

WATER INITIATIVES, REGIONAL COMMITTEES

Motion

HON KEN BASTON (Mining and Pastoral) [2.00 pm] - without notice: I move -

That this house calls on the government to initiate locally based committees in regions impacted by specific water initiatives to thoroughly research environmental and sustainability issues for that region.

I will use the Carnarvon artesian basin to support what I have outlined in my motion. The government's new Department of Water is a step in the right direction, and I sincerely hope it will address some of the issues I will outline in my speech today.

Water is the sustainability lifeline of any region. Given that Western Australia is such an arid state, every source of water is precious. Water is essential for all life forms and it is essential for socioeconomic development and ecological sustainability. Without being facetious, I will provide a definition of an "artesian basin". The *Macquarie Pocket Dictionary* states that an artesian basin is a series of rocks formed in such a way that water is held under pressure in an aquifer. An artesian bore is a well sunk through an aquifer in which the pressure - as opposed to a pumping motion - keeps the water rising above the ground.

The artesian water was first discovered at the Bibbawarra bore 15 kilometres north of Carnarvon during exploratory drilling for coal. The Bibbawarra bore was drilled between March 1902 and July 1903 to a depth of 3011 feet and six inches and the water supply at the time of completion was 21 500 gallons an hour, with a pound-force per square inch pressure of 82 - I checked that figure and it is a high psi - and a surface temperature of 150 degrees Fahrenheit. For the benefit of younger members, that equates to a depth of 1 000 metres, 96 750 litres an hour and 65 degrees Celsius, which is pretty warm. The bore is still flowing today. A stone wall was put around the bore and it became a tourist attraction. It is amazing that after diving into the bore and being scolded, people sued the local government for their misdemeanours. A dog also dived into the bore and did not survive. Today, the bore is enclosed by a huge ostentatious cage and is no longer a tourist attraction for the region. It is an interesting bore because nobody knows who owns it. When the program was started, it was a government-owned bore. It remains the property of the Shire of Carnarvon and while it makes up its mind what to do with it, the water that continues to flow is being wasted.

For the benefit of members, I have brought a map into the house. I will not table it because I do not want to lose it. However, I welcome any member who wishes to peruse it do to so at a later stage. The basin extends from the south of Exmouth; it travels as far as Karratha to the north and extends south towards Shark Bay. It covers areas like the Peron Peninsula, Nanga and Tamala, place names members would be familiar with. It extends 70 kilometres from the coast. The basin bears two major rock formations: the birdrong sandstone and the kopke sandstone. The birdrong aquifer is up to 30 metres thick and the artesian flow occurs over an extensive area of about 25 000 square kilometres in the coastal region. It occurs at depths between 120 metres in the south to over 1 500 metres in the north with most bores being between 300 and 400 metres deep. The ground water is brackish with salinity between 3 000 and 6 000 milligrams per litre total dissolved salts. The temperature of the ground water in the artesian bores ranges from 32 degrees Celsius to 62 degrees Celsius. The kopke sandstone is up to 450 metres thick but smaller in extent with only 6 000 square kilometres of artesian flow. It occurs at depths of 200 to 550 metres, and ground water salinity ranges from 2 000 to 4 000 milligrams a litre total dissolved salts. It is an important resource between Carnarvon and Shark Bay.

The recharge of the basin is somewhere in the eastern area and the annual recharge is approximately 17 gigitalitres a year. That is a 1986-87 Allen figure. Nobody really knows where the recharge is. Some say it is near the Kennedy Ranges or 150 kilometres east of Carnarvon. Others say it is in New Guinea. Not enough research has been conducted on the intake of the recharge. The movement of the water is westwards towards the sea, with natural discharges occurring via faults. The other day I was shown on the Google Earth web site a hole in the eastern gulf of Shark Bay. The person who pointed to the hole believes that it is the location of one of the faults and is where the water is coming from. I have not had the opportunity since becoming a member of Parliament to take a boat to that area. It is probably full of fish.

Hon Kim Chance: Speak to Minister Ford about that!

Hon KEN BASTON: Artesian bores were drilled on many pastoral properties on which there was a lack of shallow water. Somewhere between 120 and 140 bores were drilled for pastoral purposes for stock water between 1903 and 1930. Construction was with steel casing. The water was very corrosive. Not only was construction with steel casing, but the drilling rigs of those days were just cabled tool-operated plants. These were not necessarily very straight. There were no mud pumps. There was nothing to hold back the earth, so the bores ended up with huge cavities that allowed the corrosion to take place on the steel casing, which is why so

many bores failed. The last monitoring of the basin was done in 1976. It was the measurement of flow only and not pressure.

I want to go to the next stage when something started to be done. That was a saga that developed on Edagee Station, a pastoral property of 70 000 hectares some 120 kilometres south of Carnarvon. The homestead bore was only 50 metres from the front of the homestead and gushed out a large amount of water a day. It always made a constant noise. The then owner, Mr George Johnston, woke up one morning unable to hear any noise of water coming out of the bore. He discovered that it had shut down overnight. That caused him to face a major dilemma, as it was one of the major sources for his stock watering on that property. Mr George Johnston of Edagee Station on 30 April 1990 applied to the then Water Authority of Western Australia for a licence to drill a replacement artesian bore. However, he decided to drill the bore in the time he was waiting for the licence. When the authority did produce the licence, it put some stipulations on that had never been put on a licence before; that is, the water was not allowed to go to waste or to flow down the existing bore drain system, which it had done for some 90-odd years. One of the reasons that he objected to that was that the bore was still a steel cased bore. The drillers were still not even licensed. The onus was back on the landholder to construct a bore to the Water and Rivers Commission's so-called stipulations. They wanted him to put a wheel valve on the top of the bore to turn it off. Many of the old-timers always said that if an artesian bore was turned off, it would blow out in another aquifer and it would be finished. He was not prepared to take that risk.

An altercation resulted, and a meeting of stakeholders and interested parties, with more than 15 attendees, was held. I am not sure how I ended up there but I ended up chairing the meeting; hence my history of the artesian bore. Interestingly enough, I was going back through the minutes and looking at the attendees' list. I noticed some interesting names, like Hugh Lavery of the WA Water Authority in Carnarvon, now regional manager of the Water Corporation's mid-west region. Phil Lockyer, I am not sure where he is but I think he is at Albany -

Hon Barry House: He is running a carpet business in Albany.

Hon KEN BASTON: I am sure he will do very well. Also in attendance was Chris Neretlis of the WA Water Authority, who is now the manager of the retail service of the Water Corporation's mid west region; Tony Allan of Geological Survey, Perth; Mark Fitzhardinge of the WA Water Authority, then in Geraldton - I think Mark is somewhere in Northam now; and Terry Hill, of the Department of Agriculture, Carnarvon. The minister may correct me, but I think Terry is now the head of the Department of Agriculture, Bunbury.

Hon Kim Chance: He still is, and he is doing a great job.

Hon KEN BASTON: Also in attendance was John Morrissey, Department of Agriculture, South Perth, who had a very good expertise of rangelands, and I think is now a consultant. That day was very eventful because what came out of the meeting was the fact that there was very little knowledge of this basin. From this meeting was established the Gascoyne Water Resources Consultative Committee, which held its first meeting on 16 October 1992 and was chaired by me. The minutes of that meeting show that video logging with the use of a camera would enable the planning of bore replacement. Video logging entails lowering a camera down the bore to give an inside view of the bore and show up blockages and faults. I will quote from the minutes of the meeting -

Ken Baston explained that the financial assistance could be argued in the context of water being a resource of the State and that some funding should be made available to protect it for the long term. He suggested that with a 80:20 ratio of Government funding, pastoralists may be able to afford the considerable investment required to construct a secure bore with an estimated life of up to 100 years. This type of bore would primarily be for security of the aquifer but would have a life outside the normal planning horizon of pastoralists.

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Mark Fitzhardinge also indicated that the Water Authority, through Bob Bowyer, have allocated \$40,000 to install a trial artesian monitoring bore. It is planned to install this bore in March 993 somewhere in the Carnarvon Basin.

