

IN THE MATTER OF

the Resource Management Act 1991

IN THE MATTER OF

applications by Central Plains Water Trust to:

Canterbury Regional Council for resource consents to take and use water from the Waimakariri and Rakaia Rivers for the Central Plains Water Enhancement Scheme and for associated consents required for the construction and operation of the Central Plains Water Enhancement Scheme

AND

IN THE MATTER OF

applications by Central Plains Water Trust to:

Selwyn District Council for resource consents to construct and operate the Central Plains Water Enhancement Scheme

AND

IN THE MATTER OF

a Notice of Requirement by Central Plains Water Limited to:

Selwyn District Council for the designation of land for works associated with the construction and operation of the Central Plains Water Enhancement Scheme

**JOINT DECISION AND RECOMMENDATION OF
INDEPENDENT COMMISSIONERS
28 MAY 2010**

PART 5

The Distribution Network

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1. DESCRIPTION OF THE DISTRIBUTION RACE SYSTEM

- 1.1** This part of our decision relates to the proposed distribution race system which fans out from the intended headrace, across the plains largely downgradient of the headrace.
- 1.2** CPW has sought resource consent from the Selwyn District Council (SDC) for 423 km of distribution races and 15 km of piping to distribute water from the headrace to 60,000 ha of land within the command area. This is in addition to the 62 km system of the terrace canals and headrace for which CPW has lodged a notice of requirement (NoR). In relation to the distribution system, CPW has not sought to designate and has indicated that it does not intend to utilise the Public Works Act (which is potentially available to it even without a designation since it is a Network Utility Operator).
- 1.3** CPW advised that it will only locate the system on land where it has an agreement with the landowner. Such agreements will not be sought until consents are finalised. This of necessity means that if there are changes to race location there will need to be further consent applications in relation to any other properties which become affected as a result. We record that we have assessed the social impacts of the race system on the basis of the assurance by CPW that it would not seek to utilise the Public Works Act to compel agreements with landowners.
- 1.4** The distribution race system was described in the evidence of Mr Walter Lewthwaite for CPW. For the purposes of this assessment, we have taken the distribution network as publicly notified, on plans prepared by URS New Zealand, entitled "*Distribution Network Overview Map, Revision B*". During the course of the hearing, it appeared that in some cases submitters were relying on earlier versions of the maps of the distribution races, which may have caused a degree of confusion. We also note that the distribution system we have considered is in most parts an open race system, but CPW wishes to keep open the option of piping some or all, of the system.

1.5 There are six basic components of the distribution race system. These are as follows:

- Springfield area: This comprises 32 km of races with water to be pumped from the headrace canal below Sheffield to 5000 ha of land.
- Sheffield area: This is bounded by the Waimakariri River and Homebush Ridge, and is located above the headrace. It comprises 5100 ha and 20 km of races. Water will be pumped from the headrace.
- Darfield area: This is a much larger area bounded by the Racecourse Hill/Hawkins River/Waimakariri River and by an irregular line extending from West Melton to Burnham. It comprises 32,500 ha with 150 km of races.
- Central area: This is a V-shaped area bounded by the headrace, the Hawkins River and the Hororata River. It comprises 12,000 ha with 56 km of races and 1.2 km of piping.
- Windwhistle area: This is bounded by the Rakaia River, the headrace canal and Washpen Creek. It comprises 9200 ha and will be served by 32 km of races and 14 km of pipeline. Water will be pumped from the southern part of the headrace network.
- Te Pirita area: This is another very large area bounded by the Hororata River, the headrace, the Rakaia River and State Highway 1. It comprises 33,900 ha with 153 km of races.

1.6 Although attracting much less attention than the works associated with the headrace designation, and being dispersed over a very wide area, the distribution network will be quite a substantial engineering undertaking. The distribution races will have a base width of between 1.2 and 3m, a surface width of between 6 m and 13 m, and an overall 'footprint' width of between 14 and 27 m, averaging 14 to 16 m.

1.7 Works associated with the distribution network include numerous bridges and culverts to provide access across the races into farms, or between different parts of farms; culverts and bridges under the road network within the area; drop

structures; farm turnouts; weirs; gates and pump stations. The downstream terminals of the distribution races will have 12 bywash points, two adjacent to the Waimakariri River, one adjacent to the Rakaia River, and the other nine adjacent to the Selwyn River and its tributaries. There will also be 14 emergency bywash points.

