

**PROPOSED LAND AND WATER REGIONAL PLAN
EVIDENCE OF JEANINE KELLER FOR THE CHRISTCHURCH CITY COUNCIL**

**HEARING GROUP 1:
SECTION OF THE PLAN:
Sections 1, 2, 3, 4, and 5**

1.0 INTRODUCTION

- 1.1 My name is Jeanine Gesine Keller. I have over 18 years experience in Resource Management. I am a self-employed Environmental Planner. I hold an Honours Degree in Animal and Plant Ecology from Victoria University and a Master Degree in Resource Management from Canterbury University.
- 1.2 I worked for the Christchurch City Council (CCC) as a planner for three years before working as a Policy Analyst for the Norwegian Ministry for the Environment and the World Wildlife Fund (Arctic Programme). I worked for seven years as senior planner for the Christchurch Office of URS New Zealand Limited, before starting my own planning business six years ago.
- 1.3 I am here giving planning evidence on the submissions by the CCC on the proposed Land and Water Regional Plan (LWRP). I confirm that I have read and agreed to comply with the Code of Conduct for expert witnesses. This evidence is within my area of expertise, except where I state that I am relying on facts or information provided by another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.
- 1.4 My planning evidence relies in many cases on the specialist evidence of other experts for the CCC. I refer to those briefs of evidence where I am relying on their evidence.

The following table summarises the submissions which will be covered in this evidence.

Paragraph number in this evidence	Submission Number and section of plan	Page(s) in s. 42A report	s. 42A report recommendation (accept/reject)	Council position on s. 42A report recommendation (support/oppose)
3.2, 3.3, 3.4	0106.22 3-9-0 1	83	reject	support
3.5	0106.23 3-11-0 1	84	reject	support
3.6	0106.24 3-13-0 1	86	reject	oppose
3.7	0106.25 3-14-0 1	86	reject	oppose
3.8	0106.26 3-23-0 2	91	reject	oppose
4	0106.28 4-2-0 1		accept	support
5	0106.29 4-1-0		reject	oppose
5	0106.30 4-1-0		reject	oppose
5	0106.31 4-1-0		reject	oppose
6	0106.32 4-9-0 5	141, 142	reject	oppose
6	0106.33 4-9-0 5	141,142	reject	oppose
6	0106.39 4-12-0 5	146, 147	reject	oppose
7	0106.40 4-13-0 5	147, 148	reject	oppose
7	0106.41 4-13-0 5	147, 148	reject	support
7	0106.42 4-13-0 5	148, 149	accept	support
8	0106.43 4-18-0 6	390, 408	reject	oppose
9	0106.49 4-46-0 10	224	accept	support
10	0106.53 4-92-0 15	450	Accept	support
10	0106.54 4-93-0 15	450,451	Accept	support
10	0106.55 4-94-0 15	451	accept	support
10	0106.56 5-5-0 2	452	reject	support
11	0106.57 5-13-0 5	164	reject	Support
11	0106.58 5-13-0 5	164	reject	support
6	0106.34 5-62-0 15		reject	oppose
6	0106.35 5 -63-0 15		reject	oppose
6	0106.36 5-64-0 15		Reject	Oppose
6	0106.37 5-65-0 15		Reject	Oppose
6	0106.38 5-66-0 15		reject	oppose
7	0106.68 5-71-0 16	189	accept	support
7	0106.69 5-72-0 17	190-193	reject	oppose
7	0106.70 5-72-0 17	190-193	accept	support
12	0106.71 5-78-0 19	256- 258	reject	support
13	0106.74 5-113-0 26	337 -338	accept	support
14	0106.75 5-115-0 27	340 -345	reject	oppose

Paragraph number in this evidence	Submission Number and section of plan	Page(s) in s. 42A report	s. 42A report recommendation (accept/reject)	Council position on s. 42A report recommendation (support/oppose)
16	0106.78 5-148-0 33	403 -407	accept	support

2.0 KEY ISSUES ADDRESSED IN THIS EVIDENCE

2.1 This evidence covers a number of issues identified in the Christchurch City Council (CCC) submission, which are part of the Hearing Group 1. The previous table contains all the CCC submissions for this Hearing Group, and the further discussion points below cover the more significant submissions, including those discussed in other CCC expert evidence.