I might add that Mark Fitzhardinge was transferred to another job, and the \$40 000 evaporated with him. On 14 March 1996 I submitted an application for national landcare program funding for a project entitled "Community investigation of water losses from the Carnarvon artesian basin". On 15 July 1996 the assessment panel rejected the application because the project was seen as a state government responsibility. On 22 April 1998 the Gascoyne-Murchison strategy was formed with state and federal funding, and a program was included to rehabilitate the Carnarvon artesian basin. In December 1998 the Carnarvon artesian basin advisory group was formed and outlined the objectives and benefits of that program. As a board member of the Gascoyne-Murchison strategy, I was appointed to chair that group. The objectives were to reduce the number of

uncontrolled bore drains, increase the pressure in the artesian basin, reduce water wastage, improve grazing management and improve weed and feral animal control. By achieving those objectives, and through integration with other programs of the GMS, the project would deliver substantial economic and environmental benefits to the region, including increased management of total grazing pressure through better distribution of domestic animals and greater control of non-domestic species; more efficient, productive and sustainable use of natural resources through better distribution and control of artesian water supplies; and increased access to controlled artesian water supplies for other land uses, including horticulture, aquaculture and tourism. Funding for the project came from three sources: the Natural Heritage Trust, commonwealth; the Water and Rivers Commission, state; and landholders in the Carnarvon artesian basin. Under the deal negotiated by the GMS, these funds were to be used on a 40-40-20 basis. The commonwealth and the state governments committed \$1.902 million each year for three years, making a total value of landholder contributions of about 950 000. That, together with \$1.9 million from the commonwealth government and \$1.9 million from the state government, makes a total of nearly \$4.8 million.

On 25 October 2000, an official launch was held of the Carnarvon artesian basin rehabilitation project at Wahroonga Station by Dr Kim Hames, MLA, the then Minister for Water Resources; and Hon Senator Chris Ellison. That was the first bore to be completed. What have we built? We have built a bore with Centron fibreglass casing. The casing was the highest standard that we could achieve and was imported from America. I was on Barrow Island the other day, at which the same casing is now being used for oil installations around the island instead of using steel. It has a 150 millimetre internal dimension, stainless steel headworks and stainless steel screens. Screens, for those who do not understand, are like a sieve at the bottom of the bore that stops the dirt from coming in but allows the water to enter. It also has 50 millimetres of pressure-ground cement around the outside of the casing. It is also constructed by an accredited drilling contractor with the ISO9002 standard. The bore is constructed to last 100 years-plus.

On Tuesday, 4 September 2001 the then federal Minister for the Environment and Heritage, Senator Robert Hill, and Dr Judy Edwards, the WA Minister for the Environment, visited Wahroonga Station. They were running a little late. They landed on a nearby station. I escorted them 20 kilometres, giving them a quick briefing on the way. After my spiel beside the bore, Hon Judy Edwards asked me how the water gets to the surface. I then realised that I needed to give my dictionary definition at the beginning of any explanation on the matter. I then proceeded to have an officer take her to see a flowing bore. She was amazed.

To date, we have saved some 55 gigalitres of water a year, achieving some form of sustainable yield from the basin. It has been ascertained by modern methods that the water is over 30 000 years old. There is a very entrepreneurial person in Queensland who has bottled the artesian water, calling it A Drip Off A Dinosaur. The project has created opportunities for not only diversification into the rangelands but also any future use.

Australian imports some \$15 million worth of exotic fish every year, better known as goldfish. Wahroonga Station, south east of Carnarvon, is now commercially selling exotic fish that have been raised in artesian water. Hamelin also has an aquarium. The Carnarvon TAFE is also going down that line, having an artesian bore there.

As of this year, corn crops are being grown on Callagiddy Station, 60 kilometres south east of Carnarvon. Once these bores are capped, because they have a pressure of about 32psi, no pumps are needed. A wheel valve is just turned on and one goes down into the pipe into the T-tape to water the corn. It is a very cheap way to irrigate. A total of 40 hectares of corn has been successfully grown this year, with approval to grow up to 80 hectares of corn. I visited that station about a month ago and saw the harvest. The corn is being taken out via road train, which is quite amazing. That particular bore produces 1.2 gigalitres of water each year.

Fodder trials for feedlotting of stock are also being carried out on Wooramel Station. The station owners have been trialling these various grasses, once again growing on T-tape. That is a very thin tape that is put under the ground to reduce the salt from the soil. That has endless possibilities. I also visited that station. The number of species of grasses that they have, mainly brought in from Queensland, will probably mean that they will be able to start up a feedlot system that can finish off the livestock for export markets.

Hamelin Station is looking for a partner to put in tourism at the bottom of Hamelin Bay. Hamelin is unique in that it has a registered wetland. One of its bores continues to flow into that wetland. Hydropower has actually been installed so the bore flows through a turbine to produce electricity for a future tourist venture.

Artesian water is already used in towns such as Coral Bay, Denham, Carnarvon and Useless Loop, and by Dampier Salt at Lake MacLeod. It is a major supplier of water for development in this region and will continue to be. Coral Bay and Denham rely solely on artesian water, and both have desalination plants. I have already spoken in this house about the cost of water in Denham. Any tourist venture that starts up in the future or expands will need this source of water. Where are we today? A total of 45 uncontrolled bores have been

decommissioned and 88 kilometres of open drain have been removed. We still have about 40 bores, weepers and flowers to bring under control. Funding of \$1.53 million allocated from the federal government and \$1.35 million from the state government is available. At this stage I do not know what action has been taken to utilise this funding. However, I suggest that this funding is not enough to complete the project, bearing in mind the numbers of years that have passed since the first stage was stopped. The funds from the federal government were allocated in March 2004 and from the state government in the last budget.

There is a proposal by a company called Gunson Resources Ltd to mine mineral sands approximately 84 kilometres south east of Denham on Coburn Station. The mineral sands project requires up to 18 gegalitres of water a year, which represents nearly the total water usage of Carnarvon and Geraldton combined. Processing mineral sands requires a high water usage. Although Gunson Resources estimates a 20-year mine life with a revenue of some \$70 million per year, we still have to question whether this is the best value for the region for the water. Questions need to be asked, such as: where are the people living, what local employment is involved, is it the best dollar return for the water usage, and are they contributing to the scheme? Bearing in mind that there are still some 40 gegalitres to be saved, if this mining venture contributes to saving 18 gegalitres of water, the basin's sustainability will still be kept intact.

I draw an example from the Great Artesian Basin in Queensland, which is a lot bigger than the Carnarvon basin. It covers an area in Queensland, South Australia and New South Wales. There is a disaster over there that they are trying to get their heads around. Any mining company that draws water from that basin has to contribute so it can earn the right to use that water and bring it under some form of sustainability.

The Carnarvon Artesian Basin Advisory Group and the Water and Rivers Commission board agreed on six major principles. I have kept a copy of a letter sent to me as the chairman of that group from Harry Ventriss, the director of regional services, dated 1 November 2000. It states -

As I advised in our telephone conversation of last Friday, the Waters and Rivers Commission Board approved the six principles proposed in the discussion with the Carnarvon Artesian Basin Advisory Group.

It goes through the six principles. I will not bother reading them all out unless members of the house want to hear them. These principles were sent to every person who had a new bore installed and became part of their licence. Principle 5 reads -

Following the implementation of the program the Waters and Rivers Commission will establish a local management committee.

That has not happened. This committee was originally to be established by the Waters and Rivers Commission. I have had some time to ponder this and I now wonder if the best place for that committee in its advisory role would be under a development commission. I say that because if there is an area of limited water and that water needs to be managed for that region, the best avenue for government would probably be to have such a committee sitting under a development commission with its so-called charter. Representatives from the Department of Environment, the new Department of Water and stakeholders in the region would be members of that committee, which would contribute largely to the management of the sustainability of the Carnarvon artesian basin.

Having lived all my life in the rangelands, which have an average rainfall of only 200 millimetres a year, I certainly appreciate the value of water. We were invited to an advisory forum in Toowoomba in March 2002 to present a paper on the Carnarvon artesian basin. The forum is better known as the GABFest! Some 180 delegates attended. They came from Queensland, South Australia and New South Wales, and I think there were three of us from Western Australia. I am very proud to say that the paper we presented at that forum was also presented at the sustainability of water resources international conference in Western Australia in November 2002. If any members are interested, they are welcome to borrow the conference document from me, so long as they promise to return it. The paper we presented is in that document. That triggered an e-mail from a professor in Canada. Apparently there are problems in Canada with artesian water. Our method has now become one of the most advanced methods of management of artesian water in Australia.

We also recognised that there was very little research into that basin. Therefore, we encouraged a young person, Bradley Hiller, to use the paper to do a thesis for his honours degree in environmental engineering at the University of Western Australia. His thesis was entitled "Dissolved Solutes, Stable Isotopes and Radiocarbon Isotopes as Tracers of Groundwater Flow, Carnarvon Basin, Western Australia". I also have a copy of that large document, if anyone wants to plough through it. He came up with a carbon-14 analysis that proved that the water was at least 30 000 years old. However, he went on to say that he believed it could be between 50 000 and a million years old.

