

IN THE MATTER OF: The
Resource Management Act 1991

And

IN THE MATTER OF: The hearing of
Resource Consent Applications
APP-1993001253.02 and APP-
2017201372.00 by Tararua District
Council to discharge treated
wastewater from the wastewater
treatment plant into the
Mangatainoka River via a wetland.

DECISION OF THE HEARING COMMITTEE

DR BRENT COWIE (CHAIR), MR REGINALD PROFFIT AND MR PETER CALLANDER

5 MARCH 2018

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1 Introduction

This is the decision of a hearing committee comprising Commissioners Peter Callander, Reginald Proffit and Dr Brent Cowie (Chair) appointed jointly by the Manawatū Wanganui Regional Council (MWRC, the Regional Council) to hear and decide a suite of applications made by Tararua District Council (TDC, the applicant) to allow the ongoing disposal of wastewater (including sewage) from the township of Pahiatua.

The provision of sewerage networks and wastewater treatment are core functions of territorial authorities (such as TDC) under section 25 of the Health Act 1956, and sub part 2 in s10 of the Local Government Act 2002. We were aware that whatever decision we made, there will have to be ongoing discharges of wastewater from Pahiatua to the local environment.

We inspected the Waste Water Treatment Plant (WWTP) on Monday 22 May 2017. We were accompanied by Mr Robert Rose of the MWRC and Mr Eric Bonny, the TDC officer responsible for the day to day management of the plant. Neither of these council officers took any part in the hearing. We saw the components of the treatment plant, including the primary screen, the chemical dosing facility, the clarifier and the UV disinfection reactor, the three ponds, the existing discharge to Town Creek and the site of the proposed wetland between the ponds and the Mangatainoka River.

The hearing took place in Pahiatua from Tuesday 23 May to Thursday 25 May 2017. We adjourned at about 1430h on Thursday 25 May to await responses to our fourth minute in which we formally asked the applicant to provide information on four matters via their solicitors at Buddle Finlay:

- The basis on which the applicant considered that the tests of Policy 5.11 of the One Plan were met by the present applications, with the inclusion of wetland treatment.
- How the applicant proposed to engage with Rangitāne o Tāmaki nui a Rua Inc. and Kahungunu ki Tāmaki nui-a-rua with regard to how their cultural values may be met by the proposed inclusion of a wetland, from which treated wastewater is now proposed to be discharged to the Mangatainoka River. Once this had taken place, we asked what process the applicant proposed from that time.
- We asked that the applicant advise us of the status of the Manawatū River Leaders Accord and the Te Kauru draft river management plan.

On 29 May a memorandum was received from Mr Randal, counsel for the applicant, addressing how cultural issues could be incorporated into the process from that time on, Policy 5.11 of the One Plan and the status of the Manawatū River Leaders Accord and the Te Kauru draft river management plan.

A further memorandum was received from Mr Randal on 11 August 2017 which detailed consultation on the applicant's proposed wetland. This followed on from a letter from Mr Morry Black of Kahungunu ki Tāmaki nui-a-rua Trust dated 7 August which questioned whether the proposed wetland was within the scope of the original proposal and an e-mail response from

Mr Randal dated 10 August. It also followed from further design work on the proposed wetland by Mr Roger MacGibbon, a witness for the applicant.

Then was some confusion on the Chairman's part, who had incorrectly expected further information from the applicant. He apologises for this as it caused this decision to be delayed. The final right of reply was received from Mr Randal on 4 December 2017, and we closed the hearing on 9 February 2018.

2 The Proposal

2.1 Pahiatua Township

Pahiatua is a township with some 2,400 residents located on State Highway 2 towards the south western end of the Tararua District. The Mangatainoka River, which is a tributary of the Upper Manawatū River, flows south to north just to the west of the town. Immediately to the west of the river, on the opposite bank to Pahiatua, the Fonterra Pahiatua dairy factory discharges wastewater from processing operations to land, and stormwater to a small tributary of the river. There are no other major nearby discharges, but as we discuss later in this decision water quality in the Mangatainoka River near Pahiatua is significantly degraded, predominantly from intensive land use such as dairying in the upstream catchment.

The first sewer pipelines were installed in Pahiatua in the 1930s, and two treatment ponds were constructed at the site of the present WWTP in 1974. There are presently 1,316 property connections to the town's waste water system.¹ This largely comprises wastewater from domestic or light commercial activities, as there are few industrial activities in the town.

2.2 Existing and Proposed Upgrades to the Plant

The average daily inflow to the WWTP is about 780 cubic metres per day (m³/d), with average dry weather flows estimated to be around 408 m³/d and wet weather flows of at least 4,300 m³/d.²

The first recent upgrades to the WWTP occurred in 2002/03 when the two ponds were re-configured into the existing three ponds, and all three ponds were lined with 300mm of clay to limit leakage to groundwater.³ More recently, the first two ponds have been aerated (to improve oxygenation of the water and so reducing the loading of BOD₅ from the plant)⁴, and a package treatment plant has been added.

In its current configuration the WWTP comprises:

1. A primary screen to remove coarse material, which is collected and sent to landfill.

¹ This is Mr Crawford's figure; Mr King gave a figure of 1,123.

² Evidence of Mr John Crawford.

³ No information is available on how impermeable this clay lining is. At least some small leakage to groundwater is to be expected.

⁴ BOD₅ is Biochemical Oxygen Demand, which is measured over five days. It provides an assessment of the effects of a discharge on oxygen concentrations in the receiving environment.

2. Three ponds, each covering 1.3 – 1.4 ha and each 1.5m deep. There is a 10.5kw mechanical aerator in pond 1, and a 3kw aerator in pond 2. Pond 3 is a maturation pond. The wastewater is then pumped up from pond 3 to the treatment plant.
3. A package treatment plant, which was installed in 2014 to 2015. It consists of four components: a coagulant settling tank (which removes suspended solids and any nutrients and BOD associated with these solids), a lamella clarifier, a micro filter and a UV treatment reactor (which particularly reduces concentrations of faecal bacteria in the treated wastewater). This treated wastewater is then discharged to Town Creek, a small spring fed stream that drains along the east and north sides of the treatment ponds before discharging to the Mangatainoka River.

We were told that the total cost of these recent upgrades to date were some \$965,000, of which 49% had been contributed by the Government.

At the hearing the applicant proposed two further changes to this present configuration:

1. The treated wastewater would no longer be discharged to Town Creek, but rather to a constructed wetland of about 1.5ha proposed to be developed on land to the immediate west of the third treatment pond. In this decision we have called this the applicant's modified proposal.
2. The wastewater from the wetland will then be discharged via a constructed channel directly to the Mangatainoka River.

2.3 The Resource Consents Sought

The current discharge from the Pahiatua WWTP is "authorised" by resource consent 4369, which expired on 30 June 2005. However as a new application to replace the existing resource consent was lodged on 3 December 2004, the discharge to Town Creek has been able to continue legally under the provisions of s124 of the Resource Management Act 1991 (the RMA). We consider such an extended period of authorising an activity through s124 is very unsatisfactory. That application was put "on hold" in 2006.

The current application was lodged by the TDC on 22 December 2014. It sought permits to:

- i. discharge treated wastewater to Town Creek and from there to the Mangatainoka River; and
- ii. discharge to air (primarily of odour).

On 11 December 2015, in response to a request from the MWRC for further information made under the provisions of s92 of the RMA, an additional application was lodged to discharge treated wastewater to land, which was to deal with any potential seepage from the existing treatment ponds. All three applications sought a term of 15 years.

These three applications, which are all for discretionary activities, were publicly notified in April 2016, and 11 submissions were received. The details of the notification, and a summary of the submissions, are in Ms Morton's Officer's report.

A further application was received on 12 April 2017 in response to a s92 RMA request for further information from the Regional Council. This sought a land use consent to construct a wetland, and a discharge permit for any seepage to groundwater from the unlined portion of the wetland. A term of five years was sought to construct the wetland, and 15 years for the discharge permit.

These latter applications were not notified. The reasons for this – notably that the land use consent is for a controlled activity – were outlined in the Officer’s report and are further discussed in Section 3 below. As decisions on these applications have been delegated to us, their effects could be considered as part of the present suite of applications, and submitters could (and indeed did) comment on these.

We note two further matters:

1. There was criticism from submitters, such as Dr Teo-Sherrell, that the applications lodged in December 2014 were deficient. While we accept that he may have a strong point, we also understand the Regional Council’s position that receiving any amended application, particularly one to a much better treated wastewater from Pahiatua, was a major step forward in what has been a very protracted process. Importantly, the information put before us by the applicant, the reporting officers and the submitters is now sufficiently detailed that we can fully address all the relevant criteria in the RMA in our decision making.
2. We were told another consent will be necessary for the proposed discharge channel from the wetland to the river under Rule 14-30 of the One Plan. While this was not delegated to us, it is a largely mechanistic matter that has no direct relevance to our decision making. The effects of the discharge to the river have been assessed quite thoroughly, and we discuss these in Section 4.3 of our decision.

