

Report to the Hearing Committee on a notified resource consent application

Summary of application

Activity:	To discharge contaminants to land, air and water associated with the proposed long term upgrade and operation of the Featherston Wastewater Treatment Plan
File Reference:	WAR170229
Applicant:	South Wairarapa District Council
Consent(s) Sought:	<p>Operative Regional Plans</p> <p>[34616]: Discretionary Activity Discharge permit (Land) – to discharge treated effluent to land adjacent to the plant at Site A adjacent to the plant (Stage 1A), and Site B the Hodder Farm (Stage 1B, 2A and 2B)</p> <p>[34617]: Discretionary Activity Discharge permit (Seepage) - to discharge contaminants to land and water via seepage from the ponds and channel</p> <p>[34618]: Discretionary Activity Discharge permit (Air) - to discharge contaminants to air (odour from the ponds, channel and treatment process and effluent associated with land application)</p> <p>[34619]: Discretionary Activity Discharge permit (Water) – to discharge contaminants from treated effluent into Donald’s Creek</p> <p>Proposed Natural Resources Plan</p> <p>[34616]: Discretionary Activity Discharge permit (Land) – to discharge treated effluent to land adjacent to the plant at Site A adjacent to the plant (Stage 1A), and Site B the Hodder Farm (Stage 1B, 2A and 2B)</p> <p>[34617]: Discretionary Activity Discharge permit (Seepage) - to discharge contaminants to land and water via seepage from the ponds and channel</p>

[34618]: Discretionary Activity

Discharge permit (Air) - to discharge contaminants to air (odour from the ponds, channel and treatment process and effluent associated with land application)

[34619]: Non-complying Activity

Discharge permit (Water) – to discharge contaminants from treated effluent into Donald’s Creek

Location:

Featherston Wastewater Treatment Plant –
Donald Street, Featherston
Site A – 65 Longwood Road, Featherston
Site B – 270 Murphy’s Line, Featherston

Map Reference:

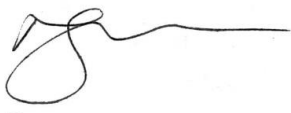

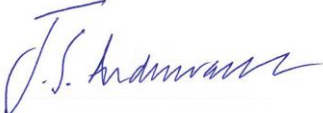
Featherston Wastewater Treatment Plant –
NZTM: 1794964.5443493
Site A – NZTM: 1795178.5443892
Site B – NZTM: 1795004.5442364

Legal Description:

Featherston Wastewater Treatment Plant – Pt Sec 258, Sec 330-331 Featherston Urban (CT WN349/159)
Site A – Lot 2 DP342631
Site B – Lots 5 & 7 DP482853 (CT175087), Lot 2 DP88643 (CT WN56B/343), Lots 17-25 Pt Lot 26 and Part Lot 28 Deeds Plan 317, Suburban Section 320-321, Suburban Section 324-325, Suburban Section 328-329, Suburban Section 332-333 and Suburban Section 336-337 and Suburban Section 340-341 and Suburban Section 345 and Suburban Section 349 (excluding areas C, D, E, F, G, H, I, J, K, L) Township of Featherston and Part Rural Section 414, Part Rural Section 416, Part Rural Section 418 and Part Rural Section 420 Township of Featherston (CT WN56B/344)

Recommendation:

I recommend that the above consents be **declined** for the reasons outlined in this report.

Report prepared by:	Nicola Arnesen	Senior Resource Advisor, Environmental Regulation		1 March 2019
Report peer reviewed by:	Paula Pickford	Senior Resource Advisor, Environmental Regulation		1 March 2019
Report approved by:	Shaun Andrewartha	Manager, Environmental Regulation		1 March 2019

Qualifications of reporting officer

I have 20 years' experience in the Planning and Resource Management field.

I have held the role of Senior Resource Advisor, Environmental Regulation at Greater Wellington Regional Council for ten years and prior to this I was a Senior Planner at Opus International Consultants, Planner (Consents and Policy) at Christchurch City Council and both a Resource Advisor and Policy Advisor at Greater Wellington.

I hold a Bachelor of Resource and Environmental Planning from Massey University and a Bachelor of Arts with First Class Honours from Canterbury University.

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Reasons for decision: resource consent WAR170229 [34616, 34617, 34618 and 34619]

1. Summary of the key points

The key points in my report are:

- The proposal is a non-complying activity under the Proposed Natural Resources Plan;
- The proposal is a discretionary activity under the Operative Regional Plans;
- There are more than minor and significant adverse effects occurring on macroinvertebrate communities in Donald's Creek during various stages of the proposal;
- There are conspicuous changes in water clarity occurring in Donald's Creek during various stages of the proposal;
- The proposal is contrary to relevant objectives and policies in both the Operative Regional Plans and the Proposed Natural Resources Plan;
- The proposal is also inconsistent with the Regional Policy Statement;
- The proposal does not meet Section 107(1)(d) or (g) of the Act for a period of time which I do not consider to be temporary and there are no exceptional circumstances which have been put forward;
- The proposal does not meet either the effects or policy arms of the Section 104D gateway test for non-complying activities;
- There is inadequate information in regard to the discharge to land and effects on groundwater to determine the application in accordance with Section 104(6); and
- My recommendation is to **decline** this application.

2. Purpose

This report provides an analysis of the resource management issues in respect of WAR170229 [34616, 34617, 34618 and 34619], an application by South Wairarapa District Council (SWDC) to obtain discharge permits from Greater Wellington Regional Council (GWRC) under the Resource Management Act 1991. It was lodged on 1 March 2017.

The assessment and recommendations contained in this report are not binding on the Council or Commissioner's. This report has been prepared without knowledge of the content of any evidence or submissions that will be made at the hearing; consequently it cannot be assumed that the Commissioner's hearing the application will reach the same conclusions as those provided in this report.

3. Background

3.1 General

SWDC administers and manages the districts four wastewater systems, namely Featherston, Greytown, Martinborough and a small community system at Lake Ferry. The consent application which is the subject of this report focuses on the discharges associated with the staged upgrade and operation of the Featherston Wastewater Treatment Plant (FWWTP).

According to the application, the FWWTP services a population of 2,253 people and flows are predominantly domestic with a small commercial contribution from local industry.

The application states that the population in Featherston has decreased by 3.2% since the 2001 census and that zero growth has been assumed out to 2031 (based on the 2012 Statistics). A number of submitters have raised concerns regarding this 'zero growth' statement made in the application, as they feel that the population of Featherston is growing.

Given submitters concerns, GWRC contacted Statistics New Zealand (SNZ) and the information they provided was that (based on 2013 census) between 2001 and 2006 there was a slight increase in population of 0.6%, but between 2006 and 2013 there was a decrease of -3.8%. The 2018 census data will not be released until March 2019 and it may be that this data shows something different. SNZ has released some population projection data to cover 2013 to 2043 and for Featherston this shows a 3.8 percent increase in population which is based on what is predicted to be a medium projection (suitable for assessing future population changes). Therefore, the zero growth assumed in the AEE may prove incorrect.

With regards to any potential increase in population, the application notes that there is actually provision for growth in the proposed system through two mechanisms – firstly the conservative approach taken to the design and then the reduced flows that the applicant states will occur through the Inflow and Infiltration (I and I) programme reducing the flows. Whether this provision is enough to accommodate an increase in population of around 3.8% may need to be addressed by the application at or prior to the hearing.

According to the application, the FWWTP was initially constructed in 1975 and consists of a two oxidation ponds, followed by a UV disinfection system which was installed and commissioned in December 2011. The first pond has concrete wave bands and is unlined with a clay base; the second pond has butynol rubber wave bands and a lime cement base. The effluent flows from pond one through a channel to pond two, then to the UV plant from where it goes through an open channel which flows directly into Donald's Creek. The discharge point in Donald's Creek is approximately 4.7km from Lake Wairarapa.

It is important to note here that the applicant applied for resource consents for the staged upgrades for its three main wastewater treatment plants at around the same time, that being Martinborough, Greytown and Featherston. The Martinborough (WAR120258) and Greytown (WAR080254) applications have

both been heard and decisions been made. The applicant developed a draft Wastewater Strategy at the time to plan for the consenting requirements for all three locations. A copy of this draft wastewater strategy can be found in Appendix 1 of the Assessment of Environmental Effects lodged with the application (AEE).

3.2 Existing Consents

3.2.1 Process timeline and continuation of activity under Section 124(2)

The applicant currently holds consent WAR970080 [30723], [23139] and [20869] to discharge contaminants to water (Donald's Creek), land and air associated with the operation of the FWWTP.

The applicant lodged another resource consent application WAR120294 on 25 May 2012, three months prior to the expiry of WAR970080¹ (which expired on 25 August 2012). This application is currently on hold as it was superseded by the application that is the subject of this report, but it has not been withdrawn. It is important to note here that it is this 'on hold' application, WAR120294, upon which Section 124(2) was issued, allowing the applicant to continue operating. The applicant is therefore not dependent upon the outcome of this application (WAR170229) to enable it to continue operating, as the Section 124 is not linked to this application.

The WAR120294 application was notified on 6 August 2014 and a total of 18 submissions were received. It is important to note that WAR120294 was to discharge effluent to Donald's Creek, there was no discharge to land element in this application (other than seepage from the ponds and discharge channel).

There were concerns raised by submitters on WAR120294 regarding the fact SWDC still wanted to discharge to Donald's Creek and not put any effluent to land (as was being proposed at that time for the Martinborough and Greytown re-consenting projects which both had large areas of land to discharge onto), and concerns were also raised by GWRC officers to SWDC with regards to the proposal being able to meet Section 107 of the Act. Around this same time some land became available for purchase near the FWWTP site, known as the 'Hodder Farm'. SWDC purchased this land and decided to investigate putting effluent to land. The result of this investigation was that SWDC decided to re-look at the Featherston proposal and amend the application WAR120294 to include a discharge to land element.

As the introduction of the proposed discharge to land element was altering the character of the proposal in such a way that it was effectively a new application, it was determined by GWRC that the most appropriate way forward was for SWDC to lodge a new application (which subsequently became WAR170229) and for WAR120294 to be placed 'on hold' under a Section 37 extension until such a time that a decision is made on WAR170229. This allowed SWDC to

¹ WAR970080 is a resource consent which was granted on 25 August 2009, expired 25 August 2012. This consent was to discharge contaminants to water, land and air associated with the operation of the FWWTP. The consent was to discharge 100% to water from the plant, the discharge to land element of the consent was for the seepage from the ponds.

retain the ability to legally operate its wastewater operation under Section 124(2) of the Act.

3.2.2 Compliance History

The compliance history of the site has been varied over the years. The most recent compliance report (2016/2017 compliance year) gave the site a rating of 'Fair'² and the overall comments by the compliance officer in the report were:

'Overall fair management of site and consents. The consent holder struggled to meet aspects of their consent requirements. There were more than occasional breaches of consent conditions that manage environmental effects and/or issues with meeting administrative related consent conditions.'

A copy of the 2016/2017 compliance report³ is attached as Appendix 1. The main concern for GWRC in this report was the breach of conditions relating to measurement of wastewater flows, sampling results, and not having working party meetings.

3.2.3 Other wastewater consents in the region

For information purposes and to provide local context on the other municipal wastewater treatment plants, I consider that it is important to provide some brief facts about other WWTP consents in the Wairarapa.

Masterton District Council (MDC) was granted consent in 2009 (WAR090066) for a 25 year consent term to operate its wastewater treatment plant. This consent allows the discharge of treated wastewater and storm water to water, specifically to the Ruamahanga River and the Makoura Stream, and to land via an irrigation system (border dykes).

In 2017, Carterton District Council (CDC) was granted consent for 35 years to discharge treated wastewater to water and land. This consent was processed without the need for a hearing as it was a collaborative process between CDC and GWRC which involved a number of workshops addressing issues and formulating conditions together. In addition to this CDC undertook extensive and successful consultation with interested and affected parties, which meant that submitters withdrew their requests to be heard, allowing the decision to be made without the need for a hearing.

SWDC was granted consent in 2016 for both the Martinborough and Greytown Wastewater Treatment Plants. These consents both have an initial discharge to water and then have a staged approach towards full discharge to land. These consents were both granted for a period of 35 years.

3.3 Golf Course Land

In a memo from Mr Philip Milne dated 8 November 2018, it was identified that SWDC has purchased Featherston Golf Course land and that SWDC had not yet

² Definition of Fair - Overall the management of site and consents is considered to be fair. There are occasional breaches of consent conditions and/or lapses in providing information to GWRC.

³ As of the time of writing this report no compliance report had been prepared for 2017/2018 compliance year. If this is done prior to the hearing then this report will be made available

decided whether they will use this land for irrigation of effluent. The memo outlined that the land allows for an ‘adaptive management’ approach but SWDC do not intend to make any application for additional consents or to include the land in this consent application at this time.

Accordingly, my report does not cover any use of the Golf Course Land. My report focusses solely on the land that is identified and assessed in the AEE. If SWDC wishes to utilise this Golf Course land to discharge treated effluent from the FWWTP, then resource consent will be required.

4. Location

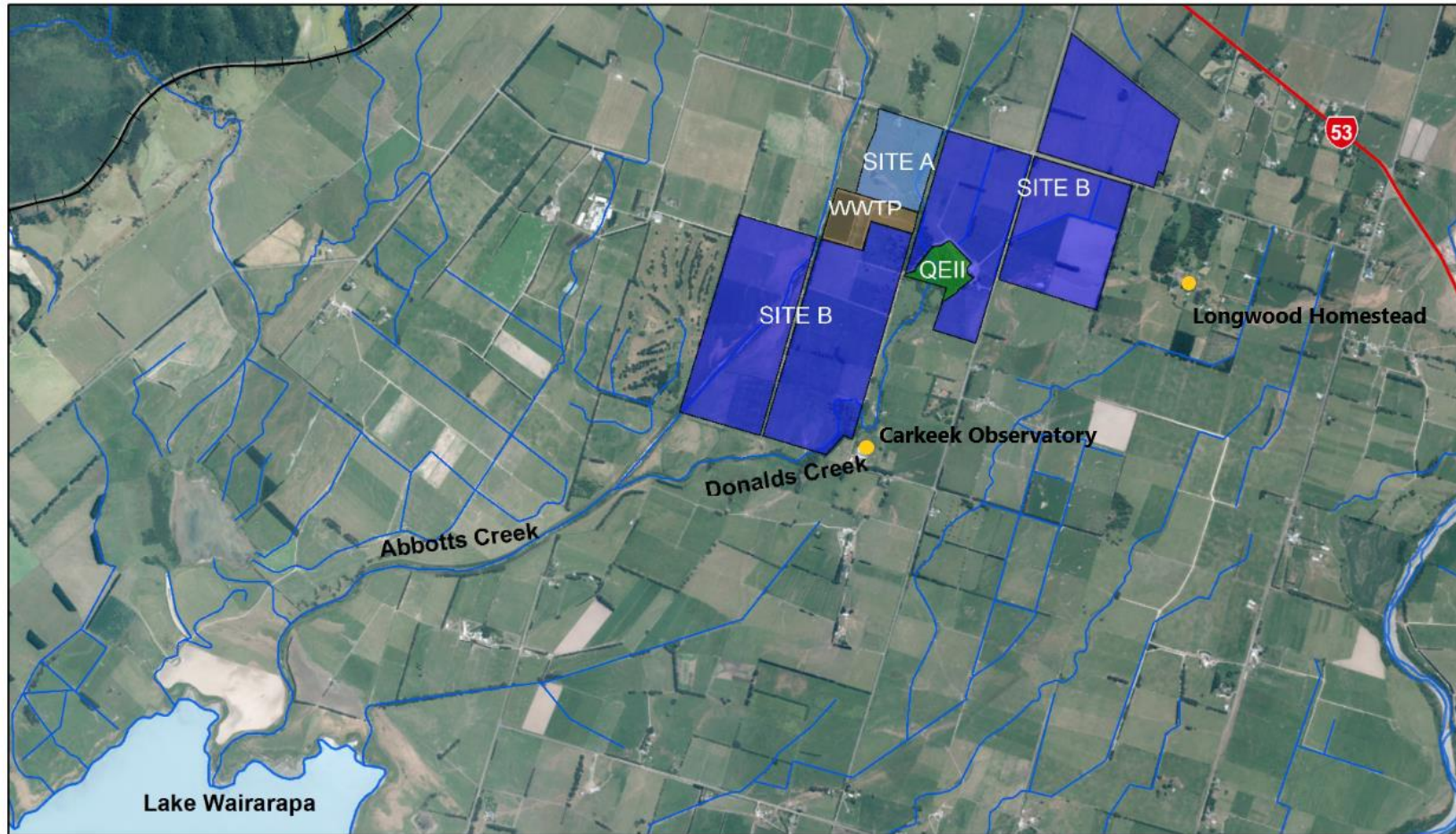
The FWWTP site is located on Donald Street in Featherston. The plant site is comprised of approximately 7 hectares and is located 1.2km south of Featherston township. The site is also located adjacent to Abbots Creek to the west, and Donald’s Creek to the east.

Site A is located between the plant site and Longwood West Road and it is approximately 12 hectares in area. Site A is proposed to be used for land treatment (as shown below in **Aerial 1**.)

Site B (known as the Hodder Farm) is a larger area (approximately 166 hectares) and is located to the south and the east of the plant site. The Longwood Water Race meanders through the farm, as does both Donald’s and Abbots Creeks. Site B is located on Donald Street, Longwood East Road and Murphy’s Line.

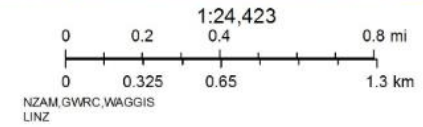
The point of discharge is into Donald’s Creek and is located at approximately NZTM 1795280.5443403. Therefore Donald’s Creek is the **direct receiving environment** for the discharge to water. Approximately 2.2 kilometres downstream of the discharge, Donald’s Creek then flows into Abbots Creek (Otauira Stream), and then a further 2.5 kilometres downstream of this Abbots Creek (Otauira Stream) flows into Lake Wairarapa.