3.0 OBJECTIVES 3.9, 3.11, 3.13, 3.14, 3.23

3.1 Submissions nos. 0.106.22, 0.106.23, 0.106.24, 0.106.24, 0.106.25, 0.106.26.

3.2 Submission no. 0.106.22 sought amendment to **Objective 3.9**.

3.9 *The existing natural character values of alpine rivers are protected*

It was unclear why the protection of natural character was limited to alpine rivers. Alpine rivers may provide significant examples of existing natural character within the region, but these freshwater systems are not the only systems with important natural character.

3.3 The Regional Policy Statement (RPS) recognises natural character values and landscapes with specific objectives and policies; however, there is no reflection of these in the objectives within the proposed LWRP. In the RPS the following objectives and policies specifically highlight the importance of natural character within the region:

- Chapter 7. Freshwater. Objective 7.2.1 Sustainable management of freshwater, Policy 7.3.1 Adverse effects of activities on the natural character of freshwater, Policy 7.3.2 Natural character of braided rivers and lakes, Policy 7.3.4 Water quantity (1)(c), and Policy 7.3.6 Freshwater quality (1)(a).
- Chapter 10 Beds of Lakes and Rivers and their riparian zones. Policy 10.3.2 Protection and enhancement of areas of river and lake beds and their natural character.

3.4 I consider that the PLWRP is failing to give effect to the RPS as required by s67(3) of the Resource Management Act 1991 (RMA) unless protection of natural character values in the LWRP goes wider than just alpine rivers.

3.5 Section 6(a) of the RMA also requires that the natural character of wetlands, lakes, rivers and their margins are recognised and provided for as matters of national importance. The recognition and the provision for this matter of national importance is absent in the LWRP.

3.6 CCC in its submission sought to have the objective amended to the following or similar:

*“ 3.9 The existing natural character values of **non-urban surface waterbodies are protected, in particular alpine rivers are protected**”*

3.7 The S42 Report recommends significant changes to all the LWRP's objectives including to Objective 3.9 which is now re-numbered as Objective 3.14.

“Objective 3.14. Natural character values of freshwater bodies, including braided rivers and their margins, wetlands, hapua and coastal lagoons are protected.”

I consider that this change is appropriate and addresses the concern raised in the CCC's submission. The “new” objective recognises the S.6(a) requirement of the RMA. The recommended objective also more closely reflects and gives effect to the RPS provisions. The Objective does also not exclude the protection of other freshwater body's natural character as the previously proposed Objective 3.9.

3.8 I support the S42 Report recommended amendment of Objective 3.9 in the terms contained in Objective 3.14.

- 3.9 **Submission no. 0.106.23** sought amendment to **Objective 3.11**. This objective recognises water availability for sustainable abstraction or use.

3.11 Water is available for sustainable abstraction or use to support a variety of economic and social activities and maximum social and economic benefits are obtained from the efficient storage, distribution and use of the water which is available for abstraction.

- 3.10 The CCC submission stated that the objective should also recognise the need for surface water flows to provide for ecosystem health, in a similar manner as Objective 3.12 does with regard to groundwater. I consider that this objective would better meet the purpose of the RMA and sections 6(c), s.7(d), (f) and (h) of the RMA if the objective is amended as the CCC submission suggested. The term “sustainable” as written, can be interpreted as sustainable out-of-stream use, but does not cover ecosystem sustainability adequately. Whereas, I consider that “sustainable use” is an important concern this should be considered in conjunction with maintaining ecological sustainability in order to achieve the sustainable management of resources.

- 3.11 The amendment sought in the CCC submission is to include “while providing for ecosystem health” or similar to the end of the objective.

