

BEFORE THE CANTERBURY REGIONAL COUNCIL

UNDER THE

Resource Management Act 1991

AND

IN THE MATTER

of application CRC190445 by the Christchurch City Council for a comprehensive resource consent to discharge stormwater from within the Christchurch City area and banks Peninsula settlements on or into land, into water and into coastal environments

**REBUTTAL EVIDENCE OF
JANE SUSAN WEST FOR CHRISTCHURCH CITY COUNCIL
30 October 2018**

CHRISTCHURCH CITY COUNCIL
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INTRODUCTION

1. My name is Jane Susan West. I here provide rebuttal evidence for the Christchurch City Council (**Council**) in relation to the evidence of other experts on the Council's application for a comprehensive stormwater network discharge consent (**Application**).
2. My qualifications and experience are as stated in my evidence in chief dated 15 October 2018.
3. I again confirm that I have read and agree to comply with the Code of Conduct for expert witnesses contained in the Environment Court Practice Note (dated 1 December 2014). I confirm that the issues addressed in the statement of evidence are within my area of expertise. I have not knowingly omitted to consider facts or information that might alter or detract from the opinions expressed.

EVIDENCE RESPONDED TO IN THIS REBUTTAL EVIDENCE

4. I here respond to evidence filed by the following submitters:
 - Department of Conservation (Linda Kirk);
 - Ravensdown (Anna Wilkes);
 - Oil Companies (Trent Sunich and Mark Laurensen);
 - NZ Steel (Andrea Rickard);
 - Lyttleton Port Company (Andrew Purves); and
 - Antonio and Kerrie Rodrigues (Robert Potts).
5. I have also responded to matters raised in the letter dated 12 October 2018 signed by Sarah Shand on behalf of Transpower New Zealand Limited (**Transpower**).
6. I have limited my rebuttal evidence to those matters where a submitter has raised an issue that was not specifically raised or referred to in the Council's evidence in

chief (**EIC**) and which could not reasonably have been foreseen. I have also limited my rebuttal to planning matters, along with suggested changes to the conditions of consent that were proposed as a working draft attached to my EIC.

LINDA KIRK FOR DEPARTMENT OF CONSERVATION

7. The key concern expressed by Ms Kirk [paragraph 14 – 21] is the future formulation and review of stormwater management plans (**SMPs**), and the ability for DOC to have input where necessary during that process. DOC's submission explains that it has statutory functions to administer various enactments and directions of the Minister of Conservation with respect to natural resources.
8. Although the proposed consent conditions that were attached to my EIC provide for consultation with relevant Zone Committees, relevant Community Boards and Papatipu Rūnanga (Condition 7), Ms Kirk considers that DOC it is unable to rely on these non-statutory entities as a mechanism to carry out its statutory roles. Ms Kirk advises that DOC wishes to be consulted regarding the development and review of SMPs, implementation plans and ongoing environmental monitoring.
9. The proposed conditions of consent set out the objectives of SMPs and the matters required to be included within them (Conditions 5 and 6). Through the notification of the Application, including proposed consent conditions, I consider that potentially affected and interested parties have been provided with the opportunity to have input into SMP objectives and content, as well as implementation plan requirements and other proposed conditions of consent, including the environmental monitoring plan (**EMP**). It is my view that the consent, if granted, needs to be administered by Council as consent holder, which includes complying with the conditions of consent concerning the development and review of SMPs. I consider that this has been adequately provided for in the proposed conditions, including the requirement to consult with relevant Zone Committees, relevant Community Boards and Papatipu Rūnanga.
10. However, I do consider that DOC's statutory function as a government agency charged with New Zealand's conservation has the potential to provide additional expertise and overview regarding the development and review of SMPs. I note that in his rebuttal evidence **Mr Adamson** has recommended that a new condition

be added requiring Council to engage with DOC when preparing and reviewing SMPs, and I agree with that suggestion.

