PUBLIC WORKS COMMITTEE

Members:

Ms B.G. Stone MP (Chairperson)
Mr S.W. Copeland MP
Mr R.G. Hopper MP
Hon. K.R. Lingard MP
Mr J.D. O'Brien MP
Mr P.J. Weightman MP
Mr W.E. Wendt MP

HEARING—SOUTH EAST QUEENSLAND (GOLD COAST) DESALINATION PROJECT

TRANSCRIPT OF PROCEEDINGS

FRIDAY, 29 AUGUST 2008

Tugun

FRIDAY, 29 AUGUST 2008

Committee met 11.27 am

BOOTH, Ms Sonya Ruby, Project Manager, Department of Infrastructure and Planning

BLACK, Mr Adam Shawn, Executive Director, Financial and Asset Management, Department of Infrastructure and Planning

GOULD, Mr Damian Bruce, Assistant Coordinator-General, Department of Infrastructure and Planning

MARRIOTT, Mr Graham, Chief Executive Officer, South-East Queensland (Gold Coast) Desalination Co Pty Ltd (Trading as SureSmartWater)

PINCOCK, Mr John Francis, Project Director, GCD Alliance

CHAIR: Good morning, and I declare this hearing into the South East Queensland (Gold Coast) Desalination Project open. Thank you for your interest and for your attendance here today.

The committee has advised the public of the inquiry by advertising in the print media and also by writing directly to a number of individual organisations, government departments and individuals. The terms of reference for the inquiry are to examine and report on the South East Queensland (Gold Coast) Desalination Project, with particular reference to (a) the purpose and suitability of the work; (b) the necessity and advisability of the work; (c) the suitability of the work for its purpose; (d) the cost, recurrent cost, revenue and value for money of the work; (e) the impact of the work on the community, the economy and the environment; (f) procurement methods for the work; (g) the balance of public and private sector involvement in the work; and (h) the performance of the constructing authority and the consultants and the contractors for the work.

Before proceeding I would like to introduce the members of the committee who are present here today: the Hon. Kev Lingard, the member for Beaudesert and the deputy chair; Mr Stuart Copeland, the member for Cunningham; Mr Ray Hopper, the member for Darling Downs; Mr Phil Weightman, the member for Cleveland; Mr Wayne Wendt, the member for Ipswich West; and I am Barbara Stone, the member for Springwood and chair of the committee.

The Public Works Committee is a committee of the Queensland parliament and as such represents the parliament. It is an all-party committee that adopts a non-partisan approach to its inquiries. Although the committee is not swearing in witnesses, I remind all witnesses that these hearings are a formal process of the parliament. As such, any person intentionally misleading the committee is committing a serious offence. I also remind witnesses that Hansard will be making a transcript of the proceedings. I therefore ask you to please identify yourself when you first speak and to speak clearly and at a reasonable pace.

It is important to note that the committee's role is one of scrutinising the government's Capital Works Program and services to ascertain whether the Queensland public is getting value for the money that is being spent. The committee does not have the power to stop or approve projects or programs. The findings of the committee will be subject to a report to the parliament. The committee may make recommendations about the issues it deals with. A copy of the report will be forwarded to all witnesses.

I now call our witnesses from the Department of Infrastructure and Planning, SureSmartWater and GCD Alliance. For the record, could you please state your names and the capacity in which you appear before the committee. Who would like to make the opening statement?

Mr Gould: By way of introduction, my name is Damian Gould and I am the Assistant Coordinator-General in the Infrastructure Delivery Group in the Department of Infrastructure and Planning. That group of the department has been working with SureSmartWater and the alliance in the planning and delivery of the Gold Coast desalination project since pretty much from the start of the state's participation in that project. Sorry, Madam Chair, will I introduce the other witnesses?

CHAIR: That would be good.

Mr Gould: To my right is Ms Sonya Booth, who is the project manager in the Infrastructure Delivery Group in the Department of Infrastructure and Planning and who has been working on the Gold Coast desalination project; to my left in the first instance is Mr John Pincock, who is the project director for the Gold Coast Desalination Alliance; further to my right is Mr Graham Marriott, who is the Chief Executive Officer of SureSmartWater, the wholly state owned company that is managing the planning and delivery of the desalination project and to my furthest right is Mr Adam Black. Adam is the Executive Director of the Finance and Asset Management Branch in the Department of Infrastructure and Planning.

