COMMONWEALTH OF AUSTRALIA

Official Committee Hansard

HOUSE OF REPRESENTATIVES

STANDING COMMITTEE ON AGRICULTURE, FISHERIES AND FORESTRY

Reference: Future water supplies for Australia's rural industries and communities

WEDNESDAY, 17 SEPTEMBER 2003

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HOUSE OF REPRESENTATIVES

STANDING COMMITTEE ON AGRICULTURE, FISHERIES AND FORESTRY

Wednesday, 17 September 2003

Members: Mrs Elson *(Chair)*, Mr Adams *(Deputy Chair)*, Mr Forrest, Mrs Gash, Mrs Ley, Mr Schultz, Mr Secker, Mr Sidebottom, Mr Windsor and Mr Zahra

Members in attendance: Mr Adams, Mrs Elson, Mr Forrest, Mr Schultz, Mr Secker and Mr Windsor

Terms of reference for the inquiry:

To inquire into and report on:

The provision of future water supplies for Australia's rural industries and communities, particularly:

- The role of the Commonwealth in ensuring adequate and sustainable supply of water in rural and regional Australia.
- Commonwealth policies and programs in rural and regional Australia that could underpin stability of storage and supply of water for domestic consumption and other purposes.
- The effect of Commonwealth policies and programs on current and future water use in rural Australia.
- Commonwealth policies and programs that could address and balance the competing demands on water resources.
- The adequacy of scientific research on the approaches required for adaptation to climate variability and better weather prediction, including the reliability of forecasting systems and capacity to provide specialist forecasts.

WITNESSES

Committee met at 5.02 p.m.

HAUCK, Mr Ed, Manager, Hydrology and Water Resources Branch, Resource Science Division, Department of Environment

TROMP, Mr Fred, Director, Resource Science Division, Department of Environment

CHAIR—I declare open this public hearing of the House of Representatives Standing Committee on Agriculture, Fisheries and Forestry inquiry into future water supplies for Australian rural industries and communities. Today's hearing is the 13th of the inquiry and I welcome you before our committee. We do have your submission. Although the committee does not require you to give evidence under oath, I should advise you that these hearings are formal proceedings of the parliament and consequently they warrant the same respect as proceedings of the House itself. I would like to remind our witnesses that giving false or misleading evidence is a serious matter and may be regarded as a contempt of parliament. Would you like to make a brief opening statement in relation to your submission? I will then introduce you to our committee before we commence with questions. Thank you.

Mr Tromp—I appreciate the opportunity to make some opening remarks. I would like to update the committee on developments since our state's submission was made and to emphasise a few characteristics of Western Australia's water situation and water issues which are currently facing the state. There are several distinct differences between water management in Western Australia when compared to the eastern states. I will just list five of the most important ones for the committee. First of all, Western Australia is at a much earlier stage of water resource development. In that regard, we are fortunate. Secondly, both our ground water supply and self-supply are of greater importance here in the west than they are in the east. Thirdly, salinity has had a major impact on our south-west surface water resources. Fourthly, Western Australia needs to adjust to the decrease we have had in our wettest years since the mid-1970s. Finally, Western Australia has essentially only one major water service provider, our Water Corporation, which supplies all but a very small proportion of our population, which is also a situation different from most other states. It is our belief that the intergovernmental agreement which is proposed to give effect to the national water initiative recently announced should take into consideration, equally, the different financial needs of jurisdictions such as Western Australia from those jurisdictions involved in the Murray-Darling system.

Last year, the Western Australian state government carried out a state-wide consultation exercise to gauge community views on our state's water resource management. This culminated in a three-day water symposium at the state's parliament house. The 21 recommendations and many other outcomes of the symposium were used to help frame the state water strategy, which was released earlier this year. The strategy provides a guide to ensuring a sustainable water future for Western Australia. One of the strategy's key features is the promotion of total water cycle management in rural, irrigation and urban sectors. An important initiative recognised under the strategy is the state's rural water plan for dryland agricultural areas. For example, this past year, the state has committed $3.8 million under this program for dryland agricultural areas. An additional $1.5 million was provided for water planning and development as recognition of the severe drought conditions.

Regarding the role of the Commonwealth in ensuring adequate and sustainable water supply, we see the collection and assessment of information as very important. Any Commonwealth funding provided through the regional management planning process, which is supporting the natural resource management initiatives in support of sustainable management of the environment and water supplies and improving water planning skills and local capacity building, would be very useful, especially where targets and evaluation processes are set at the national level, as may well happen under the water initiative. Such initiatives would help improve the security of water access entitlements and the assignment of risks between government and users.

Therefore, any linkages between state programs, such as the Western Australian rural water plan, to which I referred earlier, and any land use and regional planning interstate and Commonwealth planning programs should be encouraged and progressed. Efforts to ensure consistency in environmental and water objectives and reporting requirements—I stress reporting requirements—at all levels of government should be supported to ensure an effective and efficient evaluation process. Attention to this need would assist reporting through such programs as the National Land and Water Resources Audit and the various types of State of Environment reporting that occur around the country.

Regarding efficiency and regional or intraregional transfers, I would like to make the following two points. National programs that support the development and adoption of efficiency measures, particularly in the irrigation sector, are very important, especially where environmental systems are under threat, as is the case here in Perth, where our Gnangara area has a mix of horticulture, pine plantations and urban water supply competing for a diminishing ground water resource and threatening water dependent ecosystems, such as wetlands and cave systems.

A nationally agreed framework for higher value use in the context of regional transfers would be helpful in our state. In Western Australia, there is pressure on existing major water resources, including climate influences, and these are accelerating new major source developments, such as the proposed south-west Yarragadee ground water project to help supply Perth. Western Australia has a history of interregional transfer, as you will realise, with the Kalgoorlie pipeline, but we are now living in a modern era where much more communication and consultation is required.

I hope we all agree that there is a need to elevate water and environmental policies and programs at both Commonwealth and state levels if our Australian society is to enjoy existing benefits into the future. Without the recognition of environmental values in our health and governance systems, Australia would not maintain the present high quality of life which we enjoy. Therefore, Commonwealth support of water reuse programs and policies that support user contributions to the cost of water management and active community involvement in planning and decision making would also assist us here.