I hope I have presented a picture of a problem that was tackled by the stakeholders and corrected satisfactorily. However, I believe that if a management committee had been in place, we would not necessarily have seen the headlines in local newspapers that we see today. One such headline, "Miners and pastoralists clash over artesian water", appeared in the *Northern Guardian* on 28 September 2005. There was a concern that the mining company Gunson Resources Ltd was putting down a total of nine holes close to Hamelin station. On testing those holes, the Hamelin station bore dropped by three to four pounds per square inch in pressure. I certainly do not have anything against mining; I am all for it, and I totally support that mineral sands project. However, I believe the problem can be easily solved, bearing in mind that there is still some 40 gigalitres of water to save. If a committee had been established, it would have solved this problem at the outset. The \$2.7 million that we have received so far is not enough. If a company of that size made a contribution towards the water supplies, similar to the situation in Queensland, I believe we would be a lot better off.

I will conclude my speech with American inventor Benjamin Franklin's dictum: when the well is dry, we know the worth of water.

HON KIM CHANCE (Agricultural - Leader of the House) [2.35 pm]: On behalf of the government and the Minister for Water Resources, the Premier, I will start by firstly thanking Hon Ken Baston for bringing this matter to the attention of the house. If the house will permit me to do so, I will also thank and acknowledge Hon Ken Baston for the tremendous work that he has personally done in the Carnarvon artesian basin in particular. I am not entirely sure whether Hon Ken Baston is listening, but it is not often that people say nice things about a member in this place.

The DEPUTY PRESIDENT (Hon George Cash): Hon Ken Baston, the leader is trying to say nice things about you.

Hon KIM CHANCE: I am trying to say nice things about Hon Ken Baston.

The DEPUTY PRESIDENT: It does not happen often, so Hon Ken Baston should listen!

Hon KIM CHANCE: I was just acknowledging the great work that Hon Ken Baston has done, along with his committee, in the Carnarvon artesian basin. This is work which I had been aware of for some time but which I was able to see, along with Hon Ken Baston, before he joined this place. In fact, I think we landed on Hon Ken Baston's station, did we not?

Hon Ken Baston: No, nearby.

Hon KIM CHANCE: It was nearby. We were able to see some of the tremendous work that had been carried out in that area. The Carnarvon artesian basin is one of a number of artesian basins throughout Western Australia. The concept of artesian basins in Australia and, indeed, around the world is that they are somewhat mysterious things - things of great value, but things that we have surprisingly little understanding of, not because we lack the technology to understand them, but because we have not really expended the kind of resources that are needed to understand them. That, in itself, is a reflection on our management of them. We have something of great value in these areas, and we just have not put in the effort to try to understand what they are about. When Hon Ken Baston was speculating about the age of the water that is contained in the Carnarvon artesian basin, he indicated that it might be 30 000 years old or it might be 50 000 years old, but, then again, it might be one million years old. That really underlines how little we know about this amazing resource.

I am reminded of something my nephew told me. My nephew was a diamond driller, and he worked extensively in the Great Sandy Desert. He told me that the workers were drilling on an expanded grid - basically wildcat drilling on about a five-kilometre grid - to gain basic drill data for the mineral industry. He told me that about one bore in five was a wet bore - this was way out in the middle of the Great Sandy Desert; it was a long way from anywhere - and of those one in five, one in three required capping. They were not drilling very deeply. I cannot tell members to what depth they were going. However, they were hitting water under pressure in one in 15 of the holes that were being put down at random. These were not hole sites selected for water. Quite the contrary; they were selected on at least a random basis, if not for the purpose of looking for geological anomalies. However, they were hitting water at that ratio, at pressure on some occasions, in places where we would probably not expect that to occur. It is a rare and mysterious thing that we have in the artesian basins. I believe that there is a responsibility on state and commonwealth governments to do much more than they have done to better understand what we have and, probably even more importantly, to try to better manage what we know we have, which is really the point of Hon Ken Baston's motion.

Hon Ken Baston referred to the financial dynamics of phase 2 of the Carnarvon artesian basin program. It is worth noting for the record that phase 2, which is a joint commonwealth-state project, is about to begin. The state came to that project only in the last budget. We did, however, jointly fund stage 1. Stage 1 was carried out through the Gascoyne-Murchison strategy. Indeed, it was that part of the Gascoyne-Murchison strategy that

caused me to look at the Carnarvon artesian basin's work some years ago. Phase 1 of the Carnarvon artesian basin project, through the bore-capping project that took place in CAB 1, is reputed to have saved 38 gigalitres of water annually. Phase 2 is projected to save between 17 and 18 gigalitres of water. This quite modest financial project - there have been more expensive projects - will probably cost less than \$12 million in total. At the conclusion of the project, it will be saving more than 50 gigalitres of water a year. The end result of that saving - this is something that I am sure Hon Ken Baston would have wanted to go into if he had had the time - may well develop a whole new irrigation agriculture industry. What the Department of Agriculture is now working on specifically in the area of Meedo station, which is just north of the Wooramel River and south of the southern boundary of Pimbee station, could well generate a whole new agricultural industry just by using a fraction of the water savings from phases 1 and 2 of the Carnarvon artesian basin amelioration scheme. The Carnarvon artesian basin is relatively small by Australian artesian basin standards. Some of these bores have been flowing nonstop for more than 100 years; is that right? Hon Ken Baston referred to the bore at Edaggee. My former business partner came from the Gascoyne area and he has said that the station he lived on had a bore that was 100 years old when he was there, which is quite a while ago, and it simply flowed down the bore drains in the days when camel teams pulled the delvers that kept the bore drains clear. This is an enormous amount of water. Of all the minerals in that country, water is the most valuable, because, without water, there is no life.

The sentiment of the motion is supported by the government. At the end of my speech I will propose an amendment to the motion, and I will explain the reasons for that. The government is undertaking some very significant work in engaging with the community to ensure that there is very strong community consultation on and participation in water reform matters. That is occurring both statewide and regionally. The terms of the motion are broad. Hon Ken Baston drew heavily on his personal experience of the Carnarvon artesian basin, but I need to respond, at least in part, to the broad nature of the motion and then relate that back to the Gascoyne. Community consultation on water resources is being facilitated across a range of water initiatives throughout Western Australia, which is appropriate to the particular needs of the area and the nature of the particular resource at hand. Sometimes that will be an artesian basin, sometimes it will be a river and sometimes it will be an underground resource of a different nature.

I will describe briefly to the house some specific initiatives to indicate the government's commitment to this area. However, I say at the outset that the Gallop government is committed to improving the way in which it consults with the community and the direct and the indirect beneficiaries of the water resources on all issues of importance, and clearly water is key among those. In our view, community engagement and consultation are one of the pillars of government. If we cannot do that effectively in the management of our water resources, we will not be a successful government. After its election in 2001, the Gallop government was quite quick to recognise the issues that faced it by way of the challenges in harnessing and better using the water resources that were available. We also were looking down the barrel of a full-blown water crisis at that time. We had a drying climate; we have a drying climate. We had declining rainfall, exacerbated by an even more rapid decline in the run-off from that rainfall. There are all sorts of reasons that that occurs, and this is probably not the time to debate those specific reasons. However, for whatever reason, notwithstanding the reduction in rainfall, we had declining run-off. One of the disturbing issues for me in this regard - I am talking most particularly about the hills storages and catchments - is that in the past day or two we have exceeded our annual average rainfall. I am told that further south from the Perth hills catchment area - for example, in the Manjimup area - it has been the wettest year for 30 years, or certainly the area has had the most days of rainfall for 30 years. I have heard that only anecdotally and I will not swear to it. However, we do know objectively that the Perth hills area has just experienced a wetter year than average.

Hon Paul Llewellyn interjected.

Hon KIM CHANCE: To this day we have exceeded our annual average, yes.

Hon Paul Llewellyn: There is a big difference between the wettest year in terms of the number of days and the volume.

Hon KIM CHANCE: No; I am sorry. I was confusing my terms. I am told that in the south west it has been the wettest year in 30 years. In the Perth hills catchment, to this day - with six weeks remaining of the year - we have exceeded our annual rainfall.

Hon Matthew Benson-Lidholm interjected.

Hon KIM CHANCE: By nearly 25 millimetres; is that so? I did not know that.

Hon Barry House: It is only an average, which has declined in the past 30 years, but it is still about what we would normally expect.

Hon KIM CHANCE: However, our average goes back to the 1820s, or whenever we started recording those figures. The disturbing issue for me is that, notwithstanding that we have had substantially above average rainfall, an analysis of the stream flows indicates that they are far below what would normally be expected as a long-term average. This data is readily available on the Water Corporation's web site. It is quite disturbing to note that although we have had a wetter year than average and bucked the trend of declining rainfall, we have had a lower than average stream flow. I think that points to management issues within the catchments. It is hard to find any other logical reason. However, that is just one of the challenges that the government faced on coming to office.