Just by way of some brief introductory comments, the Gold Coast desalination project is an integral part of the South East Queensland Water Grid, the water grid being a key component of the government's drought response strategy which is looking to secure the long-term water supply and water security of supply for the south-east region of Queensland to face the challenges associated with ongoing population growth, climate change and the immediate impacts of the prolonged drought in south-east Queensland.

The Gold Coast desalination project is the first major desalination project that has taken place on the eastern seaboard of Australia. The committee has had the benefit of a tour of the facility. It is currently 88 per cent complete and, on completion, the facility will be able to produce on average 125 megalitres a day of potable water, which will have the capacity to supply approximately 700,000 residents across south-east Queensland based on the current target of 170 litres a day of consumption.

By way of a brief history, the project commenced as an initiative of the Gold Coast City Council as a direct regional drought response strategy for the council in 2005. In late 2005 the Gold Coast City Council established and appointed the Gold Coast Desalination Alliance, consisting of John Holland Construction and Veolia Water Australia, to undertake the design, at the time, of a 55-megalitres a day sea water desalination facility. The state government, through its development of its drought response and the development of the SEQ water grid strategy, entered into a partnership with the Gold Coast City Council in 2006 for the desalination project. At that stage the planning and design of the facility changed to deliver a desalination facility with the current capacity of, on average, 125 megalitres a day.

In late 2006 the target out-turn cost was developed for the project and reviewed by the shareholders—by the Gold Coast City Council and the state. To give effect to and implement the design and delivery of the project, the Gold Coast City Council and the state government established the South East Queensland (Gold Coast) Desalination Co., which trades as SureSmartWater, to manage the design and construction of the desalination facility. Construction commenced in early 2007 following the obtaining of all the necessary approvals from the relevant agencies.

Just briefly, it would be fair to say that the department is certainly very pleased with the performance and the progress of delivery of the project to date. It is being delivered under a very accelerated time frame, but that has not been at the expense of important issues, such as workplace safety—and no doubt Mr Pincock will mention during the hearings that the project has had an impressive safety record, with 2.75 million man-hours worked without a lost-time injury. Thank you.

CHAIR: Certainly it is an impressive plant and thank you for showing us around today. Firstly, I want to talk about some of the planning. Does anyone here know what planning had been done at a state government level for regional desalination projects prior to seeking to enter into the partnership with the Gold Coast City Council project?

Mr Gould: In relation to identifying desalination facilities, as the magnitude of the current drought became apparent to the government with, I think, approximately 10 years of below-average rainfall in the region and individual years of historically low rainfall, in planning the long-term water supply requirements for the region it became apparent that there needed to be a move away from an increasing reliance on traditional sources of supply, that is dams, and to move towards a more integrated and wider range of water sources to secure the water supply security for the region. Desalination was identified as a key component of that, given the climate-independent nature of desalination.

It was probably around 2006 that the full magnitude of the water supply situation became apparent. If the level of rainfall from those years were to continue, it became apparent that we would be facing almost close to dam depletion levels in the Wivenhoe, Somerset and North Pine systems by possibly towards the end of 2008-09 at that time. Given that the Gold Coast City Council had already identified the desalination plant as an option for an immediate drought response—the Gold Coast City Council had undertaken a study of a number of sites to ultimately identify Tugun as the preferred site for a desalination facility—the government's response was to enter into a memorandum of understanding with the Gold Coast City Council and to partner with the council for the development of the facility at Tugun.

CHAIR: Page 9 of the department's submission states that the Gold Coast City Council had assembled a project team and preconstruction activities were progressing and, obviously, outlined some significant benefits of being involved in partnering with the council. What were the limitations and the risks involved in doing that?

Mr Gould: It was obviously identified, when desalination was identified as a strategy which could assist in securing the region's water supply, that one of the key factors which probably drove the decision by the state to partner with the Gold Coast City Council, given the existing body of work that they had done in terms of identifying the Tugun site, was just the lead time in terms of undertaking the site selection and the initial design and construction for a facility. Given that a lot of that had already been undertaken, I guess a key risk was in terms of putting in place a desalination plant within the required time frame. That probably lent itself to entering into the arrangement with the Gold Coast City Council in relation to the Tugun plant.