Proposed Featherston WWTP



August 9, 2018

- | | | | | |
|-----------------------|---|---------------------------------|---|---------|
| State Highways Labels | + | Rail Lines | — | Rivers |
| State Highways | — | Region Boundary Line | — | Streams |
| Rail Stations | ● | Local Government Boundary Lines | — | Lakes |



GWRC
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Aerial 1 - Proposed Featherston WWTP location

5. Proposal/description of activities

The applicant has provided a description of the proposal in the Assessment of Environmental Effects (AEE) on pages 85-96. I concur with this description and therefore I adopt this information referred to as part of this report. I will however provide a brief summary of the stages below as these are referred to throughout my report and for ease of reference, some brief description is necessary. In addition to this a number of changes have been made since the AEE was lodged and these require some clarification as well.

The application does not cover emergency discharges and it does not cover the installation and operation of any weir that is needed to be installed to measure flows in Donald's Creek⁴.

I also note that further information was requested from the applicant and some (but not all) further information was provided on 2 June 2017, 11 and 20 October 2017. Since the original AEE some aspects of the proposal have been altered by the applicant and key alterations are outlined below.

- Stage 2B has been altered from commencing at 20 years to commencing at 13 years (see attached memo dated 19 October 2019 in Appendix 2).
- Stage 2A has been altered from commencing at year 10 to commencing at year 5 (see attached memo dated 19 October 2019 in Appendix 2).

5.1 Proposal Stages

The AEE splits the proposal into four stages as outlined below⁵:

- **Stage 1A and Stage 1B** involve minor improvements to the ponds and the commissioning of discharge to land to 8ha (Site A) and 70ha (Site B). During these stages the applicant will also commence an Inflow and Infiltration (I and I) programme. This is proposed to occur within 2 years of the commencement of the consent.
- **Stage 2A** involves the increase of discharge to land area to between 70ha and 116ha at Site B. It is proposed that during this stage the majority of the effluent going to Donald's Creek would be in the winter months. Since the formal change referred to above, this is proposed to occur within 5 years of the commencement of the consent.
- **Stage 2B** involves the construction of additional storage⁶ and a contingency overflow facility to enable land treatment of all flows up to the 90th percentile storage requirement. Since the formal change referred to above, this is proposed to occur within 13 years of the commencement of the consent.

⁴ See p109 of the AEE

⁵ There is a more detailed summary of these stages on pages 85-95 of the AEE

⁶ I note that if earthworks are required then they are not included in this application

5.2 Management Plans

In the AEE, the applicant relies on the development and approval of various Management Plans to address detail not provided at this stage. The applicant proposes that Management Plans will be prepared within certain timeframes from commencement of the consent. As these plans are referred to throughout my report it is useful to outline these at the outset. The Management Plans proposed in the AEE are as follows;

- Featherston WWTP Operations and Maintenance Manual;
- Odour Management Plan;
- Tangata Whenua Values Monitoring Plan;
- Inflow and Infiltration Reduction Management Plan;
- Environmental Monitoring Plan; and
- Discharge to Land and Water Management Plan.

The AEE outlines objectives and minimum contents for these Management Plans and these are found in Part One: C – Proposed Consent Conditions.

6. Statutory reasons for requiring resource consents

6.1 Resource Management Act 1991

Section 15 of the Resource Management Act 1991 (the Act) places restrictions on the discharge of contaminants into the environment. The activities proposed by the applicant are not permitted as of right under this section of the Act or by the Regional Plans or a Proposed Regional Plan; therefore resource consent is required. The relevant parts of Section 15 and the definition of 'contaminant' are outlined below:

Section 15 states that -

No person may discharge any

(a) contaminant or water into water; or

(b) contaminant onto or into land in circumstances which may result in that contaminant...entering water; or

(c) contaminant from any industrial or trade premises into air; or

(d) a contaminant from any industrial or trade premises onto or into land -

unless the discharge is expressly allowed by a national environmental standard or other regulations, a rule in a regional plan as well as a rule in a proposed regional plan for the same region (if there is one), or a resource consent.

The definition of contaminant in the RMA (paraphrased) includes

...any substance...that either by itself or in combination with the same, similar or other substances, energy or heat –

(a) when discharged into water, changes or is likely to change the physical, chemical, biological condition of water; or

(b) when discharged onto or into land or into air, changes or is likely to change the physical, chemical, or biological condition of the land or air into which it is discharged.

6.2 Regional Freshwater Plan (Operative)

Rule 5 of the Regional Freshwater Plan (RFP) specifies that the discharge of any contaminants or water into freshwater which is not provided for in other rules of the plan is a **discretionary activity**.

The application proposes to discharge treated wastewater effluent to Donald's Creek over the term of the consent and this activity is not provided for in any rule of the RFP. Therefore Rule 5 applies.

The following relevant appendices apply to this proposal:

- Appendix 2 – Wetlands, Lakes and Rivers with a High Degree of Natural Character - Lake Wairarapa is listed;
- Appendix 3 – Water bodies with Nationally Threatened Indigenous Fish and Aquatic Plants - Lake Wairarapa is listed; and
- Appendix 5 – Water Bodies with Regionally Important Amenity and Recreational Values – Lake Wairarapa is listed.

6.3 Regional Discharges to Land Plan (Operative)

Rule 8 of the Regional Discharges to Land Plan (RDLP) specifies that any discharge containing human sewage onto or into land which is not provided for in other rules of the plan, is a **discretionary activity**.

The discharge cannot meet requirements of Rules 6 and 7 of the RDLP and therefore, defaults to Rule 8 of the RDLP.

6.4 Regional Air Quality Management Plan (Operative)

Rule 23 of the Regional Air Quality Management Plan (RAQMP) specifies that any discharge to air not otherwise provided for in the plan is a **discretionary activity**.

Rule 21 of the RAQMP deals with the issue of sewage treatment and disposal and (1)(a) specifically excludes municipal sewage. Therefore Rule 23 of the RAQMP applies.

6.5 Proposed Natural Resources Plan

The Proposed Natural Resources Plan (PNRP) was publicly notified by the GWRC on 31 July 2015 and it took immediate legal effect from this date under Section 86B(3) of the Act. Therefore all rules in the PNRP have immediate legal effect from the date of notification under section 86B(3) of the Act.

As the application was lodged after 31 July 2015, the PNRP is relevant to determining the resource consents required, activity status and the substantive assessment of the proposal.

6.5.1 Discharge to water

Rule R61 of the PNRP specifies that the discharge of wastewater into freshwater that is an **existing discharge**, is a **discretionary activity**. Rule 62 of the PNRP specifies that the discharge of wastewater into freshwater that is a **new discharge** into freshwater is a **non-complying activity**.

It is my opinion that the rule which applies to this proposal is Rule 62 and therefore it is a **non-complying activity**. For clarity I will provide some explanation below.

The definition of existing discharge states that -

*In the context of **wastewater** discharged into freshwater from a wastewater treatment plant or a **wastewater network** means a discharge already authorised by resource consent at the time of application for a new resource consent relating to the same activity*

The definition of new discharge states that –

*A new discharge of **wastewater** from a **wastewater** treatment plant not previously authorised by resource consent.*

*In the context of **wastewater** discharged to fresh water from a wastewater treatment plant or a **wastewater network** means a discharge not authorised by resource consent at the time of application for resource consent or a discharge that was authorised by a resource consent at the time of application for a new consent but is to be increased or otherwise altered by a new resource consent.*

The FWWTP already has an existing consent (WAR970080) which authorises SWDC to discharge 100% to water into Donald's Creek.

This application as a package is for a discharge to land, air and water in combination, staged to result in a predominant discharge to land over a 35 year period. Because of this approach, the discharge to water element of this application is not for the 'same activity' and it is being '**otherwise altered**' from the existing authorised consent. The ordinary definition of altered is '*change in characteristics*'⁷. It is my opinion that the characteristics of the discharge to water element of this application have changed, and will change further with proposed works, such as improving I and I (which will reduce flows but equally those flows will increase in contaminants being discharged), especially when

⁷ Concise Oxford Dictionary

considered in the context of the 35 year term the applicant has applied for in the AEE.

While it could certainly be argued that the progressive removal of a discharge to water is having a positive effect in the long term (and thus in line with other high level policy direction in the PNRP), it is important to note the definition in the PNRP does not distinguish as to what kind of alteration applies, for example the definition does not say otherwise ‘adversely’ altered, and equally so it does not exclude anything which is a ‘positive alteration’ as such. Therefore, my view is that we should not add words or intent into the definition as it is written. We should read it as it is.

6.5.2 GWRC obtained legal advice on this issue before determining its position. This will be addressed further in legal submissions for the Council. Discharge to Land

With regards to the discharge to land component, there are Rule 79 (controlled activity) and Rule 80 (restricted discretionary) which deal with the discharge of treated wastewater onto or into land and the associated discharge of odour. These rules are detailed in nature and each one has an extensive list of conditions which must all be met for an activity to be processed as either controlled or restricted discretionary.

The proposal does not meet the conditions specified within these rules and so therefore it defaults to **Rule R93**, *All other discharges to land* which is a **discretionary activity**.

6.5.3 Discharge to Air

With regards to discharge to air element of the FWWTP, both Rules 79 and 80 deal with ‘*the associated discharge of odour*’ from a wastewater treatment plant, however the ‘catch all’ Rule 93 does not. Rule 93 only relates to the discharge into or onto land. There is no rule in the Air Quality section which deals specifically with wastewater and therefore **Rule R41**, which deals with *all other discharges* as a **discretionary activity** applies.

6.5.4 Schedules

The following relevant schedule listings apply to this proposal:

- Schedule A2 – Lakes with outstanding indigenous ecosystem value
Lake Wairarapa is listed for wildlife habitat;
- Schedule B – Nga Taonga Nui a Kiwa – Lake Wairarapa is listed;
- Schedule F1 – Rivers and Lakes with Significant Indigenous Ecosystems –
Lake Wairarapa and Abbots Creek and its tributaries are both listed (note Donald’s Creek is a tributary);
- Schedule F2b - Habitats for indigenous birds in lakes – Lake Wairarapa is listed;

- Schedule H1 – Regionally significant primary contact recreation water bodies – Lake Wairarapa is listed; and
- Schedule I – Important trout fishery rivers and spawning waters – Abbotts Creek is listed.

It should be noted Schedule F1 classifies Abbotts Creek and all its tributaries as a ‘significant river’. However, the map (map 13a and 13b) only shows the reach of the creek upstream of Donald’s Creek. It is my opinion that the words in the objective and its table take precedent over the maps.

6.6 Overall activity status

Overall, the proposal is a **discretionary activity** under the operative Regional Plans (RFP, RDLP, and RAQMP) and a **non-complying activity** under the PNRP.

7. Notification and submissions

7.1 Notification

The application was publicly notified in the Wairarapa Times Age on 16 May 18 and two signs were installed at the site and notice of the application was served on a number of affected/interested parties. In addition to this, notification was sent to all those parties who made a submission on the previous application (WAR120294).

A copy of the public notification is attached in Appendix 3.

The original submission period closed on 14 June 2018 however after a request from a member of the public, the submission period was doubled with SWDC agreement from 20 working days to 40 working days and the new submission period then closed on 12 July 2018.

7.2 Submissions

At the close of submissions 146 submissions had been received. A further 13 submissions were received after the close of submissions.

Of the total 159 submissions received, 3 submissions were in support of the proposal and 152 submissions were in opposition. 4 neutral submissions were received.

A summary of all submissions received and the issues raised is attached as Appendix 4 to this report.

7.3 Late submissions

As identified in Section 7.2 of this report 13 late submissions were received.

Under section 37(1)(b) of the Act, a consent authority may waive a requirement to comply with a time limit for the service of documents (eg: submissions). In making such a waiver, the consent authority is required by section 37A(1) of the Act to take into account:

- a) *The interests of any person who, in its opinion, may be directly affected by the waiver;*
- b) *The interests of the community in achieving adequate assessment of the effects of any proposal, policy statement or plan;*
- c) *Its duty under section 21 to avoid unreasonable delay.*

It was agreed with the applicant that under Section 37(5)⁸ of the Act that the submission period be extended for an additional five working days until 17 July 2018 to allow for late submissions to be accepted.

7.4 Issues raised by submissions

7.4.1 Issues raised by submissions in support

There were 3 submissions in support of the application and they covered the following issues:

- SWDC affirmed desire to deliver improved environmental outcomes at WWTP's
- Improved treatment processes and land treatment/disposal most sustainable way to achieve goal
- Renewal application consistent with above philosophy and context and outcome with MWWTP and GWWTP consents
- Proposed staged improvement programme for Featherston is tailored to deliver the outcomes over time targeted at achieving a sustainable balance between improved environmental outcomes and capital works affordability Supports 35 year consent term – consistent with MWWTP, GWWTP and CDC Daleton farm site
- Timeframes should be reduced where possible
- Short term consent
- I and I needs to be addressed first

7.4.2 Issues raised by submissions of conditional support or neutral submissions

There were 4 submissions in conditional support or neutral of the application and they cover the following issues:

- Public health effects and proposed conditions;
- Historic heritage effects and proposed conditions;

⁸ The reason that Section 37(5) was used was because the timeframes had already been doubled for the submission period after a request from a member of the public.

- Concerns regarding Powerco’s assets and the ability for the proposal to operate around them
- Conflicting views in the community regarding support and oppose

7.4.3 Issues raised by submissions in opposition

There were 152 submissions in opposition of the application and they covered the following issues:

- SWDC to reconsider system chosen
- Effects on neighbouring properties – wind, spray drift, odour,
- Effects on Lake Wairarapa, groundwater and bores
- Concern regarding effects on property values
- No consultation on purchase of the farm, on system chosen,
- No consultation with people affected
- Effects on health, social and economic well being
- Incorrect information in AEE and errors
- 35 years too long
- Projected growth of Featherston misrepresented
- Concern over buffer zones with property boundaries
- High water table in the area, land not suitable for discharging
- Effects on historic places and sites
- Cultural effects
- Concerns that not enough research and work has been done and also that Management Plans not available for some time
- Concerns that SWDC won’t be able to meet its obligations and comply with consent conditions as they have a history of mistakes
- Concerns that detailed financial work has not been undertaken
- SWDC should have to meet the same standards others have to meet

8. Matters for consideration

This section sets out the framework that has been used to assess the application.

8.1 Statutory criteria

The requirements of the Act that relate to the decision making process are contained within sections 104 to 116. The relevant sections of the Act are presented in their entirety in Appendix 5 to this report.

The matters to which a consent authority shall have regard when considering applications for resource consents and submissions are set out in section 104 of the Act as follows:

- (1) When considering an application for resource consent and any submissions received, the consent authority must, subject to Part 2, have regard to*
-
- (a) any actual and potential effects on the environment of allowing the activity; and*

- (b) *any relevant provisions of –*
 - i. *a national policy statement,*
 - 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; and*
 - vi. *a plan or proposed plan; and*
- (c) *any other matters the consent authority considers relevant and reasonably necessary to determine the application...*

(2A) When considering an application affected by section 124 or 165ZH(1)(c), the consent authority must have regard to the value of investment of the existing consent holder...

(6) A consent authority may decline an application for a resource consent on the grounds that it has inadequate information to determine the application.

Also relevant to this application is Section 104D in relation to non-complying activities. This is discussed further in Section 13 of this report.

8.2 Matters relating to the grant of discharge permits

Section 105 of the Act lists additional matters that a consent authority must have regard to when considering applications for discharge or coastal permits to do something that would contravene section 15 of the Act. These matters are addressed in Section 9.12 of this report.

Section 107(1) of the Act places restrictions on the grant of resource consents for the discharge of contaminants into water if they cause certain adverse effects in receiving waters after reasonable mixing. The effects relevant to section 107(1) of the Act are discussed in Section 9.3 of this report. In addition to this an assessment of the proposal against the parts of Section 107 are outlined in Section 10.

9. Assessment of actual and potential effects 104(1)(a)

The applicant has provided an AEE in which it provides an assessment of what it considers to be the main effects on the environment. In this section of my report I have discussed the main effects which are of concern and in addition to this, the concerns raised by submitters (where they are different to those I have raised).

9.1 Existing environment

9.1.1 Site, soils and groundwater

The FWWTP site and the discharge into Donald's Creek has been in existence since the 1970's.

According to GWRC records, the soil types for the irrigation areas are a mix of Ahikouka, Tauherenikau and Greytown silt loams⁹. These are all silt loams and all have a similar capacity for effluent application.

The FWWTP Site, Site A and the area of Site B south of the FWWTP are all in the South Featherston Groundwater Zone under the RFP, known as Tauherenikau (Category B¹⁰) Groundwater zone under the PNRP. The area of Site B which is to the east of the FWWTP is a mix of South Featherston and Woodside groundwater zones under the RFP, and Tauherenikau (Category B) Groundwater zone under the PNRP.

GWRC bore logs in both the Site A area and Site B area show a groundwater depth ranging from approximately 0.1 to 4 meters below ground level.

9.1.2 Competing land uses

The AEE states that the areas in Site A and Site B will all be used for application of effluent to land.

It was brought to GWRC's attention that SWDC had been quoted in the paper¹¹ saying that they were putting in an application to MBIE under the Provincial Growth Fund to take advantage of the Governments 1 Billion trees programme by planting seedlings on land set aside for wastewater disposal at Featherston.

I raised this matter in June 2018 with Emma Hammond and Sven Exeter from Mott MacDonald's (the applicant's agent) and indicated to them that this wasn't in the AEE and therefore we would be assessing the application of effluent to land as per the AEE. I indicated that if SWDC was carrying out this planting then it would be best for GWRC to be informed so that this could be factored into my assessment if need be. To date no formal discussion has been had with SWDC as to if and how this would impact on the discharge to land element of the application. Therefore this matter has not been dealt with in my Officers report.

