

LAND AND WATER REGIONAL PLAN

EVIDENCE OF ROY EASTMAN PRESENTED FOR THE CHRISTCHURCH CITY COUNCIL.

Hearing Group 1:

Policy 4.13

Rules 5.71, 5.72 and 5.73

1.0 INTRODUCTION

- 1.1 My full name is Roy Ernest Eastman and I am a Civil Engineer employed as a Team Leader by the Capital Programme Group of the Christchurch City Council (Council). The Capital Programme Group is a shared service technical group for the Council.
- 1.2 I hold the degree of Bachelor of Engineering (Civil, Auckland) and I am a member of the New Zealand Institute of Professional Engineers (MIPENZ). My engineering experience of 36 years, both in New Zealand and the United Kingdom, has involved a wide range of civil and structural works, investigation, design and construction. During the 1980s I was the Deputy Planning Engineer within the former Christchurch Drainage Board, and was involved in area wide surface water drainage investigations and flood mitigation planning. In the early 1990s I worked for seven years as an Associate with a local Planning/Surveying/Engineering Consultancy within Christchurch, undertaking engineering investigation, design and contract supervision associated with property development and the subdivision of land.
- 1.3 I have been employed by the Council since December 1995. I have been involved with water/environmental planning, investigation and design work, associated with Council's sewerage and stormwater network, and the City's waterways. The stormwater/waterway experience includes water quality enhancement, flood mitigation, asset planning and management. A significant portion of my time is currently spent on Area Plans and Stormwater Management Plans (SMP's) for surface water management City wide. My duties also include implementation of SMPs through the Council's annual Capital Programme, providing advice on City Plan matters, advice and technical support for the control of Greenfields development within Christchurch, and seeking and assessing resource consents and community consultation. I assisted in the writing of the Council's new

'Infrastructure Development Standard', and the 'Waterways Wetlands and Drainage Guide'; and in particular had significant input into Chapter 6 'Stormwater Treatment Systems'.

1.4 My evidence is on the Council's submissions in relation to stormwater provisions in 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 (Environment Court Consolidated Practice Note 2006 and its November 2011 amendment). 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.

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

Paragraph number in this evidence	Submission details		Page(s) in s. 42A report	s. 42A report recommendation (accept/reject)	CCC position on s. 42A report recommendation (support/oppose)
	Submission number	Section			
3	0106.40	Policy 4.13	147	reject	oppose
3	0106.41	Policy 4.13(b)	147	accept	oppose
3	0106.42	Policy 4.13 (c)	147	accept	support
4	0106.68	Rule 5.71	188	reject	oppose
4	0106.69	Rule 5.72 Condition 1	190	reject	oppose
	0106.70	Rule 5.72 Condition 5b	192	accept	support
4	F517.12	Rule 5.73	195	reject	oppose

2.0 KEY ISSUES ADDRESSED IN THIS EVIDENCE

2.1 This evidence is on key stormwater issues raised in the Council's submission. These are:

1. Policy 4.13 relating to the treatment and discharge of stormwater.
2. Rules 5.71, 5.72 and 5.73 relating to the treatment and discharge of stormwater.

Submitter Number(s): 0.106.40, 0106.41, 0.106.42

3.0 POLICY 4.13: STORMWATER MANAGEMENT PLANS

3.1 Submission no 0106.40 and number 0106.42

3.2 Proposed policy 4.13 is:

4.13 Any public reticulated stormwater system for any urban area shall be managed in accordance with a stormwater management plan that addresses the following matters:

- (a) the management of all discharges of stormwater into the stormwater system;*
- (b) for any public reticulated stormwater system established after 11 August 2012, including any extension to any existing public reticulated stormwater system, the discharge of stormwater being subject to a land-based treatment system or wetland treatment prior to any discharge to a lake or river;*
- (c) how any discharge of stormwater, treated or untreated, into water or onto land where it may enter water meets the water quality outcomes for that waterbody set out in Sections 6-15 or Table 1 (whichever applies); and*
- (d) The management of the discharge of stormwater from sites involving the use, storage or disposal of hazardous substances.*

3.3 The Council's submission on this policy requests that it include a timeframe of at least five years from the operative date of the LWRP for the development of SMPs; that 4.13(b) be amended by adding the words "*where feasible*"; and that 4.13(c) be amended by adding reference to Schedule 5. I support those submissions.

- 3.4 I am concerned about the lack of a timeframe for the development and approval of SMPs since the intention of the policy is that all reticulated systems within urban areas are covered under such plans. As written, this policy does not recognise the time, complexity and costs of producing SMPs, or the time involved in the approval of such plans and the approval of subsequent area wide discharge consents.
- 3.5 The Council currently has completed two of the thirteen SMPs for Metropolitan Christchurch and Banks Peninsula. There is an ongoing commitment to undertake the remaining 11 SMPs for the City.
- 3.6 These first two SMPs (South West Christchurch and the Styx River catchment) have taken several years to complete. The South West Area Wide Consent has been granted, and the Styx Catchment Area Wide Consent has been lodged and is being processed.
- 3.7 SMPs are required under the NRRP Chapter 4: Water Quality Rule WQL8. Discharge of stormwater onto or into land or into a river, lake or artificial watercourse – stormwater management plan. Condition 6 of the rule sets a timeframe for SMPs and the discharge permits which relate to them.