1.8 An initial process was undertaken by CPW involving consultation with farmers and the Ritso Society. The guidelines for the development of the network were circulated to shareholders in mid-2006 and comprised the following features, as further amended following consultation:

- *Races will be put in paper roads where possible.*
- *Races will be out of road reserves because they are generally too large to fit there (so will generally be on private land).*
- *A significant portion of the distribution network has been routed around the back boundaries of properties rather than along road frontages. As far as possible triangular corners have been eliminated as they are hard to farm.*
- *Most network races have been shifted away from areas with close subdivision, such as Darfield and Kirwee.*
- *Races will avoid houses, significant farm buildings and utility areas.*
- *Races will generally be on the south side of roads so properties can still obtain maximum benefits from southwest shelter belts (where a shelter belt exists on the northern side of the road, the race has been placed on the opposite side of the road so the shelter belt stays in place and stock can continue to benefit from it).*
- *Where possible, races will avoid very small properties because of a disproportionate effect on them (and particularly where small properties are unlikely to take water). Supply details have not been specified for some small properties, particularly in the closely subdivided areas around Darfield, as some landowners were unsure of their future needs.*

- *All properties should accept a fair proportion of races as all properties will benefit, either by taking water or by increased capital value by having access to water.*
- *A piped supply has been specified in a few locations where it was too difficult to fit in the open race.*

1.9 There are some additional points of particular relevance. Firstly, the applicant advised that some modification to the location of the distribution races was anticipated as part of detailed design and final negotiations with affected landowners.

1.10 Secondly, not all of the properties served by each of the six components of the network would in fact be served by the scheme.

1.11 Thirdly, the issue of piping the distribution race network was raised as an alternative in a number of submissions. The applicant's position was that piping would be prohibitively expensive, and that it was reluctant to pipe additional sections of the network (unless this was operationally necessary) on the grounds that this would set a precedent for large-scale demand for piping.

1.12 Related to the above point, Mr Lewthwaite explained that bywash points were needed because (paragraph 242):

....."it would be impossible to regulate the flow in a long supply canal sufficiently accurately to ensure that the final person on the supply race received exactly the right amount, no more and no less. Therefore all irrigated properties, including the last person on the line, have a surplus flow pass by the supply point".

2. NOTIFICATION AND SERVICE OF THE APPLICATIONS TO SELWYN DISTRICT COUNCIL

2.1 We expressed some concern, as to whether the District Council adequately served notification of the distribution race application on all persons affected by the proposed system and in particular on each of the directly affected landowners and occupiers. We understand that all ratepayers in the area were individually notified. That satisfies the statutory requirement, however it seems

that the notification did not indicate whether or not the race affected the land of the person concerned. Instead, potentially affected landowners needed to check the plans which in some cases had changed from what was originally proposed. We heard from a number of submitters that there was a degree of confusion around where this intended route of the distribution system was.

2.2 Given that the statutory requirements have been met, this is not a matter for us. We simply note that it is possible that there may be some directly affected landowners or occupiers who may not have submitted. They may not have been aware that their land is affected because they may not have appreciated the need to check the latest plans.

2.3 In any event, CPW has undertaken that it will only locate the race system on land where it has an agreement with the relevant land owner. Accordingly, if there are landowners who have not submitted, they still have the opportunity to decide whether or not the race should be on their land and if so on what conditions. We also assume that most affected landowners will be shareholders of the scheme.

Status under the district plan

2.4 Mr Nick Boyes, planning consultant, presented evidence on behalf of the Selwyn District Council.

2.5 The definition of "utility" under the district plan includes the following:

"(d) the conveyance, storage, treatment or distribution of water, including (but not limited to) irrigation and stock water."

2.6 A utility building is defined as including:

"Any building or part of any building which is a utility or which is used principally to house or support a utility; and that building is 10 m² or more gross floor area and 2.5 m or greater in height."

2.7 Utilities are also subject to a series of performance standards which further determine the status of the proposed distribution races as an activity, and these are set out in Part 3, Rule V.

2.8 Rule 5.1.6 provides that a utility is permitted if it is:

"...an open channel or water body used to convey water, provided that the use is

.....

"b) construction of new channels for drainage for irrigation purposes on any individual property which serve only that property."