Powerco made a submission in relation to the application to ensure that their assets within the site and street area by the discharge to land blocks were protected. Powerco want to ensure that any of their assets which need to be relocated are done so safely. Powerco recommend a condition be placed on the consent which ensures the consent holder takes all practical measures to avoid or minimise spray or spray drift onto electricity support structures. They also recommended that a number of advice notes be placed on any consent should it be granted.

It is my opinion that if consent is granted that Powerco's issues are best dealt with in the Discharge to Land and Water Management Plan, that way the applicant could ensure it deals with these issues when it is designing the system.

⁹ The Plant site and Site A are Ahikouka Silt Loam, Site B to the south of the WWTP site is also Ahikouka Silt loam. Site B to the east of the WWTP site is a mix of Ahikouka, Tauherenikau and Greytown silt loams.

¹⁰ Category B groundwater has a high to moderate connection to surface water.

¹¹ Wairarapa News, May 23rd 2018, 'Trees eyed up for Council Land'

9.1.3 Longwood water race

The Longwood Water Race is located within the Hodder Farm area (Site B).

SWDC has resource consent from GWRC (WAR010201) to take water from the Tauherenikau River to use in the water race network. SWDC then administers the water race and allocates water out for use and charges the various users of the network.

A water race is not considered to be a watercourse or modified water course in terms of Section 13 of the Act. However in terms of Section 15 of the Act, if consent is granted, SWDC would have to adhere to setbacks from the water race (which would be specified in the consent conditions of any consent granted) for any discharges to land, or alternatively divert the water race away from the Hodder Farm land. At the time of writing this report no variation has been received by GWRC from SWDC in relation to the water race network.

It is my opinion that if consent is granted, that this should be dealt with in the Discharge to Land and Water Management Plan at the time the system is designed, taking into account the various site constraints and availability of land for discharging on to.

9.1.4 Donald's Creek

The PNRP classifies Donald's Creek as a River Class 5, this class classification tells us that the creek can generally be described as lowland, large, draining plains and eastern Wairarapa.

The AEE provides some useful information on Donald's Creek in Section 3.7.1. I adopt that and will not repeat this information here, other than to say it is a relatively small stream which originates in the foothills of the Tararua Ranges. It meanders through approximately 6 km of primary productive land before combining with Abbots Creek (Otauirā Stream) approximately 2.2 km south of the discharge point. The Creek supports various aquatic species, including populations of longfin eel (at risk), shortfin eel and common bully¹².

9.1.5 Water takes from Donald's Creek or Abbots Creek

There are two consented water takes from either Abbots Creek or Donald's Creek (tributary of) and these are outlined in the table below;

Consent No.	Name	Inst. take (l/s)	Watercourse	Upstream/ downstream FWWTP
WAR130223	Windy Farm	20	Abotts Creek	Downstream
WAR130310	R Geange	16	Torohanga (Donalds Creek Tributary)	Upstream

Note that there could also be permitted activity takes of which GWRC is not aware. These water takes will need to be considered by SWDC when

¹² Report prepared by Dr Ausseil dated 1 March 2019, para 4.17

undertaking any assessments of stream flows in relation to dilution factors and cumulative effects especially with regard to the NPS-FW.

9.1.6 Water takes from bores

The AEE identifies that there are known groundwater users within 2 km of the site boundaries of the discharge area. Further to this, in a report prepared by GWS Limited (dated 14 December 2018, see section 9.4.4 for further detail) a number of bores have been identified in close proximity to the site (and potentially within the flow path of the discharge).

Note that there could also be other bores of which GWRC is not aware. These bores will need to be identified by SWDC to ensure they have a comprehensive list. The GWS report indicates that a bore survey will be undertaken.

9.1.7 Abbots Creek (Otauria Stream)

The PNRP classifies Abbots Creek as a River Class 4, this class classification indicates that the creek can generally be described as lowland, large, draining ranges with significant indigenous ecosystems.

I understand that there are a number of fish species found in Abbots Creek that are similar to that which would be expected for a creek such as this. It is known by the GWRC Environmental Science team that there have been populations of dwarf galaxias found in Abbots Creek, which are a declining and at risk species. Dr Ausseil states in his report¹³ that Abbots Creek contains large long fin eel (at risk), short fin eel, giant kokopu (at risk) and bulllys.

The AEE states in Section 3.7.2 that upstream of the confluence with Donald's Creek, Abbots Creek has macroinvertebrate communities indicative of fair ecological condition. The fish community in the Creek was dominated by longfin eel and common bully and also included shortfin, inanga and a small rainbow trout.

9.1.8 Lake Wairarapa

Lake Wairarapa¹⁴ is the largest lake in the Wellington Region and is located south of the Featherston township and the discharge point. It is also part of the largest wetland complex in the southern North Island. The lake is considered to have national and international importance due to its significant cultural, ecological, recreational and natural character values. A National Water Conservation Order was placed on the lake in 1989 recognising the high ecological values of the Lake.

Recently as part of the Crown redress and apology, Lake Wairarapa was vested back into the ownership and management of local iwi. In the Ngati Kahungunu ki Wairarapa Tamaki Nui-a-Rua Deed of Settlement Summary, it states that Wairarapa Moana property, which includes the bed of Lake Wairarapa and part of the bed of the Ruamahanga River, was vested 90% shares to Ngati Kahungunu

¹³ 1 March 2019, paras 4.21.

¹⁴ Information on Lake Wairarapa sourced from – Perrie, A and Milne JR, Feb 2012. *Lake Water Quality and Ecology in the Wellington region: State and trends*. Pages 10-41

ki Wairarapa Tamaki Nui-a-Rua Deed of Settlement and 10% in the Rangitāne Tū Mai Rā Trust.

The main surface inflow into the Lake is from the Tauherenikau River although there are numerous other small streams that feed into it as well – of which Abbotts Creek is one. At times flows from the Ruamahanga River can enter the lake via the Oporua Floodway.

The water quality of the lake has been reported on for many years and it is well known that the quality is poor and the lake is in a supertrophic state. This is an issue which is currently being addressed in a number of ways, including the process occurring through the Whaitua process for the Ruamahanga Catchment (see section 9.13 for further explanation on the Whaitua process).

9.2 Summary of effects

A summary of the overall effects (assessed in detail below) of the proposal is as follows:

- The current discharge is having **significant adverse effects** on macroinvertebrate communities and results in **conspicuous change in water clarity** in Donald's Creek in the opinion of Dr Ausseil. It is not meeting Section 107(1)(d) or 107 (1)(g);
- During Stage 1A (after year 2 and up to year 5) the discharge will have significant adverse effects and results in conspicuous change in water clarity in Donald's Creek in the opinion of Dr Ausseil. It will not meet Section 107(1)(d) and 107(1)(g);
- During Stage 1B (after year 2 and up to year 5) changes in water clarity are predicted to occur one third of the time (75 days per year) and on these days the discharge will result in a conspicuous change in water clarity and will not meet Section 107(1)(d);
- During Stage 1B (after year 2 and up to year 5) ecological effects may not occur during the summer but adverse effects on periphyton and macroinvertebrates cannot be discounted during the remainder of the year. During this time the effects on aquatic life will be more than minor in the opinion of Dr Ausseil and possibly significantly adverse for 4-6 weeks per year (2-3 weeks in spring and 2-3 weeks in autumn), therefore breaching 107(1)(g) at those times;
- During Stage 2A (after year 5 and to year 13) there will be a conspicuous change in water clarity for 42 days per year and more than minor effects (but not significant) on macroinvertebrate communities at certain times;
- During Stage 2B (after year 13) there will be no conspicuous change in water clarity and less than **minor effects** on macro invertebrate communities;

- A conclusion of the effects on groundwater and soils **cannot be reached at this time**. Based on advice from PDP, there is **too much uncertainty** with what is proposed, **not enough robust information**, and **too many assumptions** that have been made;
- It has been identified in a report prepared by GWS¹⁵ (dated December 2018) that there is an effects envelope for pathogens to be found in the groundwater and this has resulted in a number of bores being identified as potentially being impacted by wastewater, which could be **more than minor and potentially significant effects**;
- According to the PDP report, there are potentially **more than minor effects occurring on neighbouring properties as a result of groundwater mounding**;
- The effects on cultural values are **potentially more than minor** as the proposal is to discharge effluent to Donald's Creek, and ultimately Lake Wairarapa, for at least 13 years and it appears from the submissions received in relation to cultural effects that this is too long for this discharge to be occurring;
- There are **more than minor** recreational effects occurring from the **reduced visual clarity** of the proposal, however the effects from **cynobacteria and ecoli** on recreational effects are **no more than minor**;
- The effects on historic heritage from the discharge to land, water and air will be **no more than minor**, provided that there is no discharge beyond the boundary;

¹⁵ Report prepared by GWS for SWDC which was attached to the JWS

- It may be that there are economic effects, but without additional information **a conclusion on this cannot be reached;**
- There are **positive effects** occurring on the environment from this proposal - the discharge will eventually be removed from water and the funding for upgrades has been spread over all three sites to ensure it is affordable for the community; and
- The effects from the discharge to air may be **no more than minor**, but additional work is required in regards to the predominant wind during land irrigation periods.

9.3 Effects on surface water and ecology of Donald's Creek

The effects on surface water and ecology have been assessed for GWRC by Dr Olivier Ausseil of Aquanet Consulting Limited. Dr Ausseil's report is attached as Appendix 6 of this report and I refer to and rely on his report throughout this section of my report.

In addition to this document, a Joint Witness Statement (JWS) was prepared between Dr Ausseil and Mr Keith Hamil, dated 31 October 2018. This JWS was prepared as a result of a joint memo between SWDC and GWRC seeking discussions between experts to occur (memo dated 30 August 2018, attached to Minute #2 6 September 2018). This JWS is attached in Appendix 7.

9.3.1 Zone of reasonable mixing

In his report Dr Ausseil states that it is highly likely that full mixing is achieved well within 100m downstream of the discharge point under all flow conditions and therefore, is it reasonable to retain the existing 100m zone of reasonable mixing.

9.3.2 Discharge days

The following table summarising the days the discharge is occurring and the number of days when clarity is being exceeded (in relation to Section 107 of the Act). This table is from Dr Ausseil's report (Table 2, para 7.14).

I have inserted it here for clarification as I refer to the number of days the discharge occurs a number of times during my report, and this is the table from which my information is obtained.

Stage	% time discharge to stream	Days discharge to stream per year	Proportion of the time when the discharge will cause conspicuous change in water clarity	Average number of days per year when the discharge will cause a conspicuous change in water clarity
Current 0-2 years	99%	361	66%	242
1A Years 2-5	90%	329	60%	220
1B Years 2-5	51%	186	21%	75
2A Years 5-13	40%	146	11%	42
2B Years 13+	4%	14	<1%	2

9.3.3 Current discharge

As can be seen from the table above, the current discharge is occurring for 361 days of the year. The volume and quality of the discharge are outlined in the AEE¹⁶ and referenced in para 5.3 of Dr Ausseil's report. The current discharge will continue for the first two years of the consent.

In his report, Dr Ausseil discusses the effects on Donald's Creek from the current discharge. Overall he concludes that, in his opinion, the discharge from the FWWTP currently has **significant adverse effects on macroinvertebrate communities** in Donald's Creek. In summary these effects on macroinvertebrates are caused by;

- increased deposition of organic matter;
- increased periphyton growth;
- increased ammonia concentrations;
- decreased oxygen concentration/saturation; and
- increased heterotrophic (sewage fungus) growth.

In addition to the effects on macroinvertebrate communities, the discharge is also resulting in a **conspicuous change in water clarity**. Dr Ausseil states in his report that the discharge regularly causes a significant reduction in water clarity (often greater than 50%) and it is estimated that the no more than 33% reduction in water clarity standard (i.e. for what is conspicuous)¹⁷ is currently breached approximately 242 days per year.

¹⁶ Section 2 of the Water Quality Assessment report, Mot MacDonald, 2017, Appendix 8 of the AEE)

¹⁷ It is important to note here that this 33% clarity standard is explained in the JWS (p18) as 'a commonly used numerical threshold for conspicuous changes in water clarity. It is based on panel studies, and is in national guidelines. Visual clarity changes of no more than 30% to 35% are used as targets/limits/standards in a number of regional plans as numerical translation of 107(1)(d)'.

In context of when there will be an actual discharge occurring, it is predicted that during current discharge, there will be approximately 361 days per year that there is a discharge to water. Of those 361 days, approximately 242 days will show a **conspicuous change in water clarity**.

It should be noted here for clarification that water clarity refers to light transmission through water and this results in two important aspects: visual clarity (sighting range for humans and aquatic animals) and light penetration for growth of aquatic plants.

In relation to the combination of the effects on macroinvertebrate communities and water clarity, Dr Ausseil comments that although the discharge regularly causes a significant reduction in water clarity, he does not think this is a major contributor to the effects occurring on macroinvertebrate communities or other ecological effects. However he points out that the two effects are linked as they are both caused (in full or part) by the particulate organic matter content of the discharge in the stream, or deposited on the bottom of the stream and the deposition of organic solids is probably the leading cause of the effects on macroinvertebrates currently measured, particularly during the summer.

Dr Ausseil considers that these effects occurring on Donald's Creek from the discharge arise from the fact that the receiving environment is a very small stream compared to the discharge, and dilution factors range from 1:5 to 1:20 with most discharge events around 1:10. In Dr Ausseil's experience dilution factors of less than 1:20 for oxidation pond effluent represents a significant risk of effects.

In my opinion, based on the assessment by Dr Ausseil the **current discharge** is having **significant adverse effects** on **macroinvertebrate communities** and is resulting in a **conspicuous change in water clarity** and is not meeting either Section 107(1)(d) or 107 (1)(g).

9.3.4 Stage 1A - optimisation works

During Stage 1A of the proposal the effects are similar to that which occurs during the current discharge as the discharge is of the same quality and quantity to that of the current discharge. Dr Ausseil's opinion is that during Stage 1A the discharge will not meet Section 107(1)(d) and 107(1)(g) of the Act. I rely on that assessment.

This stage will begin within 2 years of commencement of consent and will last to Year 5.

9.3.5 Stage1B - land treatment to FWWTP land

During Stage 1B, effluent will be discharging to Donald's Creek approximately 51% of the time. Compared with the current discharge, discharges are proposed to be minimal in November to March, reduced during April, May, September and October, and remain unchanged in June, July and August. The discharge, when it is occurring, will be the same quantity and quality of discharge that is currently occurring now.

Dr Ausseil states that the proposed regime results in reductions in discharge to water during the times when Donald's Creek is typically most sensitive to the effects of point source discharges (i.e. low stream flows and the summer period). He also states that in his experience, in theory this should be enough to ensure no significant adverse effects would occur or at least the risk of these effects would be relatively low. However, he makes an important point that due to the very low dilution rates available in Donald's Creek and its relatively stable flow, that in this situation;

- changes in water clarity are predicted to occur 21 % of the time (75 days) on an annual basis. On these days the discharge will not meet Section 107(1)(d);
- ecological effects may not occur during the summer but adverse effects on periphyton and macroinvertebrates cannot be discounted during the remainder of the year;
- significant increases in periphyton growth are likely to occur when flow conditions are stable (particularly in spring and autumn) – this also applies to deposition of particulate organic matter; and
- the risk of effects on periphyton and macroinvertebrates remains during the shoulder periods – spring and autumn – during Stage 1B. During this time (according to the JWS) the effects on aquatic life will be more than minor and likely significant for 4-6 weeks of the year (or 2-3 weeks in autumn and 2-3 weeks in spring). Therefore, there will be a breach of 107(1)(g) during this time period. Dr Ausseil considers that this uncertainty around the level and frequency of significant adverse effects can only be addressed through further monitoring.

This stage will begin within 2 years of commencement of consent and will last until Year 5.

In context of when there will be an actual discharge occurring, it is predicted that during Stage 1B, there will be approximately 186 days per year that there is a discharge to water. Of those 186 days, approximately 75 days will show significant effects on water clarity.

In my opinion it can be concluded that the discharge occurring during Stage 1B is having **more than minor (for periods of the year) and possibly significant adverse effects (for 2 – 3 weeks a year) on macroinvertebrate communities (at times outside of low flow periods) and a conspicuous change in water clarity for 75 days a year.** Therefore, it can be concluded it is not meeting Section 107(1)(d) and is likely to not meet 107 (1)(g) during these times.

In addition to the above Section 107 matters, there are also more than minor and possibly chronic ammonia effects occurring during this stage. Dr Ausseil discusses this in his report (para 7.14) and it is also covered in the JWS (Table 1) which states that there is still a possible chronic effect on most sensitive species during this stage.

9.3.6 Stage 2A - land treatment to new site

During Stage 2A effluent will still be discharged to Donald's Creek but there will be a further reduction in the frequency of discharge to water compared to what is occurring at Stage 1B, particularly during the shoulder seasons and at flows below median flows.

Dr Ausseil considers that there will still be significant effects on water clarity predicted to occur 11% of the time, that being 42 days on an annual basis. In context of when there will be an actual discharge occurring, it is predicted that during Stage 2A there will be approximately 146 days per year that there is a discharge to water. Of those 146 days, approximately 42 days will have a conspicuous change in water clarity.

With regards to ecological effects, Dr Ausseil states that the type of effects and the drivers behind them remain the same as Stage 1B. However, he also points out that by further removing the discharge from the stream during the shoulder and base flow periods, that Stage 2A is likely to provide significant mitigation of key aspects which result in ecological effects, to the point where significant adverse effects seem unlikely, but reasonable effects may still occur during periods of stable flows in Donald's Creek.

This stage is proposed to begin 5 years after commencement of the consent.