3 Preliminary Legal Issues

There are two preliminary legal matters that we need to traverse briefly here.

The first of these is whether it is within our scope as decision makers to consider changes in the scope of the proposal in front of us. In this case the applicant proposed adding wetland treatment as a final stage of wastewater treatment after the application was lodged and submissions received. Additional resource consents were then lodged for the construction of a wetland and seepage from that wetland. Mr Black in particular questioned whether the addition of the proposed wetland, and the additional resource consents sought to authorise its construction, were within the scope of the original application.⁵

In his opening submissions Mr Randal took us through the case law on this, which is taken from the Court of Appeal. The key considerations are that any additional consents sought, or

⁵ Letter from Morry Black to David Randal dated 7 August 2017 and another letter to the regional council dated 8 September 2017

changes to a proposal, cannot change the scale or intensity of the activity, or alter its character or effects.⁶

We agree with Mr Randal that the suite of applications before us that comprise the modified proposal readily meet both these tests. The scale and intensity of the activity remains very similar, that being the discharge of treated wastewater from Pahiatua, the character of the discharge is essentially the same, and the proposed wetland is primarily to provide some additional mitigation of the cultural effects of the discharge before it enters the same receiving environment as originally proposed.

The second matter is whether the application to construct the wetland should have been at least limited notified, as sought by Mr Black in particular. The decision not to notify this application (as well as the application to discharge seepage water from the ponds) was made by the panel acting under delegated authority. The main reasons we decided not to notify the application to construct the wetland were because it was for a controlled activity where consent must be granted in any case, and because the prescriptive conditions on which we have granted the consent will ensure the effects of constructing the wetland will be no more than minor.

4 The Hearing

4.1 The Case for the Applicant

We heard from legal counsel and five witnesses for the applicant.

Mr David Randal Counsel for the Applicant

Mr David Randal of Buddle Finlay was counsel for the applicant at the hearing. He was assisted by Ms Esther Bennett.

In his opening submissions Mr Randal covered a number of matters, including:

- An outline of the process leading to this hearing, including the applicant's investigations of alternative means of discharging wastewater from Pahiatua, including land based treatment.
- The scope of the application, including a review of why it is possible to modify an application during the processing and hearing of resource consents (which is a matter we have addressed in Section 3 of this decision).
- The effects of the proposed discharge, including those on surface and groundwater quality, cultural values and air quality, and positive effects.
- Traversing s104 decision making criteria, including the case law on the application of Part 2 of the Act in decision making.

Mr Blair King

Mr King is the Chief Executive Officer of the TDC. Among the main matters he covered were:

⁶ Shell NZ Limited v Porirua CC CA57/05 May 2005

- The TDC has a declining population and a small rating base. The cost of its seven community sewerage schemes are spread equally across ratepayers in all those communities. Pahiatua is the second largest of the seven communities served by the schemes, which in total have 4,857 connections.
- The history of the treatment system, with a focus on the upgrades carried out and the costs of the proposed additional wetland treatment.
- The council's consultation with iwi.
- Why a term of 15 years is sought for the primary resource consents.

Mr John Crawford

Mr Crawford is a self-employed wastewater engineer, who had until recently been employed by Opus as the technical adviser to the wastewater project. His evidence covered the following matters:

- The development of wastewater infrastructure and treatment in Pahiatua, including the recent installation of the package treatment plant in 2014/15. In his view the operation of the package plant was not yet "optimised" (although we observe that on our site visit Mr Watson said it was now working "very well").
- The components of the WWTP, including how they individually and collectively combine to treat the wastewater.
- Proposed effluent quality standards.

Mr Roger MacGibbon

Mr MacGibbon works for Opus and is a specialist in the design of wetlands for the treatment of human wastewater. At the hearing he spoke primarily about the function and design of wetlands to treat wastewater. Much of the detail he presented has been superseded by subsequent work, most notably additional design work dated 19 July 2017, which we discuss elsewhere in this decision.

Dr Olivier Ausseil

Dr Ausseil is a self-employed freshwater ecologist. In addition to his pre-circulated brief of evidence, Dr Ausseil presented some very helpful supplementary evidence, and he also took us through a visual presentation of a summary of his findings.

We do not need to summarise Dr Ausseil's evidence here as we discuss it in some detail in Section 4.3 of this decision

Ms Tabitha Manderson

Ms Manderson is a resource management planner employed by Opus and provided a detailed coverage of planning matters and proposed consent conditions.

4.2 The Submitters

Seven submitters appeared at the hearing, and written evidence was also tabled on behalf of Mr Manahi Paewai, Mr Morry Black, Mr Peter Wood and Mr Adam Canning (who provided written evidence on behalf of Fish and Game).

Mr Philip Percy

Mr Percy, who is a planner, gave evidence on behalf of Rangitāne o Tāmaki nuiā-Rua (Rangitāne). He said that while Rangitāne did not submit that the application should be declined, we as Commissioners should decline it if significant adverse effects cannot be avoided, remedied or mitigated. He asserted there was presently insufficient information about the receiving environment, and uncertainty about the nature of the proposal and its effects, and accordingly we should ask the applicant to provide further information about these matters. He also said that other options, including discharging wastewater entirely to land, as outlined in the Wai Waste report, had not been adequately assessed by the applicant. In answer to questions he agreed it would be better to grant a short term consent than to decline the application.

Mr Percy made several comments about the proposed wetland including:

- Another consent was required to discharge water from the proposed wetland to the river under Rule 14-30 of the One Plan.
- The effects of the discharge have not been adequately assessed.
- The application for earthworks to construct the wetland should have been limited notified, particularly as he asserted (incorrectly) that landowner approval had not been given.
- The long term effectiveness of the proposed wetland had not been assessed, it could be subject to flooding and so detail was needed how it would be restored following any flood, and its interaction with groundwater had not been assessed sufficiently.

Finally, Mr Percy discussed the relevant provisions of the One Plan, and whether the modified proposal met the objectives and policies of that plan. We discuss this in Section 5.5 below.

Mr Kelvin Lane

Mr Lane appeared on behalf of the Manawatū Estuary Trust. He outlined the values of the estuary, which he said could be affected by toxins in the discharge. Land is available for the wastewater discharge, and the discharge should not be to water via a wetland, which Mr Lane said would be as much a storage pond as a wetland due to its clay lining. He also said that plants in the wetland would not grow during winter, and the Palmerston North City Council wetland constructed there as the final stage of wastewater treatment results in a deterioration in water quality versus the treated discharge.

Mr Robert Ketu

Mr Ketu (Te Roopu Taiao o Ngāti Whakātere) attested to the degradation of the health of the river and the effect and risk this has on those iwi, hapū, whānau and tangata downstream of

the discharge. He said that Ngāti Whakare is kaitiaki in their respective rohe in regard to sites of significance, mana o te wai, mauri o te wai, mana o te tangata. He explained the health spectrum of water in regards to mauri, between waiora, to waimāori, to waikino, to waimate. He stated within this spectrum *“wastewater is considered waimate, it has no life in it, no mauri”*.

Mr Ketu discussed issues being faced by Ngāti Whakare at the Manawatū estuary, Papawhaio, where birdlife, shellfish and other kai have been affected saying *“our people cannot collect that kai from the river or the estuary any more – detrimental to us as an Iwi, detrimental to us and our mokopuna now”*.

Mr Ketu stated that what *“TDC is putting on the table is not good enough, we want them to do more”*. To this extent TDC had not sat down with Ngāti Whakare about what needs to be done and Mr Ketu stated *“Ngāti Whakare want to be part of the solution”*.

To this end Mr Ketu said *“everything is connected to everything – it is not just TDC – we are trying to clean up our end and we look at Palmerston North City Council, other local authorities, and Fonterra – all who pollute the awa, and we get it all. We are saying waimate is dead water, when can we fish with our mokopuna in the awa again?”*

Mr Ketu detailed the uses and values Ngāti Whakare have with water such as, collecting mahinga kai, baptisms, cleansing of the loved ones who passed away, including washing and bathing. He described some cultural practices such as karakia performed before fishing in terms of what the water is doing during this time and the placing of a rahui, to protect a resource, or to protect people.

Mr Ketu discussed the state of waikino being water when associated with rapids, as it is known because of its mauri and its potential danger to people. In response to questions he confirmed that water in the state of waimate through cultural processes like karakia and through natural processes such as passing through land, can be transitioned to the state of waimāori.