In closing, I would like to stress that climate variability and climate change issues are very prominent in Western Australia, particularly within the water, agriculture and environmental sectors. The committee will be aware that south-west Australia has experienced a significant shift over the last 25 years and is likely to experience ongoing climate change towards the drier end of the spectrum. The very low rainfall and run-off records for the last six years leads

planners to question if in fact another shift has or is occurring. Interaction between catchment management and other local factors will become increasingly important.

Western Australia believes that all sectors of the community need to be engaged in understanding climate variability and, more importantly, be better prepared to adapt to extremes and the prospect of climate change. We would like to see Commonwealth initiatives that support important climate research themes. In Western Australia, we have adopted four major themes. These are, firstly, current climate regimes—that is, how the climate is changing and what is causing the change. Secondly, there are climate change projections— that is, how climate will be affected, for example, by enhanced greenhouse gas effect and other human influences. Thirdly, there are short-term climate projections—this is about the opportunities to project climate and how we develop and use them productively. Finally, fourthly, there is interpretation and communication and improving understanding by all concerned.

A significant outcome of climate research will be a more reliable assessment of water source capacity and planning future source developments. It is essential that relevant professional officers from all around the nation, including WA, are involved when prioritising the directions of any future research programs. Thank you, Chairman, for the opportunity to make these opening remarks.

CHAIR—Thank you, Mr Tromp. We appreciate that. Mr Hauck, have you anything to add to that statement?

Mr Hauck—I am fine with that. Thank you.

CHAIR—Thank you. I will introduce the committee members who are in the room at the moment. They are coming and going because they have other commitments, so I apologise for that.

Mr SCHULTZ—I am the member for Hume. I represent the south-west slopes and the Southern Tablelands and highlands of New South Wales.

Mr FORREST—I am not a Western Australian. I am from Victoria, but I am interested in the same issues. My middle name is Alexandra as well, so water is high on my agenda.

CHAIR—Sitting next to me on my right is Alex Olah, who is our inquiry secretary. I am Kay Elson, the Chair. I come from Queensland. I represent an area in south-east Queensland that is rural and urban.

Mr ADAMS—I am the member from Lyons—sixty per cent of Tasmania is my electorate.

Mr SECKER—I am the member for Barker in South Australia, which is very much a country seat. It now represents about half of the Murray River in South Australia but, with a proposed redistribution, it will inherit all of the Murray River.

CHAIR—They are the members in the room at the moment. We will now go to questions. I notice in the Western Australian media the Western Australian people are investigating the feasibility of piping water from the north to the south. Has this idea been investigated by the

government? What have been the findings to date? Have any costings been done with that piping proposal?

Mr Hauck—I assume you are referring to the south-west Yarragadee project—the proposal is to transfer water from the south to the north.

CHAIR—That is right, yes.

Mr Hauck—That project has involved considerable investigations, both scientific and communication, and consultation with the local community. Certainly one of the big issues is how water is shared into the future. But this has been the most significant water investigation and consultation program in recent WA history.

CHAIR—Is there a cost for that project?

Mr Hauck—The cost in terms of the investigations and the consultation is approximately $8½ million. They are costs that have been incurred in the last year and represent an accelerated process that has been designed to meet the possible needs of Perth and the south-west region should we have a future run of very dry years that fail to supply adequate water to our surface catchments.

CHAIR—Thank you. So the project you just explained to us is different from the Ernie Bridge proposal, or the consideration?

Mr Hauck—That is correct.

Mr Tromp—The Ernie Bridge proposal involves the prospect of piping water from the north of the state, from our monsoonal rainfall areas, to the south. Costings on that, in terms of the actual cost of the water as delivered to the south of the state, are continually being updated in the context of changing technologies and so forth. I would make two very broad points. Currently, the cost predictions indicate that that would still be something like five to six times more expensive in terms of dollars per kilolitre than other supply options that we have, such as the south-west Yarragadee option that Mr Hauck talked about, or even desalination locally. That would be one aspect. The other aspect is that the energy consumption of such a water transfer by mechanical means from the north to the south would incur a very significant environmental effect in terms of a very high level of greenhouse gas emissions compared to other options.

CHAIR—Thank you.

Mr SECKER—Do you think you would have similar figures for the pipeline from Perth to Kalgoorlie that has already been built? Would that pipeline have been built if you looked at those sorts of figures?

Mr Hauck—At the time the Kalgoorlie pipeline was built, the cost of water transfer was considered quite exorbitant. Over the years, that capacity has been utilised both by industry in Kalgoorlie and about 20 per cent of the dryland agricultural sector. So the costs are significant when you look at the real costs of providing that water. Certainly they would exceed the raw cost of a source developed in a more local sense.

Mr SECKER—So it probably would not be built today?

Mr Hauck—There are considerable community service obligation payments to support the provision of water through the Kalgoorlie pipeline to enable the economic use of that water on a local level. So considering the high value of industry, that pipeline obviously serves a good and economically fruitful purpose. So the value of that water certainly is being realised today.

Mr ADAMS—You said the Bridge's idea was five or six times more expensive than most others. I understand you did a feasibility study on the desalination of saltwater. I saw a media story that said something like $1.20 per kilolitre was the figure. Can you give us a breakdown of the different figures of what you have looked at as the costs of water for the future?

Mr Tromp—I cannot give you those figures at the present time, but we would certainly be able to provide them. Most of those costings have been developed by the state's Water Corporation. I do not have those detailed figures to hand. In fact, I am working probably from very similar figures to the ones you have seen in the newspaper.

Mr ADAMS—So you will take that on notice for us?

Mr Tromp—Yes. I will provide that to the committee.

Mr Hauck—I will add to that. I think it is well recognised that the scale of development for desalination does bring down the cost somewhat. But, considering energy inputs, the efficiencies may not go too much further than what we see today. The costings that have been provided on desalination are associated with a 45 gigalitre unit, which is a large unit. By far the most cost efficient water source development in WA is related to catchment management and water conservation measures.