- 3.12 The S42 Report recommends significant amendments to the objectives. In the officers' recommended new objectives, the closest objectives to proposed objective 3.11 are objectives 3.4, and 3.10. Objective 3.4 focuses on social and economic sustainable and water extraction within allocation limits and management regimes. I consider that ecological sustainability should be considered in the process of setting allocation levels and management regimes. When read together with objective 3.10, which seeks to have the quality and quantity of water in freshwater bodies managed to safeguard the life-supporting capacity of ecosystems and ecosystem processes, I consider that the CCC's concerns in relation to objective 3.11 are addressed. Therefore I support the recommended changes in the wording of the objectives, by the deletion of the proposed objective 3.11 and the inclusion of objectives 3.4 and 3.10 as proposed in the S42 Report.

- 3.13 **Submission no. 0106.24** sought amendment to **Objective 3.13**.

3.13 Those parts of lakes and rivers that are valued by the community for recreation are suitable for contact recreation

Expert evidence provided by Dr Zoe Dewson (section 3.0) has explained in depth the CCC concerns with regard to this objective in the context of both the technical terms used in the objective and the City's waterways .

- 3.14 As explained in that evidence, it is not feasible to achieve contact recreation standards in the City's waterways, even though the community may value the areas for contact recreation. I consider that it is not appropriate for the LWRP to state unobtainable objectives.
- 3.15 In addition, this objective is inconsistent with other parts of the proposed LWRP. Table 1a Outcomes for Canterbury Rivers (referred to in Strategic Policy 4.1) contains a column which sets the outcomes for Canterbury Rivers in terms of microbiological indicators (suitability for contact recreation). Hill-fed lower urban, Banks Peninsula, Spring-fed and Spring-fed urban all specifically state (No value set). That seems to me to indicate that at a policy level, there is no intention for the water quality standards to apply to Christchurch urban waterways. The only rivers which indicate "Good" or "Good to Fair" as an outcome to be achieved are: Alpine-upland Hill-fed upland, Lake-fed, and Spring-fed upland for "Good" and Alpine-lower and Hill-fed lower. Given the evidence of Dr Dewson that making the urban waterways suitable for contact recreation cannot reasonably be achieved, I consider that it is wholly appropriate that the policy not set a contact recreation outcome for those rivers. The objective cannot be achieved and there is not policy in the LWRP to achieve it. I also note that the S42 Report does not recommend any changes to Table 1.
- 3.15 The S42 Report has recommended rejection of the CCC's submission. I disagree with the S42 Report's recommendation. The objective, rather than being an "aspirational" one which is unobtainable, ought to acknowledge that urban rivers cannot meet that standard, as seems to be acknowledged in Table 1a. Policy 4.1.
- 3.17 **Submission no. 0106.25** sought amendment of **Objective 3.14**. The CCC's submission sought have the term "*freshwater*" replaced by "surface and ***groundwater***". The S42 Report (page 97) recommends deletion of the entire objective. I disagree with that recommendation as deletion of this objective will result in the absence of an objective relating specifically to drinking water and the protection of Community Drinking Water Supply. The S42 Report acknowledges the CCC submission, as well as a number of other submissions relating to this objective.
- 3.18 Elsewhere in the LWRP there is significant recognition of the importance of providing for and protecting drinking water supplies.

- 3.19 Strategic Policy 4.4 identifies the provision of community and stock drinking water supplies together with maintaining the life supporting capacity of ecosystems and the support of customary uses, as a first priority for managing water. In the S42 Report recommended amendments to the objectives there are included objectives relating to the two other first priorities: maintaining life-supporting capacity of water (S42 Report p.98 Objective 3.10); and customary uses (S42 Report p.98 Objective 3.17). There is however no mention of managing or protecting community and stock water drinking supplies.
- 3.20 The Activity and Resources Policy Section 4 of the LWRP also contains two policies related to this topic: 4.20 Protect Sources of Human Drinking Water (p4-6), and Policy 4.46 Abstraction of Water (p4-10). The S42 Report recommends retaining of these two policies with only minor amendments.
- 3.21 In conclusion I opposes the S42 Report's recommendation to delete Objective 3.14 and seek to have it reinstated as recommended in the CCC submission. I consider that not including Objective 3.14 diminishes the protection of community drinking water supply zones within the Plan; and it makes the Plan inconsistent with Objective 7.2.1 – Sustainable management of freshwater (c) and Policy 7.3.4 - Water quality of the RPS. In addition, I consider that not having an objective related to this matter, reduces the ability to meet the requirement of s.5 of the RMA, with regard to enabling people and communities to provide for their social and economic wellbeing.
- 3.22 **Submission no. 0106.26** sought an amendment to **Objective 3.23**.