2.9 Because the proposed distribution races serve more than one property, they do not meet this qualification in the rule and are therefore a discretionary activity.

2.10 The other relevant rules are:

- *"Rule 5.2: a utility building shall be set back 10 m from a strategic road and 5 m from any other road, and one metre from any property boundary."*
- *"Rule 5.10: any utility building shall be set back 20 m from the edge of the waterway listed in Appendix 17 of the plan and 10 m from the edge of any other waterway."*

2.11 Although not certain, it is possible that structures such as pumping stations may not comply with all of these rules, and will therefore fall to be considered as a discretionary activity.

2.12 Rules 1.2 and 1.3 apply to cultural sites affected by earthworks. The disturbance of such sites (eg waahi taonga sites) is a restricted discretionary activity. It is anticipated that works will affect several sites, and could potentially affect others.

2.13 Rules 1.9, 1.10 and 1.11 relate to the effects of earthworks.

- Rule 1.9 requires that earthworks are set back at least 20 m from the edge of a water body.
- Rule 1.10 requires that earthworks must not exceed a vertical cut face where more than 5% of the total vertical cut is over 2 m, or a maximum volume of 5000 m³ per project.

- Rule 1.11 requires that after earthworks are completed that the site be filled and re-contoured to the same state, and replanted with vegetation which is the same as or similar species to that which existed on the site prior to the earthworks taking place.

2.14 Some earthworks for the distribution races will be within 20 m of the edge of the water body, and will clearly involve a volume greatly in excess of that anticipated by the district plan. Given that the project involves the construction of races, re-contouring and restoration of the land to its original state is clearly not intended, and accordingly consent is needed in respect to this rule.

2.15 On the basis of the above, both the earthworks and structures associated with the construction of the distribution race system will be a *discretionary activity* under the Selwyn District Plan.

3. EFFECTS ASSOCIATED WITH THE CONSTRUCTION AND OPERATION OF THE DISTRIBUTION RACE SYSTEM

3.1 It was evident from the weight of evidence and submissions that concerns relating to the distribution race network were significantly less than those concerning the headrace. Notwithstanding this, the distribution race system will occupy approximately 700 ha of land, which is twice the area of productive farmland required for the main headrace canal. The routes taken by the various branches of the distribution race system however, allow greater flexibility in terms of location, being subject only to gravity feed.

3.2 In this part of the decision the potential adverse effects associated with the distribution races are considered and assessed together, along with any mitigation measures. Many of these are common to issues raised by the proposed headrace canal, so for the sake of brevity, some of the discussion associated with the headrace is not repeated in this part of the decision. Matters relating to the downstream effects of the CPW system, are addressed in the section of this decision relating to the *use of water* (Part 6). The applications for consent to discharge from the network are also covered in Part 6.

3.3 We need to emphasise that any grant of consent to CPW to construct a water race across a submitter's property only provides planning consent. The

submitter is not obliged to make any part of their property available for this purpose against their will. CPW can only install a distribution race across a submitters property through negotiation or in the alternative, to determine a route which avoids that property. We also note that the same is applicable to Council land. CPW will need to enter into an agreement with SDC to utilise road reserve and other land for the network. That provides SDC with an opportunity to ensure that its concerns relating to effects on road and other infrastructure are addressed.

An open race versus piped system

- 3.4** The application was put forward on the basis that either system would be consented. A piped system has a number of advantages, including delivery of pressurised water, thus reducing pumping costs; minimal leakage and no need for a bywash system; no visual effects with buried infrastructure; greater flexibility with respect to location, and enhanced public safety as there would be no exposed waterways.
- 3.5** The advantages of open race systems include much lower capital costs; replenishment of aquifers; some dilution of contaminants such as nitrates; possible environmental habitat associated with races.
- 3.6** We accept that piping all or most of the 438 km distribution race network would be prohibitively expensive, and note that the presence of distribution canal networks is commonplace elsewhere on the Canterbury Plains, such as in Ashburton District and in South Canterbury. The primary adverse environmental effects including loss of amenity and visual impacts will occur during the construction phase, and immediately thereafter. Accordingly, we see little difference in effects between a piped and open race systems in this respect.
- 3.7** We accept that a piped system would have much less impact on affected land owners, however that is a matter for negotiation with individual landowners. The options for CPW will be to pay compensation to the landowners for loss of land, to pipe portions of the system, or shift the route to another property.
- 3.8** Initially we were of the view that there was merit in requiring piping to avoid wastage of water, however we have concluded that the loss of water is something for CPW to manage. Without large scale storage every drop will be

precious. It is up to CPW to balance the costs of piping against the advantages. Furthermore there are some environmental advantages in an open race system. In particular there is a degree of aquifer recharge and some habitat values.