11. In contrast, I do not consider that value would be added through DOC involvement in implementation plans because these are a requirement of Council to set out the various stormwater mitigation devices, programme of works, investigations, budgets, and reporting as necessary every three years to give effect to the SMPs. Similarly, with ongoing environmental monitoring, this is an ongoing function of Council, as well as a means of achieving compliance with the consent. I do not consider that Council's direct involvement with DOC on this matter through consent conditions is necessary. Annual reporting on monitoring results is required under the proposed conditions (proposed Condition 53 attached to my EIC) and this is to be made available on Council's website.

ANNA WILKES FOR RAVENSDOWN

Industrial Site Audits

12. Ravensdown is generally supportive of the Application. However, Ms Wilkes identifies concerns regarding the regulatory challenges faced by sites such as Ravensdown with regard to accountability for stormwater discharges between Council and the Canterbury Regional Council (**Environment Canterbury**). Ms Wilkes [paragraph 3.3 – 3.5] cites a recent situation where the site was visited by Environment Canterbury Pollution Prevention staff, followed by an industrial site audit undertaken by Council, and where differing expectations were expressed. I acknowledge the frustration of this situation and the need for clearer direction from both councils.
13. Ms Wilkes [paragraph 3.7] suggests some improvements to the industrial site audit programme around better communication, implementation timeframes and monitoring expectations. She refers to points within Ms Valigore's EIC, which have been addressed in rebuttal by Ms Valigore.
14. Ms Wilkes [paragraph 3.11] also does not support Ms Valigore's suggestion (at paragraph 50 of Ms Valigore's EIC) that there should be a delegation of enforcement powers from Environment Canterbury to Council. I acknowledge Ms

Wilke's view that this is not necessarily helpful to industry, however it is a matter that Environment Canterbury and Council have been discussing during deliberation over how to ensure a robust framework for the management of 'high risk' sites that transfer from Environment Canterbury administered resource consents to Council administration under this resource consent post-2025. Retaining the ability to use enforcement procedures under the Resource Management Act 1991 (**the Act**) in addition to the more limited enforcement options available under the Bylaw (via the Local Government Act 1974) is an option that I support, however the legal and practical means for achieving this have not yet been resolved.

15. The Council's intended process for the transition of 'high risk' sites post-2025 is proposed in Condition 3 (as attached to my EIC) where the necessary methods are required to be in place to ensure at least the same environmental outcomes (as achieved under Environment Canterbury discharge permit conditions) as a result of stormwater discharge from each site. I consider that this process needs to be well managed by both councils so that it is clear to industry whether they are considered 'high risk', and also so it is clear which council sets the standards for discharge, the implementation timelines to achieve those standards, and how enforcement will be carried out. If this is achieved I consider that the concern around uncertainty expressed by Ravensdown will be alleviated.

Proposed Conditions

Condition 1

16. Ms Wilkes has provided some suggested new and amended proposed conditions. Regarding Condition 1 Ms Wilkes [paragraph 5.2 – 5.5] explains that Ravensdown would be in a situation where roof discharges into land at the site would be authorised under this consent, but hardstand discharges into land (via Ravensdown's private stormwater system) would not. Ms Wilkes makes the point that this may create a situation where the stormwater system for a site requires authorisation from Council (for roof discharge into land) and resource consent from Environment Canterbury (for hardstand into land) for different parts of the same stormwater system. I acknowledge Ms Wilkes' point. In my view this is not an ideal situation, however it comes about through Council's desire to authorise as much as possible under this consent, where there is a level of certainty as to the likely contaminants from each surface (i.e. the stormwater from hardstand areas of

industrial sites has the potential to entrain more contaminants (and potentially more harmful contaminants) to the receiving environment than roof stormwater). Mr Norton (paragraph 6 of his rebuttal evidence) has also explained that the intent of this consent is to be as enabling as possible. He considers if it was preferable to Ravensdown it could still voluntarily cover all discharges under a separate consent from Environment Canterbury if it so wished, rather than holding authorisations/consents from two separate authorities for different discharges within the site.

Condition 2

17. Ms Wilkes reiterates Ravensdown's concerns regarding proposed Condition 2 in that it is unclear what Council might consider to be 'an unacceptably high risk'. Ms Wilkes [paragraph 5.11] suggests that Condition 2(a) be deleted, and a new condition be added, as follows:

There shall be no discharge to land or surface water from any site or development area on the Canterbury Regional Council's Listed Land Use Register unless expressly authorised by Canterbury Regional Council and Christchurch City Council, and if requested by the consent holder, the site owner demonstrates that stormwater discharges from the site will meet the consent holder's obligations in Conditions 20-25.