3.23 All activities operate at "good practice" or better to protect the region's freshwater resources from quality and quantity degradation.

This is an objective which relates to the levels of service activities should operate at. The CCC submission has two concerns with this objective: the definition of "good practice", and the feasibility of all activities being able to be operated at this level.

- 3.23 I am generally supportive of this objective and consider it is appropriate for new activities; however, it may not be possible for existing activities where, for example, there may be insufficient area or resources available for these activities to be retro-fitted or otherwise improved to meet "good practice" standards

- 3.24 The CCC's submission sought an amendment to the objective to read:
- "All **new** activities operate at "good practice" or better, **and existing activities where this is practical** to protect the region's freshwater resources from quality and quantity degradation."*

The S42 Report page 97 has recommended that the objective be amended to the following:

" 3.16 All activities operate at good environmental practice or better to optimise efficient resource use and protect the region's freshwater resources from quality and quantity degradation."

- 3.25 The S42 Report provides no analysis as to why the CCC's amendment, or any other, was not considered. I agree with the concerns expressed in the CCC's submission. Those concerns have not been addressed by the change proposed in the officers' report. There is no definition provided for the recommended term "good environmental practice" and is no explanation as to why that term is recommended rather than the term "good practice" in Objective 3.23. Without a definition it is difficult to determine what standard is to be met and whether anyone can in fact meet it. In addition, as noted in the CCC original submission, the objective seeks that "all" activities will meet this standard, and although the CCC could potentially aim for such a standard, if it knew what it comprised, it will potentially not be possible for all "existing" activities to meet this standard.
- 3.26 The CCC submission is also supported by SCIRT (F502.37), who have a significant role in the rebuild of Christchurch and therefore understand the concerns related to the practicality of meeting this objective.
- 3.27 I therefore disagree with the merits of the S42 Report's recommendation with regard to the amendment of this Objective, and consider that whatever level of practice the objective suggest must be defined in the document before the City can determine whether it can support the Objective .

4.0 STRATEGIC POLICY 4.2
Submission no. 0106.28

- 4.1 The CCC supported retaining Strategic Policy 4.2. I consider that the recognition of the cumulative effects aligns well with the integrated approach that the LWRP proposes for the management of land and water. The S42 Report recommends that Policy 4.2 is retained without amendment. I agree with this recommendation.

5.0 STRATEGIC POLICY 4.1 TABLE 1

Submission nos. 106.29, 0106.30 0106.31

- 5.1 CCC made three submissions focusing on Table 1a which is referenced to in Strategic Policy 4.1. Ms. Zoe Dewson in her expert evidence (section 4) discusses: the scientific basis to the amendments sought by CCC; the likelihood of compliance with the Table in the Christchurch context; and the review by Environment Canterbury's Dr Adrian Meredith and how it has been interpreted within the S42 Report.

- 5.2 The S42 Report recommended no changes to Table 1a, b or c. Based on the evidence provided by Ms Zoe Dewson, I consider that the officers' recommendation has simply failed to understand the issues raised in the CCC submission. The changes proposed in the CCC submission with fix errors in the Table, improve the workability of the LWRP, and are in part supported by Dr Meredith's analysis in Appendix 1 to the s42A Report.

6.0 CONSISTENCY BETWEEN POLICIES AND RULES RELATING THE WASTEWATER MANAGEMENT AND DISCHARGES

Submission nos. 106.32, 33, 34, 35, 36, 37, 38 AND 39

- 6.1 The submission points relate to maintaining consistency between the policies and rules and ensuring they are effective and efficient.
- 6.2 Mr. Mike Bourke has prepared technical evidence with regard to the CCC submission. His evidence discusses the intent of the submission in the context of the City's wastewater system, both pre earthquake and post earthquake events. The evidence discusses the system and what is required to ensure the system can functions in the most effective and efficient manner and is based on the current situation post earthquake. The evidence also discusses the economics of repairing the waterwater system .