4. EFFECTS ON LANDSCAPE

4.1 Relatively little evidence was presented in respect to the landscape and amenity effects of the distribution races, despite the fact that they will have a major physical presence, owing to the geographical extent and surface width. They will be obvious as roadside features, and at crossings. Few places in the command area will be located more than 2 km from a distribution race. That said, such races are becoming increasingly common features in the Canterbury landscape in recent years, as the extent of irrigated land has rapidly increased. Distribution races are recognised as a utility under the Selwyn District Plan, and appear to be an anticipated feature in a rural landscape in terms of the plan.

4.2 In terms of visual and landscape impacts, we note that the distribution network does not affect any significant or outstanding landscapes. It will traverse an area which is highly modified and will not in our view be out of character with the environment. There will be some impacts on visual amenity during the construction period. However, earthworks will be revegetated once each stage is complete. Once revegetation has occurred we consider the races will be seen as a typical component of a rural farming landscape, and perhaps even one that will add a degree of visual relief and variety to the plains.

Potential effects on terrestrial and aquatic ecology and the council water race system.

4.3 Evidence from three ecologists (Dr Meurk, Dr Davis and Mr Grove) all questioned the evidence of Dr Bishop for the applicant with respect to the significance of indigenous vegetation in the command area. We note that the distribution races pass close to or even through a small number of the identified "Plains Category A - D sites", although we heard little evidence in respect to whether particular sites might be affected or destroyed by the proposed races.

4.4 During the course of the hearing, concern was expressed that the construction of the headrace and distribution raise system might disturb, or even replace, the SDC water race system, where there is evidence that species such as Mudfish

have become established. However, there is no statutory protection for the water race system, which can be subject to regular maintenance or alteration without any consents being required. In this context, we have not place any significant weight on this issue which we think is a matter to be addressed by the SDC if it considers that the ecological values of the race system need to be protected.

4.5 Dr Davis (Davis II, paragraphs 38 to 40) stated as follows:

"Many races support a diversity of aquatic invertebrates and fish. A recent thesis on the ecology of stock water races [Sinton 2008] showed that the diversity and density of aquatic invertebrates in the races was similar to that of natural streams on the plains. Threatened freshwater crayfish and freshwater mussels were present at a limited number of sites. Fish species found were trout, upland bully, threatened long fin eel, very occasional threatened Mudfish(in drains) and one torrentfish.

A related paper by Sinton and Harding(2007) describes the races as refugia for benthic invertebrates, which are threatened by habitat loss in natural streams caused by agricultural intensification. Of the 58 taxa collected, 10 were unique to water races and 9 were unique to natural streams. They note that the races provided the only permanently connected surface water habitat across the plains, in contrast to many streams which are ephemeral in their mid-reaches.

Not all races are of similar value but in my opinion, the combined value of indigenous vegetation and the habitat certainly make some of them important under section 6(a) and significant under section 6(c). Existing data would be improved by additional field survey, to help clarify which races are significant for the indigenous biota and connectivity."

4.6 We were left in little doubt that the existing water races were considered as potentially important aquatic habitats for the reasons set out by Dr Davis, who also noted that some of these races were up to 120 years old. Ecologists expressing opposition to the CPW scheme criticised CPW for not undertaking a full survey of the canals and headrace footprints, determining in detail how the scheme would adversely affect significant sites, and for not proposing any compensation or enhancement measures. Added to this was the observation of

Ms Sjaan Bowie on behalf of the Department of Conservation (paragraph 4.4) that:

"nearly a quarter of known Canterbury mudfish sites consist entirely of water race or drain habitat....."

4.7 The issues which we have to consider are firstly, the physical effect that the construction and operation of the distribution race network would have on the water race network of the SDC, and secondly the consequences of the scheme in terms of the retention of the water race system.

