That is to say, economic impacts, for example, would not be considered in isolation from impacts on health and wellbeing, the environment, or the ability for Māori to practice cultural concepts and values.

One way of expressing the interconnectedness of all things is as follows.

“[W]hen others come to talk to us about the wellbeing of our waterways, we will often wind up talking about the wellbeing of our people, and our culture. For us, they are all one and the same thing, enshrined through whakapapa, enhanced through familiarity” (Ngata 2018).

Te Orokohanga o te Ao Māori

A Māori view of creation (Ministry for Primary Industries)

Māori have a holistic and intergenerational view of the environment based around whakapapa and whanaungatanga, connecting people and all things in the world, living and non-living, animate and inanimate. Māori cultural beliefs and environmental frameworks use kinship, personification and metaphor to explain the origins of, and interrelationships between, all things. These beliefs and frameworks are maintained and transmitted to successive generations through kōrero o mua, mātauranga, and tikanga Māori.

The relationship of Māori with the environment stems from their sense of ancestral connectedness, or whakapapa, to Papatūānuku, personified as Earth Mother, and Ranginui, personified as Sky Father. From them came their many children, ngā Atua, or the guardians of the elements of the natural world.

Tānemahuta: is personified as the Atua of the forests, their products and life within. Tāne is acknowledged as the Atua responsible for separating his parents and creating the first human.

Hine-ahu-one: the earth-formed maiden, it is from Tāne and Hine-ahu-one that all humans are descended.

Rongomatāne: is personified as the Atua of agriculture and peace. Rongomatāne’s realm includes cultivated crops such as the kūmara, which was a highly valued plant, and peace.

Haumiatiketike: is the Atua of uncultivated foods such as the fern-root. Haumiatiketike is connected to Rongomatāne and all matters concerning the welfare of humankind.

Tangaroa: is personified as the Atua of the oceans. Tangaroa presides over the realm of the oceans, inland waters, and shoreline waters, as well as the life that inhabits them.

Tawhirimatea: is personified as the Atua of wind, the weather and its elements. Tawhirimatea presides over the elements, rain, wind, breezes, mist and tempests.

Tūmataunga: personifies the warlike nature of humans and presides over the battlefield, be it physical or non physical in nature.

Tānemahuta is known for many feats and one of these was the creation of the first female entity (Hine-ahu-one), who some say was moulded from the sacred clay of the body of Papatūānuku. Hine-ahu-one was given the breath of life, or mauri, by Tānemahuta by the blowing of his breath into a number of cavities of the clay moulded woman eventually to find the appropriate one. This life-giving act is acknowledged today through the hongī, or pressing of noses in greeting.

Tānemahuta and Hine-ahu-one had children and it is from this that the human line was started. This act also created a link between te ira tangata, and te ira Atua.

Through this linkage many Māori believe that humans can trace their genealogy back to ngā Atua, thus underpinning the cultural constructs that provide for Māori principles and society today.

The whakapapa between ngā Atua and humans provides the framework in which Māori society has developed over time. Humans are considered to be the teina, and it is this principle that is inherent in the responsibility of looking after the tuākana. Māori believe that the Atua look after humankind by providing sustenance and resources, and through the Māori principle of utu, Māori are obliged to reciprocate by protecting and sustainably using the resources. Effectively this means Māori have a responsibility of looking after and protecting all domains of ngā Atua, thus kaitiakitanga.

Tikanga Māori me ngā kawa

Māori cultural concepts, values and practices

Māori have developed comprehensive tools over time to help undertake responsibilities of sustaining the realms of ngā Atua. These tools, otherwise considered as a collection of beliefs and values, shape Māori behaviour, and are often referred to as tikanga. Tikanga can also be described as a form of cultural knowledge that is founded upon the experiences, logic, common sense, and learning that has been handed down through the generations.

However, the way in which this cultural knowledge is practiced varies between iwi, hapū, and whānau. This is better known as kawa, the practice of cultural knowledge.