- 6.3 Submission no. 106.32 sought an amendment to Policy 4.9. which relates to direct discharges to surface waterbodies or groundwater of: “(a) *untreated sewage, wastewater or biosolids*”.
- 6.4 The rules in this Plan are inconsistent with this Policy. The rules relate to the discharge of untreated sewage effluent onto or into land in circumstances where a contaminant may enter water or into surface water, wetland or groundwater, as a result of a spill, overflow, or equipment failure. (Rule 5.65, 5-15). The CCC submission supports the rule treating such a discharge as a non-complying activity, however the policies do not consistently reflect the factual reality that there will be these discharges.
- 6.5 The CCC submission sought an amendment to Policy 4.9, to recognise the types of situations where some overflows can be expected which are beyond the emergency provisions of s.330 of the RMA.
- 6.6 The CCC can predict the types of events which will cause an overflow and the system must be designed and managed to provide for it.

7.0 STORMWATER POLICIES AND RULES

Submissions nos.106.40, 41, 42, 68, 69, 70, AND F517.12

- 7.1 Mr Roy Eastman has discussed the technical and practical concerns with regard to the Stormwater policies and rules.

His key points are:

- Lack of a suitable timeframe for the development of SMPs and Area Wide Consents.
- The feasibility of having all stormwater treated before discharging
- The importance of written approval before discharging into a network system, and
- The importance of maintain the “non-complying” activity status of discharges not included in the community network system.

- 7.2 Objective 3.2 of the Plan recognises that water and land should be managed as an integrated resource. The Strategic policies 4.1 and 4.2 show the intent of this integrated philosophy in terms of managing all aspects of the water resource. The use of SMPs as a_

tool to promote “good” sustainable management, is a positive inclusion in the planning of our environment. I therefore consider it important that there are strong, but fair incentives for councils to use this tool and for developers and other individuals or groups discharging stormwater to be encouraged to “join into” the SMP and Area Wide Consent process.

- 7.3 The City’s submission with regard to Policy 4.13 (submission numbers 0106.40 and 0106.42), relates to timeframes provided for the consenting of existing discharges and the adding to the Policy of Schedule 5. The S42 report recommends acceptance of the latter submission (0106.4) and has recommended a timeframe be included in Rule 5.71. I support the timeframe recommended but I consider it insufficient in terms of the time required to produce and have granted Area Wide Consents. I recommend that the timeframe be increased to 5 years beginning once the Plan is made operative.
- 7.4 **Rule 5.71 submission no. 0196.68** (discharge from community stormwater systems). I support the rule which allows for discharges as a restricted discretionary activity. I consider that this will provide the level of protection to ensure the community systems manage individual discharges without being too onerous. The S42 Report recommends the inclusion of a timeframe within this rule, and although I consider it appropriate for the timeframe to be included in this Rule I have concerns about the length of the timeframe (see paragraph 7.2 above).
- 7.4 **Rule 5.72 submission no. 0106.69** (permitted stormwater discharges). I am generally supportive of this policy. I do however consider that the City’s submission with regard to amending the Rule to include the requirement for any dischargers using the network stormwater system to obtain written approval from the network utility operator, to be an important issue. The SMP are a tool to help both the Regional and District Councils to manage discharges in an integrated manner and as such it is important that authorities work together to ensure that the mechanisms used run efficiently and effectively. I consider that notifying dischargers of their responsibility to inform the District Council, of their intention to discharge stormwater is an aid to efficient planning and management of the water resource. I therefore oppose the S42 Report recommendation not to include the requirement for the written approval from the network utility operator, as part of Rule 5.72(1).
- 7.5 **Rule 5.73 submission no.0106.70** The Council sought a change to condition 5(b) relating to stormwater discharge to land. The condition as proposed in the LWRP does not allow for ponding

on the ground for more than 48 hours as a permitted activity and would, as written, include any ponding related to a stormwater treatment system as well. I do not think that this was intended by the condition as it would be both impractical and would also reduce the detention time of stormwater in treatment systems. The Council's submission proposes that the condition be amended to read

*"5(b) the discharge does not result in the ponding of stormwater on the ground for more than 48 hours **unless part of the stormwater treatment system**"*

7.6 The S42 Report recommends accepting that submission and making that change. I support this recommendation. The S42 Report also has recommended that the Rule be broken into two parts relating to discharges to water or onto land where it may enter surface water (5.72A) and onto land (5.72B). I also support this division of 5.72 as it provides more clarity.

