



Speech by

Dr PETER PRENZLER

MEMBER FOR LOCKYER

Hansard 9 December 1999

WATER RESOURCES AMENDMENT BILL

Dr PRENZLER (Lockyer—ONP) (3.25 p.m.): I rise with great pleasure to speak on the Water Resources Amendment Bill 1999. It gives me a great opportunity to put on record the water requirements in my electorate. For regional and rural areas, adequate water resources are essential. Irrigation is the lifeblood of many farmers in my electorate of Lockyer. The agricultural industries throughout the Lockyer electorate include beef production, dairying, pork production, poultry, grain, fodder production such as lucerne, and horticultural industries. The farming activities vary widely from one side of the electorate to the other.

The Boonah shire has a varied cross-section including beef, dairy, pork, poultry and egg production, horticultural crops including carrots, onions, tomatoes, potatoes, pumpkins, beans, peas and grain crops such as barley, wheat, triticale, sorghum, soy bean, etc. The Rosevale area is mainly fodder crops, dairy and beef production. The Laidley and Gatton areas have an intensive horticultural industry with many vegetables grown, particularly members of the brassica family such as cabbages, cauliflowers, etc., onions, potatoes, carrots and many of the salad vegetables such as lettuce and tomatoes. Away from the fertile alluvial plains of the Lockyer Valley, dairy and beef cattle production are the predominant industries.

The Lockyer Valley has been described as one of the most fertile growing areas in Australia. Thus, it is an important production area and adds to the wealth of Queensland and Australia in general. The Lockyer electorate itself is increasingly gaining prominence as a fruit growing area including grapes, stone fruits, mangoes and even the humble olive is grown there now as well.

To maintain such industries in top production, good water resources are essential. Sources of irrigation water vary widely across the electorate, ranging from extraction from creeks, underground supplies from on-farm dams and irrigation from Government owned water supply dams. The Boonah area relies on the Teviot Creek and associated underground aquifers and on-farm dams, including water harvesting dams. The Kalbar area relies mainly on the irrigation water supply of Moogerah Dam and some underground supplies, as well as on-farm dams. The Tarome area relies on the Warrill Creek and underground supplies. The Peak Crossing and Harrisville areas rely on water from the Moogerah Dam system, the Purga Creek system and underground supplies. The Rosevale area relies on the Bremer River and underground supplies. The Laidley area relies on the Laidley Creek and associated underground supplies and, during times of good water supply, irrigation water from Lake Dyer, which is commonly called the Bill Gunn Dam.

The Upper Lockyer areas include Tent Hill, Maa Maa Creek, Flagstone areas and Helidon. Murphy's Creek areas rely on the creek systems including Tent Hill Creek, Maa Maa Creek, Upper Lockyer Creek as well as underground supplies. The Gatton areas rely on waters from the Lockyer Creek, underground supplies, the Crowleyvale water scheme and Lake Clarendon. The Lower Lockyer area relies on waters from Atkinsons Dam, the Lockyer Creek system and underground water supplies.

Over the years a number of recharge weirs have been constructed by the Department of Natural Resources in the Lockyer Creek system to assist in recharging the underground aquifers. The Moogerah Dam is an irrigation and water supply dam supplying water for irrigation purposes throughout the Fassifern Valley area, water to the local townships, the Roadvale water scheme and water to the Swanbank Power Station. During good years, this dam can yield up to 30,000 megalitres of water for

irrigation and Swanbank supply. Of this water, Swanbank requires around 7,500 megalitres on an annual basis. As we in this country know, droughts are very common and the water supply to Swanbank is often at the expense of allocations to the irrigation farmers throughout the Fassifern Valley.

A proposed off-stream storage site at the soon depleted Ebenezer open-cut mines would have held around 12,500 megalitres of water. This storage would have supplemented supplies to the Swanbank Power Station, thus reducing requirements from the Moogerah supply and freeing up more water for the irrigators of the Fassifern Valley. Unfortunately, this Government has shelved this project and, because of current backfilling of this mine site, this option now appears doomed. What a waste! The project would have beautified the mine site, increasing the amenities of the growing area of Ebenezer, and would have complemented the refuse fill site that has been proposed by Collex Pty Ltd. More importantly, it would have augmented the supply of water for the Swanbank Power Station.

As this project has been shelved, other ways of ensuring increased water allocations to the farmers of the Warrill and Fassifern Valleys must be investigated to increase farm productivity. Something that could be investigated is the use of recycled or, to use a more user-friendly term, renewed water supplies from the burgeoning sewage waste treatment plants in our cities. Increased storage capacity for the Moogerah Dam or another Upper Warrill Creek dam will also have to be further considered for the Warrill and Fassifern Valleys.