Effects on the mauri of water from the discharge were of concern. Irrespective of means of treatment and whether discharge is to land or to water, Mr Ketu confirmed the mauri of the environment where the discharge is occurring will be affected. His preference was for land based treatment.

Mr Ketu acknowledged the proposed discharge will not directly affect Ngāti Whakare, being some distance downstream at Longburn, but as the water flows downstream, there are cumulative effects of all the discharges into the river as it passes into their rohe, lands and sites.

Mr Ketu said Ngāti Whakare’s position is always and will always be for 100% discharge to land and they want to be part of the decision making table with Ministers, Mayors and CEO’s. He presented the desired outcomes of Ngāti Whakare as:

- clarity on issues of significance to Ngāti Whakare;
- to develop opportunities for Ngāti Whakare to actively be involved with the TDC;

- environmental outcomes in agreed framework where Ngāti Whakarete values and principles are embedded and TDC is present;
- mutual commitment to bi-cultural framework be developed for environmental outcomes in the rohe of Ngāti Whakarete;
- that cultural perspectives be part of environmental outcomes; and
- a Partnership agreement between TDC and Ngāti Whakarete.

In relation to the presence of the iwi and hapū of Rangitāne and Kahungungu who identified the discharge site as being within their respective rohe, and themselves having a connection to the land and water upstream of Ngāti Whakarete, we asked if Ngāti Whakarete could rely on the engagement with Rangitāne and Kahungungu to ultimately address the concerns of Ngāti Whakarete.

In response Mr Ketu stated *“In our experience other Iwi have done CIA’s and we have not been consulted. We do not think we can trust them to reflect our perspective. Raukawa – we are the only ones that can speak for ourselves. I can speak on behalf of Raukawa.”*

Mr Corny and Mrs Charlotte (Nanny) Andrews

Mr and Mrs Andrews live in Shannon and have been married for 48 years with five children and 14 grandchildren. She affiliates to Raukawa and said she was at the hearing for the children that have no voice. *“They have no involvement, they do not see what we do.”* Addressing the TDC she said was shocked at all the tūtae coming down the river saying *“it affects us all, we cannot swim in the river and we question swimming in the sea, our watercress is in crisis, and our kai have great lumps in them and we no longer buy mussels.”*

Mr Andrews said lawyers are at the hearing to “legalise pollution”. He asked who would want to come to Foxton when the river is polluted. He said the applicant needed to look at new technology, and he cited the Thames in London as an example of how rivers can be cleaned up. He wanted the District Councils of the region to work together to come up with a solution, rather than going through the same process time and again.

Dr Chris Teo-Sherrell

Dr Teo-Sherrell gave submissions on behalf of the Water Protection Society, which in answer to a question he said had some 50 members. Among the matters he raised were:

- The adequacy of the application (which we discussed in Section 2.3 of this decision)
- Whether or not the applicant’s modified proposal can comply with the criteria in s107(1) of the RMA (which we discuss in Section 6 of this decision), or with Policy 5.4 of the One Plan (see Section 4.4.5).
- We should be considering each of DRP and SIN, not just focus on DRP as proposed by Dr Ausseil.
- There has been no proper consideration of alternatives, notably land based treatment, by the applicant, who he asserted has been too focussed on retaining the existing reticulation and treatment infrastructure (which is a matter we discuss in Section 5 of this decision).

- There has been insufficient assessment of the effects of the modified proposal on groundwater resources, saying that it was a case of “don’t look, won’t see”. He also considered that the proposed wetland should be fully lined.
- He opposed the 15 year term sought by the applicant, stating that after a discussion with us, he now favoured a five year term.

Mr Phillip Teal

Mr Teal is the regional manager of Wellington Fish and Game. He pointed out that the Mangatainoka River is identified in the One Plan as being of regional significance as a trout fishery and as providing trout spawning habitat. Mr Teal outlined a number of “principles” he considered we should apply in decision making; these included addressing cumulative effects, reducing nutrient inputs to achieve the target MCI of 120, promoting discharges to land rather than water, and a proactive approach to improving “water discharge quality” in the Manawatū catchment. Aspects of the relief he sought included reducing nutrient concentrations in the discharge, particularly DRP in summer, and the imposition of substantive monitoring requirements in the conditions of any consent we may grant.

Mr Teal’s evidence was supported by written evidence from Mr Adam Canning, who is a freshwater scientist. We discuss the matters he raised when we address the effects of the modified proposal on the water quality and biota of the Mangatainoka River.

Mr John Bent

Mr Bent spoke to a written submission he presented on the day. He helpfully pointed out some precedent decisions in the catchment (which we have already discussed in Section 3 of this decision). He considered that the applicant’s modified proposal, including the wetland, did not meet any of the alternative criteria in Policy 5.11 of the One Plan, and if the consent were granted it should be for a term of six years only.

Mr Manahi Paewai

Mr Paewai did not speak at the hearing but provided written evidence on behalf of Rangitāne o Tāmaki nui-ā-Ru, who had submitted against the application but in that submission did not oppose consent being granted for a term of up to 10 years. His evidence covered the hapū affected by the proposed discharge, the values and tikanga associated with the Mangatainoka River and their inter-relationship.

Mr Paewai addressed the effects the applicant’s proposed discharge will have on the values, tikanga and relationships held with the Mangatainoka River. One of the continued tikanga practises of waterways is the “*use of the awa to initiate, dedicate, and baptise people and other taonga. This concept under the umbrella of waiora is known as tohi or iriiri*”⁷. To discharge sewage to the river would be detrimental to these important ceremonies.

Mr Paewai said the proposed discharge would also be detrimental to the mana and ability to fulfil the kaitiaki responsibilities of Rangitāne, who are particularly sensitive about the state of

⁷ para 74

their awa given the current health of the Manawatū River, stating “*in a cultural sense we cannot risk another one of our traditional awa becoming “polluted” as the Manawatū has become*”⁸.

His evidence further stated “*Our people, rely on our awa as cultural identifiers and thus for cultural survival, and we want our awa to be treated as a taonga and a living thing*”⁹.

In regards to the effect on mauri, treated sewage being discharged would unsettle the mauri of the awa such that it would affect the traditional kai still being collected from the Mangatainoka such as tuna (eel). Traditional kai sourced within the awa will be subjected to sewage which “*will severely decrease the state of fish and fauna in and around the Mangatainoka River.*”¹⁰ Where this resource is placed under pressure, the cultural practises are affected especially given the reliance on this resource as a source of food. In his evidence this is seen as a fundamental reason for the close association/care being shown for this resource.

Mr Paewai said that the vision of Rangitāne was ‘*ki te ora te wai, ka ora te whenua, ka ora te tangata, (if the water is healthy, the land and the people will be nourished)*’¹¹ with human waste running through Papatūānuku will not be realised.

The evidence provided refers that once the mauri of Papatūānuku and in turn the Mangatainoka River is directly and severely impacted by the proposed discharges “*then according to our tikanga and values a serious imbalance will occur, impacting on waiora, mahinga kai, our kaitiaki responsibilities and our relationship with the Mangatainoka River itself as a living, breathing taonga*”¹². This would therefore impact on their mana as kaitiaki as hapū downstream will be affected due to the activities within the rohe of Rangitāne thus reflecting badly on them.

He confirmed that the position of Rangitāne is for no discharge into waterways of treated sewage effluent and that a discharge to land is the preferred option. The evidence provided affirms that whilst “*awa are part and parcel of Papatūānuku and thus connected, in the circumstances, it would be less culturally offensive if the discharge was exclusively into land and not into the Mangatainoka River*”¹³.

In addressing the potential discharge via a wetland as a means of providing land based treatment, the evidence comes back to the premise of the interconnectedness of Papatūānuku, where “*these wetlands are traditional sites where our tūpuna would practice mahinga kai and food gathering. The wetlands play a vital role and they do this well so in terms of what the wetlands are designed to do, I believe that this act is beyond that and would continue to impact the mauri of the river*”¹⁴.

⁸ para 76

⁹ para 77

¹⁰ para 79

¹¹ para 82

¹² para 84

¹³ para 88

¹⁴ para 93

Mr Morry Black

Mr Black represented Kahungunu ki Tāmaki nui-a-rua Trust (the ‘Trust’). He did not speak at the hearing but tabled a memorandum for our consideration alongside the submission lodged. The submission from the Trust opposed the application on a number of grounds including: concerns with the robustness of the Assessment of Environmental Effects, lack of coverage and resolution of effects on the cultural and spiritual relationships of the hapū of Kahungunu ki Tāmaki nui-a-rua with the Mangatainoka River and its catchment, and the lack of discussion and assessment of cultural values and cultural health monitoring.