7.7 Further submission no.F517.12.

Rule 5.73 (activity status for stormwater discharge). The Council lodged a further submission opposing the submission by Waimakariri District Council (submission no.94.34) to reduce the activity status for stormwater discharges not covered by Rules 5.71 and 5.72 from a non-complying activity to a discretionary activity.

7.8 I do not agree with the S42 Report recommendation (page 195) to change the activity status to discretionary.

7.9 I consider it important to retain the non-complying status of the rule, as I consider that integrated stormwater systems produce better environmental outcomes than adhoc individual treatment and discharge systems, and also to provide incentive to developers to opt for working within the requirements of an SMP and associated Area Wide Discharge Consent.

7.10 In developing and implementing its SMPs, the City has sought to integrate catchment mitigation/ management systems/ facilities to better ensure long term resilient and sustainable environmental outcomes for new and existing development. I consider that this is completely consistent with s5(c) of the RMA. In addition it is also consistent with s(7)(b) of the RMA which required that in achieving the purposes of the Act particular regard is to be given to the efficient use and development of natural resources.

- 7.11 In undertaking the City's investment in SMPs, it signals that the City intends to, as much as possible use SMPs, and make use of the community systems. Reducing the rules in terms of activity status from non-complying to discretionary, for discharges that are not covered under a Area Wide Consent could encourage individual discharges (and some of these could be quite significant) to seek to opt out of any Community system. Under the NRRP the same proposed activity is a non-complying activity and this has provided considerable incentive for developers to "join into" the City's Community system. This could lead to a fragmented and less efficient stormwater mitigation/ management network. Therefore I do not support the Waimakariri District Council submission 94.34, or support the S42 Report recommendation to reduce the activity status from non-complying to discretionary.

8.0 SOIL STABILITY POLICY 4.18

Submission no. 0106.43

The City's submission seeks to amend the conditions to this policy by deleting both (b) and (c).

(b) the destruction of natural wetlands or other sites of areas of significant indigenous biodiversity value or cultural significance to Ngai Tahu; or

(c) the removal of resilient and intact vegetation cover, resulting in land becoming susceptible to the establishment of plant species.

- 8.1 Conditions (b) and (c) of Policy 4.18 do not relate to soil stability, but rather to the loss of biodiversity, cultural values by the use of fire as a land management tool. The S42 Report does not agree with the city submission and recommends to retain the policy unchanged and cites that the rules in the LWRP have not been rejected by the City. I oppose the S42 Report recommendation, as I consider the placement of conditions (b) and (c) is not an issues of soil stability, however I think this submission could be addressed by a more appropriate Policy title. .

9.0 DRINKING WATER SUPPLIES

Submission no 0106.49

- 9.1 The City's submission relates to protection drinking water supplies. The Council general supports this policy as it provides the necessary high priority status for group and community drinking water supplies, while also ensuring the resource is managed responsibly.

Policy 4.46 states:

4.46 Enable the taking of water for group or community drinking water supplies by not requiring compliance with any minimum or residual flow or partial restriction conditions and the environmental flow and allocation regime or groundwater allocation block, provided the water supply is managed to restrict the use of water from those supplies during periods of low flow or water levels.”

The S42 Report recommends that Policy 4.46 be amended as follows:

4.46 Enable the taking of water for group or community drinking water supplies by not requiring compliance with any minimum or residual flow or partial restriction conditions and the environmental flow and allocation regime or groundwater allocation block, provided the water supply is managed to restrict the use of water from those supplies during periods of low flow or water levels, with priority given to drinking water and stockwater needs.

- 9.2** I support the S42 Report recommendation as priority is given to drinking water and stockwater needs which I consider is important to emphasise in this policy. I therefore support the City Policy 4.46 and its proposed amendment.

