SUBMISSION TO THE MINISTRY FOR THE ENVIRONMENT ON THE ACTION FOR HEALTHY WATERWAYS CONSULTATION

Submitter: Awatere Water Users Group
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Part 1: Overview

1. Awatere Water Users Group:

The Awatere Water Users Group ("AWUG") is an Incorporated Society representing water users from the Awatere River catchment for agricultural purposes. AWUG was originally formed in 1994 and has a total of 50 members who are Landowners relying on the Awatere River for their source of water.

AWUG have worked with Marlborough District Council on various issues including Regional Policy Statement reviews, Community irrigation feasibility studies, developing the Awatere Riverbed Activity Guidelines Document, and providing representation on the Water Allocation Working Group developing policy for the proposed Marlborough Environment Plan

2. Background:

The Awatere River is one of Marlborough’s largest east coast braided rivers, with a total length of some 110km, starting in the headwaters of the Molesworth. The Awatere river is subject to high natural turbidity and fine sediment load. This sediment is generated from eroded land in the upper catchment and along the steep mudstone (papa) river banks which is disturbed after rainfall events and higher river flows.

Water users in the Awatere Catchment work within the constraints of a challenging and unique climate and geography. The lower Awatere catchment and coastal area receives high summer temperatures and some of the lowest annual rainfall of anywhere in New Zealand. High evaporation, lack of a groundwater aquifer and low rainfall increase the importance and reliance on accessing irrigation water from the Awatere River.

The Awatere river is the main reliable source of irrigation water for the Awatere Valley and Blind River area.

The economic activity provided from the intensive irrigated land uses in the Awatere/Blind River area contributes a significant amount to the local community and the Marlborough region through investment in infrastructure, employment opportunities, services to farms and vineyards, and economic returns to support sustainable farming businesses.

3. Existing Irrigation:

There is currently an estimated 10,500ha of land irrigated in the Awatere/Blind River area including 7,500ha of land planted in vineyard (grape growing).

The Land areas are based on a GIS mapping exercise completed by Marlborough District Council for AWUG in 2015 (refer to attached map).

<table>
<thead>
<tr>
<th>Irrigated area</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Broadacre (vegetables, arable crops &amp; pasture)</td>
<td>3,000ha</td>
</tr>
<tr>
<td>Vineyard (wine grapes)</td>
<td>7,500ha</td>
</tr>
<tr>
<td><strong>Total irrigated area</strong></td>
<td>10,500ha</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Potential for additional irrigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land with irrigation potential (has water allocated)</td>
</tr>
<tr>
<td>Land with irrigation potential (no current water allocation)</td>
</tr>
<tr>
<td><strong>Potential</strong></td>
</tr>
</tbody>
</table>

| Total land area that is potentially irrigable     | 13,500ha |
It is anticipated that unutilised water allocation will be freed up over time due to change of land use and more efficient use of irrigation water. This will create opportunities to re-allocate water to land with irrigation potential which has no current water allocation.

4. Land use change:

Following the significant droughts in 1997/98 and 2000/01 many of the traditional dryland farming operations in the lower Awatere and Blind River were struggling to be economically viable due to the impacts of drought affecting production levels, combined with a lack of scale and fluctuating product prices.

The area has good soils and a climate that suits growing a broad range of horticulture crops and farming systems providing there is a reliable source of irrigation water.

While the Land area irrigated over the last 20 years has increased from 3,000ha to 10,500ha (a 350% increase) the area developed has predominantly been in planted vineyard.

The Awatere/Blind river area currently has an estimated 7,500ha (28%) of vineyard planted out of the total 27,000ha of vineyard planted in Marlborough.

A New Zealand Winegrowers -commissioned survey predicts an additional 5000ha of land will be developed into grapes by 2025 across the Marlborough region. Based on these estimates it is realistic that a further 1000ha of new vineyard could be planted in the Awatere/Blind River over this timeframe. The GIS mapping exercise undertaken by MDC has identified that there is 1200ha of Land with irrigation potential that has water allocated (see table on page 2).

5. Water efficiency:

With Land use change there has been innovation and technology used to make efficient use of water, and these improvements are ongoing.

A significant investment has been made developing irrigation storage dams to provide back-up storage when water is unavailable from the Awatere river due to low flows or high turbidity.

An estimated 70% of the irrigated land area in the Awatere/Blind River area is developed in Vineyard which uses precision irrigation with water applied through under-vine dripline directly to the rootzone applying typically 100mm of irrigation in an average growing season

Fruition Horticulture provide a moisture monitoring service across a wide range of Marlborough vineyards. The average volume of irrigation applied for the last 6 years was 106mm/annum; with a range across the 6 years, from a low of 64mm/annum (low irrigation due to high summer rainfall); to a high of 143mm/annum (high irrigation due to low summer rainfall).

The majority of the existing vineyard area uses moisture monitoring systems to ensure that only the required amount of irrigation is applied and to avoid over watering.