The key linking concept is that of whakapapa, which links all things together, namely the genealogical link of all things to ngā Atua. It is through this that tapu, rāhui, mana, kaitiakitanga, rangatiratanga, mana whenua, mauri, and many other Māori concepts form the basis from which Māori culture regulates and informs its decision-making processes.

Tapu: sacred, forbidden, set apart

Tapu is commonly translated as sacred, which is not fully accurate. Other translations include prohibited and unclean, and while individually these terms fall short of conveying the complete meaning of tapu, a combination of these states may suffice when attempting to conceptualise this.

Tapu is a key concept which denotes the intersection between human and the divine, and was used to indicate states of restriction, and/or prohibition (Benton et al 2013). Tapu is the source of Māori theological thought (Mead 2016), it is the status of all elements of Te Taiao, in recognition

of the mauri that exists in them. All people and things are imbued with tapu.

Through one's whakapapa to the Atua, a person is imbued or implanted with the tapu of ngā Atua. This kind of tapu is considered to be stable and does not change no matter what the external circumstances might be. This can be the tapu of a chief, or of a river, lake or foreshore.

Another form of tapu is considered to be extrinsic and occurs through interactions with tapu-bearing agents. This kind of tapu can fluctuate, the results of which can manifest as sickness or possibly death of an individual, or of stagnation and decay of environments. It is these forms of tapu that karakia are directed at, in order to bring balance.

Tapu is seen as a human construct to regulate society. Rendering certain possessions or places tapu is a safety measure designed to bring a sense of caution, thereby restricting access.

This prohibitive quality of tapu is used in the management of natural resources, through the implementations of management tools such as rāhui.

Noa: to be free from the restrictions of tapu

Noa can be perceived as being free from the restrictions of tapu, or the reciprocal of tapu. As mentioned in the section above, all people and things are imbued with tapu. Noa reflects the status of people, places or objects free from the restrictions of elevated tapu, but still imbued with lower, "safe" levels of tapu. Tapu and noa are complementary, one cannot exist without the other.

Māori resource management seeks to achieve a balance between people and Te Taiao, conceptualised as tapu and noa, through the recognition of ritenga such as rāhui (Te Wai-Puanga 1993). An example this practice is when kaimoana populations were locally diminished, a rāhui was placed on access to, harvesting, and use of the kaimoana, indicating elevated tapu. Once the local populations had recovered, and a state of noa was achieved, the rāhui was lifted (Harmsworth 2002).

Rāhui: protection, restriction, conservation

Rāhui involves the prohibition of an affected area, which can vary in levels. A rāhui may be put in place to restore and retain the productiveness, health and welfare of the land and people (Mead 2016). If an area is rendered tapu, a complete prohibition rāhui is set in place for a period of

time, or is subject to observations until the status of the resource recovers. When this assessment has been made, the rāhui is lifted.

Mana: power, influence, authority, prestige, control

Mana and tapu are so closely linked and are almost interchangeable, as the mana of a person or object will determine the comparative tapu of that person or object.

Mana, like the concept of tapu, originates from ngā Atua, and is one of the most commonly used Māori concepts. When people refer to mana, it tends to be associated with a person in an influential role. These people are said to have the qualities of leadership, power, influence and authority, though all individuals (regardless of whakapapa) are born with an increment of mana.

In traditional Māori society, people who were well-placed in terms of whakapapa, who came from a chiefly line or from important families, were said to have inherited mana. These individuals draw their mana from the prestige of their mana tipuna (Mead 2016). This is endorsed or approved mana.

People can also acquire mana through their deeds, abilities, skills and achievements. This mana can be acquired by any individual regardless of their whakapapa. It was and is possible to rise above the limitations of whakapapa (Mead 2016). This is achieved or extrinsic mana.

The process for gaining achieved mana is expressed by the Māori proverb:

Waiho, mā te iwi e whakamana
It is left to the people to determine
that one receives mana.

In this manner, achieved mana can be seen as dynamic and endorsed to individuals by a majority. Mana, inclusive of both achieved and ascribed, is a fluid dynamic that can fluctuate through actions and interactions.