CHAIR: Just on that, I notice there were some awards for the feasibility stage and I think there were some engineering awards. Can someone elaborate on those?

Mr Pincock: Yes, there was a planning award that we did get for the early planning that we did and also for the community relations. So there were a number of awards that we got through the project and that was one of the major ones that we did get.

CHAIR: And that was for—sorry?

Mr Pincock: That was for planning.

CHAIR: For planning, okay. There was one for the feasibility of the site or something, I notice.

Mr Marriott: There was one for community relations.

Mr Pincock: Community relations. It seems a long time ago now.

CHAIR: I was just reading it and I wondered what they were based on, that is all. That was done with the Gold Coast City Council?

Mr Pincock: Not really. It was still during that process. It was subsequent to SureSmartWater coming on board, but obviously the Gold Coast City Council had some involvement in the early days.

CHAIR: Okay. So it was after—when the partnership had started.

Mr Pincock: Yes.

CHAIR: The prevailing drought conditions and the need for an early operation date; did that limit the options for the desalination methods and energy supply that you could have a look at in this project?

Mr Gould: Again, I think in terms of some of the initial planning that would have been undertaken by the Gold Coast City Council in identifying the various sites, I think a lot of those were informed by issues such as energy supply, so I guess we go back to my previous statement—I think the fact that there had already been a process of some detailed site identification, looking at issues such as a suitable site and energy supply, which was important for a desalination facility. That, again, probably lent itself to the decision that the state took to enter into the partnership with the Gold Coast City Council to progress the Tugun site.

CHAIR: Okay.

Mr COPELAND: I want to return to the chair's first question about the investigations that the state had done prior to 2006 when the decision was made to go into partnership with the Gold Coast City Council. You said that it was because of the work that the Gold Coast City Council had already done on site selection. Had the state government done any work on investigating the options for desalination before that decision was made on potential sites for a desalination plant?

Mr Gould: Work had been done as part of the work associated. I think it was being undertaken by the Department of Natural Resources and Water in relation to planning—I cannot remember the exact name of the study—the long-term water supply options for the region. As I stated, desalination was identified as a source of potentially climate-independent supply that would help secure the region's supply. I would have to take on notice in relation to whether those reports looked in detail at sites for the desalination facilities at the time. We are happy to go through the relevant documentation and report back to the committee in terms of sites that those reports might have identified. But again, I think, given the lead time associated with setting up the facility, the fact that the Gold Coast City Council had already commenced work and had developed a project team to commence the design for the Tugun plant was, on my understanding, the key driver towards the state entering into the MOU with the Gold Coast City Council. I will get back to the committee on notice in terms of specific sites that were looked at.

Mr COPELAND: So if the Gold Coast City Council had not already begun the project here and gone through that process, how long was it estimated by the state it would have been to establish a desalination plant? Obviously you looked at the lead times for a potential other site. What would have been the difference if the Gold Coast City Council had not already begun the project?

Mr Gould: I could not speak directly for construction times. If we go by what has happened with the desalination plant, John, perhaps you could make some comments on the construction period associated with getting the Tugun plant up and going.

Mr Pincock: This particular construction period is very tight. In my previous experience, it has been very fast-tracked and, of course, the reasoning behind that was for us to get water by the end of this year. The only way you can do a project in that time frame is, of course, that the planning needs to be up-front. If we had had to start from scratch, for instance, if the government had decided to do something different, it would have taken probably another—and this is my own personal view—it probably would have been another 18-month period in order to get to the point where you could start building a desalination plant.

Mr COPELAND: Given the urgency of the project and the need to fast-track it, the Auditor-General raised a number of concerns in his report about that—the tendering processes, the planning processes and a whole range of concerns. Given the urgency of the project, what increase in cost has that delivered on the project?