4.8 From the evidence presented by Mr Lewthwaite for CPW, it was made quite clear that for operational reasons, CPW wishes to keep its own distribution race network quite separate from that of the SDC, with the exception of the proposed headrace up the Waimakariri escarpment, where the two would otherwise be "entangled". Mr Nigel Williams, who presented traffic evidence of behalf of the SDC, estimated that the distribution race system would cross the council water race system in 150 places. This potentially creates a conflict. Mr Lewthwaite explained in his evidence of September 2008 (paragraph 50):

"CPWES has promoted as a base case the construction of new irrigation supply channels as a separate and independent network. That assumes a continuation of the SDC stock water races although the two race networks would often be in close proximity. This had initially been accepted by SDC".

4.9 He went on to say that the issue had been further investigated, particularly in respect to the Darfield - Kirwee area, and that from an engineering perspective, he was satisfied that intersections between the two systems could be managed satisfactorily.

4.10 Based on this assessment, we conclude that the proportion of the Council water race network that would be affected by the CPW scheme would not be such as to significantly threaten its integrity. In addition to this, only parts of the water race network are likely to have high ecological values.

4.11 Concerns were expressed that the installation of the CPW distribution races would render the council system redundant. This is apparently because of the

cost of operating the system, and we were aware that some landowners were also concerned about this. Mr Blake - Manson noted that the SDC had resolved to close the Selwyn water race system serving some 2000 ha. Nevertheless, we were left with a very clear impression that the great majority of the council's water race system was to be retained, and that neither the SDC nor the applicant was seeking to combine the two systems except where this was absolutely necessary.

4.12 We accept that there are likely to be sections of the water race system which have, by default, developed high ecological values over a long period of time. However it is less unclear whether the evidence establishes these are significant habitats for the purpose of section 6 of the RMA Act. We acknowledge the point made by Dr Davis that these provide permanently connected water habitat across the plains, something the degraded smaller river systems are no longer able to do. The CPW network may not provide such valuable habitat because the distribution races may not contain water outside of the irrigation season. We suggest that CPWT investigate the option of keeping water in the race system at all times apart from when maintenance is required. This may have benefits for recharge of the aquifer as well. However, we do not regard this as a matter for conditions.

4.13 Until this hearing, it appears that no statutory steps have been taken to have the existing artificial waterways recognised or protected in any way through the district plan, despite recent studies and as to their potential ecological values. Accordingly, there are no restrictions on the SDC abandoning or removing sections of its own race system, or for that matter undertaking what might be unsympathetic clearance practices as part of their maintenance programmes. We see the primary responsibility for the identification of the ecological values of this drainage system, and decisions as to how such values should be managed, as being as being for the SDC rather than a matter for this hearing.

4.14 In conclusion, we heard no evidence to suggest that the distribution system would, of itself, have any significant adverse effects on terrestrial or aquatic ecology. We have required further survey work to ensure that any significant indigenous vegetation, or areas of significant habitat are avoided or any damage is offset. We note that any such offsets are not a matter for the Environmental Management Fund, but are required mitigation.

5. EFFECTS ON HERITAGE

- 5.1** There did not appear to be any heritage buildings affected by the distribution race network. In terms of archaeological sites, it appears that Race D 2.1 passes close to an archaeological site identified as containing ovens and artefacts in the vicinity of Old West Coast Road/Intake Road (M 35/146). We consider that potential effects on this site should be further investigated prior to any works commencing. We have commented elsewhere in this decision (refer to section on *Intakes and Headrace Canal*) that detailed site investigations should be undertaken on known and suspected archaeological sites and areas prior to any approvals being granted. However, given the length of the distribution canal system as a whole, we consider that with the exception of this site, an accidental discovery protocol would be a more reasonable and practical approach. Our reasoning for this approach is set out as part of our consideration of the heritage effects of the headrace.

6. EFFECTS OF THE PROPOSED DISTRIBUTION RACE SYSTEM ON AFFECTED LANDOWNERS

- 6.1** Given the immense 438 km length of the proposed distribution race network, it is perhaps surprising that there were so few submissions from potentially affected land owners. CPW have advised that the distribution network affects 296 private properties, of which 34 submitted in opposition. Some of these properties are affected conditionally with respect to the precise route of the distribution race. Exactly half (148) of the private property owners affected are shareholders. Even allowing for the possibility that some affected land owners were unaware that their land is affected, it is apparent that the degree of opposition to the distribution race network is much smaller than that directed at the headrace canal, which of course is subject to a Notice of Requirement.
- 6.2** Many submitters sought changes to the alignment of the distribution system, in some cases piping through their properties, or in other cases, enhanced access arrangements. The primary concerns were expressed by parties in respect to the Darfield component of the distribution system, which has a considerably higher proportion of small holdings and intensive farmland than in most other areas affected by the scheme. The following part of this decision addresses the effects on properties of submitters who appeared before us.

