

IN THE MATTER of the Resource
Management Act 1991

AND

IN THE MATTER of Notices of Requirement by
Central Plains Water Limited

AND

IN THE MATTER of Applications for Resource
Consent by the Central
Plains Water Trust

**Supplementary Planning Report
Prepared by Nick Boyes
on behalf of the Selwyn District Council**

11 August 2008

Qualifications and Experience

1. My full name is Nicholas (Nick) Brian Boyes. I am an Associate and Senior Planner with Resource Management Group Ltd; a Christchurch based consulting resource and environmental management firm. I hold the qualifications of Bachelor of Science (majoring Plant and Microbial Science and Geography) from the University of Canterbury and a Master of Science (Resource Management) (Honours) from Lincoln University. I have worked in the field of planning/resource management since 1999, including being employed by Selwyn District Council as a Resource Management Planner from 1999 to 2001. Since that time I have been engaged by the Council as a Consultant Planner on a frequent basis, including undertaking the role of Acting Senior Regulatory Planner and providing planning assistance to Council Hearing Panels in the role of Hearings Advisor. This experience has provided me with a working knowledge of the relevant planning provisions of Proposed District Plan and an appreciation of the planning issues facing the District.

Summary

2. The original section 42A report set out that *“where the level of detail is considered inadequate to make a final determination on the extent of environmental effects, a preliminary recommendation based on the level of information currently available is made as well as signalling areas requiring further investigation/information at the hearing. Therefore, all findings and recommendations may change following the additional information/evidence presented in either CPW’s (pre-circulated) or submitters’ evidence to be given at the hearing”* (paragraph 5, page 2).
3. In summary, the information presented by the applicant at the hearing is considered to have done little to address the primary areas of concern set out in the original section 42A reports (including those of the various specialists). New information submitted by the applicant has largely been in response to the direct requests from the Commissioners. It is noted that much of this information is similar to that requested by the SDC prior to the hearing but either not provided, or not provided to what was considered a satisfactory level (for further discussion on the requests for further information prior to the hearing please see my original report paragraphs 22 and 23).
4. It is accepted that a scheme of the scale proposed by CPW may lead to the loss of significant sites and adverse effects. However, my concern is that given the current level of assessment undertaken by the applicant, it is difficult if not impossible to undertake an ‘overall balancing exercise’ as required by the Act when the extent and significance of values that might be lost are not known. In my view the scale of this project and the likely effects it will have on the Canterbury Region for future generations are such that the balancing exercise cannot be undertaken based on assumptions made by the applicant regarding the actual and potential environmental effects. On that basis I consider it important that the applicant undertake a detailed archaeological and ecological survey of the scheme footprint to establish the values present before any NoR/designation is confirmed.
5. Rather than re-assess the scheme based on the information provided, it is proposed to deal with matters that have arisen during the course of the hearing that may not have been considered or not considered sufficiently in the original section 42A reports. Based on the extent of information already presented, I have attempted to keep this

report as brief as possible and deal only with the key issues relevant in the context of the appropriate statutory considerations.

Purpose and Scope of the Supplementary Report

6. I have been engaged by the Selwyn District Council (SDC) to process and report on the Notices of Requirement (NoR) and land use resource consents lodged in relation to the proposed Central Plains Water irrigation scheme by Central Plains Water Ltd and the Central Plains Water Trust (collectively referred to hereon as the applicant).
7. I authored a report prepared in accordance with section 42A of the Resource Management Act 1991 (the Act) dated 31 January 2008. Since that time I have had the opportunity to review any additional material presented by both the applicant and submitters at the hearing. The purpose of this 'Supplementary Report' is to assess that new information and to record any changes to the conclusions and recommendations set out in my earlier section 42A report.
8. As with the section 42A report, the opinions, conclusions and any recommendations made in this supplementary report, and also those prepared by the other experts engaged by the Council (as listed below), are not binding on the Commissioners. It should not be assumed that the Panel of Hearing Commissioners will reach the same conclusions having heard and considered all evidence presented at the hearing by the applicant and submitters.
9. The processing of the NoR and consent applications and preparation of this report have been undertaken with advice from various other independent specialists engaged by the SDC. The following persons have prepared supplementary reports, which should be read in conjunction with this planning assessment:

		Annexure
Landscape	Mr Andrew Craig	A
Social Impacts	Ms Di Buchan	B
Acoustic/Noise	Dr Jeremy Trevathan	C
Archaeological/Cultural/Heritage	Mr Chris Jacomb	D
Terrestrial Ecology	Mr Mark Davis	E
Traffic/Transportation	Mr Nigel Williams	F
On Farm Economics	Mr Stuart Ford	G
Scheme Economics	Mr Geoff Butcher	H

10. Mr Stuart Ford did not provide advice in relation to the preparation of the original section 42A report. During the course of the hearing much of the discussion regarding economic assessment of the scheme centred on the reliability of the commodity prices used in the various on-farm budgets attached to the evidence of Mr Macfarlane for the applicant. On that basis, and with the agreement of the Commissioners, it was considered appropriate to engage a further economist with particular expertise in that area to review that information and provide independent comment to the Commissioners. The assessment undertaken by Mr Ford has then been used by Mr Butcher in drawing overall conclusions regarding the economics of the scheme.
11. The original section 42A report also included a report by Mr Jeremy Eldridge in terms of the civil engineering and dam safety aspects of the proposal. Based on the further evidence provided on behalf of the applicant by Mr Davidson and Mr Gillon, Mr

Eldridge did not consider his original advice had changed to the extent required to prepare an additional report. Notwithstanding, Mr Eldridge did provide some brief commentary regarding the new set of volunteered conditions attached to Mr Tipler's most recent brief of evidence. These comments refer specifically to recent changes to the Building Act requirements relating to large dams and have been incorporated into this planning assessment.