In my opinion, based on the assessment above, the discharge occurring during Stage 2A will have a **conspicuous change in water clarity** for 42 days per year and **more than minor (but not significant) ecological effects (other than in summer)**. Therefore, in my opinion the proposal is will not meet Section 107(1)(d) during this stage, however I consider it will meet Section 107 (1)(g) during this stage.

9.3.7 Stage 2B - deferred storage

During Stage 2B the effects on surface water and ecology will be no more than minor as there will be a near elimination of the discharge to Donald's Creek. This is because storage will be in place and discharges to water will only occur 4% of the time and the discharge will only occur for 14 days per year. This stage is proposed to begin 13 years after the commencement of the consent.

In my opinion, the discharge occurring during Stage 2B will have **no more than minor effects on Donald's Creek**.

9.3.8 Stages and timing

All of the stages above have a timeframe connected to them as to when they commence. It is important to note however that these timeframes are when the stage 'commences' (according to draft conditions in the AEE). Therefore it may be that the effects of the previous stage could continue into the new stage depending upon when the discharge to land element becomes operational within the new stage.

In addition to this, each stage is dependent upon the I and I reduction targets being met, which then allows a certain volume of flow which has a

corresponding level of treatment to go to the river, and a set volume of flow to go to land. At this stage there are no I and I targets and volumes specified in the draft conditions in the AEE, and I and I is only controlled by way of a Management Plan. If I and I targets are not met then it may be that effects differ from those in the AEE and assessed above as increased volumes with potentially lesser treatment levels will be going in to the waterway and increased volumes will need to go to land (assessed discussed below in 9.4.3).

9.3.9 Summary of effects on surface water and ecology

The table below provides a summary of my conclusions on effects on aquatic life and water clarity during each of the stages, based on the advice of Dr Ausseil.

Stage	Effects in summer	Effects in shoulder seasons/winter
0-2 years	Significant.	Significant.
Stage 1A (Years 2-5)	Significant.	Significant.
Stage 1B (Years 2-5)	Minor.	Aquatic Autumn - more than minor, possibly significant, for limited periods of time for 2-3 weeks Aquatic Spring - more than minor for 2-3 weeks, no significant effects. Water clarity - >33% clarity reduction 21% of time (75 days per year).
Stage 2A (Years 5-13)	Minor.	Aquatic Autumn - more than minor, but not significant effects, for limited periods of time for 2-3 weeks Aquatic Spring – more than minor for 2-3 weeks, no significant effects. Water clarity - >33% clarity reduction 11% of the time (42 days per year)
Stage 2B (Years 13+)	Less than minor	Less than minor

It is important to note here that this table relates to the effects from the proposal in the context of the actual effects occurring on the environment all of the time (i.e. in line with Section 107 of the Act), which considers effects at any time (day or night, summer or winter). Policy P71 of the PNRP (discussed in more detail in Section 11.2.5 of my report) has standards in it which relate to these same matters. However for water clarity these standards only apply at less than median flows. Therefore, there is a difference between the assessment under Section 107 of the Act and under Policy P71. Caution needs to be had when discussing and looking at tables in relation to exceedance days as to which standard has been applied i.e. Section 107 of the Act or P71 of the PNRP.

9.4 Effects on groundwater and soils

The effects on groundwater and soils have been reported on by Rob Docherty, Jack Feltham and Asland Perwick of Pattle Delamore Partners (PDP). The PDP report is attached as Appendix 8 of this report.

In addition to this document, a JWS was prepared between Rob Docherty, Daryl Irvine, Jack Feltham and Asland Perwick of PDP and Katie Beecroft and Chris Simpson (agents representing SWDC) dated 20 December 2018. The JWS was prepared as a result of a joint memo between SWDC and GWRC seeking discussions between experts to occur (memo dated 30 August 2018, attached to Minute #2 6 September 2018). This JWS is attached in Appendix 9.

Prior to this JWS being prepared some field work was carried out by SWDC agents to provide additional information. However not all the information required was provided by the applicant's agents at the conferencing and so firm conclusions could not be made. As of the date of this report, PDP have been informed by Katie Beecroft that additional field work was being undertaken. This is too late in the process to help inform this report and its recommendations, and will need to be covered in evidence if it is completed.

It should further information has been received from the applicant (Groundwater and Modelling Report). However, as it was provided late in the day on Tuesday, 26 February, there has been no opportunity to review that properly and address it in this report. It will need to be addressed through evidence. The applicant has also advised that further information on the pathogen issue will be provided in evidence.

9.4.1 Groundwater

In its report, PDP consider that a conclusion on the effects from the proposal on groundwater cannot be reached as there is too much uncertainty and assumption in the proposal. These concerns have been previously outlined to SWDC on a number of occasions (through Section 92 and also meetings between experts) and PDP still consider that these concerns have not been adequately addressed. In addition to this, there is still information that is required that wasn't provided for the JWS conferencing and while some progress was made towards reducing uncertainty with the activity and effects, PDP have been unable to complete their assessment and make firm conclusions without this information.

In summary the main issues raised by PDP on groundwater and soils are:

- The main effects from the land application scheme area are¹⁸ managing the potential on-site and off-site increase to the groundwater levels (mounding) and, managing the risks associated with contaminant migration/water quality (on site and off site);
- There is insufficient site specific data to support the applicants effects assessment with respect to groundwater¹⁹;
- In relation to the applicant's assessment on groundwater, there are a number of key assumptions and uncertainties that were adopted. PDP acknowledge that whilst some uncertainty is always present when completing a groundwater assessment of this type, there is insufficient detailed information in the AEE to reduce uncertainty to an acceptable level. This key information which is not present is outlined in detail in the PDP report, but in general relates to:
 - Understanding of the geological units beneath the site and relevant surrounding areas;
 - Understanding key hydrogeological properties;
 - Understanding groundwater level and flow regimes;
 - Understanding of climate forces in the area;
 - Representation of land surface topography at the site; and
 - The expected range of irrigation depths.
- PDP state that the applicant's consultant has provided a prediction on the area impacted by groundwater mounding. There is concern as the area identified as being subject to groundwater mounding is a large section and occurs in a number of different land parcels. It also indicates the applied volume is potentially above the capacity of the receiving land area, and thus would result in the need for a significant increase in storage volumes. PDP also make the point however that with the reduction in flows from I and I that this could be achievable in terms of storage. However they feel that it is critical that consent conditions (should consent be granted) sufficiently cover this risk and ensure no adverse effects occur and to cover off the risk.

In my opinion, it is clear from PDP's report that **conclusions cannot be reached on the effects on groundwater**. There is **too much uncertainty and assumptions, and more information is required** to make accurate and robust conclusions. In addition to this, even the information that is provided in the AEE seems to be uncertain due to the potential that groundwater mounding could result in significant increases in storage volumes being required, or more water being discharged to the river.

It is my opinion that these matters are best addressed in the applicant's evidence (particularly once the additional field work is carried out (if it is) and more

¹⁸ See 3.1 of the PDP report dated 27 Feb 2019

¹⁹ See 3.1 of the PDP report dated 27 Feb 2019

information is able to be provided) and then these issues can be further discussed prior to the hearing between the relevant experts in accordance with paragraph 10 of Minute #1 of the Hearings Panel.

9.4.2 Overseer

In their report PDP has some concerns about ensuring that the consent conditions for the discharge to land element of this proposal reflect and limit the proposed activity in the AEE and what has been modelled by Overseer. This is particularly important given there is a lack of certainty around groundwater mounding and potential for saturated ground conditions across a large portion of the site. This may be something that could be addressed at any expert witness caucusing if so directed by the Hearings Panel.

9.4.3 Inflow and Infiltration

PDP consider that the approach in the AEE of reviewing I and I is reasonable. However they make the point that the extent of I and I reduction is not certain, and given I and I reduction will affect other aspects of the proposed activity including the land discharge regime, discharge quality, required storage volumes and river discharge volumes, that reviewing the I and I reduction when actual data is available is imperative. This may be something that could be addressed at the expert witness caucusing directed by the Hearings Panel.

9.4.4 Pathogens

PDP have raised concerns regarding pathogens and potential water quality effects from the discharge to land entering water. PDP state in their report that an assessment should be undertaken regarding maximum pathogen magnitude and migration from the proposed discharge, and a high degree of certainty regarding the presence, location, vulnerability, and overall risk to human and environmental receptors.

In the JWS, it was agreed on adoption of Norovirus as an indicator, on an average travel time of 5 years to provide an envelope of effects, and it was also agreed that a *‘risk assessment for pathogen risk will be required by ESR (or similar) for all identified receptors within the envelope of effects’*. This report has not been prepared at the time of writing this report, therefore this is information which will need to be covered in evidence. It was outlined in the GWS report dated 14 December 2019 (attached to the JWS) that there are approximately 8 known bores within the 5 year travel effects envelope and as a result these bores are potentially exposed to viral risk if the water is used for potable purposes.

In my opinion, based on the PDP advice in their report and the GWS report, the risk of pathogens and potential water quality effects is an issue which needs to be addressed in more detail than has been provided by the applicant. It is also my opinion based on the GWS report that if there are pathogen effects on the bores within the effects envelope (and any future bores and/or bores not officially recorded on the GWRC GIS system) discovered through investigation of the effects envelope they are likely to be **more than minor and potentially significant**. This needs further investigation by the applicant and addressing

further in its evidence before firm conclusions can be made and also any potential mitigation measures (if any) are investigated.

9.4.5 Summary of effects on groundwater and soils

It is my opinion that **a conclusion on the effects on groundwater and soils cannot be reached at this time**. There is too much uncertainty with what is proposed and too many assumptions that have been made. There was not enough information provided at the time of the JWS for firm conclusions on effects to be made to satisfy PDP. In addition to this, it appears from the information that we do have, that if the system is operated as outlined in the AEE, there may be **more than minor and possibly significant effects occurring on neighbouring properties as a result of pathogens** (which have yet to be investigated and mitigated by the applicant).

In addition to this, a number of submitters have also raised concerns regarding the use of the Hodder Farm and the high water table and potential for adverse groundwater effects which links in to the concerns expressed by PDP in relation to effects on groundwater and groundwater mounding. They cannot be robustly addressed at this time.

9.5 Cultural Effects

The discharge of human effluent into water has the potential to adversely affect iwi and their cultural values. It is well recognised within all the relevant legislation, as well as both national and regional statutory documents that tangata whenua have a strong connection across all of the values of a waterway and their involvement in managing this resource is important. Lake Wairarapa is listed in Schedule B of the PNRP and as already discussed in Section 9.1.8 of this report, the bed of the Lake has been vested back into ownership and co-management of iwi.

For this application, no submissions were received from the two main umbrella iwi groups, Rangitaane o Wairarapa or Kahungunu ki Wairarapa. However submissions were received from the SWDC Maori Standing Committee and also from Pae tu Mokai O Tauira (a Featherston based iwi group). Both these submitters raised concerns about cultural effects from the discharge to water.

The AEE contains a Cultural Impact Assessment (CIA) prepared by Rawiri Smith of Kahungunu ki Wairarapa (KkW). The CIA was prepared in 2012 in relation to the original application, which was to discharge fully to water after UV treatment of the effluent. This is attached as Appendix 12 to the AEE and it is the same CIA that was lodged with WAR120294.

The CIA covers the concerns iwi have regarding discharges and the relevant sections of the Act. Mr Smith also covers some of the key cultural aspects that are of importance. In particular, those relating to waterways such as:

- the spiritual and physical aspects of the waterway;
- the need for access to clean healthy drinking water;
- the relative importance of food collection (in particular he mentions the traditional meat source of eels); and
- the need for clean water for spiritual rituals.

The CIA also goes into various options for discharging to land and provides cultural comments on these options. There is no section specifically related to this proposal as when the CIA was prepared the options included UV plant, floating mats and a partial discharge to land. It is my understanding from reading the CIA however that it appears a total discharge to land would have positive cultural benefits in terms of the removal of the discharge from a waterway.

As mentioned above, two submissions raise cultural concerns regarding the proposal and the issues identified are discussed below:

- *upgraded wastewater treatment plant that produces the highest quality discharge and discharge to land*

The original proposal was to discharge to water for at least 20 years, but this has now been amended to 13 years by the applicant, and there is a gradual reduction to water as the discharge occurs to land. It is obvious from the submissions received that the continued point source discharge to water of human effluent from the township of Featherston is having an adverse effect on cultural values. The wastewater treatment plant is not proposed to have any improvement in the quality of the discharge, and this will continue for 13 years (albeit at reduced levels). Whilst I acknowledge the SWDC wastewater strategy for all three sites and the stated financial constraints, I consider this matter raised in relation to cultural effects is one which SWDC should give serious consideration. It may be that if consent was to be granted, stages may be pulled forward even further to mitigate these effects and reduce the amount of time the effluent continues to be discharged into the waterway. It may be that the change to 13 years (from 20) is enough to satisfy the submitters, but it is hard to come to any firm conclusions on this based on the submissions.

- *35 year timeframe is too long with ongoing discharge into Donald's Creek and there are effects occurring on Wairarapa Moana that are unacceptable*

This point is similar to the one above in that it relates to the cultural effects associated with the discharge of human effluent to a waterway. In a report on Lake Wairarapa, it has been demonstrated that this discharge is having a measurable impact on water quality in Donald's Creek, and further to this the FWWTP is not an insignificant source of nutrients to the Lake,

particularly during low to moderate flows²⁰. The point being made by the iwi group submitting is that it is unacceptable for effects to continue for 35 years on Wairarapa Moana (35 years is the consent duration being sought by the applicant). As has already been noted in this report, the bed of the Lake has been vested back into iwi ownership to acknowledge their strong relationship with this internationally important lake.

It is my opinion, based on the assessment above, that the effects on **cultural values** from the discharge to water element of this proposal are **potentially more than minor**. This is because the proposal is to continue to discharge human effluent to Donald's Creek and ultimately Lake Wairarapa, and it appears that from a cultural effects point of view, the timeframes for removal of the discharge may be too long for this discharge to be occurring. It is important to note that the submissions were based on the 20 year timeframe for this to occur, not the new 13 years. It is my opinion that more consultation needs to occur on cultural values and if the Panel is minded to grant consent, it is also my opinion that this consultation should occur prior to the preparation of the Tangata Whenua Management Plan. It may be that this would allow any actual or potential cultural effects of discharging wastewater to Donald's Creek, Abbotts Creek and Lake Wairarapa to be mitigated.

9.6 Public Health Effects

The discharge of human sewage can pose a public health risk to people and communities, from the actual discharge itself, and from contact with poor water quality in a waterbody, contamination of groundwater which is used for domestic and stock use, aerosol deposition outside of the property and contaminated soils. It is also important to acknowledge that there is a great risk to human health if the FWWTP plant is not operated and the community cannot dispose of their effluent appropriately.

The contaminants which are of concern to public health are pathogens, E.coli and also the area of emerging contaminants.

The AEE concludes that the effects of pathogens on the site soil and plants from the FWWTP discharge will be less than minor. It also concludes that the effects of pathogens on groundwater and surface water will be negligible. I have addressed the issue of pathogens in groundwater in more detail in Section 9.4.4 above, and have concluded that (based on the PDP advice) the risk of pathogens and the potential groundwater water quality effects this may have is an issue which needs to be addressed in more detail than has been provided by the applicant before a firm conclusion on the level of effects can be made. It can be said however that it is likely these effects will be **more than minor and potentially significant**. It is hoped that as a result of the JWS prepared that a report will be undertaken looking into the issue of pathogens.

Regional Public Health (RPH) made a submission on the application. They do not make any statements in their submission regarding the levels of actual or potential effects on public health or risk from pathogens from the current or proposed discharge regime. Instead, RPH proposes (in their submission) the

²⁰ Perrie, A and Milne JR, Feb 2012. *Lake Water Quality and Ecology in the Wellington region: State and trends*.

following mitigation measures to reduce the potential risk of effects on public health from this proposal:

- place public warning signage in the vicinity of the discharge to Donald's Creek;
- place public warning signage around the areas of discharge to land;
- give consideration to incorporating monitoring of implementation of the staged upgrades and reassessment of the stage to align with current best practice.
- the immediate and cumulative effects on groundwater are monitored;
- controls are imposed which ensure groundwater quality is not impacted by existence of preferential pathways of treated wastewater;
- ensure the aerosols from the discharge to land do not cross boundaries and thus meet the Wairarapa Combined District Plan; and
- a review condition that deals with emerging contaminants.

RPH also note in their submission that it is important to consider 'health' as being broader than physical effects, it can also include (in the case of Maori Health) effects on mental, whanau and spiritual wellbeing. They make the point that although it is possible to reduce the physical health effects through mechanisms such as warning signage, this does not apply for these other aspects of health. They make the point that in order to reduce effects on health, that the discharge of effluent to the waterway should be reduced as soon practicable, and that the timeframes proposed in the AEE for each stage should be seen as a maximum.

I concur with the issues raised by Regional Public Health in relation to signage and that aerosols do not cross boundaries to adjoining properties. I also agree with RPH's statement that the timeframes in the application should be seen as a maximum and that stages should be brought forward to an earlier date wherever this is possible. I do not agree that monitoring immediate and cumulative effects on groundwater is a sufficient mechanism to protect groundwater as this will only show when contamination has occurred and unless there are large plumes of contamination then it may be missed. Also once the effect has occurred, there is no mechanism to remedy this situation.

In summary, I consider that the effects on public health may be **more than minor and potentially significant** as there is currently a level of risk that there will be pathogens in the groundwater which people are using for drinking water and stock drinking water. There are some minor elements in relation to public health (such as warning signage) which could be implemented by way of conditions and which if they were placed on any consent granted.

9.7 Recreational effects

The PNRP identifies that Donald's Creek must be suitable for, at a minimum, secondary contact recreational values²¹. This recognises that all waterways in the region have some recreational value to the community.