6.3 Mr Hugh Blake-Manson of the SDC presented evidence, among other things, on matters relevant specifically to the establishment of the distribution network on that part of the SDC system within the command area.

6.4 Among the various matters raised in his evidence (paragraph 5.10) were concerns relating to:

- potential problems associated with the combination of the CPW distribution canal with the SDC stock water systems in certain places, and installation of pipes alongside side canals;
- lack of detail regarding mitigation measures to address the effects of construction works on the SDC water race intakes and water race network;
- lack of information on the design of water race crossing structures where the SDC and CPW systems intersect, thus ensuring the SDC water race system continues to provide a high level of service; and
- the implications of the CPW network where it is positioned above water race crossings with respect to ownership issues concerning maintenance and emergency works.

6.5 As noted above, Mr Lewthwaite explained that the CPW system would operate quite independently of the SDC system, except where this was not practical in engineering terms. He stated that CPW had identified in consultation with the SDC, potential conflict points which included crossings, canals along the same alignment, and CPW irrigation races that might obstruct access to stock water races. He stated that the solutions would include the use of siphons, piping from the stock water race to stock watering troughs, piping of sections of the stock water races, and slight realignments of the CPW races when necessary.

6.6 The consent of the Council as landowner and or requiring authority, will be required where Council land or assets are affected. Accordingly, there will be incentives for CPW to accommodate the Council's concerns. We see this as a matter of negotiation between the parties rather than as a matter for detailed

consent conditions. (We also note the Councils role as settlor and one of the guarantors of the scheme.)

Rodney Booth, Ross Manson, Margaret Manson

- 6.7** These submitters farm near Steeles Road, between the Hororata and the Rakaia River. As noted in Part 3 of the decision, they were submitters on the southern part of the headrace canal and expressed their general support for the CPW scheme. However, they also raised issues concerning specific effects on their own large property in relation to distribution race TP2, which would branch off the headrace within their property. They consider that because it bisects their land it should either be piped or realigned to their boundary.

Heather Thompson

- 6.8** Ms Thompson owns a small holding in Henderson's Road where Distribution Race D2.2 runs along the road en route to a bywash point on the Waimakariri River. She states that this proposed race passes through her property, including within 10 m of a future house site. She also stated that the race would require the removal of a shelter belt providing protection from north-westerly winds. She opposed the CPW scheme in general.

- 6.9** From what we could ascertain from the SDC's property records, and the plans of the distribution races as notified, the submitters property is on the western side of Hendersons Road and the race passes down the opposite side of this road.

Carol Garland, John Pilbrow

- 6.10** These submitters own a 10.02 ha property at Courtenay on the Old West Coast Road, between the road and the terrace above the south bank of the Waimakariri River. Distribution race D 2.1 is shown as passing along the northern boundary of their property and through a 400 m² shed, which Mr Pilbrow uses as a base for his ride-on lawnmower business. The property is also used for the farming of llamas. The submitters complained of a lack of consultation and information relating to the scheme, and were concerned in principle that the applicant was able to 'take' their land through resource consent procedures without their written approval. They stated that in addition to

the loss of the large shed, they would also lose a shelter belt, and llama fencing. They said they would be exposed to dust from construction activities and expressed serious concern about a potential water hazard to their grandchildren. They said that because the property was a small holding, the proportional effect on it of the distribution race was significantly greater than might otherwise be the case.

6.11 At the hearing Mr Lewthwaite's proposal was that the distribution race be placed directly adjoining the northern boundary, effectively in the form of a "dogleg", thus avoiding the shed, albeit still in close proximity to it. We also note that there would need to be fencing of the race to minimise risk to children.

6.12 We observe that it would seem difficult to reconcile the position of the submitter and the applicant in this case, however given that CPW does not seek to utilise any Public Works Act powers which it may have, we are confident that these issues can be sorted out by negotiation. That could lead to changes to this part of the system which are acceptable to the submitter along with compensation, or CPW may have to shift the distribution race off this property.