12. During the course of the hearing a number of legal issues have arisen on which the Commissioners have sought further advice. On that basis Mr Paul Rogers from Anthony Harper Lawyers has been asked to provide an opinion and this is attached to my report as **Appendix One**. Mr Rogers has provided legal advice to the SDC regarding the processing of the CPW NoR and consent applications since June 2006. Mr Rogers' advice relates to the following matters:

- The tenure of the land held for river protection by Environment Canterbury and whether the compulsory acquisition provisions of the Public Works Act apply in relation to that land;
- The relationship between the Resource Management Act and the Public Works Act;
- The scope of the Public Works Act and whether compulsory acquisition applies in relation to Mineral Rights;
- Bundling of consents for the purpose of establishing activity status, particularly as it relates to applications sought from differing consent authorities; and
- The ability for the SDC to consider land use change brought about by the scheme when considering the NoR.

Statutory Considerations

Notice of Requirement/Designation - Section 171 of the Act

13. As set out in the original report, in accordance with section 171 a territorial authority must, subject to Part 2, consider the effects on the environment of allowing the requirement. Section 171 goes on to list matters that the territorial authority must have 'particular regard to' when undertaking this assessment, these include:

- (a) *any relevant provisions of—*
 - (i) *a national policy statement;*
 - (ii) *a New Zealand coastal policy statement;*
 - (iii) *a regional policy statement or proposed regional policy statement;*
 - (iv) *a plan or proposed plan; and*
- (b) *whether adequate consideration has been given to alternative sites, routes, or methods of undertaking the work if—*
 - (i) *the requiring authority does not have an interest in the land sufficient for undertaking the work; or*
 - (ii) *it is likely that the work will have a significant adverse effect on the environment; and*
- (c) *whether the work and designation are reasonably necessary for achieving the objectives of the requiring authority for which the designation is sought; and*
- (d) *any other matter the territorial authority considers reasonably necessary in order to make a recommendation on the requirement.*

14. I have used these requirements as the framework for the further assessment set out in this supplementary report, focussing in particular on sections 171(1)(b) and (c).

Notwithstanding, there are some matters relating to the Selwyn District Plan that require further comment before considering the effects of the scheme.

Selwyn District Plan

15. An assessment of the scheme against the provisions set out in the Proposed Selwyn District Plan was set out in the original section 42A report. It is noted that in the meantime the District Plan was made partially operative on 10 June 2008. Those parts of the Plan not yet operative (relating to current Variations and some designations) do not specifically affect the activity status or consideration of the CPW scheme.

Provisions Relating to Indigenous Vegetation

16. Rule 9.21 of the Selwyn District Plan sets out rules relating to 'Activities and Clearance of Indigenous Vegetation and Indigenous Plant Species'. These rules are attached as **Appendix Two**. These rules were not specifically addressed in either the applications lodged by CPW or the original section 42A report.
17. Rule 9.21.1.1 to 9.21.1.6 sets out the conditions which must be met in order to be a permitted activity. I have sought advice from Mr Davis on whether any plant species listed in Appendices 13 or 14 are potentially affected by the scheme. Mr Davis advised that from his limited site investigations it is his view such plants are likely to be affected by the major scheme components (reservoir and head races). Furthermore, in terms of 9.2.1.4, Mr Davis noted that the wetlands on land owned by the Selwyn Plantation Board Ltd, and the peat bog first referred to in the evidence of Dr Meurk on behalf of the Royal Forest and Bird Protection Society of New Zealand, fall within the definition of a 'naturally occurring wetland'.
18. The affect on activity status is determined by Rules 9.21.3 and 9.21.4. It is noted that Rule 9.21.1.4 (wetlands) is referred to in both 9.21.3 (discretionary) and 9.21.4 (non-complying). Notwithstanding, in the circumstance that plant species set out in both Appendices 13 and 14 of the District Plan are affected by the parts of the scheme subject to the NoR, the CPW proposal is considered to have non-complying activity status. This activity status is of little direct consequence in itself as the major components making up the scheme (intakes, head races, and reservoir) are the subject of a NoR rather than resource consent/s. However, the non-complying status does indicate the significance the District Plan framework places on protection of indigenous vegetation and threatened plant species from further clearance.
19. The distribution network is subject of various resource consent applications. In terms of compliance with the above rules relating to indigenous vegetation, there are no known naturally occurring wetlands that are directly affected by the proposed alignment of the races. It is considered to be highly unlikely that plants listed in Appendices 13 and 14 might be affected by the network. On that basis the consent applications are considered most likely to retain discretionary activity status. Should the proposed alignment encounter any such species, it would appear possible for the alignment to be amended slightly and therefore retain discretionary activity status¹.

¹ The process for amending the alignment and extent to which any such changes could be considered under the present consents was set out in paragraphs 76 to 81 of the original section 42A report.

Activity Status – ‘Bundling’

20. One matter that has arisen during the course of the hearing affecting activity status is bundling. It has been suggested by some submitters that this requirement extends to all consents, whether or not they be from a different consent authority. This would have the effect of all consent applications being considered as non-complying. It is considered that the consents relating to the distribution network are discretionary activities, on the basis that any wetlands as well as threatened, uncommon and regionally significant plants would be avoided (as discussed above).
21. Bundling has been addressed by Mr Paul Rogers in his legal advice. I agree with that advice that ‘bundling’ should not be applied to consents required from different consent authorities. The consent authorities are exercising different functions as set out in the Act and administering different Plans written for different purposes and with possibly different approaches and thresholds for establishing activity status. Whilst the Act refers to integrated management in terms of all consents being lodged and in some cases heard together, in my view this does not extend to adopting the activity status of other consents required as part of an overall project from a different consent authority.

