

**BEFORE THE MANAWATU – WANGANUI REGIONAL COUNCIL (HORIZONS  
REGIONAL COUNCIL)**

*In the matter of*        **The Resource Management Act 1991; and**

*In the matter of*        **The Proposed One Plan: Consolidated Regional Policy  
Statement, Regional Plan and Regional Coastal Plan for  
the Manawatu - Wanganui Region**

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**SUPPLEMENTARY EVIDENCE OF ANDREW DAVID BASHFORD  
ON BEHALF OF THE PALMERSTON NORTH CITY COUNCIL**

**CHAPTERS 6, 13, 15 AND 16  
AND SCHEDULES B, C, D AND E OF THE ONE PLAN**

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Dated: 11 February 2010

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## **Introduction and Background**

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1. I have prepared this report as supplementary evidence to my Statement of Evidence dated 16 October 2009. It has been compiled in response to supplementary evidence produced by Horizons experts and takes into account the outcomes of caucusing and pre-hearing meetings held since the exchange of evidence. It also focuses more specifically on the issues surrounding the water quality standards contained within Schedule D and section 69 of the Resource Management Act 1991.
2. Several meetings involving PNCC experts have been held since the exchange of evidence. Jack McConchie, Jon Roygard and Raelene Hurdell attended a caucusing meeting on 12 November 2009 regarding the minimum flow and core allocation limit in the Turitea subzone. Caucusing was also held between Keith Hamill, Paul Kennedy, Kathryn McArthur, John Quinn, Jon Roygard and Robert Wilcock on 10 November 2009 in relation to the Water Quality Standards contained within Schedule D of the Proposed One Plan. A pre-hearing meeting was held between Clare Barton, Helen Marr, Jon Roygard, Chris Pepper and myself on 14 December 2009 where several issues were discussed including the appropriate location of amendments to Rule 13-27 as suggested in my original evidence.

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## **Water Quality**

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### Water Quality Standards

3. The evidence and supplementary evidence of Keith Hamill discusses the Water Quality Standards contained within Schedule D in detail. Mr Hamill participated in caucusing with other water quality experts and reached agreement on a number of matters as outlined in the 'Meeting Between Experts' report dated 10 November 2009.
4. As a result of this meeting, and consequent discussions, some amendments have been made to the recommendations as contained in my original evidence statement. In particular these relate to the Standards Key and an updated version is attached in Appendix 1 to this statement.
5. Of particular note are the standards relating to QMCI and Toxicants, where the recommendations made here differ to that made by Horizons experts. The reasons for these differences are discussed in paragraphs 3.3 to 3.9 and 3.12 of Mr. Hamill's supplementary evidence.
6. Agreement was not achieved in relation to the standards relating to DRP or SIN through the caucusing process. The recommendations relating to these standards have not changed from my original evidence.

### Standards or Targets

7. As discussed in paragraphs 64 to 79 of my original evidence it is unclear in what circumstances the Water Quality Standards contained within Schedule Ba and Schedule D of the Proposed One Plan apply, and whether these are standards in terms of section 69 of the Resource Management Act 1991.
8. It appears that the intention is for the Schedule Ba and Schedule D standards to apply as standards in relation to activities that are permitted. In the event that an activity does not meet the standards, the activity would require a resource consent. Some controlled and restricted discretionary rules retain control or discretion that relate to the water quality standards. It is unclear whether discretionary or non-complying activities need to comply with the standards or whether the standards are to be used as targets against which an application is assessed.
9. This matter was discussed in the caucusing meeting in relation to the Water Quality Standards held on 10 December 2009. Agreement was reached between the experts that the use of the term 'standards' is not a good term to use in this context and that clarity is needed. The Horizons experts were also to discuss options with the Horizons planners to clarify *'that standards applied as absolute trigger values for permitted activities will be regarded as targets in other situations'*<sup>1</sup>.
10. This matter has been addressed to a limited extent by the recommended amendments to Policies 6-3 to 6-5 and in particular by the inclusion of the words *'maintains or enhances existing water quality'* to Policy 6-4. However there are still drafting issues with those policies and with Policy 13-6, and it remains unclear whether the 'standards' are intended to apply as standards or as guidelines for resource consent applications and as to whether the so called standards are intended to be standards for the purpose of section 68(7), 69 and section 128(1)(b) of the RMA.
11. The following table outlines the rules that have provisions directly referring to the Schedule Ba and Schedule D Standards:

<b>One Plan Rules in Chapter 13 referring directly to the Water Quality Standards</b>			
<b>Rule</b>	<b>Activity Status</b>	<b>Conditions/Standards/Terms</b>	<b>Control/Discretion</b>
13-9	Permitted	The discharge shall not, after reasonable mixing change the natural temperature of the receiving water by more than the maximum temperature or temperature change specified by the quality standards for the Water Management Sub-zone listed in Schedule Ba.	

<sup>1</sup> See paragraph 9 – Report of a Meeting between Experts: Water Quality Standards, 10 November 2009.

13-17	Restricted Discretionary		Discretion is reserved over:  Measures required to comply with the water quality standards for the relevant Water Management Sub-zone(s).
13-21	Controlled		Control is reserved over:  Measures to manage effects on surface water bodies including maintaining the values and water quality standards set out in Schedule Ba.
13-24	Permitted	The discharges shall not, after reasonable mixing, cause the receiving water body to breach the water quality standards for that water body set out in Schedule D, either from the discharge itself or in combination with any other discharges.	
13-26	Permitted	The discharge shall comply with all of the conditions of Rule 13-24.	

12. The default catch-all discretionary activity rule (Rule 13-27) does not refer to the standards at all and there is no rule which provides that discharges which do not meet the standards become non-complying or prohibited activities.
13. Accordingly in my opinion the intention of the Plan as notified was that these water quality targets would only apply as standards for the purpose set out in the permitted activity rules and would otherwise be guidelines or targets. That is consistent with what was agreed at caucusing.
14. My concern is that what appears to have been the intention has not been made clear in the Plan itself.
15. My second concern is that in the absence of clarity it remains open for future argument that these are standards for the purpose of section 69. That would then allow argument that the rules must require the observance of the standards with no exceptions. That is, it could be argued that the rules must be amended to prohibit discharges which do not meet the standards. That was clearly not what was intended but given the loose wording surrounding the standards that is an argument which others may mount.
16. Accordingly, in my opinion it is more appropriate to have wording which makes it clear that these are not standards for the purposes of section 69 but are targets

which will be considered at the time any applications are considered. It also needs to be made clear that what will be considered is whether the discharge on its own or in conjunction with other discharges will **cause** the targets to be breached. That is consistent with common sense and with the wording of section 107. Mr Hamill discusses this point in relation to QMCI.

17. A summary of proposed wording changes to the One Plan provisions to remedy these issues is suggested in Appendix 1 and has been discussed in Mr Milne's legal submissions. They include:
- Changing references to the Water Quality Standards in the One Plan to *Water Quality Targets*;
  - Ensuring the introductory wording to Schedule Ba and Schedule D label the contents as being targets; and
  - The addition of an advice note to Schedule Ba and Schedule D that makes it clear that the targets are intended to guide the Regional Council when assessing resource consent applications and that where appropriate relevant targets have been incorporated as conditions for permitted activities.
18. It is acknowledged that the suggested wording requires refining and to that extent the Palmerston North City Council is happy to work with Horizons to formulate appropriate provisions and wording to rectify the identified issues.
19. On a related note, there are some fundamental issues with how some of the policies have been drafted, as Mr Milne has discussed in his legal submissions. Policy 13-6 does not make sense as drafted in the pink version, and it is unclear how it is intended to be applied. The pink version text states:

*Policy 13-6: point Source Discharges to Land and Water*

- (a) *When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or Error! Bookmark not defined. mitigating adverse effects<sup>^</sup> Error! Bookmark not defined.,:*
- (i) *the degree to which the activity will adversely affect the values identified for the relevant Water Management Sub-zone(s)\**
  - (ii) *whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards set in Schedule D to be breached*
  - (iii) *the extent to which the activity is consistent with best management practices*
  - (iv) *the need to allow reasonable time to achieve any required improvements.*

(b) *The Regional Council may make an exception to subsection (a) where:*

- (i) *in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided*
- (ii) *adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18*
- (iii) *it is appropriate to adopt the best practicable option<sup>^</sup>*
- (iv) *other exceptional circumstances apply*

*and it is consistent with the purpose of the RMA to do so.*

20. In examining this policy it could be taken as two policies rolled into one where the applicant must consider alternatives when applying for consent, and secondly the consent authority must consider the matters described in the list labelled (i) to (iv). Alternatively it could be that both the consent authority and applicant must consider alternatives along with the matters within the list.
21. In addition the first part of clause (a) does not introduce the list in any way and there are a number of bookmarking errors within the policy. In my opinion the policy should be redrafted and proposed wording is contained in Appendix 1.

#### Relationship to section 128(1)(b)

22. I also have concern that if the Water Quality Standards become standards or are interpreted as standards in the context of section 68(7) and 69 of the RMA 1991, then the Palmerston North City Wastewater Treatment Plant (WWTP) may be required to meet the new standards in a review of the existing resource consent under section 128(1)(b). This could take place as soon as the One Plan is made operative and only a few years after a major upgrade to the plant.
23. The current wording of the rules would not allow for a non notified review of current consents because the rules do not signal that, as outlined in section 68(7). However if the wording of the standards and policies is left as is, then it is arguable that a notified review under section 128(1)(b) may be carried out.
24. Upgrading the WWTP to meet the proposed standards would result in substantial capital and operational expense to the Palmerston North community. The water quality of the Manawatu River above the WWTP discharge does not meet a number of the proposed standards. It is my opinion that upgrading the WWTP in the short term would not be an efficient use of funds when superior gains to water quality could be achieved through other means.
25. To address this issue I recommended that a clause be added to Rule 13-27. Discussions on this clause have been undertaken with Horizons Planners (Clare Barton and Helen Marr) with agreement to the concept, however it has been suggested that the clause should be located within the Policies of the One Plan.

26. In discussions with Ms Barton and Ms Marr, it had been agreed that Policy 2-3 (11A-6 in the provisional determination version) is the suitable location for the clause.
27. The wording of the clause has been amended so that it fits the new location more appropriately. The suggested wording is:

*The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only be considered in relation to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.*

28. However I now consider that it would be preferable to fix up the more fundamental issues with how the standards apply (i.e. renaming them as targets and making the policies and rules consistent with that). This is a better solution overall, and it would also avoid the need to specifically exempt the WWTP.

#### Stormwater and Centennial Lagoon

29. In my original evidence statement I raised issues surrounding Centennial Lagoon, stormwater discharges and the Schedule E definitions. In response, Ms Fleur Maseyk prepared a section 42A report pointing out the benefits of including the lagoon within the Schedule E definitions<sup>2</sup> and thereby giving it a Threatened Habitat Status.
30. Given the heavily modified status of Centennial Lagoon this highlights that any natural lake or wetland would be classified as a threatened habitat unless it was specifically exempted by the provisions within Table E.2(b). This in turn causes some confusion as to the rules that apply to discharges to such environments due to the doubling up of provisions that apply to lakes and wetlands.
31. For example, Rule 13-17 provides for discharges of stormwater to surface water as a restricted discretionary activity so long as there is no discharge to any natural lake, rare habitat, threatened habitat, at-risk habitat or Natural State Water Management Sub-zone or Site of Significance - Aquatic.
32. The rule guide relating to the stormwater rules states that discharges in rare habitats, threatened habitats or at-risk habitats are regulated by rules 12-7 and 12-8, making them a Discretionary Activity<sup>3</sup>. The rule guide also states that discharges in Natural State Water Management Sub-zones or Sites of Significance - Aquatic are regulated by Rule 13-23, making them a Non-complying Activity. There is no mention of discharges to natural lakes in the rule guide.

<sup>2</sup> See Paragraphs 21-22 of the s42A report of Ms Fleur Jennifer Foster Maseyk.

<sup>3</sup> Note that these provisions have been changed to Rule 12-6 in the Provisional Determination

33. Rule 13-23 is titled "Discharges of contaminants to Natural State Water Management Sub-zones, Sites of Significance – Aquatic and lakes and wetlands. The activities encompassed by this rule include any direct discharge of contaminants into a natural lake.
  34. The discharges to Centennial Lagoon could be regulated by Rule 12-6 as indicated by the Rule Guide but also by Rule 13-23 given its title and the activities that it includes. This issue was also discussed with Ms Barton and Ms Marr at the meeting held on 14 December 2010 with agreement that the references to lakes and wetlands should be removed from Rule 13-23. For completeness the reference to lakes and wetlands should also be removed from the heading of section 13.8.
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## **Water Quantity**

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### Minimum flow and core allocation values for the Turitea Stream

35. Paragraphs 112 to 116 of my original evidence discuss the minimum flow and core allocation values set for the Turitea Stream. Dr. Jack McConchie has provided technical expert evidence on the Turitea catchment and recommended suitable values for the minimum flow and core allocation. Caucusing was held between Dr. McConchie, Dr Roygard and Ms Hurndell on this matter on 12 November 2009. This resulted in agreement on a number of matters and further evidence being prepared by Dr. McConchie that altered the minimum flow value from the original recommendations. The revised values have been agreed by Horizons experts and I have made the necessary amendments to my recommendations.

### Schedule E

36. It has been identified that as proposed the One Plan has classed the Turitea water supply lakes as threatened habitat. This issue has been raised in my original evidence and Ms Maseyk from Horizons has responded in her section 42A report.
37. Ms Maseyk has stated that the inclusion of the water supply dams within the definitions of Schedule E was an oversight and that it is the intent of the schedule to exclude areas designed, installed and maintained for such purposes. She has made a recommendation that the words 'town water supply' be added to the Table E.2(b).
38. I agree that an exclusion needs to be added to Table E.2(b) but in my opinion the words as recommended in my original evidence are more suitable. They are more specific in that it is water storage for public water supplies that is exempt. Public water supply is defined within the glossary of the One Plan thereby giving certainty to Plan users and applying consistent terminology throughout the Plan.

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**Conclusion**

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39. Taking into account the various meetings and discussions that have taken place and further evidence provided since the exchange of evidence I have made several amendments to the recommendations made in my original evidence statement. A full list of the proposed amendments is attached as Appendix 1.

A handwritten signature in black ink that reads "ADBashford". The signature is written in a cursive style with a large initial 'A' and 'B'.

Andrew Bashford  
**Planning Officer**  
PALMERSTON NORTH CITY COUNCIL

## **Appendix 1: Recommended Amendments to be made to One Plan**

### **General Amendments**

Note: These proposed changes are general in nature and will require further drafting. They relate to the issues of uncertainty around the Water Quality Standards as proposed in Schedule Ba and Schedule D of the One Plan. It is also noted that there are a number of cross referencing errors between the various versions of the One Plan and although not discussed in the evidence presented the Palmerston North City Council is happy to assist the Horizons Regional Council in correcting these if required.

1. The policies (in particular policies 6-3 to 6-5 and 13-6) should be amended so that each reference to Schedule Ba and Schedule D *standards* refers instead to "*water quality targets*";
2. The introductory wording in Schedule Ba and Schedule D should be amended to clearly label the schedules' contents as being *targets*;
3. An advice note should be added to Schedule Ba and Schedule D stating that the targets are intended to guide the exercise of the consent authority's discretion when considering consent applications, and that where relevant the targets have been incorporated as conditions of permitted activity rules;
4. The permitted activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-9 and 13-24) should be amended to refer to the relevant *targets* in those schedules; and
5. The controlled and restricted discretionary activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-17 and 13-21) should be amended so that control or discretion is reserved over "*measures to assist in maintaining or achieving the targets*" in the relevant schedule.

## **Specific Amendments**

Note: These proposed amendments contain specific wording to various One Plan provisions to address issues raised in evidence presented. All changes are **highlighted** with words recommended to be added shown as underlined, and words that are recommended to be deleted shown in ~~strike through~~.

### **Chapter 11**

Amend Policy 11-A-6 as follows:

#### **Policy 11A-6: Consent Review**

In addition to the reasons specified in s128(1)(a)(i) and (ii) RMA, the Regional Council will, under s128(1)(a)(iii) RMA, generally impose consent conditions that specify a review of consent conditions during the term of the consent for:

- (a) reviewing the appropriateness of any condition requiring the consent holder to supply the consent authority with information relating to the exercise of the resource consent
- (b) reviewing any unknown or uncertain adverse effects caused as a result of planned or required changes or upgrades to the activity
- (c) reviewing the conditions of a consent at the same time as review of other consents within the same Water Management Zone – for example, at a common catchment expiry or review date.
- (d) reviewing the effectiveness of consent conditions to avoid, remedy or mitigate any adverse effects of the activity on the environment.

The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only apply to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.

This policy relates to Objective 11A-2.

## Chapter 13

Amend Policy 13-6 (Pink Version) as follows:

### **Policy 13-6: ~~p~~Point Source Discharges to Land and Water**

~~(a) When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, the opportunity to utilise alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or **Error! Bookmark not defined.** mitigating adverse effects<sup>^</sup> where practicable **Error! Bookmark not defined.**, shall be considered., including but not limited to:z~~

(a) When applying for consents and making decisions on consent applications for discharges of contaminants to water or land the following shall be considered for the purpose of avoiding or mitigating effects:

- (i) the degree to which the activity will adversely affect the values identified for the relevant *Water Management Sub-zone(s)*\*
- (ii) whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards targets set in Schedule D to be breached
- (iii) the extent to which the activity is consistent with best management practices
- (iv) the need to allow reasonable time to achieve any required improvements.
- (v) alternative treatment and discharge options or mix of discharge regimes.

(b) The Regional Council may make an exception to (a) where:

- (i) in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided
- (ii) adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18
- (iii) it is appropriate to adopt the *best practicable option*<sup>^</sup>
- (iv) other exceptional circumstances apply

and it is consistent with the purpose of the RMA to do so.

This policy implements Objective 13-1

Amend Rules 13-17, and 13-23 as follows:

### 13.5 Rules - Stormwater

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>13-17</b> <b>Discharges of stormwater to surface water not complying with Rule 13-15</b>	The <i>discharges</i> of <i>stormwater</i> into <i>surface water</i> which do not comply with Rule 13-15, and any associated takes or diversions of stormwater forming part of the stormwater system.	<b>Restricted Discretionary</b>	(a) There shall be no <i>discharge</i> to any <b>natural lake</b> , <i>rare habitat</i> , <i>threatened habitat</i> , <i>at-risk habitat</i> , or Natural State Water Management Sub-zone or Site of Significance - Aquatic.	Discretion is reserved over: (a) measures to control flooding and erosion (b) contaminant concentrations and loading rates (c) measures required to comply with s107(1) RMA (d) measures required to comply with the water quality <b>standards targets</b> for the relevant Water Management Sub-zone(s) (e) odour management (f) stormwater system maintenance requirements (g) contingency requirements (h) monitoring and information requirements (i) duration of consent (j) review of consent conditions.

13.8 **Rules – Discharges of contaminants to Natural State Water Management Sub-zones, Lakes and Wetlands**

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<p><b>13-23</b> <b>Discharges of contaminants to Natural State Water Management Sub-zones, and Sites of Significance – Aquatic and lakes and wetlands</b></p>	<p>Any direct <i>discharge</i> of <i>contaminants</i> into:</p> <ul style="list-style-type: none"> <li>(a) a Natural State Water Management Sub-zone</li> <li>(b) a water body identified as a Site of Significance – Aquatic in Schedule DBa</li> <li>(c) a natural lake, except Lake Otamangakau, Lake Te Whaiau and Lake Moawhanga</li> <li>(d) a wetland classified as a rare habitat, or threatened habitat</li> </ul> <p>except the discharge of agrichemicals for the purpose of controlling pests control as defined in a regional pest management strategy prepared under the Biosecurity Act 1993 (this activity is regulated by Rule 14-2).</p>	<p><b>Non-complying</b></p>		

## Chapter 15

Amend Rules 15-5 and 15-6 as follows:

### 15.2 Rules – Takes and Uses of Water

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-5 Takes and uses of surface water complying with core allocations</b>	The taking and use of surface water from a river, <b>or water storage lake on a river</b> , pursuant to s14(1) RMA, except where the water take is controlled under Rule 13-1.	<b>Controlled</b>	<p>(b) Water shall only be taken when the river is above its minimum flow, as assessed in accordance with Schedule B except as provided for by:</p> <p>(ba) takes or portions of takes which are for the purposes of stock drinking water and domestic needs, or public water supplies predominantly for domestic use may continue below minimum flow provided the rates and volumes of takes do not exceed the maximum takes of low flow set out in Policy 6-19.</p> <p>(c) The amount of water taken, when assessed in combination with all other water takes within the same Water Management Sub-zone shall not exceed the relevant core allocation set out for Water Management Subzones in Schedule B.</p> <p>(d) The amount of water taken, when assessed in combination with all other water takes within the same catchment, shall not exceed the cumulative allocation for each Water Management Sub-zone in the same catchment.</p> <p>(e) The take shall not lower the water level in any wetland that is a rare habitat or threatened habitat.</p>	<p>Control is reserved over:</p> <p>(a) the volume and rate of water taken, and the timing of the take</p> <p>(b) the location of take</p> <p>(c) intake velocity and screening requirements</p> <p>(d) measures to avoid, remedy or mitigate any adverse effects on the values of the water body at the point of abstraction, including restrictions on the volume and rate of abstraction</p> <p>(e) the efficiency of water use</p> <p>(f) effects on other water takes</p> <p>(g) effects on rare habitats, and threatened habitats and at-risk habitats and Sites of Significance – Aquatic.</p> <p>(h) compliance with minimum flow requirements</p> <p>(i) duration of consent</p> <p>(j) review of consent conditions</p> <p>(k) compliance monitoring.</p> <p>Resource consent applications under this rule will not be notified and written approval of affected persons will not be required (notice of applications need not be served on affected persons).</p>

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-6 Takes of surface water not complying with core allocations</b>	<p>The taking of surface water from a river <b>or water storage lake on a river:</b></p> <p>(aa) which, when assessed in combination with all other water takes, exceeds the relevant core allocation set out in Schedule B. or</p> <p>(ab) at or below minimum flow (unless allowed by Rule 15-5(b))</p> <p>This rule does not include:</p> <p>(a) takes permitted under Rule 15-1</p> <p>(b) takes in circumstances where water is only taken when the river flow is greater than the median flow (these are a discretionary activity under Rule 15-8)</p> <p>(c) lawfully established takes for hydroelectricity generation (these are discretionary activities under Rule 15-8).</p>	<b>Non-complying</b>		

**Schedule B**

Amend the Turitea (Mana\_11b) Sub-zone within Table B1 as follows:

Table B1: Allocation Limits and Minimum Flows by Water Management Sub-zone					
Zone code	Sub-zone	Minimum Flow (m <sup>3</sup> /s)	Flow monitoring site	Flow monitoring site location	Cumulative core allocation limit (m <sup>3</sup> /s)
Lower Manawatu (Mana_11)	Turitea (Mana_11b)	0.050 0.041	Turitea at Ngahere Park	T24:354-852	0.265 0.428

## Schedule D

Make the following changes to the associated Standards (targets) Key within Schedule D:

### Schedule D Standards Targets Key

Water<sup>^</sup> Quality Standards Targets Key: definition of abbreviations and full wording of the standards targets (placement of the numerical values for a specified standard target are indicated by [...]).

Abbreviations used in Tables D:1 to D:4		Full Wording of the Standard-Target
Header	Sub-header	
pH	Range	The pH of the water <sup>^</sup> shall be within the range [...] to [...], unless natural levels are already outside this range.
	Δ	The pH of the water <sup>^</sup> shall not be changed by more than [...].
Temp (°C)	<	The temperature of the water <sup>^</sup> shall not exceed [...] degrees Celsius.
	Δ	The temperature of the water <sup>^</sup> shall not be changed by more than [...]degrees Celsius.
DO (%SAT)	>	The concentration of dissolved oxygen (DO) shall exceed [...] % of saturation.
sCBOD <sub>5</sub> (g/m <sup>3</sup> )	<	The monthly average five-days filtered / soluble carbonaceous biochemical oxygen demand (BOD) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre.
POM (g/m <sup>3</sup> )	<	The average concentration of particulate organic matter when the river <sup>^</sup> flow is at or below 50th percentile of flow shall not exceed [...] grams per cubic metre.
Periphyton (Rivers)	Chl a (mg/m <sup>2</sup> )	The algal biomass on the stream or river <sup>^</sup> bed <sup>^</sup> shall not exceed [...] milligrams of chlorophyll a per square metre.
	% cover	The maximum cover of visible stream or river <sup>^</sup> bed <sup>^</sup> by periphyton as filamentous algae more than 2 centimetres long shall not exceed [...] %. The maximum cover of visible stream or river bed by periphyton as diatoms or cyanobacteria more than 0.3 centimetres thick shall not exceed [...] %.
Algal biomass Chl a (mg/m <sup>3</sup> )	<	The annual average algal biomass shall not exceed [...] milligrams chlorophyll Algal biomass a per cubic metre.
	Maximum	no sample shall exceed [...] milligrams chlorophyll a per cubic metre.
DRP (g/m <sup>3</sup> )	<	The annual average concentration of dissolved reactive phosphorus (DRP) when the river <sup>^</sup> flow is at or below the 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for DRP is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TP (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total phosphorus (TP) shall not exceed [...] grams per cubic metre.
SIN (g/m <sup>3</sup> )	<	The annual average concentration of soluble inorganic nitrogen <sup>11</sup> (SIN) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for SIN is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TN (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total nitrogen shall not exceed [...] grams per cubic metre.
MCI		The Macroinvertebrate Community Index (MCI) shall <b>not be less than 20% below natural reference conditions for the river.</b> <b>If natural reference conditions are not defined then the MCI shall</b> exceed [...]. <b>unless natural physical conditions are beyond the scope of application of the MCI.</b> In cases where the river <sup>^</sup> or stream habitat is suitable for the application of the soft-bottomed variant of the MCI (MCI-sb) the standards shall also apply. <b>This standard will not apply if the natural physical conditions are beyond the scope of application of the MCI or MCI-sb.</b> <b>The MCI standard applies only for State of the Environment monitoring purposes to determine if the aquatic macroinvertebrate communities are adequate to provide for and maintain the values in each WMSZ, the standard is not appropriate for monitoring the effects of activities such as discharges to water.</b>
QMCI	%Δ	<b>Discharges to water to cause N</b> no more than a 20 % reduction in Quantitative Macroinvertebrate Community Index (QMCI) score between <b>appropriately matched habitats</b> upstream and downstream of <b>the discharges to water<sup>^</sup>.</b> <b>Note: Where samples are collected using a hand net this standard shall also apply to the Semi-Quantitative MCI (SQMCI).</b>
Ammoniacal nitrogen (g/m <sup>3</sup> ) (rivers)	<	The average concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre.
Ammoniacal nitrogen (g/m <sup>3</sup> ) (lakes)	<	The concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre when lake <sup>^</sup> pH exceeds 8.5 within the epilimnion (shallow lakes <sup>^</sup> ) or within 2 m of the water <sup>^</sup> surface (deep lakes <sup>^</sup> ).
Toxicants	<%	For toxicants not otherwise defined in these standards, the concentration of toxicants in the water <sup>^</sup> shall not exceed the trigger values defined in the 2000 ANZECC guidelines Table 3.4.1 for the level of protection of [...] % of species. <b>For metals the trigger value shall be adjusted for hardness and apply to the dissolved fraction.</b>
Clarity (m) (rivers)	%Δ	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall equal or exceed [...] m when the river <sup>^</sup> is at or below the 50 <sup>th</sup> percentile of flow.
Clarity (m) (lakes)	%Δ	The clarity of the water <sup>^</sup> measured as Secchj depth (or horizontal sighting range of a 200 mm black disc) shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured Secchi depth (or horizontal sighting range of a 200 mm black disc) shall exceed [...] m.
E.coli/100ml (rivers)	<m	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive) when the river <sup>^</sup> flow is at or below the 50 <sup>th</sup> percentile of flow.
	<20 <sup>th</sup> %ile	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres when the river <sup>^</sup> flow is at or below the 20th percentile of flow year round.
E.coli/100 ml (lakes)	Summer	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive).
	Winter	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 May – 31 October (inclusive).
Euphotic Depth (lakes)	%Δ	Euphotic depth shall not be reduced by more than [...] %.

## **Schedule E**

Make the following amendments to Table E.2(b):

### **Table E.2(b):**

<p>If an area of any habitat type described in Table E.1 meets any of the following criteria it shall not be rare habitat*, threatened habitat* or at-risk habitat* for the purposes of this Plan.</p>
<p><b>Forest*, Treeland*, Scrub*, or Shrubland* Habitat Types Classified as Threatened or At-risk</b></p> <ul style="list-style-type: none"> <li>i. Areas of indigenous* tree* species planted for the purposes of timber harvest. Or</li> <li>ii. Indigenous* vegetation planted for landscaping, horticultural, shelter belts, gardening or amenity purposes. Or</li> <li>iii. Habitat areas 1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul> <p><b>Wetland^ Habitat Types Classified as Rare or Threatened</b></p> <ul style="list-style-type: none"> <li>iv. Damp gully heads, or paddocks subject to regular ponding, dominated* by pasture or exotic species in association* with wetland sedge and rush species. Or</li> <li>v. Ditches or drains supporting raupo, flax or other wetland species (e.g. Carex sp., Isolepis sp.), or populations of these species in drains or slumps associated with road reserves or rail corridors. Or</li> <li>vi. Areas of wetland^ habitat specifically designed, installed and maintained for any of the following purposes: <ul style="list-style-type: none"> <li>a) stock watering (including stock ponds), or</li> <li>b) water storage for the purposes of fire fighting or irrigation (including old gravel pits), or</li> <li>c) treatment of animal effluent (including pond or barrier ditch systems), or</li> <li>d) waste water treatment, or</li> <li>e) sediment control, or</li> <li>f) any hydroelectric power generation scheme. Or</li> <li>g) water storage for the purposes of public water supplies. Or</li> </ul> </li> <li>vii. Areas of wetland habitat maintained in relation to the implementation of any resource consent conditions or agreements relating to the operation of any hydroelectric power scheme currently lawfully established. Or</li> <li>viii. Open water and associated vegetation created for landscaping purposes or amenity values where the planted vegetation is predominately exotic, or includes assemblages of species not naturally found in association* with each other, on the particular landform, or at the geographical location of the created site.</li> <li>ix. Habitat areas 0.1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul>

**BEFORE THE MANAWATU – WANGANUI REGIONAL COUNCIL (HORIZONS  
REGIONAL COUNCIL)**

*In the matter of*      **The Resource Management Act 1991; and**

*In the matter of*      **The Proposed One Plan: Consolidated Regional Policy  
Statement, Regional Plan and Regional Coastal Plan for  
the Manawatu - Wanganui Region**

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**SUPPLEMENTARY EVIDENCE OF ANDREW DAVID BASHFORD  
ON BEHALF OF THE PALMERSTON NORTH CITY COUNCIL**

**CHAPTERS 6, 13, 15 AND 16  
AND SCHEDULES B, C, D AND E OF THE ONE PLAN**

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Dated: 11 February 2010

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## **Introduction and Background**

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1. I have prepared this report as supplementary evidence to my Statement of Evidence dated 16 October 2009. It has been compiled in response to supplementary evidence produced by Horizons experts and takes into account the outcomes of caucusing and pre-hearing meetings held since the exchange of evidence. It also focuses more specifically on the issues surrounding the water quality standards contained within Schedule D and section 69 of the Resource Management Act 1991.
2. Several meetings involving PNCC experts have been held since the exchange of evidence. Jack McConchie, Jon Roygard and Raelene Hurdell attended a caucusing meeting on 12 November 2009 regarding the minimum flow and core allocation limit in the Turitea subzone. Caucusing was also held between Keith Hamill, Paul Kennedy, Kathryn McArthur, John Quinn, Jon Roygard and Robert Wilcock on 10 November 2009 in relation to the Water Quality Standards contained within Schedule D of the Proposed One Plan. A pre-hearing meeting was held between Clare Barton, Helen Marr, Jon Roygard, Chris Pepper and myself on 14 December 2009 where several issues were discussed including the appropriate location of amendments to Rule 13-27 as suggested in my original evidence.

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## **Water Quality**

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### Water Quality Standards

3. The evidence and supplementary evidence of Keith Hamill discusses the Water Quality Standards contained within Schedule D in detail. Mr Hamill participated in caucusing with other water quality experts and reached agreement on a number of matters as outlined in the 'Meeting Between Experts' report dated 10 November 2009.
4. As a result of this meeting, and consequent discussions, some amendments have been made to the recommendations as contained in my original evidence statement. In particular these relate to the Standards Key and an updated version is attached in Appendix 1 to this statement.
5. Of particular note are the standards relating to QMCI and Toxicants, where the recommendations made here differ to that made by Horizons experts. The reasons for these differences are discussed in paragraphs 3.3 to 3.9 and 3.12 of Mr. Hamill's supplementary evidence.
6. Agreement was not achieved in relation to the standards relating to DRP or SIN through the caucusing process. The recommendations relating to these standards have not changed from my original evidence.

### Standards or Targets

7. As discussed in paragraphs 64 to 79 of my original evidence it is unclear in what circumstances the Water Quality Standards contained within Schedule Ba and Schedule D of the Proposed One Plan apply, and whether these are standards in terms of section 69 of the Resource Management Act 1991.
8. It appears that the intention is for the Schedule Ba and Schedule D standards to apply as standards in relation to activities that are permitted. In the event that an activity does not meet the standards, the activity would require a resource consent. Some controlled and restricted discretionary rules retain control or discretion that relate to the water quality standards. It is unclear whether discretionary or non-complying activities need to comply with the standards or whether the standards are to be used as targets against which an application is assessed.
9. This matter was discussed in the caucusing meeting in relation to the Water Quality Standards held on 10 December 2009. Agreement was reached between the experts that the use of the term 'standards' is not a good term to use in this context and that clarity is needed. The Horizons experts were also to discuss options with the Horizons planners to clarify *'that standards applied as absolute trigger values for permitted activities will be regarded as targets in other situations'*<sup>1</sup>.
10. This matter has been addressed to a limited extent by the recommended amendments to Policies 6-3 to 6-5 and in particular by the inclusion of the words *'maintains or enhances existing water quality'* to Policy 6-4. However there are still drafting issues with those policies and with Policy 13-6, and it remains unclear whether the 'standards' are intended to apply as standards or as guidelines for resource consent applications and as to whether the so called standards are intended to be standards for the purpose of section 68(7), 69 and section 128(1)(b) of the RMA.
11. The following table outlines the rules that have provisions directly referring to the Schedule Ba and Schedule D Standards:

<b>One Plan Rules in Chapter 13 referring directly to the Water Quality Standards</b>			
<b>Rule</b>	<b>Activity Status</b>	<b>Conditions/Standards/Terms</b>	<b>Control/Discretion</b>
13-9	Permitted	The discharge shall not, after reasonable mixing change the natural temperature of the receiving water by more than the maximum temperature or temperature change specified by the quality standards for the Water Management Sub-zone listed in Schedule Ba.	

<sup>1</sup> See paragraph 9 – Report of a Meeting between Experts: Water Quality Standards, 10 November 2009.

13-17	Restricted Discretionary		Discretion is reserved over:  Measures required to comply with the water quality standards for the relevant Water Management Sub-zone(s).
13-21	Controlled		Control is reserved over:  Measures to manage effects on surface water bodies including maintaining the values and water quality standards set out in Schedule Ba.
13-24	Permitted	The discharges shall not, after reasonable mixing, cause the receiving water body to breach the water quality standards for that water body set out in Schedule D, either from the discharge itself or in combination with any other discharges.	
13-26	Permitted	The discharge shall comply with all of the conditions of Rule 13-24.	

12. The default catch-all discretionary activity rule (Rule 13-27) does not refer to the standards at all and there is no rule which provides that discharges which do not meet the standards become non-complying or prohibited activities.
13. Accordingly in my opinion the intention of the Plan as notified was that these water quality targets would only apply as standards for the purpose set out in the permitted activity rules and would otherwise be guidelines or targets. That is consistent with what was agreed at caucusing.
14. My concern is that what appears to have been the intention has not been made clear in the Plan itself.
15. My second concern is that in the absence of clarity it remains open for future argument that these are standards for the purpose of section 69. That would then allow argument that the rules must require the observance of the standards with no exceptions. That is, it could be argued that the rules must be amended to prohibit discharges which do not meet the standards. That was clearly not what was intended but given the loose wording surrounding the standards that is an argument which others may mount.
16. Accordingly, in my opinion it is more appropriate to have wording which makes it clear that these are not standards for the purposes of section 69 but are targets

which will be considered at the time any applications are considered. It also needs to be made clear that what will be considered is whether the discharge on its own or in conjunction with other discharges will **cause** the targets to be breached. That is consistent with common sense and with the wording of section 107. Mr Hamill discusses this point in relation to QMCI.

17. A summary of proposed wording changes to the One Plan provisions to remedy these issues is suggested in Appendix 1 and has been discussed in Mr Milne's legal submissions. They include:
- Changing references to the Water Quality Standards in the One Plan to *Water Quality Targets*;
  - Ensuring the introductory wording to Schedule Ba and Schedule D label the contents as being targets; and
  - The addition of an advice note to Schedule Ba and Schedule D that makes it clear that the targets are intended to guide the Regional Council when assessing resource consent applications and that where appropriate relevant targets have been incorporated as conditions for permitted activities.
18. It is acknowledged that the suggested wording requires refining and to that extent the Palmerston North City Council is happy to work with Horizons to formulate appropriate provisions and wording to rectify the identified issues.
19. On a related note, there are some fundamental issues with how some of the policies have been drafted, as Mr Milne has discussed in his legal submissions. Policy 13-6 does not make sense as drafted in the pink version, and it is unclear how it is intended to be applied. The pink version text states:

*Policy 13-6: point Source Discharges to Land and Water*

- (a) *When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or Error! Bookmark not defined. mitigating adverse effects<sup>^</sup> Error! Bookmark not defined.,:*
- (i) *the degree to which the activity will adversely affect the values identified for the relevant Water Management Sub-zone(s)\**
  - (ii) *whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards set in Schedule D to be breached*
  - (iii) *the extent to which the activity is consistent with best management practices*
  - (iv) *the need to allow reasonable time to achieve any required improvements.*

(b) *The Regional Council may make an exception to subsection (a) where:*

- (i) *in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided*
- (ii) *adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18*
- (iii) *it is appropriate to adopt the best practicable option<sup>^</sup>*
- (iv) *other exceptional circumstances apply*

*and it is consistent with the purpose of the RMA to do so.*

20. In examining this policy it could be taken as two policies rolled into one where the applicant must consider alternatives when applying for consent, and secondly the consent authority must consider the matters described in the list labelled (i) to (iv). Alternatively it could be that both the consent authority and applicant must consider alternatives along with the matters within the list.
21. In addition the first part of clause (a) does not introduce the list in any way and there are a number of bookmarking errors within the policy. In my opinion the policy should be redrafted and proposed wording is contained in Appendix 1.

#### Relationship to section 128(1)(b)

22. I also have concern that if the Water Quality Standards become standards or are interpreted as standards in the context of section 68(7) and 69 of the RMA 1991, then the Palmerston North City Wastewater Treatment Plant (WWTP) may be required to meet the new standards in a review of the existing resource consent under section 128(1)(b). This could take place as soon as the One Plan is made operative and only a few years after a major upgrade to the plant.
23. The current wording of the rules would not allow for a non notified review of current consents because the rules do not signal that, as outlined in section 68(7). However if the wording of the standards and policies is left as is, then it is arguable that a notified review under section 128(1)(b) may be carried out.
24. Upgrading the WWTP to meet the proposed standards would result in substantial capital and operational expense to the Palmerston North community. The water quality of the Manawatu River above the WWTP discharge does not meet a number of the proposed standards. It is my opinion that upgrading the WWTP in the short term would not be an efficient use of funds when superior gains to water quality could be achieved through other means.
25. To address this issue I recommended that a clause be added to Rule 13-27. Discussions on this clause have been undertaken with Horizons Planners (Clare Barton and Helen Marr) with agreement to the concept, however it has been suggested that the clause should be located within the Policies of the One Plan.

26. In discussions with Ms Barton and Ms Marr, it had been agreed that Policy 2-3 (11A-6 in the provisional determination version) is the suitable location for the clause.
27. The wording of the clause has been amended so that it fits the new location more appropriately. The suggested wording is:

*The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only be considered in relation to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.*

28. However I now consider that it would be preferable to fix up the more fundamental issues with how the standards apply (i.e. renaming them as targets and making the policies and rules consistent with that). This is a better solution overall, and it would also avoid the need to specifically exempt the WWTP.

#### Stormwater and Centennial Lagoon

29. In my original evidence statement I raised issues surrounding Centennial Lagoon, stormwater discharges and the Schedule E definitions. In response, Ms Fleur Maseyk prepared a section 42A report pointing out the benefits of including the lagoon within the Schedule E definitions<sup>2</sup> and thereby giving it a Threatened Habitat Status.
30. Given the heavily modified status of Centennial Lagoon this highlights that any natural lake or wetland would be classified as a threatened habitat unless it was specifically exempted by the provisions within Table E.2(b). This in turn causes some confusion as to the rules that apply to discharges to such environments due to the doubling up of provisions that apply to lakes and wetlands.
31. For example, Rule 13-17 provides for discharges of stormwater to surface water as a restricted discretionary activity so long as there is no discharge to any natural lake, rare habitat, threatened habitat, at-risk habitat or Natural State Water Management Sub-zone or Site of Significance - Aquatic.
32. The rule guide relating to the stormwater rules states that discharges in rare habitats, threatened habitats or at-risk habitats are regulated by rules 12-7 and 12-8, making them a Discretionary Activity<sup>3</sup>. The rule guide also states that discharges in Natural State Water Management Sub-zones or Sites of Significance - Aquatic are regulated by Rule 13-23, making them a Non-complying Activity. There is no mention of discharges to natural lakes in the rule guide.

<sup>2</sup> See Paragraphs 21-22 of the s42A report of Ms Fleur Jennifer Foster Maseyk.

<sup>3</sup> Note that these provisions have been changed to Rule 12-6 in the Provisional Determination

33. Rule 13-23 is titled "Discharges of contaminants to Natural State Water Management Sub-zones, Sites of Significance – Aquatic and lakes and wetlands. The activities encompassed by this rule include any direct discharge of contaminants into a natural lake.
  34. The discharges to Centennial Lagoon could be regulated by Rule 12-6 as indicated by the Rule Guide but also by Rule 13-23 given its title and the activities that it includes. This issue was also discussed with Ms Barton and Ms Marr at the meeting held on 14 December 2010 with agreement that the references to lakes and wetlands should be removed from Rule 13-23. For completeness the reference to lakes and wetlands should also be removed from the heading of section 13.8.
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## **Water Quantity**

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### Minimum flow and core allocation values for the Turitea Stream

35. Paragraphs 112 to 116 of my original evidence discuss the minimum flow and core allocation values set for the Turitea Stream. Dr. Jack McConchie has provided technical expert evidence on the Turitea catchment and recommended suitable values for the minimum flow and core allocation. Caucusing was held between Dr. McConchie, Dr Roygard and Ms Hurndell on this matter on 12 November 2009. This resulted in agreement on a number of matters and further evidence being prepared by Dr. McConchie that altered the minimum flow value from the original recommendations. The revised values have been agreed by Horizons experts and I have made the necessary amendments to my recommendations.

### Schedule E

36. It has been identified that as proposed the One Plan has classed the Turitea water supply lakes as threatened habitat. This issue has been raised in my original evidence and Ms Maseyk from Horizons has responded in her section 42A report.
37. Ms Maseyk has stated that the inclusion of the water supply dams within the definitions of Schedule E was an oversight and that it is the intent of the schedule to exclude areas designed, installed and maintained for such purposes. She has made a recommendation that the words 'town water supply' be added to the Table E.2(b).
38. I agree that an exclusion needs to be added to Table E.2(b) but in my opinion the words as recommended in my original evidence are more suitable. They are more specific in that it is water storage for public water supplies that is exempt. Public water supply is defined within the glossary of the One Plan thereby giving certainty to Plan users and applying consistent terminology throughout the Plan.

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**Conclusion**

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39. Taking into account the various meetings and discussions that have taken place and further evidence provided since the exchange of evidence I have made several amendments to the recommendations made in my original evidence statement. A full list of the proposed amendments is attached as Appendix 1.

A handwritten signature in black ink that reads "ADBashford". The signature is written in a cursive style with a large initial 'A' and 'B'.

Andrew Bashford  
**Planning Officer**  
PALMERSTON NORTH CITY COUNCIL

## **Appendix 1: Recommended Amendments to be made to One Plan**

### **General Amendments**

Note: These proposed changes are general in nature and will require further drafting. They relate to the issues of uncertainty around the Water Quality Standards as proposed in Schedule Ba and Schedule D of the One Plan. It is also noted that there are a number of cross referencing errors between the various versions of the One Plan and although not discussed in the evidence presented the Palmerston North City Council is happy to assist the Horizons Regional Council in correcting these if required.

1. The policies (in particular policies 6-3 to 6-5 and 13-6) should be amended so that each reference to Schedule Ba and Schedule D *standards* refers instead to "*water quality targets*";
2. The introductory wording in Schedule Ba and Schedule D should be amended to clearly label the schedules' contents as being *targets*;
3. An advice note should be added to Schedule Ba and Schedule D stating that the targets are intended to guide the exercise of the consent authority's discretion when considering consent applications, and that where relevant the targets have been incorporated as conditions of permitted activity rules;
4. The permitted activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-9 and 13-24) should be amended to refer to the relevant *targets* in those schedules; and
5. The controlled and restricted discretionary activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-17 and 13-21) should be amended so that control or discretion is reserved over "*measures to assist in maintaining or achieving the targets*" in the relevant schedule.

## **Specific Amendments**

Note: These proposed amendments contain specific wording to various One Plan provisions to address issues raised in evidence presented. All changes are **highlighted** with words recommended to be added shown as underlined, and words that are recommended to be deleted shown in ~~strike through~~.

### **Chapter 11**

Amend Policy 11-A-6 as follows:

#### **Policy 11A-6: Consent Review**

In addition to the reasons specified in s128(1)(a)(i) and (ii) RMA, the Regional Council will, under s128(1)(a)(iii) RMA, generally impose consent conditions that specify a review of consent conditions during the term of the consent for:

- (a) reviewing the appropriateness of any condition requiring the consent holder to supply the consent authority with information relating to the exercise of the resource consent
- (b) reviewing any unknown or uncertain adverse effects caused as a result of planned or required changes or upgrades to the activity
- (c) reviewing the conditions of a consent at the same time as review of other consents within the same Water Management Zone – for example, at a common catchment expiry or review date.
- (d) reviewing the effectiveness of consent conditions to avoid, remedy or mitigate any adverse effects of the activity on the environment.

The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only apply to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.

This policy relates to Objective 11A-2.

## Chapter 13

Amend Policy 13-6 (Pink Version) as follows:

### **Policy 13-6: ~~p~~Point Source Discharges to Land and Water**

~~(a) When applying for consents and making decisions on consent applications for discharges of contaminants to water or land, the opportunity to utilise alternatives must be considered including alternative treatment and discharge options or a mix of discharge regimes, for the purpose of avoiding or **Error! Bookmark not defined.** mitigating adverse effects where practicable **Error! Bookmark not defined.**, shall be considered, including but not limited to:~~

(a) When applying for consents and making decisions on consent applications for discharges of contaminants to water or land the following shall be considered for the purpose of avoiding or mitigating effects:

- (i) the degree to which the activity will adversely affect the values identified for the relevant *Water Management Sub-zone(s)*\*
- (ii) whether the discharge, in combination with other discharges including non-point source discharges, will cause the water quality standards targets set in Schedule D to be breached
- (iii) the extent to which the activity is consistent with best management practices
- (iv) the need to allow reasonable time to achieve any required improvements.
- (v) alternative treatment and discharge options or mix of discharge regimes.

(b) The Regional Council may make an exception to (a) where:

- (i) in the case of discharges, the discharge is of a temporary nature or is associated with necessary maintenance work and the discharge cannot practicably be avoided
- (ii) adverse effects can be fully offset by way of a financial contribution in accordance with Chapter 18
- (iii) it is appropriate to adopt the *best practicable option*
- (iv) other exceptional circumstances apply

and it is consistent with the purpose of the RMA to do so.

This policy implements Objective 13-1

Amend Rules 13-17, and 13-23 as follows:

### 13.5 Rules - Stormwater

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>13-17</b> <b>Discharges of stormwater to surface water not complying with Rule 13-15</b>	The <i>discharges</i> of <i>stormwater</i> into <i>surface water</i> which do not comply with Rule 13-15, and any associated takes or diversions of stormwater forming part of the stormwater system.	<b>Restricted Discretionary</b>	(a) There shall be no <i>discharge</i> to any <b>natural lake</b> , <i>rare habitat</i> , <i>threatened habitat</i> , <i>at-risk habitat</i> , or Natural State Water Management Sub-zone or Site of Significance - Aquatic.	Discretion is reserved over: (a) measures to control flooding and erosion (b) contaminant concentrations and loading rates (c) measures required to comply with s107(1) RMA (d) measures required to comply with the water quality <b>standards targets</b> for the relevant Water Management Sub-zone(s) (e) odour management (f) stormwater system maintenance requirements (g) contingency requirements (h) monitoring and information requirements (i) duration of consent (j) review of consent conditions.

**13.8 Rules – Discharges of contaminants to Natural State Water Management Sub-zones, Lakes and Wetlands**

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<p><b>13-23 Discharges of contaminants to Natural State Water Management Sub-zones, and Sites of Significance – Aquatic and lakes and wetlands</b></p>	<p>Any direct <i>discharge</i> of <i>contaminants</i> into:</p> <ul style="list-style-type: none"> <li>(a) a Natural State Water Management Sub-zone</li> <li>(b) a water body identified as a Site of Significance – Aquatic in Schedule DBa</li> <li>(c) a natural lake, except Lake Otamangakau, Lake Te Whaiau and Lake Moawhanga</li> <li>(d) a wetland classified as a rare habitat, or threatened habitat</li> </ul> <p>except the discharge of agrichemicals for the purpose of controlling pests control as defined in a regional pest management strategy prepared under the Biosecurity Act 1993 (this activity is regulated by Rule 14-2).</p>	<p><b>Non-complying</b></p>		

## Chapter 15

Amend Rules 15-5 and 15-6 as follows:

### 15.2 Rules – Takes and Uses of Water

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-5 Takes and uses of surface water complying with core allocations</b>	The taking and use of surface water from a river, <b>or water storage lake on a river</b> , pursuant to s14(1) RMA, except where the water take is controlled under Rule 13-1.	<b>Controlled</b>	<p>(b) Water shall only be taken when the river is above its minimum flow, as assessed in accordance with Schedule B except as provided for by:</p> <p>(ba) takes or portions of takes which are for the purposes of stock drinking water and domestic needs, or public water supplies predominantly for domestic use may continue below minimum flow provided the rates and volumes of takes do not exceed the maximum takes of low flow set out in Policy 6-19.</p> <p>(c) The amount of water taken, when assessed in combination with all other water takes within the same Water Management Sub-zone shall not exceed the relevant core allocation set out for Water Management Subzones in Schedule B.</p> <p>(d) The amount of water taken, when assessed in combination with all other water takes within the same catchment, shall not exceed the cumulative allocation for each Water Management Sub-zone in the same catchment.</p> <p>(e) The take shall not lower the water level in any wetland that is a rare habitat or threatened habitat.</p>	<p>Control is reserved over:</p> <p>(a) the volume and rate of water taken, and the timing of the take</p> <p>(b) the location of take</p> <p>(c) intake velocity and screening requirements</p> <p>(d) measures to avoid, remedy or mitigate any adverse effects on the values of the water body at the point of abstraction, including restrictions on the volume and rate of abstraction</p> <p>(e) the efficiency of water use</p> <p>(f) effects on other water takes</p> <p>(g) effects on rare habitats, and threatened habitats and at-risk habitats and Sites of Significance – Aquatic.</p> <p>(h) compliance with minimum flow requirements</p> <p>(i) duration of consent</p> <p>(j) review of consent conditions</p> <p>(k) compliance monitoring.</p> <p>Resource consent applications under this rule will not be notified and written approval of affected persons will not be required (notice of applications need not be served on affected persons).</p>

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-6 Takes of surface water not complying with core allocations</b>	<p>The taking of surface water from a river <b>or water storage lake on a river:</b></p> <p>(aa) which, when assessed in combination with all other water takes, exceeds the relevant core allocation set out in Schedule B. or</p> <p>(ab) at or below minimum flow (unless allowed by Rule 15-5(b))</p> <p>This rule does not include:</p> <p>(a) takes permitted under Rule 15-1</p> <p>(b) takes in circumstances where water is only taken when the river flow is greater than the median flow (these are a discretionary activity under Rule 15-8)</p> <p>(c) lawfully established takes for hydroelectricity generation (these are discretionary activities under Rule 15-8).</p>	<b>Non-complying</b>		

**Schedule B**

Amend the Turitea (Mana\_11b) Sub-zone within Table B1 as follows:

Table B1: Allocation Limits and Minimum Flows by Water Management Sub-zone					
Zone code	Sub-zone	Minimum Flow (m <sup>3</sup> /s)	Flow monitoring site	Flow monitoring site location	Cumulative core allocation limit (m <sup>3</sup> /s)
Lower Manawatu (Mana_11)	Turitea (Mana_11b)	0.050 0.041	Turitea at Ngahere Park	T24:354-852	0.265 0.428

## Schedule D

Make the following changes to the associated Standards (targets) Key within Schedule D:

### Schedule D Standards Targets Key

Water<sup>^</sup> Quality Standards Targets Key: definition of abbreviations and full wording of the standards targets (placement of the numerical values for a specified standard target are indicated by [...]).

Abbreviations used in Tables D:1 to D:4		Full Wording of the Standard-Target
Header	Sub-header	
pH	Range	The pH of the water <sup>^</sup> shall be within the range [...] to [...], unless natural levels are already outside this range.
	Δ	The pH of the water <sup>^</sup> shall not be changed by more than [...].
Temp (°C)	<	The temperature of the water <sup>^</sup> shall not exceed [...] degrees Celsius.
	Δ	The temperature of the water <sup>^</sup> shall not be changed by more than [...]degrees Celsius.
DO (%SAT)	>	The concentration of dissolved oxygen (DO) shall exceed [...] % of saturation.
sCBOD <sub>5</sub> (g/m <sup>3</sup> )	<	The monthly average five-days filtered / soluble carbonaceous biochemical oxygen demand (BOD) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre.
POM (g/m <sup>3</sup> )	<	The average concentration of particulate organic matter when the river <sup>^</sup> flow is at or below 50th percentile of flow shall not exceed [...] grams per cubic metre.
Periphyton (Rivers)	Chl a (mg/m <sup>2</sup> )	The algal biomass on the stream or river <sup>^</sup> bed <sup>^</sup> shall not exceed [...] milligrams of chlorophyll a per square metre.
	% cover	The maximum cover of visible stream or river <sup>^</sup> bed <sup>^</sup> by periphyton as filamentous algae more than 2 centimetres long shall not exceed [...] %. The maximum cover of visible stream or river bed by periphyton as diatoms or cyanobacteria more than 0.3 centimetres thick shall not exceed [...] %.
Algal biomass Chl a (mg/m <sup>3</sup> )	<	The annual average algal biomass shall not exceed [...] milligrams chlorophyll Algal biomass a per cubic metre.
	Maximum	no sample shall exceed [...] milligrams chlorophyll a per cubic metre.
DRP (g/m <sup>3</sup> )	<	The annual average concentration of dissolved reactive phosphorus (DRP) when the river <sup>^</sup> flow is at or below the 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for DRP is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TP (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total phosphorus (TP) shall not exceed [...] grams per cubic metre.
SIN (g/m <sup>3</sup> )	<	The annual average concentration of soluble inorganic nitrogen <sup>11</sup> (SIN) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for SIN is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TN (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total nitrogen shall not exceed [...] grams per cubic metre.
MCI		The Macroinvertebrate Community Index (MCI) shall <b>not be less than 20% below natural reference conditions for the river.</b> <b>If natural reference conditions are not defined then the MCI shall</b> exceed [...]. <b>unless natural physical conditions are beyond the scope of application of the MCI.</b> In cases where the river <sup>^</sup> or stream habitat is suitable for the application of the soft-bottomed variant of the MCI (MCI-sb) the standards shall also apply. <b>This standard will not apply if the natural physical conditions are beyond the scope of application of the MCI or MCI-sb.</b> <b>The MCI standard applies only for State of the Environment monitoring purposes to determine if the aquatic macroinvertebrate communities are adequate to provide for and maintain the values in each WMSZ, the standard is not appropriate for monitoring the effects of activities such as discharges to water.</b>
QMCI	%Δ	<b>Discharges to water to cause N</b> no more than a 20 % reduction in Quantitative Macroinvertebrate Community Index (QMCI) score between <b>appropriately matched habitats</b> upstream and downstream of <b>the discharges to water<sup>^</sup>.</b> <b>Note: Where samples are collected using a hand net this standard shall also apply to the Semi-Quantitative MCI (SQMCI).</b>
Ammoniacal nitrogen (g/m <sup>3</sup> ) (rivers)	<	The average concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre.
Ammoniacal nitrogen (g/m <sup>3</sup> ) (lakes)	<	The concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre when lake <sup>^</sup> pH exceeds 8.5 within the epilimnion (shallow lakes <sup>^</sup> ) or within 2 m of the water <sup>^</sup> surface (deep lakes <sup>^</sup> ).
Toxicants	<%	For toxicants not otherwise defined in these standards, the concentration of toxicants in the water <sup>^</sup> shall not exceed the trigger values defined in the 2000 ANZECC guidelines Table 3.4.1 for the level of protection of [...] % of species. <b>For metals the trigger value shall be adjusted for hardness and apply to the dissolved fraction.</b>
Clarity (m) (rivers)	%Δ	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall equal or exceed [...] m when the river <sup>^</sup> is at or below the 50 <sup>th</sup> percentile of flow.
Clarity (m) (lakes)	%Δ	The clarity of the water <sup>^</sup> measured as Secchj depth (or horizontal sighting range of a 200 mm black disc) shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured Secchi depth (or horizontal sighting range of a 200 mm black disc) shall exceed [...] m.
E.coli/100ml (rivers)	<m	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive) when the river <sup>^</sup> flow is at or below the 50 <sup>th</sup> percentile of flow.
	<20 <sup>th</sup> %ile	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres when the river <sup>^</sup> flow is at or below the 20th percentile of flow year round.
E.coli/100 ml (lakes)	Summer	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive).
	Winter	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 May – 31 October (inclusive).
Euphotic Depth (lakes)	%Δ	Euphotic depth shall not be reduced by more than [...] %.

## **Schedule E**

Make the following amendments to Table E.2(b):

### **Table E.2(b):**

<p>If an area of any habitat type described in Table E.1 meets any of the following criteria it shall not be rare habitat*, threatened habitat* or at-risk habitat* for the purposes of this Plan.</p>
<p><b>Forest*, Treeland*, Scrub*, or Shrubland* Habitat Types Classified as Threatened or At-risk</b></p> <ul style="list-style-type: none"> <li>i. Areas of indigenous* tree* species planted for the purposes of timber harvest. Or</li> <li>ii. Indigenous* vegetation planted for landscaping, horticultural, shelter belts, gardening or amenity purposes. Or</li> <li>iii. Habitat areas 1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul> <p><b>Wetland^ Habitat Types Classified as Rare or Threatened</b></p> <ul style="list-style-type: none"> <li>iv. Damp gully heads, or paddocks subject to regular ponding, dominated* by pasture or exotic species in association* with wetland sedge and rush species. Or</li> <li>v. Ditches or drains supporting raupo, flax or other wetland species (e.g. Carex sp., Isolepis sp.), or populations of these species in drains or slumps associated with road reserves or rail corridors. Or</li> <li>vi. Areas of wetland^ habitat specifically designed, installed and maintained for any of the following purposes: <ul style="list-style-type: none"> <li>a) stock watering (including stock ponds), or</li> <li>b) water storage for the purposes of fire fighting or irrigation (including old gravel pits), or</li> <li>c) treatment of animal effluent (including pond or barrier ditch systems), or</li> <li>d) waste water treatment, or</li> <li>e) sediment control, or</li> <li>f) any hydroelectric power generation scheme. Or</li> <li>g) water storage for the purposes of public water supplies. Or</li> </ul> </li> <li>vii. Areas of wetland habitat maintained in relation to the implementation of any resource consent conditions or agreements relating to the operation of any hydroelectric power scheme currently lawfully established. Or</li> <li>viii. Open water and associated vegetation created for landscaping purposes or amenity values where the planted vegetation is predominately exotic, or includes assemblages of species not naturally found in association* with each other, on the particular landform, or at the geographical location of the created site.</li> <li>ix. Habitat areas 0.1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul>

**BEFORE THE MANAWATU – WANGANUI REGIONAL COUNCIL (HORIZONS  
REGIONAL COUNCIL)**

*In the matter of*      **The Resource Management Act 1991; and**

*In the matter of*      **The Proposed One Plan: Consolidated Regional Policy  
Statement, Regional Plan and Regional Coastal Plan for  
the Manawatu - Wanganui Region**

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**SUPPLEMENTARY EVIDENCE OF ANDREW DAVID BASHFORD  
ON BEHALF OF THE PALMERSTON NORTH CITY COUNCIL**

**CHAPTERS 6, 13, 15 AND 16  
AND SCHEDULES B, C, D AND E OF THE ONE PLAN**

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Dated: 11 February 2010

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## Introduction and Background

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1. I have prepared this report as supplementary evidence to my Statement of Evidence dated 16 October 2009. It has been compiled in response to supplementary evidence produced by Horizons experts and takes into account the outcomes of caucusing and pre-hearing meetings held since the exchange of evidence. It also focuses more specifically on the issues surrounding the water quality standards contained within Schedule D and section 69 of the Resource Management Act 1991.
2. Several meetings involving PNCC experts have been held since the exchange of evidence. Jack McConchie, Jon Roygard and Raelene Hurdell attended a caucusing meeting on 12 November 2009 regarding the minimum flow and core allocation limit in the Turitea subzone. Caucusing was also held between Keith Hamill, Paul Kennedy, Kathryn McArthur, John Quinn, Jon Roygard and Robert Wilcock on 10 November 2009 in relation to the Water Quality Standards contained within Schedule D of the Proposed One Plan. A pre-hearing meeting was held between Clare Barton, Helen Marr, Jon Roygard, Chris Pepper and myself on 14 December 2009 where several issues were discussed including the appropriate location of amendments to Rule 13-27 as suggested in my original evidence.

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## Water Quality

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### Water Quality Standards

3. The evidence and supplementary evidence of Keith Hamill discusses the Water Quality Standards contained within Schedule D in detail. Mr Hamill participated in caucusing with other water quality experts and reached agreement on a number of matters as outlined in the 'Meeting Between Experts' report dated 10 November 2009.
4. As a result of this meeting, and consequent discussions, some amendments have been made to the recommendations as contained in my original evidence statement. In particular these relate to the Standards Key and an updated version is attached in Appendix 1 to this statement.
5. Of particular note are the standards relating to QMCI and Toxicants, where the recommendations made here differ to that made by Horizons experts. The reasons for these differences are discussed in paragraphs 3.3 to 3.9 and 3.12 of Mr. Hamill's supplementary evidence.
6. Agreement was not achieved in relation to the standards relating to DRP or SIN through the caucusing process. The recommendations relating to these standards have not changed from my original evidence.

### Standards or Targets

7. As discussed in paragraphs 64 to 79 of my original evidence it is unclear in what circumstances the Water Quality Standards contained within Schedule Ba and Schedule D of the Proposed One Plan apply, and whether these are standards in terms of section 69 of the Resource Management Act 1991.
8. It appears that the intention is for the Schedule Ba and Schedule D standards to apply as standards in relation to activities that are permitted. In the event that an activity does not meet the standards, the activity would require a resource consent. Some controlled and restricted discretionary rules retain control or discretion that relate to the water quality standards. It is unclear whether discretionary or non-complying activities need to comply with the standards or whether the standards are to be used as targets against which an application is assessed.
9. This matter was discussed in the caucusing meeting in relation to the Water Quality Standards held on 10 December 2009. Agreement was reached between the experts that the use of the term 'standards' is not a good term to use in this context and that clarity is needed. The Horizons experts were also to discuss options with the Horizons planners to clarify *'that standards applied as absolute trigger values for permitted activities will be regarded as targets in other situations'*<sup>1</sup>.
10. This matter has been addressed to a limited extent by the recommended amendments to Policies 6-3 to 6-5 and in particular by the inclusion of the words *'maintains or enhances existing water quality'* to Policy 6-4. However there are still drafting issues with those policies and with Policy 13-6, and it remains unclear whether the 'standards' are intended to apply as standards or as guidelines for resource consent applications and as to whether the so called standards are intended to be standards for the purpose of section 68(7), 69 and section 128(1)(b) of the RMA.
11. The following table outlines the rules that have provisions directly referring to the Schedule Ba and Schedule D Standards:

<b>One Plan Rules in Chapter 13 referring directly to the Water Quality Standards</b>			
<b>Rule</b>	<b>Activity Status</b>	<b>Conditions/Standards/Terms</b>	<b>Control/Discretion</b>
13-9	Permitted	The discharge shall not, after reasonable mixing change the natural temperature of the receiving water by more than the maximum temperature or temperature change specified by the quality standards for the Water Management Sub-zone listed in Schedule Ba.	

<sup>1</sup> See paragraph 9 – Report of a Meeting between Experts: Water Quality Standards, 10 November 2009.

13-17	Restricted Discretionary		Discretion is reserved over:  Measures required to comply with the water quality standards for the relevant Water Management Sub-zone(s).
13-21	Controlled		Control is reserved over:  Measures to manage effects on surface water bodies including maintaining the values and water quality standards set out in Schedule Ba.
13-24	Permitted	The discharges shall not, after reasonable mixing, cause the receiving water body to breach the water quality standards for that water body set out in Schedule D, either from the discharge itself or in combination with any other discharges.	
13-26	Permitted	The discharge shall comply with all of the conditions of Rule 13-24.	

12. The default catch-all discretionary activity rule (Rule 13-27) does not refer to the standards at all and there is no rule which provides that discharges which do not meet the standards become non-complying or prohibited activities.
13. Accordingly in my opinion the intention of the Plan as notified was that these water quality targets would only apply as standards for the purpose set out in the permitted activity rules and would otherwise be guidelines or targets. That is consistent with what was agreed at caucusing.
14. My concern is that what appears to have been the intention has not been made clear in the Plan itself.
15. My second concern is that in the absence of clarity it remains open for future argument that these are standards for the purpose of section 69. That would then allow argument that the rules must require the observance of the standards with no exceptions. That is, it could be argued that the rules must be amended to prohibit discharges which do not meet the standards. That was clearly not what was intended but given the loose wording surrounding the standards that is an argument which others may mount.
16. Accordingly, in my opinion it is more appropriate to have wording which makes it clear that these are not standards for the purposes of section 69 but are targets

which will be considered at the time any applications are considered. It also needs to be made clear that what will be considered is whether the discharge on its own or in conjunction with other discharges will **cause** the targets to be breached. That is consistent with common sense and with the wording of section 107. Mr Hamill discusses this point in relation to QMCI.

17. A summary of proposed wording changes to the One Plan provisions to remedy these issues is suggested in Appendix 1 and has been discussed in Mr Milne's legal submissions. They include:
- Changing references to the Water Quality Standards in the One Plan to *Water Quality Targets*;
  - Ensuring the introductory wording to Schedule Ba and Schedule D label the contents as being targets; and
  - The addition of an advice note to Schedule Ba and Schedule D that makes it clear that the targets are intended to guide the Regional Council when assessing resource consent applications and that where appropriate relevant targets have been incorporated as conditions for permitted activities.
18. It is acknowledged that the suggested wording requires refining and to that extent the Palmerston North City Council is happy to work with Horizons to formulate appropriate provisions and wording to rectify the identified issues.
19. On a related note, there are some fundamental issues with how some of the policies have been drafted, as Mr Milne has discussed in his legal submissions. Policy 13-6 does not make sense as drafted in the pink version, and it is unclear how it is intended to be applied. The pink version text states:

*Policy 13-6: point Source Discharges to Land and Water*

- (a) *When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or Error! Bookmark not defined. mitigating adverse effects<sup>^</sup> Error! Bookmark not defined.,:*
- (i) *the degree to which the activity will adversely affect the values identified for the relevant Water Management Sub-zone(s)\**
  - (ii) *whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards set in Schedule D to be breached*
  - (iii) *the extent to which the activity is consistent with best management practices*
  - (iv) *the need to allow reasonable time to achieve any required improvements.*

(b) *The Regional Council may make an exception to subsection (a) where:*

- (i) *in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided*
- (ii) *adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18*
- (iii) *it is appropriate to adopt the best practicable option<sup>^</sup>*
- (iv) *other exceptional circumstances apply*

*and it is consistent with the purpose of the RMA to do so.*

20. In examining this policy it could be taken as two policies rolled into one where the applicant must consider alternatives when applying for consent, and secondly the consent authority must consider the matters described in the list labelled (i) to (iv). Alternatively it could be that both the consent authority and applicant must consider alternatives along with the matters within the list.
21. In addition the first part of clause (a) does not introduce the list in any way and there are a number of bookmarking errors within the policy. In my opinion the policy should be redrafted and proposed wording is contained in Appendix 1.

#### Relationship to section 128(1)(b)

22. I also have concern that if the Water Quality Standards become standards or are interpreted as standards in the context of section 68(7) and 69 of the RMA 1991, then the Palmerston North City Wastewater Treatment Plant (WWTP) may be required to meet the new standards in a review of the existing resource consent under section 128(1)(b). This could take place as soon as the One Plan is made operative and only a few years after a major upgrade to the plant.
23. The current wording of the rules would not allow for a non notified review of current consents because the rules do not signal that, as outlined in section 68(7). However if the wording of the standards and policies is left as is, then it is arguable that a notified review under section 128(1)(b) may be carried out.
24. Upgrading the WWTP to meet the proposed standards would result in substantial capital and operational expense to the Palmerston North community. The water quality of the Manawatu River above the WWTP discharge does not meet a number of the proposed standards. It is my opinion that upgrading the WWTP in the short term would not be an efficient use of funds when superior gains to water quality could be achieved through other means.
25. To address this issue I recommended that a clause be added to Rule 13-27. Discussions on this clause have been undertaken with Horizons Planners (Clare Barton and Helen Marr) with agreement to the concept, however it has been suggested that the clause should be located within the Policies of the One Plan.

26. In discussions with Ms Barton and Ms Marr, it had been agreed that Policy 2-3 (11A-6 in the provisional determination version) is the suitable location for the clause.
27. The wording of the clause has been amended so that it fits the new location more appropriately. The suggested wording is:
- The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only be considered in relation to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.*
28. However I now consider that it would be preferable to fix up the more fundamental issues with how the standards apply (i.e. renaming them as targets and making the policies and rules consistent with that). This is a better solution overall, and it would also avoid the need to specifically exempt the WWTP.

#### Stormwater and Centennial Lagoon

29. In my original evidence statement I raised issues surrounding Centennial Lagoon, stormwater discharges and the Schedule E definitions. In response, Ms Fleur Maseyk prepared a section 42A report pointing out the benefits of including the lagoon within the Schedule E definitions<sup>2</sup> and thereby giving it a Threatened Habitat Status.
30. Given the heavily modified status of Centennial Lagoon this highlights that any natural lake or wetland would be classified as a threatened habitat unless it was specifically exempted by the provisions within Table E.2(b). This in turn causes some confusion as to the rules that apply to discharges to such environments due to the doubling up of provisions that apply to lakes and wetlands.
31. For example, Rule 13-17 provides for discharges of stormwater to surface water as a restricted discretionary activity so long as there is no discharge to any natural lake, rare habitat, threatened habitat, at-risk habitat or Natural State Water Management Sub-zone or Site of Significance - Aquatic.
32. The rule guide relating to the stormwater rules states that discharges in rare habitats, threatened habitats or at-risk habitats are regulated by rules 12-7 and 12-8, making them a Discretionary Activity<sup>3</sup>. The rule guide also states that discharges in Natural State Water Management Sub-zones or Sites of Significance - Aquatic are regulated by Rule 13-23, making them a Non-complying Activity. There is no mention of discharges to natural lakes in the rule guide.

<sup>2</sup> See Paragraphs 21-22 of the s42A report of Ms Fleur Jennifer Foster Maseyk.

<sup>3</sup> Note that these provisions have been changed to Rule 12-6 in the Provisional Determination

33. Rule 13-23 is titled "Discharges of contaminants to Natural State Water Management Sub-zones, Sites of Significance – Aquatic and lakes and wetlands. The activities encompassed by this rule include any direct discharge of contaminants into a natural lake.
34. The discharges to Centennial Lagoon could be regulated by Rule 12-6 as indicated by the Rule Guide but also by Rule 13-23 given its title and the activities that it includes. This issue was also discussed with Ms Barton and Ms Marr at the meeting held on 14 December 2010 with agreement that the references to lakes and wetlands should be removed from Rule 13-23. For completeness the reference to lakes and wetlands should also be removed from the heading of section 13.8.

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## **Water Quantity**

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### Minimum flow and core allocation values for the Turitea Stream

35. Paragraphs 112 to 116 of my original evidence discuss the minimum flow and core allocation values set for the Turitea Stream. Dr. Jack McConchie has provided technical expert evidence on the Turitea catchment and recommended suitable values for the minimum flow and core allocation. Caucusing was held between Dr. McConchie, Dr Roygard and Ms Hurndell on this matter on 12 November 2009. This resulted in agreement on a number of matters and further evidence being prepared by Dr. McConchie that altered the minimum flow value from the original recommendations. The revised values have been agreed by Horizons experts and I have made the necessary amendments to my recommendations.

### Schedule E

36. It has been identified that as proposed the One Plan has classed the Turitea water supply lakes as threatened habitat. This issue has been raised in my original evidence and Ms Maseyk from Horizons has responded in her section 42A report.
37. Ms Maseyk has stated that the inclusion of the water supply dams within the definitions of Schedule E was an oversight and that it is the intent of the schedule to exclude areas designed, installed and maintained for such purposes. She has made a recommendation that the words 'town water supply' be added to the Table E.2(b).
38. I agree that an exclusion needs to be added to Table E.2(b) but in my opinion the words as recommended in my original evidence are more suitable. They are more specific in that it is water storage for public water supplies that is exempt. Public water supply is defined within the glossary of the One Plan thereby giving certainty to Plan users and applying consistent terminology throughout the Plan.

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**Conclusion**

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39. Taking into account the various meetings and discussions that have taken place and further evidence provided since the exchange of evidence I have made several amendments to the recommendations made in my original evidence statement. A full list of the proposed amendments is attached as Appendix 1.



Andrew Bashford  
**Planning Officer**  
PALMERSTON NORTH CITY COUNCIL

## **Appendix 1: Recommended Amendments to be made to One Plan**

### **General Amendments**

Note: These proposed changes are general in nature and will require further drafting. They relate to the issues of uncertainty around the Water Quality Standards as proposed in Schedule Ba and Schedule D of the One Plan. It is also noted that there are a number of cross referencing errors between the various versions of the One Plan and although not discussed in the evidence presented the Palmerston North City Council is happy to assist the Horizons Regional Council in correcting these if required.

1. The policies (in particular policies 6-3 to 6-5 and 13-6) should be amended so that each reference to Schedule Ba and Schedule D *standards* refers instead to "*water quality targets*";
2. The introductory wording in Schedule Ba and Schedule D should be amended to clearly label the schedules' contents as being *targets*;
3. An advice note should be added to Schedule Ba and Schedule D stating that the targets are intended to guide the exercise of the consent authority's discretion when considering consent applications, and that where relevant the targets have been incorporated as conditions of permitted activity rules;
4. The permitted activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-9 and 13-24) should be amended to refer to the relevant *targets* in those schedules; and
5. The controlled and restricted discretionary activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-17 and 13-21) should be amended so that control or discretion is reserved over "*measures to assist in maintaining or achieving the targets*" in the relevant schedule.