Ascot Park

6.13 A submission was made through Ms Jen Crawford of Anderson Lloyd relating to this property in Courtenay, which would be affected by distribution canal D2. The owners sought that the distribution race be constructed on land owned by the applicant, unless there is prior agreement with the submitter. As discussed above, it is our understanding that no parts of the distribution network will be imposed on landowners without prior agreement.

6.14 Kimberley residents (N. and J. Cameron, A. Cammock, G. and L. Hewitt, Julia Justice, Joyce McCausland, B. and J. Reed, I and C Reed, D. and J. Syme, I and A Syme), Drumnacott Farms, and John and David Syme also submitted in their own right.

6.15 This was a submission by a group of farmers in Auchenflower Road and Tramway Road north of Darfield. Again, the issue related to the alignment of distribution race D2, and an additional subsidiary Race D3.1 along Boulton's Road.

6.16 These submitters wanted Race D2 moved from Auchenflower Road to Tramway Road, which they contended would mean that the distribution race would not be sited in close proximity to six houses and the domain on Auchenflower Road. The comment was made that Tramway Road contained a large water race reserve parallel to the road reserve, which included a SDC water race. The submitters also wanted water race D3.1 in Boulton's Road to be eliminated, as they considered it was unnecessary, and resulted in two distribution canals being located on one farm, with consequent loss of productive land.

6.17 Mr Lewthwaite's response at the hearing and in his evidence of September 2008 (paragraph 102) included the following statement:

"The locations shown in CPWES's proposals were my best endeavour to service the needs of the area, as far as they had been explained to me and my team over the first half of 2006. During that period I met with people from the Kimberley area a number of times, and found it particularly difficult to obtain a consensus or even a clear majority view about race locations".

6.18 He went on to indicate that the desired route was effectively a compromise between maximising the benefits of providing CPW water to participant shareholders, and potential effects on properties traversed by the distribution race. He added that options such as boundary adjustments and piping were discussed, although he expressed concerns about the precedent effect of the latter. In terms of property effects, taking distribution race D2 directly down Tramway Road would be shorter and would have less physical effect on properties, but we had no evidence as to the implications of this option for supplying water efficiently to shareholders.

S.L and L.J. Redmond

6.19 The Redmonds are also submitters on the main headrace canal which crosses their property. In their submission they make mention (paragraph 10) of three canals affecting shelter belt trees and a number of buildings on the farm. However, the plans of the distribution canals as notified do not show any distribution canals affecting their property, as it appears these were re-routed following earlier consultation with affected parties.

7. OVERALL CONCLUSIONS IN RESPECT TO EFFECTS ON PROPERTIES

- 7.1** If CPW is unable to reach an agreement with any submitter relating to the positioning of the distribution race on their property (or indeed that of **any** property owner whether they were a submitter or not) then CPW will either have to find an alternative route, and/or invoke powers under the Public Works Act. We understand that it does not intend to do the latter.
- 7.2** We note that in some cases, such as with the Kimberley Road residents, discussions have taken place but CPW has not at this stage been able to reach a consensus. In other cases, it appears that the applicant has not approached some directly affected parties, instead it is relying on subsequent negotiations after the necessary consents have been granted and if there are appeals, confirmed.
- 7.3** As outlined above, there is still ample opportunity for CPW to consult with land owners over coming years, either in the context of resolving appeals and/or in the context of developing the final design of the network. We again emphasise that we have proceeded on the basis of an assurance, that Public Works Act powers will not be used by CPW in relation to the distribution network (or at least not without resorting to a further RMA process first). Accordingly CPW will have to negotiate solutions with every affected land owner. Where it can not negotiate a solution on the site it will need to apply for a new consent or variation of consent to shift the network off the site.
- 7.4** If the distribution network is shifted on to other properties then there will need to be an amendment to the resource consent and this will need to be notified to newly affected owners and occupiers unless their written approval has been obtained. Newly affected landowners will need to be consulted and if they do not approve, they will have rights of submission and appeal in relation to any proposed works on their properties.
- 7.5** Our focus is on the environmental effects of the distribution system rather than issues relating to property rights. We have concluded that (unlike the originally proposed dam and reservoir) the effects of the distribution system and the headrace on private property and farming operations are not such as to give rise to any significant adverse effects on the wellbeing of people or communities.

