Best information available

Make informed decisions – don't delay!

Our NPS-FM position in a nutshell

You must apply the 'best information available' directive to every decision made under the National Policy Statement for Freshwater Management 2020 (NPS-FM)[1] and every decision relating to freshwater management.

You will need to make decisions with the information you have available at that time[2] and it is important not to wait for every perfect detail - some information may be incomplete. As the Ministry for the Environment (MfE) National Objectives Framework (NOF)[3] Guidance outlines, '*Doing nothing because of a lack of information is not an acceptable option*'[4].

When assessing uncertain information, the interpretation of that information must prioritise the health and well-being of water bodies to give effect to the NPS-FM[5]. Putting the water first and taking action, even where information is uncertain, demonstrates a precautionary approach and commitment to Te Mana o te Wai.

NPS-FM directive

In all your NPS-FM decision-making, you need to use the best information that is available to you at that time. This means using complete and scientifically reliable data wherever possible. However, you should not wait for perfect data sets before making decisions. The NPS-FM explicitly directs that you should not delay making decisions in the absence of data and information[6]. Instead, you should make a well-informed judgment when you have sufficient, quality information available at that time to make an informed decision.

As part of this judgment, you must take practical steps to gather information and use data sources that provide the highest level of certainty[7]. This should favour peer-reviewed, published work over grey literature. Further reduce gaps and uncertainty in scientifically robust data by using a variety of sources[8]. You can do this by consulting with local communities and tangata whenua to gather their knowledge. It may also involve using modelling techniques or temporarily using partial data to develop the best possible understanding of freshwater and ecosystem health at the time. However, relying solely on council modelling is not enough; it must be supported by other robust data sources. Throughout this process, you should *prioritise* sources of information that offer the greatest certainty[9] such as favouring published work as outlined above.

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[1] Clause 1.6 of the NPS-FM 2020

[2] Clause 1.6(1) of the NPS-FM 2020

[3] Ministry for the Environment. 2022. Guidance on the National Objectives Framework of the National Policy Statement for Freshwater Management. Wellington: Ministry for the Environment.

[4] Ministry for the Environment. 2022. *Guidance on the National Objectives Framework of the National Policy Statement for Freshwater Management*. Wellington: Ministry for the Environment. 27.

[5] Clause 1.6(3)(b) of the NPS-FM 2020

[6] Clause1.6(3)(a)

[7] Clause 1.6(2)(b) of the NPS-FM 2020

[8] Clause 1.6(2) of the NPS-FM 2020

[9] Clause 1.6(2)(a) of the NPS-FM 2020

Demonstrate the steps you have taken to gather all relevant information and the methods you used to assess which information will best give effect to the NPS-FM to further reduce uncertainty and ensure transparent decision-making[10]. These steps should be made publicly available as soon as practicable[11].

When assessing uncertain information, the concept of Te Mana o te Wai applies. The hierarchy of obligations[12] required under Te Mana o te Wai requires you to prioritise the health and well-being of water bodies and freshwater ecosystems above all other considerations. Therefore, uncertain information must also be interpreted in a way that will best give effect to the health and well-being of the water bodies and freshwater ecosystems. When considering which sources of information to use, you should prioritise information that has considered the effects of, and response to, climate change[13].

What do we want to see?

Transparent assessments: *A criterion, framework and/or process should be used to help determine the rationale for evaluating the use of relevant information sources.*	Assessing what qualifies as the 'best information available', is a crucial part in making informed decisions. Clearly articulate and be transparent about the process used to decide what information is considered the best available. This rationale must be published as soon as practicable after the decision is made (provided it does not compromise other legal obligations). Transparent decision-making is described in section 3.6 of the NPS-FM. At a minimum, we would expect that all matters in section 3.6 are implemented and developed further.
Identify biases: *Think critically about assumptions, biases, and limitations when assessing the source of information and value different perspectives.*	The context in which best information is established by decision makers is significant. Epistemology (the theory of knowledge) questions how someone has arrived at their conclusion by considering and evaluating their lived experiences, which can influence their way of acquiring and valuing knowledge. It is important to recognise you own biases and assumptions around what information you value and therefore use, so that it does not limit perspectives to one 'way of knowing'.
Keep record: *Record any issues, bias, or perception of conflicts of interest in a transparent way.*	This can help to reduce individual or societal-based influences from determining what qualifies as the "best" information. In some instances, the 'best information available' will be unpublished. An example of unpublished information is mātauranga Māori, which has developed over many generations and may apply concepts and processes to gain knowledge and local understanding of a catchment or region. The process of recording the assessment

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[10] Clause 3.6 of the the NPS-FM 2020

[11] Clause 3.6(4) of the NPS-FM 2020

[12] Clause 1.3(5)(a) of the NPS-FM 2020

[13] Policy 4, clause 3.14(2), clause 3.16(4) of the NPS-FM 2020

methodology also extends opportunities to gain a deeper understanding of a topic, allow for different voices to be heard and provide checks and balances for making better informed decisions.