In the case of Donald's Creek, there is a group in Featherston called Reconnecting the Community and Donald's Creek to Lake Wairarapa. This group was set up in 2016 and is focused on '*...restoring a wetland on Donald's Creek to the north of Featherston (Harrison St Wetland) and native plants along the shoreline of Lake Wairarapa at Lake Domain as a way to enhance the health of Wairarapa Moana, to connect the townspeople to its catchment, to enhance environmental awareness, to build community, and to create worthwhile experiences and opportunities for our youth.*'²² Therefore it is fair to say that the community do value Donald's Creek and see it is a catchment which is an integral part of the town.

Identifying if the discharge to water is having an effect on secondary contact recreational values, requires an assessment as to whether there are any effects of reduced water clarity, and any increases in cyanobacteria and ecoli occurring downstream of the discharge point.

Dr Ausseil states in his report that visual clarity in Donald's Creek upstream of the discharge is generally greater than the recreational guideline²³ of 1.6m, 58% of the time, and often well above 2m, 48% of the time. Downstream of the discharge there is a definite impact on the ability of Donald's Creek to meet this guideline with the 1.6m guideline being met 29% of the time, and only 6% of the time it is meeting the 2m²⁴. Visual clarity in a waterway is important for the protection of contact recreation values as it is something which is directly perceived by recreational users and so directly affects the aesthetic quality of the water²⁵. In addition to this, it has an impact on people's ability to estimate depth and see subsurface hazards.

In regards to benthic cyanobacteria, Dr Ausseil states in his report²⁶ that there are no indications that the discharge from the FWWTP causes any increase in the abundance of cyanobacteria, and further to this he states that it is likely that Objective O24(b)(ii) (the standards for benthic cyanobacteria) is met both upstream and downstream.

In regards to ecoli, Dr Ausseil states in his report²⁷ that since 2011 the discharge has been UV disinfected and does not appear to be having a material effects on instream microbiological water quality since. He goes on to state that the discharge does not affect the degree to which Donald's Creek meets the standards in Objective O24 in relation to ecoli.

²¹ Objective O24 in the PNRP

²² <https://www.naturespace.org.nz/groups/wairarapa-moana-community-restoration>

²³ 1 March 2019, Para 4.11

²⁴ 1 March 2019, para 6.29

²⁵ Ausseil, O, March 2013, *Recommended biological and water quality limits for streams and rivers managed for contact recreation, amenity and stock drinking water in the Wellington region*, g 12

²⁶ 1 March 2019, Para 6.39

²⁷ 1 March 2019, Para 6.38

In summary, based on the assessment by Dr Ausseil, I consider that the effects on recreational values will be **no more than minor** in relation to effects from cyanobacteria and ecoli. In relation to effects from clarity, the recreational standards are not met upstream of the discharge point, and downstream of the discharge there is a decrease, therefore the effects on recreational values from visual clarity are **more than minor**.

9.8 Heritage Effects

There is a recorded Archaeological Site adjacent to the application site at the end of Hodders Line, known as Carkeek Observatory (NZAA site number S27/52). There is also a listed heritage building, Longwood Homestead, which is a Category 1 Historic Place entered on the New Zealand Heritage List. Longwood Homestead is located approximately 300 meters from the edge of the proposed irrigation field. These are shown on Aerial 1 above.

Heritage is a matter to be considered under the Act, and the Regional Plans have listed sites with historic heritage value. Neither of these two sites are listed in the Regional Plans, which list historic heritage structures and sites such as wharves, bridges, and shipwrecks. So whilst we have objectives and policies in the Regional Plans which deal with historic heritage, none of the rules apply to these two sites.

Heritage New Zealand (HNZ) have made a submission on this application and their concerns relate largely to any work undertaken which may disturb Carkeek Observatory as that would require an archaeological authority. I would note here that this is located on a separate site to this proposal and so it should not be disturbed. However, HNZ make the point that *'it is an offence to modify or destroy, or cause to be modified or destroyed, the whole or any part of an archaeological site without the prior authority of Heritage New Zealand'*. If consent was to be granted, I consider that the best way for these matters to be addressed is through a condition which addresses archaeological site disturbance as outlined below:

- *If koiwi, taonga, waahi tapu or other archaeological material is discovered in any area during the works, work shall immediately cease and the consent holder shall notify Greater Wellington Regional Council, Rangitane O Wairarapa, Kahungunu ki Wairarapa and Heritage New Zealand as soon as possible but within 24 hours. If human remains are found, the New Zealand Police shall also be contacted. The consent holder shall allow the above parties to inspect the site and in consultation with them, identify what needs to occur before work can resume.*

Notification must be emailed to;

- *Greater Wellington Regional Council, notifications@gw.govt.nz*
- *Heritage New Zealand, information@heritage.org.nz*
- *Rangitane O Wairarapa, horipo@rangitane.iwi.nz or mike@rangitane.iwi.nz*
- *Kahungunu ki Wairarapa, ra@kahungunuwairarapa.iwi.nz*

No works may resume on site until the consent holder has received written notification that consultation with the parties identified above has been undertaken to the satisfaction of the Manager, Environmental Regulation, Wellington Regional Council.

Note: Evidence of archaeological material may include burnt stones, charcoal, rubbish heaps, shell, bone, old building foundations, artefacts and human burials

Note: Records can be emailed to notifications@gw.govt.nz. Please include the consent reference WAR170229 and a contact name and phone number of the person responsible for the gravel extraction.

The owner of Longwood Homestead, Mr Garrick Emms has also submitted on the application. There are other parties have also submitted in regards to Longwood Homestead. From the submissions it is clear that Longwood Homestead is obviously of great value to Mr Emms, and also to the wider community. It is also clear from the submissions that there is the potential for effects to occur on Longwood Homestead from the discharge to air element of the proposal, should any odour or spray drift occur beyond the boundary of the applicant's property. I consider the best way for these matters to be addressed is through conditions on the discharge to air consent as outlined below:

- *There shall be no discharges of odour to air that are noxious, dangerous, offensive or objectionable resulting from the operation of the FWWTP, at or beyond the boundary of the WWTP site as designated in the Wairarapa Combined District Plan.*
- *There shall be no discharges of odour to air that are noxious, dangerous, offensive or objectionable resulting from the irrigation of effluent from either Site A or Site B Land Treatment sites, at or beyond the boundary of the respective irrigation area site boundary.*
- *There shall be no spray drift that is noxious, dangerous, offensive or objectionable resulting from the irrigation of effluent from either Site A or Site B Land Treatment sites, at or beyond the boundary of the respective irrigation area site boundary.*

I also consider that the Odour Management Plan should cover off specific consultation with owners of Historic Heritage sites and if consent is granted this should be added into the objectives of this plan and also a condition should be placed on the Discharge to Air consent which states *'The management of odour from the scheme shall be in strict accordance with the Odour Management Plan.*

It is my opinion the effects on historic heritage from the discharge to land, water and air will be **no more than minor** provided that there is no discharge or odour beyond the boundary.

9.9 Economic Effects and Consultation

There are the obvious positive social and economic effects in that the continued operation and upgrade of a community infrastructure will allow for the people and community of Featherston, to provide for their social and economic wellbeing, along with their health and safety by being able to dispose of their wastewater.

However, a number of submitters have raised social and economic effects as being of concern to them regarding this proposal and what SWDC is proposing in terms of the upgrade and continued operation into the future. Submitters state that:

- Ratepayer money is being spent unwisely;
- This is not the best option for the site or for Featherston community;
- There is no justification for costs and for the choice of system; and
- There has been no consultation and people feel they have not been listened to; and

Not all of these matters are ones which GWRC can consider. For example, decreases in property values are not a separate effect for consideration and the forum for debating what ratepayer money is spent on is through the Local Government Act processes (such as the LTP and Annual Plan).

The AEE did not provide a detailed economic analysis as to the costs of the proposal or any financial information, the only information given is in the form of a Draft Wastewater Strategy²⁸ in the application which touches on timing and costs. Without any detailed information from the applicant, I am not able to make any assessments or firm conclusions on the economic effects of this application (to the extent that is relevant). During the Section 92 further information process, GWRC did question SWDC in regards to the costs stated in relation to mitigation measures that could be used for improving the quality of the system (in regards to water clarity effects). SWDC provided information stating that this was a fair cost however no detailed analysis was provided.

Submitters have raised concerns regarding a lack of effective consultation undertaken by the applicant on this proposal. GWRC suggested on a number of occasions that it would be useful for the GWRC and SWDC experts to work together on the proposal and come to some agreed environmental bottom lines. GWRC also suggested to the applicant that it should hold workshops with the Featherston community to allow all parties to express their concerns and provide feedback on the proposal and the process, and offer time to all residents adjacent

²⁸ Appendix 1 of the AEE

to the land application site so they could fully understand the effects of the proposal on them. I believe this type of consultation is very effective and this was the approach recently undertaken by CDC for its wastewater treatment plant consent process and due to its effective consultation with both GWRC and residents, their (publicly notified) application proceeded without the need for a hearing. However, as consultation is not compulsory requirement under the Act, GWRC can only advise on this matter and it is up to individual applicants how they deal with this matter and how they wish to undertake consultation.

In summary, it is my opinion that based on the information provided, these are not effects of this application that can be given weight, unless new information becomes available in terms of economic effects that are able to be considered under the Act.

9.10 Positive effects

There are obvious positive effects to people and communities of South Wairarapa in relation to the operation of the wastewater treatment plant. The operation of the plant provides for the public health and safety of the residents of Featherston.

The applicant in its AEE²⁹ outlines the positive effects of the proposal as:

- all three sites and communities (Martinborough, Greytown and Featherston) receive investment in their systems and receiving environments;
- that the wastewater strategy ensures the spreading of funding over all three sites and ensuring the upgrade is affordable for current and future generations; and
- the gradual removal of wastewater from Donald's Creek and Lake Wairarapa will '*...significantly reduce the actual adverse effects on Donald's Creek and Lake Wairarapa...*'.

I concur that there are positive effects of the proposal and support any removal of discharge from water. I acknowledge the need for investment at all three sites and a process of improving the effects on all three receiving environments from all three communities (Ruamahanga River, Papawai Stream and Donald's Creek, Abbotts Creek and Lake Wairarapa).

It is also important to note here that the FWWTP is a regionally significant piece of infrastructure³⁰ and as such, the benefits of maintaining this in its current location need to be acknowledged. Part of keeping this plant in its current location is the use of the Hodder Land given its close proximity to the plant site and meaning that the plant site would not have to be moved, and that effluent would not have to be piped a long way to another piece of land.

In summary, I consider there will be **positive effects** from the proposed staged discharge to water and land and in relation to the use of the Hodder land given

²⁹ Page 144 of the AEE

³⁰ The definition of Regionally Significant Infrastructure in the Proposed Natural Resources Plan includes '*the local authority wastewater and stormwater networks, systems and wastewater treatment plants*'

its close proximity (obviously only if it is found to be suitable for discharging effluent on).

9.11 Discharge to air

There are two main potential effects from the discharges to air associated with operation of the FWWTP: the odour effects that can occur from the plant and/or the irrigation area, and also the spray or aerosols/particles from the irrigation area. A number of submitters have raised these issues in their submissions and in addition to this, a number of submitters have raised that the wind speeds and directions are wrong in the AEE.

Odour effects occur when the plant is poorly managed and allowed to become anaerobic. The resultant odour can adversely affect those in the surrounding environment. To the best of my knowledge, during the operation of this plant to date, GWRC has had no record of any odour complaints being received from this plant, but the operation is now changing. The proposal to irrigate the wastewater to land will mean that the wastewater will be put closer to adjacent properties, and put into the air/onto the land instead of piped into a stream, hence opening new pathways for odour to become a problem. The AEE states that the nearest residential property to this site is 500 metres away to the south of the site.

In relation to odour from the irrigation area at Site A and Site B, as outlined in the AEE, provided the plant is operated correctly, offensive odour beyond the boundary should not occur. In order to avoid any potential odour, the applicant has listed a number of mitigation measures they will put in place which are discussed further below.

In relation to spray drift, this could occur if wind speeds are too high, droplet sizes of irrigated wastewater are too small, height from the ground is too much and buffer zones are not adhered to. As mentioned above a number of submitters have raised that the wind direction is wrong in the AEE and also that the speed of wind in the area has not been duly taken into account. The AEE states that the wind direction is predominantly north east, however submitters raise that the wind direction is actually predominantly north west.

According to GWRC records (Tauherenikau at Alloa), the wind direction is south west for the largest percentage of time during the year, however these are also the lowest wind speeds. The strongest winds are predominantly north west, however these do occur a smaller percentage of the time than the south west winds. There are very minimal winds occurring in the north east direction. I would also note that during the summer months, when the discharge to land is proposed to occur, the strongest wind speed is north west. The wind speeds during these months are often occurring over 5m/s, and at times are over 10m/s.

Regardless of the wind direction and speed of the wind, if consent was granted then SWDC would have to meet any consent conditions placed on them regarding these factors. These conditions would have buffer zones with property boundaries and also buffer zones for distances to waterways and surface drains based on the standards in the Regional Plan for Discharges to Land in the Wellington Region and the Proposed Natural Resources Plan. However, what

this does highlight is that based on GWRC's records, a system has been designed on the basis of incorrect wind direction and speed data and therefore also possibly without the correct percentage of times the wind speed will exceed 4 m/s. This could have knock-on effects for the amount of wastewater which needs to be discharged to water and therefore **more work needs to be undertaken in this regard**.

The mitigation measures proposed in the AEE to address odour and spray drift in the application are measures such as the irrigation lines being flushed prior to and following use to avoid any wastewater becoming stagnant in the lines; wastewater will only be irrigated in an aerobic state; an odour management plan will be prepared; and compliance with the buffer zones and wind speeds for aerosols in the Wairarapa Combined District Plan (WCDP). The buffer zones and wind speeds in the permitted activity rule in the WCDP for wastewater with e-coli concentrations of less than a median of 100cfu/100ml include:

- 25 metres from the property boundary for spray irrigation, e.g. Centre Pivot using low pressure (<1.4 bar), low boom (<1.52 metres) sprinkler systems without end guns, at a wind speed of 4 metres per second (14.4km per hour) including sustained gusts;

If these buffer zones and wind speeds were to be breached then SWDC would need to obtain a land use consent from themselves under the WCDP. If consent from GWRC was granted for this proposal which included conditions reflecting those requirements, and then a subsequent consent granted by SWDC to breach the WCDP, then any consent granted by GWRC would need to be able to apply different buffers (although noting that just because consent is granted under WCDP does not assure any variation of consent will be granted by GWRC).

Odour should not occur beyond the boundary of the plant site or the irrigation areas if the system is operated correctly. If consent was granted and there were conditions on the consent regarding no offensive or objectionable odour beyond the boundary then this will ensure odour effects are acceptable. If that condition is not met, then that is a matter that can be addressed through the usual monitoring and enforcement processes.

In conclusion, subject to further information being provided by the applicant about wind direction and speed, then the effects on the environment from potential discharge to air would be **no more than minor**.

9.12 Section 105 of the Act

Section 105 of the Act requires a consent authority to consider the nature of the discharge and the sensitivity of the receiving environment, the applicant's reasons for the proposed choice, along with any possible alternative methods of discharge (including the discharge into any other receiving environment).

The applicant has provided detail in the AEE on the nature of the discharge and the sensitivity of the receiving environment, and these two matters have been discussed throughout my report.

The AEE also provides an explanation on the alternatives³¹ considered in Appendix 2 of the AEE. I would note that the report prepared in Appendix 2 as prepared after the purchase of the Hodder Farm so the suitability or otherwise of the Hodder Farm was not considered in this report as the decision that this land was 'suitable' had already been made by SWDC. None the less, SWDC has considered and investigated a large range of options for the upgrade of the site and the discharge system, including 'do nothing' through to full discharge to land.

A number of submitters have raised the issue that the proposal is not the best practicable option for this site or for the Featherston community. Some submitters state that there are other systems out there which are better suited to the Featherston situation. One submitter raises that they consider that a proper assessment of alternatives was not undertaken and that the assessment is not robust.

I am satisfied after reading through the AEE and Appendix 2 that SWDC has considered a number of alternatives. Whether or not the option chosen is the right one for the people of Featherston and if it is the right option financially is not something I can make a conclusion on, however I can consider how the option chosen impacts on the receiving environment.

In my opinion this application is primarily a discharge to water consent, with a gradual discharge to land component. As such while the significant adverse effects of the water discharge are able to be gradually reduced by the proposal, there will still be what I consider to be a high and potentially unacceptable level of effects continuing in Donald's Creek as wastewater will be discharging directly into it for at least the next 13 years. And when the discharge to water occurs, the quality and quantity of the discharge will remain the same as it is currently and in fact, with I and I work it could be that the contaminant levels increase.

There is also an unacceptable level of uncertainty around whether the Hodder farm (Site B) and existing FWWTP land (Site A) can in fact cope with the level of discharge to land proposed. If the land discharge option does not enable the proposed quantity of wastewater to be discharged to land, then there will continue to be unacceptable water quality effects for the entire term of the consent requested (35 years). The fact that no improvements have been proposed to the quality of the discharge is, in my opinion, disappointing.

9.13 Other matters - section 104(1)(c)

The significant policy shift within the PNRP was to have sections within the plan (wahitua chapters) which are catchment based, and in which decisions are made by the community regarding bottom lines for these catchments and how these are to be managed. At the current time there is a Draft '*Ruamahanga Wahitua Implementation Programme*' (WIP) which has been prepared after extensive consultation with the community.

³¹ Appendix 2 of the AEE

This WIP has a number of recommendations in it which cover a wide range of issues. The WIP was approved by Council on 16 August 2018 and now these recommendations will be put into a plan change. The plan change will be notified and a normal plan process will then follow (submissions, hearing etc).

There are a number of recommendations in the WIP which relate to issues such as water quality, macroinvertebrate health, and there are also standards in the WIP which need to be met by set dates.