Hon Barry House: It is hard to get catch-up on the return in the aquifers too, I guess, over a 30-year decline.

Hon KIM CHANCE: That is possibly true. Hon John Kobelke mentioned to me the other day that the greater proportion of water flowing into the dams comes not from streams, but from underground. I had not thought about that before.

In response, the state government developed the state water strategy. Coupling that with the need to meet the demands of a growing economy meant that standing still was not an option. It was vital that the government move ahead and identify a broader base of resources. The 2003 state water strategy was based on a wide range of input from community members. During July, August and September 2002, some 19 metropolitan and regional community water forums were held throughout Western Australia, leading to the inaugural state water symposium at Parliament House from 7 to 9 October 2002. The primary objectives of the forums and the symposium were to provide information on water planning issues and to ensure wide and representative public input into new strategies for conserving water, on one hand, and developing new resources and supplies, on the other. A total of 22 recommendations and 40 fairly wide-ranging conclusions came from the symposium, all of which were considered in the preparation of the state water strategy. The strategy itself has been very effective in promoting an awareness of the water situation in the state and of the need to enhance and broaden the base of our water resources. That led to the proposal to draw water from the south west Yarragadee aquifer and the government's response to the irrigation review, which was another component of that community engagement. I will not go into the Yarragadee issue in great detail. Suffice to say that we have made a commitment to try to better understand the south west portion of the Yarragadee aquifer and the extent to which any impact might be made on the south west community from drawing water from the south west to service the needs of the state further north. A comprehensive survey of some 300 south west residents was undertaken by the Water Corporation at the end of 2004 to test, among other things, community awareness of the proposal. The results from that survey also helped in developing the scope of the impact assessment. The process for the sustainability evaluation includes the use of an independent panel, the south west Yarragadee sustainability panel, which visited the south west to view the project area in April this year. That panel was established by the government to provide integrated advice on economic, environmental and social issues. In response to the great many suggestions - both acceptable and unacceptable - received from the community during the course of the social impact assessment period, the Water Corporation has committed to form a community-based monitoring review group to assist in developing and overseeing the implementation of the adaptive management framework. That monitoring review group will review social, economic and environmental indicators and will report on its findings publicly to the Water Corporation.

In response to the 2003 irrigation review, further to a commitment in the state water strategy, the irrigation review steering committee was established. Membership of that committee was predominantly industry based, made up of irrigators and water users. The committee consulted widely within the irrigation industry, which culminated in the publication of the irrigation review final report in July this year. The government released its response to the report of the irrigation review steering committee in September 2005, and ensured that the response committed the government to nine key directions, including enhanced governance arrangements for water, the establishment of state and regional water plans and seven other directions related to the reform of irrigation in Western Australia. The reason I am going through all this process - which is relevant to the motion, if not relevant to the particular aspect at which Hon Ken Baston directed his comments - is that the process of public engagement and public consultation on the way water resources are used has indicated that the more public consultation and the more involvement there is, the better the outcomes will be.

The reason I am personally sympathetic to Hon Ken Baston's motion is my own experience in water resources management, which is limited to having been a director of the former Water Authority of Western Australia. In those days there was no Water and Rivers Commission or Department of Environment responsible for water. Water resources were managed by the former Western Australian Water Resources Council, which was an entirely funded spin-off from the Water Authority. We worked very closely with that council. Frankly, we could not have done our job without the advisory committee. In highly contentious areas, such as the Wanneroo irrigation area, which was one of those fully allocated water resources - a rarity in Western Australia - there was

no way on earth that a state government agency, the then Water Authority, could have gone remotely near managing the complexities of water allocation without those good people who worked on the Wanneroo water advisory committee. That was repeated over and over again in a number of the water or irrigation advisory committees that existed around the state. However, it was exemplified by the subtlety and superb understanding of the issues by that Wanneroo advisory committee. The committee comprised people who knew not only the physics of the resource that they were responsible for, but also every one of the individuals, their children's names and their dogs' names. When somebody made an application that the committee members thought was over the top, they knew that it was over the top because they knew that person and that person's actual needs for water. It would have been impossible to try to repeat that kind of understanding of the resource and the people that are using the resource through a state government agency; the Water Authority of the day understood that very well. That is when I first gained some understanding of the value of advisory committees for managing particular resources. I could say exactly the same thing about the Gascoyne area. However, for a number of complicated reasons - anyone who has ever dealt with water users in the Gascoyne region will understand those reasons - I will not even mention the Gascoyne area.

Hon Norman Moore: We have some other speakers who want to speak on this motion.

Hon KIM CHANCE: Okay, I will move on then.

Hon Norman Moore: It is actually private members' time.

Hon KIM CHANCE: It is a big issue.

Hon Norman Moore: I understand, but we had another speaker who was coming second but who did not get the call.

Hon KIM CHANCE: Okay. I will sum up by saying that I am attracted to the idea of using an advisory committee under the regional development commissions. It is not an idea that I have thought of before, but I understand what Hon Ken Baston has said. I am attracted by it and it is certainly something that I will speak to the Premier about. The government indicates that it is open to establishing water resource management committees but only on a case-by-case basis when a strong case can be made that strong local participation is of particular advantage. That sums up my argument. To put that last comment in its perspective, I will move an amendment.

Amendment to Motion

Hon KIM CHANCE: I move -

To delete all words after "house" and substitute the following -

commends the government on the widespread community engagement that has been undertaken to support the extensive water resources reform agenda in Western Australia and acknowledges the need for a variety of consultative mechanisms, including local community committees, depending on the nature of the matter being progressed.

HON NIGEL HALLETT (South West) [3.01 pm]: I found the comments by Hon Ken Baston very interesting and informative. The difference between our two regions is the intensity of the water debate. That is largely caused by the population difference of the two areas and issues such as who is running the debate - such as the water corporations - the pricing and the source of the water. All those factors have turned the issue into a very heated subject.

It is an obligation of all governments of this state to provide a secure and reliable water supply to all Western Australians. As members are aware, this issue is very topical in my electorate, the South West Region. The issue of the proposal by the Water Corporation to extract 45 gegalitres from the Yarragadee aquifer has been inflamed by the front-page news story of the announcement of a record \$420 million profit by the Water Corporation. It is notably the biggest ever by a Western Australian-owned utility. I will digress for a moment on how people view this. We should bear in mind that a large percentage of the population live on a minimal income. They see an additional \$70 million topping up the original budget estimate, which creates a \$1.2 billion surplus. They ask why they are suffering infrastructure failures such as the discharge of raw sewage into the Swan River. Approximately 2.5 million litres have been released into the Swan River from the discharges in Victoria Park, the Kwinana Freeway near the Narrows Bridge and South Perth. Under the administration of this government over the past four years, 4.2 million litres of raw sewage has entered the Swan River. The Court government spent more than \$96 million on its infill sewerage program when it was in office. We are now back to an expenditure of \$32 million. I stand to be corrected, but that is approximately the figure. That represents a huge drop in expenditure. If the Court government's infill sewerage program had been kept going, in excess of 100 000 septic tanks would have been replaced. The Water Corporation has doubled its expenditure on capital

works to a record \$700 million, but it has not increased its expenditure on the existing sewerage system. The South West Region has certainly suffered under this regime. Many projects have been delayed by five years; some have been extended to 2015 or 2019. I acknowledge this has also happened in the metropolitan area. There is a health risk posed by septic tanks being pumped out near the sides of roads and drains. Public health is at risk through contamination by effluent, particularly on streets where children play. The development of many small country rural subdivisions is being limited by the problem. How can we attract investors who have to wear the costs of providing expensive but vital infrastructure? As I previously mentioned, the Liberal coalition government spent \$270 million on deep sewerage between 1999 and 2001. The Labor Party has spent \$146 million in its four years of office. It seems that we are getting what we have paid for, which is certainly not enough. When it comes to the future supply of water to sustain our state, some of the matters currently under consideration to address the issue - namely the construction of the desalination plant at Kwinana and the extraction of water from the Yarragadee aquifer in the south west - need to be very thoroughly assessed for their potential social, environmental and economic impacts on the regions and populations around them. The costs associated with the failure to do this and the resulting harm that can be inflicted on the regions and populations is far too great. I note with interest that Hon Ken Baston talked about the early 1900s and how nature was providing signs. The people managing the caves in the Margaret River region are reaching levels they have never before been able to access because of the lowering of watertables. That is despite us having had a record wet winter. That is a sign; we are obviously taking more water than is being replaced. What about the record profit of the Water Corporation? Some of it needs to be invested into significant research and development and the encouragement of new technologies and ideas to provide environmentally sustainable solutions to the future water supply problems that Western Australians face. It is paramount that we examine and provide solutions to our water supply problems that do not necessarily follow the large-project approaches currently favoured by the government with its commitment to the desalination plant and the taking of water from the Yarragadee aquifer in the south west region.