6. An application for a discharge permit for a discharge that existed at 1 November 2010 must be complete and accepted by Environment Canterbury within five years of the date the rule becomes operative.

These first two SMPs have cost millions of dollars in staff and specialist consultant input and background investigation work. Processing by CRC of the Area Wide discharge consent for the South West Area SMP catchment cost in the order of half a million dollars in CRC processing fees alone.

- 3.8 In hindsight, I consider that the Council's submission seeking a minimum of five years from the time of the Plan becoming operative for there to be SMPs in place was a little optimistic. The allowance of five years may still be insufficient time to complete the remaining SMPs, particularly given the likely complexity of the Avon River and Lower Heathcote River SMPs. A little over two years work is currently budgeted to complete the Avon SMP.

- 3.9 The Officers' Report discusses the issue identified in the Council's submission (page 148) but it seems to read the Council's submission as seeking an assurance that there be an SMP, rather than seeking an assurance that there be sufficient time for the development of an SMP. The officers' recommendation is that a timeframe be included in Rule 5.71 which they consider a more appropriate location (page 189 of the s42A report).

“ 1. An application for a discharge permit for a discharge that existed at 11 August 2012 must be completed and lodged by 30 June 2016”.

I note that this requirement is not linked to an SMP but rather to the individual application for a discharge permit. The s42A authors consider that *“ This will effectively force the hand of councils to prepare management plans as a basis for these applications”* (page148).

- 3.10 I support the locating of a timeframe in Rule 5.71, rather than in Policy 4.13 (as recommended in the City's submission), but do not support the length of the timeframe provided. I am concerned that the timeframe is in fact four years, and does not begin from the time the Plan is made operative. In addition it relates to discharge consents, not SMPs. As discussed above the very considerable effort of putting together SMPs for the City has required a huge investment in time and money over the last eight years or so (notwithstanding the interruption of the earthquakes on the process). The process of consenting beyond the SMP typically could take a further year or more, so even a five year time frame from the LWRP becoming operative will be a significant ask for the Council, which remains committed to the development of SMPs for the City and Peninsula, followed by Area Wide Discharge Consents for the SMP catchments. If the LWRP is not amended to a five year timeframe from the Plan becoming operative the CCC would need to rely of extensions to its Interim Global Consent, and whatever Area-Wide consents it has completed between now and 30 June 2016, to comply with these provisions. This situation is not considered ideal as an extension of the timeframe would allow for the preparation and granting of a larger number of Area-Wide Consents.
- 3.11 Accordingly I do not agree with the officers report, as although there is a timeframe included in Rule 5.71 I consider that the time provided is too short and that the timeframe should start at the time the Plan becomes operative.

- 3.12 **Submission no. 0106.41** is on the requirement in Policy 4.13 (b) for any public reticulated stormwater system established after 11 August 2012, including any extension to any existing public reticulated stormwater system, that the discharge of stormwater be subject to a land-based treatment system or wetland treatment prior to any discharge to a lake or river.
- 3.13 The Council's submission stated that it is generally supportive of this policy, however considers that it is not always feasible or desirable to require either land or wetland treatment of all stormwater before discharge.
- 3.14 Where feasible and with sufficiently large contributing catchments, wetland 'polishing' (secondary treatment) of stormwater will be a preferred option for the Council. This is consistent with the CCC's Surface Water Strategy. There are many situations, however, where it may either be not possible and/or desirable to incorporate wetlands into any stormwater treatment train. The examples given in the submission., with which I agree, include: existing extensions of urban areas where there is no space available for such treatment; and where the land conditions are such that the Council would be concerned over the quality of the land, such as HAIL¹ sites, where stormwater remaining on, or in the land may lead to contamination of groundwater or surface waters due to the mobilisation of leachates.
- 3.15 The Officer Report recognises the point made in the Council's submission (page 148). However, the officers consider that adding the words "*where feasible*" is not the best way to address the issue. Their recommendation is to modify Policy 4.13(b) to add the words "or designed", as follows:

*(b) for any ..., the discharge of stormwater being subject to a land-based **or designed** treatment system or wetland treatment prior to any discharge to a lake or river;*

I do not agree with the Officer Report recommendation. That change will provide the Council with greater flexibility in potential stormwater treatment methodologies throughout the City. In some cases stormwater treatment is not possible at all. Even within Area-wide Consents there will be discharges that will be untreated particularly in older established areas where retrofitting is not

¹ Meaning sites of possible contamination of land, listed on the Ministry for the Environment's Hazardous Activities and Industries List.

possible. The policy ought to include the term "where feasible", as well as the changes recommended in the S42 Report.

Submitter Numbers:0106.68, 0106.69, 0106.70

4.0 RULES 5.71, 5.72. 5.73

4.1 Submission no. 0106.68

Rule 5.71 (discharge from community stormwater systems). The Council's submission supported the development of SMPs and the restricted discretionary activity status for discharges from community systems, and therefore sought to retain it.

