

3. CENTRAL PLAINS WATER ENHANCEMENT STEERING COMMITTEE: QUARTERLY REPORT

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The purpose of this report is to provide, as required by the Steering Committee's constitution, a quarterly report to the two parent councils on the progress of the Central Plains Water Enhancement Steering Committee (CPWESC).

PROGRAMME

The terms of reference required the Joint Steering Committee to complete its work by the end of 2001, at which time it was to report to the parent Councils on the technical, economic and environmental feasibility of establishing water enhancement projects in the Central Plains area. The Committee reported its findings to a joint seminar of the two Councils on 11 February 2002.

Part of that reporting reviewed the options available for an appropriate structure to take the work forward should the two Councils so decide but to ensure continuity, the Steering Committee has recently written to both Councils setting out likely funding requirements for the balance of this financial year (Feb-June 2002) and for the following financial years.

To do this, the Committee has developed an indicative activity and funding programme necessary to complete scheme construction and deliver water to the farm gate. It is interesting to note that according to this programme, it will be September 2008 before any water flows onto farmland.

Specialist work has been finalised across the technical, environmental, social and consultation activities ready for consolidation and presentation. A social and economic study commissioned by the Committee shows that a water enhancement scheme irrigating 84,000 hectares could result in up to 4000 new jobs and generate \$600 million per annum in the Canterbury regional economy of which \$400 million would benefit the off-farm community. There are, of course, issues associated with this achievement and the following notes summarise some of the key items of interest or concern.

TECHNICAL

Scheme Costs

A favoured scheme has been selected and its design optimised to the extent possible at feasibility stage. Scheme costs, expressed as dollars per hectare per year for the supply of water are coming out at the high end of what farmers consider sustainable, especially if the Springfield/Sheffield area is included and costs equalised across the whole area. Reporting will identify the separate and combined costs of including this area.

The level of reliability of water supplied to the farm gate has a significant effect on scheme costs and work is being done with a focus group to determine how on farm management practice and accurate long term forecasting of water availability can be used to lower overall scheme reliability while still achieving the on-farm results.

Another study has examined the optimum scheme area for the type of storage proposed and found that the proposed 84,000 ha is about 12% larger than ideal from a scheme cost viewpoint.

Peer Review

The Committee has commissioned and received a peer review of the work.

Selwyn District Council Proposed Plan

Work is being commissioned that will study the Selwyn District Council's District Plan to determine those areas that may be unnecessarily restrictive on irrigation scheme development. The study will identify those policies and/or rules where submission by the Steering Committee may be warranted.

Options for Christchurch City Water Needs

A report has been completed and forwarded on to the City Council outlining the options for supplementing the city's water requirements, for both its potable water supply and its spring-fed waterways. The document is a useful summary of options and stems from the idea that water from a Central Plains irrigation scheme could be used as the source. However, the water is costly and when the city comes to consider supplementing its supply, it will find that options involving a direct take from the Waimakariri River are more favourable because of this cost factor.

ENVIRONMENTAL

As environmental impact reports are being completed and considered, the key concerns are emerging and include:

In-Stream Effects in the Rakaia and Waimakariri Rivers

Because the proposed Rakaia River take will conform with the requirements of the National Water Conservation Order (NWCO) downstream effects have been studied previously and presumably mitigated by the terms of that Order. One aspect that will, however, be contentious is that the fishability of the river (as opposed to the adequacy of flows for fish) will be altered adversely. This effect occurs because it is now accepted that the optimum flows for salmon fishing occur between 160 and 180m³/sec (cf the minimum flow set by the NWCO for Feb and March of 105.3 and 107.9 m³/sec) and it is the effect of further takes on the occurrence of these higher flows that influences fishability.

Effects on the Waimakariri River from the proposed 40 m³/sec take are more marked because the river has a lower minimum flow requirement (37m³/sec) and a mean flow (124m³/sec) which is only half that of the Rakaia. These effects were fully presented at the February seminar.

Groundwater Nitrate

Even with efficient irrigation practice, the concentration of groundwater nitrate is expected to rise as the scheme develops but by an amount that, on average, will maintain concentrations well within drinking water standards. A concern is the occurrence of hot spots that may cause elevated concentrations in isolated areas and means of mitigating this effect will have to be found.

Drainage Effects

Modelling of the groundwater systems throughout and below the proposed scheme areas has allowed prediction of effects on groundwater levels and therefore on surface flows where the groundwater emerges as spring flows. Surface water quality effects on the low land streams are also being assessed.

CONSULTATION

Nga Tahu, Ngati Mamoe and Waitaha

A substantial response has set out matters of importance for tangata whenua and, for each scheme option, identified areas of concern and ways in which these can be mitigated. Some options are not favoured because there is no means of mitigating their effects but for the favoured scheme no fatal flaws have emerged from this study.

Newsletters

The Steering Committee has continued to publish and circulate a newsletter setting out progress, answering questions and highlighting concerns. Councillors will have received the November 2001 issue and can also visit the website www.cpw.org.nz for more information.

Wairiri Valley

Proposed storage in the Wairiri Valley involving an earth dam and a large reservoir has raised many issues and tested the steering committee's consultation skills. A Dam Action Group has been formed that recently furnished the steering committee with a list of 39 questions. The issues include:

- dam safety
- the need to re-route SH77, which would leave Glentunnel off the State Highway route
- inundation of farmland and some 14 houses
- inundation of QEII Trust covenanted land
- cultural value impacts
- integration of potential recreational uses with a variable lake surface level
- reservoir water quality issues.
- compensation

Landowner Focus Groups

With the physical detail and probable costs of a possible scheme firming up discussion with potential user focus groups has provided valuable information on farmer attitudes. The groups covered questions like what is a viable per hectare cost for water, whether capital contributions would be supported, what are the key drivers in determining acceptable cost, what scheme governance structure is favoured, tradability of water rights etc.

GOVERNANCE STRUCTURES AND SCHEME FUNDING

A report on the range of governance structures available to community based irrigation schemes has been completed by Deloitte. This was a co-operative study, managed by the CPWESC but funded by Agmardt and a group of organisations involved in irrigation scheme proposals.

A second similar co-operative venture is being set up, reflecting Agmardt's confidence in the ability of CPWESC to sponsor, manage and co-ordinate such studies, which will look at the role of Central and Local Government in promoting and supporting such schemes. The short title is "Investigation related to policy development for large scale water enhancement projects", CPWESC's contribution will be \$10,000 out of a total of \$150,000.

FINANCIAL

The Steering Committee is funded to complete the work defined by its terms of reference. It is not currently funded to work beyond February 2002. Up to that date, the Committee will have incurred over a two year period a total expenditure of \$1,450,000, of which \$560,000 has been sourced from other than Council funds. Letters have been sent to each Council suggesting action to be taken regarding funding beyond February 2002.

Chair's

Recommendation: That the information be received.