All over the state, particularly in the metropolitan area, lower rainfall and very dry winters have placed our water supply system under severe stress and pushed our dams to dangerously low levels. Bores sometimes exceed their licensed extraction volumes. The implications of these have resulted in a government response favouring options that have a high capital cost and engender a high level of community concern about the impacts. We should not favour these options without high-level, in-depth, independent research. I suggest that it would be better to thoroughly analyse all possibilities rather than commit to a project without all the facts. Through the Water Corporation, the government has already put in place some good initiatives such as water restrictions, rebates on water-efficient appliances and a scientific trial program on catchment thinning in the Wungong catchment area. However, the trial is over a questionable 12-year period. I suggest that it should have been a 12-month trial. The minister knows as well as I from experience in our own regions that if we do not keep our catchments clean, we will not get water in our dams. I cannot believe that the bureaucrats cannot just get on and do that. We would certainly see a much higher level of catchment.

The government must look at all possibilities to meet the growing demand from the metropolitan areas before taking water from areas such as the south west, which not only has its own population growth problems but also produces so much of the state's food. Harvey Water's 2004 proposal to the government outlines a mixture of infrastructure investment, interregional water trade and water quality improvement that will provide for growth in demand in Perth over the short to medium term. Its proposal suggested that it is possible to obtain 50 gegalitres of water through a combination of improving the efficiency of water used on farms and water delivery in the Harvey Water irrigation area and by improving the water quality in Wellington Dam, which is too large a source not to be taken into account. That water source holds around 100 gegalitres and, along with other initiatives suggested, it must be part of the active consideration for metropolitan supplies. How can the government consider spending hundreds of millions of dollars on a desalination plant and more than \$12 million researching the impacts of the Yarragadee when there is so much surface water already in existence? The government must not waste this opportunity to take water that is not being utilised and use it to its full potential.

It is important to put volumes of water being considered into contest. The Water Corporation wants to extract 45 gegalitres a year from the southern Yarragadee. A gegalitre is one million kilolitres or a million tonnes of water. Therefore, 45 gegalitres equates to 45 million tonnes of water. With that in mind, members should consider the information provided by Harvey Water on the amount of water it takes to produce food. When I pulled these figures I was absolutely amazed. Approximately 120 litres of water are consumed to produce a 370-millilitre can of beer. It takes 250 litres of water to produce a 750-millilitre bottle of wine. Ten litres of water are used to produce one orange, while 2 000 litres are used for a serve of pork chops. One litre of milk requires 750 litres of water. I could go on and on.

Hon Barry House: All that water does not taste as good as one bottle of wine!

Hon NIGEL HALLETT: Unfortunately, the water has to pass through the grapes. It takes 4 300 litres of water to produce one meal per person, per day. If we add that up over 365 days - without considering that people will shower, drink water, water the lawn etc - that is around 6 300 kilolitres per person, per annum. All governments - but particularly this one - must ensure that we have adequate water resources to sustain Western Australia's population, particularly in food production, which is certainly a big concern in our south west region. The numbers are big and so too are the consequences. If this issue is not addressed and major food producing areas like the south west are deprived of the ability to operate the industries that support and uphold many local economies and feed the state, the time may come when we have to import all our fresh food from overseas. We will then have to deal with the associated uncertainty of how it is grown and the fumigation that it must go through to meet our strict quarantine laws. I am sure that all members would agree that this is a worrying situation.

I congratulate the government for creating the new Department of Water. We have been told that it will be responsible for delivering the government's water reform program and that it will handle the licensing and monitoring of water, which was previously the realm of the Department of Environment. We have also been told that one of its most important functions will be to identify new sources of water around the state and to manage the overall resource and water industry. I hope that the Department of Water will work hand-in-hand with private enterprise to assist and encourage it to develop its own solutions to the water supply issue and to remove impediments to competition in the water sector. The Western Australian Chamber of Commerce and Industry sent a strong message that there must be private investment in the supply of water infrastructure and services to encourage innovative and diverse solutions to our water supply challenges. The lack of a transparent pricing structure for the many varied parts of the state's water supply chain creates severe limitations for those interested in entering the market to ascertain and establish business viability. It is imperative that business be allowed to develop and invest in projects that contribute to and create a range of state-of-the-art, sustainable and diverse solutions to water supply services for the people of Western Australia and put an end to the Water Corporation's lucrative monopoly of the water industry in this state. It must be recognised that the government and its water initiatives are not the be all and end all of solutions to ensure that our water supplies are sustainable for future generations. I call on this Labor government to immediately remove all impediments to competition in the water sector, to create competitive markets and to allow the people of Western Australia to have a choice in the price and service delivery of their water needs.

It is also important to note that there is current cooperation between water service providers and the government to assist in arriving at sustainable water solutions. The partnership between Harvey Water and the state government is a trade agreement that will provide an extra 17 gigalitres to the integrated water supply scheme, which supplies to 1.5 million of the 1.9 million people living in Western Australia. The government's contribution of \$29 million is a great investment into Western Australia's water future, as is the federal and state funding to support the partnership between the Department of Environment, Harvey Water and the Griffin Group in the Collie River Salinity Recovery Project. Both must be acknowledged as important initiatives in ensuring a sustainable water supply for our state. This is to be applauded as a step in the right direction and there must be a lot more of it. Capitalising on new business opportunities in the water sector, be it privately or in cooperation with the government, can only result in better outcomes for consumers and encourage innovations that will contribute to the future security of our water supply.

It is also important to question why we are proceeding so quickly down the desalination and Yarragadee routes before the outcomes of the investigation into the Kimberley water source project are announced. In August this year, the project entered what is considered to be its most crucial phase; that is, the engineering and financial assessment of transporting water from the Kimberley to Perth by pipe, canal or ocean transport. The expert panel in charge of the project was appointed by the government to examine the viability of transporting Kimberley water to Perth. It will be assisted by expert technical consultants to deliver an independent evaluation of the three concepts. These consultants will develop draft reports for the expert panel to be considered by early December. The panel is due to deliver its final report to the government by 31 March 2006. The chairman of the panel, Dr Reg Appleyard, stated the panel has asked the Premier for more time because fully evaluating the three concepts is a very complex task. They are wise words, because our state's future water supply is a complex issue. There are no simple and quick solutions. I am even more concerned that the government has gone a long way down the track of its Kimberley project. It has allocated \$5 million, which is a substantial investment. Would it not be wise to give pause before committing to large-scale, intensive and potentially damning projects, such as the desalination plant or the extraction of water from the Yarragadee? The study of the Kimberley water project has the ability to completely change the way water is assessed and supplied in Western Australia. The least we can do is wait for the results.

Recently we all read about the government's announcement about an aquifer recharge project and its conservative \$13 million commitment for investigations. Again the same issue is raised: how can we commit to

the Yarragadee when we have not exhausted all the other possibilities? An example of an independent local report was released from a panel assessing the model used by the Water Corporation to assess the risk of extracting water from the Yarragadee. The Water Corporation was quick to point out that the report supported the project, but we have heard very little of the uncertainties that were also stated very clearly in its report. The model was found to be not suitable for: first, the water level drawdown and the seasonal fluctuations near other ground water, rivers and streams; secondly, evaluating the risk of seawater intrusion associated with the planned extraction; and, thirdly, providing results that can be used in determining sustainable yields based on the impact on the ground water dependent ecosystems.

The panel also suggests that more modelling needs to be done on the effects of reduced rainfalls from global warming and the effects that this will have on the recharge if these conditions occur. The report goes further to include concern about adequate ground water monitoring and the possible effects of extraction directly from the upper part of the Yarragadee aquifer. With all this in mind, I hardly see it as appropriate to say that the panel has given the green light. It would be safer to say that the panel has highlighted areas that need to be investigated further. The extraction of water from the Yarragadee aquifer in the south west is, as members would be aware, a controversial topic in that region. When it was announced that this could be a potential source for the integrated water supply scheme, 12 local governments in the south west immediately got together to form the Combined Shires Yarragadee Committee to ensure that water will not be taken from the aquifer unless it can be reliably proved that regional water use, both now and in the future, will be covered. The Combined Shires Yarragadee Committee does not believe it has been listened to by the government. It believes its concerns have fallen on deaf ears. It is greatly concerned that no government agency seems to have committed itself to assessing the actual regional needs of the south west or the areas close to it that use the water from the Yarragadee. It is greatly concerned that not enough independent information has been gathered over a long enough period of time to ascertain what impact taking 45 gegalitres per annum from the aquifer will have on the south west region and the communities and industries that sustain it. Everyone is aware that a lot of water has already been taken out of the Yarragadee. Given the population growth statistics for the south west region, we need to be very careful with our calculations of how much more we can realistically take, and this needs to be supported by solid, independent scientific research. There are many unanswered questions about the extraction of water from the Yarragadee, and the Combined Shires Yarragadee Committee and the people of the south west seem to be having trouble getting these questions answered. These unanswered questions have led to people in these shires continuing to be quite rightly concerned about how the drawing of these 45 gegalitres will affect their lives, businesses and communities. The fact that the Water Corporation is a proponent of the application to the Department of Environment for the licence to draw this water annually from the aquifer, as well as the body responsible for the research and development into the ground water model, should automatically raise legitimate concerns.