## **Specific Amendments**

Note: These proposed amendments contain specific wording to various One Plan provisions to address issues raised in evidence presented. All changes are **highlighted** with words recommended to be added shown as underlined, and words that are recommended to be deleted shown in ~~strike through~~.

### **Chapter 11**

Amend Policy 11-A-6 as follows:

#### **Policy 11A-6: Consent Review**

In addition to the reasons specified in s128(1)(a)(i) and (ii) RMA, the Regional Council will, under s128(1)(a)(iii) RMA, generally impose consent conditions that specify a review of consent conditions during the term of the consent for:

- (a) reviewing the appropriateness of any condition requiring the consent holder to supply the consent authority with information relating to the exercise of the resource consent
- (b) reviewing any unknown or uncertain adverse effects caused as a result of planned or required changes or upgrades to the activity
- (c) reviewing the conditions of a consent at the same time as review of other consents within the same Water Management Zone – for example, at a common catchment expiry or review date.
- (d) reviewing the effectiveness of consent conditions to avoid, remedy or mitigate any adverse effects of the activity on the environment.

The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only apply to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.

This policy relates to Objective 11A-2.

## Chapter 13

Amend Policy 13-6 (Pink Version) as follows:

### **Policy 13-6: ~~p~~Point Source Discharges to Land and Water**

~~(a) When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, the opportunity to utilise alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or **Error! Bookmark not defined.** mitigating adverse effects<sup>^</sup> where practicable **Error! Bookmark not defined.**, shall be considered., including but not limited to:z~~

(a) When applying for consents and making decisions on consent applications for discharges of contaminants to water or land the following shall be considered for the purpose of avoiding or mitigating effects:

- (i) the degree to which the activity will adversely affect the values identified for the relevant *Water Management Sub-zone(s)*\*
- (ii) whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards targets set in Schedule D to be breached
- (iii) the extent to which the activity is consistent with best management practices
- (iv) the need to allow reasonable time to achieve any required improvements.
- (v) alternative treatment and discharge options or mix of discharge regimes.

(b) The Regional Council may make an exception to (a) where:

- (i) in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided
- (ii) adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18
- (iii) it is appropriate to adopt the *best practicable option*<sup>^</sup>
- (iv) other exceptional circumstances apply

and it is consistent with the purpose of the RMA to do so.

This policy implements Objective 13-1

Amend Rules 13-17, and 13-23 as follows:

### 13.5 Rules - Stormwater

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>13-17</b> <b>Discharges of stormwater to surface water not complying with Rule 13-15</b>	The <i>discharges</i> of <i>stormwater</i> into <i>surface water</i> which do not comply with Rule 13-15, and any associated takes or diversions of stormwater forming part of the stormwater system.	<b>Restricted Discretionary</b>	(a) There shall be no <i>discharge</i> to any <b>natural lake</b> , <i>rare habitat</i> , <i>threatened habitat</i> , <i>at-risk habitat</i> , or Natural State Water Management Sub-zone or Site of Significance - Aquatic.	Discretion is reserved over: (a) measures to control flooding and erosion (b) contaminant concentrations and loading rates (c) measures required to comply with s107(1) RMA (d) measures required to comply with the water quality <b>standards targets</b> for the relevant Water Management Sub-zone(s) (e) odour management (f) stormwater system maintenance requirements (g) contingency requirements (h) monitoring and information requirements (i) duration of consent (j) review of consent conditions.

**13.8 Rules – Discharges of contaminants to Natural State Water Management Sub-zones, Lakes and Wetlands**

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<p><b>13-23 Discharges of contaminants to Natural State Water Management Sub-zones, and Sites of Significance – Aquatic and lakes and wetlands</b></p>	<p>Any direct <i>discharge</i> of <i>contaminants</i> into:</p> <ul style="list-style-type: none"> <li>(a) a Natural State Water Management Sub-zone</li> <li>(b) a water body identified as a Site of Significance – Aquatic in Schedule DBa</li> <li>(c) a natural lake, except Lake Otamangakau, Lake Te Whaiau and Lake Moawhanga</li> <li>(d) a wetland classified as a rare habitat, or threatened habitat</li> </ul> <p>except the discharge of agrichemicals for the purpose of controlling pests control as defined in a regional pest management strategy prepared under the Biosecurity Act 1993 (this activity is regulated by Rule 14-2).</p>	<p><b>Non-complying</b></p>		

## Chapter 15

Amend Rules 15-5 and 15-6 as follows:

### 15.2 Rules – Takes and Uses of Water

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-5 Takes and uses of surface water complying with core allocations</b>	The taking and use of surface water from a river, <b>or water storage lake on a river</b> , pursuant to s14(1) RMA, except where the water take is controlled under Rule 13-1.	<b>Controlled</b>	<p>(b) Water shall only be taken when the river is above its minimum flow, as assessed in accordance with Schedule B except as provided for by:</p> <p>(ba) takes or portions of takes which are for the purposes of stock drinking water and domestic needs, or public water supplies predominantly for domestic use may continue below minimum flow provided the rates and volumes of takes do not exceed the maximum takes of low flow set out in Policy 6-19.</p> <p>(c) The amount of water taken, when assessed in combination with all other water takes within the same Water Management Sub-zone shall not exceed the relevant core allocation set out for Water Management Subzones in Schedule B.</p> <p>(d) The amount of water taken, when assessed in combination with all other water takes within the same catchment, shall not exceed the cumulative allocation for each Water Management Sub-zone in the same catchment.</p> <p>(e) The take shall not lower the water level in any wetland that is a rare habitat or threatened habitat.</p>	<p>Control is reserved over:</p> <p>(a) the volume and rate of water taken, and the timing of the take</p> <p>(b) the location of take</p> <p>(c) intake velocity and screening requirements</p> <p>(d) measures to avoid, remedy or mitigate any adverse effects on the values of the water body at the point of abstraction, including restrictions on the volume and rate of abstraction</p> <p>(e) the efficiency of water use</p> <p>(f) effects on other water takes</p> <p>(g) effects on rare habitats, and threatened habitats and at-risk habitats and Sites of Significance – Aquatic.</p> <p>(h) compliance with minimum flow requirements</p> <p>(i) duration of consent</p> <p>(j) review of consent conditions</p> <p>(k) compliance monitoring.</p> <p>Resource consent applications under this rule will not be notified and written approval of affected persons will not be required (notice of applications need not be served on affected persons).</p>

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-6 Takes of surface water not complying with core allocations</b>	<p>The taking of surface water from a river <b>or water storage lake on a river:</b></p> <p>(aa) which, when assessed in combination with all other water takes, exceeds the relevant core allocation set out in Schedule B. or</p> <p>(ab) at or below minimum flow (unless allowed by Rule 15-5(b))</p> <p>This rule does not include:</p> <p>(a) takes permitted under Rule 15-1</p> <p>(b) takes in circumstances where water is only taken when the river flow is greater than the median flow (these are a discretionary activity under Rule 15-8)</p> <p>(c) lawfully established takes for hydroelectricity generation (these are discretionary activities under Rule 15-8).</p>	<b>Non-complying</b>		

**Schedule B**

Amend the Turitea (Mana\_11b) Sub-zone within Table B1 as follows:

Table B1: Allocation Limits and Minimum Flows by Water Management Sub-zone					
Zone code	Sub-zone	Minimum Flow (m <sup>3</sup> /s)	Flow monitoring site	Flow monitoring site location	Cumulative core allocation limit (m <sup>3</sup> /s)
Lower Manawatu (Mana_11)	Turitea (Mana_11b)	0.050 0.041	Turitea at Ngahere Park	T24:354-852	0.265 0.428

## Schedule D

Make the following changes to the associated Standards (targets) Key within Schedule D:

### Schedule D Standards Targets Key

Water<sup>^</sup> Quality Standards Targets Key: definition of abbreviations and full wording of the standards targets (placement of the numerical values for a specified standard target are indicated by [...]).

Abbreviations used in Tables D:1 to D:4		Full Wording of the Standard-Target
Header	Sub-header	
pH	Range	The pH of the water <sup>^</sup> shall be within the range [...] to [...], unless natural levels are already outside this range.
	Δ	The pH of the water <sup>^</sup> shall not be changed by more than [...].
Temp (°C)	<	The temperature of the water <sup>^</sup> shall not exceed [...] degrees Celsius.
	Δ	The temperature of the water <sup>^</sup> shall not be changed by more than [...]degrees Celsius.
DO (%SAT)	>	The concentration of dissolved oxygen (DO) shall exceed [...] % of saturation.
sCBOD <sub>5</sub> (g/m <sup>3</sup> )	<	The monthly average five-days filtered / soluble carbonaceous biochemical oxygen demand (BOD) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre.
POM (g/m <sup>3</sup> )	<	The average concentration of particulate organic matter when the river <sup>^</sup> flow is at or below 50th percentile of flow shall not exceed [...] grams per cubic metre.
Periphyton (Rivers)	Chl a (mg/m <sup>2</sup> )	The algal biomass on the stream or river <sup>^</sup> bed <sup>^</sup> shall not exceed [...] milligrams of chlorophyll a per square metre.
	% cover	The maximum cover of visible stream or river <sup>^</sup> bed <sup>^</sup> by periphyton as filamentous algae more than 2 centimetres long shall not exceed [...] %. The maximum cover of visible stream or river bed by periphyton as diatoms or cyanobacteria more than 0.3 centimetres thick shall not exceed [...] %.
Algal biomass Chl a (mg/m <sup>3</sup> )	<	The annual average algal biomass shall not exceed [...] milligrams chlorophyll Algal biomass a per cubic metre.
	Maximum	no sample shall exceed [...] milligrams chlorophyll a per cubic metre.
DRP (g/m <sup>3</sup> )	<	The annual average concentration of dissolved reactive phosphorus (DRP) when the river <sup>^</sup> flow is at or below the 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for DRP is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TP (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total phosphorus (TP) shall not exceed [...] grams per cubic metre.
SIN (g/m <sup>3</sup> )	<	The annual average concentration of soluble inorganic nitrogen <sup>11</sup> (SIN) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for SIN is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TN (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total nitrogen shall not exceed [...] grams per cubic metre.
MCI		The Macroinvertebrate Community Index (MCI) shall <b>not be less than 20% below natural reference conditions for the river.</b> <b>If natural reference conditions are not defined then the MCI shall</b> exceed [...]. <b>unless natural physical conditions are beyond the scope of application of the MCI.</b> In cases where the river <sup>^</sup> or stream habitat is suitable for the application of the soft-bottomed variant of the MCI (MCI-sb) the standards shall also apply. <b>This standard will not apply if the natural physical conditions are beyond the scope of application of the MCI or MCI-sb.</b> <b>The MCI standard applies only for State of the Environment monitoring purposes to determine if the aquatic macroinvertebrate communities are adequate to provide for and maintain the values in each WMSZ, the standard is not appropriate for monitoring the effects of activities such as discharges to water.</b>
QMCI	%Δ	<b>Discharges to water to cause N</b> no more than a 20 % reduction in Quantitative Macroinvertebrate Community Index (QMCI) score between <b>appropriately matched habitats</b> upstream and downstream of <b>the discharges to water<sup>^</sup>.</b> <b>Note: Where samples are collected using a hand net this standard shall also apply to the Semi-Quantitative MCI (SQMCI).</b>
Ammoniacal nitrogen (g/m <sup>3</sup> ) (rivers)	<	The average concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre.
Ammoniacal nitrogen (g/m <sup>3</sup> ) (lakes)	<	The concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre when lake <sup>^</sup> pH exceeds 8.5 within the epilimnion (shallow lakes <sup>^</sup> ) or within 2 m of the water <sup>^</sup> surface (deep lakes <sup>^</sup> ).
Toxicants	<%	For toxicants not otherwise defined in these standards, the concentration of toxicants in the water <sup>^</sup> shall not exceed the trigger values defined in the 2000 ANZECC guidelines Table 3.4.1 for the level of protection of [...] % of species. <b>For metals the trigger value shall be adjusted for hardness and apply to the dissolved fraction.</b>
Clarity (m) (rivers)	%Δ	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall equal or exceed [...] m when the river <sup>^</sup> is at or below the 50 <sup>th</sup> percentile of flow.
Clarity (m) (lakes)	%Δ	The clarity of the water <sup>^</sup> measured as Secchj depth (or horizontal sighting range of a 200 mm black disc) shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured Secchi depth (or horizontal sighting range of a 200 mm black disc) shall exceed [...] m.
E.coli/100ml (rivers)	<m	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive) when the river <sup>^</sup> flow is at or below the 50 <sup>th</sup> percentile of flow.
	<20 <sup>th</sup> %ile	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres when the river <sup>^</sup> flow is at or below the 20th percentile of flow year round.
E.coli/100 ml (lakes)	Summer	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive).
	Winter	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 May – 31 October (inclusive).
Euphotic Depth (lakes)	%Δ	Euphotic depth shall not be reduced by more than [...] %.

## **Schedule E**

Make the following amendments to Table E.2(b):

### **Table E.2(b):**

<p>If an area of any habitat type described in Table E.1 meets any of the following criteria it shall not be rare habitat*, threatened habitat* or at-risk habitat* for the purposes of this Plan.</p>
<p><b>Forest*, Treeland*, Scrub*, or Shrubland* Habitat Types Classified as Threatened or At-risk</b></p> <ul style="list-style-type: none"> <li>i. Areas of indigenous* tree* species planted for the purposes of timber harvest. Or</li> <li>ii. Indigenous* vegetation planted for landscaping, horticultural, shelter belts, gardening or amenity purposes. Or</li> <li>iii. Habitat areas 1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul> <p><b>Wetland^ Habitat Types Classified as Rare or Threatened</b></p> <ul style="list-style-type: none"> <li>iv. Damp gully heads, or paddocks subject to regular ponding, dominated* by pasture or exotic species in association* with wetland sedge and rush species. Or</li> <li>v. Ditches or drains supporting raupo, flax or other wetland species (e.g. Carex sp., Isolepis sp.), or populations of these species in drains or slumps associated with road reserves or rail corridors. Or</li> <li>vi. Areas of wetland^ habitat specifically designed, installed and maintained for any of the following purposes: <ul style="list-style-type: none"> <li>a) stock watering (including stock ponds), or</li> <li>b) water storage for the purposes of fire fighting or irrigation (including old gravel pits), or</li> <li>c) treatment of animal effluent (including pond or barrier ditch systems), or</li> <li>d) waste water treatment, or</li> <li>e) sediment control, or</li> <li>f) any hydroelectric power generation scheme. Or</li> <li>g) water storage for the purposes of public water supplies. Or</li> </ul> </li> <li>vii. Areas of wetland habitat maintained in relation to the implementation of any resource consent conditions or agreements relating to the operation of any hydroelectric power scheme currently lawfully established. Or</li> <li>viii. Open water and associated vegetation created for landscaping purposes or amenity values where the planted vegetation is predominately exotic, or includes assemblages of species not naturally found in association* with each other, on the particular landform, or at the geographical location of the created site.</li> <li>ix. Habitat areas 0.1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul>

**BEFORE THE MANAWATU – WANGANUI REGIONAL COUNCIL (HORIZONS  
REGIONAL COUNCIL)**

*In the matter of*      **The Resource Management Act 1991; and**

*In the matter of*      **The Proposed One Plan: Consolidated Regional Policy  
Statement, Regional Plan and Regional Coastal Plan for  
the Manawatu - Wanganui Region**

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**SUPPLEMENTARY EVIDENCE OF ANDREW DAVID BASHFORD  
ON BEHALF OF THE PALMERSTON NORTH CITY COUNCIL**

**CHAPTERS 6, 13, 15 AND 16  
AND SCHEDULES B, C, D AND E OF THE ONE PLAN**

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Dated: 11 February 2010

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## Introduction and Background

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1. I have prepared this report as supplementary evidence to my Statement of Evidence dated 16 October 2009. It has been compiled in response to supplementary evidence produced by Horizons experts and takes into account the outcomes of caucusing and pre-hearing meetings held since the exchange of evidence. It also focuses more specifically on the issues surrounding the water quality standards contained within Schedule D and section 69 of the Resource Management Act 1991.
2. Several meetings involving PNCC experts have been held since the exchange of evidence. Jack McConchie, Jon Roygard and Raelene Hurdell attended a caucusing meeting on 12 November 2009 regarding the minimum flow and core allocation limit in the Turitea subzone. Caucusing was also held between Keith Hamill, Paul Kennedy, Kathryn McArthur, John Quinn, Jon Roygard and Robert Wilcock on 10 November 2009 in relation to the Water Quality Standards contained within Schedule D of the Proposed One Plan. A pre-hearing meeting was held between Clare Barton, Helen Marr, Jon Roygard, Chris Pepper and myself on 14 December 2009 where several issues were discussed including the appropriate location of amendments to Rule 13-27 as suggested in my original evidence.

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## Water Quality

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### Water Quality Standards

3. The evidence and supplementary evidence of Keith Hamill discusses the Water Quality Standards contained within Schedule D in detail. Mr Hamill participated in caucusing with other water quality experts and reached agreement on a number of matters as outlined in the 'Meeting Between Experts' report dated 10 November 2009.
4. As a result of this meeting, and consequent discussions, some amendments have been made to the recommendations as contained in my original evidence statement. In particular these relate to the Standards Key and an updated version is attached in Appendix 1 to this statement.
5. Of particular note are the standards relating to QMCI and Toxicants, where the recommendations made here differ to that made by Horizons experts. The reasons for these differences are discussed in paragraphs 3.3 to 3.9 and 3.12 of Mr. Hamill's supplementary evidence.
6. Agreement was not achieved in relation to the standards relating to DRP or SIN through the caucusing process. The recommendations relating to these standards have not changed from my original evidence.

### Standards or Targets

7. As discussed in paragraphs 64 to 79 of my original evidence it is unclear in what circumstances the Water Quality Standards contained within Schedule Ba and Schedule D of the Proposed One Plan apply, and whether these are standards in terms of section 69 of the Resource Management Act 1991.
8. It appears that the intention is for the Schedule Ba and Schedule D standards to apply as standards in relation to activities that are permitted. In the event that an activity does not meet the standards, the activity would require a resource consent. Some controlled and restricted discretionary rules retain control or discretion that relate to the water quality standards. It is unclear whether discretionary or non-complying activities need to comply with the standards or whether the standards are to be used as targets against which an application is assessed.
9. This matter was discussed in the caucusing meeting in relation to the Water Quality Standards held on 10 December 2009. Agreement was reached between the experts that the use of the term 'standards' is not a good term to use in this context and that clarity is needed. The Horizons experts were also to discuss options with the Horizons planners to clarify *'that standards applied as absolute trigger values for permitted activities will be regarded as targets in other situations'*<sup>1</sup>.
10. This matter has been addressed to a limited extent by the recommended amendments to Policies 6-3 to 6-5 and in particular by the inclusion of the words *'maintains or enhances existing water quality'* to Policy 6-4. However there are still drafting issues with those policies and with Policy 13-6, and it remains unclear whether the 'standards' are intended to apply as standards or as guidelines for resource consent applications and as to whether the so called standards are intended to be standards for the purpose of section 68(7), 69 and section 128(1)(b) of the RMA.
11. The following table outlines the rules that have provisions directly referring to the Schedule Ba and Schedule D Standards:

<b>One Plan Rules in Chapter 13 referring directly to the Water Quality Standards</b>			
<b>Rule</b>	<b>Activity Status</b>	<b>Conditions/Standards/Terms</b>	<b>Control/Discretion</b>
13-9	Permitted	The discharge shall not, after reasonable mixing change the natural temperature of the receiving water by more than the maximum temperature or temperature change specified by the quality standards for the Water Management Sub-zone listed in Schedule Ba.	

<sup>1</sup> See paragraph 9 – Report of a Meeting between Experts: Water Quality Standards, 10 November 2009.

13-17	Restricted Discretionary		Discretion is reserved over:  Measures required to comply with the water quality standards for the relevant Water Management Sub-zone(s).
13-21	Controlled		Control is reserved over:  Measures to manage effects on surface water bodies including maintaining the values and water quality standards set out in Schedule Ba.
13-24	Permitted	The discharges shall not, after reasonable mixing, cause the receiving water body to breach the water quality standards for that water body set out in Schedule D, either from the discharge itself or in combination with any other discharges.	
13-26	Permitted	The discharge shall comply with all of the conditions of Rule 13-24.	

12. The default catch-all discretionary activity rule (Rule 13-27) does not refer to the standards at all and there is no rule which provides that discharges which do not meet the standards become non-complying or prohibited activities.
13. Accordingly in my opinion the intention of the Plan as notified was that these water quality targets would only apply as standards for the purpose set out in the permitted activity rules and would otherwise be guidelines or targets. That is consistent with what was agreed at caucusing.
14. My concern is that what appears to have been the intention has not been made clear in the Plan itself.
15. My second concern is that in the absence of clarity it remains open for future argument that these are standards for the purpose of section 69. That would then allow argument that the rules must require the observance of the standards with no exceptions. That is, it could be argued that the rules must be amended to prohibit discharges which do not meet the standards. That was clearly not what was intended but given the loose wording surrounding the standards that is an argument which others may mount.
16. Accordingly, in my opinion it is more appropriate to have wording which makes it clear that these are not standards for the purposes of section 69 but are targets

which will be considered at the time any applications are considered. It also needs to be made clear that what will be considered is whether the discharge on its own or in conjunction with other discharges will **cause** the targets to be breached. That is consistent with common sense and with the wording of section 107. Mr Hamill discusses this point in relation to QMCI.

17. A summary of proposed wording changes to the One Plan provisions to remedy these issues is suggested in Appendix 1 and has been discussed in Mr Milne's legal submissions. They include:
- Changing references to the Water Quality Standards in the One Plan to *Water Quality Targets*;
  - Ensuring the introductory wording to Schedule Ba and Schedule D label the contents as being targets; and
  - The addition of an advice note to Schedule Ba and Schedule D that makes it clear that the targets are intended to guide the Regional Council when assessing resource consent applications and that where appropriate relevant targets have been incorporated as conditions for permitted activities.
18. It is acknowledged that the suggested wording requires refining and to that extent the Palmerston North City Council is happy to work with Horizons to formulate appropriate provisions and wording to rectify the identified issues.
19. On a related note, there are some fundamental issues with how some of the policies have been drafted, as Mr Milne has discussed in his legal submissions. Policy 13-6 does not make sense as drafted in the pink version, and it is unclear how it is intended to be applied. The pink version text states:

*Policy 13-6: point Source Discharges to Land and Water*

- (a) *When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or Error! Bookmark not defined. mitigating adverse effects<sup>^</sup> Error! Bookmark not defined.,:*
- (i) *the degree to which the activity will adversely affect the values identified for the relevant Water Management Sub-zone(s)\**
  - (ii) *whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards set in Schedule D to be breached*
  - (iii) *the extent to which the activity is consistent with best management practices*
  - (iv) *the need to allow reasonable time to achieve any required improvements.*

(b) *The Regional Council may make an exception to subsection (a) where:*

- (i) *in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided*
- (ii) *adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18*
- (iii) *it is appropriate to adopt the best practicable option<sup>^</sup>*
- (iv) *other exceptional circumstances apply*

*and it is consistent with the purpose of the RMA to do so.*

20. In examining this policy it could be taken as two policies rolled into one where the applicant must consider alternatives when applying for consent, and secondly the consent authority must consider the matters described in the list labelled (i) to (iv). Alternatively it could be that both the consent authority and applicant must consider alternatives along with the matters within the list.
21. In addition the first part of clause (a) does not introduce the list in any way and there are a number of bookmarking errors within the policy. In my opinion the policy should be redrafted and proposed wording is contained in Appendix 1.

#### Relationship to section 128(1)(b)

22. I also have concern that if the Water Quality Standards become standards or are interpreted as standards in the context of section 68(7) and 69 of the RMA 1991, then the Palmerston North City Wastewater Treatment Plant (WWTP) may be required to meet the new standards in a review of the existing resource consent under section 128(1)(b). This could take place as soon as the One Plan is made operative and only a few years after a major upgrade to the plant.
23. The current wording of the rules would not allow for a non notified review of current consents because the rules do not signal that, as outlined in section 68(7). However if the wording of the standards and policies is left as is, then it is arguable that a notified review under section 128(1)(b) may be carried out.
24. Upgrading the WWTP to meet the proposed standards would result in substantial capital and operational expense to the Palmerston North community. The water quality of the Manawatu River above the WWTP discharge does not meet a number of the proposed standards. It is my opinion that upgrading the WWTP in the short term would not be an efficient use of funds when superior gains to water quality could be achieved through other means.
25. To address this issue I recommended that a clause be added to Rule 13-27. Discussions on this clause have been undertaken with Horizons Planners (Clare Barton and Helen Marr) with agreement to the concept, however it has been suggested that the clause should be located within the Policies of the One Plan.

26. In discussions with Ms Barton and Ms Marr, it had been agreed that Policy 2-3 (11A-6 in the provisional determination version) is the suitable location for the clause.
27. The wording of the clause has been amended so that it fits the new location more appropriately. The suggested wording is:
- The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only be considered in relation to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.*
28. However I now consider that it would be preferable to fix up the more fundamental issues with how the standards apply (i.e. renaming them as targets and making the policies and rules consistent with that). This is a better solution overall, and it would also avoid the need to specifically exempt the WWTP.

#### Stormwater and Centennial Lagoon

29. In my original evidence statement I raised issues surrounding Centennial Lagoon, stormwater discharges and the Schedule E definitions. In response, Ms Fleur Maseyk prepared a section 42A report pointing out the benefits of including the lagoon within the Schedule E definitions<sup>2</sup> and thereby giving it a Threatened Habitat Status.
30. Given the heavily modified status of Centennial Lagoon this highlights that any natural lake or wetland would be classified as a threatened habitat unless it was specifically exempted by the provisions within Table E.2(b). This in turn causes some confusion as to the rules that apply to discharges to such environments due to the doubling up of provisions that apply to lakes and wetlands.
31. For example, Rule 13-17 provides for discharges of stormwater to surface water as a restricted discretionary activity so long as there is no discharge to any natural lake, rare habitat, threatened habitat, at-risk habitat or Natural State Water Management Sub-zone or Site of Significance - Aquatic.
32. The rule guide relating to the stormwater rules states that discharges in rare habitats, threatened habitats or at-risk habitats are regulated by rules 12-7 and 12-8, making them a Discretionary Activity<sup>3</sup>. The rule guide also states that discharges in Natural State Water Management Sub-zones or Sites of Significance - Aquatic are regulated by Rule 13-23, making them a Non-complying Activity. There is no mention of discharges to natural lakes in the rule guide.

<sup>2</sup> See Paragraphs 21-22 of the s42A report of Ms Fleur Jennifer Foster Maseyk.

<sup>3</sup> Note that these provisions have been changed to Rule 12-6 in the Provisional Determination

33. Rule 13-23 is titled "Discharges of contaminants to Natural State Water Management Sub-zones, Sites of Significance – Aquatic and lakes and wetlands. The activities encompassed by this rule include any direct discharge of contaminants into a natural lake.
  34. The discharges to Centennial Lagoon could be regulated by Rule 12-6 as indicated by the Rule Guide but also by Rule 13-23 given its title and the activities that it includes. This issue was also discussed with Ms Barton and Ms Marr at the meeting held on 14 December 2010 with agreement that the references to lakes and wetlands should be removed from Rule 13-23. For completeness the reference to lakes and wetlands should also be removed from the heading of section 13.8.
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## **Water Quantity**

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### Minimum flow and core allocation values for the Turitea Stream

35. Paragraphs 112 to 116 of my original evidence discuss the minimum flow and core allocation values set for the Turitea Stream. Dr. Jack McConchie has provided technical expert evidence on the Turitea catchment and recommended suitable values for the minimum flow and core allocation. Caucusing was held between Dr. McConchie, Dr Roygard and Ms Hurndell on this matter on 12 November 2009. This resulted in agreement on a number of matters and further evidence being prepared by Dr. McConchie that altered the minimum flow value from the original recommendations. The revised values have been agreed by Horizons experts and I have made the necessary amendments to my recommendations.

### Schedule E

36. It has been identified that as proposed the One Plan has classed the Turitea water supply lakes as threatened habitat. This issue has been raised in my original evidence and Ms Maseyk from Horizons has responded in her section 42A report.
37. Ms Maseyk has stated that the inclusion of the water supply dams within the definitions of Schedule E was an oversight and that it is the intent of the schedule to exclude areas designed, installed and maintained for such purposes. She has made a recommendation that the words 'town water supply' be added to the Table E.2(b).
38. I agree that an exclusion needs to be added to Table E.2(b) but in my opinion the words as recommended in my original evidence are more suitable. They are more specific in that it is water storage for public water supplies that is exempt. Public water supply is defined within the glossary of the One Plan thereby giving certainty to Plan users and applying consistent terminology throughout the Plan.

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**Conclusion**

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39. Taking into account the various meetings and discussions that have taken place and further evidence provided since the exchange of evidence I have made several amendments to the recommendations made in my original evidence statement. A full list of the proposed amendments is attached as Appendix 1.



Andrew Bashford  
**Planning Officer**  
PALMERSTON NORTH CITY COUNCIL

## **Appendix 1: Recommended Amendments to be made to One Plan**

### **General Amendments**

Note: These proposed changes are general in nature and will require further drafting. They relate to the issues of uncertainty around the Water Quality Standards as proposed in Schedule Ba and Schedule D of the One Plan. It is also noted that there are a number of cross referencing errors between the various versions of the One Plan and although not discussed in the evidence presented the Palmerston North City Council is happy to assist the Horizons Regional Council in correcting these if required.

1. The policies (in particular policies 6-3 to 6-5 and 13-6) should be amended so that each reference to Schedule Ba and Schedule D *standards* refers instead to "*water quality targets*";
2. The introductory wording in Schedule Ba and Schedule D should be amended to clearly label the schedules' contents as being *targets*;
3. An advice note should be added to Schedule Ba and Schedule D stating that the targets are intended to guide the exercise of the consent authority's discretion when considering consent applications, and that where relevant the targets have been incorporated as conditions of permitted activity rules;
4. The permitted activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-9 and 13-24) should be amended to refer to the relevant *targets* in those schedules; and
5. The controlled and restricted discretionary activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-17 and 13-21) should be amended so that control or discretion is reserved over "*measures to assist in maintaining or achieving the targets*" in the relevant schedule.

## **Specific Amendments**

Note: These proposed amendments contain specific wording to various One Plan provisions to address issues raised in evidence presented. All changes are **highlighted** with words recommended to be added shown as underlined, and words that are recommended to be deleted shown in ~~strike through~~.

### **Chapter 11**

Amend Policy 11-A-6 as follows:

#### **Policy 11A-6: Consent Review**

In addition to the reasons specified in s128(1)(a)(i) and (ii) RMA, the Regional Council will, under s128(1)(a)(iii) RMA, generally impose consent conditions that specify a review of consent conditions during the term of the consent for:

- (a) reviewing the appropriateness of any condition requiring the consent holder to supply the consent authority with information relating to the exercise of the resource consent
- (b) reviewing any unknown or uncertain adverse effects caused as a result of planned or required changes or upgrades to the activity
- (c) reviewing the conditions of a consent at the same time as review of other consents within the same Water Management Zone – for example, at a common catchment expiry or review date.
- (d) reviewing the effectiveness of consent conditions to avoid, remedy or mitigate any adverse effects of the activity on the environment.

The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only apply to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.

This policy relates to Objective 11A-2.

## Chapter 13

Amend Policy 13-6 (Pink Version) as follows:

### **Policy 13-6: ~~p~~Point Source Discharges to Land and Water**

~~(a) When applying for consents and making decisions on consent applications for discharges of contaminants to water or land, the opportunity to utilise alternatives must be considered including alternative treatment and discharge options or a mix of discharge regimes, for the purpose of avoiding or **Error! Bookmark not defined.** mitigating adverse effects where practicable **Error! Bookmark not defined.**, shall be considered, including but not limited to:~~

(a) When applying for consents and making decisions on consent applications for discharges of contaminants to water or land the following shall be considered for the purpose of avoiding or mitigating effects:

- (i) the degree to which the activity will adversely affect the values identified for the relevant *Water Management Sub-zone(s)*\*
- (ii) whether the discharge, in combination with other discharges including non-point source discharges, will cause the water quality standards targets set in Schedule D to be breached
- (iii) the extent to which the activity is consistent with best management practices
- (iv) the need to allow reasonable time to achieve any required improvements.
- (v) alternative treatment and discharge options or mix of discharge regimes.

(b) The Regional Council may make an exception to (a) where:

- (i) in the case of discharges, the discharge is of a temporary nature or is associated with necessary maintenance work and the discharge cannot practicably be avoided
- (ii) adverse effects can be fully offset by way of a financial contribution in accordance with Chapter 18
- (iii) it is appropriate to adopt the *best practicable option*
- (iv) other exceptional circumstances apply

and it is consistent with the purpose of the RMA to do so.

This policy implements Objective 13-1

Amend Rules 13-17, and 13-23 as follows:

### 13.5 Rules - Stormwater

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>13-17</b> <b>Discharges of stormwater to surface water not complying with Rule 13-15</b>	The <i>discharges</i> of <i>stormwater</i> into <i>surface water</i> which do not comply with Rule 13-15, and any associated takes or diversions of stormwater forming part of the stormwater system.	<b>Restricted Discretionary</b>	(a) There shall be no <i>discharge</i> to any <b>natural lake</b> , <i>rare habitat</i> , <i>threatened habitat</i> , <i>at-risk habitat</i> , or Natural State Water Management Sub-zone or Site of Significance - Aquatic.	Discretion is reserved over: (a) measures to control flooding and erosion (b) contaminant concentrations and loading rates (c) measures required to comply with s107(1) RMA (d) measures required to comply with the water quality <b>standards targets</b> for the relevant Water Management Sub-zone(s) (e) odour management (f) stormwater system maintenance requirements (g) contingency requirements (h) monitoring and information requirements (i) duration of consent (j) review of consent conditions.

**13.8 Rules – Discharges of contaminants to Natural State Water Management Sub-zones, Lakes and Wetlands**

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<p><b>13-23 Discharges of contaminants to Natural State Water Management Sub-zones, and Sites of Significance – Aquatic and lakes and wetlands</b></p>	<p>Any direct <i>discharge</i> of <i>contaminants</i> into:</p> <ul style="list-style-type: none"> <li>(a) a Natural State Water Management Sub-zone</li> <li>(b) a water body identified as a Site of Significance – Aquatic in Schedule DBa</li> <li>(c) a natural lake, except Lake Otamangakau, Lake Te Whaiau and Lake Moawhanga</li> <li>(d) a wetland classified as a rare habitat, or threatened habitat</li> </ul> <p>except the discharge of agrichemicals for the purpose of controlling pests control as defined in a regional pest management strategy prepared under the Biosecurity Act 1993 (this activity is regulated by Rule 14-2).</p>	<p><b>Non-complying</b></p>		

## Chapter 15

Amend Rules 15-5 and 15-6 as follows:

### 15.2 Rules – Takes and Uses of Water

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-5 Takes and uses of surface water complying with core allocations</b>	The taking and use of surface water from a river, <b>or water storage lake on a river</b> , pursuant to s14(1) RMA, except where the water take is controlled under Rule 13-1.	<b>Controlled</b>	<p>(b) Water shall only be taken when the river is above its minimum flow, as assessed in accordance with Schedule B except as provided for by:</p> <p>(ba) takes or portions of takes which are for the purposes of stock drinking water and domestic needs, or public water supplies predominantly for domestic use may continue below minimum flow provided the rates and volumes of takes do not exceed the maximum takes of low flow set out in Policy 6-19.</p> <p>(c) The amount of water taken, when assessed in combination with all other water takes within the same Water Management Sub-zone shall not exceed the relevant core allocation set out for Water Management Subzones in Schedule B.</p> <p>(d) The amount of water taken, when assessed in combination with all other water takes within the same catchment, shall not exceed the cumulative allocation for each Water Management Sub-zone in the same catchment.</p> <p>(e) The take shall not lower the water level in any wetland that is a rare habitat or threatened habitat.</p>	<p>Control is reserved over:</p> <p>(a) the volume and rate of water taken, and the timing of the take</p> <p>(b) the location of take</p> <p>(c) intake velocity and screening requirements</p> <p>(d) measures to avoid, remedy or mitigate any adverse effects on the values of the water body at the point of abstraction, including restrictions on the volume and rate of abstraction</p> <p>(e) the efficiency of water use</p> <p>(f) effects on other water takes</p> <p>(g) effects on rare habitats, and threatened habitats and at-risk habitats and Sites of Significance – Aquatic.</p> <p>(h) compliance with minimum flow requirements</p> <p>(i) duration of consent</p> <p>(j) review of consent conditions</p> <p>(k) compliance monitoring.</p> <p>Resource consent applications under this rule will not be notified and written approval of affected persons will not be required (notice of applications need not be served on affected persons).</p>

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-6 Takes of surface water not complying with core allocations</b>	<p>The taking of surface water from a river <b>or water storage lake on a river:</b></p> <p>(aa) which, when assessed in combination with all other water takes, exceeds the relevant core allocation set out in Schedule B. or</p> <p>(ab) at or below minimum flow (unless allowed by Rule 15-5(b))</p> <p>This rule does not include:</p> <p>(a) takes permitted under Rule 15-1</p> <p>(b) takes in circumstances where water is only taken when the river flow is greater than the median flow (these are a discretionary activity under Rule 15-8)</p> <p>(c) lawfully established takes for hydroelectricity generation (these are discretionary activities under Rule 15-8).</p>	<b>Non-complying</b>		

**Schedule B**

Amend the Turitea (Mana\_11b) Sub-zone within Table B1 as follows:

Table B1: Allocation Limits and Minimum Flows by Water Management Sub-zone					
Zone code	Sub-zone	Minimum Flow (m <sup>3</sup> /s)	Flow monitoring site	Flow monitoring site location	Cumulative core allocation limit (m <sup>3</sup> /s)
Lower Manawatu (Mana_11)	Turitea (Mana_11b)	0.050 0.041	Turitea at Ngahere Park	T24:354-852	0.265 0.428

## Schedule D

Make the following changes to the associated Standards (targets) Key within Schedule D:

### Schedule D Standards Targets Key

Water<sup>^</sup> Quality Standards Targets Key: definition of abbreviations and full wording of the standards targets (placement of the numerical values for a specified standard target are indicated by [...]).

Abbreviations used in Tables D:1 to D:4		Full Wording of the Standard-Target
Header	Sub-header	
pH	Range	The pH of the water <sup>^</sup> shall be within the range [...] to [...], unless natural levels are already outside this range.
	Δ	The pH of the water <sup>^</sup> shall not be changed by more than [...].
Temp (°C)	<	The temperature of the water <sup>^</sup> shall not exceed [...] degrees Celsius.
	Δ	The temperature of the water <sup>^</sup> shall not be changed by more than [...]degrees Celsius.
DO (%SAT)	>	The concentration of dissolved oxygen (DO) shall exceed [...] % of saturation.
sCBOD <sub>5</sub> (g/m <sup>3</sup> )	<	The monthly average five-days filtered / soluble carbonaceous biochemical oxygen demand (BOD) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre.
POM (g/m <sup>3</sup> )	<	The average concentration of particulate organic matter when the river <sup>^</sup> flow is at or below 50th percentile of flow shall not exceed [...] grams per cubic metre.
Periphyton (Rivers)	Chl a (mg/m <sup>2</sup> )	The algal biomass on the stream or river <sup>^</sup> bed <sup>^</sup> shall not exceed [...] milligrams of chlorophyll a per square metre.
	% cover	The maximum cover of visible stream or river <sup>^</sup> bed <sup>^</sup> by periphyton as filamentous algae more than 2 centimetres long shall not exceed [...] %. The maximum cover of visible stream or river bed by periphyton as diatoms or cyanobacteria more than 0.3 centimetres thick shall not exceed [...] %.
Algal biomass Chl a (mg/m <sup>3</sup> )	<	The annual average algal biomass shall not exceed [...] milligrams chlorophyll Algal biomass a per cubic metre.
	Maximum	no sample shall exceed [...] milligrams chlorophyll a per cubic metre.
DRP (g/m <sup>3</sup> )	<	The annual average concentration of dissolved reactive phosphorus (DRP) when the river <sup>^</sup> flow is at or below the 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for DRP is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TP (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total phosphorus (TP) shall not exceed [...] grams per cubic metre.
SIN (g/m <sup>3</sup> )	<	The annual average concentration of soluble inorganic nitrogen <sup>11</sup> (SIN) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for SIN is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TN (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total nitrogen shall not exceed [...] grams per cubic metre.
MCI		The Macroinvertebrate Community Index (MCI) shall <b>not be less than 20% below natural reference conditions for the river.</b> <b>If natural reference conditions are not defined then the MCI shall</b> exceed [...]. <b>unless natural physical conditions are beyond the scope of application of the MCI.</b> In cases where the river <sup>^</sup> or stream habitat is suitable for the application of the soft-bottomed variant of the MCI (MCI-sb) the standards shall also apply. <b>This standard will not apply if the natural physical conditions are beyond the scope of application of the MCI or MCI-sb.</b> <b>The MCI standard applies only for State of the Environment monitoring purposes to determine if the aquatic macroinvertebrate communities are adequate to provide for and maintain the values in each WMSZ, the standard is not appropriate for monitoring the effects of activities such as discharges to water.</b>
QMCI	%Δ	<b>Discharges to water to cause N</b> no more than a 20 % reduction in Quantitative Macroinvertebrate Community Index (QMCI) score between <b>appropriately matched habitats</b> upstream and downstream of <b>the discharges to water<sup>^</sup>.</b> <b>Note: Where samples are collected using a hand net this standard shall also apply to the Semi-Quantitative MCI (SQMCI).</b>
Ammoniacal nitrogen (g/m <sup>3</sup> ) (rivers)	<	The average concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre.
Ammoniacal nitrogen (g/m <sup>3</sup> ) (lakes)	<	The concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre when lake <sup>^</sup> pH exceeds 8.5 within the epilimnion (shallow lakes <sup>^</sup> ) or within 2 m of the water <sup>^</sup> surface (deep lakes <sup>^</sup> ).
Toxicants	<%	For toxicants not otherwise defined in these standards, the concentration of toxicants in the water <sup>^</sup> shall not exceed the trigger values defined in the 2000 ANZECC guidelines Table 3.4.1 for the level of protection of [...] % of species. <b>For metals the trigger value shall be adjusted for hardness and apply to the dissolved fraction.</b>
Clarity (m) (rivers)	%Δ	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall equal or exceed [...] m when the river <sup>^</sup> is at or below the 50 <sup>th</sup> percentile of flow.
Clarity (m) (lakes)	%Δ	The clarity of the water <sup>^</sup> measured as Secchj depth (or horizontal sighting range of a 200 mm black disc) shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured Secchi depth (or horizontal sighting range of a 200 mm black disc) shall exceed [...] m.
E.coli/100ml (rivers)	<m	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive) when the river <sup>^</sup> flow is at or below the 50 <sup>th</sup> percentile of flow.
	<20 <sup>th</sup> %ile	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres when the river <sup>^</sup> flow is at or below the 20th percentile of flow year round.
E.coli/100 ml (lakes)	Summer	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive).
	Winter	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 May – 31 October (inclusive).
Euphotic Depth (lakes)	%Δ	Euphotic depth shall not be reduced by more than [...] %.

## **Schedule E**

Make the following amendments to Table E.2(b):

### **Table E.2(b):**

<p>If an area of any habitat type described in Table E.1 meets any of the following criteria it shall not be rare habitat*, threatened habitat* or at-risk habitat* for the purposes of this Plan.</p>
<p><b>Forest*, Treeland*, Scrub*, or Shrubland* Habitat Types Classified as Threatened or At-risk</b></p> <ul style="list-style-type: none"> <li>i. Areas of indigenous* tree* species planted for the purposes of timber harvest. Or</li> <li>ii. Indigenous* vegetation planted for landscaping, horticultural, shelter belts, gardening or amenity purposes. Or</li> <li>iii. Habitat areas 1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul> <p><b>Wetland^ Habitat Types Classified as Rare or Threatened</b></p> <ul style="list-style-type: none"> <li>iv. Damp gully heads, or paddocks subject to regular ponding, dominated* by pasture or exotic species in association* with wetland sedge and rush species. Or</li> <li>v. Ditches or drains supporting raupo, flax or other wetland species (e.g. Carex sp., Isolepis sp.), or populations of these species in drains or slumps associated with road reserves or rail corridors. Or</li> <li>vi. Areas of wetland^ habitat specifically designed, installed and maintained for any of the following purposes: <ul style="list-style-type: none"> <li>a) stock watering (including stock ponds), or</li> <li>b) water storage for the purposes of fire fighting or irrigation (including old gravel pits), or</li> <li>c) treatment of animal effluent (including pond or barrier ditch systems), or</li> <li>d) waste water treatment, or</li> <li>e) sediment control, or</li> <li>f) any hydroelectric power generation scheme. Or</li> <li>g) water storage for the purposes of public water supplies. Or</li> </ul> </li> <li>vii. Areas of wetland habitat maintained in relation to the implementation of any resource consent conditions or agreements relating to the operation of any hydroelectric power scheme currently lawfully established. Or</li> <li>viii. Open water and associated vegetation created for landscaping purposes or amenity values where the planted vegetation is predominately exotic, or includes assemblages of species not naturally found in association* with each other, on the particular landform, or at the geographical location of the created site.</li> <li>ix. Habitat areas 0.1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul>

**BEFORE THE MANAWATU – WANGANUI REGIONAL COUNCIL (HORIZONS  
REGIONAL COUNCIL)**

*In the matter of*        **The Resource Management Act 1991; and**

*In the matter of*        **The Proposed One Plan: Consolidated Regional Policy  
Statement, Regional Plan and Regional Coastal Plan for  
the Manawatu - Wanganui Region**

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**SUPPLEMENTARY EVIDENCE OF ANDREW DAVID BASHFORD  
ON BEHALF OF THE PALMERSTON NORTH CITY COUNCIL**

**CHAPTERS 6, 13, 15 AND 16  
AND SCHEDULES B, C, D AND E OF THE ONE PLAN**

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Dated: 11 February 2010

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## **Introduction and Background**

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1. I have prepared this report as supplementary evidence to my Statement of Evidence dated 16 October 2009. It has been compiled in response to supplementary evidence produced by Horizons experts and takes into account the outcomes of caucusing and pre-hearing meetings held since the exchange of evidence. It also focuses more specifically on the issues surrounding the water quality standards contained within Schedule D and section 69 of the Resource Management Act 1991.
2. Several meetings involving PNCC experts have been held since the exchange of evidence. Jack McConchie, Jon Roygard and Raelene Hurdell attended a caucusing meeting on 12 November 2009 regarding the minimum flow and core allocation limit in the Turitea subzone. Caucusing was also held between Keith Hamill, Paul Kennedy, Kathryn McArthur, John Quinn, Jon Roygard and Robert Wilcock on 10 November 2009 in relation to the Water Quality Standards contained within Schedule D of the Proposed One Plan. A pre-hearing meeting was held between Clare Barton, Helen Marr, Jon Roygard, Chris Pepper and myself on 14 December 2009 where several issues were discussed including the appropriate location of amendments to Rule 13-27 as suggested in my original evidence.

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## **Water Quality**

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### Water Quality Standards

3. The evidence and supplementary evidence of Keith Hamill discusses the Water Quality Standards contained within Schedule D in detail. Mr Hamill participated in caucusing with other water quality experts and reached agreement on a number of matters as outlined in the 'Meeting Between Experts' report dated 10 November 2009.
4. As a result of this meeting, and consequent discussions, some amendments have been made to the recommendations as contained in my original evidence statement. In particular these relate to the Standards Key and an updated version is attached in Appendix 1 to this statement.
5. Of particular note are the standards relating to QMCI and Toxicants, where the recommendations made here differ to that made by Horizons experts. The reasons for these differences are discussed in paragraphs 3.3 to 3.9 and 3.12 of Mr. Hamill's supplementary evidence.
6. Agreement was not achieved in relation to the standards relating to DRP or SIN through the caucusing process. The recommendations relating to these standards have not changed from my original evidence.

### Standards or Targets

7. As discussed in paragraphs 64 to 79 of my original evidence it is unclear in what circumstances the Water Quality Standards contained within Schedule Ba and Schedule D of the Proposed One Plan apply, and whether these are standards in terms of section 69 of the Resource Management Act 1991.
8. It appears that the intention is for the Schedule Ba and Schedule D standards to apply as standards in relation to activities that are permitted. In the event that an activity does not meet the standards, the activity would require a resource consent. Some controlled and restricted discretionary rules retain control or discretion that relate to the water quality standards. It is unclear whether discretionary or non-complying activities need to comply with the standards or whether the standards are to be used as targets against which an application is assessed.
9. This matter was discussed in the caucusing meeting in relation to the Water Quality Standards held on 10 December 2009. Agreement was reached between the experts that the use of the term 'standards' is not a good term to use in this context and that clarity is needed. The Horizons experts were also to discuss options with the Horizons planners to clarify *'that standards applied as absolute trigger values for permitted activities will be regarded as targets in other situations'*<sup>1</sup>.
10. This matter has been addressed to a limited extent by the recommended amendments to Policies 6-3 to 6-5 and in particular by the inclusion of the words *'maintains or enhances existing water quality'* to Policy 6-4. However there are still drafting issues with those policies and with Policy 13-6, and it remains unclear whether the 'standards' are intended to apply as standards or as guidelines for resource consent applications and as to whether the so called standards are intended to be standards for the purpose of section 68(7), 69 and section 128(1)(b) of the RMA.
11. The following table outlines the rules that have provisions directly referring to the Schedule Ba and Schedule D Standards:

<b>One Plan Rules in Chapter 13 referring directly to the Water Quality Standards</b>			
<b>Rule</b>	<b>Activity Status</b>	<b>Conditions/Standards/Terms</b>	<b>Control/Discretion</b>
13-9	Permitted	The discharge shall not, after reasonable mixing change the natural temperature of the receiving water by more than the maximum temperature or temperature change specified by the quality standards for the Water Management Sub-zone listed in Schedule Ba.	

<sup>1</sup> See paragraph 9 – Report of a Meeting between Experts: Water Quality Standards, 10 November 2009.

13-17	Restricted Discretionary		Discretion is reserved over:  Measures required to comply with the water quality standards for the relevant Water Management Sub-zone(s).
13-21	Controlled		Control is reserved over:  Measures to manage effects on surface water bodies including maintaining the values and water quality standards set out in Schedule Ba.
13-24	Permitted	The discharges shall not, after reasonable mixing, cause the receiving water body to breach the water quality standards for that water body set out in Schedule D, either from the discharge itself or in combination with any other discharges.	
13-26	Permitted	The discharge shall comply with all of the conditions of Rule 13-24.	

12. The default catch-all discretionary activity rule (Rule 13-27) does not refer to the standards at all and there is no rule which provides that discharges which do not meet the standards become non-complying or prohibited activities.
13. Accordingly in my opinion the intention of the Plan as notified was that these water quality targets would only apply as standards for the purpose set out in the permitted activity rules and would otherwise be guidelines or targets. That is consistent with what was agreed at caucusing.
14. My concern is that what appears to have been the intention has not been made clear in the Plan itself.
15. My second concern is that in the absence of clarity it remains open for future argument that these are standards for the purpose of section 69. That would then allow argument that the rules must require the observance of the standards with no exceptions. That is, it could be argued that the rules must be amended to prohibit discharges which do not meet the standards. That was clearly not what was intended but given the loose wording surrounding the standards that is an argument which others may mount.
16. Accordingly, in my opinion it is more appropriate to have wording which makes it clear that these are not standards for the purposes of section 69 but are targets

which will be considered at the time any applications are considered. It also needs to be made clear that what will be considered is whether the discharge on its own or in conjunction with other discharges will **cause** the targets to be breached. That is consistent with common sense and with the wording of section 107. Mr Hamill discusses this point in relation to QMCI.

17. A summary of proposed wording changes to the One Plan provisions to remedy these issues is suggested in Appendix 1 and has been discussed in Mr Milne's legal submissions. They include:
- Changing references to the Water Quality Standards in the One Plan to *Water Quality Targets*;
  - Ensuring the introductory wording to Schedule Ba and Schedule D label the contents as being targets; and
  - The addition of an advice note to Schedule Ba and Schedule D that makes it clear that the targets are intended to guide the Regional Council when assessing resource consent applications and that where appropriate relevant targets have been incorporated as conditions for permitted activities.
18. It is acknowledged that the suggested wording requires refining and to that extent the Palmerston North City Council is happy to work with Horizons to formulate appropriate provisions and wording to rectify the identified issues.
19. On a related note, there are some fundamental issues with how some of the policies have been drafted, as Mr Milne has discussed in his legal submissions. Policy 13-6 does not make sense as drafted in the pink version, and it is unclear how it is intended to be applied. The pink version text states:

*Policy 13-6: point Source Discharges to Land and Water*

- (a) *When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or Error! Bookmark not defined. mitigating adverse effects<sup>^</sup> Error! Bookmark not defined.,:*
- (i) *the degree to which the activity will adversely affect the values identified for the relevant Water Management Sub-zone(s)\**
  - (ii) *whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards set in Schedule D to be breached*
  - (iii) *the extent to which the activity is consistent with best management practices*
  - (iv) *the need to allow reasonable time to achieve any required improvements.*

(b) *The Regional Council may make an exception to subsection (a) where:*

- (i) *in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided*
- (ii) *adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18*
- (iii) *it is appropriate to adopt the best practicable option<sup>^</sup>*
- (iv) *other exceptional circumstances apply*

*and it is consistent with the purpose of the RMA to do so.*

20. In examining this policy it could be taken as two policies rolled into one where the applicant must consider alternatives when applying for consent, and secondly the consent authority must consider the matters described in the list labelled (i) to (iv). Alternatively it could be that both the consent authority and applicant must consider alternatives along with the matters within the list.
21. In addition the first part of clause (a) does not introduce the list in any way and there are a number of bookmarking errors within the policy. In my opinion the policy should be redrafted and proposed wording is contained in Appendix 1.

#### Relationship to section 128(1)(b)

22. I also have concern that if the Water Quality Standards become standards or are interpreted as standards in the context of section 68(7) and 69 of the RMA 1991, then the Palmerston North City Wastewater Treatment Plant (WWTP) may be required to meet the new standards in a review of the existing resource consent under section 128(1)(b). This could take place as soon as the One Plan is made operative and only a few years after a major upgrade to the plant.
23. The current wording of the rules would not allow for a non notified review of current consents because the rules do not signal that, as outlined in section 68(7). However if the wording of the standards and policies is left as is, then it is arguable that a notified review under section 128(1)(b) may be carried out.
24. Upgrading the WWTP to meet the proposed standards would result in substantial capital and operational expense to the Palmerston North community. The water quality of the Manawatu River above the WWTP discharge does not meet a number of the proposed standards. It is my opinion that upgrading the WWTP in the short term would not be an efficient use of funds when superior gains to water quality could be achieved through other means.
25. To address this issue I recommended that a clause be added to Rule 13-27. Discussions on this clause have been undertaken with Horizons Planners (Clare Barton and Helen Marr) with agreement to the concept, however it has been suggested that the clause should be located within the Policies of the One Plan.

26. In discussions with Ms Barton and Ms Marr, it had been agreed that Policy 2-3 (11A-6 in the provisional determination version) is the suitable location for the clause.
27. The wording of the clause has been amended so that it fits the new location more appropriately. The suggested wording is:

*The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only be considered in relation to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.*

28. However I now consider that it would be preferable to fix up the more fundamental issues with how the standards apply (i.e. renaming them as targets and making the policies and rules consistent with that). This is a better solution overall, and it would also avoid the need to specifically exempt the WWTP.

#### Stormwater and Centennial Lagoon

29. In my original evidence statement I raised issues surrounding Centennial Lagoon, stormwater discharges and the Schedule E definitions. In response, Ms Fleur Maseyk prepared a section 42A report pointing out the benefits of including the lagoon within the Schedule E definitions<sup>2</sup> and thereby giving it a Threatened Habitat Status.
30. Given the heavily modified status of Centennial Lagoon this highlights that any natural lake or wetland would be classified as a threatened habitat unless it was specifically exempted by the provisions within Table E.2(b). This in turn causes some confusion as to the rules that apply to discharges to such environments due to the doubling up of provisions that apply to lakes and wetlands.
31. For example, Rule 13-17 provides for discharges of stormwater to surface water as a restricted discretionary activity so long as there is no discharge to any natural lake, rare habitat, threatened habitat, at-risk habitat or Natural State Water Management Sub-zone or Site of Significance - Aquatic.
32. The rule guide relating to the stormwater rules states that discharges in rare habitats, threatened habitats or at-risk habitats are regulated by rules 12-7 and 12-8, making them a Discretionary Activity<sup>3</sup>. The rule guide also states that discharges in Natural State Water Management Sub-zones or Sites of Significance - Aquatic are regulated by Rule 13-23, making them a Non-complying Activity. There is no mention of discharges to natural lakes in the rule guide.

<sup>2</sup> See Paragraphs 21-22 of the s42A report of Ms Fleur Jennifer Foster Maseyk.

<sup>3</sup> Note that these provisions have been changed to Rule 12-6 in the Provisional Determination

33. Rule 13-23 is titled "Discharges of contaminants to Natural State Water Management Sub-zones, Sites of Significance – Aquatic and lakes and wetlands. The activities encompassed by this rule include any direct discharge of contaminants into a natural lake.
  34. The discharges to Centennial Lagoon could be regulated by Rule 12-6 as indicated by the Rule Guide but also by Rule 13-23 given its title and the activities that it includes. This issue was also discussed with Ms Barton and Ms Marr at the meeting held on 14 December 2010 with agreement that the references to lakes and wetlands should be removed from Rule 13-23. For completeness the reference to lakes and wetlands should also be removed from the heading of section 13.8.
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## **Water Quantity**

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### Minimum flow and core allocation values for the Turitea Stream

35. Paragraphs 112 to 116 of my original evidence discuss the minimum flow and core allocation values set for the Turitea Stream. Dr. Jack McConchie has provided technical expert evidence on the Turitea catchment and recommended suitable values for the minimum flow and core allocation. Caucusing was held between Dr. McConchie, Dr Roygard and Ms Hurndell on this matter on 12 November 2009. This resulted in agreement on a number of matters and further evidence being prepared by Dr. McConchie that altered the minimum flow value from the original recommendations. The revised values have been agreed by Horizons experts and I have made the necessary amendments to my recommendations.

### Schedule E

36. It has been identified that as proposed the One Plan has classed the Turitea water supply lakes as threatened habitat. This issue has been raised in my original evidence and Ms Maseyk from Horizons has responded in her section 42A report.
37. Ms Maseyk has stated that the inclusion of the water supply dams within the definitions of Schedule E was an oversight and that it is the intent of the schedule to exclude areas designed, installed and maintained for such purposes. She has made a recommendation that the words 'town water supply' be added to the Table E.2(b).
38. I agree that an exclusion needs to be added to Table E.2(b) but in my opinion the words as recommended in my original evidence are more suitable. They are more specific in that it is water storage for public water supplies that is exempt. Public water supply is defined within the glossary of the One Plan thereby giving certainty to Plan users and applying consistent terminology throughout the Plan.

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**Conclusion**

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39. Taking into account the various meetings and discussions that have taken place and further evidence provided since the exchange of evidence I have made several amendments to the recommendations made in my original evidence statement. A full list of the proposed amendments is attached as Appendix 1.



Andrew Bashford  
**Planning Officer**  
PALMERSTON NORTH CITY COUNCIL

## **Appendix 1: Recommended Amendments to be made to One Plan**

### **General Amendments**

Note: These proposed changes are general in nature and will require further drafting. They relate to the issues of uncertainty around the Water Quality Standards as proposed in Schedule Ba and Schedule D of the One Plan. It is also noted that there are a number of cross referencing errors between the various versions of the One Plan and although not discussed in the evidence presented the Palmerston North City Council is happy to assist the Horizons Regional Council in correcting these if required.

1. The policies (in particular policies 6-3 to 6-5 and 13-6) should be amended so that each reference to Schedule Ba and Schedule D *standards* refers instead to "*water quality targets*";
2. The introductory wording in Schedule Ba and Schedule D should be amended to clearly label the schedules' contents as being *targets*;
3. An advice note should be added to Schedule Ba and Schedule D stating that the targets are intended to guide the exercise of the consent authority's discretion when considering consent applications, and that where relevant the targets have been incorporated as conditions of permitted activity rules;
4. The permitted activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-9 and 13-24) should be amended to refer to the relevant *targets* in those schedules; and
5. The controlled and restricted discretionary activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-17 and 13-21) should be amended so that control or discretion is reserved over "*measures to assist in maintaining or achieving the targets*" in the relevant schedule.

## **Specific Amendments**

Note: These proposed amendments contain specific wording to various One Plan provisions to address issues raised in evidence presented. All changes are **highlighted** with words recommended to be added shown as underlined, and words that are recommended to be deleted shown in ~~strike through~~.

### **Chapter 11**

Amend Policy 11-A-6 as follows:

#### **Policy 11A-6: Consent Review**

In addition to the reasons specified in s128(1)(a)(i) and (ii) RMA, the Regional Council will, under s128(1)(a)(iii) RMA, generally impose consent conditions that specify a review of consent conditions during the term of the consent for:

- (a) reviewing the appropriateness of any condition requiring the consent holder to supply the consent authority with information relating to the exercise of the resource consent
- (b) reviewing any unknown or uncertain adverse effects caused as a result of planned or required changes or upgrades to the activity
- (c) reviewing the conditions of a consent at the same time as review of other consents within the same Water Management Zone – for example, at a common catchment expiry or review date.
- (d) reviewing the effectiveness of consent conditions to avoid, remedy or mitigate any adverse effects of the activity on the environment.

The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only apply to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.

This policy relates to Objective 11A-2.

## Chapter 13

Amend Policy 13-6 (Pink Version) as follows:

### **Policy 13-6: ~~p~~Point Source Discharges to Land and Water**

~~(a) When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, the opportunity to utilise alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or **Error! Bookmark not defined.** mitigating adverse effects<sup>^</sup> where practicable **Error! Bookmark not defined.**, shall be considered., including but not limited to:z~~

(a) When applying for consents and making decisions on consent applications for discharges of contaminants to water or land the following shall be considered for the purpose of avoiding or mitigating effects:

- (i) the degree to which the activity will adversely affect the values identified for the relevant *Water Management Sub-zone(s)*\*
- (ii) whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards targets set in Schedule D to be breached
- (iii) the extent to which the activity is consistent with best management practices
- (iv) the need to allow reasonable time to achieve any required improvements.
- (v) alternative treatment and discharge options or mix of discharge regimes.

(b) The Regional Council may make an exception to (a) where:

- (i) in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided
- (ii) adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18
- (iii) it is appropriate to adopt the *best practicable option*<sup>^</sup>
- (iv) other exceptional circumstances apply

and it is consistent with the purpose of the RMA to do so.

This policy implements Objective 13-1

Amend Rules 13-17, and 13-23 as follows:

### 13.5 Rules - Stormwater

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>13-17</b> <b>Discharges of stormwater to surface water not complying with Rule 13-15</b>	The <i>discharges</i> of <i>stormwater</i> into <i>surface water</i> which do not comply with Rule 13-15, and any associated takes or diversions of stormwater forming part of the stormwater system.	<b>Restricted Discretionary</b>	(a) There shall be no <i>discharge</i> to any <b>natural lake</b> , <i>rare habitat</i> , <i>threatened habitat</i> , <i>at-risk habitat</i> , or Natural State Water Management Sub-zone or Site of Significance - Aquatic.	Discretion is reserved over: (a) measures to control flooding and erosion (b) contaminant concentrations and loading rates (c) measures required to comply with s107(1) RMA (d) measures required to comply with the water quality <b>standards targets</b> for the relevant Water Management Sub-zone(s) (e) odour management (f) stormwater system maintenance requirements (g) contingency requirements (h) monitoring and information requirements (i) duration of consent (j) review of consent conditions.

**13.8 Rules – Discharges of contaminants to Natural State Water Management Sub-zones, Lakes and Wetlands**

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<p><b>13-23 Discharges of contaminants to Natural State Water Management Sub-zones, and Sites of Significance – Aquatic and lakes and wetlands</b></p>	<p>Any direct <i>discharge</i> of <i>contaminants</i> into:</p> <ul style="list-style-type: none"> <li>(a) a Natural State Water Management Sub-zone</li> <li>(b) a water body identified as a Site of Significance – Aquatic in Schedule DBa</li> <li>(c) a natural lake, except Lake Otamangakau, Lake Te Whaiau and Lake Moawhanga</li> <li>(d) a wetland classified as a rare habitat, or threatened habitat</li> </ul> <p>except the discharge of agrichemicals for the purpose of controlling pests control as defined in a regional pest management strategy prepared under the Biosecurity Act 1993 (this activity is regulated by Rule 14-2).</p>	<p><b>Non-complying</b></p>		

## Chapter 15

Amend Rules 15-5 and 15-6 as follows:

### 15.2 Rules – Takes and Uses of Water

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-5 Takes and uses of surface water complying with core allocations</b>	The taking and use of surface water from a river, <b>or water storage lake on a river</b> , pursuant to s14(1) RMA, except where the water take is controlled under Rule 13-1.	<b>Controlled</b>	<p>(b) Water shall only be taken when the river is above its minimum flow, as assessed in accordance with Schedule B except as provided for by:</p> <p>(ba) takes or portions of takes which are for the purposes of stock drinking water and domestic needs, or public water supplies predominantly for domestic use may continue below minimum flow provided the rates and volumes of takes do not exceed the maximum takes of low flow set out in Policy 6-19.</p> <p>(c) The amount of water taken, when assessed in combination with all other water takes within the same Water Management Sub-zone shall not exceed the relevant core allocation set out for Water Management Subzones in Schedule B.</p> <p>(d) The amount of water taken, when assessed in combination with all other water takes within the same catchment, shall not exceed the cumulative allocation for each Water Management Sub-zone in the same catchment.</p> <p>(e) The take shall not lower the water level in any wetland that is a rare habitat or threatened habitat.</p>	<p>Control is reserved over:</p> <p>(a) the volume and rate of water taken, and the timing of the take</p> <p>(b) the location of take</p> <p>(c) intake velocity and screening requirements</p> <p>(d) measures to avoid, remedy or mitigate any adverse effects on the values of the water body at the point of abstraction, including restrictions on the volume and rate of abstraction</p> <p>(e) the efficiency of water use</p> <p>(f) effects on other water takes</p> <p>(g) effects on rare habitats, and threatened habitats and at-risk habitats and Sites of Significance – Aquatic.</p> <p>(h) compliance with minimum flow requirements</p> <p>(i) duration of consent</p> <p>(j) review of consent conditions</p> <p>(k) compliance monitoring.</p> <p>Resource consent applications under this rule will not be notified and written approval of affected persons will not be required (notice of applications need not be served on affected persons).</p>

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-6 Takes of surface water not complying with core allocations</b>	<p>The taking of surface water from a river <b>or water storage lake on a river:</b></p> <p>(aa) which, when assessed in combination with all other water takes, exceeds the relevant core allocation set out in Schedule B. or</p> <p>(ab) at or below minimum flow (unless allowed by Rule 15-5(b))</p> <p>This rule does not include:</p> <p>(a) takes permitted under Rule 15-1</p> <p>(b) takes in circumstances where water is only taken when the river flow is greater than the median flow (these are a discretionary activity under Rule 15-8)</p> <p>(c) lawfully established takes for hydroelectricity generation (these are discretionary activities under Rule 15-8).</p>	<b>Non-complying</b>		

**Schedule B**

Amend the Turitea (Mana\_11b) Sub-zone within Table B1 as follows:

Table B1: Allocation Limits and Minimum Flows by Water Management Sub-zone					
Zone code	Sub-zone	Minimum Flow (m <sup>3</sup> /s)	Flow monitoring site	Flow monitoring site location	Cumulative core allocation limit (m <sup>3</sup> /s)
Lower Manawatu (Mana_11)	Turitea (Mana_11b)	0.050 0.041	Turitea at Ngahere Park	T24:354-852	0.265 0.428

## Schedule D

Make the following changes to the associated Standards (targets) Key within Schedule D:

### Schedule D Standards Targets Key

Water<sup>^</sup> Quality Standards Targets Key: definition of abbreviations and full wording of the standards targets (placement of the numerical values for a specified standard target are indicated by [...]).

Abbreviations used in Tables D:1 to D:4		Full Wording of the Standard-Target
Header	Sub-header	
pH	Range	The pH of the water <sup>^</sup> shall be within the range [...] to [...], unless natural levels are already outside this range.
	Δ	The pH of the water <sup>^</sup> shall not be changed by more than [...].
Temp (°C)	<	The temperature of the water <sup>^</sup> shall not exceed [...] degrees Celsius.
	Δ	The temperature of the water <sup>^</sup> shall not be changed by more than [...]degrees Celsius.
DO (%SAT)	>	The concentration of dissolved oxygen (DO) shall exceed [...] % of saturation.
sCBOD <sub>5</sub> (g/m <sup>3</sup> )	<	The monthly average five-days filtered / soluble carbonaceous biochemical oxygen demand (BOD) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre.
POM (g/m <sup>3</sup> )	<	The average concentration of particulate organic matter when the river <sup>^</sup> flow is at or below 50th percentile of flow shall not exceed [...] grams per cubic metre.
Periphyton (Rivers)	Chl a (mg/m <sup>2</sup> )	The algal biomass on the stream or river <sup>^</sup> bed <sup>^</sup> shall not exceed [...] milligrams of chlorophyll a per square metre.
	% cover	The maximum cover of visible stream or river <sup>^</sup> bed <sup>^</sup> by periphyton as filamentous algae more than 2 centimetres long shall not exceed [...] %. The maximum cover of visible stream or river bed by periphyton as diatoms or cyanobacteria more than 0.3 centimetres thick shall not exceed [...] %.
Algal biomass Chl a (mg/m <sup>3</sup> )	<	The annual average algal biomass shall not exceed [...] milligrams chlorophyll Algal biomass a per cubic metre.
	Maximum	no sample shall exceed [...] milligrams chlorophyll a per cubic metre.
DRP (g/m <sup>3</sup> )	<	The annual average concentration of dissolved reactive phosphorus (DRP) when the river <sup>^</sup> flow is at or below the 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for DRP is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TP (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total phosphorus (TP) shall not exceed [...] grams per cubic metre.
SIN (g/m <sup>3</sup> )	<	The annual average concentration of soluble inorganic nitrogen <sup>11</sup> (SIN) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for SIN is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TN (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total nitrogen shall not exceed [...] grams per cubic metre.
MCI		The Macroinvertebrate Community Index (MCI) shall not be less than 20% below natural reference conditions for the river. <b>If natural reference conditions are not defined then the MCI shall exceed [...]. unless natural physical conditions are beyond the scope of application of the MCI.</b> In cases where the river <sup>^</sup> or stream habitat is suitable for the application of the soft-bottomed variant of the MCI (MCI-sb) the standards shall also apply. <b>This standard will not apply if the natural physical conditions are beyond the scope of application of the MCI or MCI-sb.</b> <b>The MCI standard applies only for State of the Environment monitoring purposes to determine if the aquatic macroinvertebrate communities are adequate to provide for and maintain the values in each WMSZ, the standard is not appropriate for monitoring the effects of activities such as discharges to water.</b>
QMCI	%Δ	<b>Discharges to water to cause No</b> more than a 20 % reduction in Quantitative Macroinvertebrate Community Index (QMCI) score between <b>appropriately matched habitats</b> upstream and downstream of <b>the discharges to water<sup>^</sup>.</b> <b>Note: Where samples are collected using a hand net this standard shall also apply to the Semi-Quantitative MCI (SQMCI).</b>
Ammoniacal nitrogen (g/m <sup>3</sup> ) (rivers)	<	The average concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre.
Ammoniacal nitrogen (g/m <sup>3</sup> ) (lakes)	<	The concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre when lake <sup>^</sup> pH exceeds 8.5 within the epilimnion (shallow lakes <sup>^</sup> ) or within 2 m of the water <sup>^</sup> surface (deep lakes <sup>^</sup> ).
Toxicants	<%	For toxicants not otherwise defined in these standards, the concentration of toxicants in the water <sup>^</sup> shall not exceed the trigger values defined in the 2000 ANZECC guidelines Table 3.4.1 for the level of protection of [...] % of species. <b>For metals the trigger value shall be adjusted for hardness and apply to the dissolved fraction.</b>
Clarity (m) (rivers)	%Δ	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a 200-mm black disc shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a 200-mm black disc shall equal or exceed [...] m when the river <sup>^</sup> is at or below the 50 <sup>th</sup> percentile of flow.
Clarity (m) (lakes)	%Δ	The clarity of the water <sup>^</sup> measured as Secchj depth (or horizontal sighting range of a 200 mm black disc) shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured Secchi depth (or horizontal sighting range of a 200 mm black disc) shall exceed [...] m.
E.coli/100ml (rivers)	<m	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive) when the river <sup>^</sup> flow is at or below the 50 <sup>th</sup> percentile of flow.
	<20 <sup>th</sup> %ile	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres when the river <sup>^</sup> flow is at or below the 20th percentile of flow year round.
E.coli/100 ml (lakes)	Summer	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive).
	Winter	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 May – 31 October (inclusive).
Euphotic Depth (lakes)	%Δ	Euphotic depth shall not be reduced by more than [...] %.

## **Schedule E**

Make the following amendments to Table E.2(b):

### **Table E.2(b):**

<p>If an area of any habitat type described in Table E.1 meets any of the following criteria it shall not be rare habitat*, threatened habitat* or at-risk habitat* for the purposes of this Plan.</p>
<p><b>Forest*, Treeland*, Scrub*, or Shrubland* Habitat Types Classified as Threatened or At-risk</b></p> <ul style="list-style-type: none"> <li>i. Areas of indigenous* tree* species planted for the purposes of timber harvest. Or</li> <li>ii. Indigenous* vegetation planted for landscaping, horticultural, shelter belts, gardening or amenity purposes. Or</li> <li>iii. Habitat areas 1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul> <p><b>Wetland^ Habitat Types Classified as Rare or Threatened</b></p> <ul style="list-style-type: none"> <li>iv. Damp gully heads, or paddocks subject to regular ponding, dominated* by pasture or exotic species in association* with wetland sedge and rush species. Or</li> <li>v. Ditches or drains supporting raupo, flax or other wetland species (e.g. Carex sp., Isolepis sp.), or populations of these species in drains or slumps associated with road reserves or rail corridors. Or</li> <li>vi. Areas of wetland^ habitat specifically designed, installed and maintained for any of the following purposes: <ul style="list-style-type: none"> <li>a) stock watering (including stock ponds), or</li> <li>b) water storage for the purposes of fire fighting or irrigation (including old gravel pits), or</li> <li>c) treatment of animal effluent (including pond or barrier ditch systems), or</li> <li>d) waste water treatment, or</li> <li>e) sediment control, or</li> <li>f) any hydroelectric power generation scheme. Or</li> <li>g) water storage for the purposes of public water supplies. Or</li> </ul> </li> <li>vii. Areas of wetland habitat maintained in relation to the implementation of any resource consent conditions or agreements relating to the operation of any hydroelectric power scheme currently lawfully established. Or</li> <li>viii. Open water and associated vegetation created for landscaping purposes or amenity values where the planted vegetation is predominately exotic, or includes assemblages of species not naturally found in association* with each other, on the particular landform, or at the geographical location of the created site.</li> <li>ix. Habitat areas 0.1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul>

**BEFORE THE MANAWATU – WANGANUI REGIONAL COUNCIL (HORIZONS  
REGIONAL COUNCIL)**

*In the matter of*      **The Resource Management Act 1991; and**

*In the matter of*      **The Proposed One Plan: Consolidated Regional Policy  
Statement, Regional Plan and Regional Coastal Plan for  
the Manawatu - Wanganui Region**

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**SUPPLEMENTARY EVIDENCE OF ANDREW DAVID BASHFORD  
ON BEHALF OF THE PALMERSTON NORTH CITY COUNCIL**

**CHAPTERS 6, 13, 15 AND 16  
AND SCHEDULES B, C, D AND E OF THE ONE PLAN**

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Dated: 11 February 2010

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## Introduction and Background

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1. I have prepared this report as supplementary evidence to my Statement of Evidence dated 16 October 2009. It has been compiled in response to supplementary evidence produced by Horizons experts and takes into account the outcomes of caucusing and pre-hearing meetings held since the exchange of evidence. It also focuses more specifically on the issues surrounding the water quality standards contained within Schedule D and section 69 of the Resource Management Act 1991.
2. Several meetings involving PNCC experts have been held since the exchange of evidence. Jack McConchie, Jon Roygard and Raelene Hurdell attended a caucusing meeting on 12 November 2009 regarding the minimum flow and core allocation limit in the Turitea subzone. Caucusing was also held between Keith Hamill, Paul Kennedy, Kathryn McArthur, John Quinn, Jon Roygard and Robert Wilcock on 10 November 2009 in relation to the Water Quality Standards contained within Schedule D of the Proposed One Plan. A pre-hearing meeting was held between Clare Barton, Helen Marr, Jon Roygard, Chris Pepper and myself on 14 December 2009 where several issues were discussed including the appropriate location of amendments to Rule 13-27 as suggested in my original evidence.