Mr Tromp—With the indulgence of the chair, I will make one additional point on that. Supplying water involves both looking at additional sources but also reducing demand. Demand management is very important. And the quantum of water that we are talking about here in terms of water that we might bring in from the south-west Yarragadee or a desalination plant, which is of the order of 45 gigalitres per year, is very similar to the sort of savings that we currently are managing to achieve through what I would consider wiser water use in the Perth metropolitan area by the imposition of what some call water restrictions. For example, in Perth at the present time, domestic premises are only permitted to use sprinkler irrigation for their gardens on two days per week. That is achieving a significant saving of the order of 30 to 40 gigalitres per year. So I think it is also important to bear in mind that demand side management should play an increasing role in terms of decreasing the demand on new source developments. Thank you.

Mr FORREST—On Mr Adam's question, accompanying the submission from the Premier was the summary document on the water strategy. I do not know if you have that document available. On page 3 there is a table showing the rating scale. There is a scale of nine rates from zero up to 1,950 kilolitres. Then there is some explanatory text. I got confused about whether those rates are actually in place now or proposed. Can you find that table? It is under the heading 'The price of scheme water supplies'.

Mr Tromp—I do not have the summary document but I do have the full document, Mr Forrest. Are you talking about a table that has columns headed 'Metro', 'Class 1', 'Class 2' and so on?

Mr FORREST—Yes. I had questions about what the classes mean. Is that a proposal or is that actually operating? If it is, it is an excellent idea. But the text tends to contradict that.

Mr Tromp—That rating scale is actually operating.

Mr FORREST—Excellent.

Mr Tromp—That was a direct outcome of the development of the state water strategy. These new rates were announced as one of the implementation measures of the strategy.

Mr FORREST—You would be one of the few water organisations that is doing that. Most stick to a two-tiered rating structure, but you have nine.

Mr Hauck—Yes. That is the proposed rating structure. It certainly has been adopted, but it is not quite identical to the one in the water strategy, as I take it. There is an escalation at 550 kilolitres. The next cut-off is 950 kilolitres. With the progression beyond 950, I am not too sure if the breakdown is the same as represented in the proposal in the strategy. But certainly there is an increased cost of water associated with higher consumption levels.

Mr FORREST—That clears that up, thank you.

Mr SCHULTZ—I am not quite sure who would be able to answer this. In that same document there is reference to water reuse, specifically reclaimed water. How much treated waste water is being used at present? What are the major impediments to reaching the 20 per cent reuse target?

Mr Hauck—The reuse of water in rural WA is quite high. Most rural towns reticulate their ovals et cetera with reused water. In the Perth metropolitan region, our current reuse of water is on the lower end of the spectrum when compared with other Australian cities. However, there is a very strong effort and an initiative that is addressing that situation as a result of the state water strategy. There are some significant smaller pilot programs that are using waste water across the urban area. There is also a significant push to research aquifer storage and the recovery of waste water. Of course, that has to be treated to acceptable levels, tertiary levels, and reinjected into a ground water system. That helps to preserve the flow of water for use rather than having it flow out to the Indian Ocean. The major impediment to the use or consumption of that water is community attitudes to using basically waste water. People do not mind if you water lawns, but they do not like the idea of drinking waste water. That has been shown across the world to be the major impediment to get higher use levels.

Mr Tromp—I will add to that. I have found that for Western Australia the reuse of effluent is seven per cent, which compares with a national average of 11 per cent, so we are somewhat low, particularly in relation to our target of 20. Thank you.

Mr SCHULTZ—I raise the question because New South Wales, to its credit, has run a very significant and effective exercise in terms of the reuse of sewage effluent by treating it. It is particularly good in the rural communities. The water is used basically for public lands like golf courses and parks et cetera. That has made a very significant contribution to saving water in those communities. I think the government has in fact complemented that by making grants available to the local government shires to assist them to get that particularly positive outcome. Have you got something running like that in your rural areas?

Mr Hauck—We have the rural water program, which looks at community based projects. Thus far, it has not focused on the reuse side of the equation. However, as I mentioned, the Water Corporation, which is the major service provider, has a very significant new program to encourage waste water reuse. There will be a component of that targeted at country towns. Incentives have been offered in a general push to improve efficiency through the water wise rebate program, which is a different issue. But certainly the mechanism of incentives is certainly being looked at and actively being talked about with local government.

Mr Tromp—In our south-west city of Albany, we are currently disposing of all the city's waste water effluent in terms of growing trees in a eucalypt plantation, which is about three megalitres a day. The entire city effluent is actually being used to grow trees for profit.

Mr SCHULTZ—That is a pretty significant contribution to reuse. Thank you.

Mr SECKER—I know it is early days, but what implications for water use in Western Australia will arise from the COAG agreement a couple of weeks ago?

Mr Tromp—It is certainly very early days. I think the principles which have been espoused in the initiative are clearly in accord with the state's own views. The proof of the pudding, I guess, will be in the eating in terms of the implementation. I think it probably is too early to say that. I did say in my opening statement that one concern we do have in our state—I have read many transcripts of your hearings—is a very strong focus on the real problems that beset the Murray-Darling Basin and its management. We are perhaps a bit concerned that sometimes we may be left out of the overall picture in terms of the management of our state's water supply and, more importantly, any financial assistance that might need to be provided to restructure water use. I think we do have that underlying concern.

CHAIR—Other states have also commented on that too.

Mr FORREST—In your introductory remarks, you talked about the change in the water storage's yield from basically 1975. You mentioned 25 years. I provided the committee with a background document that featured on that fact in Western Australia. It is the same characteristic in the south coast and the east coast, actually. On Western Australia's figures, the average yield for the 60 years before 1975 was 338 gigalitres per annum. The average since then for the last 25 years is only 167 gigalitres per annum. In fact, the inflows of any year since 1975 have not even reached the average of the previous 60, so it is quite startling when you see that plotted. To date, the explanation as to why this happened, not just for Western Australia but everywhere else, is very unclear. I am hoping you would be able to add further wisdom on what has changed so dramatically since 1975 and 1976.

Mr Tromp—I will make an opening statement and then hand over to Mr Hauck. The Department of Environmental Protection and the Water and Rivers Commission, in conjunction with other state government departments, have been funding climate research into this area under the general banner of the Indian Ocean Climate Initiative. The research work is being carried out by major research partners, being the CSIRO and the Bureau of Meteorology in Melbourne. We have called it the Indian Ocean Climate Initiative because we are less affected by el Nino type signatures than, say, the eastern seaboard of Australia. That was one of the reasons for looking closely at some of the climatic factors across the Indian Ocean and also down towards Antarctica. I think Mr Hauck is slightly better placed because he is a bit closer to that program. He can provide some more details.

