

Should the significant values of the Whangamarino Wetland be protected by establishing a “wetland FMU”?

Discussion document for Healthy Rivers/Wai Ora Collaborative Stakeholder Group
Dave Campbell, 27 January 2016

Whangamarino Wetland: its international status under the Ramsar Convention

New Zealand signed on to the Ramsar Convention on Wetlands in 1976, with six wetlands currently registered on the Ramsar “List of Wetlands of International Importance”. The requirements for listing include that a wetland has international significance in terms of its ecology, botany, zoology, limnology or hydrology. The Department of Conservation administers NZ’s obligations under Ramsar, with the full list provided [here](#). A key objective of the Ramsar Convention is the conservation and wise use of wetlands and their resources.

Whangamarino wetland (7,000 ha) is one of three Ramsar sites in Waikato, the others being Kōpuatai peat dome in the Hauraki, and the Firth of Thames. Whangamarino’s distinctiveness includes its mosaic of wetland types ranging from marshes and swamps, to nutrient-poor fens and rain-fed bogs.

Since the 1960’s Whangamarino Wetland has been managed as a component of the Lower Waikato Flood Control Scheme, which consists of stop banks, diversion canals, floodgates and the artificially lowered Lake Waikare. The release of water, sediment and nutrients from Lake Waikare into Whangamarino is managed under resource consent RC101727, conditions 6 to 11 of which were the subject of a review in 2015 and currently under appeal to the Environment Court. Key evidence presented by the Department of Conservation and its expert witnesses during this review process included the impacts of altered hydrology, and high sediment and nutrient loads on sensitive parts of the wetland ecosystem. In particular, large areas of peat bog ecosystem have been lost since the advent of the flood control scheme, and those losses appear to be ongoing. The areal extent and health of this rare wetland type, and its assemblages of plants and animals, is one of the significant values of Whangamarino.

The purpose of this document is to provide discussion points for CSG to consider how the values of Whangamarino Wetland could be best protected under the Healthy Rivers / Wai Ora process.

Protection of the significant values of wetlands and outstanding freshwater bodies under the NPS-FM (2014)

Objective A2 (water quality) of the NPS-FM requires that:

The overall quality of fresh water within a region is maintained or improved while:

- a) protecting the significant values of outstanding freshwater bodies;*
- b) protecting the significant values of wetlands; and*
- c) improving the quality of fresh water in water bodies that have been degraded by human activities to the point of being over-allocated.*

Objective B4 (water quantity) also states the requirement:

To protect significant values of wetlands and of outstanding freshwater bodies.

There is currently some uncertainty about the process for designating water bodies (including wetlands), as “outstanding freshwater bodies” (OFWBs) as provided for under the NPS-FM (2014) and defined as:

... those water bodies identified in a regional policy statement or regional plan as having outstanding values, including ecological, landscape, recreational and spiritual values.

A literature review of criteria and summary of methodologies for determining OFWBs can be found in two recent Hawkes Bay Regional Council contracted reports (link [here](#)).

In the draft version of the Waikato Regional Policy Statement, Ramsar wetlands (including Whangamarino) were listed as “high value water bodies”, whereas the published RPS had its terminology modified to match the NPS-FM by instead referring to OFWBs. Method 8.2.1 of the RPS states that WRC, “*through a values setting process, shall identify outstanding fresh water bodies and significant values of wetlands*”. Candidate fresh water bodies are listed in Section 8A of the RPS, including Whangamarino Wetland and the other Waikato Ramsar sites. It is uncertain when this process will be undertaken, but clearly the Regional Plan needs to list both the significant values of wetlands and the identified OFWBs.

Definition and use of Freshwater Management Units (FMUs)

An FMU is defined in the NPS-FM 2014 as:

A water body, multiple water bodies or any part of a water body determined by the regional council as the appropriate spatial scale for setting freshwater objectives and limits and for freshwater accounting and management.