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## Water Quality

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### Water Quality Standards

3. The evidence and supplementary evidence of Keith Hamill discusses the Water Quality Standards contained within Schedule D in detail. Mr Hamill participated in caucusing with other water quality experts and reached agreement on a number of matters as outlined in the 'Meeting Between Experts' report dated 10 November 2009.
4. As a result of this meeting, and consequent discussions, some amendments have been made to the recommendations as contained in my original evidence statement. In particular these relate to the Standards Key and an updated version is attached in Appendix 1 to this statement.
5. Of particular note are the standards relating to QMCI and Toxicants, where the recommendations made here differ to that made by Horizons experts. The reasons for these differences are discussed in paragraphs 3.3 to 3.9 and 3.12 of Mr. Hamill's supplementary evidence.
6. Agreement was not achieved in relation to the standards relating to DRP or SIN through the caucusing process. The recommendations relating to these standards have not changed from my original evidence.

### Standards or Targets

7. As discussed in paragraphs 64 to 79 of my original evidence it is unclear in what circumstances the Water Quality Standards contained within Schedule Ba and Schedule D of the Proposed One Plan apply, and whether these are standards in terms of section 69 of the Resource Management Act 1991.
8. It appears that the intention is for the Schedule Ba and Schedule D standards to apply as standards in relation to activities that are permitted. In the event that an activity does not meet the standards, the activity would require a resource consent. Some controlled and restricted discretionary rules retain control or discretion that relate to the water quality standards. It is unclear whether discretionary or non-complying activities need to comply with the standards or whether the standards are to be used as targets against which an application is assessed.
9. This matter was discussed in the caucusing meeting in relation to the Water Quality Standards held on 10 December 2009. Agreement was reached between the experts that the use of the term 'standards' is not a good term to use in this context and that clarity is needed. The Horizons experts were also to discuss options with the Horizons planners to clarify *'that standards applied as absolute trigger values for permitted activities will be regarded as targets in other situations'*<sup>1</sup>.
10. This matter has been addressed to a limited extent by the recommended amendments to Policies 6-3 to 6-5 and in particular by the inclusion of the words *'maintains or enhances existing water quality'* to Policy 6-4. However there are still drafting issues with those policies and with Policy 13-6, and it remains unclear whether the 'standards' are intended to apply as standards or as guidelines for resource consent applications and as to whether the so called standards are intended to be standards for the purpose of section 68(7), 69 and section 128(1)(b) of the RMA.
11. The following table outlines the rules that have provisions directly referring to the Schedule Ba and Schedule D Standards:

<b>One Plan Rules in Chapter 13 referring directly to the Water Quality Standards</b>			
<b>Rule</b>	<b>Activity Status</b>	<b>Conditions/Standards/Terms</b>	<b>Control/Discretion</b>
13-9	Permitted	The discharge shall not, after reasonable mixing change the natural temperature of the receiving water by more than the maximum temperature or temperature change specified by the quality standards for the Water Management Sub-zone listed in Schedule Ba.	

<sup>1</sup> See paragraph 9 – Report of a Meeting between Experts: Water Quality Standards, 10 November 2009.

13-17	Restricted Discretionary		Discretion is reserved over:  Measures required to comply with the water quality standards for the relevant Water Management Sub-zone(s).
13-21	Controlled		Control is reserved over:  Measures to manage effects on surface water bodies including maintaining the values and water quality standards set out in Schedule Ba.
13-24	Permitted	The discharges shall not, after reasonable mixing, cause the receiving water body to breach the water quality standards for that water body set out in Schedule D, either from the discharge itself or in combination with any other discharges.	
13-26	Permitted	The discharge shall comply with all of the conditions of Rule 13-24.	

12. The default catch-all discretionary activity rule (Rule 13-27) does not refer to the standards at all and there is no rule which provides that discharges which do not meet the standards become non-complying or prohibited activities.
13. Accordingly in my opinion the intention of the Plan as notified was that these water quality targets would only apply as standards for the purpose set out in the permitted activity rules and would otherwise be guidelines or targets. That is consistent with what was agreed at caucusing.
14. My concern is that what appears to have been the intention has not been made clear in the Plan itself.
15. My second concern is that in the absence of clarity it remains open for future argument that these are standards for the purpose of section 69. That would then allow argument that the rules must require the observance of the standards with no exceptions. That is, it could be argued that the rules must be amended to prohibit discharges which do not meet the standards. That was clearly not what was intended but given the loose wording surrounding the standards that is an argument which others may mount.
16. Accordingly, in my opinion it is more appropriate to have wording which makes it clear that these are not standards for the purposes of section 69 but are targets

which will be considered at the time any applications are considered. It also needs to be made clear that what will be considered is whether the discharge on its own or in conjunction with other discharges will **cause** the targets to be breached. That is consistent with common sense and with the wording of section 107. Mr Hamill discusses this point in relation to QMCI.

17. A summary of proposed wording changes to the One Plan provisions to remedy these issues is suggested in Appendix 1 and has been discussed in Mr Milne's legal submissions. They include:
- Changing references to the Water Quality Standards in the One Plan to *Water Quality Targets*;
  - Ensuring the introductory wording to Schedule Ba and Schedule D label the contents as being targets; and
  - The addition of an advice note to Schedule Ba and Schedule D that makes it clear that the targets are intended to guide the Regional Council when assessing resource consent applications and that where appropriate relevant targets have been incorporated as conditions for permitted activities.
18. It is acknowledged that the suggested wording requires refining and to that extent the Palmerston North City Council is happy to work with Horizons to formulate appropriate provisions and wording to rectify the identified issues.
19. On a related note, there are some fundamental issues with how some of the policies have been drafted, as Mr Milne has discussed in his legal submissions. Policy 13-6 does not make sense as drafted in the pink version, and it is unclear how it is intended to be applied. The pink version text states:

*Policy 13-6: point Source Discharges to Land and Water*

- (a) *When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or Error! Bookmark not defined. mitigating adverse effects<sup>^</sup> Error! Bookmark not defined.,:*
- (i) *the degree to which the activity will adversely affect the values identified for the relevant Water Management Sub-zone(s)\**
  - (ii) *whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards set in Schedule D to be breached*
  - (iii) *the extent to which the activity is consistent with best management practices*
  - (iv) *the need to allow reasonable time to achieve any required improvements.*

(b) *The Regional Council may make an exception to subsection (a) where:*

- (i) *in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided*
- (ii) *adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18*
- (iii) *it is appropriate to adopt the best practicable option<sup>^</sup>*
- (iv) *other exceptional circumstances apply*

*and it is consistent with the purpose of the RMA to do so.*

20. In examining this policy it could be taken as two policies rolled into one where the applicant must consider alternatives when applying for consent, and secondly the consent authority must consider the matters described in the list labelled (i) to (iv). Alternatively it could be that both the consent authority and applicant must consider alternatives along with the matters within the list.
21. In addition the first part of clause (a) does not introduce the list in any way and there are a number of bookmarking errors within the policy. In my opinion the policy should be redrafted and proposed wording is contained in Appendix 1.

#### Relationship to section 128(1)(b)

22. I also have concern that if the Water Quality Standards become standards or are interpreted as standards in the context of section 68(7) and 69 of the RMA 1991, then the Palmerston North City Wastewater Treatment Plant (WWTP) may be required to meet the new standards in a review of the existing resource consent under section 128(1)(b). This could take place as soon as the One Plan is made operative and only a few years after a major upgrade to the plant.
23. The current wording of the rules would not allow for a non notified review of current consents because the rules do not signal that, as outlined in section 68(7). However if the wording of the standards and policies is left as is, then it is arguable that a notified review under section 128(1)(b) may be carried out.
24. Upgrading the WWTP to meet the proposed standards would result in substantial capital and operational expense to the Palmerston North community. The water quality of the Manawatu River above the WWTP discharge does not meet a number of the proposed standards. It is my opinion that upgrading the WWTP in the short term would not be an efficient use of funds when superior gains to water quality could be achieved through other means.
25. To address this issue I recommended that a clause be added to Rule 13-27. Discussions on this clause have been undertaken with Horizons Planners (Clare Barton and Helen Marr) with agreement to the concept, however it has been suggested that the clause should be located within the Policies of the One Plan.

26. In discussions with Ms Barton and Ms Marr, it had been agreed that Policy 2-3 (11A-6 in the provisional determination version) is the suitable location for the clause.
27. The wording of the clause has been amended so that it fits the new location more appropriately. The suggested wording is:

*The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only be considered in relation to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.*

28. However I now consider that it would be preferable to fix up the more fundamental issues with how the standards apply (i.e. renaming them as targets and making the policies and rules consistent with that). This is a better solution overall, and it would also avoid the need to specifically exempt the WWTP.

#### Stormwater and Centennial Lagoon

29. In my original evidence statement I raised issues surrounding Centennial Lagoon, stormwater discharges and the Schedule E definitions. In response, Ms Fleur Maseyk prepared a section 42A report pointing out the benefits of including the lagoon within the Schedule E definitions<sup>2</sup> and thereby giving it a Threatened Habitat Status.
30. Given the heavily modified status of Centennial Lagoon this highlights that any natural lake or wetland would be classified as a threatened habitat unless it was specifically exempted by the provisions within Table E.2(b). This in turn causes some confusion as to the rules that apply to discharges to such environments due to the doubling up of provisions that apply to lakes and wetlands.
31. For example, Rule 13-17 provides for discharges of stormwater to surface water as a restricted discretionary activity so long as there is no discharge to any natural lake, rare habitat, threatened habitat, at-risk habitat or Natural State Water Management Sub-zone or Site of Significance - Aquatic.
32. The rule guide relating to the stormwater rules states that discharges in rare habitats, threatened habitats or at-risk habitats are regulated by rules 12-7 and 12-8, making them a Discretionary Activity<sup>3</sup>. The rule guide also states that discharges in Natural State Water Management Sub-zones or Sites of Significance - Aquatic are regulated by Rule 13-23, making them a Non-complying Activity. There is no mention of discharges to natural lakes in the rule guide.

<sup>2</sup> See Paragraphs 21-22 of the s42A report of Ms Fleur Jennifer Foster Maseyk.

<sup>3</sup> Note that these provisions have been changed to Rule 12-6 in the Provisional Determination

33. Rule 13-23 is titled "Discharges of contaminants to Natural State Water Management Sub-zones, Sites of Significance – Aquatic and lakes and wetlands. The activities encompassed by this rule include any direct discharge of contaminants into a natural lake.
  34. The discharges to Centennial Lagoon could be regulated by Rule 12-6 as indicated by the Rule Guide but also by Rule 13-23 given its title and the activities that it includes. This issue was also discussed with Ms Barton and Ms Marr at the meeting held on 14 December 2010 with agreement that the references to lakes and wetlands should be removed from Rule 13-23. For completeness the reference to lakes and wetlands should also be removed from the heading of section 13.8.
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## **Water Quantity**

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### Minimum flow and core allocation values for the Turitea Stream

35. Paragraphs 112 to 116 of my original evidence discuss the minimum flow and core allocation values set for the Turitea Stream. Dr. Jack McConchie has provided technical expert evidence on the Turitea catchment and recommended suitable values for the minimum flow and core allocation. Caucusing was held between Dr. McConchie, Dr Roygard and Ms Hurndell on this matter on 12 November 2009. This resulted in agreement on a number of matters and further evidence being prepared by Dr. McConchie that altered the minimum flow value from the original recommendations. The revised values have been agreed by Horizons experts and I have made the necessary amendments to my recommendations.

### Schedule E

36. It has been identified that as proposed the One Plan has classed the Turitea water supply lakes as threatened habitat. This issue has been raised in my original evidence and Ms Maseyk from Horizons has responded in her section 42A report.
37. Ms Maseyk has stated that the inclusion of the water supply dams within the definitions of Schedule E was an oversight and that it is the intent of the schedule to exclude areas designed, installed and maintained for such purposes. She has made a recommendation that the words 'town water supply' be added to the Table E.2(b).
38. I agree that an exclusion needs to be added to Table E.2(b) but in my opinion the words as recommended in my original evidence are more suitable. They are more specific in that it is water storage for public water supplies that is exempt. Public water supply is defined within the glossary of the One Plan thereby giving certainty to Plan users and applying consistent terminology throughout the Plan.

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**Conclusion**

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39. Taking into account the various meetings and discussions that have taken place and further evidence provided since the exchange of evidence I have made several amendments to the recommendations made in my original evidence statement. A full list of the proposed amendments is attached as Appendix 1.

A handwritten signature in black ink that reads "ADBashford". The signature is written in a cursive style with a light blue background behind the text.

Andrew Bashford  
**Planning Officer**  
PALMERSTON NORTH CITY COUNCIL

## **Appendix 1: Recommended Amendments to be made to One Plan**

### **General Amendments**

Note: These proposed changes are general in nature and will require further drafting. They relate to the issues of uncertainty around the Water Quality Standards as proposed in Schedule Ba and Schedule D of the One Plan. It is also noted that there are a number of cross referencing errors between the various versions of the One Plan and although not discussed in the evidence presented the Palmerston North City Council is happy to assist the Horizons Regional Council in correcting these if required.

1. The policies (in particular policies 6-3 to 6-5 and 13-6) should be amended so that each reference to Schedule Ba and Schedule D *standards* refers instead to "*water quality targets*";
2. The introductory wording in Schedule Ba and Schedule D should be amended to clearly label the schedules' contents as being *targets*;
3. An advice note should be added to Schedule Ba and Schedule D stating that the targets are intended to guide the exercise of the consent authority's discretion when considering consent applications, and that where relevant the targets have been incorporated as conditions of permitted activity rules;
4. The permitted activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-9 and 13-24) should be amended to refer to the relevant *targets* in those schedules; and
5. The controlled and restricted discretionary activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-17 and 13-21) should be amended so that control or discretion is reserved over "*measures to assist in maintaining or achieving the targets*" in the relevant schedule.

## **Specific Amendments**

Note: These proposed amendments contain specific wording to various One Plan provisions to address issues raised in evidence presented. All changes are **highlighted** with words recommended to be added shown as underlined, and words that are recommended to be deleted shown in ~~strike through~~.

### **Chapter 11**

Amend Policy 11-A-6 as follows:

#### **Policy 11A-6: Consent Review**

In addition to the reasons specified in s128(1)(a)(i) and (ii) RMA, the Regional Council will, under s128(1)(a)(iii) RMA, generally impose consent conditions that specify a review of consent conditions during the term of the consent for:

- (a) reviewing the appropriateness of any condition requiring the consent holder to supply the consent authority with information relating to the exercise of the resource consent
- (b) reviewing any unknown or uncertain adverse effects caused as a result of planned or required changes or upgrades to the activity
- (c) reviewing the conditions of a consent at the same time as review of other consents within the same Water Management Zone – for example, at a common catchment expiry or review date.
- (d) reviewing the effectiveness of consent conditions to avoid, remedy or mitigate any adverse effects of the activity on the environment.

The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only apply to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.

This policy relates to Objective 11A-2.

## Chapter 13

Amend Policy 13-6 (Pink Version) as follows:

### **Policy 13-6: ~~p~~Point Source Discharges to Land and Water**

~~(a) When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, the opportunity to utilise alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or **Error! Bookmark not defined.** mitigating adverse effects<sup>^</sup> where practicable **Error! Bookmark not defined.**, shall be considered., including but not limited to:z~~

(a) When applying for consents and making decisions on consent applications for discharges of contaminants to water or land the following shall be considered for the purpose of avoiding or mitigating effects:

- (i) the degree to which the activity will adversely affect the values identified for the relevant *Water Management Sub-zone(s)*\*
- (ii) whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards targets set in Schedule D to be breached
- (iii) the extent to which the activity is consistent with best management practices
- (iv) the need to allow reasonable time to achieve any required improvements.
- (v) alternative treatment and discharge options or mix of discharge regimes.

(b) The Regional Council may make an exception to (a) where:

- (i) in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided
- (ii) adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18
- (iii) it is appropriate to adopt the *best practicable option*<sup>^</sup>
- (iv) other exceptional circumstances apply

and it is consistent with the purpose of the RMA to do so.

This policy implements Objective 13-1

Amend Rules 13-17, and 13-23 as follows:

### 13.5 Rules - Stormwater

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>13-17</b> <b>Discharges of stormwater to surface water not complying with Rule 13-15</b>	The <i>discharges</i> of <i>stormwater</i> into <i>surface water</i> which do not comply with Rule 13-15, and any associated takes or diversions of stormwater forming part of the stormwater system.	<b>Restricted Discretionary</b>	(a) There shall be no <i>discharge</i> to any <b>natural lake</b> , <i>rare habitat</i> , <i>threatened habitat</i> , <i>at-risk habitat</i> , or Natural State Water Management Sub-zone or Site of Significance - Aquatic.	Discretion is reserved over: (a) measures to control flooding and erosion (b) contaminant concentrations and loading rates (c) measures required to comply with s107(1) RMA (d) measures required to comply with the water quality <b>standards targets</b> for the relevant Water Management Sub-zone(s) (e) odour management (f) stormwater system maintenance requirements (g) contingency requirements (h) monitoring and information requirements (i) duration of consent (j) review of consent conditions.

**13.8 Rules – Discharges of contaminants to Natural State Water Management Sub-zones, Lakes and Wetlands**

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<p><b>13-23 Discharges of contaminants to Natural State Water Management Sub-zones, and Sites of Significance – Aquatic and lakes and wetlands</b></p>	<p>Any direct <i>discharge</i> of <i>contaminants</i> into:</p> <ul style="list-style-type: none"> <li>(a) a Natural State Water Management Sub-zone</li> <li>(b) a water body identified as a Site of Significance – Aquatic in Schedule DBa</li> <li>(c) a natural lake, except Lake Otamangakau, Lake Te Whaiau and Lake Moawhanga</li> <li>(d) a wetland classified as a rare habitat, or threatened habitat</li> </ul> <p>except the discharge of agrichemicals for the purpose of controlling pests control as defined in a regional pest management strategy prepared under the Biosecurity Act 1993 (this activity is regulated by Rule 14-2).</p>	<p><b>Non-complying</b></p>		

## Chapter 15

Amend Rules 15-5 and 15-6 as follows:

### 15.2 Rules – Takes and Uses of Water

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-5 Takes and uses of surface water complying with core allocations</b>	The taking and use of surface water from a river, <b>or water storage lake on a river</b> , pursuant to s14(1) RMA, except where the water take is controlled under Rule 13-1.	<b>Controlled</b>	<p>(b) Water shall only be taken when the river is above its minimum flow, as assessed in accordance with Schedule B except as provided for by:</p> <p>(ba) takes or portions of takes which are for the purposes of stock drinking water and domestic needs, or public water supplies predominantly for domestic use may continue below minimum flow provided the rates and volumes of takes do not exceed the maximum takes of low flow set out in Policy 6-19.</p> <p>(c) The amount of water taken, when assessed in combination with all other water takes within the same Water Management Sub-zone shall not exceed the relevant core allocation set out for Water Management Subzones in Schedule B.</p> <p>(d) The amount of water taken, when assessed in combination with all other water takes within the same catchment, shall not exceed the cumulative allocation for each Water Management Sub-zone in the same catchment.</p> <p>(e) The take shall not lower the water level in any wetland that is a rare habitat or threatened habitat.</p>	<p>Control is reserved over:</p> <p>(a) the volume and rate of water taken, and the timing of the take</p> <p>(b) the location of take</p> <p>(c) intake velocity and screening requirements</p> <p>(d) measures to avoid, remedy or mitigate any adverse effects on the values of the water body at the point of abstraction, including restrictions on the volume and rate of abstraction</p> <p>(e) the efficiency of water use</p> <p>(f) effects on other water takes</p> <p>(g) effects on rare habitats, and threatened habitats and at-risk habitats and Sites of Significance – Aquatic.</p> <p>(h) compliance with minimum flow requirements</p> <p>(i) duration of consent</p> <p>(j) review of consent conditions</p> <p>(k) compliance monitoring.</p> <p>Resource consent applications under this rule will not be notified and written approval of affected persons will not be required (notice of applications need not be served on affected persons).</p>

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-6 Takes of surface water not complying with core allocations</b>	<p>The taking of surface water from a river <b>or water storage lake on a river:</b></p> <p>(aa) which, when assessed in combination with all other water takes, exceeds the relevant core allocation set out in Schedule B. or</p> <p>(ab) at or below minimum flow (unless allowed by Rule 15-5(b))</p> <p>This rule does not include:</p> <p>(a) takes permitted under Rule 15-1</p> <p>(b) takes in circumstances where water is only taken when the river flow is greater than the median flow (these are a discretionary activity under Rule 15-8)</p> <p>(c) lawfully established takes for hydroelectricity generation (these are discretionary activities under Rule 15-8).</p>	<b>Non-complying</b>		

**Schedule B**

Amend the Turitea (Mana\_11b) Sub-zone within Table B1 as follows:

Table B1: Allocation Limits and Minimum Flows by Water Management Sub-zone					
Zone code	Sub-zone	Minimum Flow (m <sup>3</sup> /s)	Flow monitoring site	Flow monitoring site location	Cumulative core allocation limit (m <sup>3</sup> /s)
Lower Manawatu (Mana_11)	Turitea (Mana_11b)	0.050 0.041	Turitea at Ngahere Park	T24:354-852	0.265 0.428

## Schedule D

Make the following changes to the associated Standards (targets) Key within Schedule D:

### Schedule D Standards Targets Key

Water<sup>^</sup> Quality Standards Targets Key: definition of abbreviations and full wording of the standards targets (placement of the numerical values for a specified standard target are indicated by [...]).

Abbreviations used in Tables D:1 to D:4		Full Wording of the Standard-Target
Header	Sub-header	
pH	Range	The pH of the water <sup>^</sup> shall be within the range [...] to [...], unless natural levels are already outside this range.
	Δ	The pH of the water <sup>^</sup> shall not be changed by more than [...].
Temp (°C)	<	The temperature of the water <sup>^</sup> shall not exceed [...] degrees Celsius.
	Δ	The temperature of the water <sup>^</sup> shall not be changed by more than [...]degrees Celsius.
DO (%SAT)	>	The concentration of dissolved oxygen (DO) shall exceed [...] % of saturation.
sCBOD <sub>5</sub> (g/m <sup>3</sup> )	<	The monthly average five-days filtered / soluble carbonaceous biochemical oxygen demand (BOD) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre.
POM (g/m <sup>3</sup> )	<	The average concentration of particulate organic matter when the river <sup>^</sup> flow is at or below 50th percentile of flow shall not exceed [...] grams per cubic metre.
Periphyton (Rivers)	Chl a (mg/m <sup>2</sup> )	The algal biomass on the stream or river <sup>^</sup> bed <sup>^</sup> shall not exceed [...] milligrams of chlorophyll a per square metre.
	% cover	The maximum cover of visible stream or river <sup>^</sup> bed <sup>^</sup> by periphyton as filamentous algae more than 2 centimetres long shall not exceed [...] %. The maximum cover of visible stream or river bed by periphyton as diatoms or cyanobacteria more than 0.3 centimetres thick shall not exceed [...] %.
Algal biomass Chl a (mg/m <sup>3</sup> )	<	The annual average algal biomass shall not exceed [...] milligrams chlorophyll Algal biomass a per cubic metre.
	Maximum	no sample shall exceed [...] milligrams chlorophyll a per cubic metre.
DRP (g/m <sup>3</sup> )	<	The annual average concentration of dissolved reactive phosphorus (DRP) when the river <sup>^</sup> flow is at or below the 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for DRP is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TP (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total phosphorus (TP) shall not exceed [...] grams per cubic metre.
SIN (g/m <sup>3</sup> )	<	The annual average concentration of soluble inorganic nitrogen <sup>11</sup> (SIN) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for SIN is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TN (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total nitrogen shall not exceed [...] grams per cubic metre.
MCI		The Macroinvertebrate Community Index (MCI) shall not be less than 20% below natural reference conditions for the river. If natural reference conditions are not defined then the MCI shall exceed [...]. unless natural physical conditions are beyond the scope of application of the MCI. In cases where the river <sup>^</sup> or stream habitat is suitable for the application of the soft-bottomed variant of the MCI (MCI-sb) the standards shall also apply. This standard will not apply if the natural physical conditions are beyond the scope of application of the MCI or MCI-sb. <b>The MCI standard applies only for State of the Environment monitoring purposes to determine if the aquatic macroinvertebrate communities are adequate to provide for and maintain the values in each WMSZ, the standard is not appropriate for monitoring the effects of activities such as discharges to water.</b>
QMCI	%Δ	Discharges to water to cause No more than a 20 % reduction in Quantitative Macroinvertebrate Community Index (QMCI) score between appropriately matched habitats upstream and downstream of the discharges to water <sup>^</sup> . <b>Note: Where samples are collected using a hand net this standard shall also apply to the Semi-Quantitative MCI (SQMCI).</b>
Ammoniacal nitrogen (g/m <sup>3</sup> ) (rivers)	<	The average concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre.
Ammoniacal nitrogen (g/m <sup>3</sup> ) (lakes)	<	The concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre when lake <sup>^</sup> pH exceeds 8.5 within the epilimnion (shallow lakes <sup>^</sup> ) or within 2 m of the water <sup>^</sup> surface (deep lakes <sup>^</sup> ).
Toxicants	<%	For toxicants not otherwise defined in these standards, the concentration of toxicants in the water <sup>^</sup> shall not exceed the trigger values defined in the 2000 ANZECC guidelines Table 3.4.1 for the level of protection of [...] % of species. For metals the trigger value shall be adjusted for hardness and apply to the dissolved fraction.
Clarity (m) (rivers)	%Δ	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a 200-mm black disc shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a 200-mm black disc shall equal or exceed [...] m when the river <sup>^</sup> is at or below the 50 <sup>th</sup> percentile of flow.
Clarity (m) (lakes)	%Δ	The clarity of the water <sup>^</sup> measured as Secchj depth (or horizontal sighting range of a 200 mm black disc) shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured Secchi depth (or horizontal sighting range of a 200 mm black disc) shall exceed [...] m.
E.coli/100ml (rivers)	<m	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive) when the river <sup>^</sup> flow is at or below the 50 <sup>th</sup> percentile of flow.
	<20 <sup>th</sup> %ile	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres when the river <sup>^</sup> flow is at or below the 20th percentile of flow year round.
E.coli/100 ml (lakes)	Summer	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive).
	Winter	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 May – 31 October (inclusive).
Euphotic Depth (lakes)	%Δ	Euphotic depth shall not be reduced by more than [...] %.

## **Schedule E**

Make the following amendments to Table E.2(b):

### **Table E.2(b):**

<p>If an area of any habitat type described in Table E.1 meets any of the following criteria it shall not be rare habitat*, threatened habitat* or at-risk habitat* for the purposes of this Plan.</p>
<p><b>Forest*, Treeland*, Scrub*, or Shrubland* Habitat Types Classified as Threatened or At-risk</b></p> <ul style="list-style-type: none"> <li>i. Areas of indigenous* tree* species planted for the purposes of timber harvest. Or</li> <li>ii. Indigenous* vegetation planted for landscaping, horticultural, shelter belts, gardening or amenity purposes. Or</li> <li>iii. Habitat areas 1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul> <p><b>Wetland^ Habitat Types Classified as Rare or Threatened</b></p> <ul style="list-style-type: none"> <li>iv. Damp gully heads, or paddocks subject to regular ponding, dominated* by pasture or exotic species in association* with wetland sedge and rush species. Or</li> <li>v. Ditches or drains supporting raupo, flax or other wetland species (e.g. Carex sp., Isolepis sp.), or populations of these species in drains or slumps associated with road reserves or rail corridors. Or</li> <li>vi. Areas of wetland^ habitat specifically designed, installed and maintained for any of the following purposes: <ul style="list-style-type: none"> <li>a) stock watering (including stock ponds), or</li> <li>b) water storage for the purposes of fire fighting or irrigation (including old gravel pits), or</li> <li>c) treatment of animal effluent (including pond or barrier ditch systems), or</li> <li>d) waste water treatment, or</li> <li>e) sediment control, or</li> <li>f) any hydroelectric power generation scheme. Or</li> <li>g) water storage for the purposes of public water supplies. Or</li> </ul> </li> <li>vii. Areas of wetland habitat maintained in relation to the implementation of any resource consent conditions or agreements relating to the operation of any hydroelectric power scheme currently lawfully established. Or</li> <li>viii. Open water and associated vegetation created for landscaping purposes or amenity values where the planted vegetation is predominately exotic, or includes assemblages of species not naturally found in association* with each other, on the particular landform, or at the geographical location of the created site.</li> <li>ix. Habitat areas 0.1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul>

**BEFORE THE MANAWATU – WANGANUI REGIONAL COUNCIL (HORIZONS  
REGIONAL COUNCIL)**

*In the matter of*      **The Resource Management Act 1991; and**

*In the matter of*      **The Proposed One Plan: Consolidated Regional Policy  
Statement, Regional Plan and Regional Coastal Plan for  
the Manawatu - Wanganui Region**

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**SUPPLEMENTARY EVIDENCE OF ANDREW DAVID BASHFORD  
ON BEHALF OF THE PALMERSTON NORTH CITY COUNCIL**

**CHAPTERS 6, 13, 15 AND 16  
AND SCHEDULES B, C, D AND E OF THE ONE PLAN**

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Dated: 11 February 2010

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## Introduction and Background

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1. I have prepared this report as supplementary evidence to my Statement of Evidence dated 16 October 2009. It has been compiled in response to supplementary evidence produced by Horizons experts and takes into account the outcomes of caucusing and pre-hearing meetings held since the exchange of evidence. It also focuses more specifically on the issues surrounding the water quality standards contained within Schedule D and section 69 of the Resource Management Act 1991.
2. Several meetings involving PNCC experts have been held since the exchange of evidence. Jack McConchie, Jon Roygard and Raelene Hurdell attended a caucusing meeting on 12 November 2009 regarding the minimum flow and core allocation limit in the Turitea subzone. Caucusing was also held between Keith Hamill, Paul Kennedy, Kathryn McArthur, John Quinn, Jon Roygard and Robert Wilcock on 10 November 2009 in relation to the Water Quality Standards contained within Schedule D of the Proposed One Plan. A pre-hearing meeting was held between Clare Barton, Helen Marr, Jon Roygard, Chris Pepper and myself on 14 December 2009 where several issues were discussed including the appropriate location of amendments to Rule 13-27 as suggested in my original evidence.

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## Water Quality

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### Water Quality Standards

3. The evidence and supplementary evidence of Keith Hamill discusses the Water Quality Standards contained within Schedule D in detail. Mr Hamill participated in caucusing with other water quality experts and reached agreement on a number of matters as outlined in the 'Meeting Between Experts' report dated 10 November 2009.
4. As a result of this meeting, and consequent discussions, some amendments have been made to the recommendations as contained in my original evidence statement. In particular these relate to the Standards Key and an updated version is attached in Appendix 1 to this statement.
5. Of particular note are the standards relating to QMCI and Toxicants, where the recommendations made here differ to that made by Horizons experts. The reasons for these differences are discussed in paragraphs 3.3 to 3.9 and 3.12 of Mr. Hamill's supplementary evidence.
6. Agreement was not achieved in relation to the standards relating to DRP or SIN through the caucusing process. The recommendations relating to these standards have not changed from my original evidence.

### Standards or Targets

7. As discussed in paragraphs 64 to 79 of my original evidence it is unclear in what circumstances the Water Quality Standards contained within Schedule Ba and Schedule D of the Proposed One Plan apply, and whether these are standards in terms of section 69 of the Resource Management Act 1991.
8. It appears that the intention is for the Schedule Ba and Schedule D standards to apply as standards in relation to activities that are permitted. In the event that an activity does not meet the standards, the activity would require a resource consent. Some controlled and restricted discretionary rules retain control or discretion that relate to the water quality standards. It is unclear whether discretionary or non-complying activities need to comply with the standards or whether the standards are to be used as targets against which an application is assessed.
9. This matter was discussed in the caucusing meeting in relation to the Water Quality Standards held on 10 December 2009. Agreement was reached between the experts that the use of the term 'standards' is not a good term to use in this context and that clarity is needed. The Horizons experts were also to discuss options with the Horizons planners to clarify *'that standards applied as absolute trigger values for permitted activities will be regarded as targets in other situations'*<sup>1</sup>.
10. This matter has been addressed to a limited extent by the recommended amendments to Policies 6-3 to 6-5 and in particular by the inclusion of the words *'maintains or enhances existing water quality'* to Policy 6-4. However there are still drafting issues with those policies and with Policy 13-6, and it remains unclear whether the 'standards' are intended to apply as standards or as guidelines for resource consent applications and as to whether the so called standards are intended to be standards for the purpose of section 68(7), 69 and section 128(1)(b) of the RMA.
11. The following table outlines the rules that have provisions directly referring to the Schedule Ba and Schedule D Standards:

<b>One Plan Rules in Chapter 13 referring directly to the Water Quality Standards</b>			
<b>Rule</b>	<b>Activity Status</b>	<b>Conditions/Standards/Terms</b>	<b>Control/Discretion</b>
13-9	Permitted	The discharge shall not, after reasonable mixing change the natural temperature of the receiving water by more than the maximum temperature or temperature change specified by the quality standards for the Water Management Sub-zone listed in Schedule Ba.	

<sup>1</sup> See paragraph 9 – Report of a Meeting between Experts: Water Quality Standards, 10 November 2009.

13-17	Restricted Discretionary		Discretion is reserved over:  Measures required to comply with the water quality standards for the relevant Water Management Sub-zone(s).
13-21	Controlled		Control is reserved over:  Measures to manage effects on surface water bodies including maintaining the values and water quality standards set out in Schedule Ba.
13-24	Permitted	The discharges shall not, after reasonable mixing, cause the receiving water body to breach the water quality standards for that water body set out in Schedule D, either from the discharge itself or in combination with any other discharges.	
13-26	Permitted	The discharge shall comply with all of the conditions of Rule 13-24.	

12. The default catch-all discretionary activity rule (Rule 13-27) does not refer to the standards at all and there is no rule which provides that discharges which do not meet the standards become non-complying or prohibited activities.
13. Accordingly in my opinion the intention of the Plan as notified was that these water quality targets would only apply as standards for the purpose set out in the permitted activity rules and would otherwise be guidelines or targets. That is consistent with what was agreed at caucusing.
14. My concern is that what appears to have been the intention has not been made clear in the Plan itself.
15. My second concern is that in the absence of clarity it remains open for future argument that these are standards for the purpose of section 69. That would then allow argument that the rules must require the observance of the standards with no exceptions. That is, it could be argued that the rules must be amended to prohibit discharges which do not meet the standards. That was clearly not what was intended but given the loose wording surrounding the standards that is an argument which others may mount.
16. Accordingly, in my opinion it is more appropriate to have wording which makes it clear that these are not standards for the purposes of section 69 but are targets

which will be considered at the time any applications are considered. It also needs to be made clear that what will be considered is whether the discharge on its own or in conjunction with other discharges will **cause** the targets to be breached. That is consistent with common sense and with the wording of section 107. Mr Hamill discusses this point in relation to QMCI.

17. A summary of proposed wording changes to the One Plan provisions to remedy these issues is suggested in Appendix 1 and has been discussed in Mr Milne's legal submissions. They include:
- Changing references to the Water Quality Standards in the One Plan to *Water Quality Targets*;
  - Ensuring the introductory wording to Schedule Ba and Schedule D label the contents as being targets; and
  - The addition of an advice note to Schedule Ba and Schedule D that makes it clear that the targets are intended to guide the Regional Council when assessing resource consent applications and that where appropriate relevant targets have been incorporated as conditions for permitted activities.
18. It is acknowledged that the suggested wording requires refining and to that extent the Palmerston North City Council is happy to work with Horizons to formulate appropriate provisions and wording to rectify the identified issues.
19. On a related note, there are some fundamental issues with how some of the policies have been drafted, as Mr Milne has discussed in his legal submissions. Policy 13-6 does not make sense as drafted in the pink version, and it is unclear how it is intended to be applied. The pink version text states:

*Policy 13-6: point Source Discharges to Land and Water*

- (a) *When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or Error! Bookmark not defined. mitigating adverse effects<sup>^</sup> Error! Bookmark not defined.,:*
- (i) *the degree to which the activity will adversely affect the values identified for the relevant Water Management Sub-zone(s)\**
  - (ii) *whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards set in Schedule D to be breached*
  - (iii) *the extent to which the activity is consistent with best management practices*
  - (iv) *the need to allow reasonable time to achieve any required improvements.*

(b) *The Regional Council may make an exception to subsection (a) where:*

- (i) *in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided*
- (ii) *adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18*
- (iii) *it is appropriate to adopt the best practicable option<sup>^</sup>*
- (iv) *other exceptional circumstances apply*

*and it is consistent with the purpose of the RMA to do so.*

20. In examining this policy it could be taken as two policies rolled into one where the applicant must consider alternatives when applying for consent, and secondly the consent authority must consider the matters described in the list labelled (i) to (iv). Alternatively it could be that both the consent authority and applicant must consider alternatives along with the matters within the list.
21. In addition the first part of clause (a) does not introduce the list in any way and there are a number of bookmarking errors within the policy. In my opinion the policy should be redrafted and proposed wording is contained in Appendix 1.

#### Relationship to section 128(1)(b)

22. I also have concern that if the Water Quality Standards become standards or are interpreted as standards in the context of section 68(7) and 69 of the RMA 1991, then the Palmerston North City Wastewater Treatment Plant (WWTP) may be required to meet the new standards in a review of the existing resource consent under section 128(1)(b). This could take place as soon as the One Plan is made operative and only a few years after a major upgrade to the plant.
23. The current wording of the rules would not allow for a non notified review of current consents because the rules do not signal that, as outlined in section 68(7). However if the wording of the standards and policies is left as is, then it is arguable that a notified review under section 128(1)(b) may be carried out.
24. Upgrading the WWTP to meet the proposed standards would result in substantial capital and operational expense to the Palmerston North community. The water quality of the Manawatu River above the WWTP discharge does not meet a number of the proposed standards. It is my opinion that upgrading the WWTP in the short term would not be an efficient use of funds when superior gains to water quality could be achieved through other means.
25. To address this issue I recommended that a clause be added to Rule 13-27. Discussions on this clause have been undertaken with Horizons Planners (Clare Barton and Helen Marr) with agreement to the concept, however it has been suggested that the clause should be located within the Policies of the One Plan.

26. In discussions with Ms Barton and Ms Marr, it had been agreed that Policy 2-3 (11A-6 in the provisional determination version) is the suitable location for the clause.
27. The wording of the clause has been amended so that it fits the new location more appropriately. The suggested wording is:

*The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only be considered in relation to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.*

28. However I now consider that it would be preferable to fix up the more fundamental issues with how the standards apply (i.e. renaming them as targets and making the policies and rules consistent with that). This is a better solution overall, and it would also avoid the need to specifically exempt the WWTP.

#### Stormwater and Centennial Lagoon

29. In my original evidence statement I raised issues surrounding Centennial Lagoon, stormwater discharges and the Schedule E definitions. In response, Ms Fleur Maseyk prepared a section 42A report pointing out the benefits of including the lagoon within the Schedule E definitions<sup>2</sup> and thereby giving it a Threatened Habitat Status.
30. Given the heavily modified status of Centennial Lagoon this highlights that any natural lake or wetland would be classified as a threatened habitat unless it was specifically exempted by the provisions within Table E.2(b). This in turn causes some confusion as to the rules that apply to discharges to such environments due to the doubling up of provisions that apply to lakes and wetlands.
31. For example, Rule 13-17 provides for discharges of stormwater to surface water as a restricted discretionary activity so long as there is no discharge to any natural lake, rare habitat, threatened habitat, at-risk habitat or Natural State Water Management Sub-zone or Site of Significance - Aquatic.
32. The rule guide relating to the stormwater rules states that discharges in rare habitats, threatened habitats or at-risk habitats are regulated by rules 12-7 and 12-8, making them a Discretionary Activity<sup>3</sup>. The rule guide also states that discharges in Natural State Water Management Sub-zones or Sites of Significance - Aquatic are regulated by Rule 13-23, making them a Non-complying Activity. There is no mention of discharges to natural lakes in the rule guide.

<sup>2</sup> See Paragraphs 21-22 of the s42A report of Ms Fleur Jennifer Foster Maseyk.

<sup>3</sup> Note that these provisions have been changed to Rule 12-6 in the Provisional Determination

33. Rule 13-23 is titled "Discharges of contaminants to Natural State Water Management Sub-zones, Sites of Significance – Aquatic and lakes and wetlands. The activities encompassed by this rule include any direct discharge of contaminants into a natural lake.
  34. The discharges to Centennial Lagoon could be regulated by Rule 12-6 as indicated by the Rule Guide but also by Rule 13-23 given its title and the activities that it includes. This issue was also discussed with Ms Barton and Ms Marr at the meeting held on 14 December 2010 with agreement that the references to lakes and wetlands should be removed from Rule 13-23. For completeness the reference to lakes and wetlands should also be removed from the heading of section 13.8.
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## **Water Quantity**

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### Minimum flow and core allocation values for the Turitea Stream

35. Paragraphs 112 to 116 of my original evidence discuss the minimum flow and core allocation values set for the Turitea Stream. Dr. Jack McConchie has provided technical expert evidence on the Turitea catchment and recommended suitable values for the minimum flow and core allocation. Caucusing was held between Dr. McConchie, Dr Roygard and Ms Hurndell on this matter on 12 November 2009. This resulted in agreement on a number of matters and further evidence being prepared by Dr. McConchie that altered the minimum flow value from the original recommendations. The revised values have been agreed by Horizons experts and I have made the necessary amendments to my recommendations.

### Schedule E

36. It has been identified that as proposed the One Plan has classed the Turitea water supply lakes as threatened habitat. This issue has been raised in my original evidence and Ms Maseyk from Horizons has responded in her section 42A report.
37. Ms Maseyk has stated that the inclusion of the water supply dams within the definitions of Schedule E was an oversight and that it is the intent of the schedule to exclude areas designed, installed and maintained for such purposes. She has made a recommendation that the words 'town water supply' be added to the Table E.2(b).
38. I agree that an exclusion needs to be added to Table E.2(b) but in my opinion the words as recommended in my original evidence are more suitable. They are more specific in that it is water storage for public water supplies that is exempt. Public water supply is defined within the glossary of the One Plan thereby giving certainty to Plan users and applying consistent terminology throughout the Plan.

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**Conclusion**

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39. Taking into account the various meetings and discussions that have taken place and further evidence provided since the exchange of evidence I have made several amendments to the recommendations made in my original evidence statement. A full list of the proposed amendments is attached as Appendix 1.



Andrew Bashford  
**Planning Officer**  
PALMERSTON NORTH CITY COUNCIL

## **Appendix 1: Recommended Amendments to be made to One Plan**

### **General Amendments**

Note: These proposed changes are general in nature and will require further drafting. They relate to the issues of uncertainty around the Water Quality Standards as proposed in Schedule Ba and Schedule D of the One Plan. It is also noted that there are a number of cross referencing errors between the various versions of the One Plan and although not discussed in the evidence presented the Palmerston North City Council is happy to assist the Horizons Regional Council in correcting these if required.

1. The policies (in particular policies 6-3 to 6-5 and 13-6) should be amended so that each reference to Schedule Ba and Schedule D *standards* refers instead to "*water quality targets*";
2. The introductory wording in Schedule Ba and Schedule D should be amended to clearly label the schedules' contents as being *targets*;
3. An advice note should be added to Schedule Ba and Schedule D stating that the targets are intended to guide the exercise of the consent authority's discretion when considering consent applications, and that where relevant the targets have been incorporated as conditions of permitted activity rules;
4. The permitted activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-9 and 13-24) should be amended to refer to the relevant *targets* in those schedules; and
5. The controlled and restricted discretionary activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-17 and 13-21) should be amended so that control or discretion is reserved over "*measures to assist in maintaining or achieving the targets*" in the relevant schedule.

## **Specific Amendments**

Note: These proposed amendments contain specific wording to various One Plan provisions to address issues raised in evidence presented. All changes are **highlighted** with words recommended to be added shown as underlined, and words that are recommended to be deleted shown in ~~strike through~~.

### **Chapter 11**

Amend Policy 11-A-6 as follows:

#### **Policy 11A-6: Consent Review**

In addition to the reasons specified in s128(1)(a)(i) and (ii) RMA, the Regional Council will, under s128(1)(a)(iii) RMA, generally impose consent conditions that specify a review of consent conditions during the term of the consent for:

- (a) reviewing the appropriateness of any condition requiring the consent holder to supply the consent authority with information relating to the exercise of the resource consent
- (b) reviewing any unknown or uncertain adverse effects caused as a result of planned or required changes or upgrades to the activity
- (c) reviewing the conditions of a consent at the same time as review of other consents within the same Water Management Zone – for example, at a common catchment expiry or review date.
- (d) reviewing the effectiveness of consent conditions to avoid, remedy or mitigate any adverse effects of the activity on the environment.

The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only apply to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.

This policy relates to Objective 11A-2.

## Chapter 13

Amend Policy 13-6 (Pink Version) as follows:

### **Policy 13-6: ~~p~~Point Source Discharges to Land and Water**

~~(a) When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, the opportunity to utilise alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or **Error! Bookmark not defined.** mitigating adverse effects<sup>^</sup> where practicable **Error! Bookmark not defined.**, shall be considered., including but not limited to:z~~

(a) When applying for consents and making decisions on consent applications for discharges of contaminants to water or land the following shall be considered for the purpose of avoiding or mitigating effects:

- (i) the degree to which the activity will adversely affect the values identified for the relevant *Water Management Sub-zone(s)*\*
- (ii) whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards targets set in Schedule D to be breached
- (iii) the extent to which the activity is consistent with best management practices
- (iv) the need to allow reasonable time to achieve any required improvements.
- (v) alternative treatment and discharge options or mix of discharge regimes.

(b) The Regional Council may make an exception to (a) where:

- (i) in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided
- (ii) adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18
- (iii) it is appropriate to adopt the *best practicable option*<sup>^</sup>
- (iv) other exceptional circumstances apply

and it is consistent with the purpose of the RMA to do so.

This policy implements Objective 13-1

Amend Rules 13-17, and 13-23 as follows:

### 13.5 Rules - Stormwater

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>13-17</b> <b>Discharges of stormwater to surface water not complying with Rule 13-15</b>	The <i>discharges</i> of <i>stormwater</i> into <i>surface water</i> which do not comply with Rule 13-15, and any associated takes or diversions of stormwater forming part of the stormwater system.	<b>Restricted Discretionary</b>	(a) There shall be no <i>discharge</i> to any <b>natural lake</b> , <i>rare habitat</i> , <i>threatened habitat</i> , <i>at-risk habitat</i> , or Natural State Water Management Sub-zone or Site of Significance - Aquatic.	Discretion is reserved over: (a) measures to control flooding and erosion (b) contaminant concentrations and loading rates (c) measures required to comply with s107(1) RMA (d) measures required to comply with the water quality <b>standards targets</b> for the relevant Water Management Sub-zone(s) (e) odour management (f) stormwater system maintenance requirements (g) contingency requirements (h) monitoring and information requirements (i) duration of consent (j) review of consent conditions.

**13.8 Rules – Discharges of contaminants to Natural State Water Management Sub-zones, Lakes and Wetlands**

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<p><b>13-23 Discharges of contaminants to Natural State Water Management Sub-zones, and Sites of Significance – Aquatic and lakes and wetlands</b></p>	<p>Any direct <i>discharge</i> of <i>contaminants</i> into:</p> <ul style="list-style-type: none"> <li>(a) a Natural State Water Management Sub-zone</li> <li>(b) a water body identified as a Site of Significance – Aquatic in Schedule DBa</li> <li>(c) a natural lake, except Lake Otamangakau, Lake Te Whaiau and Lake Moawhanga</li> <li>(d) a wetland classified as a rare habitat, or threatened habitat</li> </ul> <p>except the discharge of agrichemicals for the purpose of controlling pests control as defined in a regional pest management strategy prepared under the Biosecurity Act 1993 (this activity is regulated by Rule 14-2).</p>	<p><b>Non-complying</b></p>		

## Chapter 15

Amend Rules 15-5 and 15-6 as follows:

### 15.2 Rules – Takes and Uses of Water

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-5 Takes and uses of surface water complying with core allocations</b>	The taking and use of surface water from a river, <b>or water storage lake on a river</b> , pursuant to s14(1) RMA, except where the water take is controlled under Rule 13-1.	<b>Controlled</b>	<p>(b) Water shall only be taken when the river is above its minimum flow, as assessed in accordance with Schedule B except as provided for by:</p> <p>(ba) takes or portions of takes which are for the purposes of stock drinking water and domestic needs, or public water supplies predominantly for domestic use may continue below minimum flow provided the rates and volumes of takes do not exceed the maximum takes of low flow set out in Policy 6-19.</p> <p>(c) The amount of water taken, when assessed in combination with all other water takes within the same Water Management Sub-zone shall not exceed the relevant core allocation set out for Water Management Subzones in Schedule B.</p> <p>(d) The amount of water taken, when assessed in combination with all other water takes within the same catchment, shall not exceed the cumulative allocation for each Water Management Sub-zone in the same catchment.</p> <p>(e) The take shall not lower the water level in any wetland that is a rare habitat or threatened habitat.</p>	<p>Control is reserved over:</p> <p>(a) the volume and rate of water taken, and the timing of the take</p> <p>(b) the location of take</p> <p>(c) intake velocity and screening requirements</p> <p>(d) measures to avoid, remedy or mitigate any adverse effects on the values of the water body at the point of abstraction, including restrictions on the volume and rate of abstraction</p> <p>(e) the efficiency of water use</p> <p>(f) effects on other water takes</p> <p>(g) effects on rare habitats, and threatened habitats and at-risk habitats and Sites of Significance – Aquatic.</p> <p>(h) compliance with minimum flow requirements</p> <p>(i) duration of consent</p> <p>(j) review of consent conditions</p> <p>(k) compliance monitoring.</p> <p>Resource consent applications under this rule will not be notified and written approval of affected persons will not be required (notice of applications need not be served on affected persons).</p>

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-6 Takes of surface water not complying with core allocations</b>	<p>The taking of surface water from a river <b>or water storage lake on a river:</b></p> <p>(aa) which, when assessed in combination with all other water takes, exceeds the relevant core allocation set out in Schedule B. or</p> <p>(ab) at or below minimum flow (unless allowed by Rule 15-5(b))</p> <p>This rule does not include:</p> <p>(a) takes permitted under Rule 15-1</p> <p>(b) takes in circumstances where water is only taken when the river flow is greater than the median flow (these are a discretionary activity under Rule 15-8)</p> <p>(c) lawfully established takes for hydroelectricity generation (these are discretionary activities under Rule 15-8).</p>	<b>Non-complying</b>		

**Schedule B**

Amend the Turitea (Mana\_11b) Sub-zone within Table B1 as follows:

Table B1: Allocation Limits and Minimum Flows by Water Management Sub-zone					
Zone code	Sub-zone	Minimum Flow (m <sup>3</sup> /s)	Flow monitoring site	Flow monitoring site location	Cumulative core allocation limit (m <sup>3</sup> /s)
Lower Manawatu (Mana_11)	Turitea (Mana_11b)	0.050 0.041	Turitea at Ngahere Park	T24:354-852	0.265 0.428

## Schedule D

Make the following changes to the associated Standards (targets) Key within Schedule D:

### Schedule D Standards Targets Key

Water<sup>^</sup> Quality Standards Targets Key: definition of abbreviations and full wording of the standards targets (placement of the numerical values for a specified standard target are indicated by [...]).

Abbreviations used in Tables D:1 to D:4		Full Wording of the Standard-Target
Header	Sub-header	
pH	Range	The pH of the water <sup>^</sup> shall be within the range [...] to [...], unless natural levels are already outside this range.
	Δ	The pH of the water <sup>^</sup> shall not be changed by more than [...].
Temp (°C)	<	The temperature of the water <sup>^</sup> shall not exceed [...] degrees Celsius.
	Δ	The temperature of the water <sup>^</sup> shall not be changed by more than [...]degrees Celsius.
DO (%SAT)	>	The concentration of dissolved oxygen (DO) shall exceed [...] % of saturation.
sCBOD <sub>5</sub> (g/m <sup>3</sup> )	<	The monthly average five-days filtered / soluble carbonaceous biochemical oxygen demand (BOD) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre.
POM (g/m <sup>3</sup> )	<	The average concentration of particulate organic matter when the river <sup>^</sup> flow is at or below 50th percentile of flow shall not exceed [...] grams per cubic metre.
Periphyton (Rivers)	Chl a (mg/m <sup>2</sup> )	The algal biomass on the stream or river <sup>^</sup> bed <sup>^</sup> shall not exceed [...] milligrams of chlorophyll a per square metre.
	% cover	The maximum cover of visible stream or river <sup>^</sup> bed <sup>^</sup> by periphyton as filamentous algae more than 2 centimetres long shall not exceed [...] %. The maximum cover of visible stream or river bed by periphyton as diatoms or cyanobacteria more than 0.3 centimetres thick shall not exceed [...] %.
Algal biomass Chl a (mg/m <sup>3</sup> )	<	The annual average algal biomass shall not exceed [...] milligrams chlorophyll Algal biomass a per cubic metre.
	Maximum	no sample shall exceed [...] milligrams chlorophyll a per cubic metre.
DRP (g/m <sup>3</sup> )	<	The annual average concentration of dissolved reactive phosphorus (DRP) when the river <sup>^</sup> flow is at or below the 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for DRP is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TP (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total phosphorus (TP) shall not exceed [...] grams per cubic metre.
SIN (g/m <sup>3</sup> )	<	The annual average concentration of soluble inorganic nitrogen <sup>11</sup> (SIN) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for SIN is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TN (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total nitrogen shall not exceed [...] grams per cubic metre.
MCI		The Macroinvertebrate Community Index (MCI) shall <b>not be less than 20% below natural reference conditions for the river.</b> <b>If natural reference conditions are not defined then the MCI shall</b> exceed [...]. <b>unless natural physical conditions are beyond the scope of application of the MCI.</b> In cases where the river <sup>^</sup> or stream habitat is suitable for the application of the soft-bottomed variant of the MCI (MCI-sb) the standards shall also apply. <b>This standard will not apply if the natural physical conditions are beyond the scope of application of the MCI or MCI-sb.</b> <b>The MCI standard applies only for State of the Environment monitoring purposes to determine if the aquatic macroinvertebrate communities are adequate to provide for and maintain the values in each WMSZ, the standard is not appropriate for monitoring the effects of activities such as discharges to water.</b>
QMCI	%Δ	<b>Discharges to water to cause N</b> no more than a 20 % reduction in Quantitative Macroinvertebrate Community Index (QMCI) score between <b>appropriately matched habitats</b> upstream and downstream of <b>the discharges to water<sup>^</sup>.</b> <b>Note: Where samples are collected using a hand net this standard shall also apply to the Semi-Quantitative MCI (SQMCI).</b>
Ammoniacal nitrogen (g/m <sup>3</sup> ) (rivers)	<	The average concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre.
Ammoniacal nitrogen (g/m <sup>3</sup> ) (lakes)	<	The concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre when lake <sup>^</sup> pH exceeds 8.5 within the epilimnion (shallow lakes <sup>^</sup> ) or within 2 m of the water <sup>^</sup> surface (deep lakes <sup>^</sup> ).
Toxicants	<%	For toxicants not otherwise defined in these standards, the concentration of toxicants in the water <sup>^</sup> shall not exceed the trigger values defined in the 2000 ANZECC guidelines Table 3.4.1 for the level of protection of [...] % of species. <b>For metals the trigger value shall be adjusted for hardness and apply to the dissolved fraction.</b>
Clarity (m) (rivers)	%Δ	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall equal or exceed [...] m when the river <sup>^</sup> is at or below the 50 <sup>th</sup> percentile of flow.
Clarity (m) (lakes)	%Δ	The clarity of the water <sup>^</sup> measured as Secchj depth (or horizontal sighting range of a 200 mm black disc) shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured Secchi depth (or horizontal sighting range of a 200 mm black disc) shall exceed [...] m.
E.coli/100ml (rivers)	<m	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive) when the river <sup>^</sup> flow is at or below the 50 <sup>th</sup> percentile of flow.
	<20 <sup>th</sup> %ile	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres when the river <sup>^</sup> flow is at or below the 20th percentile of flow year round.
E.coli/100 ml (lakes)	Summer	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive).
	Winter	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 May – 31 October (inclusive).
Euphotic Depth (lakes)	%Δ	Euphotic depth shall not be reduced by more than [...] %.

## **Schedule E**

Make the following amendments to Table E.2(b):

### **Table E.2(b):**

<p>If an area of any habitat type described in Table E.1 meets any of the following criteria it shall not be rare habitat*, threatened habitat* or at-risk habitat* for the purposes of this Plan.</p>
<p><b>Forest*, Treeland*, Scrub*, or Shrubland* Habitat Types Classified as Threatened or At-risk</b></p> <ul style="list-style-type: none"> <li>i. Areas of indigenous* tree* species planted for the purposes of timber harvest. Or</li> <li>ii. Indigenous* vegetation planted for landscaping, horticultural, shelter belts, gardening or amenity purposes. Or</li> <li>iii. Habitat areas 1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul> <p><b>Wetland^ Habitat Types Classified as Rare or Threatened</b></p> <ul style="list-style-type: none"> <li>iv. Damp gully heads, or paddocks subject to regular ponding, dominated* by pasture or exotic species in association* with wetland sedge and rush species. Or</li> <li>v. Ditches or drains supporting raupo, flax or other wetland species (e.g. Carex sp., Isolepis sp.), or populations of these species in drains or slumps associated with road reserves or rail corridors. Or</li> <li>vi. Areas of wetland^ habitat specifically designed, installed and maintained for any of the following purposes: <ul style="list-style-type: none"> <li>a) stock watering (including stock ponds), or</li> <li>b) water storage for the purposes of fire fighting or irrigation (including old gravel pits), or</li> <li>c) treatment of animal effluent (including pond or barrier ditch systems), or</li> <li>d) waste water treatment, or</li> <li>e) sediment control, or</li> <li>f) any hydroelectric power generation scheme. Or</li> <li>g) water storage for the purposes of public water supplies. Or</li> </ul> </li> <li>vii. Areas of wetland habitat maintained in relation to the implementation of any resource consent conditions or agreements relating to the operation of any hydroelectric power scheme currently lawfully established. Or</li> <li>viii. Open water and associated vegetation created for landscaping purposes or amenity values where the planted vegetation is predominately exotic, or includes assemblages of species not naturally found in association* with each other, on the particular landform, or at the geographical location of the created site.</li> <li>ix. Habitat areas 0.1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul>

**BEFORE THE MANAWATU – WANGANUI REGIONAL COUNCIL (HORIZONS  
REGIONAL COUNCIL)**

*In the matter of*      **The Resource Management Act 1991; and**

*In the matter of*      **The Proposed One Plan: Consolidated Regional Policy  
Statement, Regional Plan and Regional Coastal Plan for  
the Manawatu - Wanganui Region**

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**SUPPLEMENTARY EVIDENCE OF ANDREW DAVID BASHFORD  
ON BEHALF OF THE PALMERSTON NORTH CITY COUNCIL**

**CHAPTERS 6, 13, 15 AND 16  
AND SCHEDULES B, C, D AND E OF THE ONE PLAN**

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Dated: 11 February 2010

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## **Introduction and Background**

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1. I have prepared this report as supplementary evidence to my Statement of Evidence dated 16 October 2009. It has been compiled in response to supplementary evidence produced by Horizons experts and takes into account the outcomes of caucusing and pre-hearing meetings held since the exchange of evidence. It also focuses more specifically on the issues surrounding the water quality standards contained within Schedule D and section 69 of the Resource Management Act 1991.
2. Several meetings involving PNCC experts have been held since the exchange of evidence. Jack McConchie, Jon Roygard and Raelene Hurdell attended a caucusing meeting on 12 November 2009 regarding the minimum flow and core allocation limit in the Turitea subzone. Caucusing was also held between Keith Hamill, Paul Kennedy, Kathryn McArthur, John Quinn, Jon Roygard and Robert Wilcock on 10 November 2009 in relation to the Water Quality Standards contained within Schedule D of the Proposed One Plan. A pre-hearing meeting was held between Clare Barton, Helen Marr, Jon Roygard, Chris Pepper and myself on 14 December 2009 where several issues were discussed including the appropriate location of amendments to Rule 13-27 as suggested in my original evidence.

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## **Water Quality**

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### Water Quality Standards

3. The evidence and supplementary evidence of Keith Hamill discusses the Water Quality Standards contained within Schedule D in detail. Mr Hamill participated in caucusing with other water quality experts and reached agreement on a number of matters as outlined in the 'Meeting Between Experts' report dated 10 November 2009.
4. As a result of this meeting, and consequent discussions, some amendments have been made to the recommendations as contained in my original evidence statement. In particular these relate to the Standards Key and an updated version is attached in Appendix 1 to this statement.
5. Of particular note are the standards relating to QMCI and Toxicants, where the recommendations made here differ to that made by Horizons experts. The reasons for these differences are discussed in paragraphs 3.3 to 3.9 and 3.12 of Mr. Hamill's supplementary evidence.
6. Agreement was not achieved in relation to the standards relating to DRP or SIN through the caucusing process. The recommendations relating to these standards have not changed from my original evidence.

### Standards or Targets

7. As discussed in paragraphs 64 to 79 of my original evidence it is unclear in what circumstances the Water Quality Standards contained within Schedule Ba and Schedule D of the Proposed One Plan apply, and whether these are standards in terms of section 69 of the Resource Management Act 1991.
8. It appears that the intention is for the Schedule Ba and Schedule D standards to apply as standards in relation to activities that are permitted. In the event that an activity does not meet the standards, the activity would require a resource consent. Some controlled and restricted discretionary rules retain control or discretion that relate to the water quality standards. It is unclear whether discretionary or non-complying activities need to comply with the standards or whether the standards are to be used as targets against which an application is assessed.
9. This matter was discussed in the caucusing meeting in relation to the Water Quality Standards held on 10 December 2009. Agreement was reached between the experts that the use of the term 'standards' is not a good term to use in this context and that clarity is needed. The Horizons experts were also to discuss options with the Horizons planners to clarify *'that standards applied as absolute trigger values for permitted activities will be regarded as targets in other situations'*<sup>1</sup>.
10. This matter has been addressed to a limited extent by the recommended amendments to Policies 6-3 to 6-5 and in particular by the inclusion of the words *'maintains or enhances existing water quality'* to Policy 6-4. However there are still drafting issues with those policies and with Policy 13-6, and it remains unclear whether the 'standards' are intended to apply as standards or as guidelines for resource consent applications and as to whether the so called standards are intended to be standards for the purpose of section 68(7), 69 and section 128(1)(b) of the RMA.
11. The following table outlines the rules that have provisions directly referring to the Schedule Ba and Schedule D Standards:

<b>One Plan Rules in Chapter 13 referring directly to the Water Quality Standards</b>			
<b>Rule</b>	<b>Activity Status</b>	<b>Conditions/Standards/Terms</b>	<b>Control/Discretion</b>
13-9	Permitted	The discharge shall not, after reasonable mixing change the natural temperature of the receiving water by more than the maximum temperature or temperature change specified by the quality standards for the Water Management Sub-zone listed in Schedule Ba.	

<sup>1</sup> See paragraph 9 – Report of a Meeting between Experts: Water Quality Standards, 10 November 2009.

13-17	Restricted Discretionary		Discretion is reserved over:  Measures required to comply with the water quality standards for the relevant Water Management Sub-zone(s).
13-21	Controlled		Control is reserved over:  Measures to manage effects on surface water bodies including maintaining the values and water quality standards set out in Schedule Ba.
13-24	Permitted	The discharges shall not, after reasonable mixing, cause the receiving water body to breach the water quality standards for that water body set out in Schedule D, either from the discharge itself or in combination with any other discharges.	
13-26	Permitted	The discharge shall comply with all of the conditions of Rule 13-24.	

12. The default catch-all discretionary activity rule (Rule 13-27) does not refer to the standards at all and there is no rule which provides that discharges which do not meet the standards become non-complying or prohibited activities.
13. Accordingly in my opinion the intention of the Plan as notified was that these water quality targets would only apply as standards for the purpose set out in the permitted activity rules and would otherwise be guidelines or targets. That is consistent with what was agreed at caucusing.
14. My concern is that what appears to have been the intention has not been made clear in the Plan itself.
15. My second concern is that in the absence of clarity it remains open for future argument that these are standards for the purpose of section 69. That would then allow argument that the rules must require the observance of the standards with no exceptions. That is, it could be argued that the rules must be amended to prohibit discharges which do not meet the standards. That was clearly not what was intended but given the loose wording surrounding the standards that is an argument which others may mount.
16. Accordingly, in my opinion it is more appropriate to have wording which makes it clear that these are not standards for the purposes of section 69 but are targets

which will be considered at the time any applications are considered. It also needs to be made clear that what will be considered is whether the discharge on its own or in conjunction with other discharges will **cause** the targets to be breached. That is consistent with common sense and with the wording of section 107. Mr Hamill discusses this point in relation to QMCI.

17. A summary of proposed wording changes to the One Plan provisions to remedy these issues is suggested in Appendix 1 and has been discussed in Mr Milne's legal submissions. They include:
- Changing references to the Water Quality Standards in the One Plan to *Water Quality Targets*;
  - Ensuring the introductory wording to Schedule Ba and Schedule D label the contents as being targets; and
  - The addition of an advice note to Schedule Ba and Schedule D that makes it clear that the targets are intended to guide the Regional Council when assessing resource consent applications and that where appropriate relevant targets have been incorporated as conditions for permitted activities.
18. It is acknowledged that the suggested wording requires refining and to that extent the Palmerston North City Council is happy to work with Horizons to formulate appropriate provisions and wording to rectify the identified issues.
19. On a related note, there are some fundamental issues with how some of the policies have been drafted, as Mr Milne has discussed in his legal submissions. Policy 13-6 does not make sense as drafted in the pink version, and it is unclear how it is intended to be applied. The pink version text states:

*Policy 13-6: point Source Discharges to Land and Water*

- (a) *When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or Error! Bookmark not defined. mitigating adverse effects<sup>^</sup> Error! Bookmark not defined.,:*
- (i) *the degree to which the activity will adversely affect the values identified for the relevant Water Management Sub-zone(s)\**
  - (ii) *whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards set in Schedule D to be breached*
  - (iii) *the extent to which the activity is consistent with best management practices*
  - (iv) *the need to allow reasonable time to achieve any required improvements.*

(b) *The Regional Council may make an exception to subsection (a) where:*

- (i) *in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided*
- (ii) *adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18*
- (iii) *it is appropriate to adopt the best practicable option<sup>^</sup>*
- (iv) *other exceptional circumstances apply*

*and it is consistent with the purpose of the RMA to do so.*

20. In examining this policy it could be taken as two policies rolled into one where the applicant must consider alternatives when applying for consent, and secondly the consent authority must consider the matters described in the list labelled (i) to (iv). Alternatively it could be that both the consent authority and applicant must consider alternatives along with the matters within the list.
21. In addition the first part of clause (a) does not introduce the list in any way and there are a number of bookmarking errors within the policy. In my opinion the policy should be redrafted and proposed wording is contained in Appendix 1.

#### Relationship to section 128(1)(b)

22. I also have concern that if the Water Quality Standards become standards or are interpreted as standards in the context of section 68(7) and 69 of the RMA 1991, then the Palmerston North City Wastewater Treatment Plant (WWTP) may be required to meet the new standards in a review of the existing resource consent under section 128(1)(b). This could take place as soon as the One Plan is made operative and only a few years after a major upgrade to the plant.
23. The current wording of the rules would not allow for a non notified review of current consents because the rules do not signal that, as outlined in section 68(7). However if the wording of the standards and policies is left as is, then it is arguable that a notified review under section 128(1)(b) may be carried out.
24. Upgrading the WWTP to meet the proposed standards would result in substantial capital and operational expense to the Palmerston North community. The water quality of the Manawatu River above the WWTP discharge does not meet a number of the proposed standards. It is my opinion that upgrading the WWTP in the short term would not be an efficient use of funds when superior gains to water quality could be achieved through other means.
25. To address this issue I recommended that a clause be added to Rule 13-27. Discussions on this clause have been undertaken with Horizons Planners (Clare Barton and Helen Marr) with agreement to the concept, however it has been suggested that the clause should be located within the Policies of the One Plan.

26. In discussions with Ms Barton and Ms Marr, it had been agreed that Policy 2-3 (11A-6 in the provisional determination version) is the suitable location for the clause.
27. The wording of the clause has been amended so that it fits the new location more appropriately. The suggested wording is:

*The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only be considered in relation to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.*

28. However I now consider that it would be preferable to fix up the more fundamental issues with how the standards apply (i.e. renaming them as targets and making the policies and rules consistent with that). This is a better solution overall, and it would also avoid the need to specifically exempt the WWTP.

#### Stormwater and Centennial Lagoon

29. In my original evidence statement I raised issues surrounding Centennial Lagoon, stormwater discharges and the Schedule E definitions. In response, Ms Fleur Maseyk prepared a section 42A report pointing out the benefits of including the lagoon within the Schedule E definitions<sup>2</sup> and thereby giving it a Threatened Habitat Status.
30. Given the heavily modified status of Centennial Lagoon this highlights that any natural lake or wetland would be classified as a threatened habitat unless it was specifically exempted by the provisions within Table E.2(b). This in turn causes some confusion as to the rules that apply to discharges to such environments due to the doubling up of provisions that apply to lakes and wetlands.
31. For example, Rule 13-17 provides for discharges of stormwater to surface water as a restricted discretionary activity so long as there is no discharge to any natural lake, rare habitat, threatened habitat, at-risk habitat or Natural State Water Management Sub-zone or Site of Significance - Aquatic.
32. The rule guide relating to the stormwater rules states that discharges in rare habitats, threatened habitats or at-risk habitats are regulated by rules 12-7 and 12-8, making them a Discretionary Activity<sup>3</sup>. The rule guide also states that discharges in Natural State Water Management Sub-zones or Sites of Significance - Aquatic are regulated by Rule 13-23, making them a Non-complying Activity. There is no mention of discharges to natural lakes in the rule guide.

<sup>2</sup> See Paragraphs 21-22 of the s42A report of Ms Fleur Jennifer Foster Maseyk.

<sup>3</sup> Note that these provisions have been changed to Rule 12-6 in the Provisional Determination

33. Rule 13-23 is titled "Discharges of contaminants to Natural State Water Management Sub-zones, Sites of Significance – Aquatic and lakes and wetlands. The activities encompassed by this rule include any direct discharge of contaminants into a natural lake.
34. The discharges to Centennial Lagoon could be regulated by Rule 12-6 as indicated by the Rule Guide but also by Rule 13-23 given its title and the activities that it includes. This issue was also discussed with Ms Barton and Ms Marr at the meeting held on 14 December 2010 with agreement that the references to lakes and wetlands should be removed from Rule 13-23. For completeness the reference to lakes and wetlands should also be removed from the heading of section 13.8.

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## **Water Quantity**

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### Minimum flow and core allocation values for the Turitea Stream

35. Paragraphs 112 to 116 of my original evidence discuss the minimum flow and core allocation values set for the Turitea Stream. Dr. Jack McConchie has provided technical expert evidence on the Turitea catchment and recommended suitable values for the minimum flow and core allocation. Caucusing was held between Dr. McConchie, Dr Roygard and Ms Hurndell on this matter on 12 November 2009. This resulted in agreement on a number of matters and further evidence being prepared by Dr. McConchie that altered the minimum flow value from the original recommendations. The revised values have been agreed by Horizons experts and I have made the necessary amendments to my recommendations.

### Schedule E

36. It has been identified that as proposed the One Plan has classed the Turitea water supply lakes as threatened habitat. This issue has been raised in my original evidence and Ms Maseyk from Horizons has responded in her section 42A report.
37. Ms Maseyk has stated that the inclusion of the water supply dams within the definitions of Schedule E was an oversight and that it is the intent of the schedule to exclude areas designed, installed and maintained for such purposes. She has made a recommendation that the words 'town water supply' be added to the Table E.2(b).
38. I agree that an exclusion needs to be added to Table E.2(b) but in my opinion the words as recommended in my original evidence are more suitable. They are more specific in that it is water storage for public water supplies that is exempt. Public water supply is defined within the glossary of the One Plan thereby giving certainty to Plan users and applying consistent terminology throughout the Plan.

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**Conclusion**

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39. Taking into account the various meetings and discussions that have taken place and further evidence provided since the exchange of evidence I have made several amendments to the recommendations made in my original evidence statement. A full list of the proposed amendments is attached as Appendix 1.

A handwritten signature in black ink that reads "ADBashford". The signature is written in a cursive style with a large initial 'A' and 'B'.

Andrew Bashford  
**Planning Officer**  
PALMERSTON NORTH CITY COUNCIL

## **Appendix 1: Recommended Amendments to be made to One Plan**

### **General Amendments**

Note: These proposed changes are general in nature and will require further drafting. They relate to the issues of uncertainty around the Water Quality Standards as proposed in Schedule Ba and Schedule D of the One Plan. It is also noted that there are a number of cross referencing errors between the various versions of the One Plan and although not discussed in the evidence presented the Palmerston North City Council is happy to assist the Horizons Regional Council in correcting these if required.

1. The policies (in particular policies 6-3 to 6-5 and 13-6) should be amended so that each reference to Schedule Ba and Schedule D *standards* refers instead to "*water quality targets*";
2. The introductory wording in Schedule Ba and Schedule D should be amended to clearly label the schedules' contents as being *targets*;
3. An advice note should be added to Schedule Ba and Schedule D stating that the targets are intended to guide the exercise of the consent authority's discretion when considering consent applications, and that where relevant the targets have been incorporated as conditions of permitted activity rules;
4. The permitted activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-9 and 13-24) should be amended to refer to the relevant *targets* in those schedules; and
5. The controlled and restricted discretionary activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-17 and 13-21) should be amended so that control or discretion is reserved over "*measures to assist in maintaining or achieving the targets*" in the relevant schedule.

## **Specific Amendments**

Note: These proposed amendments contain specific wording to various One Plan provisions to address issues raised in evidence presented. All changes are **highlighted** with words recommended to be added shown as underlined, and words that are recommended to be deleted shown in ~~strike through~~.

### **Chapter 11**

Amend Policy 11-A-6 as follows:

#### **Policy 11A-6: Consent Review**

In addition to the reasons specified in s128(1)(a)(i) and (ii) RMA, the Regional Council will, under s128(1)(a)(iii) RMA, generally impose consent conditions that specify a review of consent conditions during the term of the consent for:

- (a) reviewing the appropriateness of any condition requiring the consent holder to supply the consent authority with information relating to the exercise of the resource consent
- (b) reviewing any unknown or uncertain adverse effects caused as a result of planned or required changes or upgrades to the activity
- (c) reviewing the conditions of a consent at the same time as review of other consents within the same Water Management Zone – for example, at a common catchment expiry or review date.
- (d) reviewing the effectiveness of consent conditions to avoid, remedy or mitigate any adverse effects of the activity on the environment.

The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only apply to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.