Mr Pincock: It really is the time frame that you do it in. If you have more time, then of course—it is a little hard to give you an exact figure on that, because if you had drawn it out by another 12 months you would still have had significant costs because of the time frame. Quite often by doing a project in a shorter time frame you can actually reduce your costs because you have your people for less time. You might increase the numbers but it is for a much shorter period. So it is a very difficult thing to really identify what is the cheapest way. At the end of the day the cheapest way is to do it safely and efficiently, and the time frame is just a mechanism for how much time you have to do the plant, and then you select your resources to suit.

There are a number of factors that may very well affect your efficiency and it is just a matter of getting the right people and the right equipment in that time frame. It is very difficult to say that one is more expensive than the other.

Mr COPELAND: Have all the concerns now been addressed that the Auditor-General raised?

Mr Marriott: We have addressed all the concerns that are practical without disrupting the project. One of the imperatives as far as delivering the project was getting water online by November of this year. So all the concerns have been addressed to the extent that it is practically possible while still maintaining the delivery program.

Mr WEIGHTMAN: I am coming from a slightly different angle. In terms of water quality, there are a lot of arguments about recycled water versus groundwater versus desalinated water. I would like to ask questions that relate to the standards. What types of standards will be applied to the water produced by this plant?

Mr Marriott: Australian quality guidelines issued by the Queensland Water Commission, the regulator in Brisbane.

Mr WEIGHTMAN: That is fine. How will they be monitored?

Mr Marriott: Online monitoring. There will be 24-hour, seven-day-a-week online monitoring of the output from the plant.

Mr WEIGHTMAN: How do they get fed back into the South East Queensland Water Grid management?

Mr Marriott: How does the water quality—

Mr WEIGHTMAN: How do the figures, the information and the results of the monitoring get fed back?

Mr Marriott: Bear in mind that we have not finished our operational protocols yet because we are not in operation, so I can only make comment on the initial discussions that have taken place with the Water Commission on how that is going to be made. I think it is still a proposal—still in draft—because we are still commenting on how we are going to meet the Australian water quality guidelines, and we are also commenting on the emergency response plan, which is one of the plans that are initiated if there is a deviation in water quality.

As far as I understand it at this point in time, there is not a routine day-to-day feedback on water quality. We are expected to meet the water quality guidelines under our grid supply contract. Bear in mind I do not yet have a grid supply contract so I am speculating to a certain extent. I understand the situation will be that if there is a deviation from the water quality guidelines then there are various levels of responses depending on the extent of the deviation, and that is in the emergency response plan that we are currently commenting on. I cannot really go any further than that at this point in time because things are not yet implemented.

Mr WEIGHTMAN: As you would probably appreciate, it is a matter of community concern to know that the quality of water is going to be managed and it is going to be monitored on a regular basis.

Mr Marriott: Absolutely.

Mr WEIGHTMAN: Again, in terms of water quality, boron and bromide levels have emerged as water quality issues, as reversed osmosis is increasingly used in desalinated sea water. What are the target levels for boron and bromide in the water production by this plant?

Mr Marriott: I will have to take that on notice. It is in the standards. I do not have the standards with me, but there are standards for about 20 or 30 different characteristics of water. Certainly boron, as far as we are concerned, is not an issue. We are well within the guidelines.

Mr LINGARD: When you were establishing those targeted water quality standards for the plant, what consideration has been given to the prevention of corrosion of water supply infrastructure?

Mr Marriott: Can I ask you to be a bit more specific about what infrastructure you are talking about?

Mr LINGARD: I just wondered whether a pilot plant study was done to investigate any proposed systems undertaken for this project that might have shown what sort of consideration should be given to corrosion of the infrastructure.

Mr Marriott: Well, the infrastructure is designed not to corrode. We use materials that are not going to contaminate the water through corrosion.

Mr WENDT: That is fibreglass pipes and (inaudible).

Mr Marriott: Yes.

Mr Pincock: Madam Chair, can I make one comment on the plant monitoring? The plant is designed to produce water in accordance with the Australian water guidelines. We have a laboratory on site, and as part of the process everything is sampled, everything is monitored, everything is recorded and everything is available. If we go outside of the guidelines, we cannot send water up the line.

Mr WENDT: Because you have a laboratory on site.

Mr Pincock: Yes, we have a laboratory on site.