Mr Hauck—The change that was observed in the mid-1970s was very much across the globe in terms of observed changes in sea level pressures. The causal factors behind that are still very much debated in the world meteorological community, but various factors have been studied. In the Western Australian context, it can be best thought of in terms of synoptic patterns. The highs from the west tend to stick in the Bight for longer and persist longer throughout the season. So there is a tendency for warmer and drier air to flow across the continent. What we are seeing is a delay or a diminishing of early winter rainfalls, which results in an extension of the dry summer period, versus the previous situation where cold frontal systems were much more prominent.

In terms of the catchment run-off figures that you have observed, of course, run-off is a second order process from rainfall, so there is an exaggeration in the response. But you also have to remember that those figures to some degree reflect catchment management practices in terms of the density of vegetation and perhaps some lack of burning on the catchments to reduce vegetation density. There has also been a significant amount of mining activity through bauxite mining, which may to some degree have affected the hydrology of those catchments.

Mr Tromp—I will just add to that. The figure that I guess concerns us even more is that for the period of 1997 to the year 2002, that average yield figure had in fact dropped to 115 gigalitres, so we are still seeing a declining trend there. We do not see anything kicking up yet to give us an indication that we may be at the end of that cycle. Thank you.

Mr FORREST—If you have been following the *Hansard*, you will see that I have never been satisfied with that explanation. We have been briefed by the CSIRO with respect to the Indian Ocean initiative. The fact is that it is so sudden. If you see the plot of the inflows to reservoirs over that long 100-year period, it is so dramatic that the answers you are providing suggest it would have been much more gradual. But it is such a dramatic change. It is the same for water storages right across the southern half of the continent. I am not satisfied with this Indian Ocean explanation. Something else has to have happened to be so dramatic.

Mr Tromp—I am not an expert in these matters, I would have to admit. But having listened to some of the scientists involved in this research, my understanding is that very many of the climate signatures that identify the state of climate, such as sea pressure levels, precipitation rates and so on, all in the Southern Hemisphere, all show a sudden shift over that period. So the thinking perhaps in terms of climate is that at some stage something was triggered which flipped the climate into another stage. But what that was or how that occurred seems to be unclear. That would be my understanding. I do not know if Mr Hauck wants to add anything to that.

Mr Hauck—I would say that that is a reasonable explanation. There are still quite a few questions about causal links to factors such as the interaction with vegetation and changes in transpiration and aerosols. There are quite a few areas that have been implied as contributing to the decline in rainfall. There is recent literature that points out these trends across the globe, particularly in west coast oriented areas, including California, the western part of Africa, the western part of Europe and other areas in the world.

Mr FORREST—Are you watching the international work and publications that are occurring with respect to the impact of airborne pollution and the effect it is having on the performance of clouds, especially from Israel?

Mr Hauck—Yes. I am aware of Danny Rosenfeld's work and other meteorologists that are respected throughout the world. Basically, cloud physics and the explanations about the influence of pollution can be appreciated, but the context of some of the science to the local impact is where there has not been a lot of work to date. Most of the work is at a theoretical level. There have been some studies, but in terms of WA, we have not had or participated in any work that is looking directly at aerosol impacts to our rate of run-off.

Mr FORREST—Do you see that as an area of priority or not in the plan that you have put?

Mr Tromp—I understand the question to be whether we see research into the impacts of aerosols on precipitation in the south-west of Western Australia as a priority.

Mr FORREST—Yes.

Mr Tromp—Our initial response would be probably not. I will give one or two reasons for that. One is that the reduction in the rainfall pattern that we see superficially, at least in any case in south Western Australia, does not seem to be associated with, for example, a plume of pollution from our industrial or urban areas. If we look at some of our rainfall records in the more southern parts of our state, which are not impacted at all by pollution sources in Perth, we see similar reductions in rainfall. So it is not a matter of the areas which are, if you might say, in a cloud shadow from Perth where the prevailing weather systems which drop rain on to this part of the state occurs. It is actually right across the southern half of the state. So there does not seem to be an immediate link there.

Secondly, the organisation which would probably benefit most from research into that area, including research into the sort of areas that the committee has been looking at in terms of cloud seeding to increase precipitation, would be our Water Corporation, because they have a direct financial interest in increasing water gathering from, say, increased precipitation as opposed to investment in additional capital infrastructure in terms of the development of other sources. They do not seem to see the financial rationale in quite the same way as the Snowy Hydro people seem to think that there is a commercial gain to be made there, and they are prepared to put that $5 million into it.

Mr ADAMS—Twenty-five years is not a very long time when we start looking at climate. Would you agree with that? In climate terms, it is a very short time to look at a cycle—50 years or 100 years is still very small time span. Could you reply to that?

Mr Hauck—I agree with that. Climate certainly is not stationary, as assumed by many planners. There is one classic example of that where a paleoclimatology project looked at previous climate or rainfall run-off relationships associated with, in this case, the Colorado River. If you look at the annual plots from the 1500s through to 2000, you will see at the beginning of the 19th century for five decades there is a huge spike of run-off above the rest of the data. That period was used to set all the allocations for that river system, which is now over-allocated. So, yes, 25 years is a small time frame. Paleoclimate research, to extend our knowledge of climate, certainly is something I believe warrants support.

Mr SCHULTZ—In the submission from Premier Gallop on page 2 under the subheading 'Irrigation Industry', he says:

The irrigation industry is the dominant water user in Western Australia. The efficiency of use is variable on account of the broad range of systems and some reluctance to adopt best management practice in many areas.

Could you describe the main irrigation techniques used in Western Australia and perhaps give some comments on the efficiency of the delivery systems for irrigation water. How does that efficiency on farm irrigation compare to other states?