This policy relates to Objective 11A-2.

## Chapter 13

Amend Policy 13-6 (Pink Version) as follows:

### **Policy 13-6: ~~p~~Point Source Discharges to Land and Water**

~~(a) When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, the opportunity to utilise alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or **Error! Bookmark not defined.** mitigating adverse effects<sup>^</sup> where practicable **Error! Bookmark not defined.**, shall be considered., including but not limited to:z~~

(a) When applying for consents and making decisions on consent applications for discharges of contaminants to water or land the following shall be considered for the purpose of avoiding or mitigating effects:

- (i) the degree to which the activity will adversely affect the values identified for the relevant *Water Management Sub-zone(s)*\*
- (ii) whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards targets set in Schedule D to be breached
- (iii) the extent to which the activity is consistent with best management practices
- (iv) the need to allow reasonable time to achieve any required improvements.
- (v) alternative treatment and discharge options or mix of discharge regimes.

(b) The Regional Council may make an exception to (a) where:

- (i) in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided
- (ii) adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18
- (iii) it is appropriate to adopt the *best practicable option*<sup>^</sup>
- (iv) other exceptional circumstances apply

and it is consistent with the purpose of the RMA to do so.

This policy implements Objective 13-1

Amend Rules 13-17, and 13-23 as follows:

### 13.5 Rules - Stormwater

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>13-17</b> <b>Discharges of stormwater to surface water not complying with Rule 13-15</b>	The <i>discharges</i> of <i>stormwater</i> into <i>surface water</i> which do not comply with Rule 13-15, and any associated takes or diversions of stormwater forming part of the stormwater system.	<b>Restricted Discretionary</b>	(a) There shall be no <i>discharge</i> to any <b>natural lake</b> , <i>rare habitat</i> , <i>threatened habitat</i> , <i>at-risk habitat</i> , or Natural State Water Management Sub-zone or Site of Significance - Aquatic.	Discretion is reserved over: (a) measures to control flooding and erosion (b) contaminant concentrations and loading rates (c) measures required to comply with s107(1) RMA (d) measures required to comply with the water quality <b>standards targets</b> for the relevant Water Management Sub-zone(s) (e) odour management (f) stormwater system maintenance requirements (g) contingency requirements (h) monitoring and information requirements (i) duration of consent (j) review of consent conditions.

**13.8 Rules – Discharges of contaminants to Natural State Water Management Sub-zones, Lakes and Wetlands**

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<p><b>13-23 Discharges of contaminants to Natural State Water Management Sub-zones, and Sites of Significance – Aquatic and lakes and wetlands</b></p>	<p>Any direct <i>discharge</i> of <i>contaminants</i> into:</p> <ul style="list-style-type: none"> <li>(a) a Natural State Water Management Sub-zone</li> <li>(b) a water body identified as a Site of Significance – Aquatic in Schedule DBa</li> <li>(c) a natural lake, except Lake Otamangakau, Lake Te Whaiau and Lake Moawhanga</li> <li>(d) a wetland classified as a rare habitats, or threatened habitat</li> </ul> <p>except the discharge of agrichemicals for the purpose of controlling pests control as defined in a regional pest management strategy prepared under the Biosecurity Act 1993 (this activity is regulated by Rule 14-2).</p>	<p><b>Non-complying</b></p>		

## Chapter 15

Amend Rules 15-5 and 15-6 as follows:

### 15.2 Rules – Takes and Uses of Water

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-5 Takes and uses of surface water complying with core allocations</b>	The taking and use of surface water from a river, <b>or water storage lake on a river</b> , pursuant to s14(1) RMA, except where the water take is controlled under Rule 13-1.	<b>Controlled</b>	<p>(b) Water shall only be taken when the river is above its minimum flow, as assessed in accordance with Schedule B except as provided for by:</p> <p>(ba) takes or portions of takes which are for the purposes of stock drinking water and domestic needs, or public water supplies predominantly for domestic use may continue below minimum flow provided the rates and volumes of takes do not exceed the maximum takes of low flow set out in Policy 6-19.</p> <p>(c) The amount of water taken, when assessed in combination with all other water takes within the same Water Management Sub-zone shall not exceed the relevant core allocation set out for Water Management Subzones in Schedule B.</p> <p>(d) The amount of water taken, when assessed in combination with all other water takes within the same catchment, shall not exceed the cumulative allocation for each Water Management Sub-zone in the same catchment.</p> <p>(e) The take shall not lower the water level in any wetland that is a rare habitat or threatened habitat.</p>	<p>Control is reserved over:</p> <p>(a) the volume and rate of water taken, and the timing of the take</p> <p>(b) the location of take</p> <p>(c) intake velocity and screening requirements</p> <p>(d) measures to avoid, remedy or mitigate any adverse effects on the values of the water body at the point of abstraction, including restrictions on the volume and rate of abstraction</p> <p>(e) the efficiency of water use</p> <p>(f) effects on other water takes</p> <p>(g) effects on rare habitats, and threatened habitats and at-risk habitats and Sites of Significance – Aquatic.</p> <p>(h) compliance with minimum flow requirements</p> <p>(i) duration of consent</p> <p>(j) review of consent conditions</p> <p>(k) compliance monitoring.</p> <p>Resource consent applications under this rule will not be notified and written approval of affected persons will not be required (notice of applications need not be served on affected persons).</p>

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-6 Takes of surface water not complying with core allocations</b>	<p>The taking of surface water from a river <b>or water storage lake on a river:</b></p> <p>(aa) which, when assessed in combination with all other water takes, exceeds the relevant core allocation set out in Schedule B. or</p> <p>(ab) at or below minimum flow (unless allowed by Rule 15-5(b))</p> <p>This rule does not include:</p> <p>(a) takes permitted under Rule 15-1</p> <p>(b) takes in circumstances where water is only taken when the river flow is greater than the median flow (these are a discretionary activity under Rule 15-8)</p> <p>(c) lawfully established takes for hydroelectricity generation (these are discretionary activities under Rule 15-8).</p>	<b>Non-complying</b>		

**Schedule B**

Amend the Turitea (Mana\_11b) Sub-zone within Table B1 as follows:

Table B1: Allocation Limits and Minimum Flows by Water Management Sub-zone					
Zone code	Sub-zone	Minimum Flow (m <sup>3</sup> /s)	Flow monitoring site	Flow monitoring site location	Cumulative core allocation limit (m <sup>3</sup> /s)
Lower Manawatu (Mana_11)	Turitea (Mana_11b)	0.050 0.041	Turitea at Ngahere Park	T24:354-852	0.265 0.428

## Schedule D

Make the following changes to the associated Standards (targets) Key within Schedule D:

### Schedule D Standards Targets Key

Water<sup>^</sup> Quality Standards Targets Key: definition of abbreviations and full wording of the standards targets (placement of the numerical values for a specified standard target are indicated by [...]).

Abbreviations used in Tables D:1 to D:4		Full Wording of the Standard-Target
Header	Sub-header	
pH	Range	The pH of the water <sup>^</sup> shall be within the range [...] to [...], unless natural levels are already outside this range.
	Δ	The pH of the water <sup>^</sup> shall not be changed by more than [...].
Temp (°C)	<	The temperature of the water <sup>^</sup> shall not exceed [...] degrees Celsius.
	Δ	The temperature of the water <sup>^</sup> shall not be changed by more than [...]degrees Celsius.
DO (%SAT)	>	The concentration of dissolved oxygen (DO) shall exceed [...] % of saturation.
sCBOD <sub>5</sub> (g/m <sup>3</sup> )	<	The monthly average five-days filtered / soluble carbonaceous biochemical oxygen demand (BOD) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre.
POM (g/m <sup>3</sup> )	<	The average concentration of particulate organic matter when the river <sup>^</sup> flow is at or below 50th percentile of flow shall not exceed [...] grams per cubic metre.
Periphyton (Rivers)	Chl a (mg/m <sup>2</sup> )	The algal biomass on the stream or river <sup>^</sup> bed <sup>^</sup> shall not exceed [...] milligrams of chlorophyll a per square metre.
	% cover	The maximum cover of visible stream or river <sup>^</sup> bed <sup>^</sup> by periphyton as filamentous algae more than 2 centimetres long shall not exceed [...] %. The maximum cover of visible stream or river bed by periphyton as diatoms or cyanobacteria more than 0.3 centimetres thick shall not exceed [...] %.
Algal biomass Chl a (mg/m <sup>3</sup> )	<	The annual average algal biomass shall not exceed [...] milligrams chlorophyll Algal biomass a per cubic metre.
	Maximum	no sample shall exceed [...] milligrams chlorophyll a per cubic metre.
DRP (g/m <sup>3</sup> )	<	The annual average concentration of dissolved reactive phosphorus (DRP) when the river <sup>^</sup> flow is at or below the 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for DRP is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TP (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total phosphorus (TP) shall not exceed [...] grams per cubic metre.
SIN (g/m <sup>3</sup> )	<	The annual average concentration of soluble inorganic nitrogen <sup>11</sup> (SIN) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for SIN is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TN (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total nitrogen shall not exceed [...] grams per cubic metre.
MCI		The Macroinvertebrate Community Index (MCI) shall <b>not be less than 20% below natural reference conditions for the river.</b> <b>If natural reference conditions are not defined then the MCI shall</b> exceed [...]. <b>unless natural physical conditions are beyond the scope of application of the MCI.</b> In cases where the river <sup>^</sup> or stream habitat is suitable for the application of the soft-bottomed variant of the MCI (MCI-sb) the standards shall also apply. <b>This standard will not apply if the natural physical conditions are beyond the scope of application of the MCI or MCI-sb.</b> <b>The MCI standard applies only for State of the Environment monitoring purposes to determine if the aquatic macroinvertebrate communities are adequate to provide for and maintain the values in each WMSZ, the standard is not appropriate for monitoring the effects of activities such as discharges to water.</b>
QMCI	%Δ	<b>Discharges to water to cause N</b> no more than a 20 % reduction in Quantitative Macroinvertebrate Community Index (QMCI) score between <b>appropriately matched habitats</b> upstream and downstream of <b>the discharges to water<sup>^</sup>.</b> <b>Note: Where samples are collected using a hand net this standard shall also apply to the Semi-Quantitative MCI (SQMCI).</b>
Ammoniacal nitrogen (g/m <sup>3</sup> ) (rivers)	<	The average concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre.
Ammoniacal nitrogen (g/m <sup>3</sup> ) (lakes)	<	The concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre when lake <sup>^</sup> pH exceeds 8.5 within the epilimnion (shallow lakes <sup>^</sup> ) or within 2 m of the water <sup>^</sup> surface (deep lakes <sup>^</sup> ).
Toxicants	<%	For toxicants not otherwise defined in these standards, the concentration of toxicants in the water <sup>^</sup> shall not exceed the trigger values defined in the 2000 ANZECC guidelines Table 3.4.1 for the level of protection of [...] % of species. <b>For metals the trigger value shall be adjusted for hardness and apply to the dissolved fraction.</b>
Clarity (m) (rivers)	%Δ	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall equal or exceed [...] m when the river <sup>^</sup> is at or below the 50 <sup>th</sup> percentile of flow.
Clarity (m) (lakes)	%Δ	The clarity of the water <sup>^</sup> measured as Secchj depth (or horizontal sighting range of a 200 mm black disc) shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured Secchi depth (or horizontal sighting range of a 200 mm black disc) shall exceed [...] m.
E.coli/100ml (rivers)	<m	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive) when the river <sup>^</sup> flow is at or below the 50 <sup>th</sup> percentile of flow.
	<20 <sup>th</sup> %ile	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres when the river <sup>^</sup> flow is at or below the 20th percentile of flow year round.
E.coli/100 ml (lakes)	Summer	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive).
	Winter	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 May – 31 October (inclusive).
Euphotic Depth (lakes)	%Δ	Euphotic depth shall not be reduced by more than [...] %.

## **Schedule E**

Make the following amendments to Table E.2(b):

### **Table E.2(b):**

<p>If an area of any habitat type described in Table E.1 meets any of the following criteria it shall not be rare habitat*, threatened habitat* or at-risk habitat* for the purposes of this Plan.</p>
<p><b>Forest*, Treeland*, Scrub*, or Shrubland* Habitat Types Classified as Threatened or At-risk</b></p> <ul style="list-style-type: none"> <li>i. Areas of indigenous* tree* species planted for the purposes of timber harvest. Or</li> <li>ii. Indigenous* vegetation planted for landscaping, horticultural, shelter belts, gardening or amenity purposes. Or</li> <li>iii. Habitat areas 1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul> <p><b>Wetland^ Habitat Types Classified as Rare or Threatened</b></p> <ul style="list-style-type: none"> <li>iv. Damp gully heads, or paddocks subject to regular ponding, dominated* by pasture or exotic species in association* with wetland sedge and rush species. Or</li> <li>v. Ditches or drains supporting raupo, flax or other wetland species (e.g. Carex sp., Isolepis sp.), or populations of these species in drains or slumps associated with road reserves or rail corridors. Or</li> <li>vi. Areas of wetland^ habitat specifically designed, installed and maintained for any of the following purposes: <ul style="list-style-type: none"> <li>a) stock watering (including stock ponds), or</li> <li>b) water storage for the purposes of fire fighting or irrigation (including old gravel pits), or</li> <li>c) treatment of animal effluent (including pond or barrier ditch systems), or</li> <li>d) waste water treatment, or</li> <li>e) sediment control, or</li> <li>f) any hydroelectric power generation scheme. Or</li> <li>g) water storage for the purposes of public water supplies. Or</li> </ul> </li> <li>vii. Areas of wetland habitat maintained in relation to the implementation of any resource consent conditions or agreements relating to the operation of any hydroelectric power scheme currently lawfully established. Or</li> <li>viii. Open water and associated vegetation created for landscaping purposes or amenity values where the planted vegetation is predominately exotic, or includes assemblages of species not naturally found in association* with each other, on the particular landform, or at the geographical location of the created site.</li> <li>ix. Habitat areas 0.1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul>

**BEFORE THE MANAWATU – WANGANUI REGIONAL COUNCIL (HORIZONS  
REGIONAL COUNCIL)**

*In the matter of*      **The Resource Management Act 1991; and**

*In the matter of*      **The Proposed One Plan: Consolidated Regional Policy  
Statement, Regional Plan and Regional Coastal Plan for  
the Manawatu - Wanganui Region**

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**SUPPLEMENTARY EVIDENCE OF ANDREW DAVID BASHFORD  
ON BEHALF OF THE PALMERSTON NORTH CITY COUNCIL**

**CHAPTERS 6, 13, 15 AND 16  
AND SCHEDULES B, C, D AND E OF THE ONE PLAN**

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Dated: 11 February 2010

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## **Introduction and Background**

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1. I have prepared this report as supplementary evidence to my Statement of Evidence dated 16 October 2009. It has been compiled in response to supplementary evidence produced by Horizons experts and takes into account the outcomes of caucusing and pre-hearing meetings held since the exchange of evidence. It also focuses more specifically on the issues surrounding the water quality standards contained within Schedule D and section 69 of the Resource Management Act 1991.
2. Several meetings involving PNCC experts have been held since the exchange of evidence. Jack McConchie, Jon Roygard and Raelene Hurdell attended a caucusing meeting on 12 November 2009 regarding the minimum flow and core allocation limit in the Turitea subzone. Caucusing was also held between Keith Hamill, Paul Kennedy, Kathryn McArthur, John Quinn, Jon Roygard and Robert Wilcock on 10 November 2009 in relation to the Water Quality Standards contained within Schedule D of the Proposed One Plan. A pre-hearing meeting was held between Clare Barton, Helen Marr, Jon Roygard, Chris Pepper and myself on 14 December 2009 where several issues were discussed including the appropriate location of amendments to Rule 13-27 as suggested in my original evidence.

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## **Water Quality**

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### Water Quality Standards

3. The evidence and supplementary evidence of Keith Hamill discusses the Water Quality Standards contained within Schedule D in detail. Mr Hamill participated in caucusing with other water quality experts and reached agreement on a number of matters as outlined in the 'Meeting Between Experts' report dated 10 November 2009.
4. As a result of this meeting, and consequent discussions, some amendments have been made to the recommendations as contained in my original evidence statement. In particular these relate to the Standards Key and an updated version is attached in Appendix 1 to this statement.
5. Of particular note are the standards relating to QMCI and Toxicants, where the recommendations made here differ to that made by Horizons experts. The reasons for these differences are discussed in paragraphs 3.3 to 3.9 and 3.12 of Mr. Hamill's supplementary evidence.
6. Agreement was not achieved in relation to the standards relating to DRP or SIN through the caucusing process. The recommendations relating to these standards have not changed from my original evidence.

### Standards or Targets

7. As discussed in paragraphs 64 to 79 of my original evidence it is unclear in what circumstances the Water Quality Standards contained within Schedule Ba and Schedule D of the Proposed One Plan apply, and whether these are standards in terms of section 69 of the Resource Management Act 1991.
8. It appears that the intention is for the Schedule Ba and Schedule D standards to apply as standards in relation to activities that are permitted. In the event that an activity does not meet the standards, the activity would require a resource consent. Some controlled and restricted discretionary rules retain control or discretion that relate to the water quality standards. It is unclear whether discretionary or non-complying activities need to comply with the standards or whether the standards are to be used as targets against which an application is assessed.
9. This matter was discussed in the caucusing meeting in relation to the Water Quality Standards held on 10 December 2009. Agreement was reached between the experts that the use of the term 'standards' is not a good term to use in this context and that clarity is needed. The Horizons experts were also to discuss options with the Horizons planners to clarify *'that standards applied as absolute trigger values for permitted activities will be regarded as targets in other situations'*<sup>1</sup>.
10. This matter has been addressed to a limited extent by the recommended amendments to Policies 6-3 to 6-5 and in particular by the inclusion of the words *'maintains or enhances existing water quality'* to Policy 6-4. However there are still drafting issues with those policies and with Policy 13-6, and it remains unclear whether the 'standards' are intended to apply as standards or as guidelines for resource consent applications and as to whether the so called standards are intended to be standards for the purpose of section 68(7), 69 and section 128(1)(b) of the RMA.
11. The following table outlines the rules that have provisions directly referring to the Schedule Ba and Schedule D Standards:

<b>One Plan Rules in Chapter 13 referring directly to the Water Quality Standards</b>			
<b>Rule</b>	<b>Activity Status</b>	<b>Conditions/Standards/Terms</b>	<b>Control/Discretion</b>
13-9	Permitted	The discharge shall not, after reasonable mixing change the natural temperature of the receiving water by more than the maximum temperature or temperature change specified by the quality standards for the Water Management Sub-zone listed in Schedule Ba.	

<sup>1</sup> See paragraph 9 – Report of a Meeting between Experts: Water Quality Standards, 10 November 2009.

13-17	Restricted Discretionary		Discretion is reserved over:  Measures required to comply with the water quality standards for the relevant Water Management Sub-zone(s).
13-21	Controlled		Control is reserved over:  Measures to manage effects on surface water bodies including maintaining the values and water quality standards set out in Schedule Ba.
13-24	Permitted	The discharges shall not, after reasonable mixing, cause the receiving water body to breach the water quality standards for that water body set out in Schedule D, either from the discharge itself or in combination with any other discharges.	
13-26	Permitted	The discharge shall comply with all of the conditions of Rule 13-24.	

12. The default catch-all discretionary activity rule (Rule 13-27) does not refer to the standards at all and there is no rule which provides that discharges which do not meet the standards become non-complying or prohibited activities.
13. Accordingly in my opinion the intention of the Plan as notified was that these water quality targets would only apply as standards for the purpose set out in the permitted activity rules and would otherwise be guidelines or targets. That is consistent with what was agreed at caucusing.
14. My concern is that what appears to have been the intention has not been made clear in the Plan itself.
15. My second concern is that in the absence of clarity it remains open for future argument that these are standards for the purpose of section 69. That would then allow argument that the rules must require the observance of the standards with no exceptions. That is, it could be argued that the rules must be amended to prohibit discharges which do not meet the standards. That was clearly not what was intended but given the loose wording surrounding the standards that is an argument which others may mount.
16. Accordingly, in my opinion it is more appropriate to have wording which makes it clear that these are not standards for the purposes of section 69 but are targets

which will be considered at the time any applications are considered. It also needs to be made clear that what will be considered is whether the discharge on its own or in conjunction with other discharges will **cause** the targets to be breached. That is consistent with common sense and with the wording of section 107. Mr Hamill discusses this point in relation to QMCI.

17. A summary of proposed wording changes to the One Plan provisions to remedy these issues is suggested in Appendix 1 and has been discussed in Mr Milne's legal submissions. They include:
- Changing references to the Water Quality Standards in the One Plan to *Water Quality Targets*;
  - Ensuring the introductory wording to Schedule Ba and Schedule D label the contents as being targets; and
  - The addition of an advice note to Schedule Ba and Schedule D that makes it clear that the targets are intended to guide the Regional Council when assessing resource consent applications and that where appropriate relevant targets have been incorporated as conditions for permitted activities.
18. It is acknowledged that the suggested wording requires refining and to that extent the Palmerston North City Council is happy to work with Horizons to formulate appropriate provisions and wording to rectify the identified issues.
19. On a related note, there are some fundamental issues with how some of the policies have been drafted, as Mr Milne has discussed in his legal submissions. Policy 13-6 does not make sense as drafted in the pink version, and it is unclear how it is intended to be applied. The pink version text states:

*Policy 13-6: point Source Discharges to Land and Water*

- (a) *When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or Error! Bookmark not defined. mitigating adverse effects<sup>^</sup> Error! Bookmark not defined.,:*
- (i) *the degree to which the activity will adversely affect the values identified for the relevant Water Management Sub-zone(s)\**
  - (ii) *whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards set in Schedule D to be breached*
  - (iii) *the extent to which the activity is consistent with best management practices*
  - (iv) *the need to allow reasonable time to achieve any required improvements.*

(b) *The Regional Council may make an exception to subsection (a) where:*

- (i) *in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided*
- (ii) *adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18*
- (iii) *it is appropriate to adopt the best practicable option<sup>^</sup>*
- (iv) *other exceptional circumstances apply*

*and it is consistent with the purpose of the RMA to do so.*

20. In examining this policy it could be taken as two policies rolled into one where the applicant must consider alternatives when applying for consent, and secondly the consent authority must consider the matters described in the list labelled (i) to (iv). Alternatively it could be that both the consent authority and applicant must consider alternatives along with the matters within the list.
21. In addition the first part of clause (a) does not introduce the list in any way and there are a number of bookmarking errors within the policy. In my opinion the policy should be redrafted and proposed wording is contained in Appendix 1.

#### Relationship to section 128(1)(b)

22. I also have concern that if the Water Quality Standards become standards or are interpreted as standards in the context of section 68(7) and 69 of the RMA 1991, then the Palmerston North City Wastewater Treatment Plant (WWTP) may be required to meet the new standards in a review of the existing resource consent under section 128(1)(b). This could take place as soon as the One Plan is made operative and only a few years after a major upgrade to the plant.
23. The current wording of the rules would not allow for a non notified review of current consents because the rules do not signal that, as outlined in section 68(7). However if the wording of the standards and policies is left as is, then it is arguable that a notified review under section 128(1)(b) may be carried out.
24. Upgrading the WWTP to meet the proposed standards would result in substantial capital and operational expense to the Palmerston North community. The water quality of the Manawatu River above the WWTP discharge does not meet a number of the proposed standards. It is my opinion that upgrading the WWTP in the short term would not be an efficient use of funds when superior gains to water quality could be achieved through other means.
25. To address this issue I recommended that a clause be added to Rule 13-27. Discussions on this clause have been undertaken with Horizons Planners (Clare Barton and Helen Marr) with agreement to the concept, however it has been suggested that the clause should be located within the Policies of the One Plan.

26. In discussions with Ms Barton and Ms Marr, it had been agreed that Policy 2-3 (11A-6 in the provisional determination version) is the suitable location for the clause.
27. The wording of the clause has been amended so that it fits the new location more appropriately. The suggested wording is:

*The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only be considered in relation to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.*

28. However I now consider that it would be preferable to fix up the more fundamental issues with how the standards apply (i.e. renaming them as targets and making the policies and rules consistent with that). This is a better solution overall, and it would also avoid the need to specifically exempt the WWTP.

#### Stormwater and Centennial Lagoon

29. In my original evidence statement I raised issues surrounding Centennial Lagoon, stormwater discharges and the Schedule E definitions. In response, Ms Fleur Maseyk prepared a section 42A report pointing out the benefits of including the lagoon within the Schedule E definitions<sup>2</sup> and thereby giving it a Threatened Habitat Status.
30. Given the heavily modified status of Centennial Lagoon this highlights that any natural lake or wetland would be classified as a threatened habitat unless it was specifically exempted by the provisions within Table E.2(b). This in turn causes some confusion as to the rules that apply to discharges to such environments due to the doubling up of provisions that apply to lakes and wetlands.
31. For example, Rule 13-17 provides for discharges of stormwater to surface water as a restricted discretionary activity so long as there is no discharge to any natural lake, rare habitat, threatened habitat, at-risk habitat or Natural State Water Management Sub-zone or Site of Significance - Aquatic.
32. The rule guide relating to the stormwater rules states that discharges in rare habitats, threatened habitats or at-risk habitats are regulated by rules 12-7 and 12-8, making them a Discretionary Activity<sup>3</sup>. The rule guide also states that discharges in Natural State Water Management Sub-zones or Sites of Significance - Aquatic are regulated by Rule 13-23, making them a Non-complying Activity. There is no mention of discharges to natural lakes in the rule guide.

<sup>2</sup> See Paragraphs 21-22 of the s42A report of Ms Fleur Jennifer Foster Maseyk.

<sup>3</sup> Note that these provisions have been changed to Rule 12-6 in the Provisional Determination

33. Rule 13-23 is titled "Discharges of contaminants to Natural State Water Management Sub-zones, Sites of Significance – Aquatic and lakes and wetlands. The activities encompassed by this rule include any direct discharge of contaminants into a natural lake.
  34. The discharges to Centennial Lagoon could be regulated by Rule 12-6 as indicated by the Rule Guide but also by Rule 13-23 given its title and the activities that it includes. This issue was also discussed with Ms Barton and Ms Marr at the meeting held on 14 December 2010 with agreement that the references to lakes and wetlands should be removed from Rule 13-23. For completeness the reference to lakes and wetlands should also be removed from the heading of section 13.8.
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## **Water Quantity**

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### Minimum flow and core allocation values for the Turitea Stream

35. Paragraphs 112 to 116 of my original evidence discuss the minimum flow and core allocation values set for the Turitea Stream. Dr. Jack McConchie has provided technical expert evidence on the Turitea catchment and recommended suitable values for the minimum flow and core allocation. Caucusing was held between Dr. McConchie, Dr Roygard and Ms Hurndell on this matter on 12 November 2009. This resulted in agreement on a number of matters and further evidence being prepared by Dr. McConchie that altered the minimum flow value from the original recommendations. The revised values have been agreed by Horizons experts and I have made the necessary amendments to my recommendations.

### Schedule E

36. It has been identified that as proposed the One Plan has classed the Turitea water supply lakes as threatened habitat. This issue has been raised in my original evidence and Ms Maseyk from Horizons has responded in her section 42A report.
37. Ms Maseyk has stated that the inclusion of the water supply dams within the definitions of Schedule E was an oversight and that it is the intent of the schedule to exclude areas designed, installed and maintained for such purposes. She has made a recommendation that the words 'town water supply' be added to the Table E.2(b).
38. I agree that an exclusion needs to be added to Table E.2(b) but in my opinion the words as recommended in my original evidence are more suitable. They are more specific in that it is water storage for public water supplies that is exempt. Public water supply is defined within the glossary of the One Plan thereby giving certainty to Plan users and applying consistent terminology throughout the Plan.

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**Conclusion**

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39. Taking into account the various meetings and discussions that have taken place and further evidence provided since the exchange of evidence I have made several amendments to the recommendations made in my original evidence statement. A full list of the proposed amendments is attached as Appendix 1.

A handwritten signature in black ink that reads "ADBashford". The signature is written in a cursive style with a large initial 'A' and 'B'.

Andrew Bashford  
**Planning Officer**  
PALMERSTON NORTH CITY COUNCIL

## **Appendix 1: Recommended Amendments to be made to One Plan**

### **General Amendments**

Note: These proposed changes are general in nature and will require further drafting. They relate to the issues of uncertainty around the Water Quality Standards as proposed in Schedule Ba and Schedule D of the One Plan. It is also noted that there are a number of cross referencing errors between the various versions of the One Plan and although not discussed in the evidence presented the Palmerston North City Council is happy to assist the Horizons Regional Council in correcting these if required.

1. The policies (in particular policies 6-3 to 6-5 and 13-6) should be amended so that each reference to Schedule Ba and Schedule D *standards* refers instead to "*water quality targets*";
2. The introductory wording in Schedule Ba and Schedule D should be amended to clearly label the schedules' contents as being *targets*;
3. An advice note should be added to Schedule Ba and Schedule D stating that the targets are intended to guide the exercise of the consent authority's discretion when considering consent applications, and that where relevant the targets have been incorporated as conditions of permitted activity rules;
4. The permitted activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-9 and 13-24) should be amended to refer to the relevant *targets* in those schedules; and
5. The controlled and restricted discretionary activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-17 and 13-21) should be amended so that control or discretion is reserved over "*measures to assist in maintaining or achieving the targets*" in the relevant schedule.

## **Specific Amendments**

Note: These proposed amendments contain specific wording to various One Plan provisions to address issues raised in evidence presented. All changes are **highlighted** with words recommended to be added shown as underlined, and words that are recommended to be deleted shown in ~~strike through~~.

### **Chapter 11**

Amend Policy 11-A-6 as follows:

#### **Policy 11A-6: Consent Review**

In addition to the reasons specified in s128(1)(a)(i) and (ii) RMA, the Regional Council will, under s128(1)(a)(iii) RMA, generally impose consent conditions that specify a review of consent conditions during the term of the consent for:

- (a) reviewing the appropriateness of any condition requiring the consent holder to supply the consent authority with information relating to the exercise of the resource consent
- (b) reviewing any unknown or uncertain adverse effects caused as a result of planned or required changes or upgrades to the activity
- (c) reviewing the conditions of a consent at the same time as review of other consents within the same Water Management Zone – for example, at a common catchment expiry or review date.
- (d) reviewing the effectiveness of consent conditions to avoid, remedy or mitigate any adverse effects of the activity on the environment.

The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only apply to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.

This policy relates to Objective 11A-2.

## Chapter 13

Amend Policy 13-6 (Pink Version) as follows:

### **Policy 13-6: ~~p~~Point Source Discharges to Land and Water**

~~(a) When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, the opportunity to utilise alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or **Error! Bookmark not defined.** mitigating adverse effects<sup>^</sup> where practicable **Error! Bookmark not defined.**, shall be considered., including but not limited to:z~~

(a) When applying for consents and making decisions on consent applications for discharges of contaminants to water or land the following shall be considered for the purpose of avoiding or mitigating effects:

- (i) the degree to which the activity will adversely affect the values identified for the relevant *Water Management Sub-zone(s)*\*
- (ii) whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards targets set in Schedule D to be breached
- (iii) the extent to which the activity is consistent with best management practices
- (iv) the need to allow reasonable time to achieve any required improvements.
- (v) alternative treatment and discharge options or mix of discharge regimes.

(b) The Regional Council may make an exception to (a) where:

- (i) in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided
- (ii) adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18
- (iii) it is appropriate to adopt the *best practicable option*<sup>^</sup>
- (iv) other exceptional circumstances apply

and it is consistent with the purpose of the RMA to do so.

This policy implements Objective 13-1

Amend Rules 13-17, and 13-23 as follows:

### 13.5 Rules - Stormwater

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>13-17</b> <b>Discharges</b> <b>of stormwater</b> <b>to surface</b> <b>water not</b> <b>complying</b> <b>with Rule 13-</b> <b>15</b>	The <i>discharges</i> of <i>stormwater</i> into <i>surface water</i> which do not comply with Rule 13-15, and any associated takes or diversions of stormwater forming part of the stormwater system.	<b>Restricted Discretionary</b>	(a) There shall be no <i>discharge</i> to any <b>natural lake</b> , <i>rare habitat</i> , <i>threatened habitat</i> , <i>at-risk habitat</i> , or Natural State Water Management Sub-zone or Site of Significance - Aquatic.	Discretion is reserved over: (a) measures to control flooding and erosion (b) contaminant concentrations and loading rates (c) measures required to comply with s107(1) RMA (d) measures required to comply with the water quality <b>standards targets</b> for the relevant Water Management Sub-zone(s) (e) odour management (f) stormwater system maintenance requirements (g) contingency requirements (h) monitoring and information requirements (i) duration of consent (j) review of consent conditions.

**13.8 Rules – Discharges of contaminants to Natural State Water Management Sub-zones, Lakes and Wetlands**

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<p><b>13-23 Discharges of contaminants to Natural State Water Management Sub-zones, and Sites of Significance – Aquatic and lakes and wetlands</b></p>	<p>Any direct <i>discharge</i> of <i>contaminants</i> into:</p> <ul style="list-style-type: none"> <li>(a) a Natural State Water Management Sub-zone</li> <li>(b) a water body identified as a Site of Significance – Aquatic in Schedule DBa</li> <li>(c) a natural lake, except Lake Otamangakau, Lake Te Whaiau and Lake Moawhanga</li> <li>(d) a wetland classified as a rare habitat, or threatened habitat</li> </ul> <p>except the discharge of agrichemicals for the purpose of controlling pests control as defined in a regional pest management strategy prepared under the Biosecurity Act 1993 (this activity is regulated by Rule 14-2).</p>	<p><b>Non-complying</b></p>		

## Chapter 15

Amend Rules 15-5 and 15-6 as follows:

### 15.2 Rules – Takes and Uses of Water

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-5 Takes and uses of surface water complying with core allocations</b>	The taking and use of surface water from a river, <b>or water storage lake on a river</b> , pursuant to s14(1) RMA, except where the water take is controlled under Rule 13-1.	<b>Controlled</b>	<p>(b) Water shall only be taken when the river is above its minimum flow, as assessed in accordance with Schedule B except as provided for by:</p> <p>(ba) takes or portions of takes which are for the purposes of stock drinking water and domestic needs, or public water supplies predominantly for domestic use may continue below minimum flow provided the rates and volumes of takes do not exceed the maximum takes of low flow set out in Policy 6-19.</p> <p>(c) The amount of water taken, when assessed in combination with all other water takes within the same Water Management Sub-zone shall not exceed the relevant core allocation set out for Water Management Subzones in Schedule B.</p> <p>(d) The amount of water taken, when assessed in combination with all other water takes within the same catchment, shall not exceed the cumulative allocation for each Water Management Sub-zone in the same catchment.</p> <p>(e) The take shall not lower the water level in any wetland that is a rare habitat or threatened habitat.</p>	<p>Control is reserved over:</p> <p>(a) the volume and rate of water taken, and the timing of the take</p> <p>(b) the location of take</p> <p>(c) intake velocity and screening requirements</p> <p>(d) measures to avoid, remedy or mitigate any adverse effects on the values of the water body at the point of abstraction, including restrictions on the volume and rate of abstraction</p> <p>(e) the efficiency of water use</p> <p>(f) effects on other water takes</p> <p>(g) effects on rare habitats, and threatened habitats and at-risk habitats and Sites of Significance – Aquatic.</p> <p>(h) compliance with minimum flow requirements</p> <p>(i) duration of consent</p> <p>(j) review of consent conditions</p> <p>(k) compliance monitoring.</p> <p>Resource consent applications under this rule will not be notified and written approval of affected persons will not be required (notice of applications need not be served on affected persons).</p>

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-6 Takes of surface water not complying with core allocations</b>	<p>The taking of surface water from a river <b>or water storage lake on a river:</b></p> <p>(aa) which, when assessed in combination with all other water takes, exceeds the relevant core allocation set out in Schedule B. or</p> <p>(ab) at or below minimum flow (unless allowed by Rule 15-5(b))</p> <p>This rule does not include:</p> <p>(a) takes permitted under Rule 15-1</p> <p>(b) takes in circumstances where water is only taken when the river flow is greater than the median flow (these are a discretionary activity under Rule 15-8)</p> <p>(c) lawfully established takes for hydroelectricity generation (these are discretionary activities under Rule 15-8).</p>	<b>Non-complying</b>		

**Schedule B**

Amend the Turitea (Mana\_11b) Sub-zone within Table B1 as follows:

Table B1: Allocation Limits and Minimum Flows by Water Management Sub-zone					
Zone code	Sub-zone	Minimum Flow (m <sup>3</sup> /s)	Flow monitoring site	Flow monitoring site location	Cumulative core allocation limit (m <sup>3</sup> /s)
Lower Manawatu (Mana_11)	Turitea (Mana_11b)	0.050 0.041	Turitea at Ngahere Park	T24:354-852	0.265 0.428

## Schedule D

Make the following changes to the associated Standards (targets) Key within Schedule D:

### Schedule D Standards Targets Key

Water<sup>^</sup> Quality Standards Targets Key: definition of abbreviations and full wording of the standards targets (placement of the numerical values for a specified standard target are indicated by [...]).

Abbreviations used in Tables D:1 to D:4		Full Wording of the Standard-Target
Header	Sub-header	
pH	Range	The pH of the water <sup>^</sup> shall be within the range [...] to [...], unless natural levels are already outside this range.
	Δ	The pH of the water <sup>^</sup> shall not be changed by more than [...].
Temp (°C)	<	The temperature of the water <sup>^</sup> shall not exceed [...] degrees Celsius.
	Δ	The temperature of the water <sup>^</sup> shall not be changed by more than [...]degrees Celsius.
DO (%SAT)	>	The concentration of dissolved oxygen (DO) shall exceed [...] % of saturation.
sCBOD <sub>5</sub> (g/m <sup>3</sup> )	<	The monthly average five-days filtered / soluble carbonaceous biochemical oxygen demand (BOD) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre.
POM (g/m <sup>3</sup> )	<	The average concentration of particulate organic matter when the river <sup>^</sup> flow is at or below 50th percentile of flow shall not exceed [...] grams per cubic metre.
Periphyton (Rivers)	Chl a (mg/m <sup>2</sup> )	The algal biomass on the stream or river <sup>^</sup> bed <sup>^</sup> shall not exceed [...] milligrams of chlorophyll a per square metre.
	% cover	The maximum cover of visible stream or river <sup>^</sup> bed <sup>^</sup> by periphyton as filamentous algae more than 2 centimetres long shall not exceed [...] %. The maximum cover of visible stream or river bed by periphyton as diatoms or cyanobacteria more than 0.3 centimetres thick shall not exceed [...] %.
Algal biomass Chl a (mg/m <sup>3</sup> )	<	The annual average algal biomass shall not exceed [...] milligrams chlorophyll Algal biomass a per cubic metre.
	Maximum	no sample shall exceed [...] milligrams chlorophyll a per cubic metre.
DRP (g/m <sup>3</sup> )	<	The annual average concentration of dissolved reactive phosphorus (DRP) when the river <sup>^</sup> flow is at or below the 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for DRP is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TP (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total phosphorus (TP) shall not exceed [...] grams per cubic metre.
SIN (g/m <sup>3</sup> )	<	The annual average concentration of soluble inorganic nitrogen <sup>11</sup> (SIN) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for SIN is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TN (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total nitrogen shall not exceed [...] grams per cubic metre.
MCI		The Macroinvertebrate Community Index (MCI) shall <b>not be less than 20% below natural reference conditions for the river.</b> <b>If natural reference conditions are not defined then the MCI shall</b> exceed [...]. <b>unless natural physical conditions are beyond the scope of application of the MCI.</b> In cases where the river <sup>^</sup> or stream habitat is suitable for the application of the soft-bottomed variant of the MCI (MCI-sb) the standards shall also apply. <b>This standard will not apply if the natural physical conditions are beyond the scope of application of the MCI or MCI-sb.</b> <b>The MCI standard applies only for State of the Environment monitoring purposes to determine if the aquatic macroinvertebrate communities are adequate to provide for and maintain the values in each WMSZ, the standard is not appropriate for monitoring the effects of activities such as discharges to water.</b>
QMCI	%Δ	<b>Discharges to water to cause N</b> no more than a 20 % reduction in Quantitative Macroinvertebrate Community Index (QMCI) score between <b>appropriately matched habitats</b> upstream and downstream of <b>the discharges to water<sup>^</sup>.</b> <b>Note: Where samples are collected using a hand net this standard shall also apply to the Semi-Quantitative MCI (SQMCI).</b>
Ammoniacal nitrogen (g/m <sup>3</sup> ) (rivers)	<	The average concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre.
Ammoniacal nitrogen (g/m <sup>3</sup> ) (lakes)	<	The concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre when lake <sup>^</sup> pH exceeds 8.5 within the epilimnion (shallow lakes <sup>^</sup> ) or within 2 m of the water <sup>^</sup> surface (deep lakes <sup>^</sup> ).
Toxicants	<%	For toxicants not otherwise defined in these standards, the concentration of toxicants in the water <sup>^</sup> shall not exceed the trigger values defined in the 2000 ANZECC guidelines Table 3.4.1 for the level of protection of [...] % of species. <b>For metals the trigger value shall be adjusted for hardness and apply to the dissolved fraction.</b>
Clarity (m) (rivers)	%Δ	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall equal or exceed [...] m when the river <sup>^</sup> is at or below the 50 <sup>th</sup> percentile of flow.
Clarity (m) (lakes)	%Δ	The clarity of the water <sup>^</sup> measured as Secchj depth (or horizontal sighting range of a 200 mm black disc) shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured Secchi depth (or horizontal sighting range of a 200 mm black disc) shall exceed [...] m.
E.coli/100ml (rivers)	<m	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive) when the river <sup>^</sup> flow is at or below the 50 <sup>th</sup> percentile of flow.
	<20 <sup>th</sup> %ile	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres when the river <sup>^</sup> flow is at or below the 20th percentile of flow year round.
E.coli/100 ml (lakes)	Summer	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive).
	Winter	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 May – 31 October (inclusive).
Euphotic Depth (lakes)	%Δ	Euphotic depth shall not be reduced by more than [...] %.

## **Schedule E**

Make the following amendments to Table E.2(b):

### **Table E.2(b):**

<p>If an area of any habitat type described in Table E.1 meets any of the following criteria it shall not be rare habitat*, threatened habitat* or at-risk habitat* for the purposes of this Plan.</p>
<p><b>Forest*, Treeland*, Scrub*, or Shrubland* Habitat Types Classified as Threatened or At-risk</b></p> <ul style="list-style-type: none"> <li>i. Areas of indigenous* tree* species planted for the purposes of timber harvest. Or</li> <li>ii. Indigenous* vegetation planted for landscaping, horticultural, shelter belts, gardening or amenity purposes. Or</li> <li>iii. Habitat areas 1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul> <p><b>Wetland^ Habitat Types Classified as Rare or Threatened</b></p> <ul style="list-style-type: none"> <li>iv. Damp gully heads, or paddocks subject to regular ponding, dominated* by pasture or exotic species in association* with wetland sedge and rush species. Or</li> <li>v. Ditches or drains supporting raupo, flax or other wetland species (e.g. Carex sp., Isolepis sp.), or populations of these species in drains or slumps associated with road reserves or rail corridors. Or</li> <li>vi. Areas of wetland^ habitat specifically designed, installed and maintained for any of the following purposes: <ul style="list-style-type: none"> <li>a) stock watering (including stock ponds), or</li> <li>b) water storage for the purposes of fire fighting or irrigation (including old gravel pits), or</li> <li>c) treatment of animal effluent (including pond or barrier ditch systems), or</li> <li>d) waste water treatment, or</li> <li>e) sediment control, or</li> <li>f) any hydroelectric power generation scheme. Or</li> <li>g) water storage for the purposes of public water supplies. Or</li> </ul> </li> <li>vii. Areas of wetland habitat maintained in relation to the implementation of any resource consent conditions or agreements relating to the operation of any hydroelectric power scheme currently lawfully established. Or</li> <li>viii. Open water and associated vegetation created for landscaping purposes or amenity values where the planted vegetation is predominately exotic, or includes assemblages of species not naturally found in association* with each other, on the particular landform, or at the geographical location of the created site.</li> <li>ix. Habitat areas 0.1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul>

**BEFORE THE MANAWATU – WANGANUI REGIONAL COUNCIL (HORIZONS  
REGIONAL COUNCIL)**

*In the matter of*      **The Resource Management Act 1991; and**

*In the matter of*      **The Proposed One Plan: Consolidated Regional Policy  
Statement, Regional Plan and Regional Coastal Plan for  
the Manawatu - Wanganui Region**

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**SUPPLEMENTARY EVIDENCE OF ANDREW DAVID BASHFORD  
ON BEHALF OF THE PALMERSTON NORTH CITY COUNCIL**

**CHAPTERS 6, 13, 15 AND 16  
AND SCHEDULES B, C, D AND E OF THE ONE PLAN**

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Dated: 11 February 2010

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## **Introduction and Background**

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1. I have prepared this report as supplementary evidence to my Statement of Evidence dated 16 October 2009. It has been compiled in response to supplementary evidence produced by Horizons experts and takes into account the outcomes of caucusing and pre-hearing meetings held since the exchange of evidence. It also focuses more specifically on the issues surrounding the water quality standards contained within Schedule D and section 69 of the Resource Management Act 1991.
2. Several meetings involving PNCC experts have been held since the exchange of evidence. Jack McConchie, Jon Roygard and Raelene Hurdell attended a caucusing meeting on 12 November 2009 regarding the minimum flow and core allocation limit in the Turitea subzone. Caucusing was also held between Keith Hamill, Paul Kennedy, Kathryn McArthur, John Quinn, Jon Roygard and Robert Wilcock on 10 November 2009 in relation to the Water Quality Standards contained within Schedule D of the Proposed One Plan. A pre-hearing meeting was held between Clare Barton, Helen Marr, Jon Roygard, Chris Pepper and myself on 14 December 2009 where several issues were discussed including the appropriate location of amendments to Rule 13-27 as suggested in my original evidence.

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## **Water Quality**

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### Water Quality Standards

3. The evidence and supplementary evidence of Keith Hamill discusses the Water Quality Standards contained within Schedule D in detail. Mr Hamill participated in caucusing with other water quality experts and reached agreement on a number of matters as outlined in the 'Meeting Between Experts' report dated 10 November 2009.
4. As a result of this meeting, and consequent discussions, some amendments have been made to the recommendations as contained in my original evidence statement. In particular these relate to the Standards Key and an updated version is attached in Appendix 1 to this statement.
5. Of particular note are the standards relating to QMCI and Toxicants, where the recommendations made here differ to that made by Horizons experts. The reasons for these differences are discussed in paragraphs 3.3 to 3.9 and 3.12 of Mr. Hamill's supplementary evidence.
6. Agreement was not achieved in relation to the standards relating to DRP or SIN through the caucusing process. The recommendations relating to these standards have not changed from my original evidence.

### Standards or Targets

7. As discussed in paragraphs 64 to 79 of my original evidence it is unclear in what circumstances the Water Quality Standards contained within Schedule Ba and Schedule D of the Proposed One Plan apply, and whether these are standards in terms of section 69 of the Resource Management Act 1991.
8. It appears that the intention is for the Schedule Ba and Schedule D standards to apply as standards in relation to activities that are permitted. In the event that an activity does not meet the standards, the activity would require a resource consent. Some controlled and restricted discretionary rules retain control or discretion that relate to the water quality standards. It is unclear whether discretionary or non-complying activities need to comply with the standards or whether the standards are to be used as targets against which an application is assessed.
9. This matter was discussed in the caucusing meeting in relation to the Water Quality Standards held on 10 December 2009. Agreement was reached between the experts that the use of the term 'standards' is not a good term to use in this context and that clarity is needed. The Horizons experts were also to discuss options with the Horizons planners to clarify *'that standards applied as absolute trigger values for permitted activities will be regarded as targets in other situations'*<sup>1</sup>.
10. This matter has been addressed to a limited extent by the recommended amendments to Policies 6-3 to 6-5 and in particular by the inclusion of the words *'maintains or enhances existing water quality'* to Policy 6-4. However there are still drafting issues with those policies and with Policy 13-6, and it remains unclear whether the 'standards' are intended to apply as standards or as guidelines for resource consent applications and as to whether the so called standards are intended to be standards for the purpose of section 68(7), 69 and section 128(1)(b) of the RMA.
11. The following table outlines the rules that have provisions directly referring to the Schedule Ba and Schedule D Standards:

<b>One Plan Rules in Chapter 13 referring directly to the Water Quality Standards</b>			
<b>Rule</b>	<b>Activity Status</b>	<b>Conditions/Standards/Terms</b>	<b>Control/Discretion</b>
13-9	Permitted	The discharge shall not, after reasonable mixing change the natural temperature of the receiving water by more than the maximum temperature or temperature change specified by the quality standards for the Water Management Sub-zone listed in Schedule Ba.	

<sup>1</sup> See paragraph 9 – Report of a Meeting between Experts: Water Quality Standards, 10 November 2009.

13-17	Restricted Discretionary		Discretion is reserved over:  Measures required to comply with the water quality standards for the relevant Water Management Sub-zone(s).
13-21	Controlled		Control is reserved over:  Measures to manage effects on surface water bodies including maintaining the values and water quality standards set out in Schedule Ba.
13-24	Permitted	The discharges shall not, after reasonable mixing, cause the receiving water body to breach the water quality standards for that water body set out in Schedule D, either from the discharge itself or in combination with any other discharges.	
13-26	Permitted	The discharge shall comply with all of the conditions of Rule 13-24.	

12. The default catch-all discretionary activity rule (Rule 13-27) does not refer to the standards at all and there is no rule which provides that discharges which do not meet the standards become non-complying or prohibited activities.
13. Accordingly in my opinion the intention of the Plan as notified was that these water quality targets would only apply as standards for the purpose set out in the permitted activity rules and would otherwise be guidelines or targets. That is consistent with what was agreed at caucusing.
14. My concern is that what appears to have been the intention has not been made clear in the Plan itself.
15. My second concern is that in the absence of clarity it remains open for future argument that these are standards for the purpose of section 69. That would then allow argument that the rules must require the observance of the standards with no exceptions. That is, it could be argued that the rules must be amended to prohibit discharges which do not meet the standards. That was clearly not what was intended but given the loose wording surrounding the standards that is an argument which others may mount.
16. Accordingly, in my opinion it is more appropriate to have wording which makes it clear that these are not standards for the purposes of section 69 but are targets

which will be considered at the time any applications are considered. It also needs to be made clear that what will be considered is whether the discharge on its own or in conjunction with other discharges will **cause** the targets to be breached. That is consistent with common sense and with the wording of section 107. Mr Hamill discusses this point in relation to QMCI.

17. A summary of proposed wording changes to the One Plan provisions to remedy these issues is suggested in Appendix 1 and has been discussed in Mr Milne's legal submissions. They include:
- Changing references to the Water Quality Standards in the One Plan to *Water Quality Targets*;
  - Ensuring the introductory wording to Schedule Ba and Schedule D label the contents as being targets; and
  - The addition of an advice note to Schedule Ba and Schedule D that makes it clear that the targets are intended to guide the Regional Council when assessing resource consent applications and that where appropriate relevant targets have been incorporated as conditions for permitted activities.
18. It is acknowledged that the suggested wording requires refining and to that extent the Palmerston North City Council is happy to work with Horizons to formulate appropriate provisions and wording to rectify the identified issues.
19. On a related note, there are some fundamental issues with how some of the policies have been drafted, as Mr Milne has discussed in his legal submissions. Policy 13-6 does not make sense as drafted in the pink version, and it is unclear how it is intended to be applied. The pink version text states:

*Policy 13-6: point Source Discharges to Land and Water*

- (a) *When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or Error! Bookmark not defined. mitigating adverse effects<sup>^</sup> Error! Bookmark not defined.,:*
- (i) *the degree to which the activity will adversely affect the values identified for the relevant Water Management Sub-zone(s)\**
  - (ii) *whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards set in Schedule D to be breached*
  - (iii) *the extent to which the activity is consistent with best management practices*
  - (iv) *the need to allow reasonable time to achieve any required improvements.*

(b) *The Regional Council may make an exception to subsection (a) where:*

- (i) *in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided*
- (ii) *adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18*
- (iii) *it is appropriate to adopt the best practicable option<sup>^</sup>*
- (iv) *other exceptional circumstances apply*

*and it is consistent with the purpose of the RMA to do so.*

20. In examining this policy it could be taken as two policies rolled into one where the applicant must consider alternatives when applying for consent, and secondly the consent authority must consider the matters described in the list labelled (i) to (iv). Alternatively it could be that both the consent authority and applicant must consider alternatives along with the matters within the list.
21. In addition the first part of clause (a) does not introduce the list in any way and there are a number of bookmarking errors within the policy. In my opinion the policy should be redrafted and proposed wording is contained in Appendix 1.

#### Relationship to section 128(1)(b)

22. I also have concern that if the Water Quality Standards become standards or are interpreted as standards in the context of section 68(7) and 69 of the RMA 1991, then the Palmerston North City Wastewater Treatment Plant (WWTP) may be required to meet the new standards in a review of the existing resource consent under section 128(1)(b). This could take place as soon as the One Plan is made operative and only a few years after a major upgrade to the plant.
23. The current wording of the rules would not allow for a non notified review of current consents because the rules do not signal that, as outlined in section 68(7). However if the wording of the standards and policies is left as is, then it is arguable that a notified review under section 128(1)(b) may be carried out.
24. Upgrading the WWTP to meet the proposed standards would result in substantial capital and operational expense to the Palmerston North community. The water quality of the Manawatu River above the WWTP discharge does not meet a number of the proposed standards. It is my opinion that upgrading the WWTP in the short term would not be an efficient use of funds when superior gains to water quality could be achieved through other means.
25. To address this issue I recommended that a clause be added to Rule 13-27. Discussions on this clause have been undertaken with Horizons Planners (Clare Barton and Helen Marr) with agreement to the concept, however it has been suggested that the clause should be located within the Policies of the One Plan.

26. In discussions with Ms Barton and Ms Marr, it had been agreed that Policy 2-3 (11A-6 in the provisional determination version) is the suitable location for the clause.
27. The wording of the clause has been amended so that it fits the new location more appropriately. The suggested wording is:

*The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only be considered in relation to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.*

28. However I now consider that it would be preferable to fix up the more fundamental issues with how the standards apply (i.e. renaming them as targets and making the policies and rules consistent with that). This is a better solution overall, and it would also avoid the need to specifically exempt the WWTP.

#### Stormwater and Centennial Lagoon

29. In my original evidence statement I raised issues surrounding Centennial Lagoon, stormwater discharges and the Schedule E definitions. In response, Ms Fleur Maseyk prepared a section 42A report pointing out the benefits of including the lagoon within the Schedule E definitions<sup>2</sup> and thereby giving it a Threatened Habitat Status.
30. Given the heavily modified status of Centennial Lagoon this highlights that any natural lake or wetland would be classified as a threatened habitat unless it was specifically exempted by the provisions within Table E.2(b). This in turn causes some confusion as to the rules that apply to discharges to such environments due to the doubling up of provisions that apply to lakes and wetlands.
31. For example, Rule 13-17 provides for discharges of stormwater to surface water as a restricted discretionary activity so long as there is no discharge to any natural lake, rare habitat, threatened habitat, at-risk habitat or Natural State Water Management Sub-zone or Site of Significance - Aquatic.
32. The rule guide relating to the stormwater rules states that discharges in rare habitats, threatened habitats or at-risk habitats are regulated by rules 12-7 and 12-8, making them a Discretionary Activity<sup>3</sup>. The rule guide also states that discharges in Natural State Water Management Sub-zones or Sites of Significance - Aquatic are regulated by Rule 13-23, making them a Non-complying Activity. There is no mention of discharges to natural lakes in the rule guide.

<sup>2</sup> See Paragraphs 21-22 of the s42A report of Ms Fleur Jennifer Foster Maseyk.

<sup>3</sup> Note that these provisions have been changed to Rule 12-6 in the Provisional Determination

33. Rule 13-23 is titled "Discharges of contaminants to Natural State Water Management Sub-zones, Sites of Significance – Aquatic and lakes and wetlands. The activities encompassed by this rule include any direct discharge of contaminants into a natural lake.
34. The discharges to Centennial Lagoon could be regulated by Rule 12-6 as indicated by the Rule Guide but also by Rule 13-23 given its title and the activities that it includes. This issue was also discussed with Ms Barton and Ms Marr at the meeting held on 14 December 2010 with agreement that the references to lakes and wetlands should be removed from Rule 13-23. For completeness the reference to lakes and wetlands should also be removed from the heading of section 13.8.

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## **Water Quantity**

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### Minimum flow and core allocation values for the Turitea Stream

35. Paragraphs 112 to 116 of my original evidence discuss the minimum flow and core allocation values set for the Turitea Stream. Dr. Jack McConchie has provided technical expert evidence on the Turitea catchment and recommended suitable values for the minimum flow and core allocation. Caucusing was held between Dr. McConchie, Dr Roygard and Ms Hurndell on this matter on 12 November 2009. This resulted in agreement on a number of matters and further evidence being prepared by Dr. McConchie that altered the minimum flow value from the original recommendations. The revised values have been agreed by Horizons experts and I have made the necessary amendments to my recommendations.

### Schedule E

36. It has been identified that as proposed the One Plan has classed the Turitea water supply lakes as threatened habitat. This issue has been raised in my original evidence and Ms Maseyk from Horizons has responded in her section 42A report.
37. Ms Maseyk has stated that the inclusion of the water supply dams within the definitions of Schedule E was an oversight and that it is the intent of the schedule to exclude areas designed, installed and maintained for such purposes. She has made a recommendation that the words 'town water supply' be added to the Table E.2(b).
38. I agree that an exclusion needs to be added to Table E.2(b) but in my opinion the words as recommended in my original evidence are more suitable. They are more specific in that it is water storage for public water supplies that is exempt. Public water supply is defined within the glossary of the One Plan thereby giving certainty to Plan users and applying consistent terminology throughout the Plan.

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**Conclusion**

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39. Taking into account the various meetings and discussions that have taken place and further evidence provided since the exchange of evidence I have made several amendments to the recommendations made in my original evidence statement. A full list of the proposed amendments is attached as Appendix 1.

A handwritten signature in black ink that reads "ADBashford". The signature is written in a cursive style with a large initial 'A' and 'B'.

Andrew Bashford  
**Planning Officer**  
PALMERSTON NORTH CITY COUNCIL

## **Appendix 1: Recommended Amendments to be made to One Plan**

### **General Amendments**

Note: These proposed changes are general in nature and will require further drafting. They relate to the issues of uncertainty around the Water Quality Standards as proposed in Schedule Ba and Schedule D of the One Plan. It is also noted that there are a number of cross referencing errors between the various versions of the One Plan and although not discussed in the evidence presented the Palmerston North City Council is happy to assist the Horizons Regional Council in correcting these if required.

1. The policies (in particular policies 6-3 to 6-5 and 13-6) should be amended so that each reference to Schedule Ba and Schedule D *standards* refers instead to "*water quality targets*";
2. The introductory wording in Schedule Ba and Schedule D should be amended to clearly label the schedules' contents as being *targets*;
3. An advice note should be added to Schedule Ba and Schedule D stating that the targets are intended to guide the exercise of the consent authority's discretion when considering consent applications, and that where relevant the targets have been incorporated as conditions of permitted activity rules;
4. The permitted activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-9 and 13-24) should be amended to refer to the relevant *targets* in those schedules; and
5. The controlled and restricted discretionary activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-17 and 13-21) should be amended so that control or discretion is reserved over "*measures to assist in maintaining or achieving the targets*" in the relevant schedule.

## **Specific Amendments**

Note: These proposed amendments contain specific wording to various One Plan provisions to address issues raised in evidence presented. All changes are **highlighted** with words recommended to be added shown as underlined, and words that are recommended to be deleted shown in ~~strike through~~.

### **Chapter 11**

Amend Policy 11-A-6 as follows:

#### **Policy 11A-6: Consent Review**

In addition to the reasons specified in s128(1)(a)(i) and (ii) RMA, the Regional Council will, under s128(1)(a)(iii) RMA, generally impose consent conditions that specify a review of consent conditions during the term of the consent for:

- (a) reviewing the appropriateness of any condition requiring the consent holder to supply the consent authority with information relating to the exercise of the resource consent
- (b) reviewing any unknown or uncertain adverse effects caused as a result of planned or required changes or upgrades to the activity
- (c) reviewing the conditions of a consent at the same time as review of other consents within the same Water Management Zone – for example, at a common catchment expiry or review date.
- (d) reviewing the effectiveness of consent conditions to avoid, remedy or mitigate any adverse effects of the activity on the environment.

The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only apply to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.

This policy relates to Objective 11A-2.

## Chapter 13

Amend Policy 13-6 (Pink Version) as follows:

### **Policy 13-6: ~~p~~Point Source Discharges to Land and Water**

~~(a) When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, the opportunity to utilise alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or **Error! Bookmark not defined.** mitigating adverse effects<sup>^</sup> where practicable **Error! Bookmark not defined.**, shall be considered., including but not limited to:z~~

(a) When applying for consents and making decisions on consent applications for discharges of contaminants to water or land the following shall be considered for the purpose of avoiding or mitigating effects:

- (i) the degree to which the activity will adversely affect the values identified for the relevant *Water Management Sub-zone(s)*\*
- (ii) whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards targets set in Schedule D to be breached
- (iii) the extent to which the activity is consistent with best management practices
- (iv) the need to allow reasonable time to achieve any required improvements.
- (v) alternative treatment and discharge options or mix of discharge regimes.

(b) The Regional Council may make an exception to (a) where:

- (i) in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided
- (ii) adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18
- (iii) it is appropriate to adopt the *best practicable option*<sup>^</sup>
- (iv) other exceptional circumstances apply

and it is consistent with the purpose of the RMA to do so.

This policy implements Objective 13-1

Amend Rules 13-17, and 13-23 as follows:

### 13.5 Rules - Stormwater

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>13-17</b> <b>Discharges</b> <b>of stormwater</b> <b>to surface</b> <b>water not</b> <b>complying</b> <b>with Rule 13-</b> <b>15</b>	The <i>discharges</i> of <i>stormwater</i> into <i>surface water</i> which do not comply with Rule 13-15, and any associated takes or diversions of stormwater forming part of the stormwater system.	<b>Restricted Discretionary</b>	(a) There shall be no <i>discharge</i> to any <b>natural lake</b> , <i>rare habitat</i> , <i>threatened habitat</i> , <i>at-risk habitat</i> , or Natural State Water Management Sub-zone or Site of Significance - Aquatic.	Discretion is reserved over: (a) measures to control flooding and erosion (b) contaminant concentrations and loading rates (c) measures required to comply with s107(1) RMA (d) measures required to comply with the water quality <b>standards targets</b> for the relevant Water Management Sub-zone(s) (e) odour management (f) stormwater system maintenance requirements (g) contingency requirements (h) monitoring and information requirements (i) duration of consent (j) review of consent conditions.

**13.8 Rules – Discharges of contaminants to Natural State Water Management Sub-zones, Lakes and Wetlands**

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<p><b>13-23 Discharges of contaminants to Natural State Water Management Sub-zones, and Sites of Significance – Aquatic and lakes and wetlands</b></p>	<p>Any direct <i>discharge</i> of <i>contaminants</i> into:</p> <ul style="list-style-type: none"> <li>(a) a Natural State Water Management Sub-zone</li> <li>(b) a water body identified as a Site of Significance – Aquatic in Schedule DBa</li> <li>(c) a natural lake, except Lake Otamangakau, Lake Te Whaiau and Lake Moawhanga</li> <li>(d) a wetland classified as a rare habitats, or threatened habitat</li> </ul> <p>except the discharge of agrichemicals for the purpose of controlling pests control as defined in a regional pest management strategy prepared under the Biosecurity Act 1993 (this activity is regulated by Rule 14-2).</p>	<p><b>Non-complying</b></p>		

## Chapter 15

Amend Rules 15-5 and 15-6 as follows:

### 15.2 Rules – Takes and Uses of Water

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-5 Takes and uses of surface water complying with core allocations</b>	The taking and use of surface water from a river, <b>or water storage lake on a river</b> , pursuant to s14(1) RMA, except where the water take is controlled under Rule 13-1.	<b>Controlled</b>	<p>(b) Water shall only be taken when the river is above its minimum flow, as assessed in accordance with Schedule B except as provided for by:</p> <p>(ba) takes or portions of takes which are for the purposes of stock drinking water and domestic needs, or public water supplies predominantly for domestic use may continue below minimum flow provided the rates and volumes of takes do not exceed the maximum takes of low flow set out in Policy 6-19.</p> <p>(c) The amount of water taken, when assessed in combination with all other water takes within the same Water Management Sub-zone shall not exceed the relevant core allocation set out for Water Management Subzones in Schedule B.</p> <p>(d) The amount of water taken, when assessed in combination with all other water takes within the same catchment, shall not exceed the cumulative allocation for each Water Management Sub-zone in the same catchment.</p> <p>(e) The take shall not lower the water level in any wetland that is a rare habitat or threatened habitat.</p>	<p>Control is reserved over:</p> <p>(a) the volume and rate of water taken, and the timing of the take</p> <p>(b) the location of take</p> <p>(c) intake velocity and screening requirements</p> <p>(d) measures to avoid, remedy or mitigate any adverse effects on the values of the water body at the point of abstraction, including restrictions on the volume and rate of abstraction</p> <p>(e) the efficiency of water use</p> <p>(f) effects on other water takes</p> <p>(g) effects on rare habitats, and threatened habitats and at-risk habitats and Sites of Significance – Aquatic.</p> <p>(h) compliance with minimum flow requirements</p> <p>(i) duration of consent</p> <p>(j) review of consent conditions</p> <p>(k) compliance monitoring.</p> <p>Resource consent applications under this rule will not be notified and written approval of affected persons will not be required (notice of applications need not be served on affected persons).</p>

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-6 Takes of surface water not complying with core allocations</b>	<p>The taking of surface water from a river <b>or water storage lake on a river:</b></p> <p>(aa) which, when assessed in combination with all other water takes, exceeds the relevant core allocation set out in Schedule B. or</p> <p>(ab) at or below minimum flow (unless allowed by Rule 15-5(b))</p> <p>This rule does not include:</p> <p>(a) takes permitted under Rule 15-1</p> <p>(b) takes in circumstances where water is only taken when the river flow is greater than the median flow (these are a discretionary activity under Rule 15-8)</p> <p>(c) lawfully established takes for hydroelectricity generation (these are discretionary activities under Rule 15-8).</p>	<b>Non-complying</b>		

**Schedule B**

Amend the Turitea (Mana\_11b) Sub-zone within Table B1 as follows:

Table B1: Allocation Limits and Minimum Flows by Water Management Sub-zone					
Zone code	Sub-zone	Minimum Flow (m <sup>3</sup> /s)	Flow monitoring site	Flow monitoring site location	Cumulative core allocation limit (m <sup>3</sup> /s)
Lower Manawatu (Mana_11)	Turitea (Mana_11b)	0.050 0.041	Turitea at Ngahere Park	T24:354-852	0.265 0.428

## Schedule D

Make the following changes to the associated Standards (targets) Key within Schedule D:

### Schedule D Standards Targets Key

Water<sup>^</sup> Quality Standards Targets Key: definition of abbreviations and full wording of the standards targets (placement of the numerical values for a specified standard target are indicated by [...]).

Abbreviations used in Tables D:1 to D:4		Full Wording of the Standard-Target
Header	Sub-header	
pH	Range	The pH of the water <sup>^</sup> shall be within the range [...] to [...], unless natural levels are already outside this range.
	Δ	The pH of the water <sup>^</sup> shall not be changed by more than [...].
Temp (°C)	<	The temperature of the water <sup>^</sup> shall not exceed [...] degrees Celsius.
	Δ	The temperature of the water <sup>^</sup> shall not be changed by more than [...]degrees Celsius.
DO (%SAT)	>	The concentration of dissolved oxygen (DO) shall exceed [...] % of saturation.
sCBOD <sub>5</sub> (g/m <sup>3</sup> )	<	The monthly average five-days filtered / soluble carbonaceous biochemical oxygen demand (BOD) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre.
POM (g/m <sup>3</sup> )	<	The average concentration of particulate organic matter when the river <sup>^</sup> flow is at or below 50th percentile of flow shall not exceed [...] grams per cubic metre.
Periphyton (Rivers)	Chl a (mg/m <sup>2</sup> )	The algal biomass on the stream or river <sup>^</sup> bed <sup>^</sup> shall not exceed [...] milligrams of chlorophyll a per square metre.
	% cover	The maximum cover of visible stream or river <sup>^</sup> bed <sup>^</sup> by periphyton as filamentous algae more than 2 centimetres long shall not exceed [...] %. The maximum cover of visible stream or river bed by periphyton as diatoms or cyanobacteria more than 0.3 centimetres thick shall not exceed [...] %.
Algal biomass Chl a (mg/m <sup>3</sup> )	<	The annual average algal biomass shall not exceed [...] milligrams chlorophyll Algal biomass a per cubic metre.
	Maximum	no sample shall exceed [...] milligrams chlorophyll a per cubic metre.
DRP (g/m <sup>3</sup> )	<	The annual average concentration of dissolved reactive phosphorus (DRP) when the river <sup>^</sup> flow is at or below the 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for DRP is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TP (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total phosphorus (TP) shall not exceed [...] grams per cubic metre.
SIN (g/m <sup>3</sup> )	<	The annual average concentration of soluble inorganic nitrogen <sup>11</sup> (SIN) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for SIN is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TN (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total nitrogen shall not exceed [...] grams per cubic metre.
MCI		The Macroinvertebrate Community Index (MCI) shall <b>not be less than 20% below natural reference conditions for the river.</b> <b>If natural reference conditions are not defined then the MCI shall</b> exceed [...]. <b>unless natural physical conditions are beyond the scope of application of the MCI.</b> In cases where the river <sup>^</sup> or stream habitat is suitable for the application of the soft-bottomed variant of the MCI (MCI-sb) the standards shall also apply. <b>This standard will not apply if the natural physical conditions are beyond the scope of application of the MCI or MCI-sb.</b> <b>The MCI standard applies only for State of the Environment monitoring purposes to determine if the aquatic macroinvertebrate communities are adequate to provide for and maintain the values in each WMSZ, the standard is not appropriate for monitoring the effects of activities such as discharges to water.</b>
QMCI	%Δ	<b>Discharges to water to cause N</b> no more than a 20 % reduction in Quantitative Macroinvertebrate Community Index (QMCI) score between <b>appropriately matched habitats</b> upstream and downstream of <b>the discharges to water<sup>^</sup>.</b> <b>Note: Where samples are collected using a hand net this standard shall also apply to the Semi-Quantitative MCI (SQMCI).</b>
Ammoniacal nitrogen (g/m <sup>3</sup> ) (rivers)	<	The average concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre.
Ammoniacal nitrogen (g/m <sup>3</sup> ) (lakes)	<	The concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre when lake <sup>^</sup> pH exceeds 8.5 within the epilimnion (shallow lakes <sup>^</sup> ) or within 2 m of the water <sup>^</sup> surface (deep lakes <sup>^</sup> ).
Toxicants	<%	For toxicants not otherwise defined in these standards, the concentration of toxicants in the water <sup>^</sup> shall not exceed the trigger values defined in the 2000 ANZECC guidelines Table 3.4.1 for the level of protection of [...] % of species. <b>For metals the trigger value shall be adjusted for hardness and apply to the dissolved fraction.</b>
Clarity (m) (rivers)	%Δ	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall equal or exceed [...] m when the river <sup>^</sup> is at or below the 50 <sup>th</sup> percentile of flow.
Clarity (m) (lakes)	%Δ	The clarity of the water <sup>^</sup> measured as Secchj depth (or horizontal sighting range of a 200 mm black disc) shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured Secchi depth (or horizontal sighting range of a 200 mm black disc) shall exceed [...] m.
E.coli/100ml (rivers)	<m	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive) when the river <sup>^</sup> flow is at or below the 50 <sup>th</sup> percentile of flow.
	<20 <sup>th</sup> %ile	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres when the river <sup>^</sup> flow is at or below the 20th percentile of flow year round.
E.coli/100 ml (lakes)	Summer	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive).
	Winter	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 May – 31 October (inclusive).
Euphotic Depth (lakes)	%Δ	Euphotic depth shall not be reduced by more than [...] %.

## **Schedule E**

Make the following amendments to Table E.2(b):

### **Table E.2(b):**

<p>If an area of any habitat type described in Table E.1 meets any of the following criteria it shall not be rare habitat*, threatened habitat* or at-risk habitat* for the purposes of this Plan.</p>
<p><b>Forest*, Treeland*, Scrub*, or Shrubland* Habitat Types Classified as Threatened or At-risk</b></p> <ul style="list-style-type: none"> <li>i. Areas of indigenous* tree* species planted for the purposes of timber harvest. Or</li> <li>ii. Indigenous* vegetation planted for landscaping, horticultural, shelter belts, gardening or amenity purposes. Or</li> <li>iii. Habitat areas 1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul> <p><b>Wetland^ Habitat Types Classified as Rare or Threatened</b></p> <ul style="list-style-type: none"> <li>iv. Damp gully heads, or paddocks subject to regular ponding, dominated* by pasture or exotic species in association* with wetland sedge and rush species. Or</li> <li>v. Ditches or drains supporting raupo, flax or other wetland species (e.g. Carex sp., Isolepis sp.), or populations of these species in drains or slumps associated with road reserves or rail corridors. Or</li> <li>vi. Areas of wetland^ habitat specifically designed, installed and maintained for any of the following purposes: <ul style="list-style-type: none"> <li>a) stock watering (including stock ponds), or</li> <li>b) water storage for the purposes of fire fighting or irrigation (including old gravel pits), or</li> <li>c) treatment of animal effluent (including pond or barrier ditch systems), or</li> <li>d) waste water treatment, or</li> <li>e) sediment control, or</li> <li>f) any hydroelectric power generation scheme. Or</li> <li>g) water storage for the purposes of public water supplies. Or</li> </ul> </li> <li>vii. Areas of wetland habitat maintained in relation to the implementation of any resource consent conditions or agreements relating to the operation of any hydroelectric power scheme currently lawfully established. Or</li> <li>viii. Open water and associated vegetation created for landscaping purposes or amenity values where the planted vegetation is predominately exotic, or includes assemblages of species not naturally found in association* with each other, on the particular landform, or at the geographical location of the created site.</li> <li>ix. Habitat areas 0.1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul>

**BEFORE THE MANAWATU – WANGANUI REGIONAL COUNCIL (HORIZONS  
REGIONAL COUNCIL)**

*In the matter of*        **The Resource Management Act 1991; and**

*In the matter of*        **The Proposed One Plan: Consolidated Regional Policy  
Statement, Regional Plan and Regional Coastal Plan for  
the Manawatu - Wanganui Region**

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**SUPPLEMENTARY EVIDENCE OF ANDREW DAVID BASHFORD  
ON BEHALF OF THE PALMERSTON NORTH CITY COUNCIL**

**CHAPTERS 6, 13, 15 AND 16  
AND SCHEDULES B, C, D AND E OF THE ONE PLAN**

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Dated: 11 February 2010

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## Introduction and Background

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1. I have prepared this report as supplementary evidence to my Statement of Evidence dated 16 October 2009. It has been compiled in response to supplementary evidence produced by Horizons experts and takes into account the outcomes of caucusing and pre-hearing meetings held since the exchange of evidence. It also focuses more specifically on the issues surrounding the water quality standards contained within Schedule D and section 69 of the Resource Management Act 1991.
2. Several meetings involving PNCC experts have been held since the exchange of evidence. Jack McConchie, Jon Roygard and Raelene Hurdell attended a caucusing meeting on 12 November 2009 regarding the minimum flow and core allocation limit in the Turitea subzone. Caucusing was also held between Keith Hamill, Paul Kennedy, Kathryn McArthur, John Quinn, Jon Roygard and Robert Wilcock on 10 November 2009 in relation to the Water Quality Standards contained within Schedule D of the Proposed One Plan. A pre-hearing meeting was held between Clare Barton, Helen Marr, Jon Roygard, Chris Pepper and myself on 14 December 2009 where several issues were discussed including the appropriate location of amendments to Rule 13-27 as suggested in my original evidence.