Matters sought as part of the submission included commissioning the Trust to carry out cultural health monitoring and assessment of the discharge at two yearly intervals, undertake dispersion modelling and groundwater monitoring and the provision of all scientific monitoring data being made available to the Trust.

The memorandum tabled by Mr Black on behalf of the Trust outlined substantial concerns with the application such as it being broad in nature, poorly defined and generating significant adverse effects with limited influent and effluent data provided, and potential flooding at the proposed wetland site. It said that the position of the Trust was now that consent should not be granted (which we note was different from their original submission, which was to grant the application with specific conditions).

Mr Mike Smith (Water and Environment Care Association)

Mr Smith presented a submission, which although headed as being for the associated hearing for the Eketahuna wastewater discharge, said also should be applied to the Pahiatua applications. His focus was on the term of the Eketahuna application. We discuss the term granted the present applications in Section 8 of this decision

Mr Adam Canning (Fish and Game)

Mr Canning is a post graduate student at Massey University where he is studying freshwater ecology. He did not appear at the hearing, but did provide written evidence and responded to some questions. We appraise what he said in our discussion of the effects of the applicant’s modified proposal on instream values.

Other Submitters

Two submitters did not appear at the hearing. They were Mr Peter Wood, an officer of the local District Health Board, and Mrs Christina Paton, a resident of Foxton Beach. We have taken account of what they said in their submissions in our evaluation of the applications.

4.3 The Officer Reports

We were provided with four officer reports from officers of or consultants to the Regional Council prepared under the provisions of s42A of the RMA. These were taken as read. Supplementary reports were also prepared by each of Mr Patterson and Ms Morton.

Mr Michael Patterson

Mr Patterson is a freshwater scientist with the Regional Council. We discuss his evidence in Section 5.3.1 of this decision.

Ms Fiona Morton

Ms Morton is a consultant planner to the Regional Council. She prepared a comprehensive officer's report with her initial recommended conditions of consent, and provided us with a supplementary report at the hearing. In her initial report she recommended the consents sought by the TDC be granted on a suite of conditions but for a term of no longer than 10 years, although in her supplementary report she changed this to the "common catchment expiry date" of 30 June 2030.

Mr Tim Baker

Mr Baker, who is a groundwater scientist, provided written evidence describing the groundwater setting in and around the wastewater treatment plant and the groundwater effects that might arise as a result of seepage from the ponds and the proposed wetland. He also provided some proposed groundwater monitoring conditions. We discuss his evidence in Section 4.3.2 of this decision.

Ms Deborah Ryan

Ms Ryan is an air quality specialist. She provided written evidence describing the potential odour effects associated with the wastewater treatment plant and recommended consent conditions to avoid adverse odour effects. We discuss her evidence in Section 5.3.3 of this decision.

4.4 Information Received Post Hearing

As described in the introductory section we received a number of memoranda post hearing.

5 Statutory Assessment

5.1 Assessment Criteria

Decisions on resource consent applications for discretionary activities are made under the criteria listed in Section 104(1) of the RMA. Subject to Part 2 of the Act, we must have regard to the following matters:

- a) any actual and potential effects on the environment of allowing the activity; and
- b) any relevant provisions of
 - i. a national environmental standard;
 - ii. other regulations;
 - iii. a national policy statement;
 - iv. a New Zealand coastal policy statement;

- v. a regional policy statement or proposed regional policy statement;
 - vi. a plan or proposed plan; and
- c) any other matter the consent authority considers relevant and reasonably necessary to determine the application.

In relation to these matters and the present applications:

- We discuss Part 2 RMA matters in Section 5.2 below.
- We see the actual and potential effects of the activities for which consent is sought as being those including: surface water quality, groundwater quality, aquatic biota, cultural values, local air quality and positive effects. We discuss these in Section 5.3..
- There are no relevant national environmental standards or regulations.
- The relevant national policy statement is the National Policy Statement for Freshwater Management 2014, which we discuss in Section 5.4.
- The operative Regional Policy Statement and the relevant regional plan is the MWRC “One Plan” which we discuss in Section 5.5.

The wording of Section 104(1)(c) can invite debate as it is very open ended. We have decided that the other relevant matters in this instance are the Manawatū Leaders Accord, and the Cultural Values Assessment prepared by Rangitāne. Ms Morton said to her knowledge there were no relevant Iwi Management Plans, and neither Rangitāne nor Kahungungu gave us any information about any such plans.

For those activities classified as discretionary, section 104B of the Act is also relevant for our decision. Under s104B, we can either grant or refuse one or more of the consents sought. If granted, we may impose conditions under s108 of the Act. In this case we have granted all the consents sought with conditions that we consider avoid or mitigate the effects of the proposal.

The land use consent to construct the wetland is a controlled activity and so must be granted. Conditions can be imposed under s108.

5.2 Part 2 of the Act

Decisions on resource consent applications are made “subject to Part 2 of the Act”. However recent Court decisions are to the effect that consideration of a resource consent application under s104 of the RMA does not permit general recourse to Part 2 unless the relevant considerations in the planning provisions are invalid, incomplete or uncertain.¹⁵ As explained to us by both Ms Manderson and Ms Morton this is not the case with the Operative One Plan, so we have only made a very brief Part 2 evaluation here.

5.2.1 Section 5 – The Purpose of the Act

Section 5 of the RMA states its purpose and defines the sustainable management of natural and physical resources. In relation to s5 we note that granting the applications will help the applicant and the community of Pahiatua meet their social and economic needs, while the

¹⁵ RJ Davidson Family Trust v Marlborough DC NZ High Court 52

conditions on which consent is granted will avoid or mitigate most of the adverse effects of discharging treated wastewater to the Mangatainoka River.

5.2.2 Section 6 – Matters of National Importance

Section 6 of the Act lists eight matters of national importance that decision makers have to recognise and provide for. Only Section 6(e), which states that the relationship of Māori and their culture and conditions with their ancestral lands, waters, sites, wāhi tapu and other taonga has to be recognised and provided for is relevant in this instance.

The relationship of the respective iwi were well covered in the submissions and evidence presented on behalf of the iwi submitters, these being Te Roopu Taiao o Ngāti Whakatere, Kahungunu Tāmaki nui-a-rua Trust and Rangitāne o Tāmaki nuiā-Rua. These were acknowledged and well received by the applicant at the hearing, in coming to a greater understanding of the issues and the means for these to be recognised through mitigation measures as proposed consent conditions and to this extent engaged in a more comprehensive account of matters of concern to iwi submitters.

5.2.3 Section 7 – Other Matters

Section 7 of the Act lists other matters that we must have particular regard to in this decision. Two of these have particular relevance here.

Kaitiakitanga and the active representation of the role of the respective iwi as kaitiaki was well canvassed by iwi submitters. As stated above the applicant responded positively to the issues raised in submissions and at the hearing. There was ongoing engagement with Rangitāne and Kahungunu as these iwi presented themselves as being kaitiaki in the area of the proposed discharge. The applicant actively worked to address issues over the period of the hearing and sought to develop proposed consent conditions to give certainty to iwi submitters.

The Mangatainoka River is a recognised trout fishery in the region. However, as we discuss later in this decision the evidence is that at worst the discharge will lead to a slight increase in the biomass of periphyton downstream of the discharge during summer low flow periods. While we accept that this could have some effect on the habitat of trout in the river, the evidence strongly suggests that this effect will be little more than minor, and not detrimental to the wider fishery values of the catchment.

5.2.4 Section 8 – The Principles of the Treaty of Waitangi

One of the four principles of the Treaty is the obligation to consult with tangata whenua. Rangitāne had prepared a Cultural Values Assessment for the applicant as part of the application, and in this way did engage with the applicant prior to the hearing. However each of Ngāti Kahungunu and Ngāti Whakatere criticised the lack of consultation that the applicant had with them prior to the hearing, and sought further engagement with the applicant.

Both during and after the hearing the applicant displayed a willingness to work with mana whenua after the hearing. Priority for engagement was given to Rangitāne and Kahungunu as iwi who hold mana whenua around the point of the discharge.

5.3 Actual and Potential Effects

We see the actual and potential effects of the applicant's modified proposal as being on surface water quality and associated aquatic biota, on groundwater quality, on air quality, on the cultural values of tangata whenua, on soil from disturbance and positive effects. We discuss these in turn.