18. Ms Wilkes' suggested condition requires the owner of any site on the Listed Land Use Register (**LLUR**) to demonstrate compliance with proposed Conditions 20 to 25 of Council's resource consent (the mitigation of the effects of stormwater quality and quantity as measured against the receiving environment objectives and attribute target levels in Schedules 4 to 7 of the proposed consent conditions).
19. Although I see some merit in Ms Wilkes' suggested new condition, I consider that it is important for Council to also maintain the ability to have particular regard to sites that are considered 'high risk' as is required by proposed Condition 2(a) (attached to my EIC). Council as consent holder is required to demonstrate compliance with the consent conditions as part of a comprehensive package covering all facets of stormwater management, including modelling, monitoring and investigations, reporting, engagement with external parties, and the development and review of SMPs, implementation plans, and the EMP. This includes Council

being subject to the mitigation of effects as measured against the receiving environment objectives and attribute target levels in Schedules 4 to 7 as required by proposed Conditions 20 to 22. It will also include Council requiring certain standards for sites (for example, 'high risk' sites) with authorisation to discharge under this consent, to assist with that compliance. This is more appropriate, in my view, than individual sites being subject to compliance against a few specific consent conditions within the package of conditions imposed on Council.

20. Finally, Council has proposed Condition 3(c) (attached to my EIC) that includes a requirement for a risk matrix to be developed to rate and identify 'high risk' sites, and monitoring plans for those sites. The development of the risk matrix will provide sites such as Ravensdown with knowledge of their 'risk rating' and any associated site-specific requirements for stormwater management (including monitoring). I consider that this addresses the concerns raised by Ravensdown around Council's management of potentially 'high risk' sites post-2025 (albeit that there is still an intervening period prior to development of the risk matrix).

Condition 3

21. Regarding proposed Condition 3 Ms Wilkes [paragraph 5.13] considers that post-2025 those activities that are occurring on sites listed on the LLUR will fall under the provisions of proposed Condition 2(a). I do not consider that this is the case. My reading of the proposed conditions post-2025 is that the exclusions to the resource consent stated in Condition 2, including all its sub-clauses, will no longer apply.
22. I agree with Ms Wilkes' note [paragraph 5.14] about the various wording used such as 'approval' or 'authorisation' and consider that the proposed consent conditions should consistently refer to one description throughout.

TRENT SUNICH AND MARK LAURENSEN FOR OIL COMPANIES

23. The Oil Companies' key concerns in evidence are around compliance of sites with the requirements of the proposed consent, including the ability of sites to be excluded from authorisation under Council's consent, and the requirement for water quality discharged into Council's network to be equivalent to residential and

commercial land use types. Mr Sunich [paragraph 3.1(c)] considers that by complying with a guideline document (The Environmental Guidelines for Water Discharges from Petroleum Industry Sites in New Zealand) prepared (and currently being updated) in conjunction with the Ministry for the Environment, discharges from Oil Companies are meeting best practice.

24. Mr Sunich [paragraph 8.2] does not agree that industrial site stormwater runoff should be required to achieve equivalent stormwater runoff quality with residential and commercial land uses. He explains that this is due to the proportionality and constituents of contaminants in stormwater runoff being highly variable across industry types and is integrally linked to the type of industry and its potential contaminant suite.
25. I agree and consider that Council undertaking specific industrial site audits is an acknowledgement of the variability of contaminants from different sites within different industries. I also consider that the risk matrix proposed under Condition 3 will provide more certainty to dischargers from industrial sites, and the requirements of them as part of authorisation under this consent post-2025. Council is demonstrating a commitment to meet the standards of the Land and Water Regional Plan (**LWRP**), and this is being achieved through the proposed conditions of this consent including the receiving environment objectives and attribute target levels set in Schedules 4 to 7, and within the EMP. Council is responsible for the discharges into its network and is therefore responsible for ensuring a certain quality of stormwater discharge from each site. The industrial site audit process, and the post-2025 risk matrix provide some ability to deal with site specific issues.
26. Mr Sunich considers [paragraph 7.4] that Oil Companies' sites that are operating systems compliant with the industry guideline do not present a risk akin to the purpose identified in proposed Condition 2(a), that is, posing an unacceptably high risk of surface or groundwater contamination. This may be the case, and is acknowledged by Mr Norton (in his EIC, paragraph 133) that it is difficult to have a condition that provides one hundred percent certainty with regard to the level of risk posed by all possible sites. However, in my view, it is appropriate to have a condition such as proposed Condition 2 to provide certainty to the wider community about how Council intends to deal with discharges from 'high risk' sites. I note also