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## Water Quality

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### Water Quality Standards

3. The evidence and supplementary evidence of Keith Hamill discusses the Water Quality Standards contained within Schedule D in detail. Mr Hamill participated in caucusing with other water quality experts and reached agreement on a number of matters as outlined in the 'Meeting Between Experts' report dated 10 November 2009.
4. As a result of this meeting, and consequent discussions, some amendments have been made to the recommendations as contained in my original evidence statement. In particular these relate to the Standards Key and an updated version is attached in Appendix 1 to this statement.
5. Of particular note are the standards relating to QMCI and Toxicants, where the recommendations made here differ to that made by Horizons experts. The reasons for these differences are discussed in paragraphs 3.3 to 3.9 and 3.12 of Mr. Hamill's supplementary evidence.
6. Agreement was not achieved in relation to the standards relating to DRP or SIN through the caucusing process. The recommendations relating to these standards have not changed from my original evidence.

### Standards or Targets

7. As discussed in paragraphs 64 to 79 of my original evidence it is unclear in what circumstances the Water Quality Standards contained within Schedule Ba and Schedule D of the Proposed One Plan apply, and whether these are standards in terms of section 69 of the Resource Management Act 1991.
8. It appears that the intention is for the Schedule Ba and Schedule D standards to apply as standards in relation to activities that are permitted. In the event that an activity does not meet the standards, the activity would require a resource consent. Some controlled and restricted discretionary rules retain control or discretion that relate to the water quality standards. It is unclear whether discretionary or non-complying activities need to comply with the standards or whether the standards are to be used as targets against which an application is assessed.
9. This matter was discussed in the caucusing meeting in relation to the Water Quality Standards held on 10 December 2009. Agreement was reached between the experts that the use of the term 'standards' is not a good term to use in this context and that clarity is needed. The Horizons experts were also to discuss options with the Horizons planners to clarify *'that standards applied as absolute trigger values for permitted activities will be regarded as targets in other situations'*<sup>1</sup>.
10. This matter has been addressed to a limited extent by the recommended amendments to Policies 6-3 to 6-5 and in particular by the inclusion of the words *'maintains or enhances existing water quality'* to Policy 6-4. However there are still drafting issues with those policies and with Policy 13-6, and it remains unclear whether the 'standards' are intended to apply as standards or as guidelines for resource consent applications and as to whether the so called standards are intended to be standards for the purpose of section 68(7), 69 and section 128(1)(b) of the RMA.
11. The following table outlines the rules that have provisions directly referring to the Schedule Ba and Schedule D Standards:

<b>One Plan Rules in Chapter 13 referring directly to the Water Quality Standards</b>			
<b>Rule</b>	<b>Activity Status</b>	<b>Conditions/Standards/Terms</b>	<b>Control/Discretion</b>
13-9	Permitted	The discharge shall not, after reasonable mixing change the natural temperature of the receiving water by more than the maximum temperature or temperature change specified by the quality standards for the Water Management Sub-zone listed in Schedule Ba.	

<sup>1</sup> See paragraph 9 – Report of a Meeting between Experts: Water Quality Standards, 10 November 2009.

13-17	Restricted Discretionary		Discretion is reserved over:  Measures required to comply with the water quality standards for the relevant Water Management Sub-zone(s).
13-21	Controlled		Control is reserved over:  Measures to manage effects on surface water bodies including maintaining the values and water quality standards set out in Schedule Ba.
13-24	Permitted	The discharges shall not, after reasonable mixing, cause the receiving water body to breach the water quality standards for that water body set out in Schedule D, either from the discharge itself or in combination with any other discharges.	
13-26	Permitted	The discharge shall comply with all of the conditions of Rule 13-24.	

12. The default catch-all discretionary activity rule (Rule 13-27) does not refer to the standards at all and there is no rule which provides that discharges which do not meet the standards become non-complying or prohibited activities.
13. Accordingly in my opinion the intention of the Plan as notified was that these water quality targets would only apply as standards for the purpose set out in the permitted activity rules and would otherwise be guidelines or targets. That is consistent with what was agreed at caucusing.
14. My concern is that what appears to have been the intention has not been made clear in the Plan itself.
15. My second concern is that in the absence of clarity it remains open for future argument that these are standards for the purpose of section 69. That would then allow argument that the rules must require the observance of the standards with no exceptions. That is, it could be argued that the rules must be amended to prohibit discharges which do not meet the standards. That was clearly not what was intended but given the loose wording surrounding the standards that is an argument which others may mount.
16. Accordingly, in my opinion it is more appropriate to have wording which makes it clear that these are not standards for the purposes of section 69 but are targets

which will be considered at the time any applications are considered. It also needs to be made clear that what will be considered is whether the discharge on its own or in conjunction with other discharges will **cause** the targets to be breached. That is consistent with common sense and with the wording of section 107. Mr Hamill discusses this point in relation to QMCI.

17. A summary of proposed wording changes to the One Plan provisions to remedy these issues is suggested in Appendix 1 and has been discussed in Mr Milne's legal submissions. They include:
- Changing references to the Water Quality Standards in the One Plan to *Water Quality Targets*;
  - Ensuring the introductory wording to Schedule Ba and Schedule D label the contents as being targets; and
  - The addition of an advice note to Schedule Ba and Schedule D that makes it clear that the targets are intended to guide the Regional Council when assessing resource consent applications and that where appropriate relevant targets have been incorporated as conditions for permitted activities.
18. It is acknowledged that the suggested wording requires refining and to that extent the Palmerston North City Council is happy to work with Horizons to formulate appropriate provisions and wording to rectify the identified issues.
19. On a related note, there are some fundamental issues with how some of the policies have been drafted, as Mr Milne has discussed in his legal submissions. Policy 13-6 does not make sense as drafted in the pink version, and it is unclear how it is intended to be applied. The pink version text states:

*Policy 13-6: point Source Discharges to Land and Water*

- (a) *When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or Error! Bookmark not defined. mitigating adverse effects<sup>^</sup> Error! Bookmark not defined.,:*
- (i) *the degree to which the activity will adversely affect the values identified for the relevant Water Management Sub-zone(s)\**
  - (ii) *whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards set in Schedule D to be breached*
  - (iii) *the extent to which the activity is consistent with best management practices*
  - (iv) *the need to allow reasonable time to achieve any required improvements.*

(b) *The Regional Council may make an exception to subsection (a) where:*

- (i) *in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided*
- (ii) *adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18*
- (iii) *it is appropriate to adopt the best practicable option<sup>^</sup>*
- (iv) *other exceptional circumstances apply*

*and it is consistent with the purpose of the RMA to do so.*

20. In examining this policy it could be taken as two policies rolled into one where the applicant must consider alternatives when applying for consent, and secondly the consent authority must consider the matters described in the list labelled (i) to (iv). Alternatively it could be that both the consent authority and applicant must consider alternatives along with the matters within the list.
21. In addition the first part of clause (a) does not introduce the list in any way and there are a number of bookmarking errors within the policy. In my opinion the policy should be redrafted and proposed wording is contained in Appendix 1.

#### Relationship to section 128(1)(b)

22. I also have concern that if the Water Quality Standards become standards or are interpreted as standards in the context of section 68(7) and 69 of the RMA 1991, then the Palmerston North City Wastewater Treatment Plant (WWTP) may be required to meet the new standards in a review of the existing resource consent under section 128(1)(b). This could take place as soon as the One Plan is made operative and only a few years after a major upgrade to the plant.
23. The current wording of the rules would not allow for a non notified review of current consents because the rules do not signal that, as outlined in section 68(7). However if the wording of the standards and policies is left as is, then it is arguable that a notified review under section 128(1)(b) may be carried out.
24. Upgrading the WWTP to meet the proposed standards would result in substantial capital and operational expense to the Palmerston North community. The water quality of the Manawatu River above the WWTP discharge does not meet a number of the proposed standards. It is my opinion that upgrading the WWTP in the short term would not be an efficient use of funds when superior gains to water quality could be achieved through other means.
25. To address this issue I recommended that a clause be added to Rule 13-27. Discussions on this clause have been undertaken with Horizons Planners (Clare Barton and Helen Marr) with agreement to the concept, however it has been suggested that the clause should be located within the Policies of the One Plan.

26. In discussions with Ms Barton and Ms Marr, it had been agreed that Policy 2-3 (11A-6 in the provisional determination version) is the suitable location for the clause.
27. The wording of the clause has been amended so that it fits the new location more appropriately. The suggested wording is:

*The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only be considered in relation to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.*

28. However I now consider that it would be preferable to fix up the more fundamental issues with how the standards apply (i.e. renaming them as targets and making the policies and rules consistent with that). This is a better solution overall, and it would also avoid the need to specifically exempt the WWTP.

#### Stormwater and Centennial Lagoon

29. In my original evidence statement I raised issues surrounding Centennial Lagoon, stormwater discharges and the Schedule E definitions. In response, Ms Fleur Maseyk prepared a section 42A report pointing out the benefits of including the lagoon within the Schedule E definitions<sup>2</sup> and thereby giving it a Threatened Habitat Status.
30. Given the heavily modified status of Centennial Lagoon this highlights that any natural lake or wetland would be classified as a threatened habitat unless it was specifically exempted by the provisions within Table E.2(b). This in turn causes some confusion as to the rules that apply to discharges to such environments due to the doubling up of provisions that apply to lakes and wetlands.
31. For example, Rule 13-17 provides for discharges of stormwater to surface water as a restricted discretionary activity so long as there is no discharge to any natural lake, rare habitat, threatened habitat, at-risk habitat or Natural State Water Management Sub-zone or Site of Significance - Aquatic.
32. The rule guide relating to the stormwater rules states that discharges in rare habitats, threatened habitats or at-risk habitats are regulated by rules 12-7 and 12-8, making them a Discretionary Activity<sup>3</sup>. The rule guide also states that discharges in Natural State Water Management Sub-zones or Sites of Significance - Aquatic are regulated by Rule 13-23, making them a Non-complying Activity. There is no mention of discharges to natural lakes in the rule guide.

<sup>2</sup> See Paragraphs 21-22 of the s42A report of Ms Fleur Jennifer Foster Maseyk.

<sup>3</sup> Note that these provisions have been changed to Rule 12-6 in the Provisional Determination

33. Rule 13-23 is titled "Discharges of contaminants to Natural State Water Management Sub-zones, Sites of Significance – Aquatic and lakes and wetlands. The activities encompassed by this rule include any direct discharge of contaminants into a natural lake.
34. The discharges to Centennial Lagoon could be regulated by Rule 12-6 as indicated by the Rule Guide but also by Rule 13-23 given its title and the activities that it includes. This issue was also discussed with Ms Barton and Ms Marr at the meeting held on 14 December 2010 with agreement that the references to lakes and wetlands should be removed from Rule 13-23. For completeness the reference to lakes and wetlands should also be removed from the heading of section 13.8.

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## **Water Quantity**

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### Minimum flow and core allocation values for the Turitea Stream

35. Paragraphs 112 to 116 of my original evidence discuss the minimum flow and core allocation values set for the Turitea Stream. Dr. Jack McConchie has provided technical expert evidence on the Turitea catchment and recommended suitable values for the minimum flow and core allocation. Caucusing was held between Dr. McConchie, Dr Roygard and Ms Hurndell on this matter on 12 November 2009. This resulted in agreement on a number of matters and further evidence being prepared by Dr. McConchie that altered the minimum flow value from the original recommendations. The revised values have been agreed by Horizons experts and I have made the necessary amendments to my recommendations.

### Schedule E

36. It has been identified that as proposed the One Plan has classed the Turitea water supply lakes as threatened habitat. This issue has been raised in my original evidence and Ms Maseyk from Horizons has responded in her section 42A report.
37. Ms Maseyk has stated that the inclusion of the water supply dams within the definitions of Schedule E was an oversight and that it is the intent of the schedule to exclude areas designed, installed and maintained for such purposes. She has made a recommendation that the words 'town water supply' be added to the Table E.2(b).
38. I agree that an exclusion needs to be added to Table E.2(b) but in my opinion the words as recommended in my original evidence are more suitable. They are more specific in that it is water storage for public water supplies that is exempt. Public water supply is defined within the glossary of the One Plan thereby giving certainty to Plan users and applying consistent terminology throughout the Plan.

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**Conclusion**

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39. Taking into account the various meetings and discussions that have taken place and further evidence provided since the exchange of evidence I have made several amendments to the recommendations made in my original evidence statement. A full list of the proposed amendments is attached as Appendix 1.

A handwritten signature in black ink that reads "ADBashford". The signature is written in a cursive style with a light blue background behind the text.

Andrew Bashford  
**Planning Officer**  
PALMERSTON NORTH CITY COUNCIL

## **Appendix 1: Recommended Amendments to be made to One Plan**

### **General Amendments**

Note: These proposed changes are general in nature and will require further drafting. They relate to the issues of uncertainty around the Water Quality Standards as proposed in Schedule Ba and Schedule D of the One Plan. It is also noted that there are a number of cross referencing errors between the various versions of the One Plan and although not discussed in the evidence presented the Palmerston North City Council is happy to assist the Horizons Regional Council in correcting these if required.

1. The policies (in particular policies 6-3 to 6-5 and 13-6) should be amended so that each reference to Schedule Ba and Schedule D *standards* refers instead to "*water quality targets*";
2. The introductory wording in Schedule Ba and Schedule D should be amended to clearly label the schedules' contents as being *targets*;
3. An advice note should be added to Schedule Ba and Schedule D stating that the targets are intended to guide the exercise of the consent authority's discretion when considering consent applications, and that where relevant the targets have been incorporated as conditions of permitted activity rules;
4. The permitted activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-9 and 13-24) should be amended to refer to the relevant *targets* in those schedules; and
5. The controlled and restricted discretionary activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-17 and 13-21) should be amended so that control or discretion is reserved over "*measures to assist in maintaining or achieving the targets*" in the relevant schedule.

## **Specific Amendments**

Note: These proposed amendments contain specific wording to various One Plan provisions to address issues raised in evidence presented. All changes are **highlighted** with words recommended to be added shown as underlined, and words that are recommended to be deleted shown in ~~strike through~~.

### **Chapter 11**

Amend Policy 11-A-6 as follows:

#### **Policy 11A-6: Consent Review**

In addition to the reasons specified in s128(1)(a)(i) and (ii) RMA, the Regional Council will, under s128(1)(a)(iii) RMA, generally impose consent conditions that specify a review of consent conditions during the term of the consent for:

- (a) reviewing the appropriateness of any condition requiring the consent holder to supply the consent authority with information relating to the exercise of the resource consent
- (b) reviewing any unknown or uncertain adverse effects caused as a result of planned or required changes or upgrades to the activity
- (c) reviewing the conditions of a consent at the same time as review of other consents within the same Water Management Zone – for example, at a common catchment expiry or review date.
- (d) reviewing the effectiveness of consent conditions to avoid, remedy or mitigate any adverse effects of the activity on the environment.

The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only apply to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.

This policy relates to Objective 11A-2.

## Chapter 13

Amend Policy 13-6 (Pink Version) as follows:

### **Policy 13-6: ~~p~~Point Source Discharges to Land and Water**

~~(a) When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, the opportunity to utilise alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or **Error! Bookmark not defined.** mitigating adverse effects<sup>^</sup> where practicable **Error! Bookmark not defined.**, shall be considered., including but not limited to:z~~

(a) When applying for consents and making decisions on consent applications for discharges of contaminants to water or land the following shall be considered for the purpose of avoiding or mitigating effects:

- (i) the degree to which the activity will adversely affect the values identified for the relevant *Water Management Sub-zone(s)*\*
- (ii) whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards targets set in Schedule D to be breached
- (iii) the extent to which the activity is consistent with best management practices
- (iv) the need to allow reasonable time to achieve any required improvements.
- (v) alternative treatment and discharge options or mix of discharge regimes.

(b) The Regional Council may make an exception to (a) where:

- (i) in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided
- (ii) adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18
- (iii) it is appropriate to adopt the *best practicable option*<sup>^</sup>
- (iv) other exceptional circumstances apply

and it is consistent with the purpose of the RMA to do so.

This policy implements Objective 13-1

Amend Rules 13-17, and 13-23 as follows:

### 13.5 Rules - Stormwater

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>13-17</b> <b>Discharges</b> <b>of stormwater</b> <b>to surface</b> <b>water not</b> <b>complying</b> <b>with Rule 13-</b> <b>15</b>	The <i>discharges</i> of <i>stormwater</i> into <i>surface water</i> which do not comply with Rule 13-15, and any associated takes or diversions of stormwater forming part of the stormwater system.	<b>Restricted Discretionary</b>	(a) There shall be no <i>discharge</i> to any <b>natural lake</b> , <i>rare habitat</i> , <i>threatened habitat</i> , <i>at-risk habitat</i> , or Natural State Water Management Sub-zone or Site of Significance - Aquatic.	Discretion is reserved over: (a) measures to control flooding and erosion (b) contaminant concentrations and loading rates (c) measures required to comply with s107(1) RMA (d) measures required to comply with the water quality <b>standards targets</b> for the relevant Water Management Sub-zone(s) (e) odour management (f) stormwater system maintenance requirements (g) contingency requirements (h) monitoring and information requirements (i) duration of consent (j) review of consent conditions.

**13.8 Rules – Discharges of contaminants to Natural State Water Management Sub-zones, Lakes and Wetlands**

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<p><b>13-23 Discharges of contaminants to Natural State Water Management Sub-zones, and Sites of Significance – Aquatic and lakes and wetlands</b></p>	<p>Any direct <i>discharge</i> of <i>contaminants</i> into:</p> <ul style="list-style-type: none"> <li>(a) a Natural State Water Management Sub-zone</li> <li>(b) a water body identified as a Site of Significance – Aquatic in Schedule DBa</li> <li>(c) a natural lake, except Lake Otamangakau, Lake Te Whaiau and Lake Moawhanga</li> <li>(d) a wetland classified as a rare habitat, or threatened habitat</li> </ul> <p>except the discharge of agrichemicals for the purpose of controlling pests control as defined in a regional pest management strategy prepared under the Biosecurity Act 1993 (this activity is regulated by Rule 14-2).</p>	<p><b>Non-complying</b></p>		

## Chapter 15

Amend Rules 15-5 and 15-6 as follows:

### 15.2 Rules – Takes and Uses of Water

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-5 Takes and uses of surface water complying with core allocations</b>	The taking and use of surface water from a river, <b>or water storage lake on a river</b> , pursuant to s14(1) RMA, except where the water take is controlled under Rule 13-1.	<b>Controlled</b>	<p>(b) Water shall only be taken when the river is above its minimum flow, as assessed in accordance with Schedule B except as provided for by:</p> <p>(ba) takes or portions of takes which are for the purposes of stock drinking water and domestic needs, or public water supplies predominantly for domestic use may continue below minimum flow provided the rates and volumes of takes do not exceed the maximum takes of low flow set out in Policy 6-19.</p> <p>(c) The amount of water taken, when assessed in combination with all other water takes within the same Water Management Sub-zone shall not exceed the relevant core allocation set out for Water Management Subzones in Schedule B.</p> <p>(d) The amount of water taken, when assessed in combination with all other water takes within the same catchment, shall not exceed the cumulative allocation for each Water Management Sub-zone in the same catchment.</p> <p>(e) The take shall not lower the water level in any wetland that is a rare habitat or threatened habitat.</p>	<p>Control is reserved over:</p> <p>(a) the volume and rate of water taken, and the timing of the take</p> <p>(b) the location of take</p> <p>(c) intake velocity and screening requirements</p> <p>(d) measures to avoid, remedy or mitigate any adverse effects on the values of the water body at the point of abstraction, including restrictions on the volume and rate of abstraction</p> <p>(e) the efficiency of water use</p> <p>(f) effects on other water takes</p> <p>(g) effects on rare habitats, and threatened habitats and at-risk habitats and Sites of Significance – Aquatic.</p> <p>(h) compliance with minimum flow requirements</p> <p>(i) duration of consent</p> <p>(j) review of consent conditions</p> <p>(k) compliance monitoring.</p> <p>Resource consent applications under this rule will not be notified and written approval of affected persons will not be required (notice of applications need not be served on affected persons).</p>

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-6 Takes of surface water not complying with core allocations</b>	<p>The taking of surface water from a river <b>or water storage lake on a river:</b></p> <p>(aa) which, when assessed in combination with all other water takes, exceeds the relevant core allocation set out in Schedule B. or</p> <p>(ab) at or below minimum flow (unless allowed by Rule 15-5(b))</p> <p>This rule does not include:</p> <p>(a) takes permitted under Rule 15-1</p> <p>(b) takes in circumstances where water is only taken when the river flow is greater than the median flow (these are a discretionary activity under Rule 15-8)</p> <p>(c) lawfully established takes for hydroelectricity generation (these are discretionary activities under Rule 15-8).</p>	<b>Non-complying</b>		

**Schedule B**

Amend the Turitea (Mana\_11b) Sub-zone within Table B1 as follows:

Table B1: Allocation Limits and Minimum Flows by Water Management Sub-zone					
Zone code	Sub-zone	Minimum Flow (m <sup>3</sup> /s)	Flow monitoring site	Flow monitoring site location	Cumulative core allocation limit (m <sup>3</sup> /s)
Lower Manawatu (Mana_11)	Turitea (Mana_11b)	0.050 0.041	Turitea at Ngahere Park	T24:354-852	0.265 0.428

## Schedule D

Make the following changes to the associated Standards (targets) Key within Schedule D:

### Schedule D Standards Targets Key

Water<sup>^</sup> Quality Standards Targets Key: definition of abbreviations and full wording of the standards targets (placement of the numerical values for a specified standard target are indicated by [...]).

Abbreviations used in Tables D:1 to D:4		Full Wording of the Standard-Target
Header	Sub-header	
pH	Range	The pH of the water <sup>^</sup> shall be within the range [...] to [...], unless natural levels are already outside this range.
	Δ	The pH of the water <sup>^</sup> shall not be changed by more than [...].
Temp (°C)	<	The temperature of the water <sup>^</sup> shall not exceed [...] degrees Celsius.
	Δ	The temperature of the water <sup>^</sup> shall not be changed by more than [...]degrees Celsius.
DO (%SAT)	>	The concentration of dissolved oxygen (DO) shall exceed [...] % of saturation.
sCBOD <sub>5</sub> (g/m <sup>3</sup> )	<	The monthly average five-days filtered / soluble carbonaceous biochemical oxygen demand (BOD) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre.
POM (g/m <sup>3</sup> )	<	The average concentration of particulate organic matter when the river <sup>^</sup> flow is at or below 50th percentile of flow shall not exceed [...] grams per cubic metre.
Periphyton (Rivers)	Chl a (mg/m <sup>2</sup> )	The algal biomass on the stream or river <sup>^</sup> bed <sup>^</sup> shall not exceed [...] milligrams of chlorophyll a per square metre.
	% cover	The maximum cover of visible stream or river <sup>^</sup> bed <sup>^</sup> by periphyton as filamentous algae more than 2 centimetres long shall not exceed [...] %. The maximum cover of visible stream or river bed by periphyton as diatoms or cyanobacteria more than 0.3 centimetres thick shall not exceed [...] %.
Algal biomass Chl a (mg/m <sup>3</sup> )	<	The annual average algal biomass shall not exceed [...] milligrams chlorophyll Algal biomass a per cubic metre.
	Maximum	no sample shall exceed [...] milligrams chlorophyll a per cubic metre.
DRP (g/m <sup>3</sup> )	<	The annual average concentration of dissolved reactive phosphorus (DRP) when the river <sup>^</sup> flow is at or below the 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for DRP is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TP (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total phosphorus (TP) shall not exceed [...] grams per cubic metre.
SIN (g/m <sup>3</sup> )	<	The annual average concentration of soluble inorganic nitrogen <sup>11</sup> (SIN) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for SIN is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TN (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total nitrogen shall not exceed [...] grams per cubic metre.
MCI		The Macroinvertebrate Community Index (MCI) shall <b>not be less than 20% below natural reference conditions for the river.</b> <b>If natural reference conditions are not defined then the MCI shall</b> exceed [...]. <b>unless natural physical conditions are beyond the scope of application of the MCI.</b> In cases where the river <sup>^</sup> or stream habitat is suitable for the application of the soft-bottomed variant of the MCI (MCI-sb) the standards shall also apply. <b>This standard will not apply if the natural physical conditions are beyond the scope of application of the MCI or MCI-sb.</b> <b>The MCI standard applies only for State of the Environment monitoring purposes to determine if the aquatic macroinvertebrate communities are adequate to provide for and maintain the values in each WMSZ, the standard is not appropriate for monitoring the effects of activities such as discharges to water.</b>
QMCI	%Δ	<b>Discharges to water to cause N</b> no more than a 20 % reduction in Quantitative Macroinvertebrate Community Index (QMCI) score between <b>appropriately matched habitats</b> upstream and downstream of <b>the discharges to water<sup>^</sup>.</b> <b>Note: Where samples are collected using a hand net this standard shall also apply to the Semi-Quantitative MCI (SQMCI).</b>
Ammoniacal nitrogen (g/m <sup>3</sup> ) (rivers)	<	The average concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre.
Ammoniacal nitrogen (g/m <sup>3</sup> ) (lakes)	<	The concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre when lake <sup>^</sup> pH exceeds 8.5 within the epilimnion (shallow lakes <sup>^</sup> ) or within 2 m of the water <sup>^</sup> surface (deep lakes <sup>^</sup> ).
Toxicants	<%	For toxicants not otherwise defined in these standards, the concentration of toxicants in the water <sup>^</sup> shall not exceed the trigger values defined in the 2000 ANZECC guidelines Table 3.4.1 for the level of protection of [...] % of species. <b>For metals the trigger value shall be adjusted for hardness and apply to the dissolved fraction.</b>
Clarity (m) (rivers)	%Δ	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall equal or exceed [...] m when the river <sup>^</sup> is at or below the 50 <sup>th</sup> percentile of flow.
Clarity (m) (lakes)	%Δ	The clarity of the water <sup>^</sup> measured as Secchj depth (or horizontal sighting range of a 200 mm black disc) shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured Secchi depth (or horizontal sighting range of a 200 mm black disc) shall exceed [...] m.
E.coli/100ml (rivers)	<m	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive) when the river <sup>^</sup> flow is at or below the 50 <sup>th</sup> percentile of flow.
	<20 <sup>th</sup> %ile	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres when the river <sup>^</sup> flow is at or below the 20th percentile of flow year round.
E.coli/100 ml (lakes)	Summer	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive).
	Winter	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 May – 31 October (inclusive).
Euphotic Depth (lakes)	%Δ	Euphotic depth shall not be reduced by more than [...] %.

## **Schedule E**

Make the following amendments to Table E.2(b):

### **Table E.2(b):**

<p>If an area of any habitat type described in Table E.1 meets any of the following criteria it shall not be rare habitat*, threatened habitat* or at-risk habitat* for the purposes of this Plan.</p>
<p><b>Forest*, Treeland*, Scrub*, or Shrubland* Habitat Types Classified as Threatened or At-risk</b></p> <ul style="list-style-type: none"> <li>i. Areas of indigenous* tree* species planted for the purposes of timber harvest. Or</li> <li>ii. Indigenous* vegetation planted for landscaping, horticultural, shelter belts, gardening or amenity purposes. Or</li> <li>iii. Habitat areas 1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul> <p><b>Wetland^ Habitat Types Classified as Rare or Threatened</b></p> <ul style="list-style-type: none"> <li>iv. Damp gully heads, or paddocks subject to regular ponding, dominated* by pasture or exotic species in association* with wetland sedge and rush species. Or</li> <li>v. Ditches or drains supporting raupo, flax or other wetland species (e.g. Carex sp., Isolepis sp.), or populations of these species in drains or slumps associated with road reserves or rail corridors. Or</li> <li>vi. Areas of wetland^ habitat specifically designed, installed and maintained for any of the following purposes: <ul style="list-style-type: none"> <li>a) stock watering (including stock ponds), or</li> <li>b) water storage for the purposes of fire fighting or irrigation (including old gravel pits), or</li> <li>c) treatment of animal effluent (including pond or barrier ditch systems), or</li> <li>d) waste water treatment, or</li> <li>e) sediment control, or</li> <li>f) any hydroelectric power generation scheme. Or</li> <li>g) water storage for the purposes of public water supplies. Or</li> </ul> </li> <li>vii. Areas of wetland habitat maintained in relation to the implementation of any resource consent conditions or agreements relating to the operation of any hydroelectric power scheme currently lawfully established. Or</li> <li>viii. Open water and associated vegetation created for landscaping purposes or amenity values where the planted vegetation is predominately exotic, or includes assemblages of species not naturally found in association* with each other, on the particular landform, or at the geographical location of the created site.</li> <li>ix. Habitat areas 0.1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul>

**BEFORE THE MANAWATU – WANGANUI REGIONAL COUNCIL (HORIZONS  
REGIONAL COUNCIL)**

*In the matter of*      **The Resource Management Act 1991; and**

*In the matter of*      **The Proposed One Plan: Consolidated Regional Policy  
Statement, Regional Plan and Regional Coastal Plan for  
the Manawatu - Wanganui Region**

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**SUPPLEMENTARY EVIDENCE OF ANDREW DAVID BASHFORD  
ON BEHALF OF THE PALMERSTON NORTH CITY COUNCIL**

**CHAPTERS 6, 13, 15 AND 16  
AND SCHEDULES B, C, D AND E OF THE ONE PLAN**

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Dated: 11 February 2010

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## Introduction and Background

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1. I have prepared this report as supplementary evidence to my Statement of Evidence dated 16 October 2009. It has been compiled in response to supplementary evidence produced by Horizons experts and takes into account the outcomes of caucusing and pre-hearing meetings held since the exchange of evidence. It also focuses more specifically on the issues surrounding the water quality standards contained within Schedule D and section 69 of the Resource Management Act 1991.
2. Several meetings involving PNCC experts have been held since the exchange of evidence. Jack McConchie, Jon Roygard and Raelene Hurdell attended a caucusing meeting on 12 November 2009 regarding the minimum flow and core allocation limit in the Turitea subzone. Caucusing was also held between Keith Hamill, Paul Kennedy, Kathryn McArthur, John Quinn, Jon Roygard and Robert Wilcock on 10 November 2009 in relation to the Water Quality Standards contained within Schedule D of the Proposed One Plan. A pre-hearing meeting was held between Clare Barton, Helen Marr, Jon Roygard, Chris Pepper and myself on 14 December 2009 where several issues were discussed including the appropriate location of amendments to Rule 13-27 as suggested in my original evidence.

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## Water Quality

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### Water Quality Standards

3. The evidence and supplementary evidence of Keith Hamill discusses the Water Quality Standards contained within Schedule D in detail. Mr Hamill participated in caucusing with other water quality experts and reached agreement on a number of matters as outlined in the 'Meeting Between Experts' report dated 10 November 2009.
4. As a result of this meeting, and consequent discussions, some amendments have been made to the recommendations as contained in my original evidence statement. In particular these relate to the Standards Key and an updated version is attached in Appendix 1 to this statement.
5. Of particular note are the standards relating to QMCI and Toxicants, where the recommendations made here differ to that made by Horizons experts. The reasons for these differences are discussed in paragraphs 3.3 to 3.9 and 3.12 of Mr. Hamill's supplementary evidence.
6. Agreement was not achieved in relation to the standards relating to DRP or SIN through the caucusing process. The recommendations relating to these standards have not changed from my original evidence.

### Standards or Targets

7. As discussed in paragraphs 64 to 79 of my original evidence it is unclear in what circumstances the Water Quality Standards contained within Schedule Ba and Schedule D of the Proposed One Plan apply, and whether these are standards in terms of section 69 of the Resource Management Act 1991.
8. It appears that the intention is for the Schedule Ba and Schedule D standards to apply as standards in relation to activities that are permitted. In the event that an activity does not meet the standards, the activity would require a resource consent. Some controlled and restricted discretionary rules retain control or discretion that relate to the water quality standards. It is unclear whether discretionary or non-complying activities need to comply with the standards or whether the standards are to be used as targets against which an application is assessed.
9. This matter was discussed in the caucusing meeting in relation to the Water Quality Standards held on 10 December 2009. Agreement was reached between the experts that the use of the term 'standards' is not a good term to use in this context and that clarity is needed. The Horizons experts were also to discuss options with the Horizons planners to clarify *'that standards applied as absolute trigger values for permitted activities will be regarded as targets in other situations'*<sup>1</sup>.
10. This matter has been addressed to a limited extent by the recommended amendments to Policies 6-3 to 6-5 and in particular by the inclusion of the words *'maintains or enhances existing water quality'* to Policy 6-4. However there are still drafting issues with those policies and with Policy 13-6, and it remains unclear whether the 'standards' are intended to apply as standards or as guidelines for resource consent applications and as to whether the so called standards are intended to be standards for the purpose of section 68(7), 69 and section 128(1)(b) of the RMA.
11. The following table outlines the rules that have provisions directly referring to the Schedule Ba and Schedule D Standards:

<b>One Plan Rules in Chapter 13 referring directly to the Water Quality Standards</b>			
<b>Rule</b>	<b>Activity Status</b>	<b>Conditions/Standards/Terms</b>	<b>Control/Discretion</b>
13-9	Permitted	The discharge shall not, after reasonable mixing change the natural temperature of the receiving water by more than the maximum temperature or temperature change specified by the quality standards for the Water Management Sub-zone listed in Schedule Ba.	

<sup>1</sup> See paragraph 9 – Report of a Meeting between Experts: Water Quality Standards, 10 November 2009.

13-17	Restricted Discretionary		Discretion is reserved over:  Measures required to comply with the water quality standards for the relevant Water Management Sub-zone(s).
13-21	Controlled		Control is reserved over:  Measures to manage effects on surface water bodies including maintaining the values and water quality standards set out in Schedule Ba.
13-24	Permitted	The discharges shall not, after reasonable mixing, cause the receiving water body to breach the water quality standards for that water body set out in Schedule D, either from the discharge itself or in combination with any other discharges.	
13-26	Permitted	The discharge shall comply with all of the conditions of Rule 13-24.	

12. The default catch-all discretionary activity rule (Rule 13-27) does not refer to the standards at all and there is no rule which provides that discharges which do not meet the standards become non-complying or prohibited activities.
13. Accordingly in my opinion the intention of the Plan as notified was that these water quality targets would only apply as standards for the purpose set out in the permitted activity rules and would otherwise be guidelines or targets. That is consistent with what was agreed at caucusing.
14. My concern is that what appears to have been the intention has not been made clear in the Plan itself.
15. My second concern is that in the absence of clarity it remains open for future argument that these are standards for the purpose of section 69. That would then allow argument that the rules must require the observance of the standards with no exceptions. That is, it could be argued that the rules must be amended to prohibit discharges which do not meet the standards. That was clearly not what was intended but given the loose wording surrounding the standards that is an argument which others may mount.
16. Accordingly, in my opinion it is more appropriate to have wording which makes it clear that these are not standards for the purposes of section 69 but are targets

which will be considered at the time any applications are considered. It also needs to be made clear that what will be considered is whether the discharge on its own or in conjunction with other discharges will **cause** the targets to be breached. That is consistent with common sense and with the wording of section 107. Mr Hamill discusses this point in relation to QMCI.

17. A summary of proposed wording changes to the One Plan provisions to remedy these issues is suggested in Appendix 1 and has been discussed in Mr Milne's legal submissions. They include:
- Changing references to the Water Quality Standards in the One Plan to *Water Quality Targets*;
  - Ensuring the introductory wording to Schedule Ba and Schedule D label the contents as being targets; and
  - The addition of an advice note to Schedule Ba and Schedule D that makes it clear that the targets are intended to guide the Regional Council when assessing resource consent applications and that where appropriate relevant targets have been incorporated as conditions for permitted activities.
18. It is acknowledged that the suggested wording requires refining and to that extent the Palmerston North City Council is happy to work with Horizons to formulate appropriate provisions and wording to rectify the identified issues.
19. On a related note, there are some fundamental issues with how some of the policies have been drafted, as Mr Milne has discussed in his legal submissions. Policy 13-6 does not make sense as drafted in the pink version, and it is unclear how it is intended to be applied. The pink version text states:

*Policy 13-6: point Source Discharges to Land and Water*

- (a) *When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or Error! Bookmark not defined. mitigating adverse effects<sup>^</sup> Error! Bookmark not defined.,:*
- (i) *the degree to which the activity will adversely affect the values identified for the relevant Water Management Sub-zone(s)\**
  - (ii) *whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards set in Schedule D to be breached*
  - (iii) *the extent to which the activity is consistent with best management practices*
  - (iv) *the need to allow reasonable time to achieve any required improvements.*

(b) *The Regional Council may make an exception to subsection (a) where:*

- (i) *in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided*
- (ii) *adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18*
- (iii) *it is appropriate to adopt the best practicable option<sup>^</sup>*
- (iv) *other exceptional circumstances apply*

*and it is consistent with the purpose of the RMA to do so.*

20. In examining this policy it could be taken as two policies rolled into one where the applicant must consider alternatives when applying for consent, and secondly the consent authority must consider the matters described in the list labelled (i) to (iv). Alternatively it could be that both the consent authority and applicant must consider alternatives along with the matters within the list.
21. In addition the first part of clause (a) does not introduce the list in any way and there are a number of bookmarking errors within the policy. In my opinion the policy should be redrafted and proposed wording is contained in Appendix 1.

#### Relationship to section 128(1)(b)

22. I also have concern that if the Water Quality Standards become standards or are interpreted as standards in the context of section 68(7) and 69 of the RMA 1991, then the Palmerston North City Wastewater Treatment Plant (WWTP) may be required to meet the new standards in a review of the existing resource consent under section 128(1)(b). This could take place as soon as the One Plan is made operative and only a few years after a major upgrade to the plant.
23. The current wording of the rules would not allow for a non notified review of current consents because the rules do not signal that, as outlined in section 68(7). However if the wording of the standards and policies is left as is, then it is arguable that a notified review under section 128(1)(b) may be carried out.
24. Upgrading the WWTP to meet the proposed standards would result in substantial capital and operational expense to the Palmerston North community. The water quality of the Manawatu River above the WWTP discharge does not meet a number of the proposed standards. It is my opinion that upgrading the WWTP in the short term would not be an efficient use of funds when superior gains to water quality could be achieved through other means.
25. To address this issue I recommended that a clause be added to Rule 13-27. Discussions on this clause have been undertaken with Horizons Planners (Clare Barton and Helen Marr) with agreement to the concept, however it has been suggested that the clause should be located within the Policies of the One Plan.

26. In discussions with Ms Barton and Ms Marr, it had been agreed that Policy 2-3 (11A-6 in the provisional determination version) is the suitable location for the clause.
27. The wording of the clause has been amended so that it fits the new location more appropriately. The suggested wording is:

*The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only be considered in relation to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.*

28. However I now consider that it would be preferable to fix up the more fundamental issues with how the standards apply (i.e. renaming them as targets and making the policies and rules consistent with that). This is a better solution overall, and it would also avoid the need to specifically exempt the WWTP.

#### Stormwater and Centennial Lagoon

29. In my original evidence statement I raised issues surrounding Centennial Lagoon, stormwater discharges and the Schedule E definitions. In response, Ms Fleur Maseyk prepared a section 42A report pointing out the benefits of including the lagoon within the Schedule E definitions<sup>2</sup> and thereby giving it a Threatened Habitat Status.
30. Given the heavily modified status of Centennial Lagoon this highlights that any natural lake or wetland would be classified as a threatened habitat unless it was specifically exempted by the provisions within Table E.2(b). This in turn causes some confusion as to the rules that apply to discharges to such environments due to the doubling up of provisions that apply to lakes and wetlands.
31. For example, Rule 13-17 provides for discharges of stormwater to surface water as a restricted discretionary activity so long as there is no discharge to any natural lake, rare habitat, threatened habitat, at-risk habitat or Natural State Water Management Sub-zone or Site of Significance - Aquatic.
32. The rule guide relating to the stormwater rules states that discharges in rare habitats, threatened habitats or at-risk habitats are regulated by rules 12-7 and 12-8, making them a Discretionary Activity<sup>3</sup>. The rule guide also states that discharges in Natural State Water Management Sub-zones or Sites of Significance - Aquatic are regulated by Rule 13-23, making them a Non-complying Activity. There is no mention of discharges to natural lakes in the rule guide.

<sup>2</sup> See Paragraphs 21-22 of the s42A report of Ms Fleur Jennifer Foster Maseyk.

<sup>3</sup> Note that these provisions have been changed to Rule 12-6 in the Provisional Determination

33. Rule 13-23 is titled "Discharges of contaminants to Natural State Water Management Sub-zones, Sites of Significance – Aquatic and lakes and wetlands. The activities encompassed by this rule include any direct discharge of contaminants into a natural lake.
  34. The discharges to Centennial Lagoon could be regulated by Rule 12-6 as indicated by the Rule Guide but also by Rule 13-23 given its title and the activities that it includes. This issue was also discussed with Ms Barton and Ms Marr at the meeting held on 14 December 2010 with agreement that the references to lakes and wetlands should be removed from Rule 13-23. For completeness the reference to lakes and wetlands should also be removed from the heading of section 13.8.
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## **Water Quantity**

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### Minimum flow and core allocation values for the Turitea Stream

35. Paragraphs 112 to 116 of my original evidence discuss the minimum flow and core allocation values set for the Turitea Stream. Dr. Jack McConchie has provided technical expert evidence on the Turitea catchment and recommended suitable values for the minimum flow and core allocation. Caucusing was held between Dr. McConchie, Dr Roygard and Ms Hurndell on this matter on 12 November 2009. This resulted in agreement on a number of matters and further evidence being prepared by Dr. McConchie that altered the minimum flow value from the original recommendations. The revised values have been agreed by Horizons experts and I have made the necessary amendments to my recommendations.

### Schedule E

36. It has been identified that as proposed the One Plan has classed the Turitea water supply lakes as threatened habitat. This issue has been raised in my original evidence and Ms Maseyk from Horizons has responded in her section 42A report.
37. Ms Maseyk has stated that the inclusion of the water supply dams within the definitions of Schedule E was an oversight and that it is the intent of the schedule to exclude areas designed, installed and maintained for such purposes. She has made a recommendation that the words 'town water supply' be added to the Table E.2(b).
38. I agree that an exclusion needs to be added to Table E.2(b) but in my opinion the words as recommended in my original evidence are more suitable. They are more specific in that it is water storage for public water supplies that is exempt. Public water supply is defined within the glossary of the One Plan thereby giving certainty to Plan users and applying consistent terminology throughout the Plan.

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**Conclusion**

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39. Taking into account the various meetings and discussions that have taken place and further evidence provided since the exchange of evidence I have made several amendments to the recommendations made in my original evidence statement. A full list of the proposed amendments is attached as Appendix 1.

A handwritten signature in black ink that reads "ADBashford". The signature is written in a cursive style with a large initial 'A' and 'B'.

Andrew Bashford  
**Planning Officer**  
PALMERSTON NORTH CITY COUNCIL

## **Appendix 1: Recommended Amendments to be made to One Plan**

### **General Amendments**

Note: These proposed changes are general in nature and will require further drafting. They relate to the issues of uncertainty around the Water Quality Standards as proposed in Schedule Ba and Schedule D of the One Plan. It is also noted that there are a number of cross referencing errors between the various versions of the One Plan and although not discussed in the evidence presented the Palmerston North City Council is happy to assist the Horizons Regional Council in correcting these if required.

1. The policies (in particular policies 6-3 to 6-5 and 13-6) should be amended so that each reference to Schedule Ba and Schedule D *standards* refers instead to "*water quality targets*";
2. The introductory wording in Schedule Ba and Schedule D should be amended to clearly label the schedules' contents as being *targets*;
3. An advice note should be added to Schedule Ba and Schedule D stating that the targets are intended to guide the exercise of the consent authority's discretion when considering consent applications, and that where relevant the targets have been incorporated as conditions of permitted activity rules;
4. The permitted activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-9 and 13-24) should be amended to refer to the relevant *targets* in those schedules; and
5. The controlled and restricted discretionary activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-17 and 13-21) should be amended so that control or discretion is reserved over "*measures to assist in maintaining or achieving the targets*" in the relevant schedule.

## **Specific Amendments**

Note: These proposed amendments contain specific wording to various One Plan provisions to address issues raised in evidence presented. All changes are **highlighted** with words recommended to be added shown as underlined, and words that are recommended to be deleted shown in ~~strike through~~.

### **Chapter 11**

Amend Policy 11-A-6 as follows:

#### **Policy 11A-6: Consent Review**

In addition to the reasons specified in s128(1)(a)(i) and (ii) RMA, the Regional Council will, under s128(1)(a)(iii) RMA, generally impose consent conditions that specify a review of consent conditions during the term of the consent for:

- (a) reviewing the appropriateness of any condition requiring the consent holder to supply the consent authority with information relating to the exercise of the resource consent
- (b) reviewing any unknown or uncertain adverse effects caused as a result of planned or required changes or upgrades to the activity
- (c) reviewing the conditions of a consent at the same time as review of other consents within the same Water Management Zone – for example, at a common catchment expiry or review date.
- (d) reviewing the effectiveness of consent conditions to avoid, remedy or mitigate any adverse effects of the activity on the environment.

The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only apply to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.

This policy relates to Objective 11A-2.

## Chapter 13

Amend Policy 13-6 (Pink Version) as follows:

### **Policy 13-6: Point Source Discharges to Land and Water**

~~(a) When applying for consents and making decisions on consent applications for discharges of contaminants to water or land, the opportunity to utilise alternatives must be considered including alternative treatment and discharge options or a mix of discharge regimes, for the purpose of avoiding or **Error! Bookmark not defined.** mitigating adverse effects where practicable **Error! Bookmark not defined.**, shall be considered, including but not limited to:~~

(a) When applying for consents and making decisions on consent applications for discharges of contaminants to water or land the following shall be considered for the purpose of avoiding or mitigating effects:

- (i) the degree to which the activity will adversely affect the values identified for the relevant *Water Management Sub-zone(s)*\*
- (ii) whether the discharge, in combination with other discharges including non-point source discharges, will cause the water quality standards targets set in Schedule D to be breached
- (iii) the extent to which the activity is consistent with best management practices
- (iv) the need to allow reasonable time to achieve any required improvements.
- (v) alternative treatment and discharge options or mix of discharge regimes.

(b) The Regional Council may make an exception to (a) where:

- (i) in the case of discharges, the discharge is of a temporary nature or is associated with necessary maintenance work and the discharge cannot practicably be avoided
- (ii) adverse effects can be fully offset by way of a financial contribution in accordance with Chapter 18
- (iii) it is appropriate to adopt the *best practicable option*
- (iv) other exceptional circumstances apply

and it is consistent with the purpose of the RMA to do so.

This policy implements Objective 13-1

Amend Rules 13-17, and 13-23 as follows:

### 13.5 Rules - Stormwater

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>13-17</b> <b>Discharges</b> <b>of stormwater</b> <b>to surface</b> <b>water not</b> <b>complying</b> <b>with Rule 13-</b> <b>15</b>	The <i>discharges</i> of <i>stormwater</i> into <i>surface water</i> which do not comply with Rule 13-15, and any associated takes or diversions of stormwater forming part of the stormwater system.	<b>Restricted</b> <b>Discretionary</b>	(a) There shall be no <i>discharge</i> to any <b>natural lake</b> , <i>rare habitat</i> , <i>threatened habitat</i> , <i>at-risk habitat</i> , or Natural State Water Management Sub-zone or Site of Significance - Aquatic.	Discretion is reserved over: (a) measures to control flooding and erosion (b) contaminant concentrations and loading rates (c) measures required to comply with s107(1) RMA (d) measures required to comply with the water quality <b>standards targets</b> for the relevant Water Management Sub-zone(s) (e) odour management (f) stormwater system maintenance requirements (g) contingency requirements (h) monitoring and information requirements (i) duration of consent (j) review of consent conditions.

**13.8 Rules – Discharges of contaminants to Natural State Water Management Sub-zones, Lakes and Wetlands**

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<p><b>13-23 Discharges of contaminants to Natural State Water Management Sub-zones, and Sites of Significance – Aquatic and lakes and wetlands</b></p>	<p>Any direct <i>discharge</i> of <i>contaminants</i> into:</p> <ul style="list-style-type: none"> <li>(a) a Natural State Water Management Sub-zone</li> <li>(b) a water body identified as a Site of Significance – Aquatic in Schedule DBa</li> <li>(c) a natural lake, except Lake Otamangakau, Lake Te Whaiau and Lake Moawhanga</li> <li>(d) a wetland classified as a rare habitat, or threatened habitat</li> </ul> <p>except the discharge of agrichemicals for the purpose of controlling pests control as defined in a regional pest management strategy prepared under the Biosecurity Act 1993 (this activity is regulated by Rule 14-2).</p>	<p><b>Non-complying</b></p>		

## Chapter 15

Amend Rules 15-5 and 15-6 as follows:

### 15.2 Rules – Takes and Uses of Water

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-5 Takes and uses of surface water complying with core allocations</b>	The taking and use of surface water from a river, <b>or water storage lake on a river</b> , pursuant to s14(1) RMA, except where the water take is controlled under Rule 13-1.	<b>Controlled</b>	<p>(b) Water shall only be taken when the river is above its minimum flow, as assessed in accordance with Schedule B except as provided for by:</p> <p>(ba) takes or portions of takes which are for the purposes of stock drinking water and domestic needs, or public water supplies predominantly for domestic use may continue below minimum flow provided the rates and volumes of takes do not exceed the maximum takes of low flow set out in Policy 6-19.</p> <p>(c) The amount of water taken, when assessed in combination with all other water takes within the same Water Management Sub-zone shall not exceed the relevant core allocation set out for Water Management Subzones in Schedule B.</p> <p>(d) The amount of water taken, when assessed in combination with all other water takes within the same catchment, shall not exceed the cumulative allocation for each Water Management Sub-zone in the same catchment.</p> <p>(e) The take shall not lower the water level in any wetland that is a rare habitat or threatened habitat.</p>	<p>Control is reserved over:</p> <p>(a) the volume and rate of water taken, and the timing of the take</p> <p>(b) the location of take</p> <p>(c) intake velocity and screening requirements</p> <p>(d) measures to avoid, remedy or mitigate any adverse effects on the values of the water body at the point of abstraction, including restrictions on the volume and rate of abstraction</p> <p>(e) the efficiency of water use</p> <p>(f) effects on other water takes</p> <p>(g) effects on rare habitats, and threatened habitats and at-risk habitats and Sites of Significance – Aquatic.</p> <p>(h) compliance with minimum flow requirements</p> <p>(i) duration of consent</p> <p>(j) review of consent conditions</p> <p>(k) compliance monitoring.</p> <p>Resource consent applications under this rule will not be notified and written approval of affected persons will not be required (notice of applications need not be served on affected persons).</p>

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-6 Takes of surface water not complying with core allocations</b>	<p>The taking of surface water from a river <b>or water storage lake on a river:</b></p> <p>(aa) which, when assessed in combination with all other water takes, exceeds the relevant core allocation set out in Schedule B. or</p> <p>(ab) at or below minimum flow (unless allowed by Rule 15-5(b))</p> <p>This rule does not include:</p> <p>(a) takes permitted under Rule 15-1</p> <p>(b) takes in circumstances where water is only taken when the river flow is greater than the median flow (these are a discretionary activity under Rule 15-8)</p> <p>(c) lawfully established takes for hydroelectricity generation (these are discretionary activities under Rule 15-8).</p>	<b>Non-complying</b>		

**Schedule B**

Amend the Turitea (Mana\_11b) Sub-zone within Table B1 as follows:

Table B1: Allocation Limits and Minimum Flows by Water Management Sub-zone					
Zone code	Sub-zone	Minimum Flow (m <sup>3</sup> /s)	Flow monitoring site	Flow monitoring site location	Cumulative core allocation limit (m <sup>3</sup> /s)
Lower Manawatu (Mana_11)	Turitea (Mana_11b)	0.050 0.041	Turitea at Ngahere Park	T24:354-852	0.265 0.428

## Schedule D

Make the following changes to the associated Standards (targets) Key within Schedule D:

### Schedule D Standards Targets Key

Water<sup>^</sup> Quality Standards Targets Key: definition of abbreviations and full wording of the standards targets (placement of the numerical values for a specified standard target are indicated by [...]).

Abbreviations used in Tables D:1 to D:4		Full Wording of the Standard-Target
Header	Sub-header	
pH	Range	The pH of the water <sup>^</sup> shall be within the range [...] to [...], unless natural levels are already outside this range.
	Δ	The pH of the water <sup>^</sup> shall not be changed by more than [...].
Temp (°C)	<	The temperature of the water <sup>^</sup> shall not exceed [...] degrees Celsius.
	Δ	The temperature of the water <sup>^</sup> shall not be changed by more than [...]degrees Celsius.
DO (%SAT)	>	The concentration of dissolved oxygen (DO) shall exceed [...] % of saturation.
sCBOD <sub>5</sub> (g/m <sup>3</sup> )	<	The monthly average five-days filtered / soluble carbonaceous biochemical oxygen demand (BOD) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre.
POM (g/m <sup>3</sup> )	<	The average concentration of particulate organic matter when the river <sup>^</sup> flow is at or below 50th percentile of flow shall not exceed [...] grams per cubic metre.
Periphyton (Rivers)	Chl a (mg/m <sup>2</sup> )	The algal biomass on the stream or river <sup>^</sup> bed <sup>^</sup> shall not exceed [...] milligrams of chlorophyll a per square metre.
	% cover	The maximum cover of visible stream or river <sup>^</sup> bed <sup>^</sup> by periphyton as filamentous algae more than 2 centimetres long shall not exceed [...] %. The maximum cover of visible stream or river bed by periphyton as diatoms or cyanobacteria more than 0.3 centimetres thick shall not exceed [...] %.
Algal biomass Chl a (mg/m <sup>3</sup> )	<	The annual average algal biomass shall not exceed [...] milligrams chlorophyll Algal biomass a per cubic metre.
	Maximum	no sample shall exceed [...] milligrams chlorophyll a per cubic metre.
DRP (g/m <sup>3</sup> )	<	The annual average concentration of dissolved reactive phosphorus (DRP) when the river <sup>^</sup> flow is at or below the 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for DRP is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TP (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total phosphorus (TP) shall not exceed [...] grams per cubic metre.
SIN (g/m <sup>3</sup> )	<	The annual average concentration of soluble inorganic nitrogen <sup>11</sup> (SIN) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for SIN is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TN (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total nitrogen shall not exceed [...] grams per cubic metre.
MCI		The Macroinvertebrate Community Index (MCI) shall <b>not be less than 20% below natural reference conditions for the river.</b> <b>If natural reference conditions are not defined then the MCI shall</b> exceed [...]. <b>unless natural physical conditions are beyond the scope of application of the MCI.</b> In cases where the river <sup>^</sup> or stream habitat is suitable for the application of the soft-bottomed variant of the MCI (MCI-sb) the standards shall also apply. <b>This standard will not apply if the natural physical conditions are beyond the scope of application of the MCI or MCI-sb.</b> <b>The MCI standard applies only for State of the Environment monitoring purposes to determine if the aquatic macroinvertebrate communities are adequate to provide for and maintain the values in each WMSZ, the standard is not appropriate for monitoring the effects of activities such as discharges to water.</b>
QMCI	%Δ	<b>Discharges to water to cause N</b> no more than a 20 % reduction in Quantitative Macroinvertebrate Community Index (QMCI) score between <b>appropriately matched habitats</b> upstream and downstream of <b>the discharges to water<sup>^</sup>.</b> <b>Note: Where samples are collected using a hand net this standard shall also apply to the Semi-Quantitative MCI (SQMCI).</b>
Ammoniacal nitrogen (g/m <sup>3</sup> ) (rivers)	<	The average concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre.
Ammoniacal nitrogen (g/m <sup>3</sup> ) (lakes)	<	The concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre when lake <sup>^</sup> pH exceeds 8.5 within the epilimnion (shallow lakes <sup>^</sup> ) or within 2 m of the water <sup>^</sup> surface (deep lakes <sup>^</sup> ).
Toxicants	<%	For toxicants not otherwise defined in these standards, the concentration of toxicants in the water <sup>^</sup> shall not exceed the trigger values defined in the 2000 ANZECC guidelines Table 3.4.1 for the level of protection of [...] % of species. <b>For metals the trigger value shall be adjusted for hardness and apply to the dissolved fraction.</b>
Clarity (m) (rivers)	%Δ	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall equal or exceed [...] m when the river <sup>^</sup> is at or below the 50 <sup>th</sup> percentile of flow.
Clarity (m) (lakes)	%Δ	The clarity of the water <sup>^</sup> measured as Secchj depth (or horizontal sighting range of a 200 mm black disc) shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured Secchi depth (or horizontal sighting range of a 200 mm black disc) shall exceed [...] m.
E.coli/100ml (rivers)	<m	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive) when the river <sup>^</sup> flow is at or below the 50 <sup>th</sup> percentile of flow.
	<20 <sup>th</sup> %ile	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres when the river <sup>^</sup> flow is at or below the 20th percentile of flow year round.
E.coli/100 ml (lakes)	Summer	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive).
	Winter	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 May – 31 October (inclusive).
Euphotic Depth (lakes)	%Δ	Euphotic depth shall not be reduced by more than [...] %.

## **Schedule E**

Make the following amendments to Table E.2(b):

### **Table E.2(b):**

<p>If an area of any habitat type described in Table E.1 meets any of the following criteria it shall not be rare habitat*, threatened habitat* or at-risk habitat* for the purposes of this Plan.</p>
<p><b>Forest*, Treeland*, Scrub*, or Shrubland* Habitat Types Classified as Threatened or At-risk</b></p> <ul style="list-style-type: none"> <li>i. Areas of indigenous* tree* species planted for the purposes of timber harvest. Or</li> <li>ii. Indigenous* vegetation planted for landscaping, horticultural, shelter belts, gardening or amenity purposes. Or</li> <li>iii. Habitat areas 1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul> <p><b>Wetland^ Habitat Types Classified as Rare or Threatened</b></p> <ul style="list-style-type: none"> <li>iv. Damp gully heads, or paddocks subject to regular ponding, dominated* by pasture or exotic species in association* with wetland sedge and rush species. Or</li> <li>v. Ditches or drains supporting raupo, flax or other wetland species (e.g. Carex sp., Isolepis sp.), or populations of these species in drains or slumps associated with road reserves or rail corridors. Or</li> <li>vi. Areas of wetland^ habitat specifically designed, installed and maintained for any of the following purposes: <ul style="list-style-type: none"> <li>a) stock watering (including stock ponds), or</li> <li>b) water storage for the purposes of fire fighting or irrigation (including old gravel pits), or</li> <li>c) treatment of animal effluent (including pond or barrier ditch systems), or</li> <li>d) waste water treatment, or</li> <li>e) sediment control, or</li> <li>f) any hydroelectric power generation scheme. Or</li> <li>g) water storage for the purposes of public water supplies. Or</li> </ul> </li> <li>vii. Areas of wetland habitat maintained in relation to the implementation of any resource consent conditions or agreements relating to the operation of any hydroelectric power scheme currently lawfully established. Or</li> <li>viii. Open water and associated vegetation created for landscaping purposes or amenity values where the planted vegetation is predominately exotic, or includes assemblages of species not naturally found in association* with each other, on the particular landform, or at the geographical location of the created site.</li> <li>ix. Habitat areas 0.1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul>

**BEFORE THE MANAWATU – WANGANUI REGIONAL COUNCIL (HORIZONS  
REGIONAL COUNCIL)**

*In the matter of*        **The Resource Management Act 1991; and**

*In the matter of*        **The Proposed One Plan: Consolidated Regional Policy  
Statement, Regional Plan and Regional Coastal Plan for  
the Manawatu - Wanganui Region**

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**SUPPLEMENTARY EVIDENCE OF ANDREW DAVID BASHFORD  
ON BEHALF OF THE PALMERSTON NORTH CITY COUNCIL**

**CHAPTERS 6, 13, 15 AND 16  
AND SCHEDULES B, C, D AND E OF THE ONE PLAN**

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Dated: 11 February 2010

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## Introduction and Background

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1. I have prepared this report as supplementary evidence to my Statement of Evidence dated 16 October 2009. It has been compiled in response to supplementary evidence produced by Horizons experts and takes into account the outcomes of caucusing and pre-hearing meetings held since the exchange of evidence. It also focuses more specifically on the issues surrounding the water quality standards contained within Schedule D and section 69 of the Resource Management Act 1991.
2. Several meetings involving PNCC experts have been held since the exchange of evidence. Jack McConchie, Jon Roygard and Raelene Hurdell attended a caucusing meeting on 12 November 2009 regarding the minimum flow and core allocation limit in the Turitea subzone. Caucusing was also held between Keith Hamill, Paul Kennedy, Kathryn McArthur, John Quinn, Jon Roygard and Robert Wilcock on 10 November 2009 in relation to the Water Quality Standards contained within Schedule D of the Proposed One Plan. A pre-hearing meeting was held between Clare Barton, Helen Marr, Jon Roygard, Chris Pepper and myself on 14 December 2009 where several issues were discussed including the appropriate location of amendments to Rule 13-27 as suggested in my original evidence.

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## Water Quality

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### Water Quality Standards

3. The evidence and supplementary evidence of Keith Hamill discusses the Water Quality Standards contained within Schedule D in detail. Mr Hamill participated in caucusing with other water quality experts and reached agreement on a number of matters as outlined in the 'Meeting Between Experts' report dated 10 November 2009.
4. As a result of this meeting, and consequent discussions, some amendments have been made to the recommendations as contained in my original evidence statement. In particular these relate to the Standards Key and an updated version is attached in Appendix 1 to this statement.
5. Of particular note are the standards relating to QMCI and Toxicants, where the recommendations made here differ to that made by Horizons experts. The reasons for these differences are discussed in paragraphs 3.3 to 3.9 and 3.12 of Mr. Hamill's supplementary evidence.
6. Agreement was not achieved in relation to the standards relating to DRP or SIN through the caucusing process. The recommendations relating to these standards have not changed from my original evidence.

### Standards or Targets

7. As discussed in paragraphs 64 to 79 of my original evidence it is unclear in what circumstances the Water Quality Standards contained within Schedule Ba and Schedule D of the Proposed One Plan apply, and whether these are standards in terms of section 69 of the Resource Management Act 1991.
8. It appears that the intention is for the Schedule Ba and Schedule D standards to apply as standards in relation to activities that are permitted. In the event that an activity does not meet the standards, the activity would require a resource consent. Some controlled and restricted discretionary rules retain control or discretion that relate to the water quality standards. It is unclear whether discretionary or non-complying activities need to comply with the standards or whether the standards are to be used as targets against which an application is assessed.
9. This matter was discussed in the caucusing meeting in relation to the Water Quality Standards held on 10 December 2009. Agreement was reached between the experts that the use of the term 'standards' is not a good term to use in this context and that clarity is needed. The Horizons experts were also to discuss options with the Horizons planners to clarify *'that standards applied as absolute trigger values for permitted activities will be regarded as targets in other situations'*<sup>1</sup>.
10. This matter has been addressed to a limited extent by the recommended amendments to Policies 6-3 to 6-5 and in particular by the inclusion of the words *'maintains or enhances existing water quality'* to Policy 6-4. However there are still drafting issues with those policies and with Policy 13-6, and it remains unclear whether the 'standards' are intended to apply as standards or as guidelines for resource consent applications and as to whether the so called standards are intended to be standards for the purpose of section 68(7), 69 and section 128(1)(b) of the RMA.
11. The following table outlines the rules that have provisions directly referring to the Schedule Ba and Schedule D Standards:

<b>One Plan Rules in Chapter 13 referring directly to the Water Quality Standards</b>			
<b>Rule</b>	<b>Activity Status</b>	<b>Conditions/Standards/Terms</b>	<b>Control/Discretion</b>
13-9	Permitted	The discharge shall not, after reasonable mixing change the natural temperature of the receiving water by more than the maximum temperature or temperature change specified by the quality standards for the Water Management Sub-zone listed in Schedule Ba.	

<sup>1</sup> See paragraph 9 – Report of a Meeting between Experts: Water Quality Standards, 10 November 2009.

13-17	Restricted Discretionary		Discretion is reserved over:  Measures required to comply with the water quality standards for the relevant Water Management Sub-zone(s).
13-21	Controlled		Control is reserved over:  Measures to manage effects on surface water bodies including maintaining the values and water quality standards set out in Schedule Ba.
13-24	Permitted	The discharges shall not, after reasonable mixing, cause the receiving water body to breach the water quality standards for that water body set out in Schedule D, either from the discharge itself or in combination with any other discharges.	
13-26	Permitted	The discharge shall comply with all of the conditions of Rule 13-24.	

12. The default catch-all discretionary activity rule (Rule 13-27) does not refer to the standards at all and there is no rule which provides that discharges which do not meet the standards become non-complying or prohibited activities.
13. Accordingly in my opinion the intention of the Plan as notified was that these water quality targets would only apply as standards for the purpose set out in the permitted activity rules and would otherwise be guidelines or targets. That is consistent with what was agreed at caucusing.
14. My concern is that what appears to have been the intention has not been made clear in the Plan itself.
15. My second concern is that in the absence of clarity it remains open for future argument that these are standards for the purpose of section 69. That would then allow argument that the rules must require the observance of the standards with no exceptions. That is, it could be argued that the rules must be amended to prohibit discharges which do not meet the standards. That was clearly not what was intended but given the loose wording surrounding the standards that is an argument which others may mount.
16. Accordingly, in my opinion it is more appropriate to have wording which makes it clear that these are not standards for the purposes of section 69 but are targets

which will be considered at the time any applications are considered. It also needs to be made clear that what will be considered is whether the discharge on its own or in conjunction with other discharges will **cause** the targets to be breached. That is consistent with common sense and with the wording of section 107. Mr Hamill discusses this point in relation to QMCI.

17. A summary of proposed wording changes to the One Plan provisions to remedy these issues is suggested in Appendix 1 and has been discussed in Mr Milne's legal submissions. They include:
- Changing references to the Water Quality Standards in the One Plan to *Water Quality Targets*;
  - Ensuring the introductory wording to Schedule Ba and Schedule D label the contents as being targets; and
  - The addition of an advice note to Schedule Ba and Schedule D that makes it clear that the targets are intended to guide the Regional Council when assessing resource consent applications and that where appropriate relevant targets have been incorporated as conditions for permitted activities.
18. It is acknowledged that the suggested wording requires refining and to that extent the Palmerston North City Council is happy to work with Horizons to formulate appropriate provisions and wording to rectify the identified issues.
19. On a related note, there are some fundamental issues with how some of the policies have been drafted, as Mr Milne has discussed in his legal submissions. Policy 13-6 does not make sense as drafted in the pink version, and it is unclear how it is intended to be applied. The pink version text states:

*Policy 13-6: point Source Discharges to Land and Water*

- (a) *When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or Error! Bookmark not defined. mitigating adverse effects<sup>^</sup> Error! Bookmark not defined.,:*
- (i) *the degree to which the activity will adversely affect the values identified for the relevant Water Management Sub-zone(s)\**
  - (ii) *whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards set in Schedule D to be breached*
  - (iii) *the extent to which the activity is consistent with best management practices*
  - (iv) *the need to allow reasonable time to achieve any required improvements.*

(b) *The Regional Council may make an exception to subsection (a) where:*

- (i) *in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided*
- (ii) *adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18*
- (iii) *it is appropriate to adopt the best practicable option<sup>^</sup>*
- (iv) *other exceptional circumstances apply*

*and it is consistent with the purpose of the RMA to do so.*

20. In examining this policy it could be taken as two policies rolled into one where the applicant must consider alternatives when applying for consent, and secondly the consent authority must consider the matters described in the list labelled (i) to (iv). Alternatively it could be that both the consent authority and applicant must consider alternatives along with the matters within the list.
21. In addition the first part of clause (a) does not introduce the list in any way and there are a number of bookmarking errors within the policy. In my opinion the policy should be redrafted and proposed wording is contained in Appendix 1.

#### Relationship to section 128(1)(b)

22. I also have concern that if the Water Quality Standards become standards or are interpreted as standards in the context of section 68(7) and 69 of the RMA 1991, then the Palmerston North City Wastewater Treatment Plant (WWTP) may be required to meet the new standards in a review of the existing resource consent under section 128(1)(b). This could take place as soon as the One Plan is made operative and only a few years after a major upgrade to the plant.
23. The current wording of the rules would not allow for a non notified review of current consents because the rules do not signal that, as outlined in section 68(7). However if the wording of the standards and policies is left as is, then it is arguable that a notified review under section 128(1)(b) may be carried out.
24. Upgrading the WWTP to meet the proposed standards would result in substantial capital and operational expense to the Palmerston North community. The water quality of the Manawatu River above the WWTP discharge does not meet a number of the proposed standards. It is my opinion that upgrading the WWTP in the short term would not be an efficient use of funds when superior gains to water quality could be achieved through other means.
25. To address this issue I recommended that a clause be added to Rule 13-27. Discussions on this clause have been undertaken with Horizons Planners (Clare Barton and Helen Marr) with agreement to the concept, however it has been suggested that the clause should be located within the Policies of the One Plan.

26. In discussions with Ms Barton and Ms Marr, it had been agreed that Policy 2-3 (11A-6 in the provisional determination version) is the suitable location for the clause.
27. The wording of the clause has been amended so that it fits the new location more appropriately. The suggested wording is:

*The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only be considered in relation to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.*

28. However I now consider that it would be preferable to fix up the more fundamental issues with how the standards apply (i.e. renaming them as targets and making the policies and rules consistent with that). This is a better solution overall, and it would also avoid the need to specifically exempt the WWTP.

#### Stormwater and Centennial Lagoon

29. In my original evidence statement I raised issues surrounding Centennial Lagoon, stormwater discharges and the Schedule E definitions. In response, Ms Fleur Maseyk prepared a section 42A report pointing out the benefits of including the lagoon within the Schedule E definitions<sup>2</sup> and thereby giving it a Threatened Habitat Status.
30. Given the heavily modified status of Centennial Lagoon this highlights that any natural lake or wetland would be classified as a threatened habitat unless it was specifically exempted by the provisions within Table E.2(b). This in turn causes some confusion as to the rules that apply to discharges to such environments due to the doubling up of provisions that apply to lakes and wetlands.
31. For example, Rule 13-17 provides for discharges of stormwater to surface water as a restricted discretionary activity so long as there is no discharge to any natural lake, rare habitat, threatened habitat, at-risk habitat or Natural State Water Management Sub-zone or Site of Significance - Aquatic.
32. The rule guide relating to the stormwater rules states that discharges in rare habitats, threatened habitats or at-risk habitats are regulated by rules 12-7 and 12-8, making them a Discretionary Activity<sup>3</sup>. The rule guide also states that discharges in Natural State Water Management Sub-zones or Sites of Significance - Aquatic are regulated by Rule 13-23, making them a Non-complying Activity. There is no mention of discharges to natural lakes in the rule guide.

<sup>2</sup> See Paragraphs 21-22 of the s42A report of Ms Fleur Jennifer Foster Maseyk.

<sup>3</sup> Note that these provisions have been changed to Rule 12-6 in the Provisional Determination

33. Rule 13-23 is titled "Discharges of contaminants to Natural State Water Management Sub-zones, Sites of Significance – Aquatic and lakes and wetlands. The activities encompassed by this rule include any direct discharge of contaminants into a natural lake.
34. The discharges to Centennial Lagoon could be regulated by Rule 12-6 as indicated by the Rule Guide but also by Rule 13-23 given its title and the activities that it includes. This issue was also discussed with Ms Barton and Ms Marr at the meeting held on 14 December 2010 with agreement that the references to lakes and wetlands should be removed from Rule 13-23. For completeness the reference to lakes and wetlands should also be removed from the heading of section 13.8.

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## **Water Quantity**

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### Minimum flow and core allocation values for the Turitea Stream

35. Paragraphs 112 to 116 of my original evidence discuss the minimum flow and core allocation values set for the Turitea Stream. Dr. Jack McConchie has provided technical expert evidence on the Turitea catchment and recommended suitable values for the minimum flow and core allocation. Caucusing was held between Dr. McConchie, Dr Roygard and Ms Hurndell on this matter on 12 November 2009. This resulted in agreement on a number of matters and further evidence being prepared by Dr. McConchie that altered the minimum flow value from the original recommendations. The revised values have been agreed by Horizons experts and I have made the necessary amendments to my recommendations.

### Schedule E

36. It has been identified that as proposed the One Plan has classed the Turitea water supply lakes as threatened habitat. This issue has been raised in my original evidence and Ms Maseyk from Horizons has responded in her section 42A report.
37. Ms Maseyk has stated that the inclusion of the water supply dams within the definitions of Schedule E was an oversight and that it is the intent of the schedule to exclude areas designed, installed and maintained for such purposes. She has made a recommendation that the words 'town water supply' be added to the Table E.2(b).
38. I agree that an exclusion needs to be added to Table E.2(b) but in my opinion the words as recommended in my original evidence are more suitable. They are more specific in that it is water storage for public water supplies that is exempt. Public water supply is defined within the glossary of the One Plan thereby giving certainty to Plan users and applying consistent terminology throughout the Plan.

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**Conclusion**

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39. Taking into account the various meetings and discussions that have taken place and further evidence provided since the exchange of evidence I have made several amendments to the recommendations made in my original evidence statement. A full list of the proposed amendments is attached as Appendix 1.

A handwritten signature in black ink that reads "ADBashford". The signature is written in a cursive, slightly slanted style.

Andrew Bashford  
**Planning Officer**  
PALMERSTON NORTH CITY COUNCIL

## **Appendix 1: Recommended Amendments to be made to One Plan**

### **General Amendments**

Note: These proposed changes are general in nature and will require further drafting. They relate to the issues of uncertainty around the Water Quality Standards as proposed in Schedule Ba and Schedule D of the One Plan. It is also noted that there are a number of cross referencing errors between the various versions of the One Plan and although not discussed in the evidence presented the Palmerston North City Council is happy to assist the Horizons Regional Council in correcting these if required.

1. The policies (in particular policies 6-3 to 6-5 and 13-6) should be amended so that each reference to Schedule Ba and Schedule D *standards* refers instead to "*water quality targets*";
2. The introductory wording in Schedule Ba and Schedule D should be amended to clearly label the schedules' contents as being *targets*;
3. An advice note should be added to Schedule Ba and Schedule D stating that the targets are intended to guide the exercise of the consent authority's discretion when considering consent applications, and that where relevant the targets have been incorporated as conditions of permitted activity rules;
4. The permitted activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-9 and 13-24) should be amended to refer to the relevant *targets* in those schedules; and
5. The controlled and restricted discretionary activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-17 and 13-21) should be amended so that control or discretion is reserved over "*measures to assist in maintaining or achieving the targets*" in the relevant schedule.

## **Specific Amendments**

Note: These proposed amendments contain specific wording to various One Plan provisions to address issues raised in evidence presented. All changes are **highlighted** with words recommended to be added shown as underlined, and words that are recommended to be deleted shown in ~~strike through~~.

### **Chapter 11**

Amend Policy 11-A-6 as follows:

#### **Policy 11A-6: Consent Review**

In addition to the reasons specified in s128(1)(a)(i) and (ii) RMA, the Regional Council will, under s128(1)(a)(iii) RMA, generally impose consent conditions that specify a review of consent conditions during the term of the consent for:

- (a) reviewing the appropriateness of any condition requiring the consent holder to supply the consent authority with information relating to the exercise of the resource consent
- (b) reviewing any unknown or uncertain adverse effects caused as a result of planned or required changes or upgrades to the activity
- (c) reviewing the conditions of a consent at the same time as review of other consents within the same Water Management Zone – for example, at a common catchment expiry or review date.
- (d) reviewing the effectiveness of consent conditions to avoid, remedy or mitigate any adverse effects of the activity on the environment.

The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only apply to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.

This policy relates to Objective 11A-2.