Objectives and Policies

22. In response to a query from the Commissioner Panel Mr Daniel Murray, on behalf of the applicant, has prepared a summary of the each planning witness’ conclusion regarding what they considered to be the relevant objectives and policies set out in the various planning documents.
23. I have reviewed that document and consider it sets out an accurate assessment of the views expressed in regard to the objectives and policies contained in the Selwyn District Plan by the various Planners who provided planning evidence in relation to the entire scheme².
24. The objectives and policies included in the Selwyn District Plan that I consider to be relevant to the consideration of the NoR and resource consent applications were attached as Appendix N to my original section 42A report.

Assessment of Environmental Effects

25. The original section 42A report set out an assessment of the environmental effects of the proposed scheme. This assessment relied on the specialist advice received from the various technical experts engaged to assess the scheme.
26. The framework for assessment was discussed therein, including the function of the Outline Plan process in the case of the NoR and the scope of the assessment in terms of future land use changes. Each of these matters is further considered below as they were matters frequently raised during the course of the hearing. The relationship between the Public Works Act and the Resource Management Act is then discussed in the context of the legal advice received from Mr Rogers. Finally, a brief summary of various environmental effects is provided, setting out any changes from the assessment set out in the original reports, before moving onto consider the other matters set out in section 171.

² It is acknowledged that in additional Planner’s gave evidence, but this was limited to specific aspects of the scheme.

Designation – Appropriate Level of Detail

27. As noted by CPW, a designation *“provides a greater degree of flexibility for the applicant, with detailed design and subsequent construction works able to occur on an as required basis, following the lodgement of an outline plan in accordance with section 176A of the Resource Management Act”*³.
28. The applicant has questioned my approach in regard to the appropriate level of detail required as part of this NoR process, essentially describing the approach taken as more akin to that appropriate in the context of a resource consent. Whilst I concur with the applicant that there are differences between the level and timing of information required between the resource consent and NoR processes, I still maintain that in this particular case the applicant has fallen well short of what would normally be required in terms of an adequate assessment of environmental effects. Primarily in terms of establishing what archaeological, cultural and ecological values are present within the scheme footprint so as to assess the significance of any potential loss of such values.
29. A related matter concerns the extent of mitigation that should be required in the context of a NoR. I addressed this matter in paragraph 95 of the original report, which included *“...a balance is required when considering the effects of the proposed scheme between the extent of information required at this time, and what can be considered as part of any subsequent Outline Plan process. It is considered that the approach taken by CPW does not necessarily give adequate consideration to section 171(1), where the consent authority must “consider the effects on the environment of allowing the requirement”. On that basis it is considered that the NoR must clearly signal the likely effects of the activity subject to the NoR, and that the Outline Plan process is to determine the specific detail as to “any other matters to avoid, remedy or mitigate any adverse effects on the environment”*⁴. Obviously there is a great deal of cross-over during this process as the consideration of the extent of effects relies on whether these effects can be adequately avoided, remedied or mitigated”.
30. Central to this issue is the appropriateness of reliance on management plans in order to deal with any adverse effects as they arise. As acknowledged in the original report, in some cases it may be appropriate to defer detailed assessment and management plan preparation until after the designation is put in place. In other cases, depending on the probability, scale and significance of any potential adverse effects, it is considered that greater detail of the content of these plans is required in order to undertake an assessment of the actual and potential environmental effects of a proposed scheme.
31. Primarily my concern with the level of information provided to date is that it is impossible to establish the extent of potential adverse effects, and therefore what is required to avoid, remedy, or mitigate such effects, without having established the values present within the footprint. In this regard I am particularly concerned in relation to cultural and archaeological effects as well as effects on indigenous vegetation given the assessments undertaken by Mr Jacomb and Mr Davis respectively.
32. An example of this situation is the peat bog within the Waianiwaniwa Valley which was effectively unknown until brought to the attention of the Commissioner Panel by Mr Meurk. This has subsequently been visited by Mr Davis⁵ who assesses the

3 Urbis Ltd (June, 2006). Notice of Requirement – Assessment of Effects, page 13.

4 Section 176A(2)(f) of the Act.

5 Ecologist engaged by the Selwyn District Council.

significance of this site as being one of only three existing within the wider Canterbury region. Mr Davis regards the loss of this site is a matter of national importance under section 6(a) and (b) of the Act. At this stage, without a thorough ecological and archaeological assessment of the values present within the scheme footprint, it is my view that it is not possible to undertake an assessment of the actual and potential effects of the scheme. It is difficult to see how any management plan or the Outline Plan process could effectively avoid, remedy or mitigate the effects of the loss of such a site, particularly when it is not known how many other such sites might exist within the scheme footprint.

33. In that context I have difficulty with the approach set out in Ms Robson's response to my section 42A report where she states (paragraph 12, page 5):

In the present case, I accept that there could well be some loss of archaeological sites and perhaps of small pockets of significant indigenous vegetation. While such losses run counter to sections 6, 7 and 8, I consider that these costs have to be assessed in the overall balancing exercise which must be undertaken in respect of the scheme. They do not automatically mean that the territorial authority should recommend withdrawal of the requirement as appears to have been the approach taken in this case by Mr Boyes.

34. I accept that a scheme of the scale proposed by CPW may lead to the loss of significant sites and adverse effects. However, in my view, given the current level of information and assessment undertaken by CPW, it is impossible to undertake such an 'overall balancing exercise' when the extent of such values that might be lost are not known. There has been no assessment undertaken by the applicant to draw the conclusion that only "small pockets" of significant indigenous vegetation could be lost. In my view the scale of this project and the likely effects it will have on the Canterbury Region for future generations are such that the overall balancing exercise required under the Act cannot be undertaken based on assumptions made by the applicant regarding the extent of any actual and potential environmental effects prior to the NoR being confirmed. On that basis I consider it is important that the applicant undertake a detailed archaeological and ecological survey of the scheme footprint to establish the values present before any NoR/designation is confirmed.