An estimated 20% of the irrigated land area grows a broad range of vegetable crops including sweetcorn, beans, peas, spinach, carrots, cauliflower, broccoli, capsicum, garlic, shallots, onions and pumpkins; alongside traditional arable grain and specialist seed crops. To be sustainable these crops require a suitable crop rotation to manage pest and disease issues alongside balancing economic returns. Early and late season crops are grown to manage irrigation water availability. During the
winter months green feed crops are grown to support sheep grazing and finishing beef cattle. Broadacre crops typically require between 150mm and 300mm of irrigation in an average growing season.

An estimated 10% of the irrigated land area supports pastoral farming operations and typically includes a smaller area of more intensively farmed land supporting an extensive dryland hill country property. This area of irrigated pasture, lucerne or forage crops will enable young stock to be finished or supplementary feed to be made, and is integral to the long-term sustainability and profitability of these properties. These broadacre systems can typically apply between 150mm and 400mm of irrigation in an average growing season.

**There are no dairy farms in the Awatere/Blind River area.**

With the high proportion of land planted in Vineyard, the available water allocation from the Awatere river is utilised across a larger irrigated area and used more efficiently.

The irrigation development undertaken in the Awatere Valley and Blind River has created resilience and a sustainable future.

**6. Nutrient discharges:**

The following table details the 5 year median data for nutrient discharges at 3 sites on the Awatere River.

The data has been compared with the proposed new National Bottom Lines for Dissolved Inorganic Nitrogen (DIN) and Dissolved Reactive Phosphorous (DRP).

The data shows that the Awatere River would comply with the proposed National Policy Statement for “DIN” and “DRP”.

<table>
<thead>
<tr>
<th>Site Name</th>
<th>TON 5yr median</th>
<th>Ammoniacal N 5yr median</th>
<th>DIN</th>
<th>Comply NPS? 1.0</th>
<th>DRP 5yr median</th>
<th>Comply NPS? 0.018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Awatere River Catchment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Awatere River at Awapiri</td>
<td>0.031</td>
<td>0.005</td>
<td>0.036</td>
<td>YES</td>
<td>0.0096</td>
<td>YES</td>
</tr>
<tr>
<td>Awatere River at river mouth</td>
<td>0.0435</td>
<td>0.005</td>
<td>0.0485</td>
<td>YES</td>
<td>0.0073</td>
<td>YES</td>
</tr>
<tr>
<td>Black Birch Stream at Water Intake</td>
<td>0.013</td>
<td>0.005</td>
<td>0.018</td>
<td>YES</td>
<td>0.011</td>
<td>YES</td>
</tr>
</tbody>
</table>

*Data supplied from Irrigation NZ - 15.10.19*

As a community we do not see that it is fair or equitable to impose restrictions on landuse change where the catchment is already working within the proposed new nutrient limits. A one-size fits all approach penalises individual farms and catchments that are farmed sustainably and adds significant and unnecessary compliance cost to the community.

We do not support the grandparenting approach for nutrient discharges, but recommend a whole catchment approach for setting nutrient limits.
We recommend that nutrient discharges should be managed through individual Farm Environment Plans which are independently Audited, combined with Industry guidelines and good management practice to ensure that nutrient levels are held within acceptable limits.

7. Sediment:

The Awatere river is subject to high natural turbidity and fine sediment load. This sediment is generated from eroded land in the upper catchment and along the steep mudstone (papa) river banks which is disturbed after rainfall events and higher river flows. The sediment loads and turbidity have increased substantially following the Seddon Earthquake in 2013 and the Kaikoura Earthquake in 2016.

Under the Marlborough Environment Plan, water users require resource consent to undertake riverbed activities and diversions.

AWUG developed the Awatere Riverbed Activity Guideline Document in 2015 in conjunction with the Marlborough District Council, Department of Conservation, Fish & Game, iwi and water users. The Guidelines Document has been developed to establish good management practices when undertaking river works to establish irrigation infrastructure, undertake repairs and to divert water for abstracting irrigation water. The Guidelines have been developed to minimise the disturbance of sediment, avoid disturbing riverbed nesting birds, maintain fish passage and minimise impacts on downstream water users.

The high levels of sediment and turbidity are occurring due to the natural geology and erosion occurring in the upper catchment and along the river banks.

At the farm level:

- Vineyards - once established generally have permanent ground cover and are not cultivated. This avoids the risk of erosion caused by wind and rain, and reduces soil compaction issues.

- Vegetable and arable crops – must follow good management practice to protect soils during cultivation and harvest when the ground is disturbed to avoid sediment run-off.

- Pastoral farms - must follow good management practice to protect soils during cultivation and winter grazing to avoid sediment run-off.

8. Future Land use change:

Based on current trends, the majority of future land development within the Awatere and Blind River will be into new vineyard which is recognised as a benign land use. Grape growing uses precision (dripline) irrigation and low nutrient inputs, which is an efficient use of water and results in very low nutrient discharges.

Many vineyard developments are planned as “staged” developments, occurring progressively over a period of many years. These developments will be affected, given that stages of already planned developments will be caught by the proposed new regulations.