In MfE’s draft FMU guidelines (2015) document, the use of FMUs to protect the significant values of wetlands and OFWBs is described:

The NPS-FM requires that the significant values of outstanding freshwater bodies and wetlands are protected. These water bodies could be split or grouped into separate FMUs as the freshwater objectives, limits and management actions associated with these values may be significantly different than those for other freshwater bodies. Alternatively, the outstanding freshwater bodies and/or wetlands may be included within a broader FMU, with specific methods and/or limits to manage their significant values.

The CSG has opted to take the first of these two approaches (separate FMUs) for the management of water quality in lakes, by establishing four spatially disconnected FMUs for each of the morphological lake types.

Some key considerations for establishing FMUs include (from the FMU guidelines document):

Does the FMU reflect key hydrological characteristics?

Does the proposed FMU take into account the compulsory and any other chosen additional national freshwater values and other regional or local values?

Does the proposed FMU take into account outstanding freshwater bodies?

Does the proposed FMU take into account the significant values of wetlands?

There appear to be two options for protecting the significant values of Whangamarino Wetland. (Note that there does not appear to have been a separate values setting process for the wetland despite the requirement laid out in the RPS.)

- Firstly, an FMU could be established that includes the wetland and its entire catchment (i.e. the same approach as CSG is taking for Waikato lakes). Anticipating that Whangamarino will be designated as an OFWB to reflect its international Ramsar status, this would seem to be a necessary approach. Regardless of its status as an OFWB or not, Whangamarino is a very large, distinctive and highly sensitive wetland with significant values that must be protected, and an FMU is the best way to achieve this.
- Secondly, the wetland values could be considered within the context of the wider Lower Waikato FMU, and the limits for the whole catchment of the wetland set to protect the most fragile component of the FMU. A disadvantage of this approach is that the wetland may not receive the attention that it deserves as an internationally recognised freshwater ecosystem, and potentially the most sensitive water body within an FMU where water quality is generally very degraded.

Development of attributes for wetlands under the NPS-FM, and implications for protecting the significant values of Whangamarino Wetland in this plan change

While the NPS-FM includes lists of attributes appropriate for lakes and rivers, attributes suitable for wetlands are currently at an early draft stage of development. Part of the reason for this is that wetlands are diverse ecosystems with a wide range of water, nutrient and sediment inputs depending on their landscape position and linkages to surrounding water bodies. In Whangamarino, purely rain-fed, low nutrient bogs lie immediately up-slope of swamp and marsh wetlands that receive large inputs of water, nutrients and sediments from flooding rivers. These wetland types have very different hydrological and nutrient regimes and support distinctive vegetation communities.

To inform this proposal to establish a wetland FMU at Whangamarino, the advice of Ministry for the Environment staff was sought. Key points are provided below.

- *Protecting the significant values of wetlands as is required in the NPS-FM implies that any fresh water quality/ quantity degradation in the region cannot be at the expense of the significant values of the wetland. Therefore they cannot be ignored in FMU's.*
- *While the NPS-FM does not (yet) include attributes for wetlands, this doesn't mean regions couldn't or shouldn't be deciding values and setting objectives for wetlands now. If wetland attributes with national bottom lines are adopted in the NPS, and objectives have been set below that national bottom line, they will need to be amended in the next regional plan review.*
- *It is consistent with the NPS for the council to manage the Whangamarino Wetland in a particular way to achieve particular values and objectives, and therefore to draw an FMU around the Whangamarino Wetland catchment. This may be necessary to manage its significant values. It could also be managed as its own outstanding water body, though even if it's not an outstanding water body, the council must protect its significant values. It's up to the council to identify those values in the plan.*
- *A wetland FMU could realistically only be managed by including the whole catchment that flows into it. And when setting limits that achieve objectives in the wetland, you will need to check that those limits also achieve the objectives in the rivers of the catchment. That is, the limits for the whole catchment will need to be sufficient to protect the most fragile component of the FMU.*
- *If there are particular values about a water body (such as Whangamarino Wetland) that are different to those of the wider catchment these should be managed differently. The*

compulsory values could be managed through those set for the wider catchment (as long as they are sufficient to protect the most fragile component as mentioned above) and additional values could be set for the wetland itself that covers the extra value of it (these wouldn't necessarily be applicable to the wider catchment streams).