that post-2025 when the exclusions under proposed Condition 2 no longer apply, Council will have developed the risk matrix required under proposed Condition 3 setting out those sites considered 'high risk'. I consider that the risk matrix has the ability to take account of compliance with industry standards and guidelines as part of that assessment.

27. I agree that meeting an industry guideline is commendable, however I do not support the inclusion of a condition as proposed in the evidence of Mr Laurenson [paragraph 8.6] specific to discharges from petroleum industry sites, or any other specific industry or site, within the conditions of a comprehensive consent of this nature. The Council as consent holder is required to demonstrate compliance with the consent conditions as part of a comprehensive package covering all facets of stormwater management, including Council (as the stormwater network operator) requiring certain standards for sites when authorising discharge into the Council network to assist with that compliance. This is more appropriate, in my view, than individual industries or sites being subject to compliance against specific consent conditions within the package of conditions imposed on Council.
28. Mr Laurenson [paragraph 7.5] suggests amendments to the definition of 're-development site' so that in the case of existing activities, changes that reduce the potential for adverse environmental effects associated with the stormwater discharge will not be considered as a 're-development', as follows:

Re-development ~~site~~ - re-development ~~site~~ means a change to a developed site or a site activity that results in an operational stormwater discharge that is not the same in scale, intensity or character to the discharge that existed prior to the commencement of this consent. In the case of existing activities, changes that reduce the potential for adverse environmental effects associated with the stormwater discharge will not be considered redevelopment.

29. I agree with the intent of the suggested amendment in that I consider that the intent of the definition is to not categorise a site as a 're-development site' if changes mean that the potential for adverse effects are reduced. I do not consider that there needs to be a distinction made between an operational site, or any other site, but I do consider that clarifying a site activity has some merit, as there is potential for a specific activity within a site to change. I consider that the condition could be

redrafted to provide more clarity, and agree with Mr Norton (paragraph 23 of his rebuttal evidence) that the following wording is appropriate (deletions shown as ~~striketrough~~, additions shown as underline):

Re-development ~~site~~ - re-development ~~site~~ means a change to a developed site or a site activity that results in a stormwater discharge that has the potential to increase ~~is not the same in~~ the scale, intensity or contaminant content of character ~~to the discharge that existed prior to the commencement of this consent.~~

30. Mr Laurenson [paragraph 11.7] suggests amendments to proposed Condition 38(1) as follows:

Lodge a submission to central government within 18 months of giving effect to this consent seeking national measures and industry standards to reduce the discharge of contaminants to stormwater, including zinc and copper from metal roofs, car tyres and brake pads. The submission shall be accompanied by a cost benefit analysis for source control of these key contaminants of concern in Christchurch City.

31. Mr Laurenson suggests that a timeframe be assigned to this condition, which I support. However, I do not consider that the addition of the words 'to stormwater' are necessary as the intent of the submission is for Government to introduce legislation around the use of materials, rather than controlling stormwater runoff from them. My understanding is that these are typical urban stormwater contaminants, and so I do not see any added value in a cost benefit analysis being carried out and lodged with the submission. I suggest that proposed Condition 38(1) be drafted as follows (deletions shown as ~~striketrough~~, additions shown as underline):

Lodge a submission to central government within 18 months of giving effect to this consent seeking national measures and industry standards to reduce the discharge of contaminants, including zinc and copper from metal roofs, car tyres and brake pads.

