NATIONAL POLICY STATEMENT FOR FRESHWATER MANAGEMENT 2014 – KEY IMPLICATIONS FOR THE CONSENTING OF MUNICIPAL WASTEWATER DISCHARGES

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INTRODUCTION

As per the National Policy Statement for Freshwater Management 2014 (NPS-FM):

"*Fresh water is essential to New Zealand's economic, environmental, cultural and social wellbeing…in order to achieve the purpose of the Resource Management Act 1991 (the Act), the Crown recognises there is a particular need for clear central government policy to set a national direction, through the management of the resource needs to reflect the catchment-level variation between freshwater bodies and different demands on the resources across regions".*

The NPS-FM and other similar recent legislative changes[1] represent a policy shift in fresh water management by "resetting the bar" of what is acceptable in fresh water management. Put simply, to avoid, mitigate or remediate adverse effects may no longer suffice.

This paper discusses the implications of this policy shift for the consenting of municipal wastewater discharges. It also reflects on the implications and interpretation of recent Environment Court decisions, in particular:

a) Ngati Kahungunu Iwi Inc. vs Hawkes Bay Regional Council;
b) Sustainable Matatā vs Bay of Plenty Regional Council; and
c) Puke Coal Ltd vs Waikato Regional Council[2]

National Policy Statement for Freshwater Management 2014

The NPS-FM sets out objectives and policies that direct local government to manage water in an integrated and sustainable way, while proving for the economic growth within set water quantity and quality limits. With specific regard to water quality, the objectives of the NPS-FM are to (in summary):

a) Safeguard the life supporting capacity of water in sustainably managing the use and development of land and of discharges[3]; and
b) Maintain or improve the overall quality of fresh water[4].

A key mechanism of the NPS-FM to achieve its objectives are Policies A1 and A2. They require every regional council to make or change a regional plan to give effect to the objectives of the NPS-FM by (amongst other things and in consultation with the community):

a) Establishing fresh water objectives in accordance with policies CA1 – CA4;
b) Setting fresh water quality limits for all fresh water management units in the region;
c) Establishing methods to avoid over-allocation;
d) Where fresh water management units do not meet fresh water objectives set in accordance with Policy A1, specifying targets and implementing methods to meet those targets within a specified timeframe.

Whilst a number of regional councils have started to implement the NPS-FM through regional plan changes[5], many are yet to establish an appropriate planning framework to give effect to these requirements.

Where a regional council hasn't undertaken a plan development or change process put the NPS-FM into practice then Policy A4 is followed. This policy requires a regional council to

1 Such as the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010
2 Whilst not discussed in detail (due to word limit restrictions), this paper has taken the decision into consideration

3 Objective A1, NPS-FM
4 Objective A2, NPS-FM
5 For example, Plan Change 10 to the Bay of Plenty Regional Water and Land Plan

have regard to the following when considering any application for a discharge:

a) The extent to which the discharge would avoid contamination that will have an adverse effect on:
    i. the life-supporting capacity of fresh water including any ecosystem associated with freshwater
    ii. the health of people and communities as affected by their secondary contact with fresh water
b) The extent to which it is feasible and dependable that any more than minor adverse effect would be avoided on:
    i. fresh water, and on any ecosystem associated with fresh water, resulting from the discharge
    ii. the health of people and communities as affected by their secondary contact with fresh water resulting from the discharge

The following section discusses key themes that have emerged through interpreting the NPS-FM in both plan development and resource consent processes as well as how the Environment Court formed its current views.

Ngati Kahungunu Iwi Inc. vs Hawkes Bay Regional Council

Proposed Plan Change 5 (PPC5) to the Hawke's Bay Regional Resource Management Plan (RRMP) was a response by the Hawkes Bay Regional Council (HBRC) to give effect to the NPS-FM. Two key concepts relevant to the management of fresh water emerged through this process, namely:

a) the "overs and unders" approach; and
b) "the load to come"

Ngāti Kahungunu Iwi ("Ngāti Kahungunu") appealed to the Environment Court against the decision of the HBRC on Objectives 21 and 22 of the RRMP as amended by PPC5. As notified, Objective 21 provided for **no degradation** in water quality in the Heretaunga and Ruataniwha Aquifers. Objective 22 provided for:

"*the maintenance or enhancement of groundwater quality in unconfined or semi-confined productive aquifers in order that it is suitable for human consumption and irrigation without treatment, or after treatment where this is necessary because of the natural water quality*."