Natural resources also have mana, linked to their whakapapa to ngā Atua. The mana from the land derives from Papatūānuku – the Earth Mother. In practice, the mana of natural resources are elevated to a position of importance through the oratory process, where orators' introductions substantiate their mana by reciting their whakapapa, and their landmarks which links them to the land in which they descend from. Such landmarks will include maunga tapu, tipuna awa and marae.

Kaitiakitanga: intergenerational regenerative guardianship, preservation, protection, sustainability

Kaitiakitanga is a value system that includes a sense of responsibility to enhance, care for and preserve the natural environment and its resources for future generations. Because Māori believe that humans and nature are not separate entities but related parts of a unified whole, Māori have a responsibility to protect and sustain our natural resources.

The word kaitiakitanga is considered to be a recent development, and has in recent times been defined by central government as guardianship. This definition is very narrow and only translates part of the concept to mean “ensuring the sustainability or long-term survival of resources”. However, there are a number of underlying principles that underpin this concept that have been practiced by Māori for hundreds of years.

Kaitiakitanga includes principles such as rangatiratanga and mana, spiritual beliefs such as tapu, rāhui, mauri, and social protocols such as respect, reciprocity and obligation. From these different principles the concept of kaitiakitanga ties together the physical, environmental, spiritual, economic and political aspects of Māori society.

Rangatiratanga: self-management, leadership, self-determination, sovereignty

Rangatiratanga today is about allowing Māori to determine how they live their lives – essentially the advancement of Māori people as Māori. In more recent years there has been a resurgence of Māori wanting to have better control over their culture, resources, social and economic wellbeing, and to ensure that this is acknowledged and recognised by the Crown and all New Zealanders.

Rangatiratanga in relation to natural resources connects back to the concept of kaitiakitanga. For Māori to be able to carry out their role as kaitiaki, Māori must be able to have some autonomy in the delivery of this role if it is to be effective – this essentially means Māori should have an integral part in the decision-making processes around the management of natural resources. If Māori, along with the wider community, are unable to exercise this right effectively, then the sustainable use and/or protection of natural resources is flawed, and at risk of being damaged or lost forever.

Mana whenua: traditional status, rights and responsibilities of hapū as residents in their rohe

Mana whenua is another term that some argue is a word that government has developed to enable a Māori concept to be used in New Zealand's legislation. The term mana whenua under the Resource Management Act 1991 is defined as: "Customary authority exercised by an iwi or hapū in an identified area". On occasions where Māori were disenfranchised from their land, the power associated with the ahi kā and ahi kā roa was lost. These occasions seriously impeded the ability of tāngata whenua to be able to live off the land and provide sustenance for their families and tribes.

However, as time goes on, Māori are reasserting mana whenua over their land. This term again is interrelated to other Māori concepts, especially with the concept of rangatiratanga. Mana whenua, like rangatiratanga, can be defined as inherited user rights, guaranteeing the mana to utilise, control, sustain and protect.

Mauri: life force, energy, life principle

Mauri is generally translated as life force or life essence. Mauri is the binding force between the spiritual and physical. It is held by all things through whakapapa linking to ngā Atua. It is not an attribute restricted to humans. Entities such as rocks, stones, forests, lands, animals, birds, fish, oceans, rivers, and mountains have their own mauri.

Ecosystems also collectively have mauri, which manifests as the ecosystem's ability to sustain and endow life, and as such a disruption to that life force causes negative effects to the ecosystem and the resources it contains. The maintaining and enhancing of the mauri of a resource or ecosystem is the focus of Māori environmental management. Where mauri is strong, the resources and taonga will flourish. If it is weakened or undermined, it will result in the decay of the resource, or low productivity.

Using the framework

02

This part of the guide helps you to use the framework, and includes suggestions about other questions you could consider to help you test and probe mātauranga evidence. Each section below follows the framework.

If at any point you do not understand an issue presented as part of mātauranga evidence, we encourage you to ask a submitter for further explanation.