32. Mr Laurenson [paragraph 13.4] considers that the timeframe within proposed Condition 3(a) and (c) should be brought forward from the current proposal of 'within 3 years of this consent being in legal effect'. He considers that proposed

Condition 3(a) should have a timeframe of 1 year, and the transition plan under proposed Condition 3(c) provided within a further 2 years (3 years in total). The matter of shortening the timeframe under proposed Condition 3(a) has been discussed between Council and Environment Canterbury staff, and they have agreed that a timeframe of 'within 6 months' would be appropriate. I agree with that proposal and consider that the timeframe under Condition 3(c) of 'within 3 years' is appropriate.

33. Mr Laurensen [paragraph 13.5] suggests that the term 'high-use site' should be deleted from the proposed conditions definitions as it does not appear anywhere throughout the proposed conditions. Mr Norton (paragraph 31 of his rebuttal evidence) has pointed out that the term 'high-use site' is used in Schedule 3 to the proposed consent conditions. I consider that the definition of the term should remain.

ANDREA RICKARD FOR NZ STEEL

34. NZ Steel's overriding concern in their evidence is around Council having a sound understanding of the products that it manufactures and the need to avoid any misunderstanding regarding the contaminants that might be entrained in stormwater from those products. NZ Steel would like to be included in the development and review of SMPs to ensure that unnecessary controls on their products are not proposed as a mitigation measure to achieve compliance with the resource consent. Ms Rickard [paragraph 10] considers it inequitable for specific building products to be targeted for controls through a planning process, when there are many other sources of zinc in the environment that are not proposed for control or management.
35. I acknowledge Ms Rickard's point about differing sources of contaminants and the past issues that NZ Steel have experienced with other councils. However, I do not consider that the SMPs, or the contents to be included in them under proposed Condition 6, would specifically require the targeting of controls on one source of zinc over another.
36. Ms Rickard [paragraph 15] suggests the approach with SMPs has the potential to create uncertainty for users of the SMPs, and that NZ Steel be added to the list of

parties to be involved in SMP development and review under proposed Condition 7 [paragraph 21.1]. As set out in the proposed conditions (that were attached to my EIC) Council suggests that a requirement for independent expert peer review of SMPs be added as a condition of consent (shown as an addition under proposed Condition 7). I consider that this assists with removing potential uncertainty referred to by Ms Rickard.

37. The proposed conditions of consent attached to my EIC set out the objectives of SMPs and the matters required to be included within them (Conditions 5 and 6). Through the notification of the Application, including proposed consent conditions, I consider that potentially affected parties have been provided with the opportunity to have input into SMP objectives and content. The consent, if granted, needs to be administered by Council as consent holder, which includes complying with the conditions of consent concerning the development and review of SMPs. As discussed by Ms Rickard [paragraph 12] SMPs are 'living documents'. They are to be reviewed and updated (as provided for in the proposed conditions of consent) and this will include taking account of new technologies such as building product advancement (proposed Condition 9).
38. I consider that the avenues for external input into SMPs during Council's exercise of the consent has been adequately provided for in the proposed conditions through the requirement to consult with relevant Zone Committees, relevant Community Boards and Papatipu Rūnanga. I do not support the ability for additional individual parties to be involved in the SMP process over and above that provided for within proposed Condition 7 (and as agreed with respect to the statutory functions of DOC). Council as consent holder is required to develop and implement the SMPs to achieve compliance with the full suite of conditions within their consent. SMPs are one part of that requirement (albeit a crucial part) to demonstrate Council's commitment to improve stormwater discharge quality over time.
39. Ms Rickards [paragraph 20] also questions how updates to policy documents such as the National Policy Statement for Freshwater Management (**NPSFM**) or the LWRP would influence or change SMPs. She considers it unclear as to how Council has had regard to the NPSFM, in particular the approach which seeks to recognise regional and local circumstances, and the process of having discussions

with communities and finding solutions on a catchment by catchment basis, as she would have expected NZ Steel to have been involved in the range of parties that have an interest in matters that relate to actual and potential effects on freshwater quality, social and economic matters.

40. It is not unusual for the planning framework to undergo changes throughout the life of a resource consent that has been granted. However, given that SMPs are 'living documents', I consider that they will be able to adequately respond to updates to the planning framework, such as the NPSFM or LWRP, as required.

