

# Essential Freshwater NPSEFM – the national objectives framework (NOF)

Webinar 6

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**Environment**  
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# The NPS-FM 2020

New Zealand Government

## National Policy Statement for Freshwater Management 2020

August 2020

### Today we will cover

- Te Mana o te Wai – now the “fundamental concept” of the NPSFM
- Overview of NOF architecture
- Components
  - Values and environmental outcomes
  - Environmental flows/levels and take limits
  - Attributes - especially sediment/DIN and DRP
  - Limits on resource use and Action plans



Mana Atua – Mana Tangata – Mana Whenua

# Te Mana o te Wai

The health of our Wai: The health of our Nation

Incorporated into Policy



- 1** **The first** is to the water, to protect its health and its mauri
- 2** **The second** is providing for essential human health needs such as drinking water
- 3** **The third** is for other consumption provided that such use does not adversely impact the mauri of freshwater



- Mana whakahaere
- Kaitiakitanga
- Manaakitanga
- Governance
- Stewardship
- Care, respect



- Iwi/Hapū/Māori Landowners/Whānau/Hapori
- Crown / Community  
Central & local governance

## NGĀ RITENGA

Te Tiriti o Waitangi te tāhuhu o te Kaupapa o te wai

Te Mana o te wai – Te Mauri o te wai

Te Mana Motuhake o ia wai o ia iwi o ia hapū ki te wai

Te Kaitiakitanga o ngā hapū me ngā iwi ki te wai

Te Mana Whakahaere o ngā hapū me ngā iwi ki te wai



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# *From the vision to (NOF) action*

National objectives framework – a process undertaken to achieve the long term vision, developed in accordance with Te Mana o Te Wai and the objective of the NPSFM

1. Set the long-term vision in the RPS
2. Identify the geographical scale for freshwater management (FMUs)
3. Identify the values applying to each FMU, which must include the four compulsory values (ecosystem health, human contact, threatened species, mahinga kai) and nine other values that must be considered
4. Set environmental outcomes for the values as objectives in the plan to achieve the vision
5. Set flows and target attribute states to achieve those objectives
6. Set limits to achieve those flows or target attribute states via rules and review consents to achieve the limits; or prepare action plans to achieve the target attribute state

# *National Objectives Framework - overview*

Regional councils must engage with communities and tangata whenua as they:

1. Identify **Freshwater Management Units (FMUs)** - that capture all water bodies in the region (clause 3.8)
2. Identify all **values** for each FMU and set **environmental outcomes** for each value (as objectives in regional plans) that fulfil the long term vision and NPS objective (clause 3.9)
3. Identify all **attributes** relevant to the values, and their baseline state (clause 3.10)
4. Set **target attribute states** (clause 3.11) and criteria for nutrients (clause 3.13)
5. Establish **environmental flows/levels** (clause 3.16) and **take limits** (clause 3.17)
6. Identify **limits on resource use** (3.14) and/or prepare **action plans** (clause 3.15) so that target attribute states and nutrient criteria are met (clause 3.12 and 3.14(3))

# ***NOF- identifying Freshwater Management Units***

Every waterbody in the region must be included within one or more FMUs [clause 3.8]

Each FMU must include monitoring sites and any of the following if present -

- Primary contact sites
- Location of habitats of threatened species
- Outstanding water bodies
- Natural inland wetlands [see also mapping requirements in 3.23]

**Monitoring sites** – representative (as determined by the council) with any monitoring site relating to Māori values must be decided with tangata whenua

# *NOF - Values and Environmental outcomes*



The NPS-FM 2020 requires regional councils to identify the values that are associated with each FMU – this must include:

## 4 Compulsory values (Appendix 1A)

- ecosystem health (with 5 biophysical components)
- human contact
- threatened species
- mahinga kai.

Plus any other values that might apply (including those in Appendix 1B)

**Environmental outcomes** - means, in relation to a value that applies to an FMU or part of an FMU, a desired outcome that a regional council identifies and then includes as an objective in its regional plan(s)

# ***NOF – attributes, best information and baselines***

The NPS-FM 2020 requires regional councils to identify the attributes that are associated with each value – this must include;

- All relevant attributes in Appendix 2A
- Any relevant attributes in Appendix 2B that apply to compulsory values,
- And *consideration* of the remaining attributes plus any other the community or tangata whenua might identify.
  
- **Best information (clause 1.6)** captures aspects of the precautionary principle, makes in clear councils can include information obtained from modelling, as well as partial data, and local knowledge.



# *Target attribute states*



- Target attribute states have to be set for every attribute that is linked to a value.
- Timeframes for achieving the target may be of any length, but if long term, they must include **interim targets** at intervals of not more than 10 years.

# *Limits on resource use and action plans*



## Limits

For attributes that require limits on resource use, councils need to set limits and develop rules about resource use to achieve the objectives they have set.

