25 May 2016

Integrated Catchment Management Directorate Commentary on HRWO Policy

FOR FURTHER DISCUSSION AT COLLABORATIVE STAKEHOLDER GROUP 30 AND 31 MAY

1.0 Purpose

This document provides a commentary on the current Healthy Rivers: Wai Ora policy mix (HRWO) from WRC's Integrated Catchment Management Directorate (ICM). The document has been prepared to assist further deliberations on the plan change at the Collaborative Stakeholder Group (CSG) Workshop on 30 and 31 May.

The commentary provides some initial staff guidance to assist the CSG in making potential amendments to HRWO. It does not necessarily represent the final views of ICM Directorate on the plan change detail as this commentary has not been presented to the Integrated Catchment Committee due to timing of 30 May meeting. It is anticipated that this paper will be presented at the June Committee.

2.0 Plan version

The commentary below applies to the Waikato Regional Plan Change No. 1 – Waikato and Waipa River Catchments (Proposed) dated 16 May 2016.

3.0 Scope

The commentary is focussed on suggested amendments on the proposed policy framework related to;

- Whangamarino wetland and Lakes – Objective 6, Policies 4, 14 and 15, implementation method 3.11.4.10.
- Sub catchment scale plans – implementation method 3.11.4.7.
- Land drainage management activities and the fencing setbacks - as set out in Schedule X.

This document does not include commentary on farm plan efficacy as ICM has been directly involved in the HRWO farm planning sub group. The comments therefore relate to our understanding of catchment process that are impact upon

4.0 PROPOSED POLICY FRAMEWORK FOR WHANGAMARINO AND LAKES

4.1 HRWO Objective 6: Whangamarino wetland

Whangamarino wetland and catchment is restored and protected to sustain the full range of healthy wetland types and achieve the targets as shown in 11-2.

4.2 ICM Comments

Objective 6 is linked to Table 11-2 which sets the short term numerical water quality limits for the Waikato and Waipa River Catchments. It is understood that the final table will include limits for the Lower Waikato FMU sub-catchments that flow into Whangamarino, rather than limits within the wetland itself. This approach to limit setting is supported by ICM.

Clarity is however required around whether the achievement of objective 6 is sought over the short term (10 year timeframe) or long term (80 year timeframe). Given that objective 6 is linked to Table 11-2, it could be read that the restoration and protection of Whangamarino the full range of wetland types is sought within the first 10 years of the plan change.

ICM does not consider that the restoration and protection of Whangamarino is achievable within the next 10 years due to the following key factors;

- The lag time required to begin to halt and reverse the decline of the wetland due to sediment accumulation.
- The magnitude and type of interventions required to comprehensively address the issue of accumulated sediment is significant.
- The reliance of the health of the wetland on the restoration/enhancement of the wider system and the hydrologic regime of the entire Waikato River system and the magnitude of change required. An example of this interrelationship and complexity is the current impact of the discharge of sediment from Lake Waikare into Whangamarino as a result of historic deposition in the lake, the source of that sediment and its discharge.
- The spatial variability of impact on areas within the wetland will likely require spatially different interventions and at different scales rather than uniform requirements applied for an FMU.
- The type of interventions may involve direct rehabilitation/restoration activities within Lake Waikare and the Whangamarino Wetland to address historic degradation – such interventions are well beyond typical water quality/land management toolbox of interventions.

In reference to the restoration of Whangamarino over the longer term, ICM notes that sediment (and related contaminant) accumulation will likely remain a significant issue that may not be able to be fully addressed over the life of HRWO. Even acknowledging significant changes being brought to bear on catchment practices and infrastructure performance.

4.3 ICM amendments

Given the above, the following amended objective is suggested;

That the Whangamarino wetland and catchment is actively enhanced to sustain the full range of healthy wetland types. That the catchment achieves the 80 year targets for the related Lower Waikato FMUs set out in Table 11-1.

4.4 HRWO Policies 4, 14 and 15

Policy 4: Prioritised implementation
Implementing Policy 2 to manage land and water resources by prioritising:

a) Sub-catchments where there is a greater gap between the targets in Objective 1 and current water quality,
b) lakes FMUs, where a lake has high vulnerability
c) Whangamarino wetland
d) Pastoral land users with a high level of nitrogen leaching
e) those who respond proactively to future requirements

Policy 14: Lakes Freshwater Management Units
The management of activities in the Lakes Freshwater Management Units:

a) protects lake water quality from further degradation; and
b) restores lake water quality; and
c) achieves the outcomes in Lake Catchment Plans.