5.3.1 Effects on Surface Water Quality and Aquatic Biota

Discharges of wastewater to rivers or streams can have adverse effects on the receiving environment downstream of the point of discharge. These potential effects include:

- i. elevated BOD₅ resulting in potential oxygen depletion (and in some instances the growth of sewage fungus) in rivers and streams;
- ii. increased ammonia concentrations, that can be toxic to fish where temperatures and pH are each elevated;
- iii. increased concentrations of the plant nutrients nitrogen (N) and phosphorous (P) leading to increased periphyton proliferations, which can in turn affect macroinvertebrate community health and potentially deplete instream dissolved oxygen during the hours immediately before sunrise due to algal respiration at night; and
- iv. faecal contaminants (as measured by the indicator species E Coli), which can result in sicknesses (such as gastroenteritis) in people who swim in rivers and streams.¹⁶

Background Water Quality

In the Mangatainoka River there are State of Environment (SOE) monitoring sites at each of Putara, a control site just downstream of the Tararua Forest Park, the Pahiatua Town Bridge, which is about 1.6km upstream of the Town Creek confluence, and at the SH2 bridge, which is about 2.8km downstream of that confluence. The results of SOE monitoring at these sites for the years 2010 to 2016 were presented by Mr Patterson. They apply only to flows that are less than the 20th percentile flow exceedance (or in other words flows in the river 80% of the time). The adverse effects on water quality and biota from degraded water quality are most notable in summer and early autumn, which is the time when sustained low flows are most likely in the river.

1. Upstream of the Pahiatua WWTP discharge the Mangatainoka River is significantly contaminated. In particular, at the Town Bridge monitoring site, N concentrations (measured as Soluble Inorganic Nitrogen or SIN) are at least twice the One Plan target of 0.444 g/m³, and the Macroinvertebrate Community Index (MCI) hovers around 100 (versus a One Plan target of 120). N concentrations are however well below chronic toxicity thresholds for fish. These effects can be very largely attributed to land use upstream, as the Putara site has always met One Plan SIN and MCI targets.

¹⁶ In this context we heard some speculation that people swam in the river downstream of the discharge. While there may be some truth in this, one of us is very familiar with the local environs and he has seen people swimming at Town Bridge dozens of times, but has never seen people swimming between this point and the junction of the Mangatainoka and Manawatū rivers.

2. However at the Town Bridge concentrations of P (measured as Dissolved Reactive Phosphorous or DRP) consistently met the One Plan target of 0.01 g/m³, and ammonia concentrations were also low and readily met One Plan standards for fisheries protection.
3. Similar trends were evident at the SH2 site, which is downstream of the discharge of wastewater from Pahiatua. SIN concentrations were generally about twice the One Plan target, DRP generally met the target, MCI hovered around 100, and ammonia concentrations were low and well within One Plan standards.
4. Mr Patterson's evidence was that downstream of the discharge point the river exceeds One Plan standards for chlorophyll a (which is a measure of periphyton biomass), filamentous algae cover, SIN, DRP and *E. coli* (which is a measure of bacteria originating from faecal sources). However all these targets, bar chlorophyll a, are all exceeded upstream at Town Bridge.
5. Additional information presented by Dr Ausseil in his supplementary evidence also showed the effects of the treated wastewater (including the treatment by the package plant) on water quality in Town Creek (noting that in the future the discharge will not go there). In summary the discharge caused about a 10 fold increase in DRP concentrations and increased ammonical-nitrogen concentrations by a factor of about 4 (although this remained well below One Plan standards). SIN much exceeded One Plan standards both upstream and downstream of the discharge point (averaging about 2 g/m³ upstream of the discharge and 2.35 g/m³ downstream of the discharge. He concluded that the discharge contributed about 90% of the DRP and 14% of the SIN to Town Creek.

Matters Raised in Submissions

At least one witness, (Mr Percy, who appeared for Rangitāne), questioned whether we had sufficient information on the effects of the discharge to make a full assessment of effects. In his supplementary evidence Dr Ausseil outlined why he considered we did have sufficient information to make a fully reasoned decision; we agree with him.

Some submitters, including Dr Teo-Sherrell and Mr Canning submitted strongly that we should be very strict in assessing the effects of the modified proposal on water quality and biota, for reasons including that water quality is degraded upstream and the One Plan MCI target of 120 is not met there. This degradation however has very little to do with the applicant, with the only significant discharge upstream of Pahiatua from TDC being of (presently) only part treated wastewater from Eketahuna. Rather we agree with Mr Patterson that it is almost entirely as a result of diffuse source discharges from intensive land use. This is something that the TDC has no control over, and should not be penalised for, case law under the RMA is very clear that a proposed activity is assessed in the context of its effects on the existing environment, not a hypothetical environment that may have existed in the past, or could just possibly exist in the future.

We also heard some assertions from submitters that this discharge will have adverse effects along the Mangatainoka and Manawatū Rivers right down to the Manawatū Estuary. While

we accept there are perceived effects on cultural values in the lower Manawatū, we agree with Mr Patterson that there will be no other water quality effects as far downstream as the estuary.

The Effects of the Existing Discharge

The effects of the existing discharge to the Mangatainoka River via Town Creek were discussed by both Dr Ausseil for the applicant, and Mr Patterson for the Regional Council. There were no points of significant disagreement among them. Unfortunately some data was not available due to sampling being undertaken at the wrong place from December 2012 to June 2015. Most of the samples however were taken before additional treatment via the package plant was installed at the WWTP.

There was little difference in spot water samples taken upstream and downstream of the existing discharge via Town Creek. At both sites DRP hovered around the One Plan target, SIN concentrations were about twice the One Plan target (although it was sometimes more elevated at the downstream site) and ammonia levels were again well below the Plan target.

The existing discharge does however cause a small but statistically significant increase in DRP concentrations downstream of the discharge from Town Creek and there is also a small average increase in filamentous algal biomass. Given that the discharge was only pond treated until 2015, this bears out Mr Crawford's assertion that the ponds are of sufficient capacity to treat the wastewater inflows from Pahiatua.

Some possible effects on biota and microbial contaminants in the Mangatainoka River were evident however. Specifically:

1. The macroinvertebrate communities at the two sites were not much different as measured by indices such as the MCI, the Quantitative MCI¹⁷ and the relative abundances of the so called EPT species (although these were generally a little more abundant at the upstream site).¹⁸ The discharge meets the One Plan target of no more than a 20% change in QMCI, which as Ms Morton noted has been accepted by the Environment Court as an appropriate measure of effects.¹⁹
2. Periphyton biomass was generally a little higher at the site downstream of the Town Creek discharge than the upstream site at Town Bridge. Whether this is an adverse effect of the existing discharge is somewhat questionable however, as a similar (but still quite small) number of exceedances of the 120g/m³ chlorophyll a One Plan standard occur at each of the Town Bridge and SH2 sites. Indeed the "worst" site was the Town Bridge, where 87% of samples met the periphyton biomass target (versus a

¹⁷ The MCI only measures species presence or absence in samples, whereas the QMCI assesses relative species abundance with each species scored as to its tolerance for pollution. In each case a higher score is better, but the scales are different. QMCI is a better measure of the effects of point source discharges to rivers and streams.

¹⁸ EPT refers to the larvae of mayflies, stoneflies and caddisflies. Most of these species are intolerant of any significant pollution (and sometimes high periphyton biomass), although a few caddisfly larvae are more tolerant.

¹⁹ Paragraph 50 of her report.

95% target in the plan), whereas the site downstream of Town Creek and the SH2 site both had over 94% of their samples meeting the target.

3. There is a slight increase in E coli concentrations downstream of the discharge, but this was not statistically significant.

The Effects of the Proposed Discharge

The discharge to the Mangatainoka River will receive additional treatment that is already installed (the package treatment plant) and proposed to be constructed (the wetland). According to Mr Crawford, the package treatment plant should be able to significantly improve both the concentrations of DRP and the counts of E.coli in the discharge that leaves the treatment plant. Nitrogen concentrations will also be reduced slightly. Dr Ausseil stated that based on Mr Crawford's evidence that the package treatment plant should reduce DRP concentrations in the wastewater by about 60%, with an associated decrease in DRP concentrations and filamentous algal biomass downstream of the discharge, In his supplementary evidence Mr Patterson said that if this reduction is achieved, it should lead to DRP quality from the plant being achieved.

Mr MacGibbon said that the proposed wetland would substantially reduce N concentrations in the discharge as de-nitrifying micro-organisms will be present. However the effects on P concentrations will not be significant, for although some P will be taken up by the plants the wetland will reach an equilibrium where P inputs approximate P outputs, provided that it is well maintained. E Coli counts could increase downstream of the wetland if bird populations become established.

Our overall conclusion is that the actual and potential effects of the proposed discharge to the river, given treatment and the performance standards we have required of the discharge, is very unlikely to have any significant adverse effects on water quality or biota in the receiving environment. There may still be some small increase in instream DRP concentrations, but the much less treated discharge did not result in any significant increases in periphyton biomass downstream of the point of discharge, and we expect the more treated discharge to include less DRP and so have less potential to increase periphyton biomass downstream of the discharge from the wetland. The possible exception to this is that the discharge could have elevated E. Coli counts due to bird populations in the wetland. However E Coli levels leaving the treatment plant should be much reduced due to the UV contact reactor.