Mr WEIGHTMAN: That probably answers my question.

Mr Pincock: And it is online monitoring so they have instantaneous monitoring. It is not a matter of somebody taking a sample and doing a little—it is all state-of-the-art, online monitoring and it is instant.

Mr WENDT: It is computerised?

Mr Pincock: Oh, yes.

Mr WEIGHTMAN: 24/7.

Mr Pincock: With this modern technology it is all there, the plant will not be allowed to send water out that is not within the guidelines.

Mr LINGARD: So how do you set your targets for the reliability and availability at the plant? What do you base your targets on?

Mr Pincock: I am not quite sure what you mean by 'targets'. The plant is designed for a certain output. It is an average of 125 megalitres a day of water within the targets set by the national standards. We do not set them; they are given to us by the authorities. The plant is designed to produce water in accordance with that. The target is already set for us. In order to make sure that the plant has the durability, then we have a durability plan where, for instance, we know that the tunnels have to last 100 years. So they are designed to last a hundred years. Water-retaining structures are designed to last 50 years. They are all in the specifications that are given to us. So that is a target, in effect, and we design and build the plant with materials that are able to give us that durability. Does that answer your question?

Mr LINGARD: Yes. What are the isolation techniques in place to mitigate potential problems at the plant?

Mr Pincock: We have a valve on the main line going out that we can close so that we can isolate the plant from the grid if there is an issue with the water.

Mr WENDT: So it is done manually or automatically?

Mr Pincock: No, the plant will only have 20 people operating it for 24 hours of the day. Everything is automated. We have to have some human involvement, but it is very minimal. The technology of today in operating plants is the same in power stations. They are very sophisticated, very robust, very reliable and that is how we monitor the plant. If there is any issue with the plant then it can be closed down and we do not send any water out. That information and that monitoring is done before it can get out. We monitor it all the way through the process. We can pick up issues as we go along, from the very beginning where we bring the water out right the way through to when we put water into our holding tanks. We have holding tanks there. So we just stop the pumps and leave the water there if we have an issue.

Mr HOPPER: Have there been any major mistakes or any mishaps in the construction at all?

Mr Pincock: That is an interesting question. In all construction there are some mistakes made, but we build the plant in accordance with ISO9001. We have a quality system in place where, if there is a mistake made, it is recorded and it is rectified. The rectification is recorded, and the plant is repaired if it needs to be repaired or during construction to the original specification that we need to have. It is a very well tried, robust system and the alliance is using systems from John Holland that have been in place for many, many years. So there is a very, very robust system to make sure that the end result is in accordance with the specifications.

Mr HOPPER: Have any of those mistakes caused any major blow-outs?

Mr Pincock: There is always a certain amount of risk and risk allowance but nothing that has caused a major blow-out.

Mr COPELAND: With the change in the design at the beginning of the project—given that it changed significantly from what the Gold Coast City Council was proposing to what has finally been built—how far along the project time line did that happen? And how did that affect the time lines of the delivery of the entire project?

Mr Pincock: I suppose I can answer that. When the decision was made to increase the size of the plant, we were asked to complete the plant within the same time frame as the original one. And of course that presented us with a number of issues. However, we looked at it, we reviewed it and we came up with a strategy that we would do some early works. That is exactly what we did. We did some early works. We had to remediate the site because it was built on an old landfill, and we requested some early funding which we received and we were able to do that work up-front.

That gave us the start that we needed and a good foundation in order to complete the program within the original time frame. We were able to order the tunnel-boring machines, we did the remediation of the site and we ordered some other plant and equipment—long lead items that we identified we needed to get going and order. That is the strategy that we used and it worked, and we are still on track.

Mr COPELAND: I want to return to Mr Lingard's question about the pilot plant. The information that we have been provided with is that for any desalination project you should have a pilot plant study of six to 12 months before construction. Did that occur for this project?

Mr Pincock: Yes, it did.

Mr COPELAND: It did. So that was done by the Gold Coast City Council prior to—

Mr Pincock: That's right. The pilot plant was at Kropp Park here on the Gold Coast and it was in operation for quite a while.

Mr COPELAND: How long?