## Chapter 13

Amend Policy 13-6 (Pink Version) as follows:

### **Policy 13-6: ~~p~~Point Source Discharges to Land and Water**

~~(a) When applying for consents and making decisions on consent applications for discharges of contaminants to water or land, the opportunity to utilise alternatives must be considered including alternative treatment and discharge options or a mix of discharge regimes, for the purpose of avoiding or **Error! Bookmark not defined.** mitigating adverse effects where practicable **Error! Bookmark not defined.**, shall be considered., including but not limited to:~~

(a) When applying for consents and making decisions on consent applications for discharges of contaminants to water or land the following shall be considered for the purpose of avoiding or mitigating effects:

- (i) the degree to which the activity will adversely affect the values identified for the relevant *Water Management Sub-zone(s)*\*
- (ii) whether the discharge, in combination with other discharges including non-point source discharges, will cause the water quality standards targets set in Schedule D to be breached
- (iii) the extent to which the activity is consistent with best management practices
- (iv) the need to allow reasonable time to achieve any required improvements.
- (v) alternative treatment and discharge options or mix of discharge regimes.

(b) The Regional Council may make an exception to (a) where:

- (i) in the case of discharges, the discharge is of a temporary nature or is associated with necessary maintenance work and the discharge cannot practicably be avoided
- (ii) adverse effects can be fully offset by way of a financial contribution in accordance with Chapter 18
- (iii) it is appropriate to adopt the *best practicable option*
- (iv) other exceptional circumstances apply

and it is consistent with the purpose of the RMA to do so.

This policy implements Objective 13-1

Amend Rules 13-17, and 13-23 as follows:

### 13.5 Rules - Stormwater

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>13-17</b> <b>Discharges</b> <b>of stormwater</b> <b>to surface</b> <b>water not</b> <b>complying</b> <b>with Rule 13-</b> <b>15</b>	The <i>discharges</i> of <i>stormwater</i> into <i>surface water</i> which do not comply with Rule 13-15, and any associated takes or diversions of stormwater forming part of the stormwater system.	<b>Restricted</b> <b>Discretionary</b>	(a) There shall be no <i>discharge</i> to any <b>natural lake</b> , <i>rare habitat</i> , <i>threatened habitat</i> , <i>at-risk habitat</i> , or Natural State Water Management Sub-zone or Site of Significance - Aquatic.	Discretion is reserved over: (a) measures to control flooding and erosion (b) contaminant concentrations and loading rates (c) measures required to comply with s107(1) RMA (d) measures required to comply with the water quality <b>standards targets</b> for the relevant Water Management Sub-zone(s) (e) odour management (f) stormwater system maintenance requirements (g) contingency requirements (h) monitoring and information requirements (i) duration of consent (j) review of consent conditions.

**13.8 Rules – Discharges of contaminants to Natural State Water Management Sub-zones, Lakes and Wetlands**

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<p><b>13-23 Discharges of contaminants to Natural State Water Management Sub-zones, and Sites of Significance – Aquatic and lakes and wetlands</b></p>	<p>Any direct <i>discharge</i> of <i>contaminants</i> into:</p> <ul style="list-style-type: none"> <li>(a) a Natural State Water Management Sub-zone</li> <li>(b) a water body identified as a Site of Significance – Aquatic in Schedule DBa</li> <li>(c) a natural lake, except Lake Otamangakau, Lake Te Whaiau and Lake Moawhanga</li> <li>(d) a wetland classified as a rare habitat, or threatened habitat</li> </ul> <p>except the discharge of agrichemicals for the purpose of controlling pests control as defined in a regional pest management strategy prepared under the Biosecurity Act 1993 (this activity is regulated by Rule 14-2).</p>	<p><b>Non-complying</b></p>		

## Chapter 15

Amend Rules 15-5 and 15-6 as follows:

### 15.2 Rules – Takes and Uses of Water

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-5 Takes and uses of surface water complying with core allocations</b>	The taking and use of surface water from a river, <b>or water storage lake on a river</b> , pursuant to s14(1) RMA, except where the water take is controlled under Rule 13-1.	<b>Controlled</b>	<p>(b) Water shall only be taken when the river is above its minimum flow, as assessed in accordance with Schedule B except as provided for by:</p> <p>(ba) takes or portions of takes which are for the purposes of stock drinking water and domestic needs, or public water supplies predominantly for domestic use may continue below minimum flow provided the rates and volumes of takes do not exceed the maximum takes of low flow set out in Policy 6-19.</p> <p>(c) The amount of water taken, when assessed in combination with all other water takes within the same Water Management Sub-zone shall not exceed the relevant core allocation set out for Water Management Subzones in Schedule B.</p> <p>(d) The amount of water taken, when assessed in combination with all other water takes within the same catchment, shall not exceed the cumulative allocation for each Water Management Sub-zone in the same catchment.</p> <p>(e) The take shall not lower the water level in any wetland that is a rare habitat or threatened habitat.</p>	<p>Control is reserved over:</p> <p>(a) the volume and rate of water taken, and the timing of the take</p> <p>(b) the location of take</p> <p>(c) intake velocity and screening requirements</p> <p>(d) measures to avoid, remedy or mitigate any adverse effects on the values of the water body at the point of abstraction, including restrictions on the volume and rate of abstraction</p> <p>(e) the efficiency of water use</p> <p>(f) effects on other water takes</p> <p>(g) effects on rare habitats, and threatened habitats and at-risk habitats and Sites of Significance – Aquatic.</p> <p>(h) compliance with minimum flow requirements</p> <p>(i) duration of consent</p> <p>(j) review of consent conditions</p> <p>(k) compliance monitoring.</p> <p>Resource consent applications under this rule will not be notified and written approval of affected persons will not be required (notice of applications need not be served on affected persons).</p>

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-6 Takes of surface water not complying with core allocations</b>	<p>The taking of surface water from a river <b>or water storage lake on a river:</b></p> <p>(aa) which, when assessed in combination with all other water takes, exceeds the relevant core allocation set out in Schedule B. or</p> <p>(ab) at or below minimum flow (unless allowed by Rule 15-5(b))</p> <p>This rule does not include:</p> <p>(a) takes permitted under Rule 15-1</p> <p>(b) takes in circumstances where water is only taken when the river flow is greater than the median flow (these are a discretionary activity under Rule 15-8)</p> <p>(c) lawfully established takes for hydroelectricity generation (these are discretionary activities under Rule 15-8).</p>	<b>Non-complying</b>		

**Schedule B**

Amend the Turitea (Mana\_11b) Sub-zone within Table B1 as follows:

Table B1: Allocation Limits and Minimum Flows by Water Management Sub-zone					
Zone code	Sub-zone	Minimum Flow (m <sup>3</sup> /s)	Flow monitoring site	Flow monitoring site location	Cumulative core allocation limit (m <sup>3</sup> /s)
Lower Manawatu (Mana_11)	Turitea (Mana_11b)	0.050 0.041	Turitea at Ngahere Park	T24:354-852	0.265 0.428

## Schedule D

Make the following changes to the associated Standards (targets) Key within Schedule D:

### Schedule D Standards Targets Key

Water<sup>^</sup> Quality Standards Targets Key: definition of abbreviations and full wording of the standards targets (placement of the numerical values for a specified standard target are indicated by [...]).

Abbreviations used in Tables D:1 to D:4		Full Wording of the Standard-Target
Header	Sub-header	
pH	Range	The pH of the water <sup>^</sup> shall be within the range [...] to [...], unless natural levels are already outside this range.
	Δ	The pH of the water <sup>^</sup> shall not be changed by more than [...].
Temp (°C)	<	The temperature of the water <sup>^</sup> shall not exceed [...] degrees Celsius.
	Δ	The temperature of the water <sup>^</sup> shall not be changed by more than [...]degrees Celsius.
DO (%SAT)	>	The concentration of dissolved oxygen (DO) shall exceed [...] % of saturation.
sCBOD <sub>5</sub> (g/m <sup>3</sup> )	<	The monthly average five-days filtered / soluble carbonaceous biochemical oxygen demand (BOD) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre.
POM (g/m <sup>3</sup> )	<	The average concentration of particulate organic matter when the river <sup>^</sup> flow is at or below 50th percentile of flow shall not exceed [...] grams per cubic metre.
Periphyton (Rivers)	Chl a (mg/m <sup>2</sup> )	The algal biomass on the stream or river <sup>^</sup> bed <sup>^</sup> shall not exceed [...] milligrams of chlorophyll a per square metre.
	% cover	The maximum cover of visible stream or river <sup>^</sup> bed <sup>^</sup> by periphyton as filamentous algae more than 2 centimetres long shall not exceed [...] %. The maximum cover of visible stream or river bed by periphyton as diatoms or cyanobacteria more than 0.3 centimetres thick shall not exceed [...] %.
Algal biomass Chl a (mg/m <sup>3</sup> )	<	The annual average algal biomass shall not exceed [...] milligrams chlorophyll Algal biomass a per cubic metre.
	Maximum	no sample shall exceed [...] milligrams chlorophyll a per cubic metre.
DRP (g/m <sup>3</sup> )	<	The annual average concentration of dissolved reactive phosphorus (DRP) when the river <sup>^</sup> flow is at or below the 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for DRP is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TP (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total phosphorus (TP) shall not exceed [...] grams per cubic metre.
SIN (g/m <sup>3</sup> )	<	The annual average concentration of soluble inorganic nitrogen <sup>11</sup> (SIN) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for SIN is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TN (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total nitrogen shall not exceed [...] grams per cubic metre.
MCI		The Macroinvertebrate Community Index (MCI) shall <b>not be less than 20% below natural reference conditions for the river.</b> <b>If natural reference conditions are not defined then the MCI shall</b> exceed [...]. <b>unless natural physical conditions are beyond the scope of application of the MCI.</b> In cases where the river <sup>^</sup> or stream habitat is suitable for the application of the soft-bottomed variant of the MCI (MCI-sb) the standards shall also apply. <b>This standard will not apply if the natural physical conditions are beyond the scope of application of the MCI or MCI-sb.</b> <b>The MCI standard applies only for State of the Environment monitoring purposes to determine if the aquatic macroinvertebrate communities are adequate to provide for and maintain the values in each WMSZ, the standard is not appropriate for monitoring the effects of activities such as discharges to water.</b>
QMCI	%Δ	<b>Discharges to water to cause N</b> no more than a 20 % reduction in Quantitative Macroinvertebrate Community Index (QMCI) score between <b>appropriately matched habitats</b> upstream and downstream of <b>the discharges to water<sup>^</sup>.</b> <b>Note: Where samples are collected using a hand net this standard shall also apply to the Semi-Quantitative MCI (SQMCI).</b>
Ammoniacal nitrogen (g/m <sup>3</sup> ) (rivers)	<	The average concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre.
Ammoniacal nitrogen (g/m <sup>3</sup> ) (lakes)	<	The concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre when lake <sup>^</sup> pH exceeds 8.5 within the epilimnion (shallow lakes <sup>^</sup> ) or within 2 m of the water <sup>^</sup> surface (deep lakes <sup>^</sup> ).
Toxicants	<%	For toxicants not otherwise defined in these standards, the concentration of toxicants in the water <sup>^</sup> shall not exceed the trigger values defined in the 2000 ANZECC guidelines Table 3.4.1 for the level of protection of [...] % of species. <b>For metals the trigger value shall be adjusted for hardness and apply to the dissolved fraction.</b>
Clarity (m) (rivers)	%Δ	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall equal or exceed [...] m when the river <sup>^</sup> is at or below the 50 <sup>th</sup> percentile of flow.
Clarity (m) (lakes)	%Δ	The clarity of the water <sup>^</sup> measured as Secchj depth (or horizontal sighting range of a 200 mm black disc) shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured Secchi depth (or horizontal sighting range of a 200 mm black disc) shall exceed [...] m.
E.coli/100ml (rivers)	<m	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive) when the river <sup>^</sup> flow is at or below the 50 <sup>th</sup> percentile of flow.
	<20 <sup>th</sup> %ile	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres when the river <sup>^</sup> flow is at or below the 20th percentile of flow year round.
E.coli/100 ml (lakes)	Summer	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive).
	Winter	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 May – 31 October (inclusive).
Euphotic Depth (lakes)	%Δ	Euphotic depth shall not be reduced by more than [...] %.

## **Schedule E**

Make the following amendments to Table E.2(b):

### **Table E.2(b):**

<p>If an area of any habitat type described in Table E.1 meets any of the following criteria it shall not be rare habitat*, threatened habitat* or at-risk habitat* for the purposes of this Plan.</p>
<p><b>Forest*, Treeland*, Scrub*, or Shrubland* Habitat Types Classified as Threatened or At-risk</b></p> <ul style="list-style-type: none"> <li>i. Areas of indigenous* tree* species planted for the purposes of timber harvest. Or</li> <li>ii. Indigenous* vegetation planted for landscaping, horticultural, shelter belts, gardening or amenity purposes. Or</li> <li>iii. Habitat areas 1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul> <p><b>Wetland^ Habitat Types Classified as Rare or Threatened</b></p> <ul style="list-style-type: none"> <li>iv. Damp gully heads, or paddocks subject to regular ponding, dominated* by pasture or exotic species in association* with wetland sedge and rush species. Or</li> <li>v. Ditches or drains supporting raupo, flax or other wetland species (e.g. Carex sp., Isolepis sp.), or populations of these species in drains or slumps associated with road reserves or rail corridors. Or</li> <li>vi. Areas of wetland^ habitat specifically designed, installed and maintained for any of the following purposes: <ul style="list-style-type: none"> <li>a) stock watering (including stock ponds), or</li> <li>b) water storage for the purposes of fire fighting or irrigation (including old gravel pits), or</li> <li>c) treatment of animal effluent (including pond or barrier ditch systems), or</li> <li>d) waste water treatment, or</li> <li>e) sediment control, or</li> <li>f) any hydroelectric power generation scheme. Or</li> <li>g) water storage for the purposes of public water supplies. Or</li> </ul> </li> <li>vii. Areas of wetland habitat maintained in relation to the implementation of any resource consent conditions or agreements relating to the operation of any hydroelectric power scheme currently lawfully established. Or</li> <li>viii. Open water and associated vegetation created for landscaping purposes or amenity values where the planted vegetation is predominately exotic, or includes assemblages of species not naturally found in association* with each other, on the particular landform, or at the geographical location of the created site.</li> <li>ix. Habitat areas 0.1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul>

**BEFORE THE MANAWATU – WANGANUI REGIONAL COUNCIL (HORIZONS  
REGIONAL COUNCIL)**

*In the matter of*      **The Resource Management Act 1991; and**

*In the matter of*      **The Proposed One Plan: Consolidated Regional Policy  
Statement, Regional Plan and Regional Coastal Plan for  
the Manawatu - Wanganui Region**

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**SUPPLEMENTARY EVIDENCE OF ANDREW DAVID BASHFORD  
ON BEHALF OF THE PALMERSTON NORTH CITY COUNCIL**

**CHAPTERS 6, 13, 15 AND 16  
AND SCHEDULES B, C, D AND E OF THE ONE PLAN**

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Dated: 11 February 2010

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## Introduction and Background

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1. I have prepared this report as supplementary evidence to my Statement of Evidence dated 16 October 2009. It has been compiled in response to supplementary evidence produced by Horizons experts and takes into account the outcomes of caucusing and pre-hearing meetings held since the exchange of evidence. It also focuses more specifically on the issues surrounding the water quality standards contained within Schedule D and section 69 of the Resource Management Act 1991.
2. Several meetings involving PNCC experts have been held since the exchange of evidence. Jack McConchie, Jon Roygard and Raelene Hurdell attended a caucusing meeting on 12 November 2009 regarding the minimum flow and core allocation limit in the Turitea subzone. Caucusing was also held between Keith Hamill, Paul Kennedy, Kathryn McArthur, John Quinn, Jon Roygard and Robert Wilcock on 10 November 2009 in relation to the Water Quality Standards contained within Schedule D of the Proposed One Plan. A pre-hearing meeting was held between Clare Barton, Helen Marr, Jon Roygard, Chris Pepper and myself on 14 December 2009 where several issues were discussed including the appropriate location of amendments to Rule 13-27 as suggested in my original evidence.

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## Water Quality

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### Water Quality Standards

3. The evidence and supplementary evidence of Keith Hamill discusses the Water Quality Standards contained within Schedule D in detail. Mr Hamill participated in caucusing with other water quality experts and reached agreement on a number of matters as outlined in the 'Meeting Between Experts' report dated 10 November 2009.
4. As a result of this meeting, and consequent discussions, some amendments have been made to the recommendations as contained in my original evidence statement. In particular these relate to the Standards Key and an updated version is attached in Appendix 1 to this statement.
5. Of particular note are the standards relating to QMCI and Toxicants, where the recommendations made here differ to that made by Horizons experts. The reasons for these differences are discussed in paragraphs 3.3 to 3.9 and 3.12 of Mr. Hamill's supplementary evidence.
6. Agreement was not achieved in relation to the standards relating to DRP or SIN through the caucusing process. The recommendations relating to these standards have not changed from my original evidence.

### Standards or Targets

7. As discussed in paragraphs 64 to 79 of my original evidence it is unclear in what circumstances the Water Quality Standards contained within Schedule Ba and Schedule D of the Proposed One Plan apply, and whether these are standards in terms of section 69 of the Resource Management Act 1991.
8. It appears that the intention is for the Schedule Ba and Schedule D standards to apply as standards in relation to activities that are permitted. In the event that an activity does not meet the standards, the activity would require a resource consent. Some controlled and restricted discretionary rules retain control or discretion that relate to the water quality standards. It is unclear whether discretionary or non-complying activities need to comply with the standards or whether the standards are to be used as targets against which an application is assessed.
9. This matter was discussed in the caucusing meeting in relation to the Water Quality Standards held on 10 December 2009. Agreement was reached between the experts that the use of the term 'standards' is not a good term to use in this context and that clarity is needed. The Horizons experts were also to discuss options with the Horizons planners to clarify *'that standards applied as absolute trigger values for permitted activities will be regarded as targets in other situations'*<sup>1</sup>.
10. This matter has been addressed to a limited extent by the recommended amendments to Policies 6-3 to 6-5 and in particular by the inclusion of the words *'maintains or enhances existing water quality'* to Policy 6-4. However there are still drafting issues with those policies and with Policy 13-6, and it remains unclear whether the 'standards' are intended to apply as standards or as guidelines for resource consent applications and as to whether the so called standards are intended to be standards for the purpose of section 68(7), 69 and section 128(1)(b) of the RMA.
11. The following table outlines the rules that have provisions directly referring to the Schedule Ba and Schedule D Standards:

<b>One Plan Rules in Chapter 13 referring directly to the Water Quality Standards</b>			
<b>Rule</b>	<b>Activity Status</b>	<b>Conditions/Standards/Terms</b>	<b>Control/Discretion</b>
13-9	Permitted	The discharge shall not, after reasonable mixing change the natural temperature of the receiving water by more than the maximum temperature or temperature change specified by the quality standards for the Water Management Sub-zone listed in Schedule Ba.	

<sup>1</sup> See paragraph 9 – Report of a Meeting between Experts: Water Quality Standards, 10 November 2009.

13-17	Restricted Discretionary		Discretion is reserved over:  Measures required to comply with the water quality standards for the relevant Water Management Sub-zone(s).
13-21	Controlled		Control is reserved over:  Measures to manage effects on surface water bodies including maintaining the values and water quality standards set out in Schedule Ba.
13-24	Permitted	The discharges shall not, after reasonable mixing, cause the receiving water body to breach the water quality standards for that water body set out in Schedule D, either from the discharge itself or in combination with any other discharges.	
13-26	Permitted	The discharge shall comply with all of the conditions of Rule 13-24.	

12. The default catch-all discretionary activity rule (Rule 13-27) does not refer to the standards at all and there is no rule which provides that discharges which do not meet the standards become non-complying or prohibited activities.
13. Accordingly in my opinion the intention of the Plan as notified was that these water quality targets would only apply as standards for the purpose set out in the permitted activity rules and would otherwise be guidelines or targets. That is consistent with what was agreed at caucusing.
14. My concern is that what appears to have been the intention has not been made clear in the Plan itself.
15. My second concern is that in the absence of clarity it remains open for future argument that these are standards for the purpose of section 69. That would then allow argument that the rules must require the observance of the standards with no exceptions. That is, it could be argued that the rules must be amended to prohibit discharges which do not meet the standards. That was clearly not what was intended but given the loose wording surrounding the standards that is an argument which others may mount.
16. Accordingly, in my opinion it is more appropriate to have wording which makes it clear that these are not standards for the purposes of section 69 but are targets

which will be considered at the time any applications are considered. It also needs to be made clear that what will be considered is whether the discharge on its own or in conjunction with other discharges will **cause** the targets to be breached. That is consistent with common sense and with the wording of section 107. Mr Hamill discusses this point in relation to QMCI.

17. A summary of proposed wording changes to the One Plan provisions to remedy these issues is suggested in Appendix 1 and has been discussed in Mr Milne's legal submissions. They include:
- Changing references to the Water Quality Standards in the One Plan to *Water Quality Targets*;
  - Ensuring the introductory wording to Schedule Ba and Schedule D label the contents as being targets; and
  - The addition of an advice note to Schedule Ba and Schedule D that makes it clear that the targets are intended to guide the Regional Council when assessing resource consent applications and that where appropriate relevant targets have been incorporated as conditions for permitted activities.
18. It is acknowledged that the suggested wording requires refining and to that extent the Palmerston North City Council is happy to work with Horizons to formulate appropriate provisions and wording to rectify the identified issues.
19. On a related note, there are some fundamental issues with how some of the policies have been drafted, as Mr Milne has discussed in his legal submissions. Policy 13-6 does not make sense as drafted in the pink version, and it is unclear how it is intended to be applied. The pink version text states:

*Policy 13-6: point Source Discharges to Land and Water*

- (a) *When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or Error! Bookmark not defined. mitigating adverse effects<sup>^</sup> Error! Bookmark not defined.,:*
- (i) *the degree to which the activity will adversely affect the values identified for the relevant Water Management Sub-zone(s)\**
  - (ii) *whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards set in Schedule D to be breached*
  - (iii) *the extent to which the activity is consistent with best management practices*
  - (iv) *the need to allow reasonable time to achieve any required improvements.*

(b) *The Regional Council may make an exception to subsection (a) where:*

- (i) *in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided*
- (ii) *adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18*
- (iii) *it is appropriate to adopt the best practicable option<sup>^</sup>*
- (iv) *other exceptional circumstances apply*

*and it is consistent with the purpose of the RMA to do so.*

20. In examining this policy it could be taken as two policies rolled into one where the applicant must consider alternatives when applying for consent, and secondly the consent authority must consider the matters described in the list labelled (i) to (iv). Alternatively it could be that both the consent authority and applicant must consider alternatives along with the matters within the list.
21. In addition the first part of clause (a) does not introduce the list in any way and there are a number of bookmarking errors within the policy. In my opinion the policy should be redrafted and proposed wording is contained in Appendix 1.

#### Relationship to section 128(1)(b)

22. I also have concern that if the Water Quality Standards become standards or are interpreted as standards in the context of section 68(7) and 69 of the RMA 1991, then the Palmerston North City Wastewater Treatment Plant (WWTP) may be required to meet the new standards in a review of the existing resource consent under section 128(1)(b). This could take place as soon as the One Plan is made operative and only a few years after a major upgrade to the plant.
23. The current wording of the rules would not allow for a non notified review of current consents because the rules do not signal that, as outlined in section 68(7). However if the wording of the standards and policies is left as is, then it is arguable that a notified review under section 128(1)(b) may be carried out.
24. Upgrading the WWTP to meet the proposed standards would result in substantial capital and operational expense to the Palmerston North community. The water quality of the Manawatu River above the WWTP discharge does not meet a number of the proposed standards. It is my opinion that upgrading the WWTP in the short term would not be an efficient use of funds when superior gains to water quality could be achieved through other means.
25. To address this issue I recommended that a clause be added to Rule 13-27. Discussions on this clause have been undertaken with Horizons Planners (Clare Barton and Helen Marr) with agreement to the concept, however it has been suggested that the clause should be located within the Policies of the One Plan.

26. In discussions with Ms Barton and Ms Marr, it had been agreed that Policy 2-3 (11A-6 in the provisional determination version) is the suitable location for the clause.
27. The wording of the clause has been amended so that it fits the new location more appropriately. The suggested wording is:
- The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only be considered in relation to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.*
28. However I now consider that it would be preferable to fix up the more fundamental issues with how the standards apply (i.e. renaming them as targets and making the policies and rules consistent with that). This is a better solution overall, and it would also avoid the need to specifically exempt the WWTP.

#### Stormwater and Centennial Lagoon

29. In my original evidence statement I raised issues surrounding Centennial Lagoon, stormwater discharges and the Schedule E definitions. In response, Ms Fleur Maseyk prepared a section 42A report pointing out the benefits of including the lagoon within the Schedule E definitions<sup>2</sup> and thereby giving it a Threatened Habitat Status.
30. Given the heavily modified status of Centennial Lagoon this highlights that any natural lake or wetland would be classified as a threatened habitat unless it was specifically exempted by the provisions within Table E.2(b). This in turn causes some confusion as to the rules that apply to discharges to such environments due to the doubling up of provisions that apply to lakes and wetlands.
31. For example, Rule 13-17 provides for discharges of stormwater to surface water as a restricted discretionary activity so long as there is no discharge to any natural lake, rare habitat, threatened habitat, at-risk habitat or Natural State Water Management Sub-zone or Site of Significance - Aquatic.
32. The rule guide relating to the stormwater rules states that discharges in rare habitats, threatened habitats or at-risk habitats are regulated by rules 12-7 and 12-8, making them a Discretionary Activity<sup>3</sup>. The rule guide also states that discharges in Natural State Water Management Sub-zones or Sites of Significance - Aquatic are regulated by Rule 13-23, making them a Non-complying Activity. There is no mention of discharges to natural lakes in the rule guide.

<sup>2</sup> See Paragraphs 21-22 of the s42A report of Ms Fleur Jennifer Foster Maseyk.

<sup>3</sup> Note that these provisions have been changed to Rule 12-6 in the Provisional Determination

33. Rule 13-23 is titled "Discharges of contaminants to Natural State Water Management Sub-zones, Sites of Significance – Aquatic and lakes and wetlands. The activities encompassed by this rule include any direct discharge of contaminants into a natural lake.
  34. The discharges to Centennial Lagoon could be regulated by Rule 12-6 as indicated by the Rule Guide but also by Rule 13-23 given its title and the activities that it includes. This issue was also discussed with Ms Barton and Ms Marr at the meeting held on 14 December 2010 with agreement that the references to lakes and wetlands should be removed from Rule 13-23. For completeness the reference to lakes and wetlands should also be removed from the heading of section 13.8.
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## **Water Quantity**

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### Minimum flow and core allocation values for the Turitea Stream

35. Paragraphs 112 to 116 of my original evidence discuss the minimum flow and core allocation values set for the Turitea Stream. Dr. Jack McConchie has provided technical expert evidence on the Turitea catchment and recommended suitable values for the minimum flow and core allocation. Caucusing was held between Dr. McConchie, Dr Roygard and Ms Hurndell on this matter on 12 November 2009. This resulted in agreement on a number of matters and further evidence being prepared by Dr. McConchie that altered the minimum flow value from the original recommendations. The revised values have been agreed by Horizons experts and I have made the necessary amendments to my recommendations.

### Schedule E

36. It has been identified that as proposed the One Plan has classed the Turitea water supply lakes as threatened habitat. This issue has been raised in my original evidence and Ms Maseyk from Horizons has responded in her section 42A report.
37. Ms Maseyk has stated that the inclusion of the water supply dams within the definitions of Schedule E was an oversight and that it is the intent of the schedule to exclude areas designed, installed and maintained for such purposes. She has made a recommendation that the words 'town water supply' be added to the Table E.2(b).
38. I agree that an exclusion needs to be added to Table E.2(b) but in my opinion the words as recommended in my original evidence are more suitable. They are more specific in that it is water storage for public water supplies that is exempt. Public water supply is defined within the glossary of the One Plan thereby giving certainty to Plan users and applying consistent terminology throughout the Plan.

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**Conclusion**

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39. Taking into account the various meetings and discussions that have taken place and further evidence provided since the exchange of evidence I have made several amendments to the recommendations made in my original evidence statement. A full list of the proposed amendments is attached as Appendix 1.



Andrew Bashford  
**Planning Officer**  
PALMERSTON NORTH CITY COUNCIL

## **Appendix 1: Recommended Amendments to be made to One Plan**

### **General Amendments**

Note: These proposed changes are general in nature and will require further drafting. They relate to the issues of uncertainty around the Water Quality Standards as proposed in Schedule Ba and Schedule D of the One Plan. It is also noted that there are a number of cross referencing errors between the various versions of the One Plan and although not discussed in the evidence presented the Palmerston North City Council is happy to assist the Horizons Regional Council in correcting these if required.

1. The policies (in particular policies 6-3 to 6-5 and 13-6) should be amended so that each reference to Schedule Ba and Schedule D *standards* refers instead to "*water quality targets*";
2. The introductory wording in Schedule Ba and Schedule D should be amended to clearly label the schedules' contents as being *targets*;
3. An advice note should be added to Schedule Ba and Schedule D stating that the targets are intended to guide the exercise of the consent authority's discretion when considering consent applications, and that where relevant the targets have been incorporated as conditions of permitted activity rules;
4. The permitted activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-9 and 13-24) should be amended to refer to the relevant *targets* in those schedules; and
5. The controlled and restricted discretionary activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-17 and 13-21) should be amended so that control or discretion is reserved over "*measures to assist in maintaining or achieving the targets*" in the relevant schedule.

## **Specific Amendments**

Note: These proposed amendments contain specific wording to various One Plan provisions to address issues raised in evidence presented. All changes are **highlighted** with words recommended to be added shown as underlined, and words that are recommended to be deleted shown in ~~strike through~~.

### **Chapter 11**

Amend Policy 11-A-6 as follows:

#### **Policy 11A-6: Consent Review**

In addition to the reasons specified in s128(1)(a)(i) and (ii) RMA, the Regional Council will, under s128(1)(a)(iii) RMA, generally impose consent conditions that specify a review of consent conditions during the term of the consent for:

- (a) reviewing the appropriateness of any condition requiring the consent holder to supply the consent authority with information relating to the exercise of the resource consent
- (b) reviewing any unknown or uncertain adverse effects caused as a result of planned or required changes or upgrades to the activity
- (c) reviewing the conditions of a consent at the same time as review of other consents within the same Water Management Zone – for example, at a common catchment expiry or review date.
- (d) reviewing the effectiveness of consent conditions to avoid, remedy or mitigate any adverse effects of the activity on the environment.

The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only apply to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.

This policy relates to Objective 11A-2.

## Chapter 13

Amend Policy 13-6 (Pink Version) as follows:

### **Policy 13-6: ~~p~~Point Source Discharges to Land and Water**

~~(a) When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, the opportunity to utilise alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or **Error! Bookmark not defined.** mitigating adverse effects<sup>^</sup> where practicable **Error! Bookmark not defined.**, shall be considered., including but not limited to:z~~

(a) When applying for consents and making decisions on consent applications for discharges of contaminants to water or land the following shall be considered for the purpose of avoiding or mitigating effects:

- (i) the degree to which the activity will adversely affect the values identified for the relevant *Water Management Sub-zone(s)*\*
- (ii) whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards targets set in Schedule D to be breached
- (iii) the extent to which the activity is consistent with best management practices
- (iv) the need to allow reasonable time to achieve any required improvements.
- (v) alternative treatment and discharge options or mix of discharge regimes.

(b) The Regional Council may make an exception to (a) where:

- (i) in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided
- (ii) adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18
- (iii) it is appropriate to adopt the *best practicable option*<sup>^</sup>
- (iv) other exceptional circumstances apply

and it is consistent with the purpose of the RMA to do so.

This policy implements Objective 13-1

Amend Rules 13-17, and 13-23 as follows:

### 13.5 Rules - Stormwater

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>13-17</b> <b>Discharges of stormwater to surface water not complying with Rule 13-15</b>	The <i>discharges</i> of <i>stormwater</i> into <i>surface water</i> which do not comply with Rule 13-15, and any associated takes or diversions of stormwater forming part of the stormwater system.	<b>Restricted Discretionary</b>	(a) There shall be no <i>discharge</i> to any <b>natural lake</b> , <i>rare habitat</i> , <i>threatened habitat</i> , <i>at-risk habitat</i> , or Natural State Water Management Sub-zone or Site of Significance - Aquatic.	Discretion is reserved over: (a) measures to control flooding and erosion (b) contaminant concentrations and loading rates (c) measures required to comply with s107(1) RMA (d) measures required to comply with the water quality <b>standards targets</b> for the relevant Water Management Sub-zone(s) (e) odour management (f) stormwater system maintenance requirements (g) contingency requirements (h) monitoring and information requirements (i) duration of consent (j) review of consent conditions.

**13.8 Rules – Discharges of contaminants to Natural State Water Management Sub-zones, Lakes and Wetlands**

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<p><b>13-23 Discharges of contaminants to Natural State Water Management Sub-zones, and Sites of Significance – Aquatic and lakes and wetlands</b></p>	<p>Any direct <i>discharge</i> of <i>contaminants</i> into:</p> <ul style="list-style-type: none"> <li>(a) a Natural State Water Management Sub-zone</li> <li>(b) a water body identified as a Site of Significance – Aquatic in Schedule DBa</li> <li>(c) a natural lake, except Lake Otamangakau, Lake Te Whaiau and Lake Moawhanga</li> <li>(d) a wetland classified as a rare habitat, or threatened habitat</li> </ul> <p>except the discharge of agrichemicals for the purpose of controlling pests control as defined in a regional pest management strategy prepared under the Biosecurity Act 1993 (this activity is regulated by Rule 14-2).</p>	<p><b>Non-complying</b></p>		

## Chapter 15

Amend Rules 15-5 and 15-6 as follows:

### 15.2 Rules – Takes and Uses of Water

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-5 Takes and uses of surface water complying with core allocations</b>	The taking and use of surface water from a river, <b>or water storage lake on a river</b> , pursuant to s14(1) RMA, except where the water take is controlled under Rule 13-1.	<b>Controlled</b>	<p>(b) Water shall only be taken when the river is above its minimum flow, as assessed in accordance with Schedule B except as provided for by:</p> <p>(ba) takes or portions of takes which are for the purposes of stock drinking water and domestic needs, or public water supplies predominantly for domestic use may continue below minimum flow provided the rates and volumes of takes do not exceed the maximum takes of low flow set out in Policy 6-19.</p> <p>(c) The amount of water taken, when assessed in combination with all other water takes within the same Water Management Sub-zone shall not exceed the relevant core allocation set out for Water Management Subzones in Schedule B.</p> <p>(d) The amount of water taken, when assessed in combination with all other water takes within the same catchment, shall not exceed the cumulative allocation for each Water Management Sub-zone in the same catchment.</p> <p>(e) The take shall not lower the water level in any wetland that is a rare habitat or threatened habitat.</p>	<p>Control is reserved over:</p> <p>(a) the volume and rate of water taken, and the timing of the take</p> <p>(b) the location of take</p> <p>(c) intake velocity and screening requirements</p> <p>(d) measures to avoid, remedy or mitigate any adverse effects on the values of the water body at the point of abstraction, including restrictions on the volume and rate of abstraction</p> <p>(e) the efficiency of water use</p> <p>(f) effects on other water takes</p> <p>(g) effects on rare habitats, and threatened habitats and at-risk habitats and Sites of Significance – Aquatic.</p> <p>(h) compliance with minimum flow requirements</p> <p>(i) duration of consent</p> <p>(j) review of consent conditions</p> <p>(k) compliance monitoring.</p> <p>Resource consent applications under this rule will not be notified and written approval of affected persons will not be required (notice of applications need not be served on affected persons).</p>

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-6 Takes of surface water not complying with core allocations</b>	<p>The taking of surface water from a river <b>or water storage lake on a river:</b></p> <p>(aa) which, when assessed in combination with all other water takes, exceeds the relevant core allocation set out in Schedule B. or</p> <p>(ab) at or below minimum flow (unless allowed by Rule 15-5(b))</p> <p>This rule does not include:</p> <p>(a) takes permitted under Rule 15-1</p> <p>(b) takes in circumstances where water is only taken when the river flow is greater than the median flow (these are a discretionary activity under Rule 15-8)</p> <p>(c) lawfully established takes for hydroelectricity generation (these are discretionary activities under Rule 15-8).</p>	<b>Non-complying</b>		

**Schedule B**

Amend the Turitea (Mana\_11b) Sub-zone within Table B1 as follows:

Table B1: Allocation Limits and Minimum Flows by Water Management Sub-zone					
Zone code	Sub-zone	Minimum Flow (m <sup>3</sup> /s)	Flow monitoring site	Flow monitoring site location	Cumulative core allocation limit (m <sup>3</sup> /s)
Lower Manawatu (Mana_11)	Turitea (Mana_11b)	0.050 0.041	Turitea at Ngahere Park	T24:354-852	0.265 0.428

## Schedule D

Make the following changes to the associated Standards (targets) Key within Schedule D:

### Schedule D Standards Targets Key

Water<sup>^</sup> Quality Standards Targets Key: definition of abbreviations and full wording of the standards targets (placement of the numerical values for a specified standard target are indicated by [...]).

Abbreviations used in Tables D:1 to D:4		Full Wording of the Standard-Target
Header	Sub-header	
pH	Range	The pH of the water <sup>^</sup> shall be within the range [...] to [...], unless natural levels are already outside this range.
	Δ	The pH of the water <sup>^</sup> shall not be changed by more than [...].
Temp (°C)	<	The temperature of the water <sup>^</sup> shall not exceed [...] degrees Celsius.
	Δ	The temperature of the water <sup>^</sup> shall not be changed by more than [...]degrees Celsius.
DO (%SAT)	>	The concentration of dissolved oxygen (DO) shall exceed [...] % of saturation.
sCBOD <sub>5</sub> (g/m <sup>3</sup> )	<	The monthly average five-days filtered / soluble carbonaceous biochemical oxygen demand (BOD) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre.
POM (g/m <sup>3</sup> )	<	The average concentration of particulate organic matter when the river <sup>^</sup> flow is at or below 50th percentile of flow shall not exceed [...] grams per cubic metre.
Periphyton (Rivers)	Chl a (mg/m <sup>2</sup> )	The algal biomass on the stream or river <sup>^</sup> bed <sup>^</sup> shall not exceed [...] milligrams of chlorophyll a per square metre.
	% cover	The maximum cover of visible stream or river <sup>^</sup> bed <sup>^</sup> by periphyton as filamentous algae more than 2 centimetres long shall not exceed [...] %. The maximum cover of visible stream or river bed by periphyton as diatoms or cyanobacteria more than 0.3 centimetres thick shall not exceed [...] %.
Algal biomass Chl a (mg/m <sup>3</sup> )	<	The annual average algal biomass shall not exceed [...] milligrams chlorophyll Algal biomass a per cubic metre.
	Maximum	no sample shall exceed [...] milligrams chlorophyll a per cubic metre.
DRP (g/m <sup>3</sup> )	<	The annual average concentration of dissolved reactive phosphorus (DRP) when the river <sup>^</sup> flow is at or below the 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for DRP is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TP (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total phosphorus (TP) shall not exceed [...] grams per cubic metre.
SIN (g/m <sup>3</sup> )	<	The annual average concentration of soluble inorganic nitrogen <sup>11</sup> (SIN) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for SIN is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TN (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total nitrogen shall not exceed [...] grams per cubic metre.
MCI		The Macroinvertebrate Community Index (MCI) shall <b>not be less than 20% below natural reference conditions for the river.</b> <b>If natural reference conditions are not defined then the MCI shall</b> exceed [...]. <b>unless natural physical conditions are beyond the scope of application of the MCI.</b> In cases where the river <sup>^</sup> or stream habitat is suitable for the application of the soft-bottomed variant of the MCI (MCI-sb) the standards shall also apply. <b>This standard will not apply if the natural physical conditions are beyond the scope of application of the MCI or MCI-sb.</b> <b>The MCI standard applies only for State of the Environment monitoring purposes to determine if the aquatic macroinvertebrate communities are adequate to provide for and maintain the values in each WMSZ, the standard is not appropriate for monitoring the effects of activities such as discharges to water.</b>
QMCI	%Δ	<b>Discharges to water to cause N</b> no more than a 20 % reduction in Quantitative Macroinvertebrate Community Index (QMCI) score between <b>appropriately matched habitats</b> upstream and downstream of <b>the discharges to water<sup>^</sup>.</b> <b>Note: Where samples are collected using a hand net this standard shall also apply to the Semi-Quantitative MCI (SQMCI).</b>
Ammoniacal nitrogen (g/m <sup>3</sup> ) (rivers)	<	The average concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre.
Ammoniacal nitrogen (g/m <sup>3</sup> ) (lakes)	<	The concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre when lake <sup>^</sup> pH exceeds 8.5 within the epilimnion (shallow lakes <sup>^</sup> ) or within 2 m of the water <sup>^</sup> surface (deep lakes <sup>^</sup> ).
Toxicants	<%	For toxicants not otherwise defined in these standards, the concentration of toxicants in the water <sup>^</sup> shall not exceed the trigger values defined in the 2000 ANZECC guidelines Table 3.4.1 for the level of protection of [...] % of species. <b>For metals the trigger value shall be adjusted for hardness and apply to the dissolved fraction.</b>
Clarity (m) (rivers)	%Δ	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall equal or exceed [...] m when the river <sup>^</sup> is at or below the 50 <sup>th</sup> percentile of flow.
Clarity (m) (lakes)	%Δ	The clarity of the water <sup>^</sup> measured as Secchj depth (or horizontal sighting range of a 200 mm black disc) shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured Secchi depth (or horizontal sighting range of a 200 mm black disc) shall exceed [...] m.
E.coli/100ml (rivers)	<m	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive) when the river <sup>^</sup> flow is at or below the 50 <sup>th</sup> percentile of flow.
	<20 <sup>th</sup> %ile	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres when the river <sup>^</sup> flow is at or below the 20th percentile of flow year round.
E.coli/100 ml (lakes)	Summer	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive).
	Winter	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 May – 31 October (inclusive).
Euphotic Depth (lakes)	%Δ	Euphotic depth shall not be reduced by more than [...] %.

## **Schedule E**

Make the following amendments to Table E.2(b):

### **Table E.2(b):**

<p>If an area of any habitat type described in Table E.1 meets any of the following criteria it shall not be rare habitat*, threatened habitat* or at-risk habitat* for the purposes of this Plan.</p>
<p><b>Forest*, Treeland*, Scrub*, or Shrubland* Habitat Types Classified as Threatened or At-risk</b></p> <ul style="list-style-type: none"> <li>i. Areas of indigenous* tree* species planted for the purposes of timber harvest. Or</li> <li>ii. Indigenous* vegetation planted for landscaping, horticultural, shelter belts, gardening or amenity purposes. Or</li> <li>iii. Habitat areas 1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul> <p><b>Wetland^ Habitat Types Classified as Rare or Threatened</b></p> <ul style="list-style-type: none"> <li>iv. Damp gully heads, or paddocks subject to regular ponding, dominated* by pasture or exotic species in association* with wetland sedge and rush species. Or</li> <li>v. Ditches or drains supporting raupo, flax or other wetland species (e.g. Carex sp., Isolepis sp.), or populations of these species in drains or slumps associated with road reserves or rail corridors. Or</li> <li>vi. Areas of wetland^ habitat specifically designed, installed and maintained for any of the following purposes: <ul style="list-style-type: none"> <li>a) stock watering (including stock ponds), or</li> <li>b) water storage for the purposes of fire fighting or irrigation (including old gravel pits), or</li> <li>c) treatment of animal effluent (including pond or barrier ditch systems), or</li> <li>d) waste water treatment, or</li> <li>e) sediment control, or</li> <li>f) any hydroelectric power generation scheme. Or</li> <li>g) water storage for the purposes of public water supplies. Or</li> </ul> </li> <li>vii. Areas of wetland habitat maintained in relation to the implementation of any resource consent conditions or agreements relating to the operation of any hydroelectric power scheme currently lawfully established. Or</li> <li>viii. Open water and associated vegetation created for landscaping purposes or amenity values where the planted vegetation is predominately exotic, or includes assemblages of species not naturally found in association* with each other, on the particular landform, or at the geographical location of the created site.</li> <li>ix. Habitat areas 0.1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul>

**BEFORE THE MANAWATU – WANGANUI REGIONAL COUNCIL (HORIZONS  
REGIONAL COUNCIL)**

*In the matter of*        **The Resource Management Act 1991; and**

*In the matter of*        **The Proposed One Plan: Consolidated Regional Policy  
Statement, Regional Plan and Regional Coastal Plan for  
the Manawatu - Wanganui Region**

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**SUPPLEMENTARY EVIDENCE OF ANDREW DAVID BASHFORD  
ON BEHALF OF THE PALMERSTON NORTH CITY COUNCIL**

**CHAPTERS 6, 13, 15 AND 16  
AND SCHEDULES B, C, D AND E OF THE ONE PLAN**

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Dated: 11 February 2010

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## Introduction and Background

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1. I have prepared this report as supplementary evidence to my Statement of Evidence dated 16 October 2009. It has been compiled in response to supplementary evidence produced by Horizons experts and takes into account the outcomes of caucusing and pre-hearing meetings held since the exchange of evidence. It also focuses more specifically on the issues surrounding the water quality standards contained within Schedule D and section 69 of the Resource Management Act 1991.
2. Several meetings involving PNCC experts have been held since the exchange of evidence. Jack McConchie, Jon Roygard and Raelene Hurdell attended a caucusing meeting on 12 November 2009 regarding the minimum flow and core allocation limit in the Turitea subzone. Caucusing was also held between Keith Hamill, Paul Kennedy, Kathryn McArthur, John Quinn, Jon Roygard and Robert Wilcock on 10 November 2009 in relation to the Water Quality Standards contained within Schedule D of the Proposed One Plan. A pre-hearing meeting was held between Clare Barton, Helen Marr, Jon Roygard, Chris Pepper and myself on 14 December 2009 where several issues were discussed including the appropriate location of amendments to Rule 13-27 as suggested in my original evidence.

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## Water Quality

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### Water Quality Standards

3. The evidence and supplementary evidence of Keith Hamill discusses the Water Quality Standards contained within Schedule D in detail. Mr Hamill participated in caucusing with other water quality experts and reached agreement on a number of matters as outlined in the 'Meeting Between Experts' report dated 10 November 2009.
4. As a result of this meeting, and consequent discussions, some amendments have been made to the recommendations as contained in my original evidence statement. In particular these relate to the Standards Key and an updated version is attached in Appendix 1 to this statement.
5. Of particular note are the standards relating to QMCI and Toxicants, where the recommendations made here differ to that made by Horizons experts. The reasons for these differences are discussed in paragraphs 3.3 to 3.9 and 3.12 of Mr. Hamill's supplementary evidence.
6. Agreement was not achieved in relation to the standards relating to DRP or SIN through the caucusing process. The recommendations relating to these standards have not changed from my original evidence.

### Standards or Targets

7. As discussed in paragraphs 64 to 79 of my original evidence it is unclear in what circumstances the Water Quality Standards contained within Schedule Ba and Schedule D of the Proposed One Plan apply, and whether these are standards in terms of section 69 of the Resource Management Act 1991.
8. It appears that the intention is for the Schedule Ba and Schedule D standards to apply as standards in relation to activities that are permitted. In the event that an activity does not meet the standards, the activity would require a resource consent. Some controlled and restricted discretionary rules retain control or discretion that relate to the water quality standards. It is unclear whether discretionary or non-complying activities need to comply with the standards or whether the standards are to be used as targets against which an application is assessed.
9. This matter was discussed in the caucusing meeting in relation to the Water Quality Standards held on 10 December 2009. Agreement was reached between the experts that the use of the term 'standards' is not a good term to use in this context and that clarity is needed. The Horizons experts were also to discuss options with the Horizons planners to clarify *'that standards applied as absolute trigger values for permitted activities will be regarded as targets in other situations'*<sup>1</sup>.
10. This matter has been addressed to a limited extent by the recommended amendments to Policies 6-3 to 6-5 and in particular by the inclusion of the words *'maintains or enhances existing water quality'* to Policy 6-4. However there are still drafting issues with those policies and with Policy 13-6, and it remains unclear whether the 'standards' are intended to apply as standards or as guidelines for resource consent applications and as to whether the so called standards are intended to be standards for the purpose of section 68(7), 69 and section 128(1)(b) of the RMA.
11. The following table outlines the rules that have provisions directly referring to the Schedule Ba and Schedule D Standards:

<b>One Plan Rules in Chapter 13 referring directly to the Water Quality Standards</b>			
<b>Rule</b>	<b>Activity Status</b>	<b>Conditions/Standards/Terms</b>	<b>Control/Discretion</b>
13-9	Permitted	The discharge shall not, after reasonable mixing change the natural temperature of the receiving water by more than the maximum temperature or temperature change specified by the quality standards for the Water Management Sub-zone listed in Schedule Ba.	

<sup>1</sup> See paragraph 9 – Report of a Meeting between Experts: Water Quality Standards, 10 November 2009.

13-17	Restricted Discretionary		Discretion is reserved over:  Measures required to comply with the water quality standards for the relevant Water Management Sub-zone(s).
13-21	Controlled		Control is reserved over:  Measures to manage effects on surface water bodies including maintaining the values and water quality standards set out in Schedule Ba.
13-24	Permitted	The discharges shall not, after reasonable mixing, cause the receiving water body to breach the water quality standards for that water body set out in Schedule D, either from the discharge itself or in combination with any other discharges.	
13-26	Permitted	The discharge shall comply with all of the conditions of Rule 13-24.	

12. The default catch-all discretionary activity rule (Rule 13-27) does not refer to the standards at all and there is no rule which provides that discharges which do not meet the standards become non-complying or prohibited activities.
13. Accordingly in my opinion the intention of the Plan as notified was that these water quality targets would only apply as standards for the purpose set out in the permitted activity rules and would otherwise be guidelines or targets. That is consistent with what was agreed at caucusing.
14. My concern is that what appears to have been the intention has not been made clear in the Plan itself.
15. My second concern is that in the absence of clarity it remains open for future argument that these are standards for the purpose of section 69. That would then allow argument that the rules must require the observance of the standards with no exceptions. That is, it could be argued that the rules must be amended to prohibit discharges which do not meet the standards. That was clearly not what was intended but given the loose wording surrounding the standards that is an argument which others may mount.
16. Accordingly, in my opinion it is more appropriate to have wording which makes it clear that these are not standards for the purposes of section 69 but are targets

which will be considered at the time any applications are considered. It also needs to be made clear that what will be considered is whether the discharge on its own or in conjunction with other discharges will **cause** the targets to be breached. That is consistent with common sense and with the wording of section 107. Mr Hamill discusses this point in relation to QMCI.

17. A summary of proposed wording changes to the One Plan provisions to remedy these issues is suggested in Appendix 1 and has been discussed in Mr Milne's legal submissions. They include:
- Changing references to the Water Quality Standards in the One Plan to *Water Quality Targets*;
  - Ensuring the introductory wording to Schedule Ba and Schedule D label the contents as being targets; and
  - The addition of an advice note to Schedule Ba and Schedule D that makes it clear that the targets are intended to guide the Regional Council when assessing resource consent applications and that where appropriate relevant targets have been incorporated as conditions for permitted activities.
18. It is acknowledged that the suggested wording requires refining and to that extent the Palmerston North City Council is happy to work with Horizons to formulate appropriate provisions and wording to rectify the identified issues.
19. On a related note, there are some fundamental issues with how some of the policies have been drafted, as Mr Milne has discussed in his legal submissions. Policy 13-6 does not make sense as drafted in the pink version, and it is unclear how it is intended to be applied. The pink version text states:

*Policy 13-6: point Source Discharges to Land and Water*

- (a) *When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or Error! Bookmark not defined. mitigating adverse effects<sup>^</sup> Error! Bookmark not defined.,:*
- (i) *the degree to which the activity will adversely affect the values identified for the relevant Water Management Sub-zone(s)\**
  - (ii) *whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards set in Schedule D to be breached*
  - (iii) *the extent to which the activity is consistent with best management practices*
  - (iv) *the need to allow reasonable time to achieve any required improvements.*

(b) *The Regional Council may make an exception to subsection (a) where:*

- (i) *in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided*
- (ii) *adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18*
- (iii) *it is appropriate to adopt the best practicable option<sup>^</sup>*
- (iv) *other exceptional circumstances apply*

*and it is consistent with the purpose of the RMA to do so.*

20. In examining this policy it could be taken as two policies rolled into one where the applicant must consider alternatives when applying for consent, and secondly the consent authority must consider the matters described in the list labelled (i) to (iv). Alternatively it could be that both the consent authority and applicant must consider alternatives along with the matters within the list.
21. In addition the first part of clause (a) does not introduce the list in any way and there are a number of bookmarking errors within the policy. In my opinion the policy should be redrafted and proposed wording is contained in Appendix 1.

#### Relationship to section 128(1)(b)

22. I also have concern that if the Water Quality Standards become standards or are interpreted as standards in the context of section 68(7) and 69 of the RMA 1991, then the Palmerston North City Wastewater Treatment Plant (WWTP) may be required to meet the new standards in a review of the existing resource consent under section 128(1)(b). This could take place as soon as the One Plan is made operative and only a few years after a major upgrade to the plant.
23. The current wording of the rules would not allow for a non notified review of current consents because the rules do not signal that, as outlined in section 68(7). However if the wording of the standards and policies is left as is, then it is arguable that a notified review under section 128(1)(b) may be carried out.
24. Upgrading the WWTP to meet the proposed standards would result in substantial capital and operational expense to the Palmerston North community. The water quality of the Manawatu River above the WWTP discharge does not meet a number of the proposed standards. It is my opinion that upgrading the WWTP in the short term would not be an efficient use of funds when superior gains to water quality could be achieved through other means.
25. To address this issue I recommended that a clause be added to Rule 13-27. Discussions on this clause have been undertaken with Horizons Planners (Clare Barton and Helen Marr) with agreement to the concept, however it has been suggested that the clause should be located within the Policies of the One Plan.

26. In discussions with Ms Barton and Ms Marr, it had been agreed that Policy 2-3 (11A-6 in the provisional determination version) is the suitable location for the clause.
27. The wording of the clause has been amended so that it fits the new location more appropriately. The suggested wording is:

*The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only be considered in relation to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.*

28. However I now consider that it would be preferable to fix up the more fundamental issues with how the standards apply (i.e. renaming them as targets and making the policies and rules consistent with that). This is a better solution overall, and it would also avoid the need to specifically exempt the WWTP.

#### Stormwater and Centennial Lagoon

29. In my original evidence statement I raised issues surrounding Centennial Lagoon, stormwater discharges and the Schedule E definitions. In response, Ms Fleur Maseyk prepared a section 42A report pointing out the benefits of including the lagoon within the Schedule E definitions<sup>2</sup> and thereby giving it a Threatened Habitat Status.
30. Given the heavily modified status of Centennial Lagoon this highlights that any natural lake or wetland would be classified as a threatened habitat unless it was specifically exempted by the provisions within Table E.2(b). This in turn causes some confusion as to the rules that apply to discharges to such environments due to the doubling up of provisions that apply to lakes and wetlands.
31. For example, Rule 13-17 provides for discharges of stormwater to surface water as a restricted discretionary activity so long as there is no discharge to any natural lake, rare habitat, threatened habitat, at-risk habitat or Natural State Water Management Sub-zone or Site of Significance - Aquatic.
32. The rule guide relating to the stormwater rules states that discharges in rare habitats, threatened habitats or at-risk habitats are regulated by rules 12-7 and 12-8, making them a Discretionary Activity<sup>3</sup>. The rule guide also states that discharges in Natural State Water Management Sub-zones or Sites of Significance - Aquatic are regulated by Rule 13-23, making them a Non-complying Activity. There is no mention of discharges to natural lakes in the rule guide.

<sup>2</sup> See Paragraphs 21-22 of the s42A report of Ms Fleur Jennifer Foster Maseyk.

<sup>3</sup> Note that these provisions have been changed to Rule 12-6 in the Provisional Determination

33. Rule 13-23 is titled "Discharges of contaminants to Natural State Water Management Sub-zones, Sites of Significance – Aquatic and lakes and wetlands. The activities encompassed by this rule include any direct discharge of contaminants into a natural lake.
34. The discharges to Centennial Lagoon could be regulated by Rule 12-6 as indicated by the Rule Guide but also by Rule 13-23 given its title and the activities that it includes. This issue was also discussed with Ms Barton and Ms Marr at the meeting held on 14 December 2010 with agreement that the references to lakes and wetlands should be removed from Rule 13-23. For completeness the reference to lakes and wetlands should also be removed from the heading of section 13.8.

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## **Water Quantity**

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### Minimum flow and core allocation values for the Turitea Stream

35. Paragraphs 112 to 116 of my original evidence discuss the minimum flow and core allocation values set for the Turitea Stream. Dr. Jack McConchie has provided technical expert evidence on the Turitea catchment and recommended suitable values for the minimum flow and core allocation. Caucusing was held between Dr. McConchie, Dr Roygard and Ms Hurndell on this matter on 12 November 2009. This resulted in agreement on a number of matters and further evidence being prepared by Dr. McConchie that altered the minimum flow value from the original recommendations. The revised values have been agreed by Horizons experts and I have made the necessary amendments to my recommendations.

### Schedule E

36. It has been identified that as proposed the One Plan has classed the Turitea water supply lakes as threatened habitat. This issue has been raised in my original evidence and Ms Maseyk from Horizons has responded in her section 42A report.
37. Ms Maseyk has stated that the inclusion of the water supply dams within the definitions of Schedule E was an oversight and that it is the intent of the schedule to exclude areas designed, installed and maintained for such purposes. She has made a recommendation that the words 'town water supply' be added to the Table E.2(b).
38. I agree that an exclusion needs to be added to Table E.2(b) but in my opinion the words as recommended in my original evidence are more suitable. They are more specific in that it is water storage for public water supplies that is exempt. Public water supply is defined within the glossary of the One Plan thereby giving certainty to Plan users and applying consistent terminology throughout the Plan.

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**Conclusion**

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39. Taking into account the various meetings and discussions that have taken place and further evidence provided since the exchange of evidence I have made several amendments to the recommendations made in my original evidence statement. A full list of the proposed amendments is attached as Appendix 1.

A handwritten signature in black ink that reads "ADBashford". The signature is written in a cursive style with a large initial 'A' and 'B'.

Andrew Bashford  
**Planning Officer**  
PALMERSTON NORTH CITY COUNCIL

## **Appendix 1: Recommended Amendments to be made to One Plan**

### **General Amendments**

Note: These proposed changes are general in nature and will require further drafting. They relate to the issues of uncertainty around the Water Quality Standards as proposed in Schedule Ba and Schedule D of the One Plan. It is also noted that there are a number of cross referencing errors between the various versions of the One Plan and although not discussed in the evidence presented the Palmerston North City Council is happy to assist the Horizons Regional Council in correcting these if required.

1. The policies (in particular policies 6-3 to 6-5 and 13-6) should be amended so that each reference to Schedule Ba and Schedule D *standards* refers instead to "*water quality targets*";
2. The introductory wording in Schedule Ba and Schedule D should be amended to clearly label the schedules' contents as being *targets*;
3. An advice note should be added to Schedule Ba and Schedule D stating that the targets are intended to guide the exercise of the consent authority's discretion when considering consent applications, and that where relevant the targets have been incorporated as conditions of permitted activity rules;
4. The permitted activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-9 and 13-24) should be amended to refer to the relevant *targets* in those schedules; and
5. The controlled and restricted discretionary activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-17 and 13-21) should be amended so that control or discretion is reserved over "*measures to assist in maintaining or achieving the targets*" in the relevant schedule.

## **Specific Amendments**

Note: These proposed amendments contain specific wording to various One Plan provisions to address issues raised in evidence presented. All changes are **highlighted** with words recommended to be added shown as underlined, and words that are recommended to be deleted shown in ~~strike through~~.

### **Chapter 11**

Amend Policy 11-A-6 as follows:

#### **Policy 11A-6: Consent Review**

In addition to the reasons specified in s128(1)(a)(i) and (ii) RMA, the Regional Council will, under s128(1)(a)(iii) RMA, generally impose consent conditions that specify a review of consent conditions during the term of the consent for:

- (a) reviewing the appropriateness of any condition requiring the consent holder to supply the consent authority with information relating to the exercise of the resource consent
- (b) reviewing any unknown or uncertain adverse effects caused as a result of planned or required changes or upgrades to the activity
- (c) reviewing the conditions of a consent at the same time as review of other consents within the same Water Management Zone – for example, at a common catchment expiry or review date.
- (d) reviewing the effectiveness of consent conditions to avoid, remedy or mitigate any adverse effects of the activity on the environment.

The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only apply to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.

This policy relates to Objective 11A-2.

## Chapter 13

Amend Policy 13-6 (Pink Version) as follows:

### **Policy 13-6: ~~p~~Point Source Discharges to Land and Water**

~~(a) When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, the opportunity to utilise alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or **Error! Bookmark not defined.** mitigating adverse effects<sup>^</sup> where practicable **Error! Bookmark not defined.**, shall be considered., including but not limited to:z~~

(a) When applying for consents and making decisions on consent applications for discharges of contaminants to water or land the following shall be considered for the purpose of avoiding or mitigating effects:

- (i) the degree to which the activity will adversely affect the values identified for the relevant *Water Management Sub-zone(s)*\*
- (ii) whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards targets set in Schedule D to be breached
- (iii) the extent to which the activity is consistent with best management practices
- (iv) the need to allow reasonable time to achieve any required improvements.
- (v) alternative treatment and discharge options or mix of discharge regimes.

(b) The Regional Council may make an exception to (a) where:

- (i) in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided
- (ii) adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18
- (iii) it is appropriate to adopt the *best practicable option*<sup>^</sup>
- (iv) other exceptional circumstances apply

and it is consistent with the purpose of the RMA to do so.

This policy implements Objective 13-1

Amend Rules 13-17, and 13-23 as follows:

### 13.5 Rules - Stormwater

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>13-17</b> <b>Discharges of stormwater to surface water not complying with Rule 13-15</b>	The <i>discharges</i> of <i>stormwater</i> into <i>surface water</i> which do not comply with Rule 13-15, and any associated takes or diversions of stormwater forming part of the stormwater system.	<b>Restricted Discretionary</b>	(a) There shall be no <i>discharge</i> to any <b>natural lake</b> , <i>rare habitat</i> , <i>threatened habitat</i> , <i>at-risk habitat</i> , or Natural State Water Management Sub-zone or Site of Significance - Aquatic.	Discretion is reserved over: (a) measures to control flooding and erosion (b) contaminant concentrations and loading rates (c) measures required to comply with s107(1) RMA (d) measures required to comply with the water quality <b>standards targets</b> for the relevant Water Management Sub-zone(s) (e) odour management (f) stormwater system maintenance requirements (g) contingency requirements (h) monitoring and information requirements (i) duration of consent (j) review of consent conditions.

13.8 **Rules – Discharges of contaminants to Natural State Water Management Sub-zones, Lakes and Wetlands**

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<p><b>13-23</b>  <b>Discharges of contaminants to Natural State Water Management Sub-zones, and Sites of Significance – Aquatic and lakes and wetlands</b></p>	<p>Any direct <i>discharge</i> of <i>contaminants</i> into:</p> <ul style="list-style-type: none"> <li>(a) a Natural State Water Management Sub-zone</li> <li>(b) a water body identified as a Site of Significance – Aquatic in Schedule DBa</li> <li>(c) a natural lake, except Lake Otamangakau, Lake Te Whaiau and Lake Moawhanga</li> <li>(d) a wetland classified as a rare habitat, or threatened habitat</li> </ul> <p>except the discharge of agrichemicals for the purpose of controlling pests control as defined in a regional pest management strategy prepared under the Biosecurity Act 1993 (this activity is regulated by Rule 14-2).</p>	<p><b>Non-complying</b></p>		

## Chapter 15

Amend Rules 15-5 and 15-6 as follows:

### 15.2 Rules – Takes and Uses of Water

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-5 Takes and uses of surface water complying with core allocations</b>	The taking and use of surface water from a river, <b>or water storage lake on a river</b> , pursuant to s14(1) RMA, except where the water take is controlled under Rule 13-1.	<b>Controlled</b>	<p>(b) Water shall only be taken when the river is above its minimum flow, as assessed in accordance with Schedule B except as provided for by:</p> <p>(ba) takes or portions of takes which are for the purposes of stock drinking water and domestic needs, or public water supplies predominantly for domestic use may continue below minimum flow provided the rates and volumes of takes do not exceed the maximum takes of low flow set out in Policy 6-19.</p> <p>(c) The amount of water taken, when assessed in combination with all other water takes within the same Water Management Sub-zone shall not exceed the relevant core allocation set out for Water Management Subzones in Schedule B.</p> <p>(d) The amount of water taken, when assessed in combination with all other water takes within the same catchment, shall not exceed the cumulative allocation for each Water Management Sub-zone in the same catchment.</p> <p>(e) The take shall not lower the water level in any wetland that is a rare habitat or threatened habitat.</p>	<p>Control is reserved over:</p> <p>(a) the volume and rate of water taken, and the timing of the take</p> <p>(b) the location of take</p> <p>(c) intake velocity and screening requirements</p> <p>(d) measures to avoid, remedy or mitigate any adverse effects on the values of the water body at the point of abstraction, including restrictions on the volume and rate of abstraction</p> <p>(e) the efficiency of water use</p> <p>(f) effects on other water takes</p> <p>(g) effects on rare habitats, and threatened habitats and at-risk habitats and Sites of Significance – Aquatic.</p> <p>(h) compliance with minimum flow requirements</p> <p>(i) duration of consent</p> <p>(j) review of consent conditions</p> <p>(k) compliance monitoring.</p> <p>Resource consent applications under this rule will not be notified and written approval of affected persons will not be required (notice of applications need not be served on affected persons).</p>

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-6 Takes of surface water not complying with core allocations</b>	<p>The taking of surface water from a river <b>or water storage lake on a river:</b></p> <p>(aa) which, when assessed in combination with all other water takes, exceeds the relevant core allocation set out in Schedule B. or</p> <p>(ab) at or below minimum flow (unless allowed by Rule 15-5(b))</p> <p>This rule does not include:</p> <p>(a) takes permitted under Rule 15-1</p> <p>(b) takes in circumstances where water is only taken when the river flow is greater than the median flow (these are a discretionary activity under Rule 15-8)</p> <p>(c) lawfully established takes for hydroelectricity generation (these are discretionary activities under Rule 15-8).</p>	<b>Non-complying</b>		

**Schedule B**

Amend the Turitea (Mana\_11b) Sub-zone within Table B1 as follows:

Table B1: Allocation Limits and Minimum Flows by Water Management Sub-zone					
Zone code	Sub-zone	Minimum Flow (m <sup>3</sup> /s)	Flow monitoring site	Flow monitoring site location	Cumulative core allocation limit (m <sup>3</sup> /s)
Lower Manawatu (Mana_11)	Turitea (Mana_11b)	0.050 0.041	Turitea at Ngahere Park	T24:354-852	0.265 0.428

## Schedule D

Make the following changes to the associated Standards (targets) Key within Schedule D:

### Schedule D Standards Targets Key

Water<sup>^</sup> Quality Standards Targets Key: definition of abbreviations and full wording of the standards targets (placement of the numerical values for a specified standard target are indicated by [...]).

Abbreviations used in Tables D:1 to D:4		Full Wording of the Standard-Target
Header	Sub-header	
pH	Range	The pH of the water <sup>^</sup> shall be within the range [...] to [...], unless natural levels are already outside this range.
	Δ	The pH of the water <sup>^</sup> shall not be changed by more than [...].
Temp (°C)	<	The temperature of the water <sup>^</sup> shall not exceed [...] degrees Celsius.
	Δ	The temperature of the water <sup>^</sup> shall not be changed by more than [...]degrees Celsius.
DO (%SAT)	>	The concentration of dissolved oxygen (DO) shall exceed [...] % of saturation.
sCBOD <sub>5</sub> (g/m <sup>3</sup> )	<	The monthly average five-days filtered / soluble carbonaceous biochemical oxygen demand (BOD) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre.
POM (g/m <sup>3</sup> )	<	The average concentration of particulate organic matter when the river <sup>^</sup> flow is at or below 50th percentile of flow shall not exceed [...] grams per cubic metre.
Periphyton (Rivers)	Chl a (mg/m <sup>2</sup> )	The algal biomass on the stream or river <sup>^</sup> bed <sup>^</sup> shall not exceed [...] milligrams of chlorophyll a per square metre.
	% cover	The maximum cover of visible stream or river <sup>^</sup> bed <sup>^</sup> by periphyton as filamentous algae more than 2 centimetres long shall not exceed [...] %. The maximum cover of visible stream or river bed by periphyton as diatoms or cyanobacteria more than 0.3 centimetres thick shall not exceed [...] %.
Algal biomass Chl a (mg/m <sup>3</sup> )	<	The annual average algal biomass shall not exceed [...] milligrams chlorophyll Algal biomass a per cubic metre.
	Maximum	no sample shall exceed [...] milligrams chlorophyll a per cubic metre.
DRP (g/m <sup>3</sup> )	<	The annual average concentration of dissolved reactive phosphorus (DRP) when the river <sup>^</sup> flow is at or below the 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for DRP is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TP (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total phosphorus (TP) shall not exceed [...] grams per cubic metre.
SIN (g/m <sup>3</sup> )	<	The annual average concentration of soluble inorganic nitrogen <sup>11</sup> (SIN) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for SIN is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TN (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total nitrogen shall not exceed [...] grams per cubic metre.
MCI		The Macroinvertebrate Community Index (MCI) shall <b>not be less than 20% below natural reference conditions for the river.</b> <b>If natural reference conditions are not defined then the MCI shall</b> exceed [...]. <b>unless natural physical conditions are beyond the scope of application of the MCI.</b> In cases where the river <sup>^</sup> or stream habitat is suitable for the application of the soft-bottomed variant of the MCI (MCI-sb) the standards shall also apply. <b>This standard will not apply if the natural physical conditions are beyond the scope of application of the MCI or MCI-sb.</b> <b>The MCI standard applies only for State of the Environment monitoring purposes to determine if the aquatic macroinvertebrate communities are adequate to provide for and maintain the values in each WMSZ, the standard is not appropriate for monitoring the effects of activities such as discharges to water.</b>
QMCI	%Δ	<b>Discharges to water to cause N</b> no more than a 20 % reduction in Quantitative Macroinvertebrate Community Index (QMCI) score between <b>appropriately matched habitats</b> upstream and downstream of <b>the discharges to water<sup>^</sup>.</b> <b>Note: Where samples are collected using a hand net this standard shall also apply to the Semi-Quantitative MCI (SQMCI).</b>
Ammoniacal nitrogen (g/m <sup>3</sup> ) (rivers)	<	The average concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre.
Ammoniacal nitrogen (g/m <sup>3</sup> ) (lakes)	<	The concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre when lake <sup>^</sup> pH exceeds 8.5 within the epilimnion (shallow lakes <sup>^</sup> ) or within 2 m of the water <sup>^</sup> surface (deep lakes <sup>^</sup> ).
Toxicants	<%	For toxicants not otherwise defined in these standards, the concentration of toxicants in the water <sup>^</sup> shall not exceed the trigger values defined in the 2000 ANZECC guidelines Table 3.4.1 for the level of protection of [...] % of species. <b>For metals the trigger value shall be adjusted for hardness and apply to the dissolved fraction.</b>
Clarity (m) (rivers)	%Δ	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall equal or exceed [...] m when the river <sup>^</sup> is at or below the 50 <sup>th</sup> percentile of flow.
Clarity (m) (lakes)	%Δ	The clarity of the water <sup>^</sup> measured as Secchj depth (or horizontal sighting range of a 200 mm black disc) shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured Secchi depth (or horizontal sighting range of a 200 mm black disc) shall exceed [...] m.
E.coli/100ml (rivers)	<m	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive) when the river <sup>^</sup> flow is at or below the 50 <sup>th</sup> percentile of flow.
	<20 <sup>th</sup> %ile	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres when the river <sup>^</sup> flow is at or below the 20th percentile of flow year round.
E.coli/100 ml (lakes)	Summer	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive).
	Winter	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 May – 31 October (inclusive).
Euphotic Depth (lakes)	%Δ	Euphotic depth shall not be reduced by more than [...] %.

## **Schedule E**

Make the following amendments to Table E.2(b):

### **Table E.2(b):**

<p>If an area of any habitat type described in Table E.1 meets any of the following criteria it shall not be rare habitat*, threatened habitat* or at-risk habitat* for the purposes of this Plan.</p>
<p><b>Forest*, Treeland*, Scrub*, or Shrubland* Habitat Types Classified as Threatened or At-risk</b></p> <ul style="list-style-type: none"> <li>i. Areas of indigenous* tree* species planted for the purposes of timber harvest. Or</li> <li>ii. Indigenous* vegetation planted for landscaping, horticultural, shelter belts, gardening or amenity purposes. Or</li> <li>iii. Habitat areas 1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul> <p><b>Wetland^ Habitat Types Classified as Rare or Threatened</b></p> <ul style="list-style-type: none"> <li>iv. Damp gully heads, or paddocks subject to regular ponding, dominated* by pasture or exotic species in association* with wetland sedge and rush species. Or</li> <li>v. Ditches or drains supporting raupo, flax or other wetland species (e.g. Carex sp., Isolepis sp.), or populations of these species in drains or slumps associated with road reserves or rail corridors. Or</li> <li>vi. Areas of wetland^ habitat specifically designed, installed and maintained for any of the following purposes: <ul style="list-style-type: none"> <li>a) stock watering (including stock ponds), or</li> <li>b) water storage for the purposes of fire fighting or irrigation (including old gravel pits), or</li> <li>c) treatment of animal effluent (including pond or barrier ditch systems), or</li> <li>d) waste water treatment, or</li> <li>e) sediment control, or</li> <li>f) any hydroelectric power generation scheme. Or</li> <li>g) water storage for the purposes of public water supplies. Or</li> </ul> </li> <li>vii. Areas of wetland habitat maintained in relation to the implementation of any resource consent conditions or agreements relating to the operation of any hydroelectric power scheme currently lawfully established. Or</li> <li>viii. Open water and associated vegetation created for landscaping purposes or amenity values where the planted vegetation is predominately exotic, or includes assemblages of species not naturally found in association* with each other, on the particular landform, or at the geographical location of the created site.</li> <li>ix. Habitat areas 0.1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul>

**BEFORE THE MANAWATU – WANGANUI REGIONAL COUNCIL (HORIZONS  
REGIONAL COUNCIL)**

*In the matter of*      **The Resource Management Act 1991; and**

*In the matter of*      **The Proposed One Plan: Consolidated Regional Policy  
Statement, Regional Plan and Regional Coastal Plan for  
the Manawatu - Wanganui Region**

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**SUPPLEMENTARY EVIDENCE OF ANDREW DAVID BASHFORD  
ON BEHALF OF THE PALMERSTON NORTH CITY COUNCIL**

**CHAPTERS 6, 13, 15 AND 16  
AND SCHEDULES B, C, D AND E OF THE ONE PLAN**

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Dated: 11 February 2010

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## Introduction and Background

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1. I have prepared this report as supplementary evidence to my Statement of Evidence dated 16 October 2009. It has been compiled in response to supplementary evidence produced by Horizons experts and takes into account the outcomes of caucusing and pre-hearing meetings held since the exchange of evidence. It also focuses more specifically on the issues surrounding the water quality standards contained within Schedule D and section 69 of the Resource Management Act 1991.
2. Several meetings involving PNCC experts have been held since the exchange of evidence. Jack McConchie, Jon Roygard and Raelene Hurdell attended a caucusing meeting on 12 November 2009 regarding the minimum flow and core allocation limit in the Turitea subzone. Caucusing was also held between Keith Hamill, Paul Kennedy, Kathryn McArthur, John Quinn, Jon Roygard and Robert Wilcock on 10 November 2009 in relation to the Water Quality Standards contained within Schedule D of the Proposed One Plan. A pre-hearing meeting was held between Clare Barton, Helen Marr, Jon Roygard, Chris Pepper and myself on 14 December 2009 where several issues were discussed including the appropriate location of amendments to Rule 13-27 as suggested in my original evidence.