In the decisions version of PPC 5, Objective 21 was deleted and Objective 22 was amended to set an objective for aquifers generally, to read:

"*the groundwater quality in the Heretaunga Plains and Ruataniwha Plains aquifer systems and in unconfined or semi-confined productive aquifers is suitable for human consumption and irrigation without treatment, or after treatment where this is necessary because of the natural water quality*."

Ngati Kahungunu sought the reinstatement of objectives 21 and 22 arguing that to delete Objective 21 would allow for the water quality to degrade and that the decision was inconsistent with section 6(e) of the Act.

HBRC's reason for deleting Objective 21 was that the wording "no degradation" was absolute, and would be impossible to achieve. In practice, implementing the "no degradation" objective requires regional plans to limit or prevent any activity which might result in contaminants entering groundwater. It also ignores the effects of historic and current land use activities that have and continue to release contaminants to groundwater ("load to come"). Taken to the extreme, this could mean a prohibition on all

farms, horticulture and even native bush, all of which leach nitrogen into the soil which inevitably reaches groundwater.

Consistent with Objective A2 of the NPS-FM, PPC5 required the maintenance of the overall quality of freshwater within the Hawke's Bay region. In terms of interpretation of what this means, HBRC contended that this mandated an "unders and overs" approach, meaning that the deterioration of water quality in one area or waterbody could be tolerated, so long as there is a matching improvement in water quality somewhere else.

However, the Court was unconvinced with this reasoning. It concluded that the "unders and overs" approach is inconsistent with the "unqualified function" imposed on regional councils in section 30(1)(c)(ii) of the Act, to control the use of land for the purpose of "the maintenance and enhancement of the quality of water in water bodies". It also found this approach inconsistent with the requirement in section 69 of the Act that regional councils "shall not set standards in a plan which result, or may result, in a reduction of the quality of the water in any waters...unless it is consistent with the purpose of this Act to do so."

With regards to the HBRC's position on the "load to come", the Court found that this argument amounted to the Council making excuses for "not trying at all" to improve water quality. The Court expressed the view that "having a sub-optimal present is not an excuse for failing to strive for an optimal (or, at least, closer to optimal) future." Furthermore, the Court considered that "it would be irresponsible to use that as an excuse not to try to apply better standards from this point on."

Sustainable Matatā vs Bay of Plenty Regional Council

This case related to an appeal to the Environment Court against a decision by the Bay of Plenty Regional Council (BOPRC) to grant discharge consents to the Whakatāne District Council for a new Wastewater Treatment Plant (WWTP) near Matatā.

The township of Matatā is currently serviced by on-site wastewater systems that are failing. The District Council sought to construct a low-pressure grinder pump sewerage reticulation scheme and new WWTP located to the east of the town.

The proposal was to discharge treated wastewater to a Land Application Field (LAF) on coastal dunes. Hydrogeological modelling, however, indicated that the treated wastewater would flow inland and, after one year, reach the surface water body known as the Old Rangitaiki Channel (ORC), which flows to the Tarawera River.

With respect to water quality, the critical issue for the purposes of the decision was the potential adverse effects from nitrogen and phosphorus in the treated wastewater discharge that would eventually reach the surface waters of the ORC.

With respect to nutrients and potential adverse effects on the ORC, the previous BOPRC Commissioners decision (made in June 2014), referenced the BOPRC Officers Report advice in that:

"*…the receiving environment is somewhat degraded and not particularly sensitive. Due to treatment and dilution, the proposed treated wastewater discharge will not exacerbate existing water quality issues or create other adverse environmental effects within the ORC, the Tarawera River, or the open coast/Te-Awa-a-te-Atua beach".*

The Commissioners Decision concluded that the potential adverse effects of the discharge of treated

wastewater at the LAF will be less than minor.

However, this decision was appealed to the Environment Court.

With the Regional Council's change process plan only in formative stages, the Court relied on what was available at the time to evaluate consistency with NPS-FM objectives.