The Combined Shires Yarragadee Committee has highlighted several very significant concerns about the lack of information available about the proposal. I will now put to the chamber some of the questions that need to be answered. First, why has the concept model for the new bore field at Jarrahwood not been released? Secondly, have the issues of salt water interface and excessive drawdown been thoroughly studied and resolved with this new bore field? Thirdly, is the quality of the raw evidence supplied for this model sufficient to deliver the right outcomes? Fourthly, why has the new bore field at Jarrahwood been introduced without community consultation? Fifthly, given the ongoing power supply problems in the south west, where is the extra power to pump the 45 gegalitres into the integrated water supply scheme going to come from? Sixthly, has the Water Corporation taken into account the huge increase in the commercial planting of blue gums and issued an allocation for this in its assessment of reasonable regional needs? Seventhly, have the implications of extra drawdown from the aquifer on the Capel-Busselton area of the Scott coastal plain been investigated, given that any drying effects could lead to exposing areas of acid sulfate soils and risk the productivity of prime farming land? Eighthly, will taking water from St John Brook in Nannup for drinking water, as outlined in the Water Corporation's mitigation strategy, compromise the agricultural activities of the Cundinup area in Nannup? Ninthly, out of the \$14 million that has already been spent by the government on this project, what has been the exact cost of the research, putting down the bores, the consultants, the television campaign and the road shows put on by the Water Corporation to reassure the concerned communities that it is doing a thorough job? Tenthly, will the minister close the bore field down if it is shown that there are environmental impacts even after paying \$400 million for the construction of the bore fields and pipelines? Finally, how will our land uses, industries and communities change if we cannot get water for irrigation?

As members can see, many more questions beg to be answered. These are the assurances that the communities of the South West Region are looking for. It is only fair that the government does the necessary research and has the proposal thoroughly reviewed by the Environmental Protection Authority as well as subjecting it to peer review to get a truly independent assessment. This undertaking would go a long way to countering what seems

to be a basic lack of trust in how the process is being carried out. It will also give people a sense of security that the environmental aspects have been thoroughly examined. Only then do I think that the people in these communities will accept that the plan to share the water will not affect the way they live. I am sure that if it can be scientifically proved that the water can be safely extracted from the Yarragadee aquifer, there will be a lot less objection. It is blatantly evident from the way in which these communities have reacted to this proposal that they are not willing to let their futures, which are linked to sustainable water supplies, be compromised. We need to work together, not against each other, to ensure that we have sustainable water supply for future generations of Western Australia.

HON PAUL LLEWELLYN (South West) [3.29 pm]: I was listening with interest to the discussion and the debate about the importance of community contributions to guiding government management and long-term use of our water resources. I will work backwards. First, the gratuitous amendment to this motion reflects poorly on the capacity of this house to build consensus in governance. We have been talking about this in the past few days. Why on earth would anyone change a pretty well-intended motion to delete all the words and replace them with some self-aggrandising, self-inflating statement about how well the government is doing? That was not the intention of the motion. The Greens (WA) will not accept an amendment like that because it is not in the spirit of consensus and certainly not in the spirit of getting good governance of the state of Western Australia. It is very tiresome to have to deal with that sort of self-aggrandisement. Quite frankly, this impacts on the quality of democracy.

Now that I have got that off my chest, I can deal with some of the substantive issues that underlie the concept that the honourable member put forward today. I support in principle the notion that communities need to have some engagement in the management and determination of a range of environmental affairs, not least of which is the management of water resources and, in this case, the discussion about artesian water. It is interesting that we start this discussion with some speculation about artesian bores that could be 30 000 years old or one million years old. In fact, we are talking about fossilised water, which is similar to fossil fuels in that it comes from prehistoric natural endowments that have been trapped in the earth's surface. We tap into them and pump them out. We have run out of fossil fuels and fossilised resources. We need to think very clearly about the fact that we have a fixed endowment of fossilised resources. That gives us a considerable amount of guidance.

The difference between artesian water and fossilised fuels is that fossilised fuels are the accumulation of organic matter under the ground via a somewhat slower process than the inflow, outflow process artesian water goes through. Deep artesian basins discharge water into parts of the landscape; indeed, there is even artesian water under the sea. Mariners have been known to take their boats out to certain points in the middle of the ocean, dip their buckets in and pull out fresh water. They know that fossilised water has been discharging into the ocean under pressure, so much so that there can be a plume of fresh water in the centre of the ocean.

I do not know a lot about artesian water but I am certainly interested in the management of water resources and the mechanisms by which communities can become involved and engaged in responsible use. I am talking about not only the endowment of water that comes straight from the atmosphere through to the surface and the subsurface system, but also how we manage the endowment of fossilised water. It must be clear in our minds that that is ostensibly a fixed endowment. We should not take it lightly. There are things that we can do to harvest that resource, which, surprisingly, can be depleted very quickly in a way. This can happen in the same way as the occurrence of salinity effectively surprised us when we cleared the landscape and 40, 50 or 60 years later ended up with salt coming through the surface.

Artesian water and fossilised water systems have exactly the same capacity to deliver surprises in the management of those systems. We talked with some wonderment about the fact that this particular bore may have been flowing for 100 years. That is as long as we can have a reasonable cultural memory in this society. One hundred years is nothing. Those artesian systems have been recharging and discharging at some nominal rate for centuries. We are saying that we do not know where they are recharged. They may well be recharged in the New Guinean highlands. We are looking at a through-flow of water that could reach us 50 000, 100 000 or half a million years later. If we take a 100-year bore that peters out for some reason and divide that into 30 000, the nominal age of that water resource would be 1/300th. If that fossilised water was one million years old and it ran out of a bore in the ground after 100 years, we are talking about 1/10 000th of the nominal age of that water. This is very concerning in terms of the design of sustainable systems. I got a bit heated there; I will slow down.

Hon Ken Baston: It's 62 degrees out there.

Hon PAUL LLEWELLYN: I got a bit hot under the collar then. I am so irritated by that wanton amendment that puts the government on a pedestal for what it is doing. It is absolutely true that the government has done extremely good things in the matter of water resource management but to gratuitously annihilate and totally change that motion is disrespectful to the max.

Hon Simon O'Brien: It is the arrogance you support.

Hon PAUL LLEWELLYN: The arrogance astounds me.

Hon Kim Chance: I thought it was very supportive of the motion.

Hon PAUL LLEWELLYN: It is very supportive of the motion - it takes everything out from after the word "house".

Hon Kim Chance: Apart from that. Look at the upside.

Hon PAUL LLEWELLYN: I say to the member to get real.

Hon Simon O'Brien: Are we going to improve this democracy?

Hon PAUL LLEWELLYN: We can improve the way in which we debate and the way in which we make the most of it.

Hon Sue Ellery: Stop being aggressive.

Hon PAUL LLEWELLYN: I am passionate. I am making the distinction between being aggressive and being passionate. The passion is rising.

Hon Sue Ellery: I'm asking you to make that decision.

Hon PAUL LLEWELLYN: I am making the decision to think about it. Passion is what we are talking about here.

Hon Simon O'Brien: Democracy means you returning the broken fax machine.

Hon PAUL LLEWELLYN: We are waiting for the funding; we are waiting for the money to come. We will talk about that later in question time. When is the funding going to arrive? Anyway, we will not go there. We are talking about the important matter of natural resource management and the engagement of the communities that actually assume ownership or control of an endowment of that natural resource. This human community is not the only consumer of that natural resource. In fact, as soon as we call it a natural resource, we are commodifying it; we want to pump it out, measure it and sell it. In itself, that is not a bad thing. I love markets and all that sort of stuff. However, to get responsible use and responsible management of artesian or fossilised resources - in this case, ancient water resources - due consideration has to be given to environmental flows. A press release that just landed in front of me says that we are celebrating the fact that we have had the wettest spring in more than 30 years. That is a good thing. However, we know that an average five per cent decrease in rainfall produces a very much larger decrease in stream flow. I find it extraordinary that we are surprised that this recharging of systems is not actually just happening through the subsurface flow. The aquatic systems are being driven through deep water coming out under pressure into our river system. We are depleting that slowly like a frog in hot water. When we put a frog in hot water, we bring the temperature up nice and slowly so it does not jump out. If we pop it into some hot water, it senses it straight away and jumps straight out of the pot. Very slowly we are depleting our fossilised endowment of resources and then we wonder why the dams are taking longer to fill, even though we have had a higher than average rainfall.