Ability to Consider Future Land Use Changes

35. The approach taken to the assessment set out in the original section 42A report was that the effects relating to changes in future land are controlled through District Plan provisions. It was also acknowledged that the construction of the scheme would facilitate land use change within the central plains beyond that which would not have been anticipated at the time the District Plan was prepared given the availability (or otherwise) of water for irrigation purposes. Should there be concerns regarding the effects arising from the extent of land use change following the scheme, in my view such concerns are more appropriately addressed through the District Plan process.
36. A number of submitters have raised concerns regarding a change to dairying in particular, and the subsequent environmental and social effects that will have on the community. It is noted that many such effects are considered by ECan in relation to the 'use' of water and that the applicant has put forward a farm management plan in order to attempt to address any such concerns.
37. In order to check the appropriateness of the approach adopted in the reporting on the scheme I have asked Mr Rogers to comment on the ability of the SDC to consider

future land use change as part of both the NoR and resource consents required, rather than simply the effects arising from the construction and operation of the scheme.

38. Mr Rogers confirms that the Commissioner Panel have a discretion as to what extent to consider future land use changes, including those that would be permitted, when considering the NoR and resource consents. In that context I am satisfied that the approach set out in my original section 42A report is appropriate. If I am wrong in this approach then I note that in any case some general information of this nature has been provided by the applicant in terms of the economic assessment and various mitigation of set out in the farm management plan. Although it is acknowledged that this mitigation appears to be put forward in the context of the use of water applications to ECan. Should the Panel exercise its discretion to consider such effects in the context of the SDC NoR and consents, I would consider much more detailed information would be required in terms of extent of land use change and its spatial distribution. In the context of the NoR I considered this level of detail to be inappropriate and better left to the administration of the District Plan, subject to any future amendments the SDC might consider appropriate should the scheme proceed.

Public Works Act

39. A matter also raised frequently during the course of the hearing has been the compulsory acquisition and compensation process under the Public Works Act 1981 (the PWA) for land affected by the NoR.
40. This PWA was only briefly mentioned in the original section 42A report as it was assumed that that process was entirely separate to the consideration and assessment of a NoR under the Resource Management Act (see paragraph 65 of the original report). Furthermore, at that time CPW had not commenced any process of discussion with directly affected parties regarding compensation.
41. During the course of the hearing there have been discussions regarding the ability to consider proposals for compensation in terms of assessing (or 'discounting') at least some of the direct effects of the scheme on affected persons. The applicant has recently put forward an offer of land purchase at 25% above market rate (Memorandum of Counsel dated 4 July 2008). I have referred the legal issues surrounding the PWA to Mr Rogers for comment and his response is attached (**Appendix One**). This would indicate that it is not appropriate to consider the potential for future compensation when considering adverse effects, or as a potential mitigating factor that reduces the level of any such effect.
42. This CPW offer of compensation and whether it adequately mitigates any social impacts of the scheme are further addressed in the supplementary report considering the social impact of the scheme prepared by Ms Di Buchan.
43. A similar situation to that discussed above arises in regard to the resource consents for the distribution network. Except that in that case there is not the same ability to utilise compulsory acquisition. It is my understanding that any decision to grant resource consent to the construction and operation of the distribution network does not over-ride private property rights. Regardless of any resource consent/s granted, the distribution network can only be constructed on the basis that either permission is obtained from the landowner or some other process results in land acquisition. This situation has been relied on to overcome many of the potential adverse effects on landowners affected by the distribution network on the basis that should they not agree with the

proposed location it will not be constructed, which is different to the case of the NoR and the ability to compulsorily acquire land regardless of the wishes of the landowner involved.

44. Other matters relating to the PWA that have arisen during the hearing relate to mineral rights and ECan land held for flood protection functions. These are included within the legal advice obtained from Mr Rogers and discussed below.

Mineral Rights

45. As set out in the original report, land within the Waianiwaniwa Valley is subject to mineral rights. It was suggested by submitters that these mining rights fall outside the scope of the PWA and therefore cannot be compulsorily acquired as in the case of land subject to a designation.
46. Mr Rogers has specifically referred to section 30 of the PWA which sets out that mining rights may be compulsorily acquired by Proclamation in the same manner as land. On that basis of the opinion received, it would appear that the presence of mining rights in the Valley would not frustrate the ability of the requiring authority to give effect to any designation put in place in relation to the CPW scheme.

ECan Endowment Land

47. The evidence of Ms Jane Whyte for ECan referred to the tenure arrangement of the land held by ECan for flood protection purposes downstream of the proposed Lower Waimakariri Intake site. The nature of the evidence and a legal opinion obtained by ECan from Wynn Williams & Co were forwarded to Mr Rogers for legal comment.
48. The advice confirmed the following:
- The vesting of land in ECan under section 17 of the Waimakariri River Improvement Act 1922 (the WRIA) does not prevent a designation being imposed over that land.
 - The consent of ECan would not be required under section 186(4) of the PWA in order for CPWL to compulsorily acquire the land.
49. A related issue is ECan's responsibilities under the Soil Conservation and Rivers Control Act 1941 (the SCRCA) and how these relate to the powers of a requiring authority set out in the Act. This is also dealt with by Mr Rogers in his legal opinion. Interference with flood protection works without ECan's consent is an offence under the SCRCA. Mr Rogers suggests that this may prevent CPWL from giving full effect to any designation if such works require the approval of ECan and such approval is withheld. Notwithstanding, ECan would in the future require the written consent of CPWL as requiring authority under section 176 of the Act to undertake any new work that would prevent or hinder the project or work to which the CPW designation relates.
50. It is noted that some of the ECan land held for flood control purposes is already designated in the District Plan, however, that designated land is located further east (downstream) of the land subject to the CPWL NoR (approximately as far east as Bleakhouse Road). Therefore, the requirements set out in section 177 of the Act do not apply.