5.3.2 Effects on Groundwater Quality

Based on the evidence we have heard, we understand that groundwater beneath the wastewater treatment ponds and the proposed wetland is expected to move towards the Mangatainoka River and/or the springfed Town Creek (which then flows into the Mangatainoka River). Mr Baker's written evidence notes that there is no current monitoring of groundwater quality in the area, but there are also no recorded groundwater abstraction bores.

The three oxidation ponds are reported to be lined with clay, although no quantitative information is available regarding the lining so the amount of leakage from the ponds is uncertain. However, as Mr Baker noted any effects from the current pond leakage are

expected to be incorporated into the downstream monitoring that is carried out in the Mangatainoka River, which is the nearest receiving environment of concern.

Mr Baker recommended the installation of some groundwater monitoring bores so that sampling can be undertaken to understand the potential seepage effects from the wastewater treatment ponds and the proposed wetland.

Whilst the extent of current and future leakage from the ponds and the wetland is not well defined the key receiving environment of concern will be the Mangatainoka River and possibly Town Creek. The monitoring of groundwater bores has been specified in consent conditions and will help to maintain a check on any leakage effects, but the current information suggests these effects are not expected to be significant.

5.3.3 Effects on Local Air Quality

Ms Deborah Ryan advised that all aspects of the treatment can be a source of odour, but particularly where untreated wastewater is exposed to air, as could occur at the primary screen at the inlet works and the first oxidation pond, or if anaerobic conditions occur within the wastewater treatment process that are exposed to air. Sludge management from the ponds and the clarifier can also provide a source of adverse odour effects.

These potential adverse effects can be avoided at Pahiatua because:

- The small size of the township means that wastewater has a relatively short time in the reticulation network before it reaches the wastewater treatment plant;
- Sealing of the inlet screenings and their frequent removal to offsite disposal;
- The use of aerators to maintain dissolved oxygen levels in ponds 1 and 2;
- Proper management and off-site disposal of sludge.

Ms Ryan said that the nearest residential properties are around 120 metres from Pond 1. Some odour complaints were received in 2003 - 2004 when the ponds were being desludged, in 2005 due to low DO conditions occurring (prior to the installation of the aerators) and in 2014 when the aerators stirred up some sludge. However when the aerators are operating properly there have been no adverse odour issues.

Based on that good record of performance we are satisfied that consent for the air discharge can be granted with the conditions recommended by Ms Ryan and Ms Morton which will ensure that the good management of the odour effects continues.

5.3.4 Effects on Values held by Tangata Whenua

It was well established by iwi submitters that the applicant's modified proposed, whilst an improvement within the physical realm, would result in possibly significant adverse effects within the cultural realm specifically affecting cultural values, relationships with water of the Mangatainoka River and the uses associated with water. This was not disputed by any of the parties of the hearing.

The evidence and memoranda presented by the three respective iwi representatives made clear that a discharge of treated effluent directly to water will have significant adverse effects on the mauri of water. This again was not disputed by any parties. Rangitāne and Ngāti

Whakatere sought a discharge to land as the means to avoid the cultural effects, however this was not within the scope of the applications in front of us and so could not be considered as a comprehensive alternative (see Section 6 below).

The evidence of Mr Ketu and Mr Paewai sought that we decline the application to discharge to water. The memorandum from Mr Black also asked that we decline this application due to what he asserted was insufficient information provided by the applicant on the effects of the proposal.

We accept the direct discharge of treated effluent will have significant adverse cultural effects including that on the mauri of water.

Through discussion with Mr Ketu and within the evidence of Mr Paewai attention was given to effects on mauri, where Mr Ketu stated water, where considered waimate, can be remediated to the state of waimāori, through both natural (passing through land) and/or cultural processes (karakia).

Mr Paewai in considering a wetland option based his response on the interconnectedness of Papatūānuku and that wetlands were traditional sites for gathering food and that wetlands played a vital role and from his perspective he believed the treatment of effluent was beyond the ability of such wetlands.

The applicant presented to the hearing the concept of a purpose designed and built wetland as a means to mitigate cultural effects. Council representatives engaged with RoTNAR and the Trust representatives on this presenting back to the Panel a concept wetland design. In the report provided by Mr MacGibbon *'Proposed Pahiatua Wastewater Treatment System Wetland Design'* dated 19 July 2017 he said the wetland was designed to 'polish' the quality of the discharge and to address cultural issues through a two tier wetland system involving each of a treatment section and a biodiversity section.

Alongside the proposed wetland system the applicant has proposed a range of conditions to provide a more comprehensive response to cultural effects, including working with iwi to identify cultural health indicators, define monitoring framework and reporting mechanisms.

The Panel accepts the role of naturally occurring wetlands and the role these have for Māori as a food source resource. We consider however that with the conditions proposed by the applicant, along with some specific amendments to address cultural monitoring and other requirements, the treatment proposed, by a purposefully designed and built wetland with ongoing management will significantly mitigate the adverse cultural effects of the discharge to the Mangatainoka River.

5.3.6 Effects on Soils from Disturbance

We do not consider that there will be any significant effects on soils as a result of the excavation necessary to construct the wetland. Conditions on the land use consent will mitigate any adverse effects on water quality from the construction of the wetland.

5.3.7 Positive Effects

Disposal of community wastewater is a core function of territorial authorities. There are clear positive effects from granting the applications before us, as Pahiatua will be able to utilise existing infrastructure to dispose of treated wastewater from the town to the Mangatainoka River.

5.4 The National Policy Statement for Freshwater Management 2017 (NPS)

The Objectives of Part A of the NPS relate to water quality and are focused on maintaining and improving water quality and safeguarding its life supporting capacity. The objectives are to be achieved by (in summary):

- a) Establishing freshwater objectives and setting water quality limits (Policy A1);
- b) Specifying targets and implementation methods to improve water quality within defined time frames (Policy A2); and
- c) Imposing conditions on resource consents to ensure that water quality limits and targets are met (Policy A3).

The MWRC considers that the One Plan largely addresses Policies A1 and A2 of the NPS. We agree with this, and so Policy A4 (which requires regional councils to amend their plans to give effect to Policy A1 and A2) does not need to be applied in this instance.

Accordingly our main concern is to ensure Policy A3 is met in this decision and in doing so we have to ensure compliance with the:

1. National Objectives Framework (NOF) which is Appendix 1 of the NPS.
2. Ammonia and nitrate toxicity criteria in the attribute tables that set “national bottom lines” in Appendix 2 of the NPS.

We are satisfied that the applicant’s modified proposal does meet the NOF, and the effects of the discharge come nowhere near breaching either nitrate or ammonia toxicity criteria in Appendix 2. Both the upstream and downstream sites are in Band B of the NOF for periphyton, which indicates “occasional blooms reflecting low nutrient enrichment and/or alteration of the natural flow regime or habitat”. It is only in Band D that water quality is regarded as unacceptable.

5.5 Objectives and Policies of the One Plan

Ms Morton in her Section 42A report outlined the provisions in the One Plan that are relevant to our decision. Ms Manderson broadly agreed with her about what provisions are relevant, and so do we.

In relation to Te Ao Māori the relevant provisions are:

Objective 2-1 is two pronged in that it gives direction to; have regard to mauri, and that resource management processes give particular regard to kaitiakitanga and the relationship iwi and hapū have with sites and resources are recognised and provided for.

Policy 2-1 (c), (d) and (i) give specific direction to iwi and hapū involvement in resource management processes. Conditions proposed by the applicant have addressed these through:

- The formation of a forum which iwi will be invited to play a central role. The forum will receive information and provide feedback about the operation of the WWTP. It will also consider a future investigation of alternative methods of treatment and discharge, including land-based disposal, at least three years prior to the consent we have granted expiring.
- Formalising the monitoring of the cultural health of the Mangatainoka River, in relation to the WWTP discharge over the life of the consent and inviting Kahungunu and Rangitāne to work with TDC in preparing Cultural Health Index Monitoring Protocols within the immediate environs of the WWTP site, including the river.
- Committing to ongoing engagement with Kahungunu and Rangitāne over the term of the consent.

Policy 2-3 directs consideration of mauri in light of Policy 2-1. The relevant parts of 2-1 are discussed above and no further commentary is necessary.

As a result of this we consider that Policies 2-1 and 2-3 have been satisfied.