Mr Pincock: I must admit it was a little bit before I came—

An unidentified speaker: Six months.

Mr COPELAND: Around six months?

Mr Pincock: It was even a little bit longer. Even after we did not need it full-time, we have still been doing some grab samples and samplings. In fact, we have gone one step further now. We have brought in another pilot plant on site which will help us do some early monitoring so that we can also adjust the process as we go along. That is something that we have done as a strategy probably in the last three months. The plant is actually on site. We did walk past it today. I did not point it out but it is there. It is just about ready and up and running to go. As soon as we get sea water on the inlet then we will start sampling. That will enable us to tune our process so that we can still get water out in the time frame we wanted to. One of the issues that you have in any process plant is getting parameters right and getting the process right. This will help us to do that enormously.

Mr WENDT: Thank you very much for being here this morning. The site tour was very informative, and I am very impressed with what I have seen out there. As you would appreciate, we have been provided with a lot of information over the last few weeks to try to get our heads around this whole process. I note in a report we were given—I think in a 2006 report by GHD Fichtner which was prepared for the department of natural resources—it estimated that the capital costs for a plant of 110 megalitres a day could be around $196 million. This is a 2006 report. I have noticed that we have a Department of Infrastructure and Planning submission—the one provided by you guys—which suggests that the cost of the facility and marine works would total $942 million. I recognise that the GHD estimate did not include some costs—I think in relation to marine works and probably a lot of other things—but the difference is around $750 million. Can you give me an understanding of where that difference is? It is a significant difference there.

Mr Marriott: I would attempt to answer the question, but I do not think I can. I am not aware of the parameters on which the GHD cost report was based.

Mr WENDT: Does anybody know?

Mr Marriott: I can only comment on some of the cost studies we did when we took over the project. We determined very quickly that to do cost comparisons, if they are going to be of value, you have to compare apples with apples.

Mr WENDT: Certainly.

Mr Marriott: I have been exposed to a lot of cost comparisons—they get published monthly through the International Desalination Association—and it is very difficult to do an apples with apples comparison, because a lot of the costs are site specific. In terms of benchmarking—I think I mentioned this to a few of the members when we were going around the site—we tried to do a benchmark study with the Perth plan when we first took over this plan, and I think I mentioned that in our submission. But again we ran into difficulties in determining exactly what their actual costs were. We were trying to compare actual costs which were public compared with target and budget costs which were not yet defined and making sure that the scope of each of those work packages was the same and then making sure that we equalised them back to current dollars as opposed to historic dollars.

We went through as rigorous a process as we could, bearing in mind there are also differences in scope of individual components and differences in the scope of the plan itself. For example, we had extensive site remediation. We have a network component and we also have quite expensive tunnelling which are not in the Perth plan. But we did our best and at that point in time—and I referred to it in my submission—we got to a situation where we thought the cost comparison was within the estimates of error of probability of the data that we were using.

Mr WENDT: I suppose I would like someone to take that on notice if we can, and we will provide you with details of that question after this. Obviously I appreciate that the original GHD quote or submission might have been saying, 'Only just this little bit here.' When you add on the nuts and bolts of other things, I can understand why it escalates. But I would like some type of analysis if we can, and we will provide those details to you later. On the same issue, I note that the SureSmartWater submission, which I have here in front of me, at page 2 states that there will be significant savings over the initial works target out-turn cost—an estimate of $1.12 billion. That is the second dot point down on page 2. With regard to the $1.12 billion, that is the CBRC figure that we were provided with as an estimate for the building. Now we are talking about savings, so what are the expected savings? Do we have any idea what they might be?

Mr Marriott: The target out-turn costs are the target out-turn costs. The actual out-turn costs are obviously the costs that are actually expended during building of the project. I am happy to provide the committee with that within about two to three weeks, because we are just going through our final risk analysis as we speak and then we will be much more confident in going public on what we think the expected savings are going to be. But we certainly expect them to be substantial.

Mr WENDT: So you do not want to comment on how they might be made? Is it because we have better engineering designs or the ground was not as hard?

Mr Marriott: There has been some innovation, but it has been largely through the fact that some of the risk events have not materialised. We have been very lucky on this project.