Mr Hauck—I could give you a brief rundown. The irrigation systems are varied and range between very large flood irrigation bays in the north in the Ord River area. Often the flood irrigation bays are three times what you would find commercially in the south or in the east, which is a very inefficient use of water. Certainly there are moves to redesign that system to improve efficiencies. You get the dairy industry south toward Harvey. It is flood irrigation and there are considerable channel losses. There are moves there to improve efficiencies through converting to piped distribution systems. The horticultural industry and the use of the high-end centre pivot trickle systems is not as predominant as you might find elsewhere, but certainly that is best practice and is being increasingly adopted. In our coastal plain areas, we have very sandy soils and your traditional horticultural operation is a sprinkler operated system that has a fairly high circulation rate. So there are quite high losses in our irrigation systems. But certainly there is a commitment under the state water strategy to look at an irrigation review. That will be progressed in line with the commitments under the state water strategy.

Mr SCHULTZ—Is the flood irrigation system used for pasture or for some other methods of agriculture?

Mr Hauck—Predominantly pasture.

CHAIR—I would like to thank Mr Tromp and Mr Hauck very much for the time they have given us today and their cooperation in doing this by videoconference. It has proven to be a lot easier process than what we imagined. Everything went without any hitches, so I thank you very much for your cooperation today in appearing before us. When our inquiry concludes, which should be in the early part of next year and the report is brought down, we will make sure that a copy is sent to you with its recommendations. Thank you again.

Mr Tromp—Thank you, Chairman.

Mr Hauck—Thank you very much.

[5.53 p.m.]

McMILLAN, Mr Andrew John, Director of Policy, Western Australian Farmers Federation

NICHOLL, Mr Colin Jeffrey, President, Western Australian Farmers Federation

CHAIR—Mr McMillan and Mr Nicholl, we really appreciate the time you have given us today and your cooperation in allowing this to become a video conferencing meeting. It has been very convenient for us and I hope equally for yourselves. Although the committee does not require you to give evidence under oath, I should advise you that these hearings are a formal proceeding of parliament and consequently they warrant the same respect as the proceedings of the House itself. I would like to remind our witnesses that giving false or misleading evidence is a serious matter and may be regarded as a contempt of parliament. Would you like to make a brief statement in relation to your submission and then we will commence with some questions.

Mr McMillan—We were fortunate in this instance that we were invited to provide a supplementary submission, which we did about three weeks ago, which gave you a more up-to-date picture of the situation as it applies in Western Australia. Since that time, just to update you on where we are with issues relating to Western Australia, the state government has deferred its decision on the reallocation of water from the south-western Yarragadee aquifer to the integrated water supply system. We recently had a combined industry meeting in Busselton on Monday. An outcome of that was that we will be holding a state rural water users summit in December as a strategic response to the state government's water strategy. The timing of this in December is imperative because the deferral of the Yarragadee decision and the other issue of the water resource management charges are likely to take place in early 2004, as will the next round of the COAG meeting. So we hope to have our position well and truly on the board before those events take place.

The major issue that we have highlighted throughout the submission process has been our concerns with the communication process of the state government. There are some extremely good government representatives within agencies doing the consultation with industry but very clearly there is a glass ceiling between what they are providing as recommendations and what is actually filtering through to the ministers.

The other issue is the political football, which is an ongoing issue of concern to Western Australia. We really do look for some sort of leadership from the Commonwealth government, as being major funders of a lot of these programs, to clearly demonstrate the way they require the states to react and respond to the funding proposals put forward to them. I think the best value of this hearing from here would be for us to answer the committee's questions.

CHAIR—Thank you, Mr McMillan. Unfortunately, there are a lot of commitments around the House this afternoon and we have committee members coming and going. Our deputy chair has to leave in a few minutes, so I ask him if he would like to ask questions before he leaves us.

Mr ADAMS—In the adoption of best practice for the use of water in rural Australia, is there any reluctance by farmers in the west to go to better schemes to use water more productively? Is there anything that prohibits that occurring?

Mr Nicholl—I will answer that. A good example here is the Harvey Waroona water scheme. I might add that the state government wants to bring water from the Harvey Waroona scheme up to the metropolitan area. The Harvey Waroona water scheme, which is a cooperative run by farmers, has been replacing its open irrigation channels with closed piping, which has improved quite significantly the amount of water which is lost through evaporation or seepage through the channels. However, the cost of that is in the order of something like $300 million to install that more efficient pressurised system. I guess it is the huge capital cost which is the biggest issue in preventing more of this happening.

Mr McMillan—I will add a couple of points. On an individual farmer basis, subject to the cost price squeeze that our members face on a day-to-day basis, there is a continuing need for improving the way they use any resource on their farms. The capital cost of extensive improvements to irrigation is prohibitive and we have been indicating for some time that there is a need for some type of incentive to assist farmers to adopt more efficient irrigation practices. Prior to any of these things happening, the farmers need first and foremost security of tenure on that water resource so they and their financiers continue to have confidence that the business will remain viable.

Mr ADAMS—What about full cost recovery? How realistic is that in Western Australia?

Mr McMillan—It is very difficult to answer. Part of this proposal to ship water from the Yarragadee aquifer is very much based on the COAG principle of user pays and full cost recovery. The figures at the moment being provided by government are very rubbery. There are extensive investigations being undertaken to try to narrow that down. It is very, very difficult in a state the size of Western Australia to apply full cost recovery because of the sparsity of the population. So we do not really see that as being possible to 100 per cent of the letter of the law.

Mr ADAMS—So there is some reluctance to pay for the resource. What about water trading? Is that going to become a reality? Are people going to pay a price for water in Western Australia? The production that gives the best price, is that going to become a reality?

Mr Nicholl—Where we need to be careful here is that if you base the use of water totally on the returns you get from it, my understanding is that we will all go into wine production because that gives us the greatest return per litre of water. But a community not only needs wine—it is good to have—but the basic needs are milk, fruit and vegetables, which return a much lower rate in terms of dollars per kilolitre of water used. I think you have to be able to balance it out so that there is water made available for all the requirements of a community. I do not think this is one of the things where you can allow the hard economic formulas just to drive the policies on this.

Mr McMillan—The other issue in relation to that one is that farmers are very much price takers. It is impossible for them to pass on full cost recovery. Compare that to, for example, the Water Corporation in Perth. That cost is easily transferable to consumers as it is with the major rural water suppliers in regional areas. But farmers are stuck; they have to absorb any increased cost.