7.6 We consider that there is scope for realigning distribution races as necessary to avoid landowners who do not wish to have a distribution race across their property. Similarly, issues relating to the precise location of the system on individual properties, and the location and number of race crossings, is a matter which can be sorted out via the further consultation, negotiations and if necessary amendments to the consent. Issues regarding supply of water to shareholders are not for us.

7.7 Our overall conclusions with respect to the route of the proposed distribution network is that there are no issues relating to route selection that would justify us declining consent to all or part of the network as sought by the applicant. In relation to the Garland/Pilbrow property we consider that the route should avoid the shed and be fenced for safety reasons. However we see that as a matter for the access agreement rather than requiring a condition of consent.

Effects of dust and noise

7.8 The matters relevant to this issue are similar to those dealt with in the discussion in Part 3 relating to the proposed headrace system, so will not be repeated in detail here. Suffice to say that given the length and geographical distribution of the distribution race system, it is inevitable that there will be some dwellings in close proximity to the distribution races, which will be affected by noise and dust disturbance during the construction period. We understand that this period will be less than three months for each section of race. Essentially, such effects would be managed through a dust management plan, and if necessary, restrictions on hours of operation or other measures to ensure that the noise standards in terms of NZS 6803: 1999 are satisfied. We consider that these matters can be addressed through the proposed dust management plan, and the noise and vibration management plan.

Effects of traffic

7.9 Mr Williams undertook a detailed analysis on behalf of the SDC, and concluded that the distribution race system would involve 11 crossings of state highways, and 196 crossings of district roads. He estimated approximately 460 access bridges/culverts into private properties would be required, and as noted earlier, there would be approximately 150 crossings involving SDC stock water races. He estimated that a total of 325,000 heavy vehicle movements will be

associated with the construction of the headrace and distribution canal network. This works out at approximately 325 movements per day over a 1000 day assumed construction period.

7.10 While there is a substantial number of worksites and total vehicle movements, they would be dispersed over a very wide and lightly trafficked network. The primary effect would be felt in terms of deviations required around worksites adjacent to roads, which would be addressed through the proposed Traffic Management Plan which aims to minimise disruption to the travelling public and local residents.

8. OBJECTIVES AND POLICIES

8.1 The relevant objectives and policies are discussed separately in Part 8.

9. SECTION 104 OF THE RMA AND OVERALL CONCLUSION IN RELATION TO THE DISTRIBUTION NETWORK

9.1 In addition to and subject to Part 2 of the RMA, we are required to have regard to the following matters:

"(a) any actual and potential effects on the environment of allowing activity; and

(b) any relevant provisions of-

.....

(iii) a regional policy statement or proposed regional policy statement:

(iv) a plan or proposed plan; and

(c) any other matter the consent authority considers relevant and reasonably necessary to determine the application."

9.2 The construction of the distribution race network amounts to a very large engineering exercise, the impacts of which will be more than minor, but dispersed over a very wide area. These effects will be additional to those associated with the construction of the shorter but larger scale headrace system where it crosses the plains (38 km).

- 9.3** The distribution race network does not affect any outstanding landscape features, or have a significant impact on heritage values. Nor in our view will it have any significant adverse effects on ecological values. With respect to amenity values, the adverse effects are likely to be more than minor in some locations, but temporary.
- 9.4** We have concluded that once completed and established the irrigation network will be a typical feature of rural infrastructure and one which might even provide a degree of visual relief to parts of the plains. Given the great length of the proposed distribution race network, the number of submissions received in opposition are remarkably small. However, CPW will still have to negotiate access and purchase, even with those submitters who have not lodged submissions at all.
- 9.5** We note that both the Regional Policy Statement and the Selwyn District Plan provide for farming activity generally. At a more detailed level, the district plan anticipates the establishment of irrigation infrastructure. Such infrastructure is also integral to the Canterbury Water Management Strategy.
- 9.6** In conclusion, we are satisfied that the proposed distribution system will be sustainable and that all relevant adverse effects can be avoided, remedied or adequately mitigated.

Independent Commissioners 28 May 2010



Philip Milne (chair)



Bob Nixon



Andrew Fenemor



Ray O'Callaghan