As the WIP is currently draft recommendations, it is not something that I consider needs to be given weight at this stage. But it is relevant context and does address the area that is affected by this proposal. I have raised it, so the Panel can fully understand the context of the PNRP.

10. Section 107 of the Act

As mentioned in Section 8.2 of this report, Section 107 of the Act places restrictions on the grant of resource consents for the discharge of contaminants into water (or land where it may enter water) if it is likely to cause certain adverse effects in receiving waters, after reasonable mixing:

‘...a consent authority shall not grant a discharge permit to do something that would otherwise contravene section 15...allowing –

- (a) the discharge of any contaminant or water into water; or*
- (b) a discharge of a contaminant onto or into land in circumstances which may result in that contaminant (or any other contaminant emanating as a result of natural processes from that contaminant) entering water; ...*

if, after reasonable mixing, the contaminant or water discharged...is likely to give rise to all or any of the following effects in the receiving waters:

- (c) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials:*
- (d) any conspicuous change in the colour or visual clarity:*
- (e) any emission of objectionable odour:*
- (f) the rendering of fresh water unsuitable for consumption by farm animals:*
- (g) any significant adverse effects on aquatic life.*

(2) A consent authority may grant a discharge permit ... to do something that would otherwise contravene section 15 ... that may allow any of the effects described in subsection (1) if it is satisfied—

- (a) that exceptional circumstances justify the granting of the permit; or*
- (b) that the discharge is of a temporary nature; or*
- (c) that the discharge is associated with necessary maintenance work—*

and that it is consistent with the purpose of this Act to do so.

(3) In addition to any other conditions imposed under this Act, a discharge permit or coastal permit may include conditions requiring the holder of the permit to undertake such works in such stages throughout the term of the permit as will ensure that upon the expiry of the permit the holder can meet the requirements of subsection (1) and of any relevant regional rules.

10.1 Effects

It has been concluded in section 9.3 of this report, that there is currently a conspicuous change on water clarity which will breach Section 107(1)(d) and will continue in some form until Stage 2B for a duration of 13 years.

It has also been concluded in section 9.3 of this report that significant adverse effects are occurring on periphyton and macroinvertebrates for the first 5 years, which breach 107(1)(g). Then from year 5-13 these significant adverse effects reduce to occurring during autumn for periods of 2-3 weeks at more than minor level, but not significant, which will not breach Section 107(1)(g).

Accordingly, unless one of the exceptions in Section 107(2) of the Act applies, consent for the discharge to water cannot be granted.

10.2 Exceptional circumstances

If the proposal does not meet any of those s107 standards, then the consent authority may still grant the consent, if it is satisfied that (amongst other matters) there are exceptional circumstances which allow the consent to be granted.

Exceptional means unusual or not typical, so for a proposal to meet the exceptional circumstances part of Section 107, my view is that something needs to be out of the ordinary.

SWDC³² has stated that there is an argument (which they correctly note was mentioned in the decisions on the Martinborough and Greytown Wastewater Treatment Plant decisions) that to decline a wastewater treatment plant application which would leave a town without an authorised consent would be 'out of the ordinary' and so could constitute an exceptional circumstance.

However, if this application is declined there is not an immediate requirement to cease the discharge to water. This is because this application, WAR170229, is not the application which allows the town of Featherston to have an authorised treatment plant (under Section 124 of the Act) ability to continue operating. The Section 124 authorisation was issued under the previous application lodged and notified, that being WAR120294. Therefore, if this application did not meet Section 107 and was declined, SWDC would still have consent to continue operating until that application is determined. Accordingly, even if that is an 'exceptional circumstance', it does not apply here.

³² Memo from Mott MacDonald dated 7 August 2018

I also note that the example relied on by the applicant (Memo by Mott MacDonald dated 7 August 2018) to supports its claim that this is an exceptional circumstance accepted that there would be insurmountable difficulties and significant effects if (in that case) Gisborne City could not discharge its sewage. It found that this was an exceptional circumstance that allowed consent to be granted under section 107 of the Act. However, it was granted for a period of 2 years, with conditions requiring work in stages throughout that time that would ensure that at the expiry of the consent, section 107 requirements would be met.

Based on the information provided by SWDC I do not consider there are any exceptional circumstances in this case.

10.3 Temporary nature

Another exception under Section 107(2) is whether the discharge is of a temporary nature. There is no definition of 'temporary' in the RMA. I understand that the caselaw says it is 'to be lasting only for a limited period or not permanent' and 'not permanent, provisional. Lasting only a short time'.

It has already been stated that there will be conspicuous change to water clarity and significant effects on periphyton and macroinvertebrates. The water clarity issue will last for 13 years, and effects on periphyton and macroinvertebrates for at least 5 years.

It is my opinion that a 13 year period of not meeting s107 requirements is too long, and that this is not temporary or *lasting only for a short time*. Further to this, during those 13 years the times when the discharge is breaching 107 is, in my opinion, frequent.

10.4 Section 107 conclusion

In conclusion, I consider that:

- There is a breach of 107(1)(d) for at least 13 years; and
- There is a breach of 107(1) (g) for at least 5 years;
- This is not 'temporary'; and
- There have been no exceptional circumstances provided by the applicant.

Accordingly, I consider this prevents the discharge to water consent being granted.

11. Objective and policies of the relevant planning instruments 104(1)(b)

11.1 National planning instruments

The National Policy Statement for Freshwater Management 2014 (amended 2017) (NPS-FM) took effect on 7 September 2017. The NPS-FM sets out objectives and policies that direct local government to manage water in an integrated and sustainable way, while providing for economic growth within set water quantity and quality limits. The NPS-FM is an important step to improve freshwater management at a national level.

Key purposes of the NPS-FM are to safeguard the health of ecosystems and people in fresh water and to maintain and improve freshwater water quality (see Objectives A1 and A2). The NPS-FM also identifies a process to set enforceable water quality and quantity limits to achieve these objectives that councils are to have completed and incorporated into their regional plan by 2025. This is a fundamental step to achieving environmental outcomes and creating the necessary incentives to use fresh water efficiently, while providing certainty for investment. GWRC has established the Whaitua process as the means of progressively setting these objectives and limits in the Regional Plan. The intent of this NPS-FM is that any more than minor potential adverse effects of activities, in relation to water takes, use, damming and diverting, as well as discharges and land uses that affect water quality, are thoroughly considered and actively managed.

Ahead of freshwater objectives and limits being implemented in a regional plan, the NPS-FM requires a policy for the management of activities impacting freshwater to be inserted into regional plans (see policies A4 and B7 of the NPS-FM). The NPS-FM is therefore partially given effect to in both the Regional Freshwater Plan (RFP) and PNRP. In the RFP, two transitional policies (5.2.10A and 6.2.4A) have been directly inserted into the RFP which require GWRC to consider specific criteria when making decisions on resource consent

applications. The same policies are included in the PNRP in Policy P66 and P110. Once the Whaitua sections of the PNRP are complete, the PNRP will fully give effect the direction of the NPS-FM to set freshwater objectives and limits to meet to these objectives.

Policy 6.2.4A and P110 relate to water permits; as such they are not relevant to this proposal. I have assessed the application against policy 5.2.10A and P66 in Sections 11.2.2 and 11.2.5 of this report. As my assessment has concluded that the application does not meet and is contrary to these policies, I consider the application to be inconsistent with the objectives and policies of the NPSFM.

11.2 Regional planning instruments

In this section the applicant's proposal has been assessed against the relevant objectives and policies contained within the relevant planning documents (RPS, RFP, RDLP, RAQMP and PNRP). The full wording of the relevant objectives, policies and methods is contained in Appendix 10 to this report.

In this section I have considered both Donald's Creek (as the direct receiving environment), and also the relevant appendices listings and objective and policies for Abbotts Creek and Lake Wairarapa as the secondary and ultimate receiving environment of the discharge.

11.2.1 Regional Policy Statement (RPS)

The RPS outlines the resource management issues of significance to the region and provides a framework for managing the natural and physical resources of the region in a sustainable manner. Further to this, the RPS identifies objectives, policies and methods which are designed to achieve integrated management of the natural and physical resources of the whole region.

The relevant chapter of the RPS to this application is Chapter 4 Policies and Methods (Sections 4.1 and 4.2 Regulatory Policies). An assessment of the relevant objectives and policies are outlined below.

- Chapter 4 - Policy 16 – Promoting discharges to land – regional plans

This policy requires Regional Plans to include policies, rules and other methods that promote discharges of wastewater to land rather than water, while maintaining groundwater quality and soil health. This is implemented, in through the PNRP which was formulated after the operative RPS.

- Chapter 4 – Policy 22 – Protecting Historic Heritage values – district and regional plans

This policy requires policies, rules and other methods to protect significant heritage values from inappropriate use and development and also to avoid the destruction of unidentified archaeological sites. The historic heritage sites mentioned in section 9.8 of this report are not listed in the regional plans but are listed in the relevant Wairarapa Combined District Plan.

- Chapter 4 - Policy 39 – recognising the benefits from renewable energy and regionally significant infrastructure – consideration

GWRC must have particular regard to the benefits derived from the wastewater treatment plant, as it is considered to be regionally significant infrastructure. The positive effects of the wastewater treatment plant and its gradual upgrade have been considered in Section 9.10 of this report.

- Chapter 4 - Policy 40 – Maintaining and enhancing aquatic ecosystem health in water bodies – consideration.

Part (a) of this policy requires that particular regard is given to requiring water quality and aquatic habitats of surface water bodies to be managed for the purpose of **safeguarding** aquatic ecosystems.

The effects of the proposal on aquatic ecosystem health have been considered in section 9.3 of this report, and are considered to be more than minor and possibly significant for at least the first 5 years (Stages 1A and 1B), and then more than minor for periods of the year from year 5 – 13 (Stage 2A).

I consider that the proposal will be **contrary** to this policy as for the first 5 years of the proposal the health of aquatic ecosystems will not be safeguarded given effects occurring from the discharge to water are more than minor and significant at times. During Stage 2A the effects (except for summer) will still be more than minor at times. I believe this proposal will still be **contrary** to this policy at this stage. It is my understanding from legal advice provided that to ‘safeguard’ something would mean that the effects would have to be less than minor as safeguard means to *protect or prevent*. This policy does not distinguish which times of the year aquatic ecosystems should be safeguarded, the premise is to safeguard them all of the time. I do not think the proposal achieves that.

- Chapter 4 - Policy 43 – Protecting aquatic ecological function of water bodies – consideration.

The relevant parts of this policy are the requirements to have particular regard to (a) maintaining and enhancing ecosystems, (d) maintaining and enhancing amenity/recreational values, (e) protecting significant indigenous ecosystems and habitats, including those in Table 16 and (g) maintaining fish passage. This policy requires these matters to be given particular regard to when considering an application for resource consent.

In Table 16. Donald’s Creek is a tributary of Abbots Creek, and Abbots Creek and its tributaries are listed in Table 16, as is Lake Wairarapa.

In relation to Donald’s Creek, the proposal is continuing the effects it is having on the ecosystems, and even when the regularity of discharges reduce, there are still some minor/more than minor effects. This does not protect the ecosystems and habitats in Donald's Creek and its tributaries.

It is my understanding from legal advice provided that to ‘protect’ means to require something stronger than recognising and providing for a matter; to *‘keep safe, defend, guard’*.

In my opinion the proposal is not protecting the values of Donald’s Creek, Abbotts Creek or Lake Wairarapa as no improvements are being made for a number of years, and the wastewater quality could actually become worse. Therefore I consider the proposal **does not meet** this policy.

- Policy 47 – Managing effects on indigenous ecosystems and habitats with significant indigenous biodiversity values - consideration.

When considering an application for resource consent, a determination shall be made as to whether an activity may affect indigenous ecosystems and habitats. In determining appropriateness regard shall be given to (amongst other things) protecting the life supporting capacity of indigenous ecosystems and habitats; remedying or mitigating adverse effects on indigenous biodiversity values where avoiding effects is not practically achievable; and the need for precautionary approach when assessing the potential for adverse effects on indigenous ecosystems and habitats.

As already discussed above, the application is not protecting the life supporting capacity of Donald’s Creek, Abbotts Creek or Lake Wairarapa. This is because the effects are not being remedied or mitigated to an acceptable level until year 5 (and possibly further). As a precautionary approach is required in assessing effects in line with this policy I consider the application is **contrary** to this policy.

- Chapter 4 – Policy 48 – Principles of the Treaty Of Waitangi - consideration.

This policy requires that when considering an application for a resource consent particular regard shall be given to principles of the Treaty of Waitangi, as it is the founding document of New Zealand and encompasses guiding principles for engagement with iwi in relation to resource management and also to relevant decisions of the Waitangi Tribunal and settlement decisions.

SWDC consider that they have undertaken consultation with iwi and they feel that they have taken into account their concerns/matters raised during the preparation of the AEE.

However, SWDC are discharging human effluent into water and as local iwi groups have submitted on the application regarding their concerns surrounding this, it seems that this consultation may not have been as effective as it could have been. Before I make a conclusion on this policy, I would like to hear further from the iwi group submitters and applicant on this issue.

Summary

I consider that the proposal will be **contrary** to Policy 40 of the RPS. It is also my conclusion that the proposal **does not meet** the intent of Policy 43 and 47. In relation to Policy 48, no firm conclusion can be made on this policy as further information needs to be obtained in order to address cultural effects and concerns raised during this process.

11.2.2 Regional Freshwater Plan

The RFP outlines a number of objectives and policies relevant to the Wellington region to manage water resources in a sustainable manner.

An assessment of the relevant objectives and policies are outlined below.

- Objective 4.1.1 - the relationship of tangata whenua and their culture and traditions with fresh water is recognised and provided for
- Objective 4.1.2 – the mauri of water bodies and river and lake beds is protected
- Objective 4.1.3 – the principles of the Treaty of Waitangi are taken into account in the management of the Region’s water bodies and river beds.
- Policies 4.2.1, 4.2.4 and 4.2.5 – these policies seek to avoid, remedy and mitigate adverse effects on water bodies and habitats of species harvested by iwi as well as having regard to values and customary knowledge identified by tangata whenua on these issues.

These objectives and policies all relate to iwi issues and cultural effects. It could be argued that this proposal when considered as a whole, could meet the intent of these objectives and policies. The applicant is seeking consent to gradually reduce the discharge of wastewater to water, and is proposing that if consent is granted that they will work with iwi to prepare a Tangata Whenua Monitoring Plan to address iwi concerns within 12 months of granting of this consent. It may be that this would allow any actual or potential cultural effects of discharging wastewater to Donald’s Creek, Abbotts Creek and Lake Wairarapa to be mitigated. However there are some concerns raised by iwi submitters that the period of time proposed in the application to discharge to water is too long and unacceptable in relation to cultural effects.

Before I make a conclusion on these objectives and policies, I would like to hear further from the iwi group submitters and applicant on this issue. It may be that with the removal of the discharge from water to land that the proposal satisfies any concerns. However, given the length of time the discharge is proposed to still occur to water and the fact that the quality of the discharge is not improving for that period, it is also likely the proposal will not fully meet these objectives and policies.

- Objective 4.1.5 – the life supporting capacity of water and aquatic ecosystems is safeguarded from the adverse effects of any use and development.

This objective applies to Donald's Creek, Abbotts Creek and Lake Wairarapa. As mentioned in the RPS section above, effects of the proposal on aquatic ecosystem health have been considered in section 9.3 of this report, and are more than minor and possibly significant for at least the first 5 years of the consent, and then more than minor but unlikely to be significant from year 5 onwards to year 13.

I consider that the proposal will be **contrary** to this objective for the first 5 years of the proposal as the health of aquatic ecosystems will not be safeguarded given the continuation of the current discharge and the significant effects arising. During Stage 2A the effects (except for summer) will still be more than minor at times. I believe this proposal will still be **contrary** to this policy at this stage.

As noted above, it is my understanding from legal advice provided that to 'safeguard' something would mean that the effects would have to be less than minor as safeguard means to *protect or prevent*. This policy does not distinguish upon which times of the year aquatic ecosystems should be safeguarded, the premise is to safeguard them all of the time. I do not think the proposal achieves that.

- Policy 5.2.2 - To manage water quality in Lake Wairarapa in accordance with the National water conservation (lake Wairarapa) order 1989 (subject to policy 5.2.10)

This policy requires that any regional plan shall not be inconsistent with any conservation order. Regional plans have been prepared in accordance with this order and as such by assessing this application against these plans and their policies this order will be taken into account.

- Policy 5.2.6 – except for rivers identified in Appendix 7 (water bodies needing enhancement), water quality of all surface water bodies in the region shall be managed for aquatic ecosystem purposes.

Donald's Creek, Abbotts Creek and Lake Wairarapa are not listed in Appendix 7, so they need to be managed for aquatic ecosystems purposes. As already mentioned, effects of the proposal on aquatic ecosystem health have been considered in section 9.3 of this report, and are more than minor and possibly significant for at least the first 5 years of the consent, and then more than minor at times, but unlikely to be significant from year 5 onwards to year 13.

It is my understanding from legal advice provided that the term 'managed' means *avoidance or reduction of the relevant effect* and it is my opinion that this proposal is not avoiding effects on water quality and aquatic ecosystems. Whilst it could certainly be argued that over the whole life of the proposal that effects are being reduced at times when the discharge to land occurs, for the rest of the time when the discharge is actually occurring nothing is being done to avoid the more than minor effects of the discharge (such as dilution rates and other mitigation measures which would improve

the quality of the discharge). Therefore I consider the proposal is **contrary** to this policy.

This policy does not distinguish upon which times of the year water quality shall be managed for aquatic ecosystems.

- Policy 5.2.8 – to have regard to the relevant guidelines in Appendix 8 when deciding if a discharge is able to satisfy other water quality policies

While the discharge breaches Section 107 of the Act it will not meet the guidelines in Appendix 8 (namely A8.1) and therefore when having regard to this policy the discharge will not be able to satisfy the other policies referred to in 5.2.8 (such as Policy 5.2.6). I have had regard to this policy when assessing this application under other policies such as 5.2.6.