41. With regard to the NPSFM and having discussions with communities, I assume Ms Rickard is referring to Objective AA1 and Policy AA1, Te Mana o te Wai, which requires regional councils, when making or changing regional plans, to recognise the connection between water and the broader environment, the health of the environment, the health of the waterbody and the health of the people (Policy AA1(a)). Policy AA1(b) states that values identified through engagement and discussion with the community, including tangata whenua, must inform the setting of freshwater objectives and limits. I consider that Council has had due regard to the objective and policy of Te Mana o te Wai, through the engagement and series of hui undertaken with Papatipu Rūnanga, and the wider community through notification of the Application. Further, I consider that the consultation undertaken by Council with Environment Canterbury on imposing relevant receiving environment objectives and attribute target levels on Council through the proposed conditions of consent achieves consistency with Policy AA1(b).

ANDREW PURVES FOR LYTTLETON PORT COMPANY (LPC)

Overview

42. Mr Purves [paragraph 7] points out that LPC is not pursuing its submission seeking the inclusion of Port stormwater discharges under proposed Condition 1 provided the proposed conditions contained in his evidence, or similar, are adopted.

43. I have read Mr Purves' suggested changes, and as he states [paragraph 30] they do not dramatically change the intent of the proposed conditions. Overall, I do not consider that the suggested changes to the proposed conditions would improve

clarity or certainty and I do not support making changes if there is no added value in doing so. On that basis and given that Council, Environment Canterbury and the community have been working with the current set of proposed conditions for the duration of the application process, I support only limited aspects of the changes suggested by Mr Purves.

Condition 1

44. Mr Purves' suggested changes to proposed Condition 1 to introduce and rely on the use of a map to interpret the conditions. Mr Norton [paragraph 34 of his rebuttal evidence) has discussed the potential for maps to lead to confusion. I also do not consider that a map covering all of Christchurch City and Banks Peninsula would provide the necessary clarity. Further, and as discussed by Mr Norton in his rebuttal (paragraph 33) I do not consider that Mr Purves' suggested changes to proposed Condition 1 cover all of the necessary scenarios for the discharge of stormwater to be covered by the consent. I acknowledge that Mr Purves suggests other new conditions that may provide more clarity, however in my opinion it is clearer to set out the full scope of the consent and exclusions up front.

Conditions 2 and 3

45. Mr Purves [paragraph 30] seeks to delete proposed Conditions 2 and 3 and replace them with a series of 15 new conditions, which he considers will more explicitly address the management of industrial sites. His suggested changes to the proposed conditions include specific reference to the industrial site audit process within the conditions, and changes to the Industrial Stormwater Audit and Assessment Methodology. Ms Valigore and Mr Norton (paragraph 36) have provided rebuttal evidence on this matter. Based on their evidence, I consider that the industrial site audit process should be kept separate from the conditions of this consent as the audit process deals with existing industrial sites that currently do not have authorisation for stormwater discharge from Environment Canterbury. This is distinct from the process of Council developing a risk matrix under proposed Condition 3 to determine 'high risk' sites with regard to their management post-2025.
46. I acknowledge the reasoning of Mr Purves [paragraph 44 – 46] around the process of how Council determines whether a site is considered 'high risk', and I discussed

the matter above in rebuttal to the evidence of Ms Wilkes. Proposed Condition 3 includes the development of a risk matrix that will provide the basis for decisions on 'high risk' as part of the transitional plan to manage sites post-2025 that were otherwise excluded from the consent. I support the use of a risk matrix because it will assess each potentially 'high risk' site on a case by case basis. Further, I note that on 1 January 2025 Condition 2 will no longer apply and I do not consider that such wholesale changes to proposed conditions 2 and 3 are necessary or would provide a greater understanding of the administration of industrial sites in the interim period prior to that date.

