

In the matter of

The Resource Management Act 1991

**and a Notice of Requirement to Selwyn District
Council and applications to Canterbury
Regional Council for Resource Consents.**

By

Central Plains Water Trust

And

Central Plains Water Ltd

**Statement of John Edward Sunckell on behalf of the Leeston Rural
Drainage Committee.**

1 Introduction

- 1.1** My name is John Edward Sunckell. I am a dairy farmer, ratepayer and in the matter of this brief Chairman of the Leeston Rural District Drainage Committee.
- 1.2** This brief is to highlight probable and possible downstream effects of the CPW scheme on groundwater levels within the Leeston Drainage District.
- 1.3** And to seek assurance that there will be made available both practical and sustainable measures of mitigation from those effects that cannot be addressed through scheme design if consents are granted.
- 1.4** The effected area in general is that land situated between the Selwyn and Rakaia Rivers, State Highway 1, Te Waihora (Lake Ellesmere) and the sea.

- 1.5 More specifically that area as defined in appendix 1 as being the Leeston Drainage District of 12,487 Ha.

2 History

- 2.1 Settlers from the 1840's onwards found the District to be mainly flax swamp with light tussock on the higher lands. In order to bring the swamps into production a system of drains was installed some by the Ellesmere Roads Board but most by settlers.
- 2.2 The Ellesmere Land Drainage Board was first recorded as being involved in drainage of the land in the 1920's. The majority of recent work was done between 1942 to 1949, considerable flooding had been experienced from 1920 up until that time.
- 2.3 In the mid 1960's a classification exercise was carried out to ascertain district drainage use and needs. This resulted in an area of benefit of 12,487 Ha being identified and 207.9 Km of drains being classified. The drainage system has outlets to Te Waihora (Lake Ellesmere).
- 2.4 The Leeston Drainage District was born of this classification and its role is to give every property in the Brookside, Leeston, Killinchy, Doyleston, and Lakeside areas a guaranteed outlet for drainage. Certain drains were identified to serve these properties and land contours assessed to give a level of benefit.

3 The issues of increased groundwater levels.

- 3.1 We have a concern that there will be a reduction in the ability of ratepayers to maintain normal farming practices due to increased groundwater levels.

- 3.2** That the increased groundwater levels will reduce the capacity of the system to handle major precipitation events, leading to more flooding.
- 3.3** Flooding of the lower plains occurs by way of local rainfall into the Selwyn River catchment areas rather than high country snow melt.
(a) Prolonged southeast rain
- 3.4** Hugh Blake Manson in his submission on behalf of the Selwyn District Council covers these points in more detail under the headings:-
- 3.4 CPW groundwater modeling
- 3.16 “non consideration of additional effects”
- 3.17 “frequency of duration”
- 3.5** Our system is adequate for the purpose of its design. It is a drainage system not a flood protection or relief system in itself. Maintenance of the system is on a need basis. It is funded by a levy on the landowners within the scheme area and run on a credit / debt basis.
- 3.6** Any increased costs associated with maintenance of the scheme would not be acceptable to the levy payers as a result of effects caused by the CPW scheme.
- 3.7** The probable increase in and cost of openings of Te Waihora (Lake Ellesmere), the outlet of our drainage scheme, should be born by CPW.
- 3.8** There is precedent for this in the National Water Conservation Order for Lake Ellesmere for ecological purposes.
- 3.9** We have concerns based on our own knowledge of local groundwater systems as to the validity of the modeling that has been done, its findings as to water mounding and the interpretation of its effects.

3.10 It is stated by URS Consultants that, "the results do not show GW within 1m from ground in the area around Leeston." SDC in their evidence state that GW infiltration is a major problem for their piped wastewater system in Leeston. We would suggest that GW is in fact very shallow in the Doyleston, Leeston, Lakeside and Southbridge areas which is counter to the GW modeling done by Aqualinc.

4 Mitigation

4.1 Mr. Lewthwaite recognizes in s25, Second Brief of Evidence that it would be reasonable for the applicant:

"to agree to remedy adverse effects of drainage in the lower plains that result from operation of the scheme"

4.2 We have concerns as to the implications of the mitigation measures outlined. They being the deepening, widening and installation of new drains.

4.3 Aside from the direct costs of implementation it must be assumed that there would be a considerable impact on the personal property rights of those property owners who have major drains traversing their properties.

4.4 There are clear negative impacts from the deepening of drains:

a) Drains already 1-2 meters deep

b) Unstable low cohesion soils

c) Spring water infiltration once stream beds are disturbed

d) RMA/consenting

4.5 As the majority of our network runs in parallel with the road network any widening of drains may require:

a) Utilization of private property

- b) Replacement of fencing and planting of shelter
- c) Issues of bridging and access over widened drains
- d) RMA/consenting. There are approx 37 private access crossings over the Hanmer and Doyleston Drain 's and 11 road culverts giving an indication of the size of problem.

4.6 The installation of new drains if required will pose a new set of questions to a system that has been in a state of stasis for some 50 years. Not to mention the associated indirect costs and disruption of property rights.

5 Cause and effect

- 5.1** Notwithstanding the practical obstacles and limitations of mitigation. The greatest concern we have, is the process that will be required to prove cause and effect.
- 5.2** Having stated that they, CPW, will cause groundwater levels to rise and land drainage flows to increase on the lower plains, we believe the burden of proof should fall entirely with CPW.
- 5.3** It is suggested that a thorough survey of the lower plains drainage system be undertaken by CPW to provide a baseline for judging any such cause and effect.
- 5.4** Hugh Blake Manson for the Selwyn District Council in s8 of his brief covers this in some detail.

6 Conclusion

- 6.1** The Leeston Drainage Committee is neither for nor against the CPW scheme.

- 6.2** We have shown it to be historically important that viable drainage systems be in place on the lower plains to maintain productivity.
- 6.3** We have concerns as to the results of groundwater modeling and the interpretation of that data as to effects on land use.
- 6.4** In terms of mitigation we have concerns as to what will be practical and sustainable if remedy is required.
- 6.5** The need for the process to establish cause and effect and instigation of mitigation must be simple, with the burden of proof resting with CPW.
- 6.6** In excess of 24,000 Ha of the lower plains are in drainage schemes equivalent to 40% of the proposed CPW scheme.
- 6.7** If through design or mitigation CPW cannot guarantee the integrity of the agricultural and drainage systems of the lower plains we will not be in a position to support the granting of their consents.
- 6.8** We thank-you for the opportunity to present this submission. The lower plains are highly productive with leading pastoral, agricultural and horticultural applications.