4.2 The Officers' Report recommends retaining this rule, with the exception of the inclusion of a timeframe as discussed in clauses 3.3 -3.11 above in this evidence.

4.3 I disagree with the length of the timeframe proposed in the Officer Report's recommendation and consider it should be 5 years from the Plan becoming operative.

4.4 Submission no. 0106.69.

Rule 5.72 (permitted stormwater discharges). The Council's submission generally supports this rule; however, it sought an amendment from:

5.72 (1.) The discharge is into a community or network operator stormwater system; or...

To

*5.72 (1) The discharge is into a community or network utility operator stormwater system **with written approval from the network utility operator**; or...*

4.5 I consider that it is important that the CCC remains aware of all private discharges to its network and is informed of the nature of all new discharges into its network. The CCC is responsible for the discharges from its systems. If the rule for permitted discharges requires that there is written approval from the Christchurch City Council in order for the activity to be permitted, it will put the person intending to discharge into the system on notice that they need to have early discussions

- with CCC officers on their intended activity. It will mean that the CCC is better informed as to who the dischargers are, what is the nature and quantity of any discharge and where the discharge will occur. In turn this better enables the CCC to manage and progressively upgrade the system efficiently and effectively in an integrated manner, and aids in monitoring for any potential adverse environmental effects. The inclusion of this amendment will clearly indicate to any potential discharger that it is their responsibility to inform and discuss with the CCC their intended discharges into the CCC's system.
- 4.6 I accept that the CCC can set up a system whereby all people intending to discharge into the CCC's system require approval from the CCC before doing so. However, the ability for any private developer to decide that their activity is permitted under this rule because they believe that their discharge will be going into the community stormwater system, regardless of the nature and quantity of the discharge and without reference to the Network Operator, has the potential to confuse the applicant. This could create undue should the CCC subsequently deny them entry into the stormwater network.
- 4.7 Reading the Section 42A Report on this issue (first paragraph on page 192), I suspect there may be a misunderstanding as to what the original CCC submission sought. The CCC is not asking CRC to decide on the merits of any discharge into the network, but that people intending to rely on that permitted activity standard are aware that they need the CCC's approval for discharge into the CCC's system.
- 4.8 I do not consider that this is unreasonable or indeed unprecedented. The Council currently provides CRC a similar courtesy around new subdivision stormwater discharge consents. Prior to the issuing of any certificates under section 224 of the Resource Management Act 1991 (approving the Registrar General of Land issuing new titles following a subdivision consent), where the discharge from that development is approved under an CRC discharge consent, CCC require the developer get a statement from CRC Consents Monitoring staff that full compliance with discharge consent conditions has been achieved to CRC's satisfaction.
- 4.9 The Section 42 Report recognises "... *that the Rule may present some problems for Councils in controlling discharges into their system...*" (page 192, first paragraph), so why do it? The Report also suggests that there is currently insufficient certainty for landowners and developers where approvals are subject to the vagaries of interpretation of consent conditions and changes in the CRC plans. I am a little confused with this line of argument. CCC's current understanding of the

operation of the recently approved Area Wide Consent for South West and discharges to the CCC network is that discharges to the network are approved unless the CCC specifically identifies a discharge that it does not wish to be approved under the consent.

Should this occur, the land from which the discharge originates could be excluded from the overall catchment and as a consequence would need to be consented separately by CRC.

4.10 I therefore disagree with the Officers' Report recommendation not to include the amendment sought in the Council's submission.

4.11 **Submission no.0106.70 : ponding of stormwater.**

Rule 5.72 Condition 5(b). The Council's submission sought a change to condition 5(b) relating to a 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.

4.12 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"

4.13 The Officers' Report recommends accepting that submission and making that change. I support this recommendation. The Officer 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.

4.14 **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.

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

4.15 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.

4.16 As discussed in Section 3 above, the CCC has expended millions of dollars, and will continue to do so for some time to come, in developing SMPs and getting Area Wide Discharge Consents approved for its territorial area. In developing and implementing SMPs, it has sought to integrate catchment mitigation/ management systems/ facilities to better ensure long term resilient and sustainable environmental outcomes for new and existing development.

4.17 In undertaking this huge investment, the Christchurch City Council intends that as much as possible of its different catchment areas follow the 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, even if it has already been sized and installed to serve the subject discharge. 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.

5.0 SUMMARY

5.1 My evidence presented covers submissions to the Stormwater Chapter. These are summarised in the table in paragraph 1.5 of my evidence.

5.2 I agree with the CCC's submission, which:

1. Supports the Section 42A Report's recommendation to Policy 4.13
2. Opposes the Section 42A Report's recommendation to Rule 5.71

3. Opposes the Section 42A Report's recommendation to Rule 5.72, Condition 1
4. Supports the Section 42A Report's recommendation to Rule .72, Condition 5b
5. Opposes the Section 42A Report's recommendation to Rule 5.73.

Date 4 February 2013

Roy Eastman