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## Water Quality

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### Water Quality Standards

3. The evidence and supplementary evidence of Keith Hamill discusses the Water Quality Standards contained within Schedule D in detail. Mr Hamill participated in caucusing with other water quality experts and reached agreement on a number of matters as outlined in the 'Meeting Between Experts' report dated 10 November 2009.
4. As a result of this meeting, and consequent discussions, some amendments have been made to the recommendations as contained in my original evidence statement. In particular these relate to the Standards Key and an updated version is attached in Appendix 1 to this statement.
5. Of particular note are the standards relating to QMCI and Toxicants, where the recommendations made here differ to that made by Horizons experts. The reasons for these differences are discussed in paragraphs 3.3 to 3.9 and 3.12 of Mr. Hamill's supplementary evidence.
6. Agreement was not achieved in relation to the standards relating to DRP or SIN through the caucusing process. The recommendations relating to these standards have not changed from my original evidence.

### Standards or Targets

7. As discussed in paragraphs 64 to 79 of my original evidence it is unclear in what circumstances the Water Quality Standards contained within Schedule Ba and Schedule D of the Proposed One Plan apply, and whether these are standards in terms of section 69 of the Resource Management Act 1991.
8. It appears that the intention is for the Schedule Ba and Schedule D standards to apply as standards in relation to activities that are permitted. In the event that an activity does not meet the standards, the activity would require a resource consent. Some controlled and restricted discretionary rules retain control or discretion that relate to the water quality standards. It is unclear whether discretionary or non-complying activities need to comply with the standards or whether the standards are to be used as targets against which an application is assessed.
9. This matter was discussed in the caucusing meeting in relation to the Water Quality Standards held on 10 December 2009. Agreement was reached between the experts that the use of the term 'standards' is not a good term to use in this context and that clarity is needed. The Horizons experts were also to discuss options with the Horizons planners to clarify *'that standards applied as absolute trigger values for permitted activities will be regarded as targets in other situations'*<sup>1</sup>.
10. This matter has been addressed to a limited extent by the recommended amendments to Policies 6-3 to 6-5 and in particular by the inclusion of the words *'maintains or enhances existing water quality'* to Policy 6-4. However there are still drafting issues with those policies and with Policy 13-6, and it remains unclear whether the 'standards' are intended to apply as standards or as guidelines for resource consent applications and as to whether the so called standards are intended to be standards for the purpose of section 68(7), 69 and section 128(1)(b) of the RMA.
11. The following table outlines the rules that have provisions directly referring to the Schedule Ba and Schedule D Standards:

<b>One Plan Rules in Chapter 13 referring directly to the Water Quality Standards</b>			
<b>Rule</b>	<b>Activity Status</b>	<b>Conditions/Standards/Terms</b>	<b>Control/Discretion</b>
13-9	Permitted	The discharge shall not, after reasonable mixing change the natural temperature of the receiving water by more than the maximum temperature or temperature change specified by the quality standards for the Water Management Sub-zone listed in Schedule Ba.	

<sup>1</sup> See paragraph 9 – Report of a Meeting between Experts: Water Quality Standards, 10 November 2009.

13-17	Restricted Discretionary		Discretion is reserved over:  Measures required to comply with the water quality standards for the relevant Water Management Sub-zone(s).
13-21	Controlled		Control is reserved over:  Measures to manage effects on surface water bodies including maintaining the values and water quality standards set out in Schedule Ba.
13-24	Permitted	The discharges shall not, after reasonable mixing, cause the receiving water body to breach the water quality standards for that water body set out in Schedule D, either from the discharge itself or in combination with any other discharges.	
13-26	Permitted	The discharge shall comply with all of the conditions of Rule 13-24.	

12. The default catch-all discretionary activity rule (Rule 13-27) does not refer to the standards at all and there is no rule which provides that discharges which do not meet the standards become non-complying or prohibited activities.
13. Accordingly in my opinion the intention of the Plan as notified was that these water quality targets would only apply as standards for the purpose set out in the permitted activity rules and would otherwise be guidelines or targets. That is consistent with what was agreed at caucusing.
14. My concern is that what appears to have been the intention has not been made clear in the Plan itself.
15. My second concern is that in the absence of clarity it remains open for future argument that these are standards for the purpose of section 69. That would then allow argument that the rules must require the observance of the standards with no exceptions. That is, it could be argued that the rules must be amended to prohibit discharges which do not meet the standards. That was clearly not what was intended but given the loose wording surrounding the standards that is an argument which others may mount.
16. Accordingly, in my opinion it is more appropriate to have wording which makes it clear that these are not standards for the purposes of section 69 but are targets

which will be considered at the time any applications are considered. It also needs to be made clear that what will be considered is whether the discharge on its own or in conjunction with other discharges will **cause** the targets to be breached. That is consistent with common sense and with the wording of section 107. Mr Hamill discusses this point in relation to QMCI.

17. A summary of proposed wording changes to the One Plan provisions to remedy these issues is suggested in Appendix 1 and has been discussed in Mr Milne's legal submissions. They include:
- Changing references to the Water Quality Standards in the One Plan to *Water Quality Targets*;
  - Ensuring the introductory wording to Schedule Ba and Schedule D label the contents as being targets; and
  - The addition of an advice note to Schedule Ba and Schedule D that makes it clear that the targets are intended to guide the Regional Council when assessing resource consent applications and that where appropriate relevant targets have been incorporated as conditions for permitted activities.
18. It is acknowledged that the suggested wording requires refining and to that extent the Palmerston North City Council is happy to work with Horizons to formulate appropriate provisions and wording to rectify the identified issues.
19. On a related note, there are some fundamental issues with how some of the policies have been drafted, as Mr Milne has discussed in his legal submissions. Policy 13-6 does not make sense as drafted in the pink version, and it is unclear how it is intended to be applied. The pink version text states:

*Policy 13-6: point Source Discharges to Land and Water*

- (a) *When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or Error! Bookmark not defined. mitigating adverse effects<sup>^</sup> Error! Bookmark not defined.,:*
- (i) *the degree to which the activity will adversely affect the values identified for the relevant Water Management Sub-zone(s)\**
  - (ii) *whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards set in Schedule D to be breached*
  - (iii) *the extent to which the activity is consistent with best management practices*
  - (iv) *the need to allow reasonable time to achieve any required improvements.*

(b) *The Regional Council may make an exception to subsection (a) where:*

- (i) *in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided*
- (ii) *adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18*
- (iii) *it is appropriate to adopt the best practicable option<sup>^</sup>*
- (iv) *other exceptional circumstances apply*

*and it is consistent with the purpose of the RMA to do so.*

20. In examining this policy it could be taken as two policies rolled into one where the applicant must consider alternatives when applying for consent, and secondly the consent authority must consider the matters described in the list labelled (i) to (iv). Alternatively it could be that both the consent authority and applicant must consider alternatives along with the matters within the list.
21. In addition the first part of clause (a) does not introduce the list in any way and there are a number of bookmarking errors within the policy. In my opinion the policy should be redrafted and proposed wording is contained in Appendix 1.

#### Relationship to section 128(1)(b)

22. I also have concern that if the Water Quality Standards become standards or are interpreted as standards in the context of section 68(7) and 69 of the RMA 1991, then the Palmerston North City Wastewater Treatment Plant (WWTP) may be required to meet the new standards in a review of the existing resource consent under section 128(1)(b). This could take place as soon as the One Plan is made operative and only a few years after a major upgrade to the plant.
23. The current wording of the rules would not allow for a non notified review of current consents because the rules do not signal that, as outlined in section 68(7). However if the wording of the standards and policies is left as is, then it is arguable that a notified review under section 128(1)(b) may be carried out.
24. Upgrading the WWTP to meet the proposed standards would result in substantial capital and operational expense to the Palmerston North community. The water quality of the Manawatu River above the WWTP discharge does not meet a number of the proposed standards. It is my opinion that upgrading the WWTP in the short term would not be an efficient use of funds when superior gains to water quality could be achieved through other means.
25. To address this issue I recommended that a clause be added to Rule 13-27. Discussions on this clause have been undertaken with Horizons Planners (Clare Barton and Helen Marr) with agreement to the concept, however it has been suggested that the clause should be located within the Policies of the One Plan.

26. In discussions with Ms Barton and Ms Marr, it had been agreed that Policy 2-3 (11A-6 in the provisional determination version) is the suitable location for the clause.
27. The wording of the clause has been amended so that it fits the new location more appropriately. The suggested wording is:

*The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only be considered in relation to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.*

28. However I now consider that it would be preferable to fix up the more fundamental issues with how the standards apply (i.e. renaming them as targets and making the policies and rules consistent with that). This is a better solution overall, and it would also avoid the need to specifically exempt the WWTP.

#### Stormwater and Centennial Lagoon

29. In my original evidence statement I raised issues surrounding Centennial Lagoon, stormwater discharges and the Schedule E definitions. In response, Ms Fleur Maseyk prepared a section 42A report pointing out the benefits of including the lagoon within the Schedule E definitions<sup>2</sup> and thereby giving it a Threatened Habitat Status.
30. Given the heavily modified status of Centennial Lagoon this highlights that any natural lake or wetland would be classified as a threatened habitat unless it was specifically exempted by the provisions within Table E.2(b). This in turn causes some confusion as to the rules that apply to discharges to such environments due to the doubling up of provisions that apply to lakes and wetlands.
31. For example, Rule 13-17 provides for discharges of stormwater to surface water as a restricted discretionary activity so long as there is no discharge to any natural lake, rare habitat, threatened habitat, at-risk habitat or Natural State Water Management Sub-zone or Site of Significance - Aquatic.
32. The rule guide relating to the stormwater rules states that discharges in rare habitats, threatened habitats or at-risk habitats are regulated by rules 12-7 and 12-8, making them a Discretionary Activity<sup>3</sup>. The rule guide also states that discharges in Natural State Water Management Sub-zones or Sites of Significance - Aquatic are regulated by Rule 13-23, making them a Non-complying Activity. There is no mention of discharges to natural lakes in the rule guide.

<sup>2</sup> See Paragraphs 21-22 of the s42A report of Ms Fleur Jennifer Foster Maseyk.

<sup>3</sup> Note that these provisions have been changed to Rule 12-6 in the Provisional Determination

33. Rule 13-23 is titled "Discharges of contaminants to Natural State Water Management Sub-zones, Sites of Significance – Aquatic and lakes and wetlands. The activities encompassed by this rule include any direct discharge of contaminants into a natural lake.
  34. The discharges to Centennial Lagoon could be regulated by Rule 12-6 as indicated by the Rule Guide but also by Rule 13-23 given its title and the activities that it includes. This issue was also discussed with Ms Barton and Ms Marr at the meeting held on 14 December 2010 with agreement that the references to lakes and wetlands should be removed from Rule 13-23. For completeness the reference to lakes and wetlands should also be removed from the heading of section 13.8.
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## **Water Quantity**

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### Minimum flow and core allocation values for the Turitea Stream

35. Paragraphs 112 to 116 of my original evidence discuss the minimum flow and core allocation values set for the Turitea Stream. Dr. Jack McConchie has provided technical expert evidence on the Turitea catchment and recommended suitable values for the minimum flow and core allocation. Caucusing was held between Dr. McConchie, Dr Roygard and Ms Hurndell on this matter on 12 November 2009. This resulted in agreement on a number of matters and further evidence being prepared by Dr. McConchie that altered the minimum flow value from the original recommendations. The revised values have been agreed by Horizons experts and I have made the necessary amendments to my recommendations.

### Schedule E

36. It has been identified that as proposed the One Plan has classed the Turitea water supply lakes as threatened habitat. This issue has been raised in my original evidence and Ms Maseyk from Horizons has responded in her section 42A report.
37. Ms Maseyk has stated that the inclusion of the water supply dams within the definitions of Schedule E was an oversight and that it is the intent of the schedule to exclude areas designed, installed and maintained for such purposes. She has made a recommendation that the words 'town water supply' be added to the Table E.2(b).
38. I agree that an exclusion needs to be added to Table E.2(b) but in my opinion the words as recommended in my original evidence are more suitable. They are more specific in that it is water storage for public water supplies that is exempt. Public water supply is defined within the glossary of the One Plan thereby giving certainty to Plan users and applying consistent terminology throughout the Plan.

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**Conclusion**

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39. Taking into account the various meetings and discussions that have taken place and further evidence provided since the exchange of evidence I have made several amendments to the recommendations made in my original evidence statement. A full list of the proposed amendments is attached as Appendix 1.

A handwritten signature in black ink that reads "ADBashford". The signature is written in a cursive style with a large initial 'A' and 'B'.

Andrew Bashford  
**Planning Officer**  
PALMERSTON NORTH CITY COUNCIL

## **Appendix 1: Recommended Amendments to be made to One Plan**

### **General Amendments**

Note: These proposed changes are general in nature and will require further drafting. They relate to the issues of uncertainty around the Water Quality Standards as proposed in Schedule Ba and Schedule D of the One Plan. It is also noted that there are a number of cross referencing errors between the various versions of the One Plan and although not discussed in the evidence presented the Palmerston North City Council is happy to assist the Horizons Regional Council in correcting these if required.

1. The policies (in particular policies 6-3 to 6-5 and 13-6) should be amended so that each reference to Schedule Ba and Schedule D *standards* refers instead to "*water quality targets*";
2. The introductory wording in Schedule Ba and Schedule D should be amended to clearly label the schedules' contents as being *targets*;
3. An advice note should be added to Schedule Ba and Schedule D stating that the targets are intended to guide the exercise of the consent authority's discretion when considering consent applications, and that where relevant the targets have been incorporated as conditions of permitted activity rules;
4. The permitted activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-9 and 13-24) should be amended to refer to the relevant *targets* in those schedules; and
5. The controlled and restricted discretionary activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-17 and 13-21) should be amended so that control or discretion is reserved over "*measures to assist in maintaining or achieving the targets*" in the relevant schedule.

## **Specific Amendments**

Note: These proposed amendments contain specific wording to various One Plan provisions to address issues raised in evidence presented. All changes are **highlighted** with words recommended to be added shown as underlined, and words that are recommended to be deleted shown in ~~strike through~~.

### **Chapter 11**

Amend Policy 11-A-6 as follows:

#### **Policy 11A-6: Consent Review**

In addition to the reasons specified in s128(1)(a)(i) and (ii) RMA, the Regional Council will, under s128(1)(a)(iii) RMA, generally impose consent conditions that specify a review of consent conditions during the term of the consent for:

- (a) reviewing the appropriateness of any condition requiring the consent holder to supply the consent authority with information relating to the exercise of the resource consent
- (b) reviewing any unknown or uncertain adverse effects caused as a result of planned or required changes or upgrades to the activity
- (c) reviewing the conditions of a consent at the same time as review of other consents within the same Water Management Zone – for example, at a common catchment expiry or review date.
- (d) reviewing the effectiveness of consent conditions to avoid, remedy or mitigate any adverse effects of the activity on the environment.

The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only apply to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.

This policy relates to Objective 11A-2.

## Chapter 13

Amend Policy 13-6 (Pink Version) as follows:

### **Policy 13-6: ~~p~~Point Source Discharges to Land and Water**

~~(a) When applying for consents and making decisions on consent applications for discharges of contaminants to water or land, the opportunity to utilise alternatives must be considered including alternative treatment and discharge options or a mix of discharge regimes, for the purpose of avoiding or **Error! Bookmark not defined.** mitigating adverse effects where practicable **Error! Bookmark not defined.**, shall be considered, including but not limited to:~~

(a) When applying for consents and making decisions on consent applications for discharges of contaminants to water or land the following shall be considered for the purpose of avoiding or mitigating effects:

- (i) the degree to which the activity will adversely affect the values identified for the relevant *Water Management Sub-zone(s)*\*
- (ii) whether the discharge, in combination with other discharges including non-point source discharges, will cause the water quality standards targets set in Schedule D to be breached
- (iii) the extent to which the activity is consistent with best management practices
- (iv) the need to allow reasonable time to achieve any required improvements.
- (v) alternative treatment and discharge options or mix of discharge regimes.

(b) The Regional Council may make an exception to (a) where:

- (i) in the case of discharges, the discharge is of a temporary nature or is associated with necessary maintenance work and the discharge cannot practicably be avoided
- (ii) adverse effects can be fully offset by way of a financial contribution in accordance with Chapter 18
- (iii) it is appropriate to adopt the *best practicable option*
- (iv) other exceptional circumstances apply

and it is consistent with the purpose of the RMA to do so.

This policy implements Objective 13-1

Amend Rules 13-17, and 13-23 as follows:

### 13.5 Rules - Stormwater

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>13-17</b> <b>Discharges of stormwater to surface water not complying with Rule 13-15</b>	The <i>discharges</i> of <i>stormwater</i> into <i>surface water</i> which do not comply with Rule 13-15, and any associated takes or diversions of stormwater forming part of the stormwater system.	<b>Restricted Discretionary</b>	(a) There shall be no <i>discharge</i> to any <b>natural lake</b> , <i>rare habitat</i> , <i>threatened habitat</i> , <i>at-risk habitat</i> , or Natural State Water Management Sub-zone or Site of Significance - Aquatic.	Discretion is reserved over: (a) measures to control flooding and erosion (b) contaminant concentrations and loading rates (c) measures required to comply with s107(1) RMA (d) measures required to comply with the water quality <b>standards targets</b> for the relevant Water Management Sub-zone(s) (e) odour management (f) stormwater system maintenance requirements (g) contingency requirements (h) monitoring and information requirements (i) duration of consent (j) review of consent conditions.

**13.8 Rules – Discharges of contaminants to Natural State Water Management Sub-zones, Lakes and Wetlands**

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<p><b>13-23 Discharges of contaminants to Natural State Water Management Sub-zones, and Sites of Significance – Aquatic and lakes and wetlands</b></p>	<p>Any direct <i>discharge</i> of <i>contaminants</i> into:</p> <ul style="list-style-type: none"> <li>(a) a Natural State Water Management Sub-zone</li> <li>(b) a water body identified as a Site of Significance – Aquatic in Schedule DBa</li> <li>(c) a natural lake, except Lake Otamangakau, Lake Te Whaiau and Lake Moawhanga</li> <li>(d) a wetland classified as a rare habitat, or threatened habitat</li> </ul> <p>except the discharge of agrichemicals for the purpose of controlling pests control as defined in a regional pest management strategy prepared under the Biosecurity Act 1993 (this activity is regulated by Rule 14-2).</p>	<p><b>Non-complying</b></p>		

## Chapter 15

Amend Rules 15-5 and 15-6 as follows:

### 15.2 Rules – Takes and Uses of Water

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-5 Takes and uses of surface water complying with core allocations</b>	The taking and use of surface water from a river, <b>or water storage lake on a river</b> , pursuant to s14(1) RMA, except where the water take is controlled under Rule 13-1.	<b>Controlled</b>	<p>(b) Water shall only be taken when the river is above its minimum flow, as assessed in accordance with Schedule B except as provided for by:</p> <p>(ba) takes or portions of takes which are for the purposes of stock drinking water and domestic needs, or public water supplies predominantly for domestic use may continue below minimum flow provided the rates and volumes of takes do not exceed the maximum takes of low flow set out in Policy 6-19.</p> <p>(c) The amount of water taken, when assessed in combination with all other water takes within the same Water Management Sub-zone shall not exceed the relevant core allocation set out for Water Management Subzones in Schedule B.</p> <p>(d) The amount of water taken, when assessed in combination with all other water takes within the same catchment, shall not exceed the cumulative allocation for each Water Management Sub-zone in the same catchment.</p> <p>(e) The take shall not lower the water level in any wetland that is a rare habitat or threatened habitat.</p>	<p>Control is reserved over:</p> <p>(a) the volume and rate of water taken, and the timing of the take</p> <p>(b) the location of take</p> <p>(c) intake velocity and screening requirements</p> <p>(d) measures to avoid, remedy or mitigate any adverse effects on the values of the water body at the point of abstraction, including restrictions on the volume and rate of abstraction</p> <p>(e) the efficiency of water use</p> <p>(f) effects on other water takes</p> <p>(g) effects on rare habitats, and threatened habitats and at-risk habitats and Sites of Significance – Aquatic.</p> <p>(h) compliance with minimum flow requirements</p> <p>(i) duration of consent</p> <p>(j) review of consent conditions</p> <p>(k) compliance monitoring.</p> <p>Resource consent applications under this rule will not be notified and written approval of affected persons will not be required (notice of applications need not be served on affected persons).</p>

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-6 Takes of surface water not complying with core allocations</b>	<p>The taking of surface water from a river <b>or water storage lake on a river:</b></p> <p>(aa) which, when assessed in combination with all other water takes, exceeds the relevant core allocation set out in Schedule B. or</p> <p>(ab) at or below minimum flow (unless allowed by Rule 15-5(b))</p> <p>This rule does not include:</p> <p>(a) takes permitted under Rule 15-1</p> <p>(b) takes in circumstances where water is only taken when the river flow is greater than the median flow (these are a discretionary activity under Rule 15-8)</p> <p>(c) lawfully established takes for hydroelectricity generation (these are discretionary activities under Rule 15-8).</p>	<b>Non-complying</b>		

**Schedule B**

Amend the Turitea (Mana\_11b) Sub-zone within Table B1 as follows:

Table B1: Allocation Limits and Minimum Flows by Water Management Sub-zone					
Zone code	Sub-zone	Minimum Flow (m <sup>3</sup> /s)	Flow monitoring site	Flow monitoring site location	Cumulative core allocation limit (m <sup>3</sup> /s)
Lower Manawatu (Mana_11)	Turitea (Mana_11b)	0.050 0.041	Turitea at Ngahere Park	T24:354-852	0.265 0.428

## Schedule D

Make the following changes to the associated Standards (targets) Key within Schedule D:

### Schedule D Standards Targets Key

Water<sup>^</sup> Quality Standards Targets Key: definition of abbreviations and full wording of the standards targets (placement of the numerical values for a specified standard target are indicated by [...]).

Abbreviations used in Tables D:1 to D:4		Full Wording of the Standard-Target
Header	Sub-header	
pH	Range	The pH of the water <sup>^</sup> shall be within the range [...] to [...], unless natural levels are already outside this range.
	Δ	The pH of the water <sup>^</sup> shall not be changed by more than [...].
Temp (°C)	<	The temperature of the water <sup>^</sup> shall not exceed [...] degrees Celsius.
	Δ	The temperature of the water <sup>^</sup> shall not be changed by more than [...]degrees Celsius.
DO (%SAT)	>	The concentration of dissolved oxygen (DO) shall exceed [...] % of saturation.
sCBOD <sub>5</sub> (g/m <sup>3</sup> )	<	The monthly average five-days filtered / soluble carbonaceous biochemical oxygen demand (BOD) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre.
POM (g/m <sup>3</sup> )	<	The average concentration of particulate organic matter when the river <sup>^</sup> flow is at or below 50th percentile of flow shall not exceed [...] grams per cubic metre.
Periphyton (Rivers)	Chl a (mg/m <sup>2</sup> )	The algal biomass on the stream or river <sup>^</sup> bed <sup>^</sup> shall not exceed [...] milligrams of chlorophyll a per square metre.
	% cover	The maximum cover of visible stream or river <sup>^</sup> bed <sup>^</sup> by periphyton as filamentous algae more than 2 centimetres long shall not exceed [...] %. The maximum cover of visible stream or river bed by periphyton as diatoms or cyanobacteria more than 0.3 centimetres thick shall not exceed [...] %.
Algal biomass Chl a (mg/m <sup>3</sup> )	<	The annual average algal biomass shall not exceed [...] milligrams chlorophyll Algal biomass a per cubic metre.
	Maximum	no sample shall exceed [...] milligrams chlorophyll a per cubic metre.
DRP (g/m <sup>3</sup> )	<	The annual average concentration of dissolved reactive phosphorus (DRP) when the river <sup>^</sup> flow is at or below the 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for DRP is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TP (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total phosphorus (TP) shall not exceed [...] grams per cubic metre.
SIN (g/m <sup>3</sup> )	<	The annual average concentration of soluble inorganic nitrogen <sup>11</sup> (SIN) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for SIN is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TN (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total nitrogen shall not exceed [...] grams per cubic metre.
MCI		The Macroinvertebrate Community Index (MCI) shall <b>not be less than 20% below natural reference conditions for the river.</b> <b>If natural reference conditions are not defined then the MCI shall</b> exceed [...]. <b>unless natural physical conditions are beyond the scope of application of the MCI.</b> In cases where the river <sup>^</sup> or stream habitat is suitable for the application of the soft-bottomed variant of the MCI (MCI-sb) the standards shall also apply. <b>This standard will not apply if the natural physical conditions are beyond the scope of application of the MCI or MCI-sb.</b> <b>The MCI standard applies only for State of the Environment monitoring purposes to determine if the aquatic macroinvertebrate communities are adequate to provide for and maintain the values in each WMSZ, the standard is not appropriate for monitoring the effects of activities such as discharges to water.</b>
QMCI	%Δ	<b>Discharges to water to cause N</b> no more than a 20 % reduction in Quantitative Macroinvertebrate Community Index (QMCI) score between <b>appropriately matched habitats</b> upstream and downstream of <b>the discharges to water<sup>^</sup>.</b> <b>Note: Where samples are collected using a hand net this standard shall also apply to the Semi-Quantitative MCI (SQMCI).</b>
Ammoniacal nitrogen (g/m <sup>3</sup> ) (rivers)	<	The average concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre.
Ammoniacal nitrogen (g/m <sup>3</sup> ) (lakes)	<	The concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre when lake <sup>^</sup> pH exceeds 8.5 within the epilimnion (shallow lakes <sup>^</sup> ) or within 2 m of the water <sup>^</sup> surface (deep lakes <sup>^</sup> ).
Toxicants	<%	For toxicants not otherwise defined in these standards, the concentration of toxicants in the water <sup>^</sup> shall not exceed the trigger values defined in the 2000 ANZECC guidelines Table 3.4.1 for the level of protection of [...] % of species. <b>For metals the trigger value shall be adjusted for hardness and apply to the dissolved fraction.</b>
Clarity (m) (rivers)	%Δ	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall equal or exceed [...] m when the river <sup>^</sup> is at or below the 50 <sup>th</sup> percentile of flow.
Clarity (m) (lakes)	%Δ	The clarity of the water <sup>^</sup> measured as Secchj depth (or horizontal sighting range of a 200 mm black disc) shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured Secchi depth (or horizontal sighting range of a 200 mm black disc) shall exceed [...] m.
E.coli/100ml (rivers)	<m	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive) when the river <sup>^</sup> flow is at or below the 50 <sup>th</sup> percentile of flow.
	<20 <sup>th</sup> %ile	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres when the river <sup>^</sup> flow is at or below the 20th percentile of flow year round.
E.coli/100 ml (lakes)	Summer	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive).
	Winter	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 May – 31 October (inclusive).
Euphotic Depth (lakes)	%Δ	Euphotic depth shall not be reduced by more than [...] %.

## **Schedule E**

Make the following amendments to Table E.2(b):

### **Table E.2(b):**

<p>If an area of any habitat type described in Table E.1 meets any of the following criteria it shall not be rare habitat*, threatened habitat* or at-risk habitat* for the purposes of this Plan.</p>
<p><b>Forest*, Treeland*, Scrub*, or Shrubland* Habitat Types Classified as Threatened or At-risk</b></p> <ul style="list-style-type: none"> <li>i. Areas of indigenous* tree* species planted for the purposes of timber harvest. Or</li> <li>ii. Indigenous* vegetation planted for landscaping, horticultural, shelter belts, gardening or amenity purposes. Or</li> <li>iii. Habitat areas 1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul> <p><b>Wetland^ Habitat Types Classified as Rare or Threatened</b></p> <ul style="list-style-type: none"> <li>iv. Damp gully heads, or paddocks subject to regular ponding, dominated* by pasture or exotic species in association* with wetland sedge and rush species. Or</li> <li>v. Ditches or drains supporting raupo, flax or other wetland species (e.g. Carex sp., Isolepis sp.), or populations of these species in drains or slumps associated with road reserves or rail corridors. Or</li> <li>vi. Areas of wetland^ habitat specifically designed, installed and maintained for any of the following purposes: <ul style="list-style-type: none"> <li>a) stock watering (including stock ponds), or</li> <li>b) water storage for the purposes of fire fighting or irrigation (including old gravel pits), or</li> <li>c) treatment of animal effluent (including pond or barrier ditch systems), or</li> <li>d) waste water treatment, or</li> <li>e) sediment control, or</li> <li>f) any hydroelectric power generation scheme. Or</li> <li>g) water storage for the purposes of public water supplies. Or</li> </ul> </li> <li>vii. Areas of wetland habitat maintained in relation to the implementation of any resource consent conditions or agreements relating to the operation of any hydroelectric power scheme currently lawfully established. Or</li> <li>viii. Open water and associated vegetation created for landscaping purposes or amenity values where the planted vegetation is predominately exotic, or includes assemblages of species not naturally found in association* with each other, on the particular landform, or at the geographical location of the created site.</li> <li>ix. Habitat areas 0.1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul>

**BEFORE THE MANAWATU – WANGANUI REGIONAL COUNCIL (HORIZONS  
REGIONAL COUNCIL)**

*In the matter of*      **The Resource Management Act 1991; and**

*In the matter of*      **The Proposed One Plan: Consolidated Regional Policy  
Statement, Regional Plan and Regional Coastal Plan for  
the Manawatu - Wanganui Region**

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**SUPPLEMENTARY EVIDENCE OF ANDREW DAVID BASHFORD  
ON BEHALF OF THE PALMERSTON NORTH CITY COUNCIL**

**CHAPTERS 6, 13, 15 AND 16  
AND SCHEDULES B, C, D AND E OF THE ONE PLAN**

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Dated: 11 February 2010

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## **Introduction and Background**

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1. I have prepared this report as supplementary evidence to my Statement of Evidence dated 16 October 2009. It has been compiled in response to supplementary evidence produced by Horizons experts and takes into account the outcomes of caucusing and pre-hearing meetings held since the exchange of evidence. It also focuses more specifically on the issues surrounding the water quality standards contained within Schedule D and section 69 of the Resource Management Act 1991.
2. Several meetings involving PNCC experts have been held since the exchange of evidence. Jack McConchie, Jon Roygard and Raelene Hurdell attended a caucusing meeting on 12 November 2009 regarding the minimum flow and core allocation limit in the Turitea subzone. Caucusing was also held between Keith Hamill, Paul Kennedy, Kathryn McArthur, John Quinn, Jon Roygard and Robert Wilcock on 10 November 2009 in relation to the Water Quality Standards contained within Schedule D of the Proposed One Plan. A pre-hearing meeting was held between Clare Barton, Helen Marr, Jon Roygard, Chris Pepper and myself on 14 December 2009 where several issues were discussed including the appropriate location of amendments to Rule 13-27 as suggested in my original evidence.

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## **Water Quality**

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### Water Quality Standards

3. The evidence and supplementary evidence of Keith Hamill discusses the Water Quality Standards contained within Schedule D in detail. Mr Hamill participated in caucusing with other water quality experts and reached agreement on a number of matters as outlined in the 'Meeting Between Experts' report dated 10 November 2009.
4. As a result of this meeting, and consequent discussions, some amendments have been made to the recommendations as contained in my original evidence statement. In particular these relate to the Standards Key and an updated version is attached in Appendix 1 to this statement.
5. Of particular note are the standards relating to QMCI and Toxicants, where the recommendations made here differ to that made by Horizons experts. The reasons for these differences are discussed in paragraphs 3.3 to 3.9 and 3.12 of Mr. Hamill's supplementary evidence.
6. Agreement was not achieved in relation to the standards relating to DRP or SIN through the caucusing process. The recommendations relating to these standards have not changed from my original evidence.

### Standards or Targets

7. As discussed in paragraphs 64 to 79 of my original evidence it is unclear in what circumstances the Water Quality Standards contained within Schedule Ba and Schedule D of the Proposed One Plan apply, and whether these are standards in terms of section 69 of the Resource Management Act 1991.
8. It appears that the intention is for the Schedule Ba and Schedule D standards to apply as standards in relation to activities that are permitted. In the event that an activity does not meet the standards, the activity would require a resource consent. Some controlled and restricted discretionary rules retain control or discretion that relate to the water quality standards. It is unclear whether discretionary or non-complying activities need to comply with the standards or whether the standards are to be used as targets against which an application is assessed.
9. This matter was discussed in the caucusing meeting in relation to the Water Quality Standards held on 10 December 2009. Agreement was reached between the experts that the use of the term 'standards' is not a good term to use in this context and that clarity is needed. The Horizons experts were also to discuss options with the Horizons planners to clarify *'that standards applied as absolute trigger values for permitted activities will be regarded as targets in other situations'*<sup>1</sup>.
10. This matter has been addressed to a limited extent by the recommended amendments to Policies 6-3 to 6-5 and in particular by the inclusion of the words *'maintains or enhances existing water quality'* to Policy 6-4. However there are still drafting issues with those policies and with Policy 13-6, and it remains unclear whether the 'standards' are intended to apply as standards or as guidelines for resource consent applications and as to whether the so called standards are intended to be standards for the purpose of section 68(7), 69 and section 128(1)(b) of the RMA.
11. The following table outlines the rules that have provisions directly referring to the Schedule Ba and Schedule D Standards:

<b>One Plan Rules in Chapter 13 referring directly to the Water Quality Standards</b>			
<b>Rule</b>	<b>Activity Status</b>	<b>Conditions/Standards/Terms</b>	<b>Control/Discretion</b>
13-9	Permitted	The discharge shall not, after reasonable mixing change the natural temperature of the receiving water by more than the maximum temperature or temperature change specified by the quality standards for the Water Management Sub-zone listed in Schedule Ba.	

<sup>1</sup> See paragraph 9 – Report of a Meeting between Experts: Water Quality Standards, 10 November 2009.

13-17	Restricted Discretionary		Discretion is reserved over:  Measures required to comply with the water quality standards for the relevant Water Management Sub-zone(s).
13-21	Controlled		Control is reserved over:  Measures to manage effects on surface water bodies including maintaining the values and water quality standards set out in Schedule Ba.
13-24	Permitted	The discharges shall not, after reasonable mixing, cause the receiving water body to breach the water quality standards for that water body set out in Schedule D, either from the discharge itself or in combination with any other discharges.	
13-26	Permitted	The discharge shall comply with all of the conditions of Rule 13-24.	

12. The default catch-all discretionary activity rule (Rule 13-27) does not refer to the standards at all and there is no rule which provides that discharges which do not meet the standards become non-complying or prohibited activities.
13. Accordingly in my opinion the intention of the Plan as notified was that these water quality targets would only apply as standards for the purpose set out in the permitted activity rules and would otherwise be guidelines or targets. That is consistent with what was agreed at caucusing.
14. My concern is that what appears to have been the intention has not been made clear in the Plan itself.
15. My second concern is that in the absence of clarity it remains open for future argument that these are standards for the purpose of section 69. That would then allow argument that the rules must require the observance of the standards with no exceptions. That is, it could be argued that the rules must be amended to prohibit discharges which do not meet the standards. That was clearly not what was intended but given the loose wording surrounding the standards that is an argument which others may mount.
16. Accordingly, in my opinion it is more appropriate to have wording which makes it clear that these are not standards for the purposes of section 69 but are targets

which will be considered at the time any applications are considered. It also needs to be made clear that what will be considered is whether the discharge on its own or in conjunction with other discharges will **cause** the targets to be breached. That is consistent with common sense and with the wording of section 107. Mr Hamill discusses this point in relation to QMCI.

17. A summary of proposed wording changes to the One Plan provisions to remedy these issues is suggested in Appendix 1 and has been discussed in Mr Milne's legal submissions. They include:
- Changing references to the Water Quality Standards in the One Plan to *Water Quality Targets*;
  - Ensuring the introductory wording to Schedule Ba and Schedule D label the contents as being targets; and
  - The addition of an advice note to Schedule Ba and Schedule D that makes it clear that the targets are intended to guide the Regional Council when assessing resource consent applications and that where appropriate relevant targets have been incorporated as conditions for permitted activities.
18. It is acknowledged that the suggested wording requires refining and to that extent the Palmerston North City Council is happy to work with Horizons to formulate appropriate provisions and wording to rectify the identified issues.
19. On a related note, there are some fundamental issues with how some of the policies have been drafted, as Mr Milne has discussed in his legal submissions. Policy 13-6 does not make sense as drafted in the pink version, and it is unclear how it is intended to be applied. The pink version text states:

*Policy 13-6: point Source Discharges to Land and Water*

- (a) *When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or Error! Bookmark not defined. mitigating adverse effects<sup>^</sup> Error! Bookmark not defined.,:*
- (i) *the degree to which the activity will adversely affect the values identified for the relevant Water Management Sub-zone(s)\**
  - (ii) *whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards set in Schedule D to be breached*
  - (iii) *the extent to which the activity is consistent with best management practices*
  - (iv) *the need to allow reasonable time to achieve any required improvements.*

(b) *The Regional Council may make an exception to subsection (a) where:*

- (i) *in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided*
- (ii) *adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18*
- (iii) *it is appropriate to adopt the best practicable option<sup>^</sup>*
- (iv) *other exceptional circumstances apply*

*and it is consistent with the purpose of the RMA to do so.*

20. In examining this policy it could be taken as two policies rolled into one where the applicant must consider alternatives when applying for consent, and secondly the consent authority must consider the matters described in the list labelled (i) to (iv). Alternatively it could be that both the consent authority and applicant must consider alternatives along with the matters within the list.
21. In addition the first part of clause (a) does not introduce the list in any way and there are a number of bookmarking errors within the policy. In my opinion the policy should be redrafted and proposed wording is contained in Appendix 1.

#### Relationship to section 128(1)(b)

22. I also have concern that if the Water Quality Standards become standards or are interpreted as standards in the context of section 68(7) and 69 of the RMA 1991, then the Palmerston North City Wastewater Treatment Plant (WWTP) may be required to meet the new standards in a review of the existing resource consent under section 128(1)(b). This could take place as soon as the One Plan is made operative and only a few years after a major upgrade to the plant.
23. The current wording of the rules would not allow for a non notified review of current consents because the rules do not signal that, as outlined in section 68(7). However if the wording of the standards and policies is left as is, then it is arguable that a notified review under section 128(1)(b) may be carried out.
24. Upgrading the WWTP to meet the proposed standards would result in substantial capital and operational expense to the Palmerston North community. The water quality of the Manawatu River above the WWTP discharge does not meet a number of the proposed standards. It is my opinion that upgrading the WWTP in the short term would not be an efficient use of funds when superior gains to water quality could be achieved through other means.
25. To address this issue I recommended that a clause be added to Rule 13-27. Discussions on this clause have been undertaken with Horizons Planners (Clare Barton and Helen Marr) with agreement to the concept, however it has been suggested that the clause should be located within the Policies of the One Plan.

26. In discussions with Ms Barton and Ms Marr, it had been agreed that Policy 2-3 (11A-6 in the provisional determination version) is the suitable location for the clause.
27. The wording of the clause has been amended so that it fits the new location more appropriately. The suggested wording is:

*The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only be considered in relation to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.*

28. However I now consider that it would be preferable to fix up the more fundamental issues with how the standards apply (i.e. renaming them as targets and making the policies and rules consistent with that). This is a better solution overall, and it would also avoid the need to specifically exempt the WWTP.

#### Stormwater and Centennial Lagoon

29. In my original evidence statement I raised issues surrounding Centennial Lagoon, stormwater discharges and the Schedule E definitions. In response, Ms Fleur Maseyk prepared a section 42A report pointing out the benefits of including the lagoon within the Schedule E definitions<sup>2</sup> and thereby giving it a Threatened Habitat Status.
30. Given the heavily modified status of Centennial Lagoon this highlights that any natural lake or wetland would be classified as a threatened habitat unless it was specifically exempted by the provisions within Table E.2(b). This in turn causes some confusion as to the rules that apply to discharges to such environments due to the doubling up of provisions that apply to lakes and wetlands.
31. For example, Rule 13-17 provides for discharges of stormwater to surface water as a restricted discretionary activity so long as there is no discharge to any natural lake, rare habitat, threatened habitat, at-risk habitat or Natural State Water Management Sub-zone or Site of Significance - Aquatic.
32. The rule guide relating to the stormwater rules states that discharges in rare habitats, threatened habitats or at-risk habitats are regulated by rules 12-7 and 12-8, making them a Discretionary Activity<sup>3</sup>. The rule guide also states that discharges in Natural State Water Management Sub-zones or Sites of Significance - Aquatic are regulated by Rule 13-23, making them a Non-complying Activity. There is no mention of discharges to natural lakes in the rule guide.

<sup>2</sup> See Paragraphs 21-22 of the s42A report of Ms Fleur Jennifer Foster Maseyk.

<sup>3</sup> Note that these provisions have been changed to Rule 12-6 in the Provisional Determination

33. Rule 13-23 is titled "Discharges of contaminants to Natural State Water Management Sub-zones, Sites of Significance – Aquatic and lakes and wetlands. The activities encompassed by this rule include any direct discharge of contaminants into a natural lake.
  34. The discharges to Centennial Lagoon could be regulated by Rule 12-6 as indicated by the Rule Guide but also by Rule 13-23 given its title and the activities that it includes. This issue was also discussed with Ms Barton and Ms Marr at the meeting held on 14 December 2010 with agreement that the references to lakes and wetlands should be removed from Rule 13-23. For completeness the reference to lakes and wetlands should also be removed from the heading of section 13.8.
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## **Water Quantity**

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### Minimum flow and core allocation values for the Turitea Stream

35. Paragraphs 112 to 116 of my original evidence discuss the minimum flow and core allocation values set for the Turitea Stream. Dr. Jack McConchie has provided technical expert evidence on the Turitea catchment and recommended suitable values for the minimum flow and core allocation. Caucusing was held between Dr. McConchie, Dr Roygard and Ms Hurndell on this matter on 12 November 2009. This resulted in agreement on a number of matters and further evidence being prepared by Dr. McConchie that altered the minimum flow value from the original recommendations. The revised values have been agreed by Horizons experts and I have made the necessary amendments to my recommendations.

### Schedule E

36. It has been identified that as proposed the One Plan has classed the Turitea water supply lakes as threatened habitat. This issue has been raised in my original evidence and Ms Maseyk from Horizons has responded in her section 42A report.
37. Ms Maseyk has stated that the inclusion of the water supply dams within the definitions of Schedule E was an oversight and that it is the intent of the schedule to exclude areas designed, installed and maintained for such purposes. She has made a recommendation that the words 'town water supply' be added to the Table E.2(b).
38. I agree that an exclusion needs to be added to Table E.2(b) but in my opinion the words as recommended in my original evidence are more suitable. They are more specific in that it is water storage for public water supplies that is exempt. Public water supply is defined within the glossary of the One Plan thereby giving certainty to Plan users and applying consistent terminology throughout the Plan.

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**Conclusion**

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39. Taking into account the various meetings and discussions that have taken place and further evidence provided since the exchange of evidence I have made several amendments to the recommendations made in my original evidence statement. A full list of the proposed amendments is attached as Appendix 1.

A handwritten signature in black ink that reads "ADBashford". The signature is written in a cursive style with a light blue background behind it.

Andrew Bashford  
**Planning Officer**  
PALMERSTON NORTH CITY COUNCIL

## **Appendix 1: Recommended Amendments to be made to One Plan**

### **General Amendments**

Note: These proposed changes are general in nature and will require further drafting. They relate to the issues of uncertainty around the Water Quality Standards as proposed in Schedule Ba and Schedule D of the One Plan. It is also noted that there are a number of cross referencing errors between the various versions of the One Plan and although not discussed in the evidence presented the Palmerston North City Council is happy to assist the Horizons Regional Council in correcting these if required.

1. The policies (in particular policies 6-3 to 6-5 and 13-6) should be amended so that each reference to Schedule Ba and Schedule D *standards* refers instead to "*water quality targets*";
2. The introductory wording in Schedule Ba and Schedule D should be amended to clearly label the schedules' contents as being *targets*;
3. An advice note should be added to Schedule Ba and Schedule D stating that the targets are intended to guide the exercise of the consent authority's discretion when considering consent applications, and that where relevant the targets have been incorporated as conditions of permitted activity rules;
4. The permitted activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-9 and 13-24) should be amended to refer to the relevant *targets* in those schedules; and
5. The controlled and restricted discretionary activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-17 and 13-21) should be amended so that control or discretion is reserved over "*measures to assist in maintaining or achieving the targets*" in the relevant schedule.

## **Specific Amendments**

Note: These proposed amendments contain specific wording to various One Plan provisions to address issues raised in evidence presented. All changes are **highlighted** with words recommended to be added shown as underlined, and words that are recommended to be deleted shown in ~~strike through~~.

### **Chapter 11**

Amend Policy 11-A-6 as follows:

#### **Policy 11A-6: Consent Review**

In addition to the reasons specified in s128(1)(a)(i) and (ii) RMA, the Regional Council will, under s128(1)(a)(iii) RMA, generally impose consent conditions that specify a review of consent conditions during the term of the consent for:

- (a) reviewing the appropriateness of any condition requiring the consent holder to supply the consent authority with information relating to the exercise of the resource consent
- (b) reviewing any unknown or uncertain adverse effects caused as a result of planned or required changes or upgrades to the activity
- (c) reviewing the conditions of a consent at the same time as review of other consents within the same Water Management Zone – for example, at a common catchment expiry or review date.
- (d) reviewing the effectiveness of consent conditions to avoid, remedy or mitigate any adverse effects of the activity on the environment.

The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only apply to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.

This policy relates to Objective 11A-2.

## Chapter 13

Amend Policy 13-6 (Pink Version) as follows:

### **Policy 13-6: ~~p~~Point Source Discharges to Land and Water**

~~(a) When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, the opportunity to utilise alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or **Error! Bookmark not defined.** mitigating adverse effects<sup>^</sup> where practicable **Error! Bookmark not defined.**, shall be considered., including but not limited to:z~~

(a) When applying for consents and making decisions on consent applications for discharges of contaminants to water or land the following shall be considered for the purpose of avoiding or mitigating effects:

- (i) the degree to which the activity will adversely affect the values identified for the relevant *Water Management Sub-zone(s)*\*
- (ii) whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards targets set in Schedule D to be breached
- (iii) the extent to which the activity is consistent with best management practices
- (iv) the need to allow reasonable time to achieve any required improvements.
- (v) alternative treatment and discharge options or mix of discharge regimes.

(b) The Regional Council may make an exception to (a) where:

- (i) in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided
- (ii) adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18
- (iii) it is appropriate to adopt the *best practicable option*<sup>^</sup>
- (iv) other exceptional circumstances apply

and it is consistent with the purpose of the RMA to do so.

This policy implements Objective 13-1

Amend Rules 13-17, and 13-23 as follows:

### 13.5 Rules - Stormwater

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>13-17</b> <b>Discharges of stormwater to surface water not complying with Rule 13-15</b>	The <i>discharges</i> of <i>stormwater</i> into <i>surface water</i> which do not comply with Rule 13-15, and any associated takes or diversions of stormwater forming part of the stormwater system.	<b>Restricted Discretionary</b>	(a) There shall be no <i>discharge</i> to any <b>natural lake</b> , <i>rare habitat</i> , <i>threatened habitat</i> , <i>at-risk habitat</i> , or Natural State Water Management Sub-zone or Site of Significance - Aquatic.	Discretion is reserved over: (a) measures to control flooding and erosion (b) contaminant concentrations and loading rates (c) measures required to comply with s107(1) RMA (d) measures required to comply with the water quality <b>standards targets</b> for the relevant Water Management Sub-zone(s) (e) odour management (f) stormwater system maintenance requirements (g) contingency requirements (h) monitoring and information requirements (i) duration of consent (j) review of consent conditions.

**13.8 Rules – Discharges of contaminants to Natural State Water Management Sub-zones, Lakes and Wetlands**

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<p><b>13-23 Discharges of contaminants to Natural State Water Management Sub-zones, and Sites of Significance – Aquatic and lakes and wetlands</b></p>	<p>Any direct <i>discharge</i> of <i>contaminants</i> into:</p> <ul style="list-style-type: none"> <li>(a) a Natural State Water Management Sub-zone</li> <li>(b) a water body identified as a Site of Significance – Aquatic in Schedule DBa</li> <li>(c) a natural lake, except Lake Otamangakau, Lake Te Whaiau and Lake Moawhanga</li> <li>(d) a wetland classified as a rare habitat, or threatened habitat</li> </ul> <p>except the discharge of agrichemicals for the purpose of controlling pests control as defined in a regional pest management strategy prepared under the Biosecurity Act 1993 (this activity is regulated by Rule 14-2).</p>	<p><b>Non-complying</b></p>		

## Chapter 15

Amend Rules 15-5 and 15-6 as follows:

### 15.2 Rules – Takes and Uses of Water

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-5 Takes and uses of surface water complying with core allocations</b>	The taking and use of surface water from a river, <b>or water storage lake on a river</b> , pursuant to s14(1) RMA, except where the water take is controlled under Rule 13-1.	<b>Controlled</b>	<p>(b) Water shall only be taken when the river is above its minimum flow, as assessed in accordance with Schedule B except as provided for by:</p> <p>(ba) takes or portions of takes which are for the purposes of stock drinking water and domestic needs, or public water supplies predominantly for domestic use may continue below minimum flow provided the rates and volumes of takes do not exceed the maximum takes of low flow set out in Policy 6-19.</p> <p>(c) The amount of water taken, when assessed in combination with all other water takes within the same Water Management Sub-zone shall not exceed the relevant core allocation set out for Water Management Subzones in Schedule B.</p> <p>(d) The amount of water taken, when assessed in combination with all other water takes within the same catchment, shall not exceed the cumulative allocation for each Water Management Sub-zone in the same catchment.</p> <p>(e) The take shall not lower the water level in any wetland that is a rare habitat or threatened habitat.</p>	<p>Control is reserved over:</p> <p>(a) the volume and rate of water taken, and the timing of the take</p> <p>(b) the location of take</p> <p>(c) intake velocity and screening requirements</p> <p>(d) measures to avoid, remedy or mitigate any adverse effects on the values of the water body at the point of abstraction, including restrictions on the volume and rate of abstraction</p> <p>(e) the efficiency of water use</p> <p>(f) effects on other water takes</p> <p>(g) effects on rare habitats, and threatened habitats and at-risk habitats and Sites of Significance – Aquatic.</p> <p>(h) compliance with minimum flow requirements</p> <p>(i) duration of consent</p> <p>(j) review of consent conditions</p> <p>(k) compliance monitoring.</p> <p>Resource consent applications under this rule will not be notified and written approval of affected persons will not be required (notice of applications need not be served on affected persons).</p>

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-6 Takes of surface water not complying with core allocations</b>	<p>The taking of surface water from a river <b>or water storage lake on a river:</b></p> <p>(aa) which, when assessed in combination with all other water takes, exceeds the relevant core allocation set out in Schedule B. or</p> <p>(ab) at or below minimum flow (unless allowed by Rule 15-5(b))</p> <p>This rule does not include:</p> <p>(a) takes permitted under Rule 15-1</p> <p>(b) takes in circumstances where water is only taken when the river flow is greater than the median flow (these are a discretionary activity under Rule 15-8)</p> <p>(c) lawfully established takes for hydroelectricity generation (these are discretionary activities under Rule 15-8).</p>	<b>Non-complying</b>		

**Schedule B**

Amend the Turitea (Mana\_11b) Sub-zone within Table B1 as follows:

Table B1: Allocation Limits and Minimum Flows by Water Management Sub-zone					
Zone code	Sub-zone	Minimum Flow (m <sup>3</sup> /s)	Flow monitoring site	Flow monitoring site location	Cumulative core allocation limit (m <sup>3</sup> /s)
Lower Manawatu (Mana_11)	Turitea (Mana_11b)	0.050 0.041	Turitea at Ngahere Park	T24:354-852	0.265 0.428

## Schedule D

Make the following changes to the associated Standards (targets) Key within Schedule D:

### Schedule D Standards Targets Key

Water<sup>^</sup> Quality Standards Targets Key: definition of abbreviations and full wording of the standards targets (placement of the numerical values for a specified standard target are indicated by [...]).

Abbreviations used in Tables D:1 to D:4		Full Wording of the Standard-Target
Header	Sub-header	
pH	Range	The pH of the water <sup>^</sup> shall be within the range [...] to [...], unless natural levels are already outside this range.
	Δ	The pH of the water <sup>^</sup> shall not be changed by more than [...].
Temp (°C)	<	The temperature of the water <sup>^</sup> shall not exceed [...] degrees Celsius.
	Δ	The temperature of the water <sup>^</sup> shall not be changed by more than [...]degrees Celsius.
DO (%SAT)	>	The concentration of dissolved oxygen (DO) shall exceed [...] % of saturation.
sCBOD <sub>5</sub> (g/m <sup>3</sup> )	<	The monthly average five-days filtered / soluble carbonaceous biochemical oxygen demand (BOD) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre.
POM (g/m <sup>3</sup> )	<	The average concentration of particulate organic matter when the river <sup>^</sup> flow is at or below 50th percentile of flow shall not exceed [...] grams per cubic metre.
Periphyton (Rivers)	Chl a (mg/m <sup>2</sup> )	The algal biomass on the stream or river <sup>^</sup> bed <sup>^</sup> shall not exceed [...] milligrams of chlorophyll a per square metre.
	% cover	The maximum cover of visible stream or river <sup>^</sup> bed <sup>^</sup> by periphyton as filamentous algae more than 2 centimetres long shall not exceed [...] %. The maximum cover of visible stream or river bed by periphyton as diatoms or cyanobacteria more than 0.3 centimetres thick shall not exceed [...] %.
Algal biomass Chl a (mg/m <sup>3</sup> )	<	The annual average algal biomass shall not exceed [...] milligrams chlorophyll Algal biomass a per cubic metre.
	Maximum	no sample shall exceed [...] milligrams chlorophyll a per cubic metre.
DRP (g/m <sup>3</sup> )	<	The annual average concentration of dissolved reactive phosphorus (DRP) when the river <sup>^</sup> flow is at or below the 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for DRP is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TP (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total phosphorus (TP) shall not exceed [...] grams per cubic metre.
SIN (g/m <sup>3</sup> )	<	The annual average concentration of soluble inorganic nitrogen <sup>11</sup> (SIN) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for SIN is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TN (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total nitrogen shall not exceed [...] grams per cubic metre.
MCI		The Macroinvertebrate Community Index (MCI) shall <b>not be less than 20% below natural reference conditions for the river.</b> <b>If natural reference conditions are not defined then the MCI shall</b> exceed [...]. <b>unless natural physical conditions are beyond the scope of application of the MCI.</b> In cases where the river <sup>^</sup> or stream habitat is suitable for the application of the soft-bottomed variant of the MCI (MCI-sb) the standards shall also apply. <b>This standard will not apply if the natural physical conditions are beyond the scope of application of the MCI or MCI-sb.</b> <b>The MCI standard applies only for State of the Environment monitoring purposes to determine if the aquatic macroinvertebrate communities are adequate to provide for and maintain the values in each WMSZ, the standard is not appropriate for monitoring the effects of activities such as discharges to water.</b>
QMCI	%Δ	<b>Discharges to water to cause N</b> no more than a 20 % reduction in Quantitative Macroinvertebrate Community Index (QMCI) score between <b>appropriately matched habitats</b> upstream and downstream of <b>the discharges to water<sup>^</sup>.</b> <b>Note: Where samples are collected using a hand net this standard shall also apply to the Semi-Quantitative MCI (SQMCI).</b>
Ammoniacal nitrogen (g/m <sup>3</sup> ) (rivers)	<	The average concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre.
Ammoniacal nitrogen (g/m <sup>3</sup> ) (lakes)	<	The concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre when lake <sup>^</sup> pH exceeds 8.5 within the epilimnion (shallow lakes <sup>^</sup> ) or within 2 m of the water <sup>^</sup> surface (deep lakes <sup>^</sup> ).
Toxicants	<%	For toxicants not otherwise defined in these standards, the concentration of toxicants in the water <sup>^</sup> shall not exceed the trigger values defined in the 2000 ANZECC guidelines Table 3.4.1 for the level of protection of [...] % of species. <b>For metals the trigger value shall be adjusted for hardness and apply to the dissolved fraction.</b>
Clarity (m) (rivers)	%Δ	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall equal or exceed [...] m when the river <sup>^</sup> is at or below the 50 <sup>th</sup> percentile of flow.
Clarity (m) (lakes)	%Δ	The clarity of the water <sup>^</sup> measured as Secchj depth (or horizontal sighting range of a 200 mm black disc) shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured Secchi depth (or horizontal sighting range of a 200 mm black disc) shall exceed [...] m.
E.coli/100ml (rivers)	<m	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive) when the river <sup>^</sup> flow is at or below the 50 <sup>th</sup> percentile of flow.
	<20 <sup>th</sup> %ile	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres when the river <sup>^</sup> flow is at or below the 20th percentile of flow year round.
E.coli/100 ml (lakes)	Summer	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive).
	Winter	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 May – 31 October (inclusive).
Euphotic Depth (lakes)	%Δ	Euphotic depth shall not be reduced by more than [...] %.

## **Schedule E**

Make the following amendments to Table E.2(b):

### **Table E.2(b):**

<p>If an area of any habitat type described in Table E.1 meets any of the following criteria it shall not be rare habitat*, threatened habitat* or at-risk habitat* for the purposes of this Plan.</p>
<p><b>Forest*, Treeland*, Scrub*, or Shrubland* Habitat Types Classified as Threatened or At-risk</b></p> <ul style="list-style-type: none"> <li>i. Areas of indigenous* tree* species planted for the purposes of timber harvest. Or</li> <li>ii. Indigenous* vegetation planted for landscaping, horticultural, shelter belts, gardening or amenity purposes. Or</li> <li>iii. Habitat areas 1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul> <p><b>Wetland^ Habitat Types Classified as Rare or Threatened</b></p> <ul style="list-style-type: none"> <li>iv. Damp gully heads, or paddocks subject to regular ponding, dominated* by pasture or exotic species in association* with wetland sedge and rush species. Or</li> <li>v. Ditches or drains supporting raupo, flax or other wetland species (e.g. Carex sp., Isolepis sp.), or populations of these species in drains or slumps associated with road reserves or rail corridors. Or</li> <li>vi. Areas of wetland^ habitat specifically designed, installed and maintained for any of the following purposes: <ul style="list-style-type: none"> <li>a) stock watering (including stock ponds), or</li> <li>b) water storage for the purposes of fire fighting or irrigation (including old gravel pits), or</li> <li>c) treatment of animal effluent (including pond or barrier ditch systems), or</li> <li>d) waste water treatment, or</li> <li>e) sediment control, or</li> <li>f) any hydroelectric power generation scheme. Or</li> <li>g) water storage for the purposes of public water supplies. Or</li> </ul> </li> <li>vii. Areas of wetland habitat maintained in relation to the implementation of any resource consent conditions or agreements relating to the operation of any hydroelectric power scheme currently lawfully established. Or</li> <li>viii. Open water and associated vegetation created for landscaping purposes or amenity values where the planted vegetation is predominately exotic, or includes assemblages of species not naturally found in association* with each other, on the particular landform, or at the geographical location of the created site.</li> <li>ix. Habitat areas 0.1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul>

**BEFORE THE MANAWATU – WANGANUI REGIONAL COUNCIL (HORIZONS  
REGIONAL COUNCIL)**

*In the matter of*        **The Resource Management Act 1991; and**

*In the matter of*        **The Proposed One Plan: Consolidated Regional Policy  
Statement, Regional Plan and Regional Coastal Plan for  
the Manawatu - Wanganui Region**

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**SUPPLEMENTARY EVIDENCE OF ANDREW DAVID BASHFORD  
ON BEHALF OF THE PALMERSTON NORTH CITY COUNCIL**

**CHAPTERS 6, 13, 15 AND 16  
AND SCHEDULES B, C, D AND E OF THE ONE PLAN**

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Dated: 11 February 2010

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## **Introduction and Background**

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1. I have prepared this report as supplementary evidence to my Statement of Evidence dated 16 October 2009. It has been compiled in response to supplementary evidence produced by Horizons experts and takes into account the outcomes of caucusing and pre-hearing meetings held since the exchange of evidence. It also focuses more specifically on the issues surrounding the water quality standards contained within Schedule D and section 69 of the Resource Management Act 1991.
2. Several meetings involving PNCC experts have been held since the exchange of evidence. Jack McConchie, Jon Roygard and Raelene Hurdell attended a caucusing meeting on 12 November 2009 regarding the minimum flow and core allocation limit in the Turitea subzone. Caucusing was also held between Keith Hamill, Paul Kennedy, Kathryn McArthur, John Quinn, Jon Roygard and Robert Wilcock on 10 November 2009 in relation to the Water Quality Standards contained within Schedule D of the Proposed One Plan. A pre-hearing meeting was held between Clare Barton, Helen Marr, Jon Roygard, Chris Pepper and myself on 14 December 2009 where several issues were discussed including the appropriate location of amendments to Rule 13-27 as suggested in my original evidence.

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## **Water Quality**

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### Water Quality Standards

3. The evidence and supplementary evidence of Keith Hamill discusses the Water Quality Standards contained within Schedule D in detail. Mr Hamill participated in caucusing with other water quality experts and reached agreement on a number of matters as outlined in the 'Meeting Between Experts' report dated 10 November 2009.
4. As a result of this meeting, and consequent discussions, some amendments have been made to the recommendations as contained in my original evidence statement. In particular these relate to the Standards Key and an updated version is attached in Appendix 1 to this statement.
5. Of particular note are the standards relating to QMCI and Toxicants, where the recommendations made here differ to that made by Horizons experts. The reasons for these differences are discussed in paragraphs 3.3 to 3.9 and 3.12 of Mr. Hamill's supplementary evidence.
6. Agreement was not achieved in relation to the standards relating to DRP or SIN through the caucusing process. The recommendations relating to these standards have not changed from my original evidence.

### Standards or Targets

7. As discussed in paragraphs 64 to 79 of my original evidence it is unclear in what circumstances the Water Quality Standards contained within Schedule Ba and Schedule D of the Proposed One Plan apply, and whether these are standards in terms of section 69 of the Resource Management Act 1991.
8. It appears that the intention is for the Schedule Ba and Schedule D standards to apply as standards in relation to activities that are permitted. In the event that an activity does not meet the standards, the activity would require a resource consent. Some controlled and restricted discretionary rules retain control or discretion that relate to the water quality standards. It is unclear whether discretionary or non-complying activities need to comply with the standards or whether the standards are to be used as targets against which an application is assessed.
9. This matter was discussed in the caucusing meeting in relation to the Water Quality Standards held on 10 December 2009. Agreement was reached between the experts that the use of the term 'standards' is not a good term to use in this context and that clarity is needed. The Horizons experts were also to discuss options with the Horizons planners to clarify *'that standards applied as absolute trigger values for permitted activities will be regarded as targets in other situations'*<sup>1</sup>.
10. This matter has been addressed to a limited extent by the recommended amendments to Policies 6-3 to 6-5 and in particular by the inclusion of the words *'maintains or enhances existing water quality'* to Policy 6-4. However there are still drafting issues with those policies and with Policy 13-6, and it remains unclear whether the 'standards' are intended to apply as standards or as guidelines for resource consent applications and as to whether the so called standards are intended to be standards for the purpose of section 68(7), 69 and section 128(1)(b) of the RMA.
11. The following table outlines the rules that have provisions directly referring to the Schedule Ba and Schedule D Standards:

<b>One Plan Rules in Chapter 13 referring directly to the Water Quality Standards</b>			
<b>Rule</b>	<b>Activity Status</b>	<b>Conditions/Standards/Terms</b>	<b>Control/Discretion</b>
13-9	Permitted	The discharge shall not, after reasonable mixing change the natural temperature of the receiving water by more than the maximum temperature or temperature change specified by the quality standards for the Water Management Sub-zone listed in Schedule Ba.	

<sup>1</sup> See paragraph 9 – Report of a Meeting between Experts: Water Quality Standards, 10 November 2009.

13-17	Restricted Discretionary		Discretion is reserved over:  Measures required to comply with the water quality standards for the relevant Water Management Sub-zone(s).
13-21	Controlled		Control is reserved over:  Measures to manage effects on surface water bodies including maintaining the values and water quality standards set out in Schedule Ba.
13-24	Permitted	The discharges shall not, after reasonable mixing, cause the receiving water body to breach the water quality standards for that water body set out in Schedule D, either from the discharge itself or in combination with any other discharges.	
13-26	Permitted	The discharge shall comply with all of the conditions of Rule 13-24.	

12. The default catch-all discretionary activity rule (Rule 13-27) does not refer to the standards at all and there is no rule which provides that discharges which do not meet the standards become non-complying or prohibited activities.
13. Accordingly in my opinion the intention of the Plan as notified was that these water quality targets would only apply as standards for the purpose set out in the permitted activity rules and would otherwise be guidelines or targets. That is consistent with what was agreed at caucusing.
14. My concern is that what appears to have been the intention has not been made clear in the Plan itself.
15. My second concern is that in the absence of clarity it remains open for future argument that these are standards for the purpose of section 69. That would then allow argument that the rules must require the observance of the standards with no exceptions. That is, it could be argued that the rules must be amended to prohibit discharges which do not meet the standards. That was clearly not what was intended but given the loose wording surrounding the standards that is an argument which others may mount.
16. Accordingly, in my opinion it is more appropriate to have wording which makes it clear that these are not standards for the purposes of section 69 but are targets

which will be considered at the time any applications are considered. It also needs to be made clear that what will be considered is whether the discharge on its own or in conjunction with other discharges will **cause** the targets to be breached. That is consistent with common sense and with the wording of section 107. Mr Hamill discusses this point in relation to QMCI.

17. A summary of proposed wording changes to the One Plan provisions to remedy these issues is suggested in Appendix 1 and has been discussed in Mr Milne's legal submissions. They include:
- Changing references to the Water Quality Standards in the One Plan to *Water Quality Targets*;
  - Ensuring the introductory wording to Schedule Ba and Schedule D label the contents as being targets; and
  - The addition of an advice note to Schedule Ba and Schedule D that makes it clear that the targets are intended to guide the Regional Council when assessing resource consent applications and that where appropriate relevant targets have been incorporated as conditions for permitted activities.
18. It is acknowledged that the suggested wording requires refining and to that extent the Palmerston North City Council is happy to work with Horizons to formulate appropriate provisions and wording to rectify the identified issues.
19. On a related note, there are some fundamental issues with how some of the policies have been drafted, as Mr Milne has discussed in his legal submissions. Policy 13-6 does not make sense as drafted in the pink version, and it is unclear how it is intended to be applied. The pink version text states:

*Policy 13-6: point Source Discharges to Land and Water*

- (a) *When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or Error! Bookmark not defined. mitigating adverse effects<sup>^</sup> Error! Bookmark not defined.,:*
- (i) *the degree to which the activity will adversely affect the values identified for the relevant Water Management Sub-zone(s)\**
  - (ii) *whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards set in Schedule D to be breached*
  - (iii) *the extent to which the activity is consistent with best management practices*
  - (iv) *the need to allow reasonable time to achieve any required improvements.*

(b) *The Regional Council may make an exception to subsection (a) where:*

- (i) *in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided*
- (ii) *adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18*
- (iii) *it is appropriate to adopt the best practicable option<sup>^</sup>*
- (iv) *other exceptional circumstances apply*

*and it is consistent with the purpose of the RMA to do so.*

20. In examining this policy it could be taken as two policies rolled into one where the applicant must consider alternatives when applying for consent, and secondly the consent authority must consider the matters described in the list labelled (i) to (iv). Alternatively it could be that both the consent authority and applicant must consider alternatives along with the matters within the list.
21. In addition the first part of clause (a) does not introduce the list in any way and there are a number of bookmarking errors within the policy. In my opinion the policy should be redrafted and proposed wording is contained in Appendix 1.

#### Relationship to section 128(1)(b)

22. I also have concern that if the Water Quality Standards become standards or are interpreted as standards in the context of section 68(7) and 69 of the RMA 1991, then the Palmerston North City Wastewater Treatment Plant (WWTP) may be required to meet the new standards in a review of the existing resource consent under section 128(1)(b). This could take place as soon as the One Plan is made operative and only a few years after a major upgrade to the plant.
23. The current wording of the rules would not allow for a non notified review of current consents because the rules do not signal that, as outlined in section 68(7). However if the wording of the standards and policies is left as is, then it is arguable that a notified review under section 128(1)(b) may be carried out.
24. Upgrading the WWTP to meet the proposed standards would result in substantial capital and operational expense to the Palmerston North community. The water quality of the Manawatu River above the WWTP discharge does not meet a number of the proposed standards. It is my opinion that upgrading the WWTP in the short term would not be an efficient use of funds when superior gains to water quality could be achieved through other means.
25. To address this issue I recommended that a clause be added to Rule 13-27. Discussions on this clause have been undertaken with Horizons Planners (Clare Barton and Helen Marr) with agreement to the concept, however it has been suggested that the clause should be located within the Policies of the One Plan.

26. In discussions with Ms Barton and Ms Marr, it had been agreed that Policy 2-3 (11A-6 in the provisional determination version) is the suitable location for the clause.
27. The wording of the clause has been amended so that it fits the new location more appropriately. The suggested wording is:

*The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only be considered in relation to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.*

28. However I now consider that it would be preferable to fix up the more fundamental issues with how the standards apply (i.e. renaming them as targets and making the policies and rules consistent with that). This is a better solution overall, and it would also avoid the need to specifically exempt the WWTP.

#### Stormwater and Centennial Lagoon

29. In my original evidence statement I raised issues surrounding Centennial Lagoon, stormwater discharges and the Schedule E definitions. In response, Ms Fleur Maseyk prepared a section 42A report pointing out the benefits of including the lagoon within the Schedule E definitions<sup>2</sup> and thereby giving it a Threatened Habitat Status.
30. Given the heavily modified status of Centennial Lagoon this highlights that any natural lake or wetland would be classified as a threatened habitat unless it was specifically exempted by the provisions within Table E.2(b). This in turn causes some confusion as to the rules that apply to discharges to such environments due to the doubling up of provisions that apply to lakes and wetlands.
31. For example, Rule 13-17 provides for discharges of stormwater to surface water as a restricted discretionary activity so long as there is no discharge to any natural lake, rare habitat, threatened habitat, at-risk habitat or Natural State Water Management Sub-zone or Site of Significance - Aquatic.
32. The rule guide relating to the stormwater rules states that discharges in rare habitats, threatened habitats or at-risk habitats are regulated by rules 12-7 and 12-8, making them a Discretionary Activity<sup>3</sup>. The rule guide also states that discharges in Natural State Water Management Sub-zones or Sites of Significance - Aquatic are regulated by Rule 13-23, making them a Non-complying Activity. There is no mention of discharges to natural lakes in the rule guide.

<sup>2</sup> See Paragraphs 21-22 of the s42A report of Ms Fleur Jennifer Foster Maseyk.

<sup>3</sup> Note that these provisions have been changed to Rule 12-6 in the Provisional Determination

33. Rule 13-23 is titled "Discharges of contaminants to Natural State Water Management Sub-zones, Sites of Significance – Aquatic and lakes and wetlands. The activities encompassed by this rule include any direct discharge of contaminants into a natural lake.
34. The discharges to Centennial Lagoon could be regulated by Rule 12-6 as indicated by the Rule Guide but also by Rule 13-23 given its title and the activities that it includes. This issue was also discussed with Ms Barton and Ms Marr at the meeting held on 14 December 2010 with agreement that the references to lakes and wetlands should be removed from Rule 13-23. For completeness the reference to lakes and wetlands should also be removed from the heading of section 13.8.

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## **Water Quantity**

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### Minimum flow and core allocation values for the Turitea Stream

35. Paragraphs 112 to 116 of my original evidence discuss the minimum flow and core allocation values set for the Turitea Stream. Dr. Jack McConchie has provided technical expert evidence on the Turitea catchment and recommended suitable values for the minimum flow and core allocation. Caucusing was held between Dr. McConchie, Dr Roygard and Ms Hurndell on this matter on 12 November 2009. This resulted in agreement on a number of matters and further evidence being prepared by Dr. McConchie that altered the minimum flow value from the original recommendations. The revised values have been agreed by Horizons experts and I have made the necessary amendments to my recommendations.

### Schedule E

36. It has been identified that as proposed the One Plan has classed the Turitea water supply lakes as threatened habitat. This issue has been raised in my original evidence and Ms Maseyk from Horizons has responded in her section 42A report.
37. Ms Maseyk has stated that the inclusion of the water supply dams within the definitions of Schedule E was an oversight and that it is the intent of the schedule to exclude areas designed, installed and maintained for such purposes. She has made a recommendation that the words 'town water supply' be added to the Table E.2(b).
38. I agree that an exclusion needs to be added to Table E.2(b) but in my opinion the words as recommended in my original evidence are more suitable. They are more specific in that it is water storage for public water supplies that is exempt. Public water supply is defined within the glossary of the One Plan thereby giving certainty to Plan users and applying consistent terminology throughout the Plan.

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**Conclusion**

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39. Taking into account the various meetings and discussions that have taken place and further evidence provided since the exchange of evidence I have made several amendments to the recommendations made in my original evidence statement. A full list of the proposed amendments is attached as Appendix 1.

A handwritten signature in black ink that reads "ADBashford". The signature is written in a cursive style with a large initial 'A' and 'B'.

Andrew Bashford  
**Planning Officer**  
PALMERSTON NORTH CITY COUNCIL

## **Appendix 1: Recommended Amendments to be made to One Plan**

### **General Amendments**

Note: These proposed changes are general in nature and will require further drafting. They relate to the issues of uncertainty around the Water Quality Standards as proposed in Schedule Ba and Schedule D of the One Plan. It is also noted that there are a number of cross referencing errors between the various versions of the One Plan and although not discussed in the evidence presented the Palmerston North City Council is happy to assist the Horizons Regional Council in correcting these if required.

1. The policies (in particular policies 6-3 to 6-5 and 13-6) should be amended so that each reference to Schedule Ba and Schedule D *standards* refers instead to "*water quality targets*";
2. The introductory wording in Schedule Ba and Schedule D should be amended to clearly label the schedules' contents as being *targets*;
3. An advice note should be added to Schedule Ba and Schedule D stating that the targets are intended to guide the exercise of the consent authority's discretion when considering consent applications, and that where relevant the targets have been incorporated as conditions of permitted activity rules;
4. The permitted activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-9 and 13-24) should be amended to refer to the relevant *targets* in those schedules; and
5. The controlled and restricted discretionary activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-17 and 13-21) should be amended so that control or discretion is reserved over "*measures to assist in maintaining or achieving the targets*" in the relevant schedule.

## **Specific Amendments**

Note: These proposed amendments contain specific wording to various One Plan provisions to address issues raised in evidence presented. All changes are **highlighted** with words recommended to be added shown as underlined, and words that are recommended to be deleted shown in ~~strike through~~.

### **Chapter 11**

Amend Policy 11-A-6 as follows:

#### **Policy 11A-6: Consent Review**

In addition to the reasons specified in s128(1)(a)(i) and (ii) RMA, the Regional Council will, under s128(1)(a)(iii) RMA, generally impose consent conditions that specify a review of consent conditions during the term of the consent for:

- (a) reviewing the appropriateness of any condition requiring the consent holder to supply the consent authority with information relating to the exercise of the resource consent
- (b) reviewing any unknown or uncertain adverse effects caused as a result of planned or required changes or upgrades to the activity
- (c) reviewing the conditions of a consent at the same time as review of other consents within the same Water Management Zone – for example, at a common catchment expiry or review date.
- (d) reviewing the effectiveness of consent conditions to avoid, remedy or mitigate any adverse effects of the activity on the environment.

The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only apply to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.

This policy relates to Objective 11A-2.

## Chapter 13

Amend Policy 13-6 (Pink Version) as follows:

### **Policy 13-6: ~~p~~Point Source Discharges to Land and Water**

~~(a) When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, the opportunity to utilise alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or **Error! Bookmark not defined.** mitigating adverse effects<sup>^</sup> where practicable **Error! Bookmark not defined.**, shall be considered., including but not limited to:z~~

(a) When applying for consents and making decisions on consent applications for discharges of contaminants to water or land the following shall be considered for the purpose of avoiding or mitigating effects:

- (i) the degree to which the activity will adversely affect the values identified for the relevant *Water Management Sub-zone(s)*\*
- (ii) whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards targets set in Schedule D to be breached
- (iii) the extent to which the activity is consistent with best management practices
- (iv) the need to allow reasonable time to achieve any required improvements.
- (v) alternative treatment and discharge options or mix of discharge regimes.