A key aspect of the Court decision was to consider whether or not an increase in contaminants to the ORC constituted an adverse effect. Evidence presented to the Court was that an increase in the concentration of nutrients would have no significant adverse ecological effects. Nutrient concentrations were already elevated above guideline levels as a result of agricultural land use in the catchment and that additional nutrients would not make the situation worst.

The Court concluded that the ORC was over-allocated (in terms of the NPS-FM[6]) because the regional documents provide a clear direction towards reduction of contaminants and enhancement and stated that:

"*Once we consider the primary objective to safeguard the life supporting capacity and sheet this back home to part 2 and the Regional Council's functions, we conclude that maintenance at least must be assumed. Adding to a background level albeit degraded, will not achieve maintenance*".

In their decision, the Court reflected on the use of the word "overall" in objective A2 of the NPS-FM noting that the applicant interpretation constituted an "overs and unders" approach and commented that: *we need to be careful confirming that this is indeed the interpretation to be given to this objective.*

[6] Objective A2(c) of the NPS-FM

The Court concluded that the overall purpose phrase of the NPS-FM must be referable to Section 5 of the Act. They therefore rejected the overs and unders approach as it would be contrary to the Act because individual catchments could fail to meet Section 5 tests.

In conclusion, the Court decision required specific further proposals from the applicant in respect of attenuation of nutrients before being satisfied that the broad objectives of the NPS-FM and regional planning documents could be met. The Court suggested these could include:

a) Improving attenuation in the ground at the LAF;
b) Riparian planting and/or wetlands; and
c) Retirement of paddocks from stock.

DISCUSSION

As can be seen above, recent Court decisions relating to the interpretation of the NPS-FM and the management of fresh water resources has traversed a number of issues.

Overs and Unders Approach to Overall Water Quality

Prior to both the Ngāti Kahungunu and Sustainable Matatā cases, the Ministry for the Environment (MfE) released a (non-statutory) Implementation Guide for the NPS-FM. The draft version of this Guide stated:

"Objective A2 allows for some variability in water quality as long as the overall water quality is maintained in a region. …If a freshwater objective is set that allows for degradation from the current state, it must be offset by objectives to achieve a commensurate improvement within the region."

Whilst the NPS-FM implementation guide is non-statutory, it did appear to support the overs and unders approach to Objective A2. Regardless of this and

as evidenced in both the PPC5 and Sustainable Matatā cases discussed above, the overs and unders interpretation of Objective A2 has been rejected by the Court on the basis of being:

a) Inconsistent with Part 2 of the Act (Purpose and Principles);
b) Inconsistent with Section 30 of the Act (Regional Councils functions).
c) Inconsistent with Section 69 of the Act (Rules relating to water quality)

It is noted that the final version of the Guide has amended the commentary on Objective A2 to read as follows:

"Objective A2 allows for some variability in water quality as long as the overall water quality is maintained or improved. Due to recent case law any council considering setting a freshwater objective below current water quality levels should seek independent legal advice. The Ministry for the Environment intends to update this guidance as needed, and provide additional guidance on the requirement to maintain or improve overall quality of freshwater."

Load to Come

Whilst Ngati Kahungunu v Hawkes Bay Regional Council concerned a plan change process, the findings of the Environment Court do have some relevance to resource consent processes.

The Environment Court rejected the Regional Council's argument that groundwater contaminants related to the effects of historical land use activities would continue to adversely affect groundwater quality for years and that 'no degradation' of groundwater quality was not achievable in reality due to the 'load to come'.

With strong policy drivers in regional planning documents towards land based discharge of treated wastewater in preference to surface water, and that in many respects the 'load to come' is a component of any groundwater system, the complexities of demonstrating 'maintenance or enhancement' of groundwater quality on an individual resource consent becomes increasingly complex. This would be particularly so in a groundwater system where the quality may be currently degrading due to the effects of historic land-use activities.

Over-Allocation

In Sustainable Matatā v Bay of Plenty Regional Council, the Environment Court found that the term 'over-allocated' relies on a freshwater objective being set for a freshwater management unit (by the regional council giving effect to the NPS-FM). The court concluded that as the receiving surface water body (that treated wastewater discharged to land then entered water) was degraded by human activities, it was over-allocated because the regional planning documents provided a clear direction towards reduction of contaminants and enhancement.