Mr ADAMS—People will still want to eat, so they will pay the price of the cost of production—if you have a system where the market applies. Isn't that free economics?

Mr Nicholl—No. I do not believe that works. We have seen that as a classic example in the dairy industry in the south-west, most of which sits above the Yarragadee basin. Farmers are now being forced to produce milk at below the cost of production, and in some cases as low as 17c and 18c a litre, in the hope that tomorrow they might be able to get a more liveable return for what they are producing. It does not work like that in agriculture.

Mr ADAMS—I feel for those farmers.

Mr Nicholl—The other thing with agriculture, particularly with dairying, is that it is not as though you can go in and out of it at the drop of a hat like you can in manufacturing. To build up a dairy herd or even to expand a dairy herd, you need a lead time of two years from the time you mate the milking cow, she gestates and you drop the calf.

Mr SCHULTZ—At page 3 of your submission, No. 45, you say:

WAFarmers supports the Commonwealth programs, the National Action Plan … and Natural Heritage Trust ...

Of great concern, however, is the politicising of the programs once negotiation of the bilateral agreements commence and the subsequent loss of substantial program funds within bureaucracies in the form of administrative costs.

Could you expand on those comments in that submission on the politicising of the programs. Do you have actual examples you can provide to the committee?

Mr McMillan—I wish we did have actual examples. Trying to get any sort of transparency in the process of funds coming from Canberra and then filtered through the system over here to what finally hits the ground is impossible. We are given assurances time and time again, but there is no such tracing. But it is very obvious from the lack of progress in these programs that it is occurring. The comment relates to the political football I referred to beforehand. The Commonwealth implements these schemes and basically says, 'Right, here's Western Australia's bucket of money. It's up to the state to distribute that money according to these guidelines that we provide,' and it gets lost in the process after that.

The other issue is the matching funds. There are all sorts of ducks and drakes being played between the Commonwealth and state governments on the recognition of prior funding for some extensive salinity works that the state has carried out in the past.

Mr SCHULTZ—Following on from that, in your experience, can you give us a rough idea of what proportion of program funding is taken up by administrative costs?

Mr McMillan—No. My experience is a bit limited in that regard. I certainly would not be able to give you a rough idea there.

Mr SCHULTZ—I have a couple of other questions. You also say in submission No. 45 at page 4:

WAFarmers, in recognising the importance of the Murray-Darling scheme to the Eastern States, believes that water issues in other States and Territories, particularly WA, are not given adequate priority and that Commonwealth policies and programs are developed with minimal consideration of circumstances outside of the Murray-Darling catchment.

Why do you think Western Australia is being neglected? What additional assistance could the Commonwealth provide to Western Australia?

Mr Nicholl—From all the forums that I have been to in the Eastern States and my dealings in the National Farmers Federation, there are obviously a lot of votes and a lot of political pull centred around the Murray-Darling Basin. The biggest salinity problem in Australia in terms of area unfortunately resides in Western Australia. We believe that just about most of the communications, most of the planning and the topic of conversation seem to hinge around the Murray-Darling. We realise that the bottom of the Murray-Darling, of course, is Adelaide's water supply, which seems to carry a disproportionate amount of influence and pull when it comes to distribution and talk of salinity funds.

Within Western Australia, as far as the farmers would like to see, we do not believe that enough of either Commonwealth money or state money is in actual fact hitting the ground where the problem is. There was a much publicised event a few years ago when Paul Keating was Prime Minister and he flew across to Western Australia and handed out some money in the Blackwood catchment area. I farm at a place called Hyden, which is 350 kilometres east of Perth. I have quite a substantial salinity problem on my property, along with all my neighbours. We have recently formed a catchment group to try to handle that issue because salinity in this case and in a lot of other cases goes from one farm to the other.

I think it has to be recognised at this point in time that the landowners have been the greatest funders and contributors to any money that has been put into fighting salinity. The argument that is run in front of us many times is that you cannot use public money for private benefit. I do not believe it holds very well in this case because, whether we like it or not, we are only custodians of the land for our lifetime. The land is a national asset, whoever it is owned by. I guess there needs to be a change in some of the bureaucratic thinking that land owners should be given, even if it is on a dollar for dollar basis or a $2 for $1 basis, the ability to be able to source outside funding to enable us to carry out the drainage, the tree planting, the surplus water control and all the other processes that are needed to turn salinity around.

Mr SCHULTZ—Can I be the devil's advocate here. Do you believe that because of where Western Australia is situated and its population base you are perhaps not treated with urgency on the basis of need and rather with pure politics in the distribution of Commonwealth funds?

Mr Nicholl—That is a problem that we have. We are a big state with a sparse population. I think a lot of these things are driven. A classic example is the Yarragadee basin and bringing water from that up to the metropolitan area where the votes are. It is removing resources from a productive area to virtually a voting area. When you look at Western Australian country areas, we have very few federal representatives in parliament to argue our case there.

Mr SCHULTZ—So you are basically talking about a double whammy there. You are saying both the Commonwealth and the state are creating the problem?

Mr Nicholl—It applies in both. Yes, it applies in both.

Mr McMillan—It has also been pointed out over here that the federal seat that covers the majority of the Western Australian wheat belt where the salinity problem is is a very safe Liberal seat. Perhaps that is some sort of incentive over that way too.

CHAIR—How efficient are farmers in Western Australia in their use of water? Do you agree with the government's assessment that there is a reluctance by irrigators to adopt best practice in many areas in Western Australia?

Mr Nicholl—I would not say that there is a reluctance. It is driven by the ability of farmers to make a profit from what they are producing. I gave the example of the Harvey Waroona scheme where they are doing their level best to improve their efficient use of water by going away from the open channels to a closed pipe system. The Harvey Waroona cooperative used a lot of second-hand piping sourced out of mining in order to reduce their costing in that area. However we handle water, it has to be cost-effective. In other words, the triple bottom line is the most important thing at the end of the day. It has been argued that water for irrigation is too cheap. But we can only pay according to what we get for the produce at the end of the day. I think as Andy pointed out—it is pertinent—earlier on, we are price takers. We cannot calculate our costs and pass them on like so much of the rest of the community can. I do not think there is a great recognition of that fact.