Unfortunately for the Lockyer Valley, only three small dam projects have been built in the area. These are Lake Clarendon dam, which has inherent filling problems, Bill Gunn dam, which is an off-stream storage from Laidley Creek, and Atkinsons Dam in the Lower Lockyer.

The Bill Gunn dam was developed to increase the capacity of the natural lake called Lake Dyer. It has a storage capacity of some 6,950 megalitres. Because of its small catchment areas, flood flows into Laidley Creek are diverted into the dam to help it fill. This water is then slowly released back into Laidley Creek to feed some 90 farms, consisting of approximately 5,600 hectares. Unfortunately, the Bill Gunn dam has an historical failure to supply water.

The Lake Clarendon dam would store some 24,300 megalitres if it were ever filled. To this day it never has been. Waters from this dam supply what is called the Morton Vale scheme and are released into Lockyer Creek for recharge of ground water through recharge weirs along Lockyer Creek. Unfortunately, Lake Clarendon also has had a history of failure.

Atkinsons Dam has a storage capacity of some 30,400 megalitres. Water from this dam provides irrigation water to some 150 farms or 4,500 hectares in the Lower Lockyer Valley. As the member for Crows Nest would realise, most of that land is in his electorate. Atkinsons Dam, with the water resource system of diversion from the Buaraba Creek and including Brightview and O'Reilly weirs, can yield up to 11,400 megalitres per annum.

A small privately owned scheme called the Crowley Vale scheme exists near Forest Hill in the Lockyer Valley. This scheme is operated by 12 farmers. It started with 15 farmers, but three dropped out. This small dam has a storage facility of only some 350 megalitres. It can only be filled from run-off and pumping from the Laidley Creek during times of flood. In times of drought, this small storage facility has had a history of failure as well.

As members can see, the Lockyer Valley has a water storage problem. The dams that have already been built there are only small and have a poor record of filling and being kept full. The topographical nature of the Lockyer Valley does not lend itself to large water storage construction. This is one of the problems.

As I stated earlier, the Lockyer Valley is classified as one of the most fertile regions for cropping in Australia. The Lockyer Valley is the salad bowl of south-east Queensland, producing supplies of vegetables, fodder crops, cereals and grains and other crops for local, interstate and overseas markets. The majority of crops are grown in the valley's floor, in the rich, fertile alluvial soil where extensive irrigation is practised. Beef production is common on the uplands, which has a much lower carrying capacity. There is also limited dairy and pig production. With current levels of irrigation, the estimated value of crops generated annually in the Lockyer Valley is around \$90m.

Of the 20,000 hectares which is actually farmed, approximately 15,000 hectares are irrigated. The total water use for irrigation is estimated to be somewhere between 60,000 and 90,000 megalitres per year, depending on the season. This year the usage would be down. In drier years usage certainly gets up very high. Unfortunately, due to inadequate water supply it is estimated that there is a deficit each year of somewhere between 10,000 and 40,000 megalitres, depending on the season. This estimated shortfall of water supply has resulted in overuse of ground water sources, leading to the degradation of ground water itself.

If adequate water supply could be made available to the Lockyer Valley to provide irrigation water at a competitive price to these farmers, the production of the valley would increase quite

remarkably and additional irrigation areas would likely develop. It is estimated that an additional 5,000 hectares could be added to the irrigated areas.

Something that has been mentioned by speakers on both sides of the House is an exciting new scheme for recycled water from the effluence supplies of Brisbane, Ipswich and Logan cities. This proposition has been around for a number of years. This proposal has been dubbed the Lockyer Valley/Moreton Bay renewed water project. The aim of the scheme is to redirect the effluent from the cities of Brisbane, Ipswich and Logan to the Lockyer Valley to supplement water for irrigation in this region.

I take this opportunity to acknowledge the hard work done by John Miles, a Laidley Shire councillor; Andrew Davidson, from the Lockyer Catchment Centre; Bernie Sutton, the mayor of Gatton Shire; Glenys Head, from the Australian irrigators' group; and Bob Drury; from the Department of Natural Resources. They worked hard to get this project off the ground and to gain a number of grants from the Department of Natural Resources for the scoping studies and so on.

This project has already developed past the scoping stages, undertaken by Kinhill Pty Ltd, and is now at the feasibility stage under the guidance of the Department of Natural Resources. The scoping study showed that up to 70,000 megalitres per annum of renewed water could be pumped back to the Lockyer Valley from the cities. This amount of water would more than make up for the shortfalls that currently exist. The study has been further extended to pump the extra waters to the Darling Downs. This extension of the scoping study occurred under the guidance of Darling Downs 2000.

I believe that the first stage of any such project should be to get the water to the Lockyer Valley. The extension to the Darling Downs should be considered as the second stage of this project if the first stage proves to be a success. I believe it will. There certainly will be enough water for both projects to proceed.

