

In the matter of the Resource Management Act 1991

And

In the matter of resource consent applications by ACWT for outtake, use, and discharge of the last of the allocatable public water from the Rakaia River under the Rakaia NWCO

To Canterbury Regional and Ashburton District Councils

Evidence Tim Wardell individual submitter with the Malvern Hills Protection Society

1. My full name is Timothy John Wardell. I am a layperson and express my concern from the perspective that I have a one in four millionth shareholding in the Commons of the water. I am interested in the allocation and duration of the privilege of its use to other individuals, noting that there is no right of renewal.

2. The application by the Ashburton Community Water Trust (ACWT) is for the last of the allocatable waters remaining in the Rakaia River as outlined by the National Water Conservation Order (NWCO). This is applicable whether or not CPW's application is granted. As this is a joint take application I assume that evidence given here is also relevant to the CPW application.

Efficiency of use and development-

3. As a hydro scheme proposal this application will de-water only part of the river i.e. from the proposed outtake to the discharge through the Barrhill power station. Yet it is the stated intent of the applicant to use this water for irrigation in the future (AEE, sect. 2.1), accepting that this use change will have to go through further process. This will have the impact of further de-watering the river to the mouth during the irrigation season.

4. Mr Woods in his presentation to the panel in April commented that the proposed scheme is marginal as a hydro development.

5. Section 7 (b) of the act refers to the efficient use and development of the public resource in its allocation. I contend that this proposal fails to meet these criteria and without either a Cost Benefit Analysis or an Economic Impact Assessment constructive discussion is limited.

6. Without any costing of the project being provided by the applicant to allow a per Megawatt comparison to be determined, the ability to assess the efficiency of use of the proposal becomes difficult. Reliability of water during the irrigation season is limited and during the winter the river generally runs low due to precipitation being held in snow. Modeling outlining volumes of available flows and from which source (i.e.ACWT, BCIL, RDR) and of what reliability would be constructive within the discussion.

7. Overtime less of the Barhill Chertsey (BCIL) water will be available for electricity production within the irrigation season as it is taken up by the farming community. Likewise, as is the stated intent, there will be less water for hydro in the future from this application as more water is used for irrigation, recognizing that another use application would need to be applied for and granted.

8. Without having seen details of the funding relationship between ACWT and Electricity Ashburton Limited (EAL) I have a concern that the electricity consumers of the District will subsidize infrastructure i.e. a feed canal, for future irrigation.

9. Mr Donnelly (CPW) noted by way of example that a Hydro scheme has narrower economic benefit than, for example, irrigation. Considering this is the last of the Commons to be allocated from the Rakaia, and society's propensity is to want to maximize returns on the water resource, this seems pertinent.

Hydraulic linkage-

10. The Rakaia River is perched above the aquifer system and plays an important recharge role to the system as a whole and particularly to bores of close proximity to the river. This linkage to bore abstraction is recognized and is stated as 2.34 cumecs of the water currently allocated (Fietje, 42a, para50-51).

11. There is general concern over current aquifer levels in the central plains area to the north of the Rakaia. This was reinforced at the recent CPW hearings. Both Mr Chamberlain and Mr Lay spoke of the reduced stream flows of the last 3-5 years in Harts Creek and the Irwell River respectively. Mr Donkers related the loss of reliability of bores in the Te Parita area within the same timeframe. It would appear the cumulative effects of continued granting of Groundwater consents and a lower rainfall are showing consequence.

12. The aquifers to the south are also red zoned with further applications pending.

13. Lower aquifer levels equate to lower volumes and lower pressure within the aquifers. Logically this means less resistance in the relationship between the river and the aquifers, potentially allowing water to leave the river more easily than it would have historically. This would indicate greater loss from the river and I question whether the 2.34 cumec is an adequate assessment of the impact of groundwater linked recharge loss currently happening.

14. Without measurement we know nothing. It seems to me a prerequisite that before any more water is allocated from the Rakaia there is an absolute need of a down river measuring site so we can ascertain the loss to aquifer recharge and its impact on in river flows. This knowledge is required so that we do not unwittingly over allocate the river. If this was to happen, to change in hindsight incurs unnecessary cost by the need to pull back recent economic growth.