CHAIR—Also in your submission you said that the Commonwealth should provide leadership to ensure that farmers have sufficient water resources to meet their needs. Can you suggest how they should provide that leadership?

Mr McMillan—We have suggested alternatives. Instead of funding state government agencies, perhaps they should break it down to a more regional level of funding where there is less opportunity for funds to be filtered out in administrative systems inside government agencies. It is a comment that has spread fairly widely and it has to do obviously with the different colours that we have in Canberra and in Western Australia. I am sure it applies in the other states as well. I will give you another example in relation to the issue of property rights and water resource security. Prior to the last federal election, they were very vocal in their support of the need to recognise the farmers' right to farm and their right to utilise resources. Where that has declined in the name of public good, there should be some form of equity adjustment. But then they clarified that statement by saying that it is going to be up to the states to adopt and implement. That is the end of the ball game. It never gets any further than that. It is like a football travelling across the Nullarbor—without it ever being resolved.

CHAIR—Thank you. I appreciate that answer.

Mr FORREST—I have one question. It goes to your supplementary submission, gentlemen. I am a little confused about the status of the state's water conservation strategy. We only have a copy of the executive summary, which is dated February 2003. What you have given us is your copy to what is referred to as a draft strategy. So what is its actual status? Is it evolving?

Mr McMillan—It is a bit hard to see through the TV. I imagine it is about 50 or 60 pages in content. I am pretty sure that is the one that we get waved at us every time we go anywhere near

a water issue. It is not legislated. it is not policy as such, but the government certainly is using it as a policy platform to implement the recommendations coming out of it. The problem we have with it is that, when it was in draft form over 12 months ago and we were asked to provide comment, farmers were clearly targeted as using over 40 per cent of the state's water resource. From then on in the consultation process and through representation at the big talk-fest water symposium, our input would have been watered down to around about one per cent, I would suggest. It just has not been an effective document utilising the consultation process that we entered into in good faith; hence the reason why we have taken the step of organising a rural water use summit in December to provide a strategic response to that document.

Mr FORREST—I think I have it in context now. The copy of your submission to that strategy does not have a date on it, so it must have been last year, before February 2003?

Mr McMillan—Around September 2002, at a guess.

Mr FORREST—The only other question I have is that in reference to that, which is why I was trying to get to its status, we have a six-page executive summary. We had better try to see whether we can get the whole document. The six-page executive summary does not mention the word 'irrigation' anywhere except under a photograph of irrigating a golf course. That does not say much about the esteem with which irrigation is held in Western Australia. What is your view on that? Hopefully, the full document says more.

Mr McMillan—I will undertake to get some copies of the full document to you. At this forum on Monday we asked for further distribution of the strategy because it is apparent it has not been distributed widely within industry. The issue of irrigating golf courses is a very topical one, as it was when we were doing our response to that strategy. The water wastage we see here in Perth is absolutely phenomenal, particularly in local government parklands and irrigated golf courses. The standard response from the half-smart economists who come back on this one is that the horticultural and nursery industries and the lawn mowing industries contribute as much to the state economy as does agriculture. Once again, we are yet to see the figures to prove that, but we find it quite amusing.

Mr FORREST—They are ideal targets for grey water.

Mr McMillan—That is certainly an issue we are pushing with the government at the current time. They have targeted soft options coming out of this water strategy. They are not prepared to invest the same amount of research into desalination and the reuse of grey water as they are to extracting waters from an aquifer that is part of the fastest growing region of the state.

Mr Nicholl—The figures that we have come across so far is that to recycle grey water from Woodman Point and north of Perth, which currently flows out to sea, is about $360 million. The cost of bringing the Yarragadee basin to Perth is about $300 million. Desalination costs about the same, about $300 million. We understand that desalination has come down quite a bit in recent times, in the last 12 months. We believe that the government of Western Australia or the Water Corporation has to look very, very closely at the other options of recycling grey water through further treatment. I understand in cities like London they recycle the water over there something like six or seven times. The other one is desalination to provide a water supply for Perth rather than taking water from the south-west irrigation area.

You asked us one question of what would be needed to enable farmers to implement more water efficient systems. One of the problems that we have at the moment is that we lack water security. It is heartening to see that the banks have come out in recent times supporting the need for farmers to be able to have a mortgagable security from water entitlement. We do not want farmers or anyone else hording water. In fact, in Western Australia, the Western Australian Farmers Federation is opposed to the water trading you have in the eastern states, where you have speculators involved in the system. If farmers are going to move to irrigation systems which require big capital expenditure, they need to be sure that they will have the water to put into those systems to produce the crops so that they can put the business plans to the banks to enable them to be part funders of it.

Mr SCHULTZ—On page 3 under the heading of 'Irrigation Industry' from the submission that was forwarded to the committee by the Western Australian Premier, the first paragraph says:

The irrigation industry is the dominant water user in Western Australian. The efficiency of use is variable on account of the broad range of systems and some reluctance to adopt best management practice in many areas.

Would you like to make some comment on that? Do you agree with the government's assessment that there is a reluctance by irrigators to adopt best practice in many areas?

Mr Nicholl—Andy might wish to comment later. I have had the privilege and opportunity to be on Peter Corish's farm in northern New South Wales. Peter Corish is President of the National Farmers Federation. He showed us a plot of cotton where he had used subterranean porous piping by putting it underneath the cotton rows and then sowing the cotton on top. In order to do that—it was far more efficient than the flood irrigation he had been using before—you need GPS guidance systems and so on. You need to be able to get the cotton sowings right above that seepage or porous piping. Of course, there is a fair amount of maintenance involved with it too. He is at the leading edge of technology in being able to improve the amount of water used. If you go to the other end of the scheme, you get open drains and flood irrigation and you get the least efficient option, but it is probably the cheapest to install. I think this is what Andy pointed out earlier. First of all, you need security of water to invest in those types of systems. We need the know-how to be made available to us, such as whether that same system would work in other soils that are probably less porous. We need that kind of information given to us. At the end of the day we need to know that, having invested that kind of money in it, we will come out with a better bottom line than if we do not invest in it.

Mr SCHULTZ—You are saying that it requires a significant contribution of capital. That leads me to my next question. What sorts of incentives would encourage improvement in on-farm water use efficiency along the lines you have just described? Are there significant savings to be made both in terms of minimising water loss and in terms of growing crops such as the cotton crops?