Environmental Effects

51. As listed above, the technical experts engaged by the SDC have prepared supplementary reports dealing with further matters arising during the course of the hearing. I do not intend to repeat or otherwise summarise that information here.
52. I do note there was a change through the course of the hearing regarding the extent of actual and potential adverse effects as a result of the scheme. The applications as lodged referred to effects being no more than minor. The legal submissions on behalf of the applicant stated *"It will be the witnesses' individual and combined view that the adverse effects likely to arise from the proposed development are non-existent, less than minor, or minor"* (Paragraph 175).
53. Notwithstanding, both Ms Robson and Mr Glasson referred to significant landscape effects arising from the scheme when questioned by the Panel. Ms Robson referred to the positive effects of the scheme and the overall balancing exercise required when assessing the effects of the NoR.
54. The applicants have put forward the following positive effects arising from the scheme:
- Increased recharge of groundwater;
 - Increased flows to lowland streams;
 - Increased recreational opportunities associated with the scheme water bodies – in particular the reservoir; and
 - Economic advantages in terms of regional and National GDP and job creation.
55. It would appear from the evidence that there is significant uncertainty surrounding each of these claimed benefits. Effects on groundwater recharge and lowland streams are considered by others on behalf of ECan. In terms of recreational benefits of the reservoir, it is considered that any such benefits would be constrained by the changes in water level through the scheme operation. The reduced amenity caused by exposed lakebed and potential for dust would in my view significantly impact on the amenity and recreational opportunities and value during times of low water level. Furthermore, as detailed in the original section 42A report, the applicant withdrew from the application consideration of any enhancement measures to improve the recreational experience offered by the reservoir.
56. In terms of economic effects, a great deal of discussion has centred on the farm budgets used to generate the CBA and economic analysis undertaken regarding the scheme. As a result, the SDC has engaged Mr Stuart Ford to consider the farm budgets prepared by Macfarlane Rural Business Ltd. Mr Ford's conclusion is that the appropriate net benefit approach for the proposed scheme would be more conservative than those presented by the applicant, therefore reducing the net impact and cost benefit of the proposal.

Areas of Agreement

57. In terms of traffic, engineering and noise there appears to be largely agreement between the technical experts engaged by both the applicant and SDC that the conditions proposed are appropriate for a scheme such as CPW.
58. In terms of engineering, Mr Eldridge has not prepared a separate supplementary report. However, Mr Eldridge has reviewed the relevant evidence of the applicant,

namely Mr Gillon and Mr Davidson and advised that “*technical reliance can be placed with the opinion of these two pre-eminent dam engineering experts*”.

59. In regard to the conditions proposed, Mr Eldridge made the following comments:

The proposed Consent CRC061845 contains conditions relevant to the dam and, in a general manner, dam safety. The NZSOLD dam safety guidelines are referenced in connection with safety surveillance and monitoring, and the emergency action plan. The consent conditions do not appear to make reference to either the Building Act or the NZSOLD guidelines in connection with the design and construction of the dam.

Building Consents for dams are intended to be the means by which dam safety will be administered. Recently (7th July) the Building (Dam Safety) Regulations 2008 were promulgated to support the Building Act 2004. These become effective on 1st July 2010. In addition, based on our recent information, the various Regional Authorities that will administer the requirements of the Act will assume these responsibilities in March next year. Therefore, Selwyn DC and ECan may consider that dam safety aspects will be covered, by the commencement date for the project, by the relevant Regional Authority. If so, SDC and ECan may wish to defer these considerations to the Building Consent stage if it is considered that adequate coverage is thus achieved by so doing.

However, between now and 2010, there will be a transition period in which the procedures for processing Building Consents will be developed in anticipation of the Regulations taking effect. Given that there is still uncertainty in the Building Consent process for dams, we consider that Consent CRC0671845 should make reference to both the Building Act and the NZSOLD guidelines in connection with the design and construction of the dam.

60. On that basis it is recommended that any recommendation to the applicant regarding conditions to attach to the NoR for the dam and head race include reference to both the Building Act and the NZSOLD guidelines in connection with the design and construction of the dam.

Archaeology/Cultural Effects

61. In my original section 42A report I referred to the confluence of the Waimakariri and Kowai Rivers as a Statutory Acknowledgement Area under the Ngai Tahu Claims Settlement Act 1998. In her response to that report Ms Robson noted that the Proposed Plan was in error and that this site is not a Statutory Acknowledgement.
62. The confusion regarding this particular Statutory Acknowledgement Area stems from the Ministry for the Environment publication “Statutory Acknowledgements – A Guide for Local Authorities”. Annex 2 to that document showed the location of the Kowai River Statutory Acknowledgment Area being inland and on the Waimakariri River. Notwithstanding, it is acknowledged that this document and the Proposed Selwyn Plan as notified were incorrect, and that the correct placement is the Kowai River north of the Waimakariri River.
63. Ms Robson suggested in her response to my section 42A report (paragraph 8) that my assessment to recommend the withdrawal of the Upper Waimakariri Intake was “tipped” by the incorrect assessment of the location of the Statutory Acknowledgement. That recommendation was in fact primarily driven by my assessment that only one of the options for intake sites on the Waimakariri River should proceed. Based on the information available at that time I considered that the Lower Waimakariri River Intake

was more appropriate, primarily given the potential for archaeological effects and also the economic efficiency considerations. The matter of alternatives is further considered below.

64. The confusion regarding which Kowai River was subject of the Statutory Acknowledgment illustrates that both sites are of cultural significance to Ngai Tahu. Mr Jacomb has referred to the significance of this particular area and is of the view that an archaeological survey would be required prior to any decision to confirm the designation sought. I concur with that assessment.

Assessment of Effects Summary/Conclusion

65. In the original section 42A report I included a summary table of the various effects considered in the report and the environmental effects conclusion based on the current level of information available. Set out below is an updated version of that table based on the further information/evidence presented at the hearing.