- Policy 5.2.10 – to allow the discharge of contaminants to freshwater which do not satisfy the relevant policies 5.2.1 through to 5.2.9 where the discharge will be temporary or has exceptional circumstances.

I have concluded that the proposal does not meet the tests for temporary or exceptional circumstances. However, in accordance with subsection (4) of this policy the discharge was present at the time this plan was notified and the proposal will not decrease the existing water quality at the site (as long as I and I reduction does not mean the wastewater is higher strength and therefore greater impact) and there is a defined programme of work for upgrading the discharge within a specified timeframe (note that if consent was to be granted, a condition would need to be placed on consent to ensure water quality was not reduced to enable the proposal to continue meeting this policy). I consider that the proposal will meet this policy.

- Policy 5.2.10A – this policy was inserted as a result of the NPS-FM and seeks to ensure that when considering an application for a discharge, the consent authority will have regard to whether the discharge would avoid contamination that will have an adverse effect on life supporting capacity of freshwater. This policy applies to a new discharge or a change or increase in any discharge of any contaminant to freshwater or onto or into land in circumstances that may result in the contaminant entering water.

As already mentioned, effects of the proposal on aquatic ecosystem health have been considered in section 9.3 of this report, and are more than minor and possibly significant for at least the first 5 years of the consent, and then more than minor at times, but unlikely to be significant from year 5 to 13.

Overall I consider the proposal is **contrary** to this policy as it will not avoid contamination that adversely impacts the life supporting capacity of freshwater.

- Policy 5.2.11 – to ensure zones of reasonable mixing for contaminants in a receiving water body are determined by having regard to the purpose for which the receiving water is managed (and any effects on that purpose); any tangata whenua values that may be affected; volume of water or

concentration of contaminants being discharged and the area of receiving water that could potentially be affected; and the physical, hydraulic and hydrological characteristics of the receiving water.

This policy is being met as these are the matters which have been factored into the location of the ZRM in section 9.3 of this report.

- Policy 5.2.12 – to allow a discharge containing sewage directly into freshwater without passing through land or a wetland (subject to 5.2.10) where it better meets the purpose of the Act to go to water rather than land, where consultation has been done with tangata whenua and there has been consultation with the community.

This policy recognises that there are times when a discharge to water is still going to occur, but that we need to take account of what tangata whenua and the community have to say when discharging to water and that discharging to land is preferable over water in relation to these cultural and community effects. This proposal sees no discharge to land occurring until year 2 and from here until year 13 there will be a discharge to water element to this proposal (with a minor discharge to water occurring from year 13 – 35). Based on the submissions received I do not believe that either Tangata Whenua or the general community feel that they have been consulted, therefore the discharge to water element of this proposal does not meet this policy, and does not better meet the intent of the Act.

- Policy 5.2.13 – to encourage users to discharge to land as an alternative to surface water where discharging to land has less adverse environmental effects than discharging to water, there are no significant cultural, environmental, technical or financial constraints associated with discharging to land.

In general this policy will be met, but a conclusion is not able to be reached until such time as the discharge regime and full investigation and details about the land discharges are resolved or mitigated.

Summary

In summary, the proposal meets a number of objectives and policies in the RFP, however it is **contrary** to Objective 4.1.5, Policy 5.2.6, Policy 5.2.10A and Policy 5.2.12.

11.2.3 Regional Discharges to Land Plan

The RDLP outlines issues, objectives and policies which seek to provide a framework to manage the discharges to land in the Wellington region.

An assessment of the relevant objectives and policies are outlined below:

- Objective 4.1.4 – there is a significant reduction in contamination of surface water and groundwater from the discharge of human effluent to land

This objective seeks to avoid, remedy and mitigate any actual or potential adverse effects which may occur from discharging effluent to land. No conclusion can be made as to whether the application meets these objectives as no firm conclusions can be made yet as to the effects of the proposal on groundwater and soils due to the uncertainty and assumptions made.

- Policy 4.2.12 – to give particular consideration to any relevant iwi management plans or statements of Tangata Whenua views when considering applications for the discharge of human effluent (treated or untreated) to land.
- Policy 4.2.13 – to give particular regard to certain matters when assessing applications for permits to discharge to land, these matters include; the nature of the contaminants entering the system, any trade waste present, extent to which stormwater can enter the system, the management of the system, the location of the site and the hydrogeology, the extent to which the effluent is treated, any odour effects, human health and amenity effects, public health guidelines.
- Policy 4.2.14 – to require discharges to land from sewerage systems to have a site specific management plan for the discharge.
- Policy 4.2.42A – this policy was inserted as a result of the NPS-FM and seeks to ensure that when considering an application for a discharge, the consent authority will have regard to whether the discharge would avoid contamination that will have an adverse effect on life supporting capacity of freshwater.

In summary, these 4 policies seek to ensure that when human effluent is being discharged to land, that important matters are considered and assessed. Some of these matters have been included in the AEE, however no conclusion can be made as to whether the application meets these policies as no firm conclusions can be made yet as to the effects of the proposal on groundwater and soils due to the uncertainty surrounding the information provided in the AEE and the assumptions made by the applicant.

Summary

I cannot make a firm conclusion as to whether all the relevant objectives policies of the DLP are being met at this stage, given the uncertainty surrounding the discharge to land element of the proposal.

11.2.4 Regional Air Quality Management Plan

The RAQMP outlines issues, objectives and policies which help promote the sustainable management of discharges to air.

An assessment of the most relevant objectives and policies are outlined below:

- Objective 4.1.2 – Discharges to air in the region are managed in a way which enables people and communities to provide for the social and cultural

wellbeing, and for health and safety while ensuring effects on human health, tangata whenua, and amenity are avoided, remedied or mitigated.

- Policy 4.2.6 – to ensure any measures adopted to avoid, remedy or mitigate effects of discharges of contaminants to air take into account the sensitivity of other parts of the environment
- Policy 4.2.10 – when placing conditions on resource consents to consider best practicable options, require adherence to codes of practice.
- Policy 4.2.14 – to avoid, remedy or mitigates any adverse effects (including human health and amenity values) as a result of odours.

These policies and objective seek to ensure that any discharges to air from an activity will not result in any adverse effects on people's health and wellbeing and that the other effects of these discharges (such as odour) are mitigated.

I concluded in Section 9.11 of this report that the effects on the people near to the plant and discharge to land areas (Site A and Site B), and the wider community of Featherston, will be no more than minor, although it is identified within my report and by submitters that further work is required in relation to wind direction and speed during proposed irrigation times. The applicant has put in place a number of mitigation measures which will ensure that any potential effects will be avoided on all other activities.

Summary

In summary, it is considered that this proposal meets the objectives and policies and the intent of the RAQP, subject to further work and confirmation on wind direction and speed.

11.2.5 Proposed Natural Resources Plan

As already mentioned in this report the PNRP was publicly notified by the Greater Wellington Regional Council on 31 July 2015 and took immediate legal effect from this date under section 86B(3) of the Act. Therefore, an assessment of the relevant objectives and policies in this planning document is required for this application.

Below is an assessment of the relevant objectives and policies under the PNRP.

Ki uta ki Tai: mountains to the sea

- Objective O3 – Mauri is sustained and enhanced, particularly the mauri of fresh and coastal waters.
- Objective O4 – The intrinsic values of aquatic freshwater and marine ecosystems and the life supporting capacity of water are recognised.
- Objective O5 – Freshwater bodies and the coastal marine area, as a minimum are managed to:

- (a) Safeguard aquatic ecosystem health and mahinga kai; and
- (b) Provide for contact recreation and Maori customary use, and
- (c) In the case of freshwater, provide for the health needs of people.

As has been concluded in section 9.3 of this report and the RFP section above, the proposal is not *safeguarding* the aquatic ecosystem health whilst the effects from the discharge to water are occurring. Therefore, I consider the proposal is **contrary** to Objective O5 and will remain so for at least 5 years.

In relation to contact recreation and Maori customary rights, I have concluded above that the discharge will meet the standards in the Objective O24 regarding ecoli and cynobacteria. It does not however meet the recreational guideline for visual clarity which is an important indicator for contact recreation and so the proposal will not be consistent with the objective in this regard. In relation to Maori customary use, it will be some time over which there is still a discharge to water and before I make a conclusion on this part of the policy, I would like to hear further from the iwi group submitters and applicant on this issue.

Beneficial use and development

- Objective O9 – The recreational values of the coastal marine area, rivers and lakes and their margins and natural wetlands are maintained and enhanced
- Objective O11 - Opportunities for Maori customary use of the coastal marine area, rivers and lakes and their margins and natural wetlands for cultural purposes are recognised, maintained and improved.

There are important customary values of Lake Wairarapa and its tributaries and while the effects on the lake will be maintained, they will only be improved provided that the discharge to land element of this proposal can go ahead as outlined in the AEE. More work needs to be done in relation to both the discharge to land element of the proposal and on cultural effects before a firm conclusion could be made on whether the proposal meets this objective.

With regard to recreational values, provided that the discharge does not increase in volume or quality, then the current state of Donald's Creek will be maintained, and then once the discharge is removed from the water way, enhanced.

- Objective O12 – The social, economic, cultural and environmental benefits of regionally significant infrastructure and renewable energy generation activities are recognised

The social and economic benefits of the infrastructure need to be acknowledged and recognised. As outlined in Section 9.10 of my report, the

benefits of the infrastructure and its location are recognised. I consider this objective is being met.

Maori relationships

- Objective O14 – Maori relationships with air, land and water are recognised, maintained and improved.
- Objective O16 – the relationship of mana whenua with Nga Taonga Nui a Kiwa is recognised and provided for.

Submissions received state that the relationship between Maori and waterways (in particular Lake Wairarapa and the values they place on the Lake) is not being maintained or improved. Now that the lake bed is being given back to local iwi through the treaty claims process, and the management of the Lake is to be done jointly with GWRC, DoC and Iwi, there is even more impetus to ensure Maori relationships with air land and water are recognised, maintained and improved. Both groups who submitted on the application feel that the discharge into water is occurring for too long. More work needs to be done in relation to cultural effects before a firm conclusion can be made on whether the proposal meets this objective.

Water quality

- Objective O23 – The quality of the water in the region’s rivers, lakes, natural wetlands, groundwater and coastal marine area is maintained or improved.
- Objective O24 – Rivers, lakes, natural wetlands and coastal water are suitable for contact recreation and Maori customary use, including by:
 - (a) Maintaining water quality, or
 - (b) Improving water quality in:
 - (i) Significant contact recreation freshwater bodies³³ to meet, as a minimum, the primary contact recreation objectives in Table 3.1³⁴. and...
 - (ii) ...
 - (iii) All other rivers and lakes and natural wetlands to meet, as a minimum, the secondary contact recreation objectives in Table 3.2

Based on the fact that there is currently an existing discharge, the proposal will not decrease the existing water quality at the site (as long as I and I reduction does not mean the wastewater is higher strength and therefore greater impact) and there is a defined programme of work for upgrading the system to have a discharge to land element within a specified timeframe.

Assessing the activity against Table 3.2, Dr Ausseil has concluded that the discharge from FWWTP is not causing any increase in the abundance of benthic cyanobacteria, nor is it having an effect on the degree to which Donald’s Creek meets the ecoli standards.

Therefore, the proposal in its current form will **meet** this objective.

Biodiversity, aquatic ecosystem health and mahinga kai

- Objective O25 – This objective refers to a number of objectives which need to be met to safeguard aquatic ecosystem health and mahinga kai in fresh water bodies.

As has already been mentioned, this proposal is not *safeguarding* ecosystem health. This objective goes further than previous aquatic ecosystem policies and objectives as it contains detailed tables in relation to how the ecosystems can be *safeguarded*.

In relation to the detailed tables, Dr Ausseil provides some conclusions on this Objective in his report (Table 3) in relation to MCI score and

³³ Significant contact recreation freshwater bodies are listed in Schedule H1 and Map 20 of the PNRP. Lake Wairarapa is listed in Schedule H1 and Map 20.

³⁴ Table 3.1. page 40 contains various standards to be met to ensure rivers meet primary contact recreation in significant contact recreation freshwater bodies.

periphyton. His conclusions in relation to MCI score, are that this is not being met upstream or downstream for any of the stages. In relation to periphyton, for all stages he says that it is unknown if this will be met upstream and uncertain if it will be met downstream (temporary exceedances likely during shoulder seasons).

Therefore, I conclude that based on this assessment the proposal is **contrary** to this objective as aquatic ecosystem health is not being safeguarded.

- Objective O35 – Ecosystems and habitats with significant indigenous biodiversity values are protected and restored.

Abbotts Creek, its tributaries (Donald's Creek) and Lake Wairarapa are identified as having significant indigenous ecosystem values. For the same reasons as given for Objective O5 or O25 (which relate to aquatic ecosystems), the proposal is **contrary** to this objective also. This objective goes a step further than O5 and O25 by having to word protect which I understand from legal advice to mean '*to keep safe, defend, guard*' etc.

For the first 5 years of the consent there will be effects on aquatic ecosystems that are significant, then these reduce to being more than minor at times after that for a period of 13 years. The level of effects occurring means that the proposal is unable to meet the standards outlined in Objective 25, which are set to enable aquatic ecosystem health to be safeguarded.

I consider the proposal is **contrary** to this objective.

Air

- Objective O40 – Human health, property, and the environment are protected from the adverse effects of point source discharges of air pollution,

As has been concluded in section 9.6 of my report, the effects of the proposal on the discharge to air are no more than minor provided the issues surrounding wind speeds, wind directions and the timing of the discharge are investigated and addressed. I consider that the proposal **meets** this objective.

Discharges

- Objective O46 – Discharges to land are managed to reduce the runoff or leaching of contaminants to water
- Objective O49 – Discharges of wastewater to land are promoted over discharge to freshwater and coastal water
- Objective O50 – Discharges of wastewater to freshwater are progressively reduced

The FWWTP is regionally significant infrastructure that has social, economic benefits to the Featherston Township; in addition to this, the proposal is to progressively reduce discharges of water to freshwater and

also for a discharge to land to occur. However, there is still a discharge to water element in this proposal for 13 years (and in a minor way from year 13-35) and there is uncertainty surrounding whether the land can be used to discharge to land without exceeding the natural capacity of the soil to treat the discharge. Therefore I do not think the proposal as it stands is able to achieve these objectives.

Policies

Ki uta ki Tai and integrated catchment management

- Policy P1: Ki uta ki tai and integrated catchment management

Land and water resources will be managed recognising ki uta ki tai³⁵ by using principles of catchment management.

- Policy P4: Minimising adverse effects

Where minimisation of adverse effects is required...minimisation means reducing adverse effects of the activity to the smallest amount practicable and shall include consideration of alternatives, timing activity to avoid times when the receiving environment may be more sensitive and using good management practices for reducing adverse effects.

I do not consider that this application has gone into sufficient detail (especially with the land discharge component) to say that it will meet the intent of Policy P4.

It is my understanding from legal advice provided that minimise means ‘*to reduce (something, especially something undesirable) to the smallest amount or degree*’. It may be that over the course of the proposal that this may occur once the effluent is removed from the waterway but this is not for at least 13 years. Also, as there is so much uncertainty around the potential effects of the discharge to land, both on whether there will be able to be as large a reduction in discharges to water as well as potential effects on groundwater mounding and quality effects beyond the boundary of the discharge area. I do not believe the application can meet the intent of Policy P4 and I consider it is **contrary** to this policy.

Beneficial use and development

- Policy P7: Uses of land and water

The cultural, social and economic benefits of using land and water for:...

(b) treatment, dilution and disposal of wastewater and stormwater, and...

...shall be recognised

³⁵ Ki uta ki Tai means *From the mountains to the sea, inclusive of the whole catchment*

As outlined in Section 9.10 of this report, there are positive effects on the use of this infrastructure to enable the disposal of wastewater for the Featherston community. These positive effects have been recognised and I consider the proposal **meets** this policy.

- Policy P10: Contact recreation and Maori customary use

The management of natural resources shall have particular regard to the actual and potential adverse effects on contact recreation and Maori customary use in fresh and coastal water, including by:

- (a) providing water quality...suitable for the community's objectives for contact recreation and maori customary use...

The application does not detail how it will address all the issues raised in the Cultural Impact Assessment which was undertaken in 2012. Since 2012 the iwi's relationship with Lake Wairarapa and its environs has been further strengthened by the Waitangi Tribunal's decision to vest the lake bed back to iwi. The applicant is relying on undertaking a Tangata Whenua Values Management Plan after consent is granted. There has been two submissions from local iwi objecting to the application and specifically raising their relationship with Wairarapa Moana.

As discussed already, when assessing the activity against O25 Table 3.2, Dr Ausseil has concluded that the discharge from FWWTP is not causing any increase in the abundance of cyanobacteria, nor is it having an effect on the degree to which Donald's Creek meets the ecoli standards. Therefore in this regard the proposal is meeting the standards in O25. However, there is still the matter of the water clarity effects in relation to recreation and community's objectives, which is to connect with Donald's Creek.

As such, I do not believe that the current application is able to meet Policy P10 and therefore must conclude it is **inconsistent** with this policy.

- Policy P12: Benefits of regionally significant infrastructure and renewable electricity generation facilities

The benefits of regionally significant infrastructure....are recognised by having regard to:...

- (b) the location of existing infrastructure and structures, and...

- (e) operational requirements associated with developing, operating, maintain and upgrading regionally significant infrastructure...

As mentioned in Section 9.10 of this report, there are positive effects surrounding this proposal. The benefit of the WWTP in this location needs to be recognised and also the draft wastewater strategy prepared by SWDC to look at the upgrading of all three sites. However, also as discussed in Section 9.9 above, there is not any detailed information as to the economic effects of the upgrading of the system in relation to water quality and questions have been raised by submitters as to the suitability of this site.