Mr Nicholl—In Western Australia, we do not grow much in the way of cotton except up in the Ord River. Farmers in Western Australia are renown for being very, very quick to pick up and implement new technologies; the fact that there are no till farming systems in the dryland areas is an example of that. One of the problems and arguments that we constantly have with the state government in its cutting back of funding to the Department of Agriculture and the Department of Agriculture having to reduce its services within the agricultural areas is that, if the Department

of Agriculture can demonstrate to us that there are better ways of using water and that at the end of the day will improve our bottom line, show us. Farmers are hands-on people. We like to see and to be involved in the practical aspects of it. We learn from each other. We see what our neighbours do. They see what we do. We are great sharers of ideas. We are very quick to pick up and implement ideas, particularly where they show us that we can be better off financially. That is the kind of on-ground support that we really need.

Mr SCHULTZ—In closing, I say to you that the person that holds the largest rural seat in Western Australia has in fact been a very strong advocate for the contribution that Western Australian farmers have made in terms of soil salinity and the wonderful work they are doing there to grow crops in that environment. I thought you should be aware of that. He is a constant advocate of that with backbenchers, such as me. So the point I am making is that there is a recognition of your willingness to try new techniques to overcome difficulty situations with regard to the soil. I make that comment for what it is worth.

Mr McMillan—The implication in my earlier comment in that regard was more that marginal seats generally get funded better than safe seats.

Mr SCHULTZ—I can assure you some safe seats do not get as much funding as they would like.

CHAIR—They most definitely do not.

Mr McMillan—Before we leave this current topic, I was not aware of the quote from the Premier's submission. We obviously had not read that. That is a really good example of a situation we have over here with government, where the left hand does not have a clue what the right hand is doing. I refer you to page 3 of our submission. In the third paragraph under the heading 'Draft State Water Conservation Strategy', we acknowledge the government's comments:

... in the every day lifestyle of rural people, who are far more actively involved in conserving water than the average urban dweller. The profitability and sustainability of farming businesses are largely affected by the extent to which they are self sufficient in water supply.

That sort of ties in nicely with an issue that we have happening over here today, where the Premier has launched what he has called a state sustainability strategy. He has held a massive forum over here. He has invited parliamentarians from around the world and from interstate. Once again, this strategy clearly targets farmers as being a problem area in this regard, but no farmer was invited to the launch of that strategy. So it is a lot easier to talk about farmers than it is to talk to them.

Mr SCHULTZ—Touché.

CHAIR—Agreed. You did touch on two issues before as being important, and they are recycling and desalination programs. What does the WAFF think should be the research priorities for the next 10 years?

Mr McMillan—We would suggest desalination as a priority. We have a massive coastline, as you would appreciate. We have a salinity issue in the wheat belt that could be looked at through desalination. Colin has the figures on the level of recycling grey water in the rural areas. It is substantially more than it is in the urban areas of Western Australia.

CHAIR—I also note in here that the Western Australian government does not support cloud seeding. Do you have any comments to make on that?

Mr Nicholl—Cloud seeding was an issue quite some years ago. I think we had a few dry years back in the 1970s. I understand there has been a lot of work done on cloud seeding in America. I have had a number of farmers raise this with me last year when we suffered our biggest drought certainly in living memory. I have had a few inquiries with climatologists from the Department of Agriculture. They tell me that if the conditions are not right cloud seeding will not work anyway. What results they have from the United States of America is that it tends to be rather local in its effect. When you look at a state like Western Australia, which is an enormous state, it would take an enormous amount of dry ice to even cover a fraction of the agricultural areas.

CHAIR—Was that comment based on hearsay, or do you have scientific proof that that would happen?

Mr Nicholl—It is hearsay, but it is from talking with people like Dr David Stephens in the Department of Agriculture, who is a climatologist. He warned us last year—I guess we did not want to hear it, having come off a bad year prior to that—that last year would be a low rainfall year. He was not game enough to predict it as a drought. He has been able to predict that this year was going to be a more normal year. He was not prepared to predict that it was likely to be our best year ever. It seems that that is the case in Western Australia. We have gone from our worst year ever to possibly—the harvest is not in the bag yet—our best year ever.

Dr Stephens has given us the example that when you get a year like last year it relates back to sea temperatures. The Indian Ocean last year was comparatively cool compared to other oceans around it. When you get a cool ocean, you get a downward draft of air, which does not build the cloud masses that we would normally expect. This year, the Indian Ocean has warmed up quite substantially. They have monitors out in the Indian Ocean that float. They can go as deep as 1,000 or 2,000 metres and they come to the surface every 24 hours and transmit their data via satellite. What happens is that, when the Indian Ocean is warmer around the oceans around it, you get the upward draft of air, which is a lot more moist. That moisture comes across the continent and deposits rains.

I fly east occasionally. I noticed last year—and one of the reasons for my particular interest is that the flight path is over my farm at Hyden—that even when the cold fronts were going through there was a very shallow cloud mass. You could see the cloud mass way down below us whereas in normal years that is about 30,000 feet. When you have a cold front, you fly through very close to the cloud mass. Obviously last year we did not have the cloud bank that we would normally get.

CHAIR—Thank you very much.

Mr FORREST—Is Dr David Stephens the meteorologist you refer to in the last paragraph of your submission? He works for the Department of Agriculture?

Mr Nicholl—Yes.

CHAIR—Thank you very much, Mr Nicholl and Mr McMillan. Unfortunately, time has run out. We thank you sincerely not only for your submission but also for the time that you have given us today and the cooperation with the videoconference. We really appreciate the time that has been saved there. Our inquiry should be concluded at the end of this year and a report should be presented in the early half of next year. When that happens, we will make sure that the report is sent to you with its recommendations. We thank you again for your contributions today.

Mr McMillan—Thanks for the opportunity.

Mr Nicholl—We thank you for the opportunity. We hope we have been able to contribute something worth while.

CHAIR—You have. Thank you.

Resolved (on motion by **Mr Forrest**):

That this committee authorises publication of the proof transcript of the evidence given before it at public hearing this day.

Committee adjourned at 6.32 p.m.