For example, if a submitter has given mātauranga evidence about kaitiakitanga, you could ask a question such as:

“I heard you speak about kaitiakitanga. Just to make sure we understand what you’re telling us, can you please tell us more about how this relates to the impact of this application on your ability to practice kaitiakitanga?”

He aha ngā hononga? What is your connection?

Ko wai tēnei?
Who is speaking?

This section of the framework helps you clarify the mandate and expertise of a Māori submitter. In te ao Māori, that mandate or authority to speak is expressed through the depth of connection a person or group has with the matters in an application.

As a first step to unpacking a submitter’s connection to the issue before you, it is important to understand who is speaking. While a submitter may have already spoken to this, you can ask them to tell you more background about themselves if you feel this hasn’t been covered.

A submitter’s connection is likely to be shown by whakapapa. Whakapapa speaks to who a person is, where they come from, as well as relationships between people, the environment, and all living things. The interconnectedness of all living things,

as demonstrated through whakapapa, and how this relates to Māori knowledge, is explained by Dame Anne Salmond (Salmond 2017) as follows.

“Whakapapa...a way of being based on complex networks that encompass all forms of life, interlinked and co-emergent, might assist in exploring relational ways of understanding the interactions between people and the land, other life forms, waterways and the ocean. The idea of the hau, the wind of life that activates human and non-human networks alike, animated by reciprocal exchanges; or the spiral of space-time in Māori might help in devising non-linear, recursive ways of investigating the dynamic interactions among different life-forms (including people).

“This is fitting, because in Māori ways of thinking, knowledge itself is a taonga (ancestral treasure). As knowledge is given or received, hau passes back and forth across the pae [orators’ bench on the marae] – the horizon or threshold between sky and earth, light and dark, local people and visitors, life and death, past and present – reshaping realities and shifting the way that things happen.”

It is “through whakapapa that interactions and relationships are established, developed and maintained within whānau, and with whanaunga (relatives), marae, sacred mountains, rivers and ultimately the universe.”

Whakapapa can be recounted through waiata, pepeha, or whakataukī. If a submitter has given their whakapapa through any of these forms, you may wish to ask them the meaning behind the pepeha, for example, as it will have been chosen for a reason.

Mō wai/Nā wai?

Are you representing a group?

It is useful to understand who a submitter is representing – are they speaking on behalf of a group (eg, whānau, hapū or iwi), or as an individual (who may state they are speaking on behalf of the land or river, for example).

If a submitter is representing a group, it is common practice from a Māori perspective for a hui to have been called prior to the submission being made. You may wish to ask questions about whether this was the case, whether the hui was well-attended, and who was there. Please note that “well-attended” does not necessarily mean high numbers of people present. Rather, it refers to whether key people in the group were present, and the quality of input from those who attended. If a hui was not called, you may wish to ask the submitter how their view reflects the view of the group they represent.

If a submitter is not representing a group, you may wish to ask them questions about the mātauranga they’ve presented – for example, where does it come from, who recognises them as having this knowledge, and whether the mātauranga they’ve presented is supported by others. Experts in mātauranga come in many different forms, but “it is very clear to Māori communities who their own experts are, and the kind of roles, functions and responsibilities they perform in their communities” (Baker 2018).

He aha ngā pānga What are the impacts?

This section of the framework helps you understand how, and to what extent, an application affects Māori interests.

Once you have established a submitter’s connection to the issue before you, it is useful to explore how the issue will impact the integrity of any (or all) of the following:

- the cultural concepts, values and practices of members of their whānau, hapū or iwi (which can include historical and contemporary uses)
- the health and wellbeing of members of their whānau, hapū or iwi
- the relationship between their whānau, hapū or iwi and resources
- the economic development and sustainability of their whānau, hapū or iwi.