Effect	Summary/Comments
Existing Infrastructure <ul style="list-style-type: none"> • State Highways • Roads • Railway line • Water Races • Water supplies 	CPW has provided undertaking that all existing infrastructure will not be physically disrupted or closed during either construction or operation phases. Subject to appropriate conditions and further approvals under section 177(1)(a) of the Act any effects should be adequately avoided, remedied or mitigated. It is noted that disruption to services due to potential increases in groundwater levels will be assessed by ECan.
Landscape/Visual Effects	Assessment of Mr Craig is that a better option exists than that currently being pursued for Upper Waimakariri Intake. Riverbeds considered significant and potentially outstanding. The lower intake option as it is presented will generate significant adverse effects at the 'Pinnacles' tunnel intake portal.
Rural Character and Amenity	Subject to appropriate conditions as suggested any effects should be adequately avoided, remedied or mitigated.
Social Impacts	Effects significant and unable to be avoided, remedied or mitigated.
Acoustic/Noise	Subject to appropriate conditions as suggested any effects should be adequately avoided, remedied or mitigated.
Dust/Odour Climate Change	Covered by ECan.
Archaeological/Cultural/Heritage	Insufficient information provided – archaeological survey of designation footprint required - current assessment is that scheme will potentially result in significant adverse effects. Present measures to avoid, remedy or mitigate effects insufficient in the absence of survey.
Terrestrial Ecology	Insufficient information provided – ecological assessment of designation footprint required – effects currently considered to be significant and present measures to avoid, remedy or mitigate effects potentially insufficient in the absence of assessment/survey.
Traffic/Transportation	Subject to appropriate conditions as suggested any effects should be adequately avoided, remedied or mitigated.
Civil Engineering	Subject to appropriate conditions as suggested any effects should be adequately avoided, remedied or mitigated.
Health and Safety	Covered by ECan.
Recreational Effects	Covered by ECan.

Effect	Summary/Comments
Public Access	Subject to appropriate conditions as suggested any effects should be adequately avoided, remedied or mitigated.
Contaminated sites	Subject to appropriate conditions as suggested any effects should be adequately avoided, remedied or mitigated.
Hazardous substances	Subject to appropriate conditions as suggested any effects should be adequately avoided, remedied or mitigated.
Economic	Assessment suggests that economic benefits of the scheme are overstated and that scheme does not necessarily represent an efficient use of natural and physical resources.

Table One: Summary of environmental effects assessment.

Consideration of Alternatives

66. Given the present tenure of the land subject to the scheme, the section 171(1)(b) of the Act requires that particular regard be had to “*whether adequate consideration has been given to alternative sites, routes, or methods of undertaking the work*”. It is my understanding of the relevant section and various decisions of the Environment Court that the consent authority is not to decide for itself which is the best alternative, rather it need only be satisfied that the requiring authority has not acted arbitrarily or given only cursory consideration of alternatives.
67. That said, it is acknowledged that there are various alternatives that can be considered as part of the overall assessment of the CPW scheme, these involve alternative schemes, and also options/alternatives of undertaking the scheme within the ‘envelope’ applied for. It is considered that section 171(1)(c) provides the scope to consider and comparably evaluate such options, in order to determine whether the designations sought are “reasonably necessary” to meet the objectives of the requiring authority.

Reasonably Necessary

68. Section 171(1)(c) provides that the consent authority shall have particular regard to “*whether the work and designation are reasonably necessary for achieving the objectives of the requiring authority for which the designation is sought*”. As set out in the original section 42A report, this statutory consideration involves two components, the work and the designation. As the Act provides for network utility operators to become requiring authorities, and the proposed scheme is not otherwise permitted under the District Plan, it is considered that the use of the designation process is reasonably necessary. It is not considered to be the role of the consent authority to assess the merits of CPW being a requiring authority as part of this process. Therefore, in my view the focus should be on whether the works proposed are reasonably necessary. In that context, the following matters are further discussed below:
- The two intake sites on the Waimakariri River;
 - The width of the head race; and
 - The extent of the Waianiwaniwa Valley designated for the reservoir.

Waimakariri Intakes

69. The fact that two 'options' were being put forward was discussed in the original section 42A report, with the recommendation being made that only one 'option' should be pursued in the context of section 171 and Part 2 of the Act. Based on economic and archaeological concerns it was considered that the Upper Waimakariri Intake should be withdrawn. In any case it is my view that it is not open to the requiring authority to obtain a designation for 'options', e.g., when the applicant has stated that they do not intend to construct both Waimakariri River options.

Lower Waimakariri Intake

70. The applicant has since confirmed that they intend to pursue only the Upper Waimakariri Intake. This would result in the removal of a significant length of head race canal. Such an amendment would also remove many of the concerns expressed in the submissions of ECan regarding the endowment land downstream of the Waimakariri Gorge Bridge and the Bull Family Trust. Maps of the changes to the extent of headrace were attached to Mr Lewthwaite's evidence.
71. The supplementary report of Mr Craig sets out a comparative assessment of the two Waimakariri Intake options, preferring the Upper Waimakariri site due to potential effects on the 'Pinnacles' rock formation and the high accessibility of the public to the Lower Intake site in the vicinity of the Gorge Bridge.
72. The Lower Intake site also results in potential issues regarding public safety, particularly for kayakers given the location of the proposed intake on the outside of a bend. The information presented by the applicant to date has done little to alleviate the concerns raised in my original report in this regard. ECan Officers are reporting separately on public safety considerations relating to the intakes generally and the Lower Waimakariri Intake in particular.