Policy 2-4 directs us to address the matters listed in Table 2.1 of the One Plan. We consider the mitigation measures offered by the proposed wetland means that the matter listed in (a) of this table is addressed by the wetland included in the modified proposal. That is the standard of water will not prevent Māori from performing relevant tikanga or cultural activities.

The main other relevant objectives and policies are in Chapter 5 of the One Plan and cover discharges to water. Many of these objectives and policies relate to long term water quality targets²⁰, some of which are not met in the Mangatainoka River upstream of the Pahiatua WWTP discharge. This is not a matter that we, or (in very large part) the applicant has any control over. As already discussed in Section 4.3 of this decision, we have to evaluate the current proposal in terms of its effects on the existing environment, and the following policy assessment is made using that approach.

Policy 5.6 broadly requires that groundwater quality be at least maintained. However an exception is provided for where a discharge onto or into land, as is the case with the applicant's proposed wetland, better meets the Purpose of the Act than a direct discharge to water. That exception applies here.

Policy 5.9 lists a set of assessment criteria for point source discharges to water. They need to be assessed in terms of what is already a degraded river upstream of the point of discharge from the WWTP to the river. As we have already discussed in Section 4.3 above, the discharge, with the additional treatment provided by the package plant and the wetland, is very unlikely to have significant adverse effects on water quality or biota in the river. It will

²⁰ Notably Policies 5.1 – 5.4

result in a small increase in DRP, maybe some small increase in filamentous algal biomass and perhaps reductions in nocturnal oxygen concentrations during sustained low flows, and perhaps a small increase in *E. Coli* counts from the river. It will not however have any significant effects, particularly as measured by changes in QMCI, nor will it cause SIN or ammonia concentrations to be anywhere near fish toxicity thresholds. Accordingly we consider the provisions of this policy are met by the applicant's proposal.

Policy 5.11 is, to use Ms Morton's word, "pivotal" in respect of WTP discharges. It reads as follows:

Policy 5-11: Human sewage discharges[^]

Notwithstanding other policies in this chapter:

- (a) before entering a surface *water body*[^] all new *discharges*[^] of treated human sewage must:
 - (i) be applied onto or into *land*[^], or
 - (ii) flow overland, or
 - (iii) pass through an alternative system that mitigates the adverse *effects*[^] on the *mauri*^{*} of the receiving *water body*[^], and
- (b) all existing direct *discharges*[^] of treated human sewage into a surface *water body*[^] must change to a treatment system described under (a) by the year 2020 or on renewal of an existing consent, whichever is the earlier date

Mr Randal addressed how the applicant's modified proposal complied with Policy 5.11 in his memorandum of 29 May. He considered that the words of the policy should be given their plain meaning, which we agree with. He said that the proposed wetland allows the discharge to be to "land", where land is given the meaning ascribed to it in section 2 of the RMA, which includes "land covered by water". Mr Randal then asserted that the inclusion of the wetland in the modified proposal means that the treated wastewater is applied "*onto or into land*" and "*flow(s) over land*" and so meets the first two limbs of Policy 5.11. He elaborated on his reasons for this by quoting a technical explanation from Mr MacGibbon. We agree that the modified proposal meets the first two limbs of Policy 5.11, and accordingly meets the policy test, as the three limbs are alternatives. We note in passing that Mr Randal also said that the wetland was intended also to mitigate adverse effects on the *mauri* of the river, but that the applicant did not rely on this third limb of Policy 5.11.

5.6 Other Relevant Matters

The Manawatū Leaders Accord

This is a non-statutory document signed by a large number of parties, including TDC and MWRC, in August 2010. Its overall goal is to improve the *mauri* of the Manawatū catchment, such that it sustains fish species and is suitable for contact recreation in balance with social, cultural, economic activities of the community in the catchment. The action plan linked to the Accord committed the TDC to resolving the Pahiatua WTP situation by June 2012 – a target that was clearly not met and which was later revised.

Given the strength of the statutory policy framework in the NPSFM and the One Plan, we have placed very little weight on the non-statutory provisions of the Accord.

Cultural Values Assessment (CVA)

A CVA for the Pahiatua WWTP, which was written by Peter McBurley on behalf of RoTNAR, was submitted as part of the original application. It detailed the connection and relationship Rangitāne have had with the land and rivers of their rohe over time. It also sets out the recent relationship built with TDC regarding the Pahiatua wastewater treatment system. The position presented in the CVA is consistent with the submission of Mr Paewai on behalf of RoTNAR.

Of note is that no other documentation was provided by the other two iwi submitters.

6 Section 105 of the RMA

Section 105(1) of the Act requires that we must, in addition to s104 considerations, have regard to:

- a) *the nature of the discharge and the sensitivity of the environment to adverse effects;*
- b) *the applicant's reasons for the proposed choice; and*
- c) *any other possible alternative methods of discharge, including discharge into any other receiving environment.*

We have already extensively discussed the receiving environment and its sensitivity to the discharge of treated wastewater from Pahiatua in Section 5.3 of this decision. In summary, the receiving environment of the Mangatainoka River is degraded upstream of the discharge, and our assessment is that the discharge is very unlikely to have significant adverse effects on water quality or biota in the river. There will be adverse effects on cultural values, particularly the mauri of the river.

We have also discussed the applicant's reasons for seeking to continue to discharge to the river rather than another receiving environment. In essence, their argument is that there is a significant investment in wastewater reticulation and treatment, including nearly \$1 million spent on upgrading treatment by the installation of a package treatment plant, and they do not want to effectively "write off" that investment.

Many submitters asked us to reject the applicant's current proposal and compel them to discharge largely or entirely to land.

TDC had examined this option, having commissioned "Wai Waste" to report on options in 2013. This concluded that while suitable sites for wastewater disposal to land existed nearby, a large area would be needed, costs would be high (including possible land purchase), a large storage area would be needed for the wastewater and there was likely to be strong local opposition to the proposed discharge. In 2014 TDC engaged Opus to comment on Wai Water's report, and they recommended continuation of the discharge to the river.

In effect TDC nullified the option of land based treatment by spending \$965,000 (of which 49% came from the Government) on upgrading treatment via the installation of the package plant in 2014 and 2015. No party at the hearing criticised the council strongly for this. In retrospect, the wisdom of this approach has to be questioned. Regardless, the council has made a reasoned choice, and so in our view complies with s105 of the RMA.

7 Section 107 of the RMA

The provisions of s107 apply to all applications for permits to discharge contaminants to fresh or coastal water. It has two limbs; in this instance no party argued that the “exemption” provisions of s107(2) were applicable²¹ and so we had to assess the modified proposal in terms of s107(1). In summary this limb states relevant to the modified proposal that “after reasonable mixing the contaminant discharged either by itself, or in combination with the same, similar or other contaminants” cannot give rise to any one of five listed characteristics, which we now discuss in turn.

We heard no evidence, nor do we think it at all probable that the discharge will “*lead to the production of any conspicuous oil or grease films, scums or foams or floatable or suspended materials*” (s107(1)(c)), result in “*any conspicuous change in colour or visual clarity*” (s107(1)(d)), cause “*any emission of objectionable odour*” (s107(1)(e)), or “*render fresh water unsuitable for consumption by farm animals*” (s107(1)(f)), As we have already discussed the modified proposal is very unlikely to have “*any significant effects on aquatic life*” (s107(1)(g)).

Dr Teo-Sherrell tried to persuade us that as the Mangatainoka River is already degraded upstream of the Pahiatua wastewater discharge, we had to consider the application in light of all the contaminants discharged to the river and their cumulative effects. This is because of the words “after reasonable mixing the contaminant discharged either by itself, or in combination with the same, similar or other contaminants”. We do not accept Dr Teo-Sherrell’s submission in this regard because:

- (i) These are alternative propositions as the word “either” is used.
- (ii) Even if the second alternative were to apply, the evidence is that all the criteria in s107(1) can still be met (as discussed above).
- (iii) We can find no case law that supports his proposition.

In conclusion, we are satisfied that the modified proposal meets the criteria in s107(1) of the RMA, and accordingly this section of the Act does not prevent us from granting the application to discharge treated wastewater from Pahiatua to the Mangatainoka River.

8 Evaluation

Several submitters who appeared at the hearing, including Mr Percy and Dr Teo-Sherrell, asserted we did not have sufficient information to assess fully the effects of the modified

²¹ In summary these are the discharge is of a temporary nature, or exceptional circumstances prevail, or the discharge is associated with essential maintenance.

proposal. We do not agree; Section 5.3 above summarises the comprehensive assessment we have been able to undertake from the information provided us.