Hon Simon O'Brien: Dams were full under our government!

Hon PAUL LLEWELLYN: Yes. This is an opportunity to put on the public record and discuss in this house the nature of natural resources. The Greens and any responsible entity will take very seriously the physical and natural characteristics of the resources so that we have a good understanding of them. We need to get some balance in the way in which we solicit community advice and expert advice on matters. The proposition in the original motion suggests that communities would do thorough research. I contend that communities are not necessarily the entities that should do thorough scientific research. The motion refers to setting up committees in regions impacted by specific water initiatives to thoroughly research environmental and sustainability issues. Clearly, communities can make some contribution to that. However, it would be dangerous to have communities entirely responsible for designing, researching and developing management strategies, particularly because there will always be competing expectations. We heard about the expectations of the mining industry versus the expectations of the agricultural sector. We did not hear about the competing expectation of an environmental flow that also needs to be attended to; we did not hear that that environmental flow sustains all the ecosystems and that the ecological services on which our fragile landscapes depend need to be given equal weighting.

I am tempted to mention the young man who was hanging off a tree at the front of Parliament House today. I do not know whether members know about that. A young man was hanging off a tree at the front of Parliament House, protesting about irresponsible logging of native forests. It is because of the conscience of the community, and, indeed, the conscience of the environmental movement, that communities must bring attention to situations in which industry, governments and communities are overusing resources. In the case of the person who was hanging out of the tree, he was protesting about the forests. Quite clearly, the voluntary environmental

movement has had a lot to say about maintaining environmental flows. The language of maintaining responsible environmental flows is now in the public domain, and it is there because of community pressure from the environment and conservation movement. Eventually it has percolated down into the mainstream discourse about the management of systems. For those members of this house who do not know, one of the four pillars of the Greens is participatory democracy. Participatory democracy means that we foster, not just allow, the engagement of communities in decision making. Therefore, we need to listen to the people who have the voices for the communities, and we need to actively, not passively, engage in allocating resources when we hear the voices of the communities, and put that into the framework of resource management and design.

I will resist all temptation to talk about the Gngangara mound and the over-allocation of resources that we have already experienced, with the loss of cave ecosystems and the dangers that go with unfettered extraction of water resources. However, we need to know that we already have historical evidence that over-harvesting water resources can lead to unexpected declines in biodiversity and in the resource flow through the system. That is not a trite matter. For example, when we work on the basis that there is a certain amount of water for a Perth population of 1.8 million people, and all of a sudden that water is no longer available, we will run into significant problems with the management of the system. Perth is very much at that point. Now we are looking towards the south west region to harvest water from the Yarragadee ground water system. The communities of the south west should rightly draw public attention to the potential to over-allocate that resource. Anyway, that is not what we are talking about.

The Greens will not support the amendment. I would prefer to move a more neutral amendment; that is, that the house supports the important role of community-based committees in providing research, advice and guidance to water management agencies to achieve environmental and sustainable management of the water resources. However, I do not know whether I have the patience to go through the process of moving an amendment on the amendment. I do not even know whether members on the other side of the house want to go through an amendment on an amendment. They can tell me, because we can play it.

Hon Barry House: It sounds far more attractive than the government's amendment.

Hon PAUL LLEWELLYN: I do not mind. I do not know what the procedure would be to amend the amendment. I will need some guidance from the Deputy President.

The DEPUTY PRESIDENT (Hon Louise Pratt): Is the member moving an amendment on the amendment?

Hon PAUL LLEWELLYN: If we want to vote on the amendment, we can change things. I do not know how to do this. We are all new here.

The DEPUTY PRESIDENT: If Hon Paul Llewellyn would like to continue his remarks, he will have an opportunity to move an amendment once the question is resolved.

Hon PAUL LLEWELLYN: When the question is resolved, we can move to make a subsequent amendment, which will be more in keeping with the spirit of the original motion and less in keeping with self-aggrandisement for its own sake. Members do not like that, do they?

The DEPUTY PRESIDENT: Is Hon Paul Llewellyn continuing his remarks?

Hon PAUL LLEWELLYN: I seek leave to continue my remarks at a later stage of this day's sitting.

[Leave granted for the member's speech to be continued at a later stage.]

HON BARRY HOUSE (South West) [3.49 pm]: I am very encouraged by Hon Paul Llewellyn's attitude to some of the issues that are raised in this house. We must give credit where credit is due. In my observation, Hon Paul Llewellyn is trying to be a representative of the conservation movement - most of the principles of which are now mainstream Australia and not fringe Australia - and not just the Greens (WA) political party. I am pleasantly surprised by and welcome that attitude. He makes a very useful contribution to some of the debates in this place.

Having said that, I will make a few comments in support of Hon Ken Baston's motion, although I am sure that the Leader of the House will not be surprised to know that I do not think I can go so far as to support his amendment, because the jury is still out in many of those respects. I will refer to a few of those issues in a moment. I support the proposal of Hon Ken Baston. The concept of local input to decision making is very important, and it should be not only local advice on research and experience, but also real local input into decisions affecting local areas. I strongly support that general principle. It has been around for a long time. That is why we have a federal system of government and have not moved to a centralised system of government, although it is becoming increasingly hard to hold back the tide sometimes.

The south west and Perth metropolitan areas provide most of the state's water supply. In that sense, the south west area is impacted on by water availability and sustainability arguments more than any other area of the state.

In the south west, the idea of local input and local content in decision making is reasonably well developed. Over the years it has been a feature of how water issues have been dealt with in the south west, and mostly in a positive way. We are in the middle of a very good case study of the issues we are talking about; that is, there is a proposal to extract 45 gegalitres from the southern Yarragadee aquifer. It is a case study in the sense that research is being conducted and decisions will be made at the end of the process. At the end of that process, and after it has been in operation for a few years, I and other members could stand in this place and agree with the amendment of the Leader of the House. However, I do not think I can do that at the moment, because the jury is still out.

I will concentrate on the proposal to extract initially 45 gegalitres of water from the southern Yarragadee. The major problem in many people's minds is that the proponent, the Water Corporation, is a government-owned body with dual roles. In this case, it has come to light that those dual roles can raise conflict-of-interest issues. The government is the service provider and the Water Corporation is the vehicle that delivers the service. Providing quality water in the appropriate quantity is an essential service for which the government must take prime responsibility. The Water Corporation has certain community service obligations. If those obligations are not formally stipulated in the legislation, they are certainly implied. The Water Corporation is also a very successful commercial operator. Hon Nigel Hallett indicated that it made a profit of \$420 million this year. That is a pretty good performance if it is assessed solely on its commercial role. It is a commercial operator because it sources and sells water in the market. I have been critical of the Water Corporation in this respect on several occasions, because these roles have interfered with the best outcome. I have mentioned the reuse of waste water. The Water Corporation has driven too hard a bargain in selling the water to the community. For instance, the Margaret River and Dunsborough golf clubs are crying out to use treated waste water on their premises, rather than its being pumped out to sea or onto treed lots in excessive quantities. The Water Corporation has stifled the best outcome by playing too hard ball on the return it wants for its water. The Premier announced the other day the laudable goal that treated waste water should be used for community purposes. I maintain that once the Water Corporation has treated the water to a level that meets the necessary safety and health requirements, the Water Corporation's responsibility to extract a commercial return should not be necessary. It should provide a community service by effectively giving the water away, because it costs the corporation that much to get it to that stage, which is the corporation's obligation. There is a bit of a conflict in that case. If the Premier's objective of putting an extra 100 gegalitres of treated waste water back into the system is to be realised, some of those requirements on the Water Corporation as a commercial body need to be relaxed, because it prevents the corporation from delivering them.

Hon Kim Chance: Or a separate community service obligation.

Hon BARRY HOUSE: Yes; if the roles were clearly divided, I do not think there would be a conflict. The Water Corporation has very little competition, but it does have some competition in a couple of areas in the south west. To my mind, it is the only area of the state in which it does have some competition. On the fringes in the south west, there are two very successful water bodies. The Aqwest-Bunbury Water Board has been operating very successfully as a completely independent body for the past seven or eight years. It was divested very successfully and, I believe, rightly from the City of Bunbury during the Court government years. A bit further down the road, Busselton Water has a 100-year history of very effectively managing water in that area.

Hon Kim Chance: Harvey Water really is comparable and also very successful.