47. Mr Purves [paragraph 47] highlights a concern around the use of Schedule 1 to the proposed conditions of consent, as to whether it can be freely added to or subtracted from. I agree that changes to Schedule 1 are likely to require a change to the conditions of consent under section 127 of the Act. I note that although Council have kept a list of 'Schedule 1 sites' within the South West and Styx catchment areas, these have not been added to the respective Schedule 1's within the consent conditions through section 127 of the Act for either of the existing resource consents CRC120223 (South West) or CRC131249 (Styx). I further note that from 1 January 2025 Schedule 1 will no longer apply as Council will take over the management of sites that would otherwise have been excluded.
48. Proposed conditions pertaining to construction phase stormwater have been discussed by Mr Norton in his rebuttal evidence, where he also refines the Council position on the use of a total suspended solids (**TSS**) limit. He confirms his view that TSS limits should be developed on a site-specific basis as part of a risk matrix. He recommends (at paragraph 37 of his rebuttal evidence) a new proposed Condition 41 (under the heading Erosion and Sediment Control) that requires Council to develop a risk matrix for development sites, which would alert users of the ability of Council to impose a TSS limit on construction phase stormwater discharges. Based on the evidence of Mr Norton I agree with this approach. I also prefer the approach in the proposed conditions regarding the exclusion of stormwater generated from a stage of development with a total area of disturbance exceeding 5 hectares on flat land or 1 hectare on hill land to be an exclusion under proposed Condition 2, rather than included as an exclusion under a separate construction phase discharge heading as suggested by Mr Purves [paragraph 55].

I prefer this approach as I consider that more clarity is provided by having all of the exclusions in one place within the proposed conditions.

Condition 19

49. I do not consider that the changes suggested to proposed Condition 19 by Mr Purves [paragraph 58] provide any added clarity or certainty. I do not agree that a direct obligation of a third party is inferred by proposed Condition 19 any more than the consent in its entirety requires Council to compel third parties to assist in achieving compliance throughout the district.

Condition 41

50. Mr Purves [paragraph 60] suggests changes to proposed Condition 41 if references to Schedule 1 are deleted. Although I agree that there are limitations of adding sites to Schedule 1, based on the evidence of Ms Valigore regarding the way industrial site audits are conducted, I prefer the current version of proposed conditions under the hearing 'Industrial Site Management' within the proposed conditions. I also note that come 1 January 2025 Schedule 1 will no longer apply.

Condition 46

51. Dr Margetts has responded in her rebuttal evidence (her paragraph 8 – 11) to the changes suggested to proposed Condition 46 by Mr Purves [paragraph 61]. I agree with Dr Margetts evidence on the suggested changes and therefore do not provide a response in this evidence.

Definitions

52. Changes to definitions are also suggested by Mr Purves. I do not consider that a definition of 'construction phase stormwater' is necessary as this is defined in the LWRP under which this consent is applied for. If, for clarity a definition was required I would prefer using the LWRP version. Similarly, I do not consider that a definition of residential activity is required, and I would prefer using the definition within the Christchurch District Plan (**CDP**) if this is considered necessary (which I note is also the definition referred to in the LWRP).

53. Mr Purves' definition of 'development site' matches that within the proposed consent conditions.
54. I do not consider a definition of HAIL is required as this is not referred to within the proposed consent conditions.
55. The definition of 'operational phase stormwater' proposed by Mr Purves may, in my opinion, add some clarity given that this is not defined in the LWRP. However, as discussed by Mr Norton (paragraph 38 of his rebuttal evidence) this may be unnecessary given that references to discharges from 'development sites' achieves the same demarcation between 'construction' and 'operational' phase stormwater discharges. Further, if a definition was added for 'operational phase stormwater' it would need to refer to more than just those discharges into the CCC network, for example, operational phase stormwater discharges includes stormwater into land from roofs.
56. A 'redevelopment site' is already defined in the conditions, however I have suggested minor amendments in response to the Oil Companies evidence (my paragraph 29 above), and that is my preferred definition.
57. Mr Purves' suggestion is to clarify that stormwater includes construction phase and operational phase stormwater. Although this may provide clarity, I consider that it has the potential to cause confusion between the definitions and the activity described in proposed Condition 1.