For example, an applicant may propose an agrichemical for use on crops. A submitter might say that this application will impact on their ability to practice mahinga kai. The ability to practice mahinga kai is important to Māori as it is inherent to practicing manaakitanga, which itself is related to the mana of a whānau, hapū or iwi, as captured in the traditional whakataukī:

“Ki te kore koe e whāngai i te tangata, me pēhea te iwi e mōhio ai e whai mana ana koe? If you do not demonstrate true hospitality, how shall people know that you are a person of mana?”

Using the mahinga kai example, you may wish to ask a submitter how they (or their whānau, hapū or iwi) have practiced mahinga kai traditionally and in the present day.

Each of the four questions outlined above may have multiple questions that could follow underneath them. For example:

“I heard you talk about the impact of this application on the ability of your iwi to practice mahinga kai. Can you please tell us more about how the application will affect this practice?”

You may wish to ask a submitter about the significance of the impact/s they’ve described, to help you understand the scope or scale of the potential issue (and eventually what type of mitigation might be appropriate, if any). You could also ask a submitter whether there are any benefits of the application, which could relate to any of the four questions outlined above (cultural concepts, values and practices; health and wellbeing; resources; and economic development and sustainability).

You could ask a submitter how they see the relationship between the impacts they’ve described and any potential benefits. This might help you think about possible trade-offs.

You may wish to ask a submitter about other examples of any effects they describe. This can help you understand whether these effects are unique (and if so, you might want to ask why), or whether they have been observed in other similar situations.

He aha te mātauranga? What is the mātauranga?

The purpose of this section of the framework is to help you test and probe more deeply about the mātauranga that has been used to identify the impact of the application, and the level of support for this mātauranga.

You may wish to ask a submitter to go into more detail about the impact they have already talked about, by asking what mātauranga they have used to identify the impact.

For example, a submitter may have given evidence about environmental attributes and phenomena, say on the health and flow of a river that is relevant to the application before you. They may have used maramataka or other forms of mātauranga (eg, mauri) to talk about the health or degradation of the river, cultural practices associated with the river (eg, mahinga kai), and indicators that forecast or predict impacts of the application on the river.

You could ask questions to test and probe the mātauranga a submitter has used to identify the impact of the application, for example:

- how a submitter (and their whānau, hapū or iwi, if appropriate) assesses the health of the environment, people, their economic development and sustainability, and their ability to undertake cultural practices – how do they know when these are in a state of ora
- how they assess any negative impacts, distress or degradation
- whether they undertake any monitoring of the health of the environment, people, their economic development and sustainability, and their ability to undertake cultural practices.

In order to help you test and probe the level of support for the mātauranga evidence given, much like you may have done earlier when seeking to understand who is speaking, you may wish to ask a submitter how this mātauranga is recognised by their whānau/hapū/iwi, and by other whānau/hapū/iwi.

You could ask a submitter whether there are any differences in the use, recording or practice of mātauranga given, and what those differences are. This will help you understand whether, for example, a cultural practice is widely practised amongst whānau, hapū or iwi, or whether there is local variation (and why).

Using the example where an applicant may propose an agrichemical for use on crops, two Māori submitters may present mātauranga evidence about differing impacts on their fishing practices. A Māori submitter from a rohe with waterways that are mostly slow-moving, low flow creeks may present evidence about significant impacts on their hinaki or rama tuna practices. By comparison, a Māori submitter from a rohe with a fast-moving, high volume rivers may report minimal impacts on pā tuna practices.

You may wish to ascertain whether the mātauranga is represented or documented in policies or plans (eg, an Iwi/Hapū Management Plan), or whether it has been given in evidence, say, to the Waitangi Tribunal or Māori Land Court. It is important to note that there is no intent to undermine or diminish the veracity of any mātauranga that has not been documented in policies or plans, or given as evidence elsewhere. This may particularly be the case for pre-settlement iwi, who have not yet had their claim settled with the Crown.

You may wish to ask whether a submitter whether they have a policy, plan or other instrument that sets out their views on this matter. This could include an Iwi/Hapū Management Plan, or an agreement that has been formally lodged with regional or territorial authorities, the Department of Conservation, Ministry for Primary Industries, or other regulatory agencies. They may also have agreements with industry. If they do have such a policy or plan, you may wish to ask how it applies to this application.