Prioritise peer-reviewed, published literature: *Decisions should be supported wherever possible by peer-reviewed, published literature.*	Peer-reviewed, published literature undergoes independent and often anonymous reviews to minimise bias and improve the rigour and quality of research. Peer-reviewed, published research should be considered better quality than grey literature. Grey literature, such as consultant reports, can still be valuable, but they lack the same level of rigorous scrutiny that peer-reviewed, published work receives. There is a risk of bias or overlooked shortcomings within a company or organization, even with internal peer-review (such as colleagues from the same organisation).

How should the NPS-FM be implemented?

<u>Use experts to intepret</u>

Interpreting the data correctly is equally as important as obtaining it. Data (both qualitative and quantitative) are the raw points (words or numeric, respectively) that are collected. However, it is the information derived from the data that provides the context and meaning used to make informed decisions. Therefore, it is crucial to prioritise information provided by subject experts.

For example, to prioritise and provide for ecosystem health, it is important decisions are informed by an expert in freshwater ecology. An expert's specialised knowledge allows them to interpret data related to freshwater ecology and provide meaningful analysis to inform decisions on the implementation of the NPS-FM. Poor data interpretation can occur when there is a lack of expertise or familiarity with a specific field, which will ultimately compromise the ability to give effect to Te Mana o te Wai.

Have the right team, on the right bus, in the right seats.

<u>Calibrate models</u>

While we recognise the value of catchment-scale modelling in decision-making, modelling should be consistent with up-to-date scientific understanding and supported by peer-reviewed published literature. Modelling should be understood in a wider context than the catchment-scale and should be tested against information gathered from broader sources. Models should not be treated as 'black boxes' whose inner workings are hidden from public scrutiny. Models and the data they rely on, should be made publicly available. As outlined in the NOF guidance, models must be calibrated and tested with real data, and that calibration must be made available to the public.

<u>Make precautionary decisions</u>

Where information is uncertain, we expect you will incorporate precaution into your decisions by prioritising and interpreting information in a way that best gives effect to Te Mana o te Wai. Making decisions proactively rather than waiting for every perfect detail contributes to a precautionary approach. The risk of 'getting it wrong', or delaying a decision, should not fall on the environment to absorb. Further precaution can be taken by seeking a range of sources of information to improve your

understanding, so that you are not relying on one set of data or a single type of knowledge (i.e., only science, or only mātauranga) to make a decision. Where it is unclear what the impact of a decision on the environment will be, decision-makers should err towards lessening that impact, rather than trying to 'balance' considerations. Decisions based on uncertain information should not be 'locked in' for long periods of time, this means considering shorter resource consent terms and activity status in plans – where the effects of an activity are uncertain, permitted or controlled activities will not be appropriate. Identified gaps in information should be identified and research to fill those gaps should be planned and funded in the future to obtain missing information to reduce uncertainty for future decision making.

<u>Use well-developed frameworks</u>

A recent legal decision established some precedent for how judges may consider 'best information available'[14]. Councils should develop a process for assessing 'best information available' as early as possible in their planning process.

Decisions on which information is relied on, and which is disregarded, must not be made randomly. Seemingly random decisions are more likely to introduce bias and decrease public trust in the planning process. To ensure transparency and accountability, councils should establish criteria for assessing the best information you have available. That decision making criteria should be made public and the process used to gain information on each topic should be documented and available[15]. Criteria should include the following questions:

- Is there peer-reviewed, published information on this topic we can prioritise?

- How widely have we consulted the literature?

- What is the quality of that peer-reviewed research? Are the findings consistently reproduced/reiterated elsewhere?

- Can we apply this information to the local context?

- What further information do we need to apply it locally?

You are more likely to maintain public trust in the planning process if you have been transparent about *how* a decision was made under the NPS-FM.

How we will know the NPS-FM is being achieved

A clear and transparent rationale to assess and use information sources will be identified, communicated, and made publicly available. The process will not delay decision-making or defer complex decisions to future generations. Where there is uncertainty, decisions will lean on the side of caution, prioritising the health and wellbeing of waimāori (freshwater bodies).

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[14] The Environmental Law Initiative v Minister of Oceans and Fisheries. *This decision in summarised in the evidence section of this practice note.*
[15] Link to 3.6 of the NPS-FM Transparent decision making

Implementation Toolbox

The toolbox will continue to be developed as new information becomes available:

Tools:	are helpful diagrams, processes, or ways to support how you should implement the NPS-FM.
Examples:	provide text suggestions to help draft objectives (values and environmental outcomes), policies, and rules (limits) in your regional plans, including how and monitoring could be achieved. It includes examples of how attributes and base line states, target attribute states, environmental flows and levels, and other criteria, where appropriate, can be written or presented help to achieve environmental outcomes.
Case studies:	illustrate where the NPS-FM has been well applied (or not) throughout the country and provides national or international lessons to help implement the NPS-FM.
Evidence:	provides relevant case law to support how the NPS-FM must be applied.
Resources:	provide links to supporting literature and best information available to implement the NPS-FM.