10.0 NATURAL HAZARD POLICIES AND RULE
Submission nos. 0106.53, 54, 55 and 56

The CCC submissions relate to the policies and one rule dealing with effects relating to natural hazards. The CCC submission supports the policies as they provide clear and effective direction for the management of the impacts of a natural hazard event. I agree with the S42 REPORT's recommendation to retain these policies as worded.

- 10.1** The S42 Report recommends an amendment to Rule 5.5 as below:

Rule 5.5 states:

5.5 Any recovery activity that would otherwise contravene sections 9(2), 13(1), 14(2), s14(3) or s15(1) of the RMA and is not listed as a permitted activity in this Plan is a restricted discretionary activity.

The Canterbury Regional Council will restrict discretion to the following matters:

- 1. The **timing** duration and scale of the activity;*
- 2. The adequacy of the management plan prepared in respect of the activity, and in particular, the identification of the effects and the proposed mitigation.*
- 3. The extent to which the proposed activity is consistent with the objectives and policies of this Plan.*

I agree with the S42 Report recommendation as it will improve the effectiveness of any response to the impacts of a natural hazard.

11. GREYWATER RULE 5.13 Submission no. 0106.57 and 58.

11.1 The CCC submissions seek to retain this rule (106.58) but amend condition 4 (106.57). I consider that the rule is in general appropriate and effective, as it recognises support for the conservation of water which is an important part of the sustainable management of Canterbury's resources. However, limiting the storage of greywater for only 12 hours before use (as is required by the proposed condition 4) will be onerous and will be difficult or impossible to manage. Greywater collected in an evening or overnight needs to be able to be stored until use the next day. Condition 4 ought to be deleted as it is impractical. If it is not deleted, then I consider that changing it to permit a 24 hr storage duration would be more realistic.

11.2 The S42 Report recommends minor changes to other parts of the rule which I support, but rejects the change in condition 4.

12 INSTALLATION AND MANAGEMENT OF BORES. RULE 5.78

Submission no. 0106.71

12.1 The CCC submission relates to Rule 5.78 which provides for the management of the installation, maintenance and use of bores. Meeting the conditions in the rule allows the activity to be permitted. I am supportive of this rule as I considers that in the majority of situations the

construction of bores should be a “permitted activity” and the costs in those cases of applying for consent is not an effective use of resources. Separating the “use” of a bore from the taking and use of the water is more effective than the existing situation where consent is required for both activities.

- 12.2 The S42 Report recommendation is to retain the rule but include a further condition with regard to ensuring that bores are not installed in areas of contaminated or potentially contaminated sites. I consider that the S42 Report recommendation to both retain the rule and also include the new condition is appropriate.

That Rule 5.78 is amended as follows, by including a new condition:

5.78

7. The bore or gallery is not installed on land that is contaminated or potentially contaminated.

13. PLACEMENT OF STRUCTURES OVER THE BED OF A LAKE OR RIVER Rule 5.113
Submission no. 0106.74

- 13.1 The CCC submission is on Rule 5.113 which relates to the placement, use, altering, reconstruction or removal of pipes, ducts, cables or wires over the bed of a lake or river. Condition 1 required that these structures be laid perpendicular to the channel. The CCC submission is that pipes are often laid non-perpendicular to the channel and there are no potential or actual effects on the environment that justify condition 1. The S42 Report recommends that this condition is amended to delete this requirement. The CCC supports this recommendation.

- 13.2 The S42 Report amended condition reads:

*1. . The pipes, ducts, cables or wires ~~run perpendicular to the channel~~
~~and~~³⁵⁵ do not prevent access to or over the bed or to lawfully
established structures **or defenses against water**, including flood protection
works, ~~or to flood control~~ ~~vegetation~~³⁵⁶;*