Instruments such as an Iwi/Hapū Management Plan can embody social, cultural, environmental, and economic priorities that have been developed and formally agreed by an iwi/hapū. Their status under the Resource Management Act is such that they must be taken into account when preparing or changing regional policy statements, and regional and district plans. Please bear in mind that most Iwi/Hapū Management Plans do not specifically touch on HSNO/EEZ issues.

You could ask a submitter whether the mātauranga has been given in any other forums (eg, Waitangi Tribunal, Māori Land Court), and if it has, how it applies to this application. This can give you an idea of whether the mātauranga given is consistent with that given in other forums, and the extent to which the issues raised are a concern to whānau/hapū/iwi.

He aha ngā whakangāwaritanga What are the mitigations?

Having tested and probed the impact of an issue before you, it may be useful to test and probe whether a submitter believes any mitigation is possible to any impacts they have raised. You could ask what a tikanga Māori approach might be to mitigate the impacts, what a submitter themselves would do to mitigate the impacts, and how effective these may be. You could also ask a submitter about examples of where any proposed mitigations have been used in other situations.

You may also wish to ask questions about what aspirations a submitter (and their whānau, hapū or iwi, if appropriate) has for, say, the environment, their people, their ability to undertake cultural practices, and their economic development and sustainability.

If a submitter believes no mitigation is possible, it is important to ask them why not.

Conflicting evidence

Conflicting evidence is a common occurrence in the EPA's decision-making processes. It is possible, going forward, that conflicting mātauranga evidence could be resolved using a number of processes that attempt to find common ground, and resolve the issues (eg, a caucus, pre-hearing meetings, mediation).

In the meantime, the framework has been designed to help you draw out areas where conflicting mātauranga evidence may occur. It has incorporated suggestions made in case law about how to assess and consider conflicting mātauranga evidence. These include looking for, and testing the evidence of:

- connection (eg, whakapapa)
- a submitter's explanations of their cultural concepts, values, and practices (historical and contemporary)
- external evidence (eg, Māori Land Court minutes, Te Tiriti settlements) or corroborating information (eg, waiata, whakataukī)
- any contradictions within a submitter's evidence
- how widely the submitter's evidence is expressed and held (eg, by other whānau, hapū, iwi).

It is important to note that, as a decision-maker, you can prefer some mātauranga evidence over others, provided that you give rational reasons for this.

10 For example, *Ngati Hokopu ki Hokowhitu v Whakatane District Council* [2002] 9 ELRNZ 111 [EnvC], *Ngai te Hapu Incorporate & Anor v Bay of Plenty Regional Council & Anor* NZEnvC 073, *Gill v Rotorua District Council* 1993 1A ELRNZ 374, *Greymouth Petroleum Ltd v Heritage New Zealand Puhere Taonga* NZEnvC 11 and appeal NZEnvC 94 (2016) (on costs) and NZEnvC 38 on conditions, *Hemi v Waikato District Council* NZEnvC 216, an extract from the hearing into the Trans Pacific Partnership Claim considered by the Waitangi Tribunal.

Glossary

The EPA acknowledges that there are multiple meanings and nuances for each term in this glossary. These definitions are specific to this document.

Ahi kā, Ahi kā roa: (burning fires of) occupation of land.

Atua: supernatural guardians.

Haka: posture dance.

Hapū: collection of whānau with common ancestry and common ties to land.

He Whetū Mārama: the EPA's framework for undertaking its statutory obligations to Māori.

Hinaki: eel pots.

Hui: Meetings, gatherings.

Iwi: Māori social grouping made up of hapū and whānau.

Kai: food.

Kaimoana: seafood, shellfish.

Kaitiaki: guardians.

Kaitiakitanga: includes the concept of intergenerational regenerative guardianship, customs and traditions that provide for sustainable environmental management, including for future generations.

Karakia: rituals, prayers, chants.