Mr WENDT: How might those savings then be allocated between the parties of the alliance?

Mr Marriott: Under the project alliance agreement, they are allocated on a fifty-fifty basis under the pain-share/gain-share regime.

Mr WENDT: Thanks.

CHAIR: I just want to talk about the environment around the site and construction noise and so forth, especially because we could see houses from the site. I am just wondering what sorts of things you have done to minimise noise for residents and other environmental things that you have done to assist residents living near the area.

Mr Pincock: Initially we put together quite a strong community relations group. We realised that we were in a built-up area and that we needed to ensure that we minimised the impact of construction on the local community. In terms of a number of the early initiatives that we had, for instance the road that you came in on we took the traffic off Boyd Street and put a new junction in onto the highway so we could take all of the construction traffic straight off the highway and into the site rather than going through Boyd Street and past the Rugby club. When we did the early works for the tunnelling we did put up what we call screen walls or noise barriers, because we have the John Flynn Private Hospital also. So for the tunnelling areas we put up containers which gave us a noise barrier wall to do that.

In the initial days we were not working night shift. You are always going to get some construction noise. We would have numerous discussions with the community. We actually had a community reference group that met in this very hall on a monthly basis and that would bring up any issues that the community had and we would deal with them through that forum, as well as with our community relations group. We also had a complaints line. for instance. If any complaints came in, then we would deal with them through that forum. That has gone on throughout the project.

Because we are doing the pipeline at the moment, we are even more involved with the community in that we are doing letterbox drops. Where we are inconveniencing people to a point, then we will relocate them out of their homes for that one or two days et cetera. So we do have an extensive community relations group, and I think that has been one of the big pluses for the project. In fact, one of the awards we got was from the Public Relations Institute of Australia where we were highly commended for community consultation, especially during the feasibility phase. So we have taken that seriously.

Of course you can never please everybody out there, but we will listen to everybody. Certainly we have left no stone unturned as far as I am concerned with our group. We have certainly gone out there and been with the community. The communication has been excellent from when the barges came down. We have done thousands and thousands of letterbox drops and we have a community letter that we send out. So we certainly have done quite a lot out there to help and try to get the community understanding.

CHAIR: Okay. You pointed out Irene Street and showed us some of the work you have done there, and that was in relation to laying the pipe for the water grid. Were any other routes looked at for that or was that the only one and what was the reason?

Mr Pincock: No, I have some information here and I might go through it with respect to Irene Street in terms of some of these dot points, and please stop me if you think I am going into too much detail. Before selecting the route, several others were assessed including the M1 alignment and the route through John Flynn Private Hospital, and this was all done in conjunction with the Gold Coast City Council as well. Before selecting the route, a community consultation exercise was carried out and three community meetings were held with residents and we had a letterbox drop of over 350 houses. There were a range of views expressed in the meetings and a number of alternative routes were subsequently assessed by GCDA before selecting the Irene Street road reserve, and I must emphasise that it was a reserve for a road initially.

We had other meetings where people could see that the alignment at least had a long-term impact on the community and several meetings were held with councils and council officers for subsequent consultation where there were individual issues. An application was made to the council for the Irene Street alignment, and this was following quite a lengthy look at what the alternatives were. At the end of the day, the best alternative was through Irene Street. It was not taken lightly. We did look at the routes through the quarry—and I am just trying to find the comment that we have here with respect to the quarry—but there was also some other work that I think the council was going to do with the quarry which did not really suit putting the pipeline through there anyway. There are also quite significant reinstatement works there. Unfortunately we did have to move some trees which we did have the approvals for, but the reinstatement we have done will certainly go some way to returning that area back to a nice area. We will be doing a lot of landscaping there and we will be replanting trees there.

CHAIR: You said something about the Gold Coast wanting to do other stuff with the quarry.

Mr Pincock: I am not 100 per cent sure.

CHAIR: But you are not quite sure what the reason was there.

Ms Booth: I could answer a bit on that. My understanding is that initially when the quarry was investigated there is quite a significant stand of remnant vegetation in the quarry that is a bit thicker than what is in the road reserve along Irene Street, so that would have had to have been disrupted to go through there. As I understand it, it emerged that council was doing some works in the quarry area as well.