14. INSTALLATION OF BRIDGES AND CULVERTS. CONDITION 6A RULE 5.115 Submission no,
0106.75

- 14.1 The submission relates to the installation of bridges and culverts. Ms Zoe Dewson in her expert evidence discusses the significant ecological impacts of allowing for culverts reaching up to 25 metres in width as a permitted activity. Ms Dewson highlights that this may facilitate use of culverts of a greater length than required, and the potential impact of multiply installed culverts of up to 25 metres that would effectively pipe substantial lengths of a waterway without the requirement of a resource consent.
- 14.2 The CCC submission seeks to amend condition 6a to reduce the width from 25 metres to the 7.5 metres which was provided for in the NRRP.
- 14.3 The S42 Report states that the new maximum length of 25 metres is considered to better provide for the purpose of a culvert stating that 25 metres is a 2 lane road. I do not agree with that comment and query whether there has been a misunderstanding in that a simple 2 lane road may be approximately 25 feet in width. I consider a 25 metres culvert to be significantly wider than a 2 lane road, possibly equivalent to a 4 lane road.
- 14.4 Rule 5.115 is also inconsistent with the Strategic Policy 4.2 which seeks to manage waterbodies to take into account cumulative effects of land uses. As written, the rule ignores any potential cumulative effects of the building of culverts in close proximity to one another as described in Ms Dewson's evidence.
- 14.5 In addition the rule is inconsistent with Policy 4. 84, which relates to activities in the beds of lakes and rivers. This policy states that activities need to protect sites and areas of significant indigenous biodiversity values. The only mention in this rule relating to ecosystem values is in relation to the protection of inanga and salmon spawning sites. In relation to indigenous biodiversity values therefore the only protection is for the inanga spawning sites as salmon are not indigenous species. The objectives in the proposed LWRP also highlight the need to protect the health of ecosystems (3.8), outstanding freshwater bodies (3.5), and significant indigenous biodiversity values (3.10). The S42 Report recommended amendments to the objectives also include an objective relating to the maintaining of significant indigenous biodiversity values of waterbodies (3.13).
- 14.6 Section (6) of the RMA states as a matter of national importance:

(c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna.

Section (7) provides that particular regard must be given to

(f) Maintenance and enhancement of the quality of the environment

(h) the protection of the habitat of trout and salmon.

The rule is inconsistent with both of these sections of the Act, as the protection offered in the rule is limited to spawning sites of salmon and inanga, not the remainder of their habitat, and no protection is given to areas of significant indigenous vegetation or habitats of indigenous fauna (other than as part of the inanga's habitat). The permitted cumulative effects of culverts in close proximity to one another, and the width of individual permitted culvert has the potential to significantly reduce the quality of the environment.

- 14.7 The CCC submission therefore sought a reduction in the permitted width of culverts which would reduce the significant potential adverse environmental effects that may occur with regard to this proposed permitted activity.

15, EARTHWORKS OUTSIDE THE BED OF A RIVER OR LAKE OR ADJACENT TO A NATURAL WETLAND RULE 5.148

Submission no. 0160. 78

- 15.1 The CCC submission supports this rule relating to earthworks relating to recovery activities or the establishment, maintenance or repair of network utilities should be exempt from condition 4 of this rule. Such works often involve significant lengths of trenches which need to remain open for more than 10 days.

- 15.2 The S42 REPORT recommends to delete condition 4 hence the CCC submission has been accepted. I support the OR's recommendation in relation to the deletion of condition 4.

16.0 SUMMARY

- 16.1 My evidence presented covers several issues identified in the Christchurch City Council submission to the Land and Water Regional Plan. These are summarised in the table in paragraph 1.3 of this evidence, including

- Changes proposed to Objectives 3.9,2.11, 3.13 and 3.14
- Support for the Strategic Policy 4.2
- Amendments sought to Table 1a,b and c.
- Consistency between Policies and Rules relating to wastewater management and discharges.
- Submissions relating to stormwater policies with regard to authorisations and timeframes for SMP and activity status of discharges in the rules
- Submission relating to the protection of drinking water supplies and the scope of community drinking water groups.
- Support of the policies and rule relating to the effects of natural hazards
- Changes to the restriction of storage of greywater
- Submissions relating to the placement of structures in rivers and lakes and their location in the bed.
- Submissions on the installation of culverts and bridges and the length of permitted culvert and lack of protection of significant indigenous sites and habitats.

Date: 4 February 2013

Jeanine Keller
 Environmental Planner
 Christchurch City Council