The scoping study showed that the cost of water to the farmers would vary between \$130 and \$800 a megalitre, depending on the scheme selected, including various cost options. These cost options include the extent of any Government subsidies to the scheme, loan periods for moneys borrowed, other cost sharing arrangements with other users of the water resources and the extent of the contributions of other beneficiaries.

The other beneficiaries are the cities of Ipswich, Logan and Brisbane. The negative effects of the release of large volumes of effluent water to creeks and rivers in the Brisbane area and to Moreton Bay itself are now well documented. If not checked, these negative effects on our water systems will cause major environmental impacts on the ecology of these ecosystems.

The provision of renewed water to the Lockyer Valley is a win-win situation for the water starved farmers, for our food production and, most importantly, for the well-being of the environment in the Brisbane area. The cost of the water to the farmers would mostly be offset by the increased production from their farms due to an assured supply of water. If we get it out there, this water will drought-proof this region.

The use of renewed water for the irrigation of crops used for food purposes has been widely practised for many years in different parts of Australia and overseas. The South Australian Virginia pipeline scheme, which was mentioned by the member for Toowoomba North, currently delivers some 20,000 megalitres per annum to the Virginia area from the Bolivar waste water treatment plant near Adelaide. The water is used for horticultural crops, such as carrots, potatoes, lettuce, cauliflowers, celery, tomatoes, onions and other vegetables. The project involves piping the waste water some 100 kilometres to that irrigation area of some 3,500 hectares.

The water quality after treatment conforms to what is now known as the California Title 22, which renders the water safe to be used for the irrigation of horticultural and vegetable crops. As a matter of fact, when water is treated to that level of clarity and cleanliness, it certainly removes all the bacteria and viruses, the TDS levels certainly drop markedly, and the water is useful for irrigation. As the member for Toowoomba North said, it also has some added fertile effects, such as nitrites. The water quality, after treatment, is of such a high standard that those vegetables are allowed to be eaten raw.

In Queensland, a project that currently exists at Hervey Bay, known as the Eli Creek reuse scheme, provides irrigation water to cane farms in that area. It has certainly increased their productivity.

Mr Schwarten: Three hundred per cent.

Dr PRENZLER: That is right—off the planet! Projects such as these, as well as many overseas, have already proved beyond doubt that such water reuse schemes, under current methods of water treatment, can be very successful. All the health aspects are adequately addressed in the water treatment procedures that have been used in the projects to date. The monetary saving to the three cities involved—Ipswich, Brisbane and Logan—on a per annum basis, without the requirement to

proceed to tertiary treatment levels of waste water, would go a long way towards making that a very viable project.

At a recent seminar held on that project at the University of Queensland, Gatton campus, one of the guest speakers was the Lord Mayor of Brisbane, Mr Jim Soorley. He estimated that the Brisbane City Council alone could provide in excess of \$200m towards that project over a number of years. He also indicated that the window of opportunity for that project to proceed was imminent, as the city councils have to make decisions and monetary commitments in the near future about upgrading their sewage outlets to tertiary and quaternary standards. The environmental benefits alone make that project a must. It will help to achieve clean waterways and a reinvigorated Moreton Bay.

Other potential projects that could arise from such a scheme—because all of a sudden the dams would not have to be used any more—include the use of current storage dams in the area for other purposes. One scheme that comes to mind, and which has created outrage recently, is the proposal to build a gas-fired power station on the Wivenhoe Dam, which is the major supplier of drinking water to south-east Queensland cities and towns. I envisage that this renewed water could be used in such a power station and could be built close to such a dam near Lake Clarendon. It would then be able to supply the water necessary for such a power station. The Roma gas pipeline runs nearby, and the power generated could feed directly into the electricity grid via the Springdale substation which already exists. I urge the Minister for State Development and the Minister for Mines and Energy to consider such a proposal.

Finally, I call upon the Minister for Environment and Heritage and Minister for Natural Resources, the Minister for Primary Industries and the Minister for State Development to take a direct involvement in this renewed recycled water project to ensure that it does proceed for the benefit of our farmers and our environment and thus to the benefit of all Queenslanders. I know that, at the moment, an interdepartmental committee is working on it. I know that it has met twice since its formation, that is, since the seminar at Gatton.

The window of opportunity for that project is only very small, but it exists now. If we ignore it, it will be gone forever and we will all be losers. The farmers will be losers, the community will be losers, Brisbane will be a loser, and certainly our waterways and Moreton Bay will be losers. So I urge the Government to consider that project, which has been mentioned today and last night by other members on this side of the House. I realise that it will need a lot of money, but I am sure that, with a lot of hard work and effort, it can be done and that it will become a major infrastructure development for this State.