Kaumātua: elders, a people of status.

Kawa: ceremonial protocols, rituals or actions.

Kōrero a mua: traditional narratives.

Kōrero tuku iho: ancestral stories, history, oral tradition, passed down from generation to generation.

Mahinga kai: food gathering and cultivation practices, traditional Māori foods.

Mana: authority, dignity, integrity, prestige, power.

Mana tipuna: ancestors.

Mana whenua: not a traditional Māori concept, this term is used in various pieces of legislation which can mean customary authority exercised by iwi or hapū over an area of land or body of water.

Manaakitanga: hospitality, generosity.

Manuhiri: guests.

Marae: meeting house, meeting place

Maramataka: the Māori lunar calendar.

Matakīrea: the mātauranga programme's external working group that informs development and delivery of the EPA's mātauranga framework and work programme. It also ensures the integrity of this work from a tikanga and mātauranga perspective. Matakīrea means the end feathers of a bird's wings, which are used as navigational aids.

Mātauranga: a body of knowledge, experience, values and philosophy of Māori; the pursuit of knowledge and understanding of the natural world, following a systematic methodology based on evidence, and incorporating culture, values and world view.

Maunga tapu: sacred mountains.

Mauri: the spiritual integrity or life force of all things, animate or inanimate.

Moana: sea.

Ngā Kaihautū Tikanga Taiao: The EPA's statutory Māori Advisory Committee. Ngā Kaihautū provides advice and assistance from a Māori perspective on policy, process and decision-making.

Ngā Parirau o te Mātauranga: The EPA's kaumātua group, formally established in 2010 under the previous Māori National Network of the Environmental Risk Management Authority, drawn from Te Herenga members. Te Herenga is the EPA's network of Māori environmental practitioners from across New Zealand. Ngā Parirau o te Mātauranga, which means the wings of knowledge, are the messengers of cultural wisdom and knowledge.

Ngāti Naho: a Māori tribe from the Meremere district, which also has a small town of the same name located in the Northern Waikato region.

Noa: to be free from the restrictions of tapu.

Noho marae: immersion-based learning at a marae.

Ora: wellness.

Pā tuna: eel weirs.

Pepeha: tribal saying, proverb.

Pūrākau: traditional Māori narratives, story, legend.

Rāhui: embargo, quarantine, traditional Māori sanction to temporarily or permanently stop people using natural resources and/or manage the way those resources are used.

Rama tuna: eeling by torchlight.

Rangatiratanga: right to exercise authority, self-management, leadership, self-determination, sovereignty.

Ritenga: ritual, custom, practice.

Rohe: region.

Taha hauora: human health and wellbeing.

Taha hinengaro: mental wellbeing.

Taha tinana: physical wellbeing.

Taha wairua: spiritual wellbeing.

Taha whanaunga: responsibility and capacity to belong, care for and share in the collective.

Taniwha: guardians – or kaitiaki – that serve as a warning of danger.

Tapu: sacred, prohibited, restricted, set apart. The law of tapu is intended to protect the mauri and mana of all things.

Te Herenga: the EPA's network of Māori environmental practitioners from across New Zealand.

Te ira atua: spiritual principle.

Te ira tangata: human principle.

Te taiao: the natural world, the environment.

Teina: youngest in the family line.

Tikanga Māori: set of practices, customs and traditions that are accepted as a reliable and appropriate way of achieving and fulfilling certain objectives and goals.

Tipuna awa: ancestral waterways.

Tūakapa: elders in the family line.

Utu: reciprocity, obligation.

Wāhi tapu: sites of significance.

Waiata: song. Waiata often refer to the history of people or place and have many styles, including waiata tangi (laments), oriori (lullaby), mōteatea (ancient chants), and pātere (fast-paced chants).

Waka hourua: a partnership approach.

Whakairo: carvings.

Whakapapa: genealogy.

Whakataukī: proverb, significant saying.

Whānau: family (including extended family).

Whanaungatanga: relationships, connectedness.

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