Policy 15: Whangamarino wetland
Protecting and enhancing the values of Whangamarino wetland by:

a) Preventing further loss in area and degradation of bog type ecosystems
b) Providing a source for mahinga kai for the people of the rohe
c) effectively implementing the catchment plan that covers Whangamarino wetland, to restore and protect water quality in the wetland and freshwater bodies in its catchment

4.5 ICM comments

ICM is supportive of the inclusion of Whangamarino wetland as a priority area for the reduction of diffuse discharges as proposed within the Policy 4.

Policy 14 seeks to protect lake water quality from further degradation and also seeks to restore lake water quality through the management of activities within FMUs. This policy does not currently acknowledge the potentially significant lag period between the implementation of land/catchment interventions to improve water quality and any uplift in lake water quality. Policy 14 also needs to acknowledge the relation between water quality within lakes and the dynamics of wider catchment systems.

ICM is not supportive of Policy 9 (a) and (b) as currently drafted. For the reasons set out in relation to Objective 6 above, preventing the further loss and degradation of the bog ecosystem and restoring mahinga kai areas, at least within the short term is unlikely to be achievable.

4.6 ICM amendments

The following amendments are suggested to Policy 14 and 15;

Policy 14: Lakes Freshwater Management Units
The management of activities in the Lakes Freshwater Management Units will seek to:

a) enhance lake water quality overtime; and
c) achieve the outcomes in Lake Catchment Plans.

Policy 15: Whangamarino wetland
Protecting and enhancing the values of Whangamarino wetland by undertaking interventions to:

a) Enhance the unique bog type ecosystems of the wetland.
b) Provide a source for mahinga kai for the people of the rohe overtime.
c) Effectively develop and implement the Whangamarino wetland catchment plan.

4.7 HRWO Implementation Methods

Whangamarino Wetland

Waikato Regional Council, working with others, will:

a) Raise the profile and promote the significance of Whangamarino Wetland as a Ramsar wetland of international importance.
b) Develop a catchment plan for Whangamarino Wetland and Lake Waikare.

Through the review of the Waikato Regional Plan identify and protect characteristics of the wetland outside the scope of Healthy Rivers Wai Ora e.g. biodiversity.

Lakes

Waikato Regional Council, working with others, will:

a) *Build on the Shallow Lakes Management Plan[1] by developing Lake Catchment plans and investigate lake-specific options to improve water quality, ecosystem health and manage pest species. In many instances, this may require an adaptive management approach.*
b) *Lake Catchment plans should be prepared with community involvement and include:*
   - *content to come from TLG*
c) *Work towards managing the presence of pest weeds and fish in the shallow lakes and connected lowland rivers area.*
d) *Support research and testing of restoration tools and options to maintain and enhance the health of shallow lakes (e.g. lake modelling, lake bed sediment treatments, constructed wetlands, floating wetlands, silt traps, pest fish management, and farm system management tools).*
e) *Develop and disseminate best practice guidelines for nitrogen, phosphorus, sediment and E.coli.*
f) *Support research into methods for attenuating diffuse pollution.*
g) *Support lake restoration programmes including but not limited to advice, funding, and project management. Restoration programmes may have a wider scope than water quality, including hydrological restoration, revegetation and biodiversity restoration.*

4.8 ICM Comments

ICM is supportive of the methods proposed to enhance the Whangamarino wetland and Lakes as set out above. These methods could however be combined to into a single set of methods for "Lakes and wetlands" given the interrelationships between the ecosystem types. Point (a) should include a note that Plan is in development for Lake Waikare.

5.0 SUB-CATCHMENT PLANS

5.1 HRWO Implementation Method

The following implementation method is proposed in relation to the preparation of sub catchment plans;

Waikato Regional Council, working with others, will:

a) *develop sub-catchment scale plans to identify the causes of current water quality, identify cost-effective measures to bring about reductions, and coordinate the reductions required at a property and sub-catchment scale (including recommendations for funding where there is a public benefit identified).*
b) *Facilitate the implementation of sub-catchment and catchment scale works to reduce nitrogen, phosphorus, sediment and E. coli such as, but not limited to, riparian management, targeted reafforestation, constructed wetlands, sediment traps and sediment detention bunds.*
c) *Through Farm Environment Plan development processes, identify, and where it is practicable to do so, include as a mitigation action:*

[1] The Shallow Lakes Management Plan draws together information about the shallow lakes of the Waikato region, the policy framework for their management, and the associated management challenges and opportunities.