Upper Waimakariri Intake

73. Much of the concern regarding the Upper Waimakariri Intake relates to potential adverse effects on the visual amenity and landscape features of the braided riverbed in this location. My interpretation of the submitters concerns were that these relate not only to the channels constructed, but the significant works required in order to maintain a diversion channel in this section of the river. Other concerns relate to safety, particularly in the context of the existing commercial jet boating launching site along this stretch of the river, and the potential that the diversion channel will direct flood flows onto farm land as river levels rise.
74. The submission of the Mr T & Mrs H Taege put forward an alternative intake site that was the subject of a further information request from the Panel. Since that time I have had the opportunity to view the alternative proposed intake site accompanied by Mr Craig. We were also given the opportunity to view this stretch of the riverbed from the Taege's home on the adjacent terrace.
75. I have reviewed the evidence of Mr Lewthwaite in response to the Commissioner Panel's request, and particularly the bulleted reasons for not favouring the proposed alternative put forward by the Taege submission (pages 3 and 4 of Mr Lewthwaite's No. 4 Brief, July 2008). In my view none of the reasons put forward are particularly compelling, and would appear to raise issues that would equally apply to the other

'favoured' intake options being put forward by CPW. For example, in terms of operational reliability Mr Lewthwaite states:

However in this case the river does not flow regularly with a strong thread against the right bank in the likely location of an intake, and river training works would be needed more frequently to maintain an adequate and deep flow to the intake. Therefore it would not provide the benefits that one normally expects in similar situations.

76. When compared to the works that CPW are contemplating in the context of the Upper Waimakariri Intake as proposed, it is considered that the works required to operate the alternative upstream site would be significantly less. The riverbed is much narrower in the proposed alternative location, and being on the outside of a bend the river often naturally flows in the vicinity of the proposed intake site. In contrast, the proposed Upper Waimakariri Intake is located in a stretch of river with a wide bed and in which the main flow has traditionally been on the opposite side of the bed. In that situation significant works to divert the water to the opposite true right bank and into the intake structure will be required. Mr Craig considers both the works and the man made diversion channel at right angles to the natural flow will have adverse effects on the braided character of the Waimakariri River. Similarly, the concerns raised by Mr Lewthwaite regarding safety would in my view be less for the alternative upstream site than those faced by the proposed intake at the 'Pinnacles', which the applicant suggests can be adequately mitigated.
77. Mr Milliken gave evidence referring to the native bush and potential disturbance caused by the alternative intake located adjacent to his land known as Milliken's Point. It is not immediately obvious why the construction of an intake in this location would necessitate the removal of vegetation other than on the bluff face itself. It is noted that all machinery could enter the riverbed from the Taege property and therefore not otherwise disturb this native vegetation.
78. In my view the primary reason why the applicant does not wish to pursue this alternative option is cost and that it is currently outside the area sought to be designated and also the extent of area for which consents are sought from ECan.
79. As stated above, Mr Craig has observed the proposed alternative site and assesses this in his supplementary report. Mr Craig concludes that from a landscape perspective the alternative of a tunnel intake at the Upper Waimakariri site is preferred.
80. It is noted that this intake site would provide a challenge in terms of public safety. However, in the context of the situation at the proposed Lower Waimakariri 'Pinnacles' site and the safety issues that would arise in the proposed Upper Waimakariri diversion channel given use by both jet boaters and kayakers, it is considered that such effects are no worse under this alternative proposal. That is not to say that such effects on public safety are acceptable, as stated above this will be further considered in the supplementary reporting undertaken by ECan Officers.

Width of the Head Race

81. As noted in the original section 42A report, the area sought to be designated shown on the maps accompanying the NoR (as Annexure C) includes a significant width of land. It is not clear whether the Act allows for the scope of flexibility that CPW wishes to have in any confirmed designation. Section 171(1)(c) appears to suggest that there needs to be a degree of reasonableness in the extent of the designation to meet the objectives of the requiring authority.

82. As suggested at paragraph 317 of the original section 42A report, it is considered that not all land sought to be designated is reasonably necessary in order for CPW to construct and operate the works and thereby meet its objectives. In my view any designated area to be confirmed must be refined by CPW to demonstrate that it is reasonably necessary to construct the scheme.

Extent of the Waianiwaniwa Valley Notice of Requirement

83. As with the other components making up the scheme, the extent of land for which NoR is sought in the Waianiwaniwa Valley is for the maximum storage required. The extent of land subject to the NoR relates to the area to be irrigated, the reliability required and the authorised maximum rate and volume of take. On that basis aspects of storage volume are subject to decisions made by the Commissioner Panel regarding the applications for water take lodged. If such water take aspects of the scheme decided by the Commissioner Panel are such that the volume of storage required to operate the scheme should decrease, then it is considered that section 171(1)(C) would guide that the area of any recommendation to confirm the NoR should relate only to that land required to construct the corresponding storage reservoir.

Other Matters

84. Both sections 171 (NoR) and 104 (resource consent) of the Act provide the opportunity for the authority to consider “*any other matter the territorial authority considers reasonably necessary in order to make a recommendation on the requirement*” (section 171(1)(d)) and “*any other matter the consent authority considers relevant and reasonably necessary to determine the application*” (section 104(1)(d)).
85. A relevant other matter that could be considered by the Panel is the Intergovernmental Panel on Climate Change (IPCC) discussed in the submission of Mr Timothy Wardell.

Part 2 of the Act

86. An assessment of Part 2 matter was set out in the original section 42A report. The Panel’s consideration of all the matters addressed above is subject to Part 2 of the Act, which sets out the purpose and principles (sections 5 to 8). My assessment of those matters has changed little from that set out in my original report, except where discussed below.

Section 6 – Matters of National Importance

87. Mr Craig has stated that the braided riverbeds of the Rakaia and Waimakariri Rivers are significant features and, with more thorough analysis, are likely to be considered outstanding landscape features, even though they are not yet recognised as such in the District Plan. On that basis Mr Craig has suggested that ensuring the proposed intake structures do not detract from the natural character of the rivers, particularly their braided character, is a relevant matter in terms of section 6(a).
88. Mr Davis has referred to the Bush Gully peat bog as discussed in the evidence of Mr Meurk as being a matter of national importance “*given its excellent condition and rarity*”. Therefore, Mr Davis assesses this site as “*very important*” in terms of section 6(a) and its vegetation is highly significant under 6(c). Mr Davis also notes that its

faunal habitat is likely to be significant, given the rarity of these bogs in lowland Canterbury as well as the potential scientific interest as it can provide valuable pollen records.