15. Mr Southwood brings to your attention the changing dynamics at the river mouth, interestingly the 3-5 year timeframe appears again.

16. Mr Duncan also voices concerns (CPW, 42a, para 79).

17. My concern is that we are seeing these symptoms of reduced river force now, before Synlait (6 cumecs) and BCIL (17 cumecs) consents are utilized and have their impact. These outtakes can only compound this issue. Further abstraction by either ACWT or CPW would be additive with CPW as an all year take and no discharge back to the river having the greatest impact.

18. While the ACWT proposal only de-waters the river for 15 odd kilometers I believe this will have an interruptive impact on sediment

carriage of which the consequence, if we are honest, we can only guess. The reduction in sediment size at the mouth that Mr Southwood notes would again indicate a loss of river force with the above two consents yet to be utilized.

Climate change issues-

19. In the last year there has been a 2.5 billion ton loss of glacial ice in the Southern Alps, the largest loss in the 32 years of recording (Salinger, NIWA, National program news, 15 Sept. 08).

20. These permanent snow and ice have historically provided a buffer for the alpine rivers against low flows in dry (low nor-west) years. This reduction represents a loss of future water and potentially a reduction in river flows.

21. Compounding this in the medium term is a negative Interdecadal Pacific Oscillation (IPO) as outlined in my CPW brief (section 5, pg 2). Once again I note that historic figures are not necessarily the future.

22. As outlined by counsel and Mr Small for the applicant, climate change issues drive Governments renewable energy focus. It therefore also seem sensible that the impact of climate change on our water resources and their future robustness is given full consideration. Not to do so would be an unbalanced approach and a disservice to future generations.

Other matters-

23. Section 136 addresses transfer of consent. Throughout the CPW hearings there seems to be a given that consents which are unutilized in the winter are up for grabs e.g. Waimakariri Irrigation limited. The wording would indicate to me that this is feasible between parties at the same outtake site but doesn't speak of transfer between sites. I am open to further guidance but voice my concern that this year round de-watering of the rivers leaves society with only skeletal remains to admire and enjoy as well as impacting on the life supporting abilities of the river.

24. Casey (CPW, para 103)) made comment, that by weight of submission there is general acceptance of the NWCO as an acceptable take regime. I put that it is a resigned acceptance at best due to there being at least an upper limit on outtakes compared to the fiasco currently happening on the

Waimakariri. While the NWCO may have appeared all encompassing on drafting, for the reasons outlined above I believe it is now looking outdated and we run the risk of over allocation using it as it stands.

25. The original joint application by ACWT had a purpose of use for irrigation. Close to 1500 people submitted. Somebody changed their mind. It was renotified as a use application for hydro. Logic dictates that those interested parties should have been directly notified in that they had expressed interest. This was the case when CPW decided to go for the tunnel option. To not have done so is a failure of process leaving many people disenfranchised of an opportunity to comment.

26. The volume requested by the applicant exceeds reasonable need. The Highbank canal that is proposed under this application is to carry 40 cumecs. BCIL water of 17 cumecs means only 23 cumecs of ACWT water can be conveyed at the same time. In asking for 40 cumecs, the applicant would need a canal of 57 cumecs carrying capacity. The agreement with CPW is for 16 cumecs of the 34.5 cumecs remaining for allocation. Only when CPW does not need its full share could ACWT fill the canal.

27. I hold concerns for the industrialization of the river bed if both consents are granted. Dual outtake structures and races, settling ponds and sediment disposal areas within close proximity of each other will clutter the river and detract from this recognized significant landscape by having a cumulative effect.

Summary-

28. Without data it is difficult to make any assessment of the proposals efficiency of use and development of the Commons per section 7(b).

29. Concerns are outlined around the hydraulic linkage of the river with the aquifer system, with both showing signs of abstractive pressures. Half of the water currently allocated from the river is not being utilized. Granting of this consent would be a cumulative effect on top. This is all compounded by potentially lower river flows due to ice melt and IPO influences.

30. I seek that all consents be declined.

31. Thank you for your consideration.