An example of a limit setting attribute is total nitrogen found in lakes. A limit on resource use might include restricting the amount of nitrogen that is discharged into the lake from its catchment.

## Action plans

Other attributes do not require limits on resource use but require councils to develop action plans.

An example would be the macroinvertebrate attributes. It is less straightforward to improve macroinvertebrates using limits on resource use, and other actions such as restoration may be required.

# Questions – *NOF* Framework

1. Is the NOF suitable for modelled freshwater accounting?
2. What is your advice in circumstances where time-series datasets are currently insufficient to statistically ascertain an attribute's baseline?
3. Where do cultural flows fit in the NOF?
4. If a community chooses to have only say, one FMU delineating the entire region, how does this influence their monitoring requirements of compulsory values?

# Questions – Attributes

5. Between the NPS-FM 2014 (amended 2017) and the NPS-FM 2020, how have the mandatory attributes (from Appendix 2 and Appendix 2A respectively) changed?
6. Is there a look-up table which clearly identifies the new and amended attributes in Appendix 2A compared with the previous NPS? If not, could you please provide one?
7. What is a “wadeable river”? Several attributes in Appendix 2A apply to “wadeable rivers” but NPSFM does not define that term.

# *Environmental flows and levels*

**Every regional council must include rules in its regional plan(s) that set environmental flows and levels for each FMU.**

Flows and levels must:

- achieve the environmental outcomes for the values and the long-term vision that apply to the FMU
- be expressed in terms of the water level, flow rate and variability of flow that meets the environmental outcomes for that water body and any connected waterbodies.

When setting flows and levels, regional councils must have regard to the foreseeable impacts of climate change. Councils must also use the best information available and take into account results or information from freshwater accounting systems.

# Take limits

Since take limits must achieve the environmental flows and levels for a FMU, take limits should not allow the taking or diversion of water when water is below a minimum flow or level.

## Take limits must:

- be expressed as a total volume, a total rate, or both, at which water may be taken or diverted from an FMU, or dammed within an FMU or part of an FMU
- provide for flow or level variability that meets the needs of the water body from which the water is taken or diverted, and the needs of connected waterbodies, and their associated ecosystems
- safeguard ecosystem health from effects on the frequency and duration of lowered flows and levels
- provide for the lifecycle needs of aquatic life
- take into account environmental outcomes applying to the relevant and connected waterbodies

# *A bit more detail on Nitrogen, Phosphorus and Sediment*



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# Nitrogen and phosphorus - policy



There are new provisions for monitoring and managing nitrogen and phosphorus in the NPS-FM 2020:

- **a new requirement** to manage dissolved inorganic nitrogen (DIN) and dissolved reactive phosphorus (DRP) to provide for other ecosystem health attributes (such as periphyton, dissolved oxygen and macroinvertebrates) and downstream ecosystems



# *Nitrogen and phosphorus - attributes*

There are new or updated attributes for nitrogen and phosphorus in the NPS-FM 2020:

- an action plan attribute for DRP without a bottom line
- new bottom lines for nitrate and ammonia toxicity – limit setting attributes

# Sediment



There are new provisions for monitoring and managing sediment in the NPS-FM 2020:

- a limit setting attribute for **suspended sediment** in rivers
- an action plan attribute for **deposited sediment** in wadeable rivers.
- A habitat monitoring requirement for naturally soft-bottomed streams.

Councils must set target attribute states for suspended and deposited sediment in consultation with tangata whenua and communities.

- **Different bottom lines for different areas (see <https://data.mfe.govt.nz/layer/105094-sediment-classes-for-rec24-nzsegments/>)**

## Suspended sediment: Limit-setting attribute

**STANDARD:** Councils must set target attribute states **at or above NBL and at least maintain current state.**

**ACTION:** **Must limit resource use to achieve target attribute states**, but can include non-regulatory measures too.

## Deposited sediment: Action plan attribute & monitoring requirement

**STANDARD (hard-bottomed streams):** Councils must set target attribute states **at or above NBL and at least maintain current state.**

**STANDARD (soft-bottomed streams):** Freshwater habitat monitoring + process if not naturally soft-bottomed (Policy 3.25)

**ACTION (hard-bottomed streams):** **Must produce action plan to achieve target attribute states**, but can still limit resource use.

**ACTION (soft-bottomed streams):** incorporate habitat monitoring in planning and determine if naturally soft-bottomed.

# Questions – Nutrients and Sediment

8. Despite having no bottomlines in the NPS-FM 2020, are regional councils still required to set limits on DIN and DRP?
9. Why are the bands for the sediment classes so narrow? Does it account for natural variability?
10. What do we do in situations where the variability at a site means it moves from say, A to C to B to D? What level of breach requires a policy or compliance response?
11. A detailed technical question on 95<sup>th</sup> percentiles