All three submitters who represented tangata whenua asked at the hearing that the consent sought at that time not be granted.²² If that were to be the case, it would put both the Tararua District Council and the MWRC in a very difficult position. The community will continue to discharge domestic waste to Pahiatua's sewerage network, and this will continue to flow into the oxidation ponds. It will then inevitably discharge to the Mangatainoka River, whether simply from overflowing ponds or via the significant additional treatment installed during 2014 and 2015, and from there to Town Creek.

If we did not grant the consent sought, this discharge would (theoretically at least) be illegal and the MWRC could take some enforcement action requiring that somehow the discharge cease. This would be a nonsense, as the discharge cannot cease unless all of Pahiatua were to switch to individual on-site effluent treatment of some kind, which is utterly impracticable given the large investment in the existing wastewater reticulation and treatment network. In reality the TDC would have no option but to appeal to the Environment Court, which would add another expensive step in what has been a very protracted process. In our view it would be much better for all parties if monies were spent on improved treatment of wastewater, rather than it being "wasted" in ongoing legal expenses.

We also observe that it has been over 14 years since the original application to continue to discharge wastewater from Pahiatua to the Mangatainoka River was first lodged in December 2004. At that time the treatment of the town's wastewater relied solely on coarse screening and oxidation ponds that dated back to 1974. To their (eventual) credit the TDC installed a package treatment plant in 2014/15 that will have significantly improved the quality of the discharge to the river, including reducing nutrients and faecal coliform concentrations in the discharge. Their modified proposal is to add a wetland, with a cultural component, as a final step in wastewater treatment

We accept that any ongoing wastewater discharge to the Mangatainoka River will have adverse cultural effects, particularly on the mauri of the awa. However, as we have already discussed the modified proposal put forward by the applicant to construct and maintain a wetland as the final step in the treatment of the wastewater means that effects on cultural values are at least somewhat mitigated (although certainly not avoided). Importantly, as we have already outlined the discharge also meets the criteria of Policy 5.11 of the One Plan, which was drafted in an attempt to mitigate the effects of discharges of human sewage on cultural values held by Tangata Whenua. For these reasons we have granted the consent sought in the applicant's modified proposal.

There are of course other effects of the proposed discharge on the Mangatainoka River. However as we have already discussed those effects on water quality, aquatic flora, fauna and fish are very unlikely to be significant. This is in the context of the Mangatainoka River already being in somewhat degraded state upstream of the wastewater discharge. If the same discharge were to a more pristine receiving environment the adverse effects on water quality

²² Although Mr Percy on behalf of Rangitāne did say in response to questions that it would be better to grant a short term consent than to decline the application.

and the biota would likely be significant. If the regional council's endeavours to improve upstream water quality in the Mangatainoka River by the regulation of land use to reduce the effects of existing discharges via land to water are successful, it may be that when the consent we are granting expires some additional treatment would be needed at that time to mitigate adverse effects on the aquatic biota of the river.

9 Term and Conditions

Our decision on the conditions and term on which consent is granted is given in Section 10 of this decision. We now explain our reasons for this.

9.1 Conditions of Consent

We were presented with what might be described as a "moving feast" of draft conditions during the hearing and subsequent legal submissions and officer and submitter comments. The most recent sets of conditions that are relevant to our decision are those from the MWRC officers received in late July, which commented on the applicant's original conditions, Dr Teo-Sherrell's comments and comments from Kahungunu ki Tāmaki nui-a-rua Trust on those conditions, and the final set of conditions proposed by the applicant in early October 2017. By this time many of the differences between the applicant and the regional council had been resolved.

Our decisions on the conditions of consent are in Section 10 below. They comprise a set of general conditions that apply to all three primary consents, and specific conditions for each of the five consents sought by the applicant.

The decisions on two of the sets of conditions proposed are quite straightforward. There was no significant disagreement between the parties on the conditions for the land use consent to construct the wetland or the discharge to air. We have made some amendments to the land use consent to reduce redundancy, but in effect they remain as largely agreed between the parties.

We have made some changes to improve the language and consistency of the consent to discharge seepage water to land, and we have required three monitoring bores should be installed rather than the two proposed by the applicant.

In relation to the consent to discharge treated wastewater to water via the constructed wetland we have come to the following decisions:

- We are comfortable with the applicant's increase to a maximum of 18 g/m³ of ammonical nitrogen in the discharge, as this will have no tangible adverse instream effects.
- The regional council sought additional clauses in Condition 8. We do not support either their proposed clause (d) as this narrative standard is redundant and uncertain given the inclusion of a quantitative measure via QMCI, and we do not support (k) as testing for toxicants is inordinately expensive for a discharge that includes very little wastewater generated from industrial activities that could generate such toxicants. We

have however required testing for alum, as we understand this will be used to reduce DRP loadings in the wastewater discharged to the river. In saying this, we note that alum is not particularly toxic in freshwater as it bonds to phosphorous and then forms a non-toxic floc.

- In Condition 20 the regional council sought annual invertebrate monitoring be carried out for the term of the consent. Such sampling is quite expensive and we agree with the applicant that after annual monitoring for three years this can be reduced to once every three years, unless the criteria in Condition 8 are exceeded, in which case it must be carried out in that or the immediately following year. We have also limited the months in which visual inspections of the river have to be made to the December to April period when the effects being monitored are most likely to occur.
- We were a little surprised that the applicant had agreed to dissolved oxygen monitoring, as we did not consider it essential for these particular applications. We agree with the regional council's proposed changes to Condition 23, but not to their proposed Condition 23(a), as we consider that if the results from the monitoring show adverse effects from the discharge, then that is matter for a possible review of consent conditions. We have also provided a fallback should flows in the summer of 2019 be too high to allow monitoring to be carried out.

9.2 Term of Consent

The applicant sought terms of five years for the land use consent to construct the wetland, and 15 years for the applications to discharge treated wastewater to the Mangatainoka River, and the associated applications to discharge odour to air and seepage water to groundwater.

The land use consent to construct the wetland needs to be exercised promptly, and so we have decided, consistent with the advice of the officers, that this should expire on 30 June 2019, as that is when Condition 5 of the discharge permit requires the wetland to be included in the wastewater treatment sequence.

The term of the three primary applications was more contentious. Iwi submitters sought terms of 5-10 years, Ms Morton recommended a term of no more than 10 years in her initial s42A report, and the applicant sought 15 years. However in her supplementary report presented at the hearing Ms Morton recommended a term expiring on the second common catchment expiry date of 1 July 2030, noting that there were already 139 resource consents in the Manawatū catchment, including discharge permits, with that expiry date.

In making our decision on the term of the three primary consents we have granted we have had to weigh up a number of factors, including:

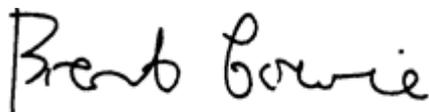
- The previous consent held by the applicant for the discharge of treated wastewater to the Mangatainoka River expired on 30 June 2005. The discharge has continued under the provisions of s124 of the Act since that time. While the discharge has been legally "authorised" by the s124 provisions, we do not think those provisions were ever drafted with a mind to effectively extending a consent duration by well over a decade, as has occurred in this instance.

- Water quality in the Mangatainoka River upstream of the WWTP is degraded, and this is very largely attributable to run off from intensively farmed land. If efforts by the regional council and the farming community in the catchment are successful in significantly improving water quality upstream of the WWTP discharge, then the effects of that discharge would be more marked than is presently the case, although any such changes would likely take several years to show an improved effect in the receiving waters. That might become a consideration when the consent we are granting is due to expire and a replacement application is lodged. However, for the present time, we reiterate that we consider the effects of the modified proposal into the existing environment are very unlikely to be significant.
- Balanced against these factors is the need to provide long term security for an essential function of the TDC, while recognising the significant costs of a consenting process to a small council with limited resources.

Bearing all these factors in mind, and Ms Morton's advice to us in her supplementary evidence, we have decided that a term expiring on the common catchment expiry date of 1 July 2030 is appropriate for the three primary consents. This is a term of slightly over 12 years. It will enable the effects of the Pahiatua WWTP to be assessed along with a large number of other permits, and should help to address the cumulative effects of these activities. We might observe that given the previous consent expired in June 2005, the applicant will have only had to go through a consent process and its associated costs once during a 25 year period.

10 Decision

Pursuant to the powers delegated to us by the Manawatu Wanganui Regional under section 34A of the Resource Management Act 1991, we record that having read both application documents, the further information provided under section 92, and the Applicant's legal submissions and expert evidence; the section 42A officer's reports, legal opinions and technical evidence; the lay and expert evidence presented by the submitters at the hearing; and having considered the various requirements of the RMA, we find that **APP-1993001253.02** and **APP-2017201372.00** can be granted subject to the attached five condition schedules.



Signed by Brent Cowie (Chair)
on behalf of the Hearing Panel

5 March 2018