

**Statement to Plan Change 9 Hearing
10th June 2021**

Ngaruroro Irrigation Society
Mike Glazebrook
Chairman

The Ngaruroro Irrigation Society has 37 members who hold consents to irrigate from the Ngaruroro River. The water is either drawn directly from the river or from bores within 400m of the river.

The water is used to irrigate approximately 3800ha. The water irrigates vineyards, a wide range of crops and vegetables, horticulture, pasture for sheep and beef and a dairy unit.

Plan Change 9 obviously has many parts that will impact the members of the Ngaruroro Irrigation Society. At this stage of the Plan Change process, I would like to simply comment on two key areas.



1) The trigger flows (“minimum flows”) on the Ngaruroro River.

The members are relieved to see that the HBRC officers continue to recommend that there be no change to these flows. The irrigation group strongly concurs with the officers’ comments that an increase in the trigger flows would have relatively little impact of the actual flows on the river. This has been demonstrated by Regional Council through the hydrology and modelling work it has undertaken. As such, an increase in trigger flows would offer little benefit in terms of increased habitat protection. On the other hand, any increase in trigger flows would have severe implications for water users who rely heavily on the river for irrigation.

2) Land Use Change.



The land irrigated from the Ngaruroro is versatile with a wide range of potential uses. It is inevitable that market demands for crops and produce will change over time, and farmers and producers will need to change with it. This is the way it has always been; going forward change is one thing we can be sure of.

The challenge of assessing and managing nutrient loss due to land use change is complex and difficult. This doesn’t necessarily mean the Region Plan has to be. The rules need to be easily understood and practical to manage.

To the extent that Schedule 29 Table 1 provides some simplification, by grouping land use into broad categories, it is supported by the Irrigation Group. This will reduce the number of times that land use change will require complex and difficult consent applications. The new condition TANK Rule 5 (covering the situation where N loss is less than 10%) also assists in this regard.

The group remains concerned, however, about the practicality of moving between land use categories. The broad intent and the theory of the plan is understood, the practical implications are not. The science is still being developed, and the current tools available, such as Overseer, have significant limitations. The group urges simplicity, and cautious steps, to minimise unintended consequences.

Introduction

My expert evidence for Ngaruroro Irrigation Society Incorporated (NISI) addressed the following key matters:

- Nutrient (nitrogen) loss thresholds
- Application Efficiency and Distribution Uniformity
- Actual and Reasonable Use
- Accurate Water Meter Data

The Addendum Report to the Hearing Report recommends changes to the rules and Schedule relating to nutrient loss, to definitions and inclusion of application efficiency, to the definition of actual and reasonable use, and to definition of accurate water meter data.

Nutrient loss - TANK 6 (and Schedule 29)

HBRC reporting officers have recommended "an amendment is required in TANK 6 so that all land use change is not captured inadvertently". The amendment is supported..

NISI support Schedule 29, Table 1 and the new condition TANK Rule 5 (d) "The change in modelled average annual N loss as a result of the land use change is less than 10% (using Overseer or an alternative nutrient budget model approved by the HBRC)" when a proposed land use change is from a lower risk to higher risk land use category. This provides an objective limit for permit holder to assess annual N loss when a higher N loss risk land use change is proposed.

Application Efficiency and Distribution Uniformity

The HBRC reporting officers requested submitters provide "further information on the difference between and the appropriateness of AE or D_U (paragraph 1578) and recommend the term that is most appropriate be defined in the glossary of PPC9.

I support the reporting officers recommendation application efficiency "is considered to be the most appropriate term to use in POL TANK 47" and that any reference to distribution uniformity is not included.

I support the recommendation that "a definition that aligns most closely to the Irrigation New Zealand definition" is included.

Policy 36, 46, 52; TANK 9, 10 and 11; Schedule 31; and the Glossary of Terms – "Actual and Reasonable"

In my expert evidence I recognised that HBRC had amended the date to refer to calculation of the average water use data to be the 10-year period preceding 2 May 2020. I support this change.

In my evidence for Heinz Watties and Apatu Farms Ltd I presented examples using data for four properties that had 8-11 years of accurate water meter data. Allocating use as the average (rather than the maximum) would severely compromise the ability of irrigators to meet crop demand, especially in a drier years (greater than about the 60th-percentile demand season).

I consider that all water meter data (if more than ten years is available and is accurate) should be used in the calculation of use. Just because 2010-11 to 2019-20 captures two seasons that are close to the 95th-percentile demand season, additional data should not be excluded. All of a permit holder's record should be used regardless of length, so long as the water meter data meets the water meter quality standards.

I do not support the retention of the 10-year period of water meter records to calculate the maximum use.

Accurate Water Meter Data

Paragraphs 48-54 of my expert evidence outlined:

- A definition of accurate water meter data to be included in the glossary of PPC9; and
- The reasons to adopt the National Environmental Monitoring Standard (NEMS) for Water Meter Data¹ definition of accurate water meter data.

The reporting officers have not included a definition of accurate water meter data in the Glossary, although refer to “accurate water meter data” in the definition of Actual and Reasonable.

Appendix 10² of the reporting officers report includes a memo from Jeff Cooke dated 13 May 2021 that discusses the quality of water meter data and considers that “the systems that are in place and are described in the table above mean that more confidence can be attributed to the water use data than would be apparent if the NEMS criteria were the only ones used.” Cooke recognises that much of the water meter data can only achieve Raw (QC200) or Poor (QC400) according to NEMS.

I recommend HBRC adopt the 2020 revision of the water meter regulations which requires telemetry of water use data. I recommend adopting the proposed definition (P49 of my expert evidence) and the revised requirement for telemetry of the 50% of water takes that are not telemetered. Doing so will improve data quality and provide an accurate measure of actual use for input to the allocation limit discussions.

¹ National Environmental Monitoring Standards Water Meter Data Acquisition of Electronic Data from Water Meters for Water Resource Management Version: 1.0 Date of Issue: June 2013

² Statement of reply evidence of Robert Jon Waldron for Hawkes Bay Regional Council, 19 May 2021