Hon BARRY HOUSE: I am coming to that. I am aware that there was a formal Harvey water board, but the operation was taken over by the old Water Authority of Western Australia during Brian Burke's premiership in the 1980s. The Busselton and Bunbury water boards came under enormous pressure at that time to cave in as well, but they resisted, and to the benefit of those communities. Harvey Water operates at the other end of the spectrum in terms of water usage rather than water sourcing. Harvey Water is a private entity. It was established in our time in government. It was divested from the then Water Authority, and a cooperative of local water users took up the challenge - it was a challenge - to operate the irrigation district. The Harvey irrigation district runs through Brunswick, Harvey and up through Waroona, with the prime source of water being Wellington Dam. Harvey Water has done an outstanding job, I must say.

Hon Kim Chance: It has.

Hon BARRY HOUSE: It has been a success because it has committed its energies, and in many cases its money, and has engaged in partnership with government, both state and federal, to deliver some good outcomes. Quite frankly, I do not believe that the Water Corporation would have been able to achieve the same outcomes if the Harvey irrigation district had been left in government-owned hands. There would not have been the incentive to achieve them. Already on its own initiative Harvey Water has closed some of its irrigation channels. It has been funded by government to do more of that, which is a terrific initiative. It is part of a package,

together with the Griffin Group, a few others and the federal government, to improve the water quality of Wellington Dam, which is, as we know, approaching marginal salinity levels. However, it is the biggest reservoir in the area, containing 186 gegalitres. Ideally, if the water in that reservoir can be returned to potable quality, that would be an outstanding outcome. Even if the water quality could be improved so that the irrigation benefits were greater, it would be an outstanding outcome. That is just one example when we compare the Water Corporation with a private operator - Harvey Water in this case.

We could do a similar side-by-side comparison with the Water Corporation and Busselton Water. A lot of comment has been made about the water quality in Busselton, supplied by Busselton Water, compared with the water quality in Dunsborough. As the residents of Dunsborough know, their water quality is not as good as the water quality of people a couple of kilometres up the road, where it is provided by Busselton Water. Dunsborough water is provided by the Water Corporation. In Bunbury, when the Dalyellup subdivision development kicked off, a tender process was conducted for the supply of water to Dalyellup. The Water Corporation was in direct head-to-head competition with the Aqwest-Bunbury Water Board, which submitted a tender. The Water Corporation submitted a better tender and ultimately got the job. However, I believe the Water Corporation submitted a tender just to protect its territory and get the job because, as it has turned out, the Water Corporation ended up with egg on its face because it could not deliver enough water. It now has to buy water from Aqwest to deliver on its obligations.

Hon Kim Chance: That is the market working, isn't it? It is healthy.

Hon BARRY HOUSE: It is the market working well, yes. However, private operators in the south west have a track record, which is a good track record. They keep the Water Corporation honest in some of those areas and, in fact, show it up in others. I return to the Yarragadee proposal. The proposal originally came from the Water Corporation as the vehicle for government in response to our so-called water crisis. I am not denying that the water crisis is real when we have sprinkler bans and water restrictions. Initially the Water Corporation grabbed at those bans and restrictions as the easy option. Now I believe there is a bit of sense in the whole argument, and some of the other options are being taken seriously, such as the use of treated waste water and reuse, and partnerships with Harvey Water, which will deliver up to 50 gegalitres back into the potable water supply.

Hon Kim Chance: Catchment thinning.

Hon BARRY HOUSE: Catchment thinning is another one. All we need really is to distribute a few boxes of matches to some people and we would have a very effective catchment thinning program! However, we cannot possibly advocate that. The initial undertaking to fund research into the Yarragadee proposal was a very good undertaking, and the undertaking to initially put it in the hands of the Water and Rivers Commission was a good outcome. The initial stage of the research was conducted by Dr Fionnuala Hannon and her team and the Water and Rivers Commission, in conjunction with a local group. This is getting back to Hon Ken Baston's original idea. The local group charged with working in conjunction with the Water and Rivers Commission was the Whicher Water Resource Management Committee, which had members drawn from the community in general, the farming community, viticultural interests and environmental interests and comprised people with a range of local expertise. I am not saying that it was fully representative of the whole of the Yarragadee area but it was a pretty good start, as it had the major interests of the local community in the south west at heart. The two major interests were, first of all, to make sure that any proposal was sustainable environmentally and that the effect on the ecology would be known, could be measured and would not be detrimental. Another major interest was to take the future agricultural, residential, commercial and industrial needs of the south west into account in any decision that might be made in the future. That was important. I therefore had a fair degree of confidence in the process while it was in the hands of the Water and Rivers Commission in conjunction with that local group. They did a very good job and their research uncovered many details about the capacity of the aquifer, the recharge and the potential impacts of the extraction, and took into account the future industry and area needs. We therefore knew quite a lot more about the aquifer at the end of that process. I guess my major concern began after that point when the process was taken over by the Water Corporation, not necessarily in the quality of the work done, but because of its conflicting roles as the proponent and researcher that was channelling the information to the public. That is where the major conflict occurred and the major doubts arose.

The Water Corporation is now in the final stage of finalising its proposal to the Environmental Protection Authority for an initial extraction of 45 gegalitres from the Yarragadee aquifer. There have always been rounds of public forums and public information sessions. They have been welcomed and appreciated by the community and have been very useful. However, I must say that some aspects of those sessions were treated with scepticism. I acknowledge firstly that as a result of the research the proposal has already moved some ground. The source area has already moved from around Couch Road, close to the Blackwood River, to Jarrahwood further north. That has been done because of concerns that have been raised, for instance, about the recharge

directly into the Blackwood River. At least 12 gegalitres of water - it is now said to be up to 25 gegalitres - recharges directly into the Blackwood River from the Yarragadee aquifer. The original proposed bore field could well have impacted severely on that area. Moving it north is positive. The authorities have identified an area that will monitor the environmental impact of any developments as a result of extraction from the water supply. It has the unfortunate name of Poison Gully! The scepticism arises with some of the figures that have been thrown around. When the Water and Rivers Commission finished its research, the Yarragadee aquifer was estimated to contain 400 000 gegalitres. The next round of information that came out doubled that figure at the stroke of a pen to 800 000 gegalitres. The latest round of information released a few weeks ago states that the volume is 1.2 million gegalitres. One can understand people who say there is a large element of guesswork in all that. I know it is impossible to measure every drop of water but the fact that the figure has trebled in less than a year entitles us to a bit of scepticism.

In any extraction the critical factor will be the recharge. How quickly does the Yarragadee aquifer recharge? That is the sustainability aspect. There have been some changes to the estimate of that. Most people believe it will easily support the extraction of 45 gegalitres. I must say that there is even scepticism about that. Where is the recharge coming from and how accurate are the figures? Hon Nigel Hallett has already referred to an independent panel. It is a peer review panel of three independent hydrologists, who were appointed by the Water Corporation. I am not casting any aspersions on the hydrologists; I actually know one of them personally. The Water Corporation wrote the terms of reference and handled the release of their information. That raises some real issues of conflict of interest. If it is not a direct conflict, it raises real issues about how credible the process is. That is the point to home in on. How independent was the review?

The Yarragadee proposal has certainly generated a lot of debate in the south west, and it will continue to do so in the future. It has created a lot of speculation about the motives of the government and the Water Corporation. It has created a lot of speculation about the accuracy of information. However, the government, in conjunction with local advice, has provided much more information about the Yarragadee, which is positive. The south west has a history of locally based groups, which play a role in water management. For example, the Warren-Lefroy catchment group is a voluntary group, composed mainly of farmers around the Pemberton-Manjimup area, that has existed for more than 30 years. They have managed the catchment themselves. When a dam proposal is raised, they will know about it. If there is a problem with the proposal, they will go to the person proposing to construct the dam and front him directly. The communities in that area can do that because most of the people involved are related. They can say to the person, for example, that if he builds his dam to such a size or in such a way, it will impact unfairly on someone else downstream. As such, they will work out a solution. That has been an age-old process. They are concerned that bureaucracy may overrun them a bit. Other groups include GeoCatch, which is the Geographe Catchment Council responsible for the Geographe Bay catchment area; the Whicher water group, which I have already referred to; the Cape to Cape catchment group; and the Blackwood catchment group and many subgroups of that. There has been interaction with other goals. Some of the groups have environmental objectives and some of them have planning objectives. Some have become involved in areas in which they have been more nosy parkers than contributors. At least there has been local content in an advisory capacity. As such, the government has always had useful local advice to fall back on. We are moving towards perhaps establishing a department of natural resources, which would include water, minerals, land fertility, energy resources and so on.

Debate interrupted, pursuant to sessional orders.

Sitting suspended from 4.15 to 4.30 pm