Precision irrigation controls nutrient application and limits leaching. The proposed 10ha limitation for the use of irrigation should be removed for low intensity horticulture (including grape growing).
This is consistent with the recommendations being made by NZ Winegrowers and Horticulture NZ, and avoids unnecessary compliance cost for low impact land use.

Further development of irrigation for growing vegetables, arable crops and pastoral irrigation should be permitted subject to managing nutrient inputs and following good management practices set by industry guidelines to ensure that nutrient discharges are within acceptable catchment limits. This approach is consistent with the recommendations being made by Horticulture NZ, Foundation for Arable Research (FAR) and Beef and Lamb.

To continue feeding the growing NZ population with healthy and nutritional food it is important that regions with suitable soils, climate and irrigation can continue to grow fruit, vegetables, crops and livestock for our domestic consumption and export.

It is imperative that existing land uses are not locked into the Status Quo as this leaves no options for managing risk due to climate change, a biosecurity incursion or an economic downturn.

Landowners need to be able to use innovation and technology to mitigate impacts in the future.

Within the Awatere catchment it is important that extensive pastoral farming in Marlborough’s Hill and High Country have practical stock exclusion rules around waterways and an economically viable future. These farming systems have low stocking rates and a soft environmental footprint which has a negligible impact on water quality.

The alternative to extensive pastoral farming would be large-scale exotic forestry plantings which in a low rainfall catchment would have a significant long-term environmental impact by reducing water run-off and reducing the Awatere river low flows (impacting downstream water users), exacerbate the spreading wilding pine issue and create a major fire risk for the region.

PART 2: Awatere Water Users Group submission points

Action for Healthy Waterways


9.1.1 Te Mana o te Wai:

The proposed NPS-FM introduces a hierarchy of obligations to be protected, particularly through the concept of Te Mana o te Wai. This requires councils to prioritise the integrity and health of waterbodies first, then the essential needs of people, and finally for other uses (including irrigation and other primary production uses).

Councils and communities will need strong, clear, considered guidance and time to understand and reach a shared regional understanding of what Te Mana o te Wai means, how the competing interests (including the undefined “tangata whenua values”) should be identified and assessed, and also how such values could then be achieved.
Given the rapid implementation the policy requires, we are concerned that this process may be rushed and the opportunity for full community engagement may be limited, which could result in unintended consequences.

We recommend that there is long-term value to be gained from allowing informed, considered community decision-making on Te Mana o te Wai and how the principle should be implemented, rather than a rushed implementation leading to unintended consequences.

9.2 Compulsory bottom lines for ecosystem health attributes:

We recommend that consideration be given to a waterway specific approach, similar to the approach set out for sediment using the River Environment Classification (REC) system, which classes a rivers ability to receive different levels of nutrients based on climate, topography and geology. This is a solution more in line with the RMA’s philosophy of effects-based regulation.

10. Proposed National Environment Standards for Freshwater

10.1 Irrigation (reference 34)

Irrigation is necessary to grow fruit and vegetables.

Precision irrigation controls nutrient application and limits leaching.

We recommend the 10 hectare limitation for the use of irrigation should be removed for low intensity horticulture (including grape growing).

10.2 Land use change to Horticulture (reference 36)

We need to feed New Zealand. Horticulture has a very small footprint in New Zealand.

There should be no limitation on changing landuse to horticulture provided this is done under an independently audited Farm Environment Plan. Crop rotation is required to produce healthy vegetables on a sustainable long-term basis.

We recommend there should be no limitation on the same amount of land swapped into vegetables and back again.

10.3 Farm Environment Plan (reference 37)

The aim should be for all growers to have Farm Environment Plans.

We recommend that nutrient discharges should be managed through individual Farm Environment Plans which are independently Audited, combined with Industry guidelines and good management practice to ensure that nutrient levels are held within acceptable limits.

We support NZ Winegrowers proposal to use the Sustainable Winegrowing NZ program to provide the reporting and auditing framework for grape growers.
We support Horticulture NZ proposal for Good Agricultural Practice (G.A.P) programs to provide the system for independent Farm Environment Plans for vegetable producers.

For other land uses including arable crops and pastoral farming we would recommend that an appropriate Farm Environment Plan and auditing system is developed with their respective Industry body.

Utilising the existing Industry programs avoids unnecessary duplication and additional compliance costs. With the volume of FEP’s that are required across New Zealand there will not be enough suitably trained and qualified people to prepare and audit the FEP’s outside the Industry programs.

11. Conclusion

The Awatere Valley and Blind River area has seen substantial irrigation development and land use change over the last 20 years, which has been achieved without impacting water quality.

As Landowners and water users we are committed to being good custodians for the future.

We support the positive objectives of the consultation documents but these are contradicted by a number of hard-line restrictions, which have been covered under the submission points.

We support policy that is developed with good science and economic analysis.

All of us can support and agree to make changes to achieve better water quality, but sensible guidelines and achievable targets are the way to move forward. We encourage a catchment-by-catchment approach to water quality improvement that farmers and the community can be part of.

We trust that the information provided in this submission and our recommendations will assist in refining the proposals.

Yours faithfully

Personal details removed

Chairman -Awatere Water Users Group

31.10.2019