Tools

We have developed a diagram to guide how to assess which sources provide the 'best information available'. Where a combination of these information sources exists, they should all be utilised to facilitate holistic decision-making.

Mātauranga Māori should be iteratively integrated into every point of assessing the best information available.

Published peer reviewed literature should be prioritised.

Calibrated modelling can provide robust, contextualised data and should be sought after a review of published literature, whereever relevant.

Other sources will inform decisions depending on the context such as grey literature; local knowledge; visual site observations; citizen science projects.

It is important to recognise that the guidance provided above is not a one-size-fits-all solution. Different outcomes and decisions may require a customised approach to prioritising certain sources of information. Context plays a crucial role in determining which approaches is more appropriate when prioritising information on decisions. It is essential to establish a clear and transparent rationale for adopting a specific approach to ensure clarity and understanding by everyone involved in, and affected by, the decision.

Evidence

Aratiatia Livestock Ltd v Southland Regional Council, [2022] NZEnvC 265

In this appeal relating to proposed Southland Water and Land Plan evidence was provided by researchers about water quality in the area. The Court preferred the evidence of one researcher for its comprehensiveness, consistency, and robustness. Consequently, the Court found this information was the best information available as required under NPS-FM[16].

Environmental Law Initiative v Minister of Oceans and Fisheries

A recent decision in the High Court provided a detailed discussion on the legal requirement of using the term "best information available" in the Fisheries Act. While the Fisheries Act has its own definition of "best information available", the NPS-FM is arguably more prescriptive about what is required. The

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[16] Paragraph 60 Aratiatia Livestock Ltd v Southland Regional Council, [2022] NZEnvC 265

ruling offers some understanding on how courts are likely to interpret and apply the concept of "best information available" in legal cases.

The Environmental Law Initiative v Minister of Oceans and Fisheries[17] decision states:

> *"I note that the literature review upon which his evidence is based remains unpublished, unlike the research of Dr Shears. Dr Shears asserts that Dr Breen's literature review was not published, because "it did not provide a balanced, accurate, and constructive review of the available literature. As noted, the evidence of Monique Andrew also shows that Dr Breen's literature review was relied on to develop advice to the Minister" (para 96).*

> *"Mr Salmon referred me to several cases in which the best information available principle had been applied in a fisheries context, the first of which was Antons Trawling Company Ltd v Minister of Fisheries[107]. Mr Salmon relied upon these cases to establish that the information principles in the Act are "not a light-touch obligation". He expressed the view that having regard to the best available information in a scientific context is an incident of lawful decision-making, which is elevated in a fisheries context. I accept that submission" (para 103).*

> *"It is undisputed that Dr Breen's literature review had been relied upon to develop advice given to the Minister. Based on the evidence of the scientists called by the applicants, I accept that the information provided to the Minister and upon which he based his decision, was not the best available information and was materially inaccurate" (para 113).*

Mātauranga Māori in freshwater management

The special edition of the *NZ Journal of Marine and Freshwater* (2018) provides insight and advice on mātauranga Māori in freshwater management [18]. Clapcott et al. (2018) determine Mātauranga Māori is not "local anecdote" but rather a broad system of knowledge and decision making that is applied locally. When you are making decisions about implementing the NPS-FM, you should ensure you have, an understanding of Mātauranga Māori and appropriately qualified people (usually mana whenua) to assist you interpreting that information. This is necessary to implement Te Mana o te Wai.

Case studies

[When available]

Examples

[When available]

Resources

[When available]

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[17] CIV-2021-485-676 The Environmental Law Initiative v Minister of Oceans and Fisheries. Retrieved from https://www.mpi.govt.nz/dmsdocument/55012-2022-High-Court-judgment-decision-for-Northland-rock-lobster

[18] Joanne Clapcott (Ngāti Porou), Jamie Ataria (Rongomaiwahine, Ngāti Kahungunu, Ngati Raukawa), Chris Hepburn, Dan Hikuroa (Ngāti Maniapoto, Tainui, Te Arawa), Anne-Marie Jackson (Ngāti Whātua, Ngāti Kahu o Whangaroa, Ngāpuhi, Ngāti Wai), Rauru Kirikiri (Te Whānau a Āpanui) & Erica Williams (Ngāti Whakaue, Ngāti Pikiao, Te Whanau a Maruhaeremuri) (2018) Mātauranga Māori: shaping marine and freshwater futures, New Zealand Journal of Marine and Freshwater Research, 52:4, 457-466, DOI: 10.1080/00288330.2018.1539404

Fish and Game and Forest and Bird and Choose Clean Water have written this practice note to communicate their expectation on how regional councils should implement the National Policy Statement for Freshwater Management 2020 (NPS-FM) into their regional plans. This is one in a series of practices notes which have been prepared on various topics relating to NPS-FM implementation.