By defining 'over-allocation' in terms of water quality, it is highly likely that many lowland waterways in both rural and urban New Zealand would fall into this category and consequently require a reduction of contaminants and enhancement of water quality.

This provides a significant challenge to both the process of obtaining new (replacement) consents for existing discharges and new consents for new discharges.

RECOMMENDATIONS

Taking the above into account, we consider that a business as usual approach to seeking resource consents for the municipal discharge of wastewater into fresh water environments will no longer be

successful and is no longer appropriate. With this in mind, and based on our experience, we provide the following recommendations for those seeking resource consents for the municipal discharge of wastewater into fresh water environments:

Greater Emphasis on the Positive Effects

Municipal wastewater infrastructure and subsequent discharges are necessary to support the functioning and growth of our towns and cities. While we strongly support the objective to improve water quality, the social and economic benefits of wastewater infrastructure must still be considered.

With this in mind, we believe that a greater emphasis on quantifying the positive effects of a municipal wastewater discharge should be provided with an associated Assessment of Environment Effects (AEE). This will provide a balance to the overall decision-making process under the Act.

Broadly speaking, the business as usual approach to consider positive effects as part of an AEE has been high level, often reliant on qualitative information and not supported by quantitative evidence. In their decision on the Sustainable Matatā case, the Court stated that (in relation to an argument put forward by the applicant that the WWTP constituted an improvement over the current septic tank system): *the evidence as to reduction in discharges to water from the septic tanks in Matatā was very general.*

We therefore believe that greater effort should be undertaken to assess positive effects from both a public health and environmental perspective. Where appropriate, quantitative methods should be used to assess positive effects. This may be less achievable for public health where, for example, the effects of an existing public wastewater reticulation system may only be able to be compared conceptually to the effects of a scenario where a public wastewater system does not exist. However greater efforts could be made to assess positive environmental effects, for example, in terms of nutrient effects.

Off-Setting Approaches

In Puke Coal, the Environment Court found that the matter of restoration, in being proportional to the impact of the proposal, is clearly a matter for the discretion of the council relevant to each case. However the Court anticipated opportunities wherever possible within catchments to improve any stream or waterways and the water quality in it.

In the context of both the Vision and Strategy for the Waikato River, and objective A2 of the NPS-FM, we expect a significantly greater emphasis than historically applied to the off-setting of residual adverse environmental effects that remain after the application of the suite of avoidance, remedying and mitigation methods.

The Puke Coal decision suggest this can be largely achieved by consent conditions that require riparian planting, or other methods to avoid contaminated runoff. The decision noted this will, in turn, improve the water quality, in particular the MCI index, lower nitrate levels, lower *E. coli*, and improve habitat for fish and other forms of stream taxa.

The Role of the Best Practicable option under the RMA

Despite these latest decisions, we consider the Best Practicable Option (BPO) considerations in relation to the discharge of contaminants remain a key mechanism to inform the decision-making process under the RMA with respect to treated wastewater discharges. Its application needs to be

considered in the context of the policy shift described above.

We have only commented on a brief number of possible approaches here to respond to the matters of 'maintenance' and 'enhancement' through the resource consent process. The RMA however considers *financial implications* and the current state of *technical knowledge* whilst determining the best method for preventing or minimising the adverse effects on the environment of a discharge.

These BPO approaches historically consider the financial implications and the state of technology, however potential conflicts may arise when, for example, a BPO approach may result in a discharge not achieving 'maintenance' of surface water quality in terms of the NPS-FM. In such cases, arguably, 'maintenance' of surface water quality could be taken as the 'bottom line requirement' of any BPO framework.

Such an approach would obviously have implications for areas where surface water resources are 'over-allocated' and require enhancement. Growth pressures resulting in increased wastewater contaminants and volumes obviously add to the complexity of decision making.

CONCLUSIONS

As noted above, the NPS-FM and other similar recent legislative changes represent a policy shift in fresh water management. To avoid, mitigate or remediate adverse effects may no longer suffice.

As such, we believe that those seeking to obtain resource consents for the municipal discharge of wastewater into fresh water environments need to (amongst other things), understand and respond to the shift in policy and ensure this influences their decision making from the outset of any such Project. They should also consider giving thought to the feasibility of obtaining resource consents for such activities and/or whether alternative approaches are more appropriate.

REFERENCES

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