Volume I identifies objectives and high level management actions to address the key management issues for the lakes, with a specific focus on matters that Waikato Regional Council has responsibility for (i.e. water quality, lake water levels and biodiversity values). **Volume 2** is a complementary resource statement that summarises available information and knowledge for shallow lakes in the Waikato region and proposes key management actions for individual shallow lakes at a greater level of detail. This plan has a term of 10 years, and will be reviewed after 3 years (in 2018).

- *existing natural wetland ecosystem areas, and*
- *areas suitable to be restored back to supporting a natural wetland ecosystem, and*
- *areas suitable to be developed into a constructed wetland*
- *areas suitable for retirement or reforestation.*

d) Analyse and document the linkages between wetlands and the opportunities to improve people's livelihoods.

e) Assess and determine effective and efficient placement of constructed wetlands at a sub-catchment scale to improve water quality.

f) work with landholders to integrate the regulatory requirements to fence waterways with drainage scheme management.

5.2 ICM Comments

This method is limited in its focus around the development of sub catchment scale plans. It is important that integrated catchment management approach is promoted through plan change methods to ensure interventions can be considered in an integrated way at the appropriate scale.

It is also important that plans can be developed at a range of scales to effectively implement wider interventions. As worded the method would require the development of some 74 sub-catchment plans. Sub-catchment scale plans may not necessarily be appropriate to achieve the outcomes sought through the plan change. Methods in the plan change should provide flexibility in this regard.

This implementation method also needs to take account of the range of existing and planned catchment management initiatives undertaken by WRC and its stakeholders within the Waikato and Waipa catchments. It is important that duplication and unnecessary costs are avoided and that methods seek to build on the existing initiatives.

There is also a need to adopt consistent terminology in relation to catchments, FMUs and sub-catchments within the methods and within the plan change generally.

5.3 ICM amendments

The following amendments are suggested to this method;

Waikato Regional Council, working with others, will:

a) develop integrated catchment plans to identify the causes of current water quality, identify cost-effective measures to bring about reductions, and coordinate the reductions sub-catchment scale.

b) Facilitate the implementation of catchment, FMU and sub-catchment scale works to reduce nitrogen, phosphorus, sediment and E. coli. These works may include, but are not limited to, riparian management, targeted reforestation, constructed wetlands, sediment traps and sediment detention bunds.

c) Through Farm Environment Plan development processes, identify, and where it is practicable to do so, include mitigations actions such as:

- **enhancing existing natural wetland ecosystem areas, and**
- **areas suitable to be restored back to supporting a natural wetland ecosystem, and**
- **areas suitable to be developed into a constructed wetland**
- **areas suitable for retirement or reforestation.**

d) Work with landholders to integrate the regulatory requirements to fence waterways with drainage scheme management.

6.0 POLICY FRAMEWORK RELATED TO LAND DRAINAGE ACTIVITIES

6.1 HRWO Schedule X

Land drainage is a part of WRC core business and ICM has an ongoing responsibility to access drains for maintenance. Maintenance activities primarily comprise weed control and drain channel clearance. Distance of drain setbacks is critical to enable maintenance to be undertaken.

Minimum grazing and cultivation setback requirements are set out in Schedule X related to farm plans as follows;

4. A description of how each of the following considerations will, where relevant, be addressed.

(a) Stock exclusion from water: To provide an effective barrier and any necessary crossings so that stock are excluded from water in accordance with [Rule 1], to avoid damage to the bed and margins of a water body, and to avoid the direct input of nutrients, sediment, and microbial pathogens; and for areas over 25^{o}, where stream fencing is impractical, to provide alternative mitigation measures.

(b) Setbacks and riparian management: To manage wetland and waterway margins to avoid damage to the bed and margins of a water body, avoid direct input of contaminants, and to provide for riparian margin settling and filtering; and to ensure the minimum standards for setbacks are met for all new or substantially altered riparian fences ***(grazing setbacks of no less than 1m for land below 15^{o} and 3m for land above 15^{o}, and cultivation setbacks of 5m).***

6.2 ICM Comments

Drainage maintenance activities are unlikely to be impacted by the setbacks proposed given that no drains have a side slope exceeding 15 degrees.

Further clarity is however needed around the relationship between setback and slope to ensure that the definition of slope relates only to land immediately adjoining a waterway and does not relate to some wider area (for example a legally defined land parcel) as this may have unintended consequences.