ROBERT POTTS FOR ANTONIO AND KERRIE RODRIGUES

58. Mr Harrington has provided rebuttal evidence to the technical evidence from Mr Potts on behalf of Antonio and Kerrie Rodrigues. I have restricted my evidence to a discussion on LWRP Policy 4.17 in response to the differing opinions of Mr Potts and Mr Harrington.
59. LWRP Policy 4.17 seeks the following:

Stormwater run-off volumes and peak flows are managed so that they do not cause or exacerbate the risk of inundation, erosion or damage to property or infrastructure downstream or risks to human safety.

60. Mr Potts [paragraph 17] does not consider that an increase in flood depth in an area already suffering from prolonged inundation meets Policy 4.17.
61. Mr Harrington discusses the 'prolonged inundation' that occurs at the Rodrigues' property from extended periods of high groundwater levels, rather than extended periods of direct inundation from the Styx River. He considers that the high groundwater levels and their management are not related to the scope and objectives of this Application, which is about the management of stormwater discharges from urbanised surfaces. I agree with Mr Harrington but acknowledge the concern expressed by Mr Potts around flooding issues being related to one another. In my opinion the difference of opinion centres around the source of the inundation.
62. Mr Harrington has clarified the points raised by Mr Potts. He confirms that the modelling allows for a 16 % increase in rainfall intensity and does not consider that there is a likely major increase in flooding risk from the Styx River (as distinct from the tide) within a time horizon in excess of the proposed 25 year consent duration (paragraph 10).
63. Mr Harrington discusses the tidal issues at Brooklands Lagoon and does not consider that Brooklands Lagoon is part of the Styx River. Mr Harrington confirms that sea level rise is taken into account, although the Application is not seeking to manage the effects of sea level rise, and he suggests that there may be localised solutions to deal with drainage issues experienced by the Rodrigues' at their property.
64. I acknowledge the frustration that the Rodrigues' experience in the Brooklands area due to the inundation described by Mr Potts. Mr Harrington has described (in EIC and rebuttal evidence) how the run-off volumes and peak flows are being managed by Council. I accept that there are differing views from the experts about whether the discharge of stormwater from the Council network will cause or exacerbate the risk of inundation, erosion or damage to property, or risks to human safety. However, based on the evidence of Mr Harrington, I consider that the proposed stormwater discharge and mitigation measures regarding flooding and water quantity effects is generally consistent with Policy 4.17.

BRIAN WARBURTON FOR TRANSPOWER

65. In the letter dated 12 October 2018 and signed by Sarah Shand, Transpower seek the addition of conditions specific to the protection of the nationally significant transmission network [Appendix A to the letter dated 12 October 2018]. Transpower requires this to ensure that the consent will align with the National Policy Statement on Electricity Transmission 2008 (**NPSET**), the New Zealand Electrical Code of practice for Electrical Safe Distances (NZECP 34:2001) (**NZECP**) and the Electricity Act 1992 (**EA**).
66. The first suggested new condition [Appendix A of the letter dated 12 October 2018] refers to maintaining access to the national grid. The EA is legislation that must be complied with and so any infrastructure that has the potential to affect Transpower's access to the national grid would fall under the requirements of that legislation. I do not consider it necessary for the addition of a condition on a resource consent for the discharge of stormwater to ensure such provision of access.
67. The second new condition suggested by Transpower [Appendix A of the letter dated 12 October 2018] requires that the consent holder must ensure that changes to the stormwater drainage patterns and runoff characteristics do not result in any adverse effects on the foundations of any national grid support structure or any substation. The third suggested new condition requires compliance with NZECP. Again, I consider that these requirements are already covered through existing legislation and policy documents. The effects of any changes to the stormwater drainage patterns and runoff characteristics are to be considered by Council within the existing proposed conditions of consent (such as Condition 6 with regard to SMP development), along with through the land drainage work discussed in the EIC of Mr Parsons. The extent of stormwater infrastructure, including the locations and identification of water quality and quantity mitigation facilities and devices is required under SMP Conditions 6(b) and (e), as well as under the three yearly implementation plan required under proposed Condition 13. Compliance with the NZECP would be required regardless of a condition to that effect.
68. In my opinion the suggested conditions would not impose any additional requirements on Council as consent holder. However, I generally do not support

the inclusion of conditions specific to any industry or type of site within the conditions of a comprehensive consent of this nature, where this can be avoided.

JANE SUSAN WEST

30 October 2018