Maori relationships

- Policy 17: Mauri

The mauri of fresh and coastal waters shall be recognised as being important to Maori by a number of factors.

- Policy P18: Mana Whenua relationships with Nga Taonga Nui a Kiwa

The relationships between mana whenua and Nga Huanga o Nga Taonga Nui a Kiwa identified in Schedule B will be recognised and provided for by

(a) having regard to the values and Nga Taonga Nui a Kiwa huanga identified in Schedule B

(b) supporting iwi-led restoration initiatives within Nga Taonga Nui a Kiwa...

- Policy P19: Maori values

The cultural relationship of Maori with air, land and water shall be recognised and the adverse effects on this relationship and their values shall be minimised.

- Policy P20: Exercise of Kaitiakitanga

Kaitiakitanga shall be recognised and provided for by a number of ways.

Lake Wairarapa is listed in Schedule B of the plan for a number of values. Submissions received state that the relationship between Maori and waterways (in particular Lake Wairarapa and the values and ownership of the Lake) is not being maintained or improved. In addition to this, the adverse effects on this relationship do not appear to be being minimised. Both groups who submitted on the application state that the discharge into water is occurring for too long. More work needs to be done in relation to cultural effects before a firm conclusion could be made on whether the proposal meets these policies. The exercise of Kaitiakitanga is being reinforced by the Waitangi Tribunal and their expectations that Lake Wairarapa and its surrounding wetlands/waterways will be looked after by local iwi in conjunction with GWRC and DoC. The proposed discharge to water obviously has a large impact on how iwi wish to exercise Kaitiakitanga.

Before I make a conclusion on this policy, I would like to hear further from the iwi group submitters and applicant on this issue.

Biodiversity, aquatic ecosystems health and mahinga kai

- Policy P31: Aquatic ecosystems health and mahinga kai

Aquatic ecosystem health and mahinga kai shall be maintained or restored by managing the effects of use and development on physical, chemical and biological processes.

- Policy P32: Adverse effects on aquatic ecosystem health and mahinga kai

Significant adverse effects on aquatic ecosystem health and mahinga kai shall be managed by a number of means, such as avoiding significant adverse effects.

This proposal has significant adverse effects for 5 years on aquatic ecosystems and these are not *avoided* by any mitigation measures to improve the quality of the discharge, or to increase the dilution rates, and therefore, the proposal does not meet this part of the policy. The progressive removal of the discharge to water by putting it to land could be seen as a mitigation measure. However, there is some uncertainty surrounding whether or not the land can be utilised for the discharge to land as proposed and 13 years is a long time to allow effects of a discharge directly to water to continue. Therefore I do not believe that the proposal meets these policies until it has been shown that a discharge to land as proposed is actually achievable (without causing effects on ground water quality and quantity) which could impact on aquatic ecosystem health and mahinga kai.

- Policy P33: Protecting indigenous fish habitat

The more than minor adverse effects of activities on species known to be present in any water body identified in Schedule F1 (rivers/lakes) as habitat for indigenous fish species³⁶ ...shall be avoided. These activities include the following:

(d) discharges of contaminants...

- Policy P40: Ecosystems and habitats with significant indigenous biodiversity values

Protect and restore the following ecosystems and habitats with significant indigenous biodiversity values:

(a) the rivers and lakes with significant indigenous ecosystems identified in Schedule F1

- Policy P41: Managing adverse effects on ecosystems and habitats with significant indigenous biodiversity values

In order to protect the ecosystems and habitats with significant indigenous biodiversity values, activities shall avoid these ecosystems and habitats. If the ecosystem or habitat cannot be avoided, the adverse effects shall be managed by:

³⁶ The Ruamahanga River is listed in Schedule F1

- (a) avoiding more than minor adverse effects, and
- (b) where more than minor adverse effects cannot be avoided, remedying them, and
- (c) where more than minor adverse effects cannot be remedied, mitigating them, and
- (d) where residual adverse effects remain it is appropriate to consider the use of biodiversity offsets.

Abbotts Creek and its tributaries are listed in Schedule F1, as is Lake Wairarapa. In relation to Abbotts Creek and Lake Wairarapa, these are not the primary receiving environments however for the discharge of nutrients, those nutrients contribute to the total mass load entering those water bodies so there will be an effect on those habitats until there is no longer a discharge to water occurring and it has been shown that the discharge to land does not adversely impact upon groundwater that then enters Lake Wairarapa and its tributaries.

In relation to Donald's Creek, a tributary of Abbotts Creek, this proposal does not protect and restore the ecosystems and habitats of Donald's Creek for the first 5 years of the proposal. It will do this over the course of the entire proposal, i.e. after Year 13, however in the medium term it does not.

It is my understanding from legal advice provided that protect means '*to keep safe, defend, guard*' and during the course of discharging to water, there will not be any protection of Donald's Creek, Abbotts Creek or Lake Wairarapa, and potentially during discharges to land where the contaminants may enter those waterways. Restore means to return the waterways to a previous condition, in the context of the policies, I consider this means to restore the waterways to a point where there are no more than minor adverse effects on aquatic ecosystems and habitats for those waterways identified as having significant indigenous biodiversity values.

I do not believe that the applicant has shown through the tests detailed in the policies above that they have avoided, mitigated, remedied or offset the more than minor effects, therefore they are **contrary** to these policies.

Discharges to land and water

- Policy P62: Promoting discharges to land

The discharge of contaminants to land is promoted over direct discharges to water, particularly where there are adverse effects on:

- (a) Aquatic ecosystems health and mahinga kai or
- (b) Contact recreation and Maori customary use.

This application has a discharge to land element, however there is still a discharge to water for a long period of time which is having more than minor effects and adverse effects on aquatic ecosystems. The application does not contain sufficient detail on whether the land discharge component can actually sustain the proposed discharge to land, so on the surface it appears that the application meets Policy P62, but in my opinion, based on the PDP report, the ability to undertake the discharge to land over discharge to water has not been proven. Under my assessment of policies relating to aquatic ecosystem health, mahinga kai, contact recreation and Maori customary use I have given the opinion that the application does not meet those policies, therefore by default, they do not meet policy P62. This policy would only be met once there is no longer a discharge to water and as the proposal is to discharge to water in some capacity for 35 years (albeit a minor discharge after year 13), I therefore believe that the activity is **contrary** to this policy.

- Policy P66: National Policy Statement for Freshwater Management requirements for discharge consents

This policy covers the matters to be considered by a consent authority when considering an application for a discharge consent. The consent authority will have regard to whether the discharge would avoid contamination that will have an adverse effect on life supporting capacity of freshwater by either a direct discharge to water, or a discharge to land where that contaminant may enter water. As this application is for a new/changed discharge, and the application was lodged after 1 August 2014, this policy in its entirety is relevant.

The proposal will be having measurable adverse effects on aquatic ecosystems for a period of at least 5 years, and up to 13 years at times and the current application does not give sufficient detail to prove that the discharge to land as proposed would meet the NPSFM requirements for discharge consents. I consider the proposal **does not meet** this policy for this time period. However, should the discharge to land component be able to be undertaken as proposed and therefore not have measurable impacts on aquatic ecosystems it could be argued that the proposal will meet the policy after year 5.

- Policy P67: Minimising effects of discharges

The adverse effects of discharges of contaminants to land and water will be minimised by...

- (c) Minimising the volume or amount of the discharges, and/or
- (d) Using land based treatment...or other systems to treat contaminants prior to discharge where appropriate, and
- (e) Irrespective of actions taken in accordance with (a) to (d) above, where a discharge is a point source discharge to a river or stream, the discharge achieve the water quality standards in Policy P71 after reasonable mixing.

I consider that the proposal is **contrary** to this policy. This is because it does not minimise the adverse effects when it is discharging to water, and does not meet the water quality standards in P71 (see below) for a period of years.

- Policy P70: Managing point source discharges for aquatic ecosystem health and mahinga kai

Where an objective in the tables of Objective O25 is not met (which applies in this case), point source discharges to water shall be managed in the following way:

- (b) For a new activity, the discharge is only appropriate if the activity would not cause the affected fresh water body....to become any worse in relation to the objective

As this application does not meet Objective O25, and it is classified a '*new activity*', we need to consider if the activity will make the fresh water body any worse. In assessing the appropriateness of the discharge we may also consider the ability to offset residual adverse effects.

As has been assessed in the effects section of this report, there are effects occurring on the freshwater body in terms of water clarity and macroinvertebrate communities. Whilst these effects will continue for some time, these effects will not become any worse (provided the I and I reduction doesn't not affect the quality of the discharge). Therefore I believe that the activity **meets** this policy.

- Policy P71: Quality of discharges

The adverse effects of point source discharges to rivers shall be minimised by the use of measures that result in the discharge meeting the water quality standards listed in this policy in the receiving water after the zone of reasonable mixing.

Dr Ausseil provided an assessment of P71 standards in his report (table 3) and I have incorporated his opinions in the table below.

Stage	P71(a)(i)	P71(a)(iii)
1A	Breached	Breached
1B	Mostly met, except for in autumn (for limited periods of time) and possibly in spring	Minor in summer Breached in shoulder seasons and winter
2A	Likely to be met	Exceeded up to 15 days/year
2B	Met	Met

As can be seen from the table above, the proposal is **contrary** to P71(a)(i) and (a)(iii) during Stage 1A; **contrary** to P71(a)(iii) and possibly P71(a)(i) during Stage 1B; and possibly P71(a)(i) and P71(a)(iii) during Stage 2A. It is not until Stage 2B (year 13) that it can be said that P71 is being met all of the time. I would note that like Section 107, P71 does not specify certain times of the day or night, or times of the year when the policy can or cannot be breached. The premise is that the policy applies all year round (with the exception of the low flow exemption in P71(a)(i))

As noted above, the term 'minimise' means to reduce something to the smallest possible amount or degree. The proposal is not doing this for 13 years as for this length of time there is a discharge to water and whenever that discharge to water occurs there will be times of effects. If the effects occurring during the discharge to water were being mitigated to a lower level then this might be acceptable, but they are not. The quality is remaining the same during the discharge days and the discharge days are not considered to be temporary or exceptional.

I consider that the proposal is **contrary** to this policy as the discharge does not minimise the adverse effects of the discharge and so the discharge does not meet (a)(i) or (a)(iii)(1) for a number of years.

- Policy P72: Zone of reasonable mixing

Where not otherwise permitted by a rule, the zone of reasonable mixing shall be minimised and will be determined on a case-by-case basis, in determining the zone of reasonable mixing, particular regard shall be given to a number of factors listed in this policy.

Dr Ausseil considers that the zone of reasonable mixing is at 100 metres downstream of the discharge point.

- Policy P82: Mana whenua values and wastewater discharges

Reasonable steps shall be taken to reflect mana whenua values and interests in the management of wastewater discharges and receiving waters, including adverse effects on Maori customary values and mahinga kai.

SWDC consider that they have taken reasonable steps by preparing a CIA however as I have concluded in Section 9.5 above I consider that more work needs to be done in relation to cultural effects.

Before I make a conclusion on these objectives and policies, I would like to hear further from the iwi group submitters and applicant on this issue. It may be that with the removal of the discharge from water to land that the proposal can meet such concerns. However, given the length of time the discharge is proposed to still occur to water and the fact that the quality of the discharge is not improving for that period, it is also likely the proposal will not fully meet this policy. It also needs to be taken into account the fact that there are submissions from the local iwi objecting to the application, and requesting that the consents be declined.

- Policy P83: Avoiding new wastewater discharges to fresh water

New discharges of wastewater to freshwater are avoided.

As I have outlined in Section 6.5.1 of my report, this proposal is considered a ‘new discharge’ and so therefore this policy applies to this application (as opposed to P80 and P81 which relate to existing discharges)

I consider that the proposal is **contrary** to this policy as a new discharge to wastewater is not being avoided, it will still occur for 13 years and there will be effects which are significant and more than minor during this period.

- Policy P95: Discharges to land

The discharge of contaminants to land shall be managed by: a number of factors listed in this policy such as soil health, capacity of soils, public health and discharges not entering water.

It is unclear as to whether the proposal will meet this policy or not as no conclusions can be made as to the effects on groundwater, soils and whether or not the discharge will enter groundwater as is detailed in Section 9.4 of this report and expert evidence memorandum supplied in Appendix 9.

Summary

It is my opinion that this proposal is **contrary** to objectives and policies in the PNRP, namely O5, O25, O35, P4, P33, P40, P41, P62, P67, P71, P82, and P83.

The proposal meets the rest of the objectives and policies listed above.

11.3 Summary of objectives and policies

A summary of the relevant objectives and policies is as follows;

- The proposal is contrary to Policy 40 of the RPS and does not meet the intent of Policy 43 and 47;
- The proposal is contrary to Objective 4.1.5, Policy 5.2.6 and 5.2.10A of the RFP;
- At this stage it cannot be concluded if the proposal meets the intent of RDLP given the uncertainty surrounding the discharge to land element of the proposal;
- The proposal may meet the intent of the RAQMP however this is subject to the information that is still to be determined in wind speeds and directions and type of irrigation system proposed;
- The proposal is contrary to objectives and policies O5, O25, O35, P4, P33, P40, P41, P62, P67, P71, P82, and P83 of the PNRP; and
- There are a number of objectives and policies relating to iwi matters which cannot be concluded on until we hear further from the iwi group submitters and applicant on these issues.

12. Section 104(6)

Section 104(6) states that a consent authority may decline an application for a resource consent on the grounds it has inadequate information to determine the application.

As has been outlined in this report, there is a lack of information available in relation to groundwater and soils. There are also a number of other matters that need to be clarified (e.g, spray drift and cultural effects.) Without this information there is a lot of uncertainty surrounding the proposal and there are concerns regarding the level of assumptions made and what the resultant effects will be. It is my opinion that the groundwater and soils information is critical to understanding if the discharge to land can be carried out in accordance with the AEE. In the work that has been done in this area recently, as part of the JWS, this has identified an envelope of effects in relation to pathogens and adversely affected bores which were not known before. This highlights that as work is done issues can be found which are causing effects which are at this stage unknown.

Not only is this information critical to understanding the effects on the discharge to land, but they also link to the discharge to water element of this proposal as if the land cannot take all the effluent outlined in the application, then more will need to be discharged to water and this will in turn impact of the assessment undertaken by Dr Ausseil.

In my view, if no further information is provided by the applicant, it is open to the Panel to decline this application under this provision.

13. Gateway Tests - section 104D

One of the 'gateway' tests under Section 104D(a) of the Act is that a consent authority may only grant a resource consent for a non-complying activity if it is satisfied that the adverse effects of the activity on the environment **will be minor**.

As I have concluded in section 9.3 of this report, there are a number of effects from the discharge to water proposal which are **significantly adverse**. Therefore, in my opinion, the proposal under the PNRP **does not meet** the first 'gateway' of Section 104D(a) of the Act.

The second 'gateway' test under Section 104D(b) of the Act is that a consent authority may only grant a resource consent for a non-complying activity only if it is satisfied that the application is for an activity that will **not be contrary to** the objectives and policies of both the relevant operative plans and proposed plan.

As I have concluded above in sections 11.2 the proposal is contrary to objectives and policies in both the RFP and the PNRP, I can therefore conclude the discharge to water application **does not meet** Section 104D(b) of the Act.

As the discharge to water does not get through the gateway tests, my view is that it prevents the discharge to water discharge being assessed any further.

14. Part 2

Consideration of an application under Section 104 of the Act is 'subject to Part 2' (sections 5, 6, 7 and 8) of the Act. Part 2 sets out the purpose and principles of the Act.

I acknowledge recent caselaw direction (*R J Davidson Family Trust v Marlborough District Council* [2017] NZHC 52 (under appeal to the Court of Appeal)) that it is not necessary to refer to Part 2 of the Act when considering a resource consent application, unless the Regional Plans are invalid, have incomplete coverage, or are uncertain. This includes not having to undertake an assessment under the Act against section 5 purpose, section 6 matters of national importance, section 7 other matters, and section 8 Treaty of Waitangi.

In my view, the relevant Operative and Proposed Regional Plans are valid, complete and contain planning documents which give effect to the higher order planning instruments. However, out of an abundance of caution, a Part 2 assessment is outlined in Appendix 11.

15. Approach to processing

As this proposal addresses a bundle of activities needing consent under the Operative Plans, and a bundle of activities needing consent under the PNRP, I have applied the following approach to my assessment:

- As both the operative plans and the proposed plan are relevant to the proposal, consent is required under both.
- I have done a separate assessment under each plan.
- If the assessments lead to the same conclusion (i.e. both grant/both decline), no issue of weight arises.
- If the assessments lead to different conclusions (i.e. one grant/one decline), the relative weight of the plans needs to be considered.
- Once the weighting exercise has been carried out, a single decision is issued for the proposal.

In other words, the operative and proposed plans are largely considered in parallel, and not blended until the end of the process.

16. Recommendation

I recommend that:

- The proposal, when assessed against the Operative Plans, should be declined, because there are effects that are more than minor and significant and on balance, the effects from this proposal as they are set out in the AEE are not acceptable, there are objectives and policies in the NPS-FM, RPS, RFP which this application does not meet and in some instances, the proposal is contrary to, it does not meet section 107(1)(d) and (g), there are no temporary or exceptional circumstances, and also there is inadequate information to determine the application in relation to effects from the discharge to land and groundwater.
- The proposal, when assessed against the PNRP should be declined because there are more than minor and significant adverse effects, it is contrary to relevant provisions of the PNRP, there are objectives and policies in the NPS-FM, RPS that it does not meet, it does not meet the gateway test under Section 104D, it does not meet section 107(1)(d) and (g), there are no temporary or exceptional circumstances, and also there is inadequate information to determine the application in relation to effects from the discharge to land and groundwater.

On the basis that my assessment is the same under both the Operative Plans and the Proposed Plan. Accordingly, there is no need to undertake a weighting exercise to determine which should be given greater weight.