(b) The Regional Council may make an exception to (a) where:

- (i) in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided
- (ii) adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18
- (iii) it is appropriate to adopt the *best practicable option*<sup>^</sup>
- (iv) other exceptional circumstances apply

and it is consistent with the purpose of the RMA to do so.

This policy implements Objective 13-1

Amend Rules 13-17, and 13-23 as follows:

### 13.5 Rules - Stormwater

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>13-17</b> <b>Discharges of stormwater to surface water not complying with Rule 13-15</b>	The <i>discharges</i> of <i>stormwater</i> into <i>surface water</i> which do not comply with Rule 13-15, and any associated takes or diversions of stormwater forming part of the stormwater system.	<b>Restricted Discretionary</b>	(a) There shall be no <i>discharge</i> to any <b>natural lake</b> , <i>rare habitat</i> , <i>threatened habitat</i> , <i>at-risk habitat</i> , or Natural State Water Management Sub-zone or Site of Significance - Aquatic.	Discretion is reserved over: (a) measures to control flooding and erosion (b) contaminant concentrations and loading rates (c) measures required to comply with s107(1) RMA (d) measures required to comply with the water quality <b>standards targets</b> for the relevant Water Management Sub-zone(s) (e) odour management (f) stormwater system maintenance requirements (g) contingency requirements (h) monitoring and information requirements (i) duration of consent (j) review of consent conditions.

13.8 **Rules – Discharges of contaminants to Natural State Water Management Sub-zones, Lakes and Wetlands**

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<p><b>13-23</b> <b>Discharges of contaminants to Natural State Water Management Sub-zones, and Sites of Significance – Aquatic and lakes and wetlands</b></p>	<p>Any direct <i>discharge</i> of <i>contaminants</i> into:</p> <ul style="list-style-type: none"> <li>(a) a Natural State Water Management Sub-zone</li> <li>(b) a water body identified as a Site of Significance – Aquatic in Schedule DBa</li> <li>(c) a natural lake, except Lake Otamangakau, Lake Te Whaiau and Lake Moawhanga</li> <li>(d) a wetland classified as a rare habitat, or threatened habitat</li> </ul> <p>except the discharge of agrichemicals for the purpose of controlling pests control as defined in a regional pest management strategy prepared under the Biosecurity Act 1993 (this activity is regulated by Rule 14-2).</p>	<p><b>Non-complying</b></p>		

## Chapter 15

Amend Rules 15-5 and 15-6 as follows:

### 15.2 Rules – Takes and Uses of Water

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-5 Takes and uses of surface water complying with core allocations</b>	The taking and use of surface water from a river, <b>or water storage lake on a river</b> , pursuant to s14(1) RMA, except where the water take is controlled under Rule 13-1.	<b>Controlled</b>	<p>(b) Water shall only be taken when the river is above its minimum flow, as assessed in accordance with Schedule B except as provided for by:</p> <p>(ba) takes or portions of takes which are for the purposes of stock drinking water and domestic needs, or public water supplies predominantly for domestic use may continue below minimum flow provided the rates and volumes of takes do not exceed the maximum takes of low flow set out in Policy 6-19.</p> <p>(c) The amount of water taken, when assessed in combination with all other water takes within the same Water Management Sub-zone shall not exceed the relevant core allocation set out for Water Management Subzones in Schedule B.</p> <p>(d) The amount of water taken, when assessed in combination with all other water takes within the same catchment, shall not exceed the cumulative allocation for each Water Management Sub-zone in the same catchment.</p> <p>(e) The take shall not lower the water level in any wetland that is a rare habitat or threatened habitat.</p>	<p>Control is reserved over:</p> <p>(a) the volume and rate of water taken, and the timing of the take</p> <p>(b) the location of take</p> <p>(c) intake velocity and screening requirements</p> <p>(d) measures to avoid, remedy or mitigate any adverse effects on the values of the water body at the point of abstraction, including restrictions on the volume and rate of abstraction</p> <p>(e) the efficiency of water use</p> <p>(f) effects on other water takes</p> <p>(g) effects on rare habitats, and threatened habitats and at-risk habitats and Sites of Significance – Aquatic.</p> <p>(h) compliance with minimum flow requirements</p> <p>(i) duration of consent</p> <p>(j) review of consent conditions</p> <p>(k) compliance monitoring.</p> <p>Resource consent applications under this rule will not be notified and written approval of affected persons will not be required (notice of applications need not be served on affected persons).</p>

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-6 Takes of surface water not complying with core allocations</b>	<p>The taking of surface water from a river <b>or water storage lake on a river:</b></p> <p>(aa) which, when assessed in combination with all other water takes, exceeds the relevant core allocation set out in Schedule B. or</p> <p>(ab) at or below minimum flow (unless allowed by Rule 15-5(b))</p> <p>This rule does not include:</p> <p>(a) takes permitted under Rule 15-1</p> <p>(b) takes in circumstances where water is only taken when the river flow is greater than the median flow (these are a discretionary activity under Rule 15-8)</p> <p>(c) lawfully established takes for hydroelectricity generation (these are discretionary activities under Rule 15-8).</p>	<b>Non-complying</b>		

**Schedule B**

Amend the Turitea (Mana\_11b) Sub-zone within Table B1 as follows:

Table B1: Allocation Limits and Minimum Flows by Water Management Sub-zone					
Zone code	Sub-zone	Minimum Flow (m <sup>3</sup> /s)	Flow monitoring site	Flow monitoring site location	Cumulative core allocation limit (m <sup>3</sup> /s)
Lower Manawatu (Mana_11)	Turitea (Mana_11b)	0.050 0.041	Turitea at Ngahere Park	T24:354-852	0.265 0.428

## Schedule D

Make the following changes to the associated Standards (targets) Key within Schedule D:

### Schedule D Standards Targets Key

Water<sup>^</sup> Quality Standards Targets Key: definition of abbreviations and full wording of the standards targets (placement of the numerical values for a specified standard target are indicated by [...]).

Abbreviations used in Tables D:1 to D:4		Full Wording of the Standard-Target
Header	Sub-header	
pH	Range	The pH of the water <sup>^</sup> shall be within the range [...] to [...], unless natural levels are already outside this range.
	Δ	The pH of the water <sup>^</sup> shall not be changed by more than [...].
Temp (°C)	<	The temperature of the water <sup>^</sup> shall not exceed [...] degrees Celsius.
	Δ	The temperature of the water <sup>^</sup> shall not be changed by more than [...]degrees Celsius.
DO (%SAT)	>	The concentration of dissolved oxygen (DO) shall exceed [...] % of saturation.
sCBOD <sub>5</sub> (g/m <sup>3</sup> )	<	The monthly average five-days filtered / soluble carbonaceous biochemical oxygen demand (BOD) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre.
POM (g/m <sup>3</sup> )	<	The average concentration of particulate organic matter when the river <sup>^</sup> flow is at or below 50th percentile of flow shall not exceed [...] grams per cubic metre.
Periphyton (Rivers)	Chl a (mg/m <sup>2</sup> )	The algal biomass on the stream or river <sup>^</sup> bed <sup>^</sup> shall not exceed [...] milligrams of chlorophyll a per square metre.
	% cover	The maximum cover of visible stream or river <sup>^</sup> bed <sup>^</sup> by periphyton as filamentous algae more than 2 centimetres long shall not exceed [...] %. The maximum cover of visible stream or river bed by periphyton as diatoms or cyanobacteria more than 0.3 centimetres thick shall not exceed [...] %.
Algal biomass Chl a (mg/m <sup>3</sup> )	<	The annual average algal biomass shall not exceed [...] milligrams chlorophyll Algal biomass a per cubic metre.
	Maximum	no sample shall exceed [...] milligrams chlorophyll a per cubic metre.
DRP (g/m <sup>3</sup> )	<	The annual average concentration of dissolved reactive phosphorus (DRP) when the river <sup>^</sup> flow is at or below the 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for DRP is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TP (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total phosphorus (TP) shall not exceed [...] grams per cubic metre.
SIN (g/m <sup>3</sup> )	<	The annual average concentration of soluble inorganic nitrogen <sup>11</sup> (SIN) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for SIN is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TN (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total nitrogen shall not exceed [...] grams per cubic metre.
MCI		The Macroinvertebrate Community Index (MCI) shall <b>not be less than 20% below natural reference conditions for the river.</b> <b>If natural reference conditions are not defined then the MCI shall</b> exceed [...]. <b>unless natural physical conditions are beyond the scope of application of the MCI.</b> In cases where the river <sup>^</sup> or stream habitat is suitable for the application of the soft-bottomed variant of the MCI (MCI-sb) the standards shall also apply. <b>This standard will not apply if the natural physical conditions are beyond the scope of application of the MCI or MCI-sb.</b> <b>The MCI standard applies only for State of the Environment monitoring purposes to determine if the aquatic macroinvertebrate communities are adequate to provide for and maintain the values in each WMSZ, the standard is not appropriate for monitoring the effects of activities such as discharges to water.</b>
QMCI	%Δ	<b>Discharges to water to cause N</b> no more than a 20 % reduction in Quantitative Macroinvertebrate Community Index (QMCI) score between <b>appropriately matched habitats</b> upstream and downstream of <b>the discharges to water<sup>^</sup>.</b> <b>Note: Where samples are collected using a hand net this standard shall also apply to the Semi-Quantitative MCI (SQMCI).</b>
Ammoniacal nitrogen (g/m <sup>3</sup> ) (rivers)	<	The average concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre.
Ammoniacal nitrogen (g/m <sup>3</sup> ) (lakes)	<	The concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre when lake <sup>^</sup> pH exceeds 8.5 within the epilimnion (shallow lakes <sup>^</sup> ) or within 2 m of the water <sup>^</sup> surface (deep lakes <sup>^</sup> ).
Toxicants	<%	For toxicants not otherwise defined in these standards, the concentration of toxicants in the water <sup>^</sup> shall not exceed the trigger values defined in the 2000 ANZECC guidelines Table 3.4.1 for the level of protection of [...] % of species. <b>For metals the trigger value shall be adjusted for hardness and apply to the dissolved fraction.</b>
Clarity (m) (rivers)	%Δ	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall equal or exceed [...] m when the river <sup>^</sup> is at or below the 50 <sup>th</sup> percentile of flow.
Clarity (m) (lakes)	%Δ	The clarity of the water <sup>^</sup> measured as Secchj depth (or horizontal sighting range of a 200 mm black disc) shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured Secchi depth (or horizontal sighting range of a 200 mm black disc) shall exceed [...] m.
E.coli/100ml (rivers)	<m	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive) when the river <sup>^</sup> flow is at or below the 50 <sup>th</sup> percentile of flow.
	<20 <sup>th</sup> %ile	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres when the river <sup>^</sup> flow is at or below the 20th percentile of flow year round.
E.coli/100 ml (lakes)	Summer	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive).
	Winter	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 May – 31 October (inclusive).
Euphotic Depth (lakes)	%Δ	Euphotic depth shall not be reduced by more than [...] %.

## **Schedule E**

Make the following amendments to Table E.2(b):

### **Table E.2(b):**

<p>If an area of any habitat type described in Table E.1 meets any of the following criteria it shall not be rare habitat*, threatened habitat* or at-risk habitat* for the purposes of this Plan.</p>
<p><b>Forest*, Treeland*, Scrub*, or Shrubland* Habitat Types Classified as Threatened or At-risk</b></p> <ul style="list-style-type: none"> <li>i. Areas of indigenous* tree* species planted for the purposes of timber harvest. Or</li> <li>ii. Indigenous* vegetation planted for landscaping, horticultural, shelter belts, gardening or amenity purposes. Or</li> <li>iii. Habitat areas 1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul> <p><b>Wetland^ Habitat Types Classified as Rare or Threatened</b></p> <ul style="list-style-type: none"> <li>iv. Damp gully heads, or paddocks subject to regular ponding, dominated* by pasture or exotic species in association* with wetland sedge and rush species. Or</li> <li>v. Ditches or drains supporting raupo, flax or other wetland species (e.g. Carex sp., Isolepis sp.), or populations of these species in drains or slumps associated with road reserves or rail corridors. Or</li> <li>vi. Areas of wetland^ habitat specifically designed, installed and maintained for any of the following purposes: <ul style="list-style-type: none"> <li>a) stock watering (including stock ponds), or</li> <li>b) water storage for the purposes of fire fighting or irrigation (including old gravel pits), or</li> <li>c) treatment of animal effluent (including pond or barrier ditch systems), or</li> <li>d) waste water treatment, or</li> <li>e) sediment control, or</li> <li>f) any hydroelectric power generation scheme. Or</li> <li>g) water storage for the purposes of public water supplies. Or</li> </ul> </li> <li>vii. Areas of wetland habitat maintained in relation to the implementation of any resource consent conditions or agreements relating to the operation of any hydroelectric power scheme currently lawfully established. Or</li> <li>viii. Open water and associated vegetation created for landscaping purposes or amenity values where the planted vegetation is predominately exotic, or includes assemblages of species not naturally found in association* with each other, on the particular landform, or at the geographical location of the created site.</li> <li>ix. Habitat areas 0.1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul>

**BEFORE THE MANAWATU – WANGANUI REGIONAL COUNCIL (HORIZONS  
REGIONAL COUNCIL)**

*In the matter of*      **The Resource Management Act 1991; and**

*In the matter of*      **The Proposed One Plan: Consolidated Regional Policy  
Statement, Regional Plan and Regional Coastal Plan for  
the Manawatu - Wanganui Region**

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**SUPPLEMENTARY EVIDENCE OF ANDREW DAVID BASHFORD  
ON BEHALF OF THE PALMERSTON NORTH CITY COUNCIL**

**CHAPTERS 6, 13, 15 AND 16  
AND SCHEDULES B, C, D AND E OF THE ONE PLAN**

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Dated: 11 February 2010

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## Introduction and Background

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1. I have prepared this report as supplementary evidence to my Statement of Evidence dated 16 October 2009. It has been compiled in response to supplementary evidence produced by Horizons experts and takes into account the outcomes of caucusing and pre-hearing meetings held since the exchange of evidence. It also focuses more specifically on the issues surrounding the water quality standards contained within Schedule D and section 69 of the Resource Management Act 1991.
2. Several meetings involving PNCC experts have been held since the exchange of evidence. Jack McConchie, Jon Roygard and Raelene Hurdell attended a caucusing meeting on 12 November 2009 regarding the minimum flow and core allocation limit in the Turitea subzone. Caucusing was also held between Keith Hamill, Paul Kennedy, Kathryn McArthur, John Quinn, Jon Roygard and Robert Wilcock on 10 November 2009 in relation to the Water Quality Standards contained within Schedule D of the Proposed One Plan. A pre-hearing meeting was held between Clare Barton, Helen Marr, Jon Roygard, Chris Pepper and myself on 14 December 2009 where several issues were discussed including the appropriate location of amendments to Rule 13-27 as suggested in my original evidence.

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## Water Quality

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### Water Quality Standards

3. The evidence and supplementary evidence of Keith Hamill discusses the Water Quality Standards contained within Schedule D in detail. Mr Hamill participated in caucusing with other water quality experts and reached agreement on a number of matters as outlined in the 'Meeting Between Experts' report dated 10 November 2009.
4. As a result of this meeting, and consequent discussions, some amendments have been made to the recommendations as contained in my original evidence statement. In particular these relate to the Standards Key and an updated version is attached in Appendix 1 to this statement.
5. Of particular note are the standards relating to QMCI and Toxicants, where the recommendations made here differ to that made by Horizons experts. The reasons for these differences are discussed in paragraphs 3.3 to 3.9 and 3.12 of Mr. Hamill's supplementary evidence.
6. Agreement was not achieved in relation to the standards relating to DRP or SIN through the caucusing process. The recommendations relating to these standards have not changed from my original evidence.

### Standards or Targets

7. As discussed in paragraphs 64 to 79 of my original evidence it is unclear in what circumstances the Water Quality Standards contained within Schedule Ba and Schedule D of the Proposed One Plan apply, and whether these are standards in terms of section 69 of the Resource Management Act 1991.
8. It appears that the intention is for the Schedule Ba and Schedule D standards to apply as standards in relation to activities that are permitted. In the event that an activity does not meet the standards, the activity would require a resource consent. Some controlled and restricted discretionary rules retain control or discretion that relate to the water quality standards. It is unclear whether discretionary or non-complying activities need to comply with the standards or whether the standards are to be used as targets against which an application is assessed.
9. This matter was discussed in the caucusing meeting in relation to the Water Quality Standards held on 10 December 2009. Agreement was reached between the experts that the use of the term 'standards' is not a good term to use in this context and that clarity is needed. The Horizons experts were also to discuss options with the Horizons planners to clarify *'that standards applied as absolute trigger values for permitted activities will be regarded as targets in other situations'*<sup>1</sup>.
10. This matter has been addressed to a limited extent by the recommended amendments to Policies 6-3 to 6-5 and in particular by the inclusion of the words *'maintains or enhances existing water quality'* to Policy 6-4. However there are still drafting issues with those policies and with Policy 13-6, and it remains unclear whether the 'standards' are intended to apply as standards or as guidelines for resource consent applications and as to whether the so called standards are intended to be standards for the purpose of section 68(7), 69 and section 128(1)(b) of the RMA.
11. The following table outlines the rules that have provisions directly referring to the Schedule Ba and Schedule D Standards:

<b>One Plan Rules in Chapter 13 referring directly to the Water Quality Standards</b>			
<b>Rule</b>	<b>Activity Status</b>	<b>Conditions/Standards/Terms</b>	<b>Control/Discretion</b>
13-9	Permitted	The discharge shall not, after reasonable mixing change the natural temperature of the receiving water by more than the maximum temperature or temperature change specified by the quality standards for the Water Management Sub-zone listed in Schedule Ba.	

<sup>1</sup> See paragraph 9 – Report of a Meeting between Experts: Water Quality Standards, 10 November 2009.

13-17	Restricted Discretionary		Discretion is reserved over:  Measures required to comply with the water quality standards for the relevant Water Management Sub-zone(s).
13-21	Controlled		Control is reserved over:  Measures to manage effects on surface water bodies including maintaining the values and water quality standards set out in Schedule Ba.
13-24	Permitted	The discharges shall not, after reasonable mixing, cause the receiving water body to breach the water quality standards for that water body set out in Schedule D, either from the discharge itself or in combination with any other discharges.	
13-26	Permitted	The discharge shall comply with all of the conditions of Rule 13-24.	

12. The default catch-all discretionary activity rule (Rule 13-27) does not refer to the standards at all and there is no rule which provides that discharges which do not meet the standards become non-complying or prohibited activities.
13. Accordingly in my opinion the intention of the Plan as notified was that these water quality targets would only apply as standards for the purpose set out in the permitted activity rules and would otherwise be guidelines or targets. That is consistent with what was agreed at caucusing.
14. My concern is that what appears to have been the intention has not been made clear in the Plan itself.
15. My second concern is that in the absence of clarity it remains open for future argument that these are standards for the purpose of section 69. That would then allow argument that the rules must require the observance of the standards with no exceptions. That is, it could be argued that the rules must be amended to prohibit discharges which do not meet the standards. That was clearly not what was intended but given the loose wording surrounding the standards that is an argument which others may mount.
16. Accordingly, in my opinion it is more appropriate to have wording which makes it clear that these are not standards for the purposes of section 69 but are targets

which will be considered at the time any applications are considered. It also needs to be made clear that what will be considered is whether the discharge on its own or in conjunction with other discharges will **cause** the targets to be breached. That is consistent with common sense and with the wording of section 107. Mr Hamill discusses this point in relation to QMCI.

17. A summary of proposed wording changes to the One Plan provisions to remedy these issues is suggested in Appendix 1 and has been discussed in Mr Milne's legal submissions. They include:
- Changing references to the Water Quality Standards in the One Plan to *Water Quality Targets*;
  - Ensuring the introductory wording to Schedule Ba and Schedule D label the contents as being targets; and
  - The addition of an advice note to Schedule Ba and Schedule D that makes it clear that the targets are intended to guide the Regional Council when assessing resource consent applications and that where appropriate relevant targets have been incorporated as conditions for permitted activities.
18. It is acknowledged that the suggested wording requires refining and to that extent the Palmerston North City Council is happy to work with Horizons to formulate appropriate provisions and wording to rectify the identified issues.
19. On a related note, there are some fundamental issues with how some of the policies have been drafted, as Mr Milne has discussed in his legal submissions. Policy 13-6 does not make sense as drafted in the pink version, and it is unclear how it is intended to be applied. The pink version text states:

*Policy 13-6: point Source Discharges to Land and Water*

- (a) *When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or Error! Bookmark not defined. mitigating adverse effects<sup>^</sup> Error! Bookmark not defined.,:*
- (i) *the degree to which the activity will adversely affect the values identified for the relevant Water Management Sub-zone(s)\**
  - (ii) *whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards set in Schedule D to be breached*
  - (iii) *the extent to which the activity is consistent with best management practices*
  - (iv) *the need to allow reasonable time to achieve any required improvements.*

(b) *The Regional Council may make an exception to subsection (a) where:*

- (i) *in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided*
- (ii) *adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18*
- (iii) *it is appropriate to adopt the best practicable option<sup>^</sup>*
- (iv) *other exceptional circumstances apply*

*and it is consistent with the purpose of the RMA to do so.*

20. In examining this policy it could be taken as two policies rolled into one where the applicant must consider alternatives when applying for consent, and secondly the consent authority must consider the matters described in the list labelled (i) to (iv). Alternatively it could be that both the consent authority and applicant must consider alternatives along with the matters within the list.
21. In addition the first part of clause (a) does not introduce the list in any way and there are a number of bookmarking errors within the policy. In my opinion the policy should be redrafted and proposed wording is contained in Appendix 1.

#### Relationship to section 128(1)(b)

22. I also have concern that if the Water Quality Standards become standards or are interpreted as standards in the context of section 68(7) and 69 of the RMA 1991, then the Palmerston North City Wastewater Treatment Plant (WWTP) may be required to meet the new standards in a review of the existing resource consent under section 128(1)(b). This could take place as soon as the One Plan is made operative and only a few years after a major upgrade to the plant.
23. The current wording of the rules would not allow for a non notified review of current consents because the rules do not signal that, as outlined in section 68(7). However if the wording of the standards and policies is left as is, then it is arguable that a notified review under section 128(1)(b) may be carried out.
24. Upgrading the WWTP to meet the proposed standards would result in substantial capital and operational expense to the Palmerston North community. The water quality of the Manawatu River above the WWTP discharge does not meet a number of the proposed standards. It is my opinion that upgrading the WWTP in the short term would not be an efficient use of funds when superior gains to water quality could be achieved through other means.
25. To address this issue I recommended that a clause be added to Rule 13-27. Discussions on this clause have been undertaken with Horizons Planners (Clare Barton and Helen Marr) with agreement to the concept, however it has been suggested that the clause should be located within the Policies of the One Plan.

26. In discussions with Ms Barton and Ms Marr, it had been agreed that Policy 2-3 (11A-6 in the provisional determination version) is the suitable location for the clause.
27. The wording of the clause has been amended so that it fits the new location more appropriately. The suggested wording is:

*The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only be considered in relation to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.*

28. However I now consider that it would be preferable to fix up the more fundamental issues with how the standards apply (i.e. renaming them as targets and making the policies and rules consistent with that). This is a better solution overall, and it would also avoid the need to specifically exempt the WWTP.

#### Stormwater and Centennial Lagoon

29. In my original evidence statement I raised issues surrounding Centennial Lagoon, stormwater discharges and the Schedule E definitions. In response, Ms Fleur Maseyk prepared a section 42A report pointing out the benefits of including the lagoon within the Schedule E definitions<sup>2</sup> and thereby giving it a Threatened Habitat Status.
30. Given the heavily modified status of Centennial Lagoon this highlights that any natural lake or wetland would be classified as a threatened habitat unless it was specifically exempted by the provisions within Table E.2(b). This in turn causes some confusion as to the rules that apply to discharges to such environments due to the doubling up of provisions that apply to lakes and wetlands.
31. For example, Rule 13-17 provides for discharges of stormwater to surface water as a restricted discretionary activity so long as there is no discharge to any natural lake, rare habitat, threatened habitat, at-risk habitat or Natural State Water Management Sub-zone or Site of Significance - Aquatic.
32. The rule guide relating to the stormwater rules states that discharges in rare habitats, threatened habitats or at-risk habitats are regulated by rules 12-7 and 12-8, making them a Discretionary Activity<sup>3</sup>. The rule guide also states that discharges in Natural State Water Management Sub-zones or Sites of Significance - Aquatic are regulated by Rule 13-23, making them a Non-complying Activity. There is no mention of discharges to natural lakes in the rule guide.

<sup>2</sup> See Paragraphs 21-22 of the s42A report of Ms Fleur Jennifer Foster Maseyk.

<sup>3</sup> Note that these provisions have been changed to Rule 12-6 in the Provisional Determination

33. Rule 13-23 is titled "Discharges of contaminants to Natural State Water Management Sub-zones, Sites of Significance – Aquatic and lakes and wetlands. The activities encompassed by this rule include any direct discharge of contaminants into a natural lake.
34. The discharges to Centennial Lagoon could be regulated by Rule 12-6 as indicated by the Rule Guide but also by Rule 13-23 given its title and the activities that it includes. This issue was also discussed with Ms Barton and Ms Marr at the meeting held on 14 December 2010 with agreement that the references to lakes and wetlands should be removed from Rule 13-23. For completeness the reference to lakes and wetlands should also be removed from the heading of section 13.8.

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## **Water Quantity**

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### Minimum flow and core allocation values for the Turitea Stream

35. Paragraphs 112 to 116 of my original evidence discuss the minimum flow and core allocation values set for the Turitea Stream. Dr. Jack McConchie has provided technical expert evidence on the Turitea catchment and recommended suitable values for the minimum flow and core allocation. Caucusing was held between Dr. McConchie, Dr Roygard and Ms Hurndell on this matter on 12 November 2009. This resulted in agreement on a number of matters and further evidence being prepared by Dr. McConchie that altered the minimum flow value from the original recommendations. The revised values have been agreed by Horizons experts and I have made the necessary amendments to my recommendations.

### Schedule E

36. It has been identified that as proposed the One Plan has classed the Turitea water supply lakes as threatened habitat. This issue has been raised in my original evidence and Ms Maseyk from Horizons has responded in her section 42A report.
37. Ms Maseyk has stated that the inclusion of the water supply dams within the definitions of Schedule E was an oversight and that it is the intent of the schedule to exclude areas designed, installed and maintained for such purposes. She has made a recommendation that the words 'town water supply' be added to the Table E.2(b).
38. I agree that an exclusion needs to be added to Table E.2(b) but in my opinion the words as recommended in my original evidence are more suitable. They are more specific in that it is water storage for public water supplies that is exempt. Public water supply is defined within the glossary of the One Plan thereby giving certainty to Plan users and applying consistent terminology throughout the Plan.

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**Conclusion**

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39. Taking into account the various meetings and discussions that have taken place and further evidence provided since the exchange of evidence I have made several amendments to the recommendations made in my original evidence statement. A full list of the proposed amendments is attached as Appendix 1.

A handwritten signature in black ink that reads "ADBashford". The signature is written in a cursive style with a light blue background behind the text.

Andrew Bashford  
**Planning Officer**  
PALMERSTON NORTH CITY COUNCIL

## **Appendix 1: Recommended Amendments to be made to One Plan**

### **General Amendments**

Note: These proposed changes are general in nature and will require further drafting. They relate to the issues of uncertainty around the Water Quality Standards as proposed in Schedule Ba and Schedule D of the One Plan. It is also noted that there are a number of cross referencing errors between the various versions of the One Plan and although not discussed in the evidence presented the Palmerston North City Council is happy to assist the Horizons Regional Council in correcting these if required.

1. The policies (in particular policies 6-3 to 6-5 and 13-6) should be amended so that each reference to Schedule Ba and Schedule D *standards* refers instead to "*water quality targets*";
2. The introductory wording in Schedule Ba and Schedule D should be amended to clearly label the schedules' contents as being *targets*;
3. An advice note should be added to Schedule Ba and Schedule D stating that the targets are intended to guide the exercise of the consent authority's discretion when considering consent applications, and that where relevant the targets have been incorporated as conditions of permitted activity rules;
4. The permitted activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-9 and 13-24) should be amended to refer to the relevant *targets* in those schedules; and
5. The controlled and restricted discretionary activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-17 and 13-21) should be amended so that control or discretion is reserved over "*measures to assist in maintaining or achieving the targets*" in the relevant schedule.

## **Specific Amendments**

Note: These proposed amendments contain specific wording to various One Plan provisions to address issues raised in evidence presented. All changes are **highlighted** with words recommended to be added shown as underlined, and words that are recommended to be deleted shown in ~~strike through~~.

### **Chapter 11**

Amend Policy 11-A-6 as follows:

#### **Policy 11A-6: Consent Review**

In addition to the reasons specified in s128(1)(a)(i) and (ii) RMA, the Regional Council will, under s128(1)(a)(iii) RMA, generally impose consent conditions that specify a review of consent conditions during the term of the consent for:

- (a) reviewing the appropriateness of any condition requiring the consent holder to supply the consent authority with information relating to the exercise of the resource consent
- (b) reviewing any unknown or uncertain adverse effects caused as a result of planned or required changes or upgrades to the activity
- (c) reviewing the conditions of a consent at the same time as review of other consents within the same Water Management Zone – for example, at a common catchment expiry or review date.
- (d) reviewing the effectiveness of consent conditions to avoid, remedy or mitigate any adverse effects of the activity on the environment.

The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only apply to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.

This policy relates to Objective 11A-2.

## Chapter 13

Amend Policy 13-6 (Pink Version) as follows:

### **Policy 13-6: ~~p~~Point Source Discharges to Land and Water**

~~(a) When applying for consents and making decisions on consent applications for discharges of contaminants to water or land, the opportunity to utilise alternatives must be considered including alternative treatment and discharge options or a mix of discharge regimes, for the purpose of avoiding or **Error! Bookmark not defined.** mitigating adverse effects where practicable **Error! Bookmark not defined.**, shall be considered, including but not limited to:~~

(a) When applying for consents and making decisions on consent applications for discharges of contaminants to water or land the following shall be considered for the purpose of avoiding or mitigating effects:

- (i) the degree to which the activity will adversely affect the values identified for the relevant *Water Management Sub-zone(s)*\*
- (ii) whether the discharge, in combination with other discharges including non-point source discharges, will cause the water quality standards targets set in Schedule D to be breached
- (iii) the extent to which the activity is consistent with best management practices
- (iv) the need to allow reasonable time to achieve any required improvements.
- (v) alternative treatment and discharge options or mix of discharge regimes.

(b) The Regional Council may make an exception to (a) where:

- (i) in the case of discharges, the discharge is of a temporary nature or is associated with necessary maintenance work and the discharge cannot practicably be avoided
- (ii) adverse effects can be fully offset by way of a financial contribution in accordance with Chapter 18
- (iii) it is appropriate to adopt the *best practicable option*
- (iv) other exceptional circumstances apply

and it is consistent with the purpose of the RMA to do so.

This policy implements Objective 13-1

Amend Rules 13-17, and 13-23 as follows:

### 13.5 Rules - Stormwater

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>13-17</b> <b>Discharges of stormwater to surface water not complying with Rule 13-15</b>	The <i>discharges</i> of <i>stormwater</i> into <i>surface water</i> which do not comply with Rule 13-15, and any associated takes or diversions of stormwater forming part of the stormwater system.	<b>Restricted Discretionary</b>	(a) There shall be no <i>discharge</i> to any <b>natural lake</b> , <i>rare habitat</i> , <i>threatened habitat</i> , <i>at-risk habitat</i> , or Natural State Water Management Sub-zone or Site of Significance - Aquatic.	Discretion is reserved over: (a) measures to control flooding and erosion (b) contaminant concentrations and loading rates (c) measures required to comply with s107(1) RMA (d) measures required to comply with the water quality <b>standards targets</b> for the relevant Water Management Sub-zone(s) (e) odour management (f) stormwater system maintenance requirements (g) contingency requirements (h) monitoring and information requirements (i) duration of consent (j) review of consent conditions.

**13.8 Rules – Discharges of contaminants to Natural State Water Management Sub-zones, Lakes and Wetlands**

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<p><b>13-23 Discharges of contaminants to Natural State Water Management Sub-zones, and Sites of Significance – Aquatic and lakes and wetlands</b></p>	<p>Any direct <i>discharge</i> of <i>contaminants</i> into:</p> <ul style="list-style-type: none"> <li>(a) a Natural State Water Management Sub-zone</li> <li>(b) a water body identified as a Site of Significance – Aquatic in Schedule DBa</li> <li>(c) a natural lake, except Lake Otamangakau, Lake Te Whaiau and Lake Moawhanga</li> <li>(d) a wetland classified as a rare habitat, or threatened habitat</li> </ul> <p>except the discharge of agrichemicals for the purpose of controlling pests control as defined in a regional pest management strategy prepared under the Biosecurity Act 1993 (this activity is regulated by Rule 14-2).</p>	<p><b>Non-complying</b></p>		

## Chapter 15

Amend Rules 15-5 and 15-6 as follows:

### 15.2 Rules – Takes and Uses of Water

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-5 Takes and uses of surface water complying with core allocations</b>	The taking and use of surface water from a river, <b>or water storage lake on a river</b> , pursuant to s14(1) RMA, except where the water take is controlled under Rule 13-1.	<b>Controlled</b>	<p>(b) Water shall only be taken when the river is above its minimum flow, as assessed in accordance with Schedule B except as provided for by:</p> <p>(ba) takes or portions of takes which are for the purposes of stock drinking water and domestic needs, or public water supplies predominantly for domestic use may continue below minimum flow provided the rates and volumes of takes do not exceed the maximum takes of low flow set out in Policy 6-19.</p> <p>(c) The amount of water taken, when assessed in combination with all other water takes within the same Water Management Sub-zone shall not exceed the relevant core allocation set out for Water Management Subzones in Schedule B.</p> <p>(d) The amount of water taken, when assessed in combination with all other water takes within the same catchment, shall not exceed the cumulative allocation for each Water Management Sub-zone in the same catchment.</p> <p>(e) The take shall not lower the water level in any wetland that is a rare habitat or threatened habitat.</p>	<p>Control is reserved over:</p> <p>(a) the volume and rate of water taken, and the timing of the take</p> <p>(b) the location of take</p> <p>(c) intake velocity and screening requirements</p> <p>(d) measures to avoid, remedy or mitigate any adverse effects on the values of the water body at the point of abstraction, including restrictions on the volume and rate of abstraction</p> <p>(e) the efficiency of water use</p> <p>(f) effects on other water takes</p> <p>(g) effects on rare habitats, and threatened habitats and at-risk habitats and Sites of Significance – Aquatic.</p> <p>(h) compliance with minimum flow requirements</p> <p>(i) duration of consent</p> <p>(j) review of consent conditions</p> <p>(k) compliance monitoring.</p> <p>Resource consent applications under this rule will not be notified and written approval of affected persons will not be required (notice of applications need not be served on affected persons).</p>

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-6 Takes of surface water not complying with core allocations</b>	<p>The taking of surface water from a river <b>or water storage lake on a river:</b></p> <p>(aa) which, when assessed in combination with all other water takes, exceeds the relevant core allocation set out in Schedule B. or</p> <p>(ab) at or below minimum flow (unless allowed by Rule 15-5(b))</p> <p>This rule does not include:</p> <p>(a) takes permitted under Rule 15-1</p> <p>(b) takes in circumstances where water is only taken when the river flow is greater than the median flow (these are a discretionary activity under Rule 15-8)</p> <p>(c) lawfully established takes for hydroelectricity generation (these are discretionary activities under Rule 15-8).</p>	<b>Non-complying</b>		

**Schedule B**

Amend the Turitea (Mana\_11b) Sub-zone within Table B1 as follows:

Table B1: Allocation Limits and Minimum Flows by Water Management Sub-zone					
Zone code	Sub-zone	Minimum Flow (m <sup>3</sup> /s)	Flow monitoring site	Flow monitoring site location	Cumulative core allocation limit (m <sup>3</sup> /s)
Lower Manawatu (Mana_11)	Turitea (Mana_11b)	0.050 0.041	Turitea at Ngahere Park	T24:354-852	0.265 0.428

## Schedule D

Make the following changes to the associated Standards (targets) Key within Schedule D:

### Schedule D Standards Targets Key

Water<sup>^</sup> Quality Standards Targets Key: definition of abbreviations and full wording of the standards targets (placement of the numerical values for a specified standard target are indicated by [...]).

Abbreviations used in Tables D:1 to D:4		Full Wording of the Standard-Target
Header	Sub-header	
pH	Range	The pH of the water <sup>^</sup> shall be within the range [...] to [...], unless natural levels are already outside this range.
	Δ	The pH of the water <sup>^</sup> shall not be changed by more than [...].
Temp (°C)	<	The temperature of the water <sup>^</sup> shall not exceed [...] degrees Celsius.
	Δ	The temperature of the water <sup>^</sup> shall not be changed by more than [...]degrees Celsius.
DO (%SAT)	>	The concentration of dissolved oxygen (DO) shall exceed [...] % of saturation.
sCBOD <sub>5</sub> (g/m <sup>3</sup> )	<	The monthly average five-days filtered / soluble carbonaceous biochemical oxygen demand (BOD) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre.
POM (g/m <sup>3</sup> )	<	The average concentration of particulate organic matter when the river <sup>^</sup> flow is at or below 50th percentile of flow shall not exceed [...] grams per cubic metre.
Periphyton (Rivers)	Chl a (mg/m <sup>2</sup> )	The algal biomass on the stream or river <sup>^</sup> bed <sup>^</sup> shall not exceed [...] milligrams of chlorophyll a per square metre.
	% cover	The maximum cover of visible stream or river <sup>^</sup> bed <sup>^</sup> by periphyton as filamentous algae more than 2 centimetres long shall not exceed [...] %. The maximum cover of visible stream or river bed by periphyton as diatoms or cyanobacteria more than 0.3 centimetres thick shall not exceed [...] %.
Algal biomass Chl a (mg/m <sup>3</sup> )	<	The annual average algal biomass shall not exceed [...] milligrams chlorophyll Algal biomass a per cubic metre.
	Maximum	no sample shall exceed [...] milligrams chlorophyll a per cubic metre.
DRP (g/m <sup>3</sup> )	<	The annual average concentration of dissolved reactive phosphorus (DRP) when the river <sup>^</sup> flow is at or below the 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for DRP is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TP (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total phosphorus (TP) shall not exceed [...] grams per cubic metre.
SIN (g/m <sup>3</sup> )	<	The annual average concentration of soluble inorganic nitrogen <sup>11</sup> (SIN) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for SIN is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TN (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total nitrogen shall not exceed [...] grams per cubic metre.
MCI		The Macroinvertebrate Community Index (MCI) shall <b>not be less than 20% below natural reference conditions for the river.</b> <b>If natural reference conditions are not defined then the MCI shall</b> exceed [...]. <b>unless natural physical conditions are beyond the scope of application of the MCI.</b> In cases where the river <sup>^</sup> or stream habitat is suitable for the application of the soft-bottomed variant of the MCI (MCI-sb) the standards shall also apply. <b>This standard will not apply if the natural physical conditions are beyond the scope of application of the MCI or MCI-sb.</b> <b>The MCI standard applies only for State of the Environment monitoring purposes to determine if the aquatic macroinvertebrate communities are adequate to provide for and maintain the values in each WMSZ, the standard is not appropriate for monitoring the effects of activities such as discharges to water.</b>
QMCI	%Δ	<b>Discharges to water to cause N</b> no more than a 20 % reduction in Quantitative Macroinvertebrate Community Index (QMCI) score between <b>appropriately matched habitats</b> upstream and downstream of <b>the discharges to water<sup>^</sup>.</b> <b>Note: Where samples are collected using a hand net this standard shall also apply to the Semi-Quantitative MCI (SQMCI).</b>
Ammoniacal nitrogen (g/m <sup>3</sup> ) (rivers)	<	The average concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre.
Ammoniacal nitrogen (g/m <sup>3</sup> ) (lakes)	<	The concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre when lake <sup>^</sup> pH exceeds 8.5 within the epilimnion (shallow lakes <sup>^</sup> ) or within 2 m of the water <sup>^</sup> surface (deep lakes <sup>^</sup> ).
Toxicants	<%	For toxicants not otherwise defined in these standards, the concentration of toxicants in the water <sup>^</sup> shall not exceed the trigger values defined in the 2000 ANZECC guidelines Table 3.4.1 for the level of protection of [...] % of species. <b>For metals the trigger value shall be adjusted for hardness and apply to the dissolved fraction.</b>
Clarity (m) (rivers)	%Δ	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall equal or exceed [...] m when the river <sup>^</sup> is at or below the 50 <sup>th</sup> percentile of flow.
Clarity (m) (lakes)	%Δ	The clarity of the water <sup>^</sup> measured as Secchj depth (or horizontal sighting range of a 200 mm black disc) shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured Secchi depth (or horizontal sighting range of a 200 mm black disc) shall exceed [...] m.
E.coli/100ml (rivers)	<m	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive) when the river <sup>^</sup> flow is at or below the 50 <sup>th</sup> percentile of flow.
	<20 <sup>th</sup> %ile	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres when the river <sup>^</sup> flow is at or below the 20th percentile of flow year round.
E.coli/100 ml (lakes)	Summer	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive).
	Winter	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 May – 31 October (inclusive).
Euphotic Depth (lakes)	%Δ	Euphotic depth shall not be reduced by more than [...] %.

## **Schedule E**

Make the following amendments to Table E.2(b):

### **Table E.2(b):**

<p>If an area of any habitat type described in Table E.1 meets any of the following criteria it shall not be rare habitat*, threatened habitat* or at-risk habitat* for the purposes of this Plan.</p>
<p><b>Forest*, Treeland*, Scrub*, or Shrubland* Habitat Types Classified as Threatened or At-risk</b></p> <ul style="list-style-type: none"> <li>i. Areas of indigenous* tree* species planted for the purposes of timber harvest. Or</li> <li>ii. Indigenous* vegetation planted for landscaping, horticultural, shelter belts, gardening or amenity purposes. Or</li> <li>iii. Habitat areas 1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul> <p><b>Wetland^ Habitat Types Classified as Rare or Threatened</b></p> <ul style="list-style-type: none"> <li>iv. Damp gully heads, or paddocks subject to regular ponding, dominated* by pasture or exotic species in association* with wetland sedge and rush species. Or</li> <li>v. Ditches or drains supporting raupo, flax or other wetland species (e.g. Carex sp., Isolepis sp.), or populations of these species in drains or slumps associated with road reserves or rail corridors. Or</li> <li>vi. Areas of wetland^ habitat specifically designed, installed and maintained for any of the following purposes: <ul style="list-style-type: none"> <li>a) stock watering (including stock ponds), or</li> <li>b) water storage for the purposes of fire fighting or irrigation (including old gravel pits), or</li> <li>c) treatment of animal effluent (including pond or barrier ditch systems), or</li> <li>d) waste water treatment, or</li> <li>e) sediment control, or</li> <li>f) any hydroelectric power generation scheme. Or</li> <li>g) water storage for the purposes of public water supplies. Or</li> </ul> </li> <li>vii. Areas of wetland habitat maintained in relation to the implementation of any resource consent conditions or agreements relating to the operation of any hydroelectric power scheme currently lawfully established. Or</li> <li>viii. Open water and associated vegetation created for landscaping purposes or amenity values where the planted vegetation is predominately exotic, or includes assemblages of species not naturally found in association* with each other, on the particular landform, or at the geographical location of the created site.</li> <li>ix. Habitat areas 0.1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul>

**BEFORE THE MANAWATU – WANGANUI REGIONAL COUNCIL (HORIZONS  
REGIONAL COUNCIL)**

*In the matter of*      **The Resource Management Act 1991; and**

*In the matter of*      **The Proposed One Plan: Consolidated Regional Policy  
Statement, Regional Plan and Regional Coastal Plan for  
the Manawatu - Wanganui Region**

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**SUPPLEMENTARY EVIDENCE OF ANDREW DAVID BASHFORD  
ON BEHALF OF THE PALMERSTON NORTH CITY COUNCIL**

**CHAPTERS 6, 13, 15 AND 16  
AND SCHEDULES B, C, D AND E OF THE ONE PLAN**

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Dated: 11 February 2010

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## Introduction and Background

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1. I have prepared this report as supplementary evidence to my Statement of Evidence dated 16 October 2009. It has been compiled in response to supplementary evidence produced by Horizons experts and takes into account the outcomes of caucusing and pre-hearing meetings held since the exchange of evidence. It also focuses more specifically on the issues surrounding the water quality standards contained within Schedule D and section 69 of the Resource Management Act 1991.
2. Several meetings involving PNCC experts have been held since the exchange of evidence. Jack McConchie, Jon Roygard and Raelene Hurdell attended a caucusing meeting on 12 November 2009 regarding the minimum flow and core allocation limit in the Turitea subzone. Caucusing was also held between Keith Hamill, Paul Kennedy, Kathryn McArthur, John Quinn, Jon Roygard and Robert Wilcock on 10 November 2009 in relation to the Water Quality Standards contained within Schedule D of the Proposed One Plan. A pre-hearing meeting was held between Clare Barton, Helen Marr, Jon Roygard, Chris Pepper and myself on 14 December 2009 where several issues were discussed including the appropriate location of amendments to Rule 13-27 as suggested in my original evidence.

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## Water Quality

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### Water Quality Standards

3. The evidence and supplementary evidence of Keith Hamill discusses the Water Quality Standards contained within Schedule D in detail. Mr Hamill participated in caucusing with other water quality experts and reached agreement on a number of matters as outlined in the 'Meeting Between Experts' report dated 10 November 2009.
4. As a result of this meeting, and consequent discussions, some amendments have been made to the recommendations as contained in my original evidence statement. In particular these relate to the Standards Key and an updated version is attached in Appendix 1 to this statement.
5. Of particular note are the standards relating to QMCI and Toxicants, where the recommendations made here differ to that made by Horizons experts. The reasons for these differences are discussed in paragraphs 3.3 to 3.9 and 3.12 of Mr. Hamill's supplementary evidence.
6. Agreement was not achieved in relation to the standards relating to DRP or SIN through the caucusing process. The recommendations relating to these standards have not changed from my original evidence.

### Standards or Targets

7. As discussed in paragraphs 64 to 79 of my original evidence it is unclear in what circumstances the Water Quality Standards contained within Schedule Ba and Schedule D of the Proposed One Plan apply, and whether these are standards in terms of section 69 of the Resource Management Act 1991.
8. It appears that the intention is for the Schedule Ba and Schedule D standards to apply as standards in relation to activities that are permitted. In the event that an activity does not meet the standards, the activity would require a resource consent. Some controlled and restricted discretionary rules retain control or discretion that relate to the water quality standards. It is unclear whether discretionary or non-complying activities need to comply with the standards or whether the standards are to be used as targets against which an application is assessed.
9. This matter was discussed in the caucusing meeting in relation to the Water Quality Standards held on 10 December 2009. Agreement was reached between the experts that the use of the term 'standards' is not a good term to use in this context and that clarity is needed. The Horizons experts were also to discuss options with the Horizons planners to clarify *'that standards applied as absolute trigger values for permitted activities will be regarded as targets in other situations'*<sup>1</sup>.
10. This matter has been addressed to a limited extent by the recommended amendments to Policies 6-3 to 6-5 and in particular by the inclusion of the words *'maintains or enhances existing water quality'* to Policy 6-4. However there are still drafting issues with those policies and with Policy 13-6, and it remains unclear whether the 'standards' are intended to apply as standards or as guidelines for resource consent applications and as to whether the so called standards are intended to be standards for the purpose of section 68(7), 69 and section 128(1)(b) of the RMA.
11. The following table outlines the rules that have provisions directly referring to the Schedule Ba and Schedule D Standards:

<b>One Plan Rules in Chapter 13 referring directly to the Water Quality Standards</b>			
<b>Rule</b>	<b>Activity Status</b>	<b>Conditions/Standards/Terms</b>	<b>Control/Discretion</b>
13-9	Permitted	The discharge shall not, after reasonable mixing change the natural temperature of the receiving water by more than the maximum temperature or temperature change specified by the quality standards for the Water Management Sub-zone listed in Schedule Ba.	

<sup>1</sup> See paragraph 9 – Report of a Meeting between Experts: Water Quality Standards, 10 November 2009.

13-17	Restricted Discretionary		Discretion is reserved over:  Measures required to comply with the water quality standards for the relevant Water Management Sub-zone(s).
13-21	Controlled		Control is reserved over:  Measures to manage effects on surface water bodies including maintaining the values and water quality standards set out in Schedule Ba.
13-24	Permitted	The discharges shall not, after reasonable mixing, cause the receiving water body to breach the water quality standards for that water body set out in Schedule D, either from the discharge itself or in combination with any other discharges.	
13-26	Permitted	The discharge shall comply with all of the conditions of Rule 13-24.	

12. The default catch-all discretionary activity rule (Rule 13-27) does not refer to the standards at all and there is no rule which provides that discharges which do not meet the standards become non-complying or prohibited activities.
13. Accordingly in my opinion the intention of the Plan as notified was that these water quality targets would only apply as standards for the purpose set out in the permitted activity rules and would otherwise be guidelines or targets. That is consistent with what was agreed at caucusing.
14. My concern is that what appears to have been the intention has not been made clear in the Plan itself.
15. My second concern is that in the absence of clarity it remains open for future argument that these are standards for the purpose of section 69. That would then allow argument that the rules must require the observance of the standards with no exceptions. That is, it could be argued that the rules must be amended to prohibit discharges which do not meet the standards. That was clearly not what was intended but given the loose wording surrounding the standards that is an argument which others may mount.
16. Accordingly, in my opinion it is more appropriate to have wording which makes it clear that these are not standards for the purposes of section 69 but are targets

which will be considered at the time any applications are considered. It also needs to be made clear that what will be considered is whether the discharge on its own or in conjunction with other discharges will **cause** the targets to be breached. That is consistent with common sense and with the wording of section 107. Mr Hamill discusses this point in relation to QMCI.

17. A summary of proposed wording changes to the One Plan provisions to remedy these issues is suggested in Appendix 1 and has been discussed in Mr Milne's legal submissions. They include:
- Changing references to the Water Quality Standards in the One Plan to *Water Quality Targets*;
  - Ensuring the introductory wording to Schedule Ba and Schedule D label the contents as being targets; and
  - The addition of an advice note to Schedule Ba and Schedule D that makes it clear that the targets are intended to guide the Regional Council when assessing resource consent applications and that where appropriate relevant targets have been incorporated as conditions for permitted activities.
18. It is acknowledged that the suggested wording requires refining and to that extent the Palmerston North City Council is happy to work with Horizons to formulate appropriate provisions and wording to rectify the identified issues.
19. On a related note, there are some fundamental issues with how some of the policies have been drafted, as Mr Milne has discussed in his legal submissions. Policy 13-6 does not make sense as drafted in the pink version, and it is unclear how it is intended to be applied. The pink version text states:

*Policy 13-6: point Source Discharges to Land and Water*

- (a) *When applying for consents and making decisions on consent applications for discharges<sup>^</sup> of contaminants<sup>^</sup> to water<sup>^</sup> or land<sup>^</sup>, alternatives must be considered including alternative treatment and discharge<sup>^</sup> options or a mix of discharge<sup>^</sup> regimes, for the purpose of avoiding or Error! Bookmark not defined. mitigating adverse effects<sup>^</sup> Error! Bookmark not defined.,:*
- (i) *the degree to which the activity will adversely affect the values identified for the relevant Water Management Sub-zone(s)\**
  - (ii) *whether the discharge<sup>^</sup>, in combination with other discharges<sup>^</sup> including non-point source discharges, will cause the water<sup>^</sup> quality standards set in Schedule D to be breached*
  - (iii) *the extent to which the activity is consistent with best management practices*
  - (iv) *the need to allow reasonable time to achieve any required improvements.*

(b) *The Regional Council may make an exception to subsection (a) where:*

- (i) *in the case of discharges<sup>^</sup>, the discharge<sup>^</sup> is of a temporary nature or is associated with necessary maintenance<sup>^</sup> work and the discharge<sup>^</sup> cannot practicably be avoided*
- (ii) *adverse effects<sup>^</sup> can be fully offset by way of a financial contribution in accordance with Chapter 18*
- (iii) *it is appropriate to adopt the best practicable option<sup>^</sup>*
- (iv) *other exceptional circumstances apply*

*and it is consistent with the purpose of the RMA to do so.*

20. In examining this policy it could be taken as two policies rolled into one where the applicant must consider alternatives when applying for consent, and secondly the consent authority must consider the matters described in the list labelled (i) to (iv). Alternatively it could be that both the consent authority and applicant must consider alternatives along with the matters within the list.
21. In addition the first part of clause (a) does not introduce the list in any way and there are a number of bookmarking errors within the policy. In my opinion the policy should be redrafted and proposed wording is contained in Appendix 1.

#### Relationship to section 128(1)(b)

22. I also have concern that if the Water Quality Standards become standards or are interpreted as standards in the context of section 68(7) and 69 of the RMA 1991, then the Palmerston North City Wastewater Treatment Plant (WWTP) may be required to meet the new standards in a review of the existing resource consent under section 128(1)(b). This could take place as soon as the One Plan is made operative and only a few years after a major upgrade to the plant.
23. The current wording of the rules would not allow for a non notified review of current consents because the rules do not signal that, as outlined in section 68(7). However if the wording of the standards and policies is left as is, then it is arguable that a notified review under section 128(1)(b) may be carried out.
24. Upgrading the WWTP to meet the proposed standards would result in substantial capital and operational expense to the Palmerston North community. The water quality of the Manawatu River above the WWTP discharge does not meet a number of the proposed standards. It is my opinion that upgrading the WWTP in the short term would not be an efficient use of funds when superior gains to water quality could be achieved through other means.
25. To address this issue I recommended that a clause be added to Rule 13-27. Discussions on this clause have been undertaken with Horizons Planners (Clare Barton and Helen Marr) with agreement to the concept, however it has been suggested that the clause should be located within the Policies of the One Plan.

26. In discussions with Ms Barton and Ms Marr, it had been agreed that Policy 2-3 (11A-6 in the provisional determination version) is the suitable location for the clause.
27. The wording of the clause has been amended so that it fits the new location more appropriately. The suggested wording is:

*The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only be considered in relation to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.*

28. However I now consider that it would be preferable to fix up the more fundamental issues with how the standards apply (i.e. renaming them as targets and making the policies and rules consistent with that). This is a better solution overall, and it would also avoid the need to specifically exempt the WWTP.

#### Stormwater and Centennial Lagoon

29. In my original evidence statement I raised issues surrounding Centennial Lagoon, stormwater discharges and the Schedule E definitions. In response, Ms Fleur Maseyk prepared a section 42A report pointing out the benefits of including the lagoon within the Schedule E definitions<sup>2</sup> and thereby giving it a Threatened Habitat Status.
30. Given the heavily modified status of Centennial Lagoon this highlights that any natural lake or wetland would be classified as a threatened habitat unless it was specifically exempted by the provisions within Table E.2(b). This in turn causes some confusion as to the rules that apply to discharges to such environments due to the doubling up of provisions that apply to lakes and wetlands.
31. For example, Rule 13-17 provides for discharges of stormwater to surface water as a restricted discretionary activity so long as there is no discharge to any natural lake, rare habitat, threatened habitat, at-risk habitat or Natural State Water Management Sub-zone or Site of Significance - Aquatic.
32. The rule guide relating to the stormwater rules states that discharges in rare habitats, threatened habitats or at-risk habitats are regulated by rules 12-7 and 12-8, making them a Discretionary Activity<sup>3</sup>. The rule guide also states that discharges in Natural State Water Management Sub-zones or Sites of Significance - Aquatic are regulated by Rule 13-23, making them a Non-complying Activity. There is no mention of discharges to natural lakes in the rule guide.

<sup>2</sup> See Paragraphs 21-22 of the s42A report of Ms Fleur Jennifer Foster Maseyk.

<sup>3</sup> Note that these provisions have been changed to Rule 12-6 in the Provisional Determination

33. Rule 13-23 is titled "Discharges of contaminants to Natural State Water Management Sub-zones, Sites of Significance – Aquatic and lakes and wetlands. The activities encompassed by this rule include any direct discharge of contaminants into a natural lake.
  34. The discharges to Centennial Lagoon could be regulated by Rule 12-6 as indicated by the Rule Guide but also by Rule 13-23 given its title and the activities that it includes. This issue was also discussed with Ms Barton and Ms Marr at the meeting held on 14 December 2010 with agreement that the references to lakes and wetlands should be removed from Rule 13-23. For completeness the reference to lakes and wetlands should also be removed from the heading of section 13.8.
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## **Water Quantity**

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### Minimum flow and core allocation values for the Turitea Stream

35. Paragraphs 112 to 116 of my original evidence discuss the minimum flow and core allocation values set for the Turitea Stream. Dr. Jack McConchie has provided technical expert evidence on the Turitea catchment and recommended suitable values for the minimum flow and core allocation. Caucusing was held between Dr. McConchie, Dr Roygard and Ms Hurndell on this matter on 12 November 2009. This resulted in agreement on a number of matters and further evidence being prepared by Dr. McConchie that altered the minimum flow value from the original recommendations. The revised values have been agreed by Horizons experts and I have made the necessary amendments to my recommendations.

### Schedule E

36. It has been identified that as proposed the One Plan has classed the Turitea water supply lakes as threatened habitat. This issue has been raised in my original evidence and Ms Maseyk from Horizons has responded in her section 42A report.
37. Ms Maseyk has stated that the inclusion of the water supply dams within the definitions of Schedule E was an oversight and that it is the intent of the schedule to exclude areas designed, installed and maintained for such purposes. She has made a recommendation that the words 'town water supply' be added to the Table E.2(b).
38. I agree that an exclusion needs to be added to Table E.2(b) but in my opinion the words as recommended in my original evidence are more suitable. They are more specific in that it is water storage for public water supplies that is exempt. Public water supply is defined within the glossary of the One Plan thereby giving certainty to Plan users and applying consistent terminology throughout the Plan.

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**Conclusion**

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39. Taking into account the various meetings and discussions that have taken place and further evidence provided since the exchange of evidence I have made several amendments to the recommendations made in my original evidence statement. A full list of the proposed amendments is attached as Appendix 1.

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Andrew Bashford  
**Planning Officer**  
PALMERSTON NORTH CITY COUNCIL

## **Appendix 1: Recommended Amendments to be made to One Plan**

### **General Amendments**

Note: These proposed changes are general in nature and will require further drafting. They relate to the issues of uncertainty around the Water Quality Standards as proposed in Schedule Ba and Schedule D of the One Plan. It is also noted that there are a number of cross referencing errors between the various versions of the One Plan and although not discussed in the evidence presented the Palmerston North City Council is happy to assist the Horizons Regional Council in correcting these if required.

1. The policies (in particular policies 6-3 to 6-5 and 13-6) should be amended so that each reference to Schedule Ba and Schedule D *standards* refers instead to "*water quality targets*";
2. The introductory wording in Schedule Ba and Schedule D should be amended to clearly label the schedules' contents as being *targets*;
3. An advice note should be added to Schedule Ba and Schedule D stating that the targets are intended to guide the exercise of the consent authority's discretion when considering consent applications, and that where relevant the targets have been incorporated as conditions of permitted activity rules;
4. The permitted activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-9 and 13-24) should be amended to refer to the relevant *targets* in those schedules; and
5. The controlled and restricted discretionary activity rules that refer to Schedule Ba and Schedule D (currently Rules 13-17 and 13-21) should be amended so that control or discretion is reserved over "*measures to assist in maintaining or achieving the targets*" in the relevant schedule.

## **Specific Amendments**

Note: These proposed amendments contain specific wording to various One Plan provisions to address issues raised in evidence presented. All changes are **highlighted** with words recommended to be added shown as underlined, and words that are recommended to be deleted shown in ~~strike through~~.

### **Chapter 11**

Amend Policy 11-A-6 as follows:

#### **Policy 11A-6: Consent Review**

In addition to the reasons specified in s128(1)(a)(i) and (ii) RMA, the Regional Council will, under s128(1)(a)(iii) RMA, generally impose consent conditions that specify a review of consent conditions during the term of the consent for:

- (a) reviewing the appropriateness of any condition requiring the consent holder to supply the consent authority with information relating to the exercise of the resource consent
- (b) reviewing any unknown or uncertain adverse effects caused as a result of planned or required changes or upgrades to the activity
- (c) reviewing the conditions of a consent at the same time as review of other consents within the same Water Management Zone – for example, at a common catchment expiry or review date.
- (d) reviewing the effectiveness of consent conditions to avoid, remedy or mitigate any adverse effects of the activity on the environment.

The Regional Council will generally initiate reviews of conditions when monitoring results or other evidence demonstrates a review is required. For the purpose of section 128(1)(b) of the Resource Management Act 1991 in relation to discharges of contaminants to water from territorial authority wastewater treatment plants which are the subject of consents in force at 3 May 2007, the standards in Schedule D shall only apply to those discharges upon the expiry of the consents or from 2030, whichever occurs earliest.

This policy relates to Objective 11A-2.

## Chapter 13

Amend Policy 13-6 (Pink Version) as follows:

### **Policy 13-6: ~~p~~Point Source Discharges to Land and Water**

~~(a) When applying for consents and making decisions on consent applications for discharges of contaminants to water or land, the opportunity to utilise alternatives must be considered including alternative treatment and discharge options or a mix of discharge regimes, for the purpose of avoiding or **Error! Bookmark not defined.** mitigating adverse effects where practicable **Error! Bookmark not defined.**, shall be considered, including but not limited to:~~

(a) When applying for consents and making decisions on consent applications for discharges of contaminants to water or land the following shall be considered for the purpose of avoiding or mitigating effects:

- (i) the degree to which the activity will adversely affect the values identified for the relevant *Water Management Sub-zone(s)*\*
- (ii) whether the discharge, in combination with other discharges including non-point source discharges, will cause the water quality standards targets set in Schedule D to be breached
- (iii) the extent to which the activity is consistent with best management practices
- (iv) the need to allow reasonable time to achieve any required improvements.
- (v) alternative treatment and discharge options or mix of discharge regimes.

(b) The Regional Council may make an exception to (a) where:

- (i) in the case of discharges, the discharge is of a temporary nature or is associated with necessary maintenance work and the discharge cannot practicably be avoided
- (ii) adverse effects can be fully offset by way of a financial contribution in accordance with Chapter 18
- (iii) it is appropriate to adopt the *best practicable option*
- (iv) other exceptional circumstances apply

and it is consistent with the purpose of the RMA to do so.

This policy implements Objective 13-1

Amend Rules 13-17, and 13-23 as follows:

### 13.5 Rules - Stormwater

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>13-17</b> <b>Discharges of stormwater to surface water not complying with Rule 13-15</b>	The <i>discharges</i> of <i>stormwater</i> into <i>surface water</i> which do not comply with Rule 13-15, and any associated takes or diversions of stormwater forming part of the stormwater system.	<b>Restricted Discretionary</b>	(a) There shall be no <i>discharge</i> to any <b>natural lake</b> , <i>rare habitat</i> , <i>threatened habitat</i> , <i>at-risk habitat</i> , or Natural State Water Management Sub-zone or Site of Significance - Aquatic.	Discretion is reserved over: (a) measures to control flooding and erosion (b) contaminant concentrations and loading rates (c) measures required to comply with s107(1) RMA (d) measures required to comply with the water quality <b>standards targets</b> for the relevant Water Management Sub-zone(s) (e) odour management (f) stormwater system maintenance requirements (g) contingency requirements (h) monitoring and information requirements (i) duration of consent (j) review of consent conditions.

**13.8 Rules – Discharges of contaminants to Natural State Water Management Sub-zones, Lakes and Wetlands**

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<p><b>13-23 Discharges of contaminants to Natural State Water Management Sub-zones, and Sites of Significance – Aquatic and lakes and wetlands</b></p>	<p>Any direct <i>discharge</i> of <i>contaminants</i> into:</p> <ul style="list-style-type: none"> <li>(a) a Natural State Water Management Sub-zone</li> <li>(b) a water body identified as a Site of Significance – Aquatic in Schedule DBa</li> <li>(c) a natural lake, except Lake Otamangakau, Lake Te Whaiau and Lake Moawhanga</li> <li>(d) a wetland classified as a rare habitat, or threatened habitat</li> </ul> <p>except the discharge of agrichemicals for the purpose of controlling pests control as defined in a regional pest management strategy prepared under the Biosecurity Act 1993 (this activity is regulated by Rule 14-2).</p>	<p><b>Non-complying</b></p>		

## Chapter 15

Amend Rules 15-5 and 15-6 as follows:

### 15.2 Rules – Takes and Uses of Water

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-5 Takes and uses of surface water complying with core allocations</b>	The taking and use of surface water from a river, <b>or water storage lake on a river</b> , pursuant to s14(1) RMA, except where the water take is controlled under Rule 13-1.	<b>Controlled</b>	<p>(b) Water shall only be taken when the river is above its minimum flow, as assessed in accordance with Schedule B except as provided for by:</p> <p>(ba) takes or portions of takes which are for the purposes of stock drinking water and domestic needs, or public water supplies predominantly for domestic use may continue below minimum flow provided the rates and volumes of takes do not exceed the maximum takes of low flow set out in Policy 6-19.</p> <p>(c) The amount of water taken, when assessed in combination with all other water takes within the same Water Management Sub-zone shall not exceed the relevant core allocation set out for Water Management Subzones in Schedule B.</p> <p>(d) The amount of water taken, when assessed in combination with all other water takes within the same catchment, shall not exceed the cumulative allocation for each Water Management Sub-zone in the same catchment.</p> <p>(e) The take shall not lower the water level in any wetland that is a rare habitat or threatened habitat.</p>	<p>Control is reserved over:</p> <p>(a) the volume and rate of water taken, and the timing of the take</p> <p>(b) the location of take</p> <p>(c) intake velocity and screening requirements</p> <p>(d) measures to avoid, remedy or mitigate any adverse effects on the values of the water body at the point of abstraction, including restrictions on the volume and rate of abstraction</p> <p>(e) the efficiency of water use</p> <p>(f) effects on other water takes</p> <p>(g) effects on rare habitats, and threatened habitats and at-risk habitats and Sites of Significance – Aquatic.</p> <p>(h) compliance with minimum flow requirements</p> <p>(i) duration of consent</p> <p>(j) review of consent conditions</p> <p>(k) compliance monitoring.</p> <p>Resource consent applications under this rule will not be notified and written approval of affected persons will not be required (notice of applications need not be served on affected persons).</p>

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
<b>15-6 Takes of surface water not complying with core allocations</b>	<p>The taking of surface water from a river <b>or water storage lake on a river:</b></p> <p>(aa) which, when assessed in combination with all other water takes, exceeds the relevant core allocation set out in Schedule B. or</p> <p>(ab) at or below minimum flow (unless allowed by Rule 15-5(b))</p> <p>This rule does not include:</p> <p>(a) takes permitted under Rule 15-1</p> <p>(b) takes in circumstances where water is only taken when the river flow is greater than the median flow (these are a discretionary activity under Rule 15-8)</p> <p>(c) lawfully established takes for hydroelectricity generation (these are discretionary activities under Rule 15-8).</p>	<b>Non-complying</b>		

**Schedule B**

Amend the Turitea (Mana\_11b) Sub-zone within Table B1 as follows:

Table B1: Allocation Limits and Minimum Flows by Water Management Sub-zone					
Zone code	Sub-zone	Minimum Flow (m <sup>3</sup> /s)	Flow monitoring site	Flow monitoring site location	Cumulative core allocation limit (m <sup>3</sup> /s)
Lower Manawatu (Mana_11)	Turitea (Mana_11b)	0.050 0.041	Turitea at Ngahere Park	T24:354-852	0.265 0.428

## Schedule D

Make the following changes to the associated Standards (targets) Key within Schedule D:

### Schedule D Standards Targets Key

Water<sup>^</sup> Quality Standards Targets Key: definition of abbreviations and full wording of the standards targets (placement of the numerical values for a specified standard target are indicated by [...]).

Abbreviations used in Tables D:1 to D:4		Full Wording of the Standard-Target
Header	Sub-header	
pH	Range	The pH of the water <sup>^</sup> shall be within the range [...] to [...], unless natural levels are already outside this range.
	Δ	The pH of the water <sup>^</sup> shall not be changed by more than [...].
Temp (°C)	<	The temperature of the water <sup>^</sup> shall not exceed [...] degrees Celsius.
	Δ	The temperature of the water <sup>^</sup> shall not be changed by more than [...]degrees Celsius.
DO (%SAT)	>	The concentration of dissolved oxygen (DO) shall exceed [...] % of saturation.
sCBOD <sub>5</sub> (g/m <sup>3</sup> )	<	The monthly average five-days filtered / soluble carbonaceous biochemical oxygen demand (BOD) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre.
POM (g/m <sup>3</sup> )	<	The average concentration of particulate organic matter when the river <sup>^</sup> flow is at or below 50th percentile of flow shall not exceed [...] grams per cubic metre.
Periphyton (Rivers)	Chl a (mg/m <sup>2</sup> )	The algal biomass on the stream or river <sup>^</sup> bed <sup>^</sup> shall not exceed [...] milligrams of chlorophyll a per square metre.
	% cover	The maximum cover of visible stream or river <sup>^</sup> bed <sup>^</sup> by periphyton as filamentous algae more than 2 centimetres long shall not exceed [...] %. The maximum cover of visible stream or river bed by periphyton as diatoms or cyanobacteria more than 0.3 centimetres thick shall not exceed [...] %.
Algal biomass Chl a (mg/m <sup>3</sup> )	<	The annual average algal biomass shall not exceed [...] milligrams chlorophyll Algal biomass a per cubic metre.
	Maximum	no sample shall exceed [...] milligrams chlorophyll a per cubic metre.
DRP (g/m <sup>3</sup> )	<	The annual average concentration of dissolved reactive phosphorus (DRP) when the river <sup>^</sup> flow is at or below the 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for DRP is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TP (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total phosphorus (TP) shall not exceed [...] grams per cubic metre.
SIN (g/m <sup>3</sup> )	<	The annual average concentration of soluble inorganic nitrogen <sup>11</sup> (SIN) when the river <sup>^</sup> flow is at or below 20th percentile of flow shall not exceed [...] grams per cubic metre, unless natural levels already exceed this standard. <b>Note that standard for SIN is set to support standards for periphyton cover and algae biomass. There may be specific situations and seasons when the nutrient standards are not necessary to achieve the standards for periphyton cover and algae biomass and discretion should be exercised during consent decision making processes.</b>
TN (g/m <sup>3</sup> ) (lakes)	<	The annual average concentration of total nitrogen shall not exceed [...] grams per cubic metre.
MCI		The Macroinvertebrate Community Index (MCI) shall <b>not be less than 20% below natural reference conditions for the river.</b> <b>If natural reference conditions are not defined then the MCI shall</b> exceed [...]. <b>unless natural physical conditions are beyond the scope of application of the MCI.</b> In cases where the river <sup>^</sup> or stream habitat is suitable for the application of the soft-bottomed variant of the MCI (MCI-sb) the standards shall also apply. <b>This standard will not apply if the natural physical conditions are beyond the scope of application of the MCI or MCI-sb.</b> <b>The MCI standard applies only for State of the Environment monitoring purposes to determine if the aquatic macroinvertebrate communities are adequate to provide for and maintain the values in each WMSZ, the standard is not appropriate for monitoring the effects of activities such as discharges to water.</b>
QMCI	%Δ	<b>Discharges to water to cause N</b> no more than a 20 % reduction in Quantitative Macroinvertebrate Community Index (QMCI) score between <b>appropriately matched habitats</b> upstream and downstream of <b>the discharges to water<sup>^</sup>.</b> <b>Note: Where samples are collected using a hand net this standard shall also apply to the Semi-Quantitative MCI (SQMCI).</b>
Ammoniacal nitrogen (g/m <sup>3</sup> ) (rivers)	<	The average concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre.
Ammoniacal nitrogen (g/m <sup>3</sup> ) (lakes)	<	The concentration of ammoniacal nitrogen shall not exceed [...] grams per cubic metre when lake <sup>^</sup> pH exceeds 8.5 within the epilimnion (shallow lakes <sup>^</sup> ) or within 2 m of the water <sup>^</sup> surface (deep lakes <sup>^</sup> ).
Toxicants	<%	For toxicants not otherwise defined in these standards, the concentration of toxicants in the water <sup>^</sup> shall not exceed the trigger values defined in the 2000 ANZECC guidelines Table 3.4.1 for the level of protection of [...] % of species. <b>For metals the trigger value shall be adjusted for hardness and apply to the dissolved fraction.</b>
Clarity (m) (rivers)	%Δ	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured as being the horizontal sighting range of a <b>200-mm</b> black disc shall equal or exceed [...] m when the river <sup>^</sup> is at or below the 50 <sup>th</sup> percentile of flow.
Clarity (m) (lakes)	%Δ	The clarity of the water <sup>^</sup> measured as Secchj depth (or horizontal sighting range of a 200 mm black disc) shall not be reduced by more than [...] %.
	>	The clarity of the water <sup>^</sup> measured Secchi depth (or horizontal sighting range of a 200 mm black disc) shall exceed [...] m.
E.coli/100ml (rivers)	<m	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive) when the river <sup>^</sup> flow is at or below the 50 <sup>th</sup> percentile of flow.
	<20 <sup>th</sup> %ile	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres when the river <sup>^</sup> flow is at or below the 20th percentile of flow year round.
E.coli/100 ml (lakes)	Summer	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 November – 30 April (inclusive).
	Winter	The concentration of Escherichia coli shall not exceed [...] per 100 millilitres from 1 May – 31 October (inclusive).
Euphotic Depth (lakes)	%Δ	Euphotic depth shall not be reduced by more than [...] %.

## **Schedule E**

Make the following amendments to Table E.2(b):

### **Table E.2(b):**

<p>If an area of any habitat type described in Table E.1 meets any of the following criteria it shall not be rare habitat*, threatened habitat* or at-risk habitat* for the purposes of this Plan.</p>
<p><b>Forest*, Treeland*, Scrub*, or Shrubland* Habitat Types Classified as Threatened or At-risk</b></p> <ul style="list-style-type: none"> <li>i. Areas of indigenous* tree* species planted for the purposes of timber harvest. Or</li> <li>ii. Indigenous* vegetation planted for landscaping, horticultural, shelter belts, gardening or amenity purposes. Or</li> <li>iii. Habitat areas 1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul> <p><b>Wetland^ Habitat Types Classified as Rare or Threatened</b></p> <ul style="list-style-type: none"> <li>iv. Damp gully heads, or paddocks subject to regular ponding, dominated* by pasture or exotic species in association* with wetland sedge and rush species. Or</li> <li>v. Ditches or drains supporting raupo, flax or other wetland species (e.g. Carex sp., Isolepis sp.), or populations of these species in drains or slumps associated with road reserves or rail corridors. Or</li> <li>vi. Areas of wetland^ habitat specifically designed, installed and maintained for any of the following purposes: <ul style="list-style-type: none"> <li>a) stock watering (including stock ponds), or</li> <li>b) water storage for the purposes of fire fighting or irrigation (including old gravel pits), or</li> <li>c) treatment of animal effluent (including pond or barrier ditch systems), or</li> <li>d) waste water treatment, or</li> <li>e) sediment control, or</li> <li>f) any hydroelectric power generation scheme. Or</li> <li>g) water storage for the purposes of public water supplies. Or</li> </ul> </li> <li>vii. Areas of wetland habitat maintained in relation to the implementation of any resource consent conditions or agreements relating to the operation of any hydroelectric power scheme currently lawfully established. Or</li> <li>viii. Open water and associated vegetation created for landscaping purposes or amenity values where the planted vegetation is predominately exotic, or includes assemblages of species not naturally found in association* with each other, on the particular landform, or at the geographical location of the created site.</li> <li>ix. Habitat areas 0.1 ha or less located within areas of existing forestry* provided that there is compliance with an operational plan* prepared for the habitat area and that such plan is submitted to the Regional Council upon request.</li> </ul>