Section 7 – Other Matters

89. The applicant has criticised the SDC approach to the assessment of economic effects, most notably in the context of the opening legal submissions. Notwithstanding, the legal submissions did appear to contradict somewhat when later setting out at paragraph 224 the three dimensions of economic efficiency relevant under section 7(b) of the Act.
90. In this case CPW have stated that farmer affordability is not a relevant consideration, this is because if the scheme is not attractive to farmers it will simply not proceed. In my view such an approach does not meet the requirements of section 171(1)(c). To meet the objectives of CPW the scheme must be a viable proposition for farmers in order that it proceeds to construction. It is further noted that the social impacts of the NoR are already being felt, regardless of whether the scheme ultimately proceeds.
91. The economic assessment undertaken illustrates that the positive economic benefits being relied on by CPW to justify the significant social, archaeological, cultural, landscape and ecological adverse effects of the scheme are dependant on rapid farmer uptake of the scheme.
92. The supplementary reports of Mr Butcher and Mr Ford set out that the economic benefits being put forward by CPW are potentially overstated and that the scheme has yet to demonstrate that it is an efficient use of resources in accordance with section 7(b) of the Act. In my view the allocative aspects of section 7(b) are more relevant in this case given that the scheme is based on taking the last allocation of water resource available in both the Rakaia and Waimakariri Rivers.

Conditions

93. It is noted that Mr Tipler's latest brief of evidence includes a comprehensive list of suggested conditions. These have been reviewed by each of the technical experts engaged by the Council and there is largely agreement in terms of engineering, noise and traffic that the conditions put forward are appropriate and sufficient to manage any potential effects of the scheme in regard to such matters.
94. I would also like to refer to comments made in Ms Robson's response to my section 42A report regarding the appropriate type of conditions to attach to a designation.

Given my comments above, I consider that Mr Boyes' approach in respect of requiring a high level of detail as to mitigation, as opposed to simply setting objectives or standards to be achieved, is inappropriate for a designation. (paragraph 17, page 6)
95. I do not consider that any focus of my assessment of the scheme has been on mitigation. My original report did refer to restoration plans in the context that Mr Craig had identified that it was very difficult to assess the visual and landscape effects of the scheme without any detail regarding what would be included within such plans for the more sensitive areas within the scheme footprint.

96. One of my primary concerns is the lack of assessment undertaken by the applicant regarding the existing archaeological, cultural and ecological values present within the scheme footprint. In my view it is very difficult, if not impossible, to come up with any meaningful mitigation or adaptive management plan if it is not known what values are potentially at risk from the scheme proceeding. This is more so when the dealing with matters of national importance as in the present case.
97. Ms Robson referred to the landscaping conditions imposed on the designation for a prison in Northland as a relevant example of an appropriate approach. With respect to Ms Robson I do not consider that the CPW proposal can be compared to a simple landscape plan required to mitigate the effects of one-off proposal for a prison building. I am well aware of the Outline Plan process but do not consider that process can be relied on to adequately avoid, remedy and mitigate potential effects in the absence of baseline information regarding the extent and significance of values likely to be affected in order to make an informed recommendation on the NoR.
98. In summary, I do not consider that the conditions put forward by Mr Tipler are sufficient to provide a framework whereby any actual or potential significant effects that might arise during the course of design and construction could be adequately avoided, remedied or mitigated to the appropriate extent.

Summary/Conclusion

99. The conclusions and recommendations set out in my original section 42A report remain largely unchanged. During the course of the hearing more information has emerged regarding the potential ecological and archaeological/cultural effects of the scheme. This only serves to highlight the concerns raised in the original report. Furthermore, Mr Craig has reviewed the landscape evidence of Ms Lucas and would now appear to be more concerned regarding the landscape effects of the proposed intakes on the natural braided character of the Rakaia and Waimakariri Rivers than at the time of preparing the original assessment.
100. The directly affected submitters in opposition to the scheme have provided a great deal of further information regarding the various concerns set out in the original submissions. The social impacts on those persons whose land will be designated, or who are living in Coalgate Township immediately below the proposed dam and reservoir are further considered in the supplementary report prepared by Ms Di Buchan.
101. The various resource consents applied for the distribution races and construction of by-washes are not considered to result in potential adverse environment effects as significant as those related to the major works subject to the NoR. It is recognised that the distribution network is a utility at a scale more in keeping with that anticipated under the district plan framework.
102. The distribution network must be considered independently under the Act notwithstanding that its construction is dependant on the works subject of the NoR proceeding. The effects of greatest concern relate to the protection of amenity (during construction) for those living in the vicinity of worksites, as well as protection of heritage and cultural values. The distribution network is considered to have greater flexibility to adapt and change alignment to avoid any such values identified. On that basis, given the conditions put forward by the applicant, it is possible that consent could be granted for the network. In terms of the by-wash consents, some of these

sites are located in waahi tapu sites and it is considered that further cultural impact assessment would be required before such consents could be granted.

103. In terms of the NoR received by the SDC, and having regard to the various specialist advice received, it is considered that at this point there are shortcomings in the assessment put forward by CPW. In my view it is neither appropriate nor possible to address these shortcomings through the Outline Plan process. On that basis my recommendation to the Commissioner Panel remains unchanged. Being that their recommendation to Central Plains Water Limited (as requiring authority) is to withdraw the requirement pursuant to section 171(2)(d) of the Act.

Appendix One

Legal Advice Received from Anthony Harper Lawyers

Appendix Two

Selwyn District Plan Provisions Relating to Indigenous Vegetation