CHAIR: Thank you.

Mr WEIGHTMAN: Just going back to the noise issue, one of your neighbours is obviously the airport and you have houses on the other side. The airport has a curfew between 11 and six. What hours will the desalination plant work?

Mr Pincock: The construction operation?

Mr WEIGHTMAN: No, the operation.

Mr Pincock: The operation will be 24 hours a day, seven days a week. However, the plant is designed to minimise any noise whatsoever, so there is acoustic baffling or acoustic insulation throughout the plant. We have done all of the background noise monitoring and then we have guidelines also. We have specification that we are not to exceed certain noise. So during the commissioning of the plant, if any of that exceeds our standards then of course we will have to make sure that we rectify that and we do not exceed those noise standards.

Mr WEIGHTMAN: What type of impact will that have on the people living close by?

Mr Pincock: They will not have any impact.

Mr WEIGHTMAN: No, nil, negative, none?

Mr Pincock: The whole plant is designed where the noise levels will be down to the point where if you walk into the plant, yes, you will hear them but when you walk outside of the plant and you are in the streets you would not hear what was happening there.

Mr WEIGHTMAN: You just made a few comments in terms of noise mitigation. Can you elaborate on that with regard to what you are doing to mitigate the noise?

Mr Pincock: Noise comes from the pumps and the plant, and we selected those with the least noise that comes from them. One area where we have particularly noisy plant is all enclosed and there is acoustic insulation in there.

Mr WENDT: Is that the high-pressure pumps?

Mr Pincock: The high-pressure pumps, yes; that has all been enclosed. With regard to the other pump room that we have, in fact the pumps themselves are enclosed. They have noise barriers around them—panels—and certainly the pumps that we will be having outside, which are the raw seawater pumps, have been designed for minimum noise and they will be checked and there will be acoustic baffling if necessary if we exceed those noise levels. A lot of studies have been gone through to ensure that we do have the right plant selection and the right noise baffling and acoustic insulation for the plant.

Mr WEIGHTMAN: And that goes for the emergency backup systems as well?

Mr Pincock: When you say the emergency backup system, we have an emergency generator if we lose power. That is quite small and that is fully enclosed. You would not even hear that if you were standing next to it because it is completely enclosed. That is really the only emergency bit of plant that we operate.

Mr HOPPER: With regard to the power issue, you said before that you would be using 24 megs a day or 25 megs a day. Are any major upgrades taking place to provide power? Is that having a big effect on the area?

Mr Pincock: One of the reasons why Tugun was chosen was that we did not have to upgrade the power supply coming into the plant. It was already there.

Mr LINGARD: A desalination plant must have a lot of waste products and cleaning materials. What sort of management plan has been put in place for the removal of that waste?

Mr Pincock: I pointed it out to the group that was with me, but one of the main waste products is when you backwash your filter system, because the filters do take out all of the contaminants, for want of a better word, or rubbish. I am sure some of you have your own swimming pools and you know that when you backwash your swimming pool you get this brown crud coming out. We do not send that back out to sea. We treat that on site. We dewater it and it forms a cake and then that cake, or that residual as we call it, is sent to landfill.

Mr COPELAND: Where will it be going to landfill?

Mr Pincock: I am not 100 per cent sure. We need to negotiate that particular contract. It will be with an environmental waste disposal company, and that contract we are currently negotiating at the moment. So it will be to one of the accredited landfills that were built. It is not a terrific amount at the end of the day for the water we are processing. So that is the main waste product that comes out.

Mr LINGARD: There must be some sorts of chemicals in the waste as well. Are there chemicals in the waste that will have to be disposed of?

Mr Pincock: Any chemicals that we put in to assist the filtration are in that cake and do not go out to sea. The only thing that will return out to sea is the salty water return. That is all we do—nothing else. Some other plants do it, but here we do not. Everything is captured. The only other chemicals we put in are to correct the alkalinity of the pH like in any water treatment plant. It is making the water in accordance with the guidelines.

Mr LINGARD: Is there any waste sludge at all that has to be removed?

Mr Pincock: The only waste sludge is what I spoke to you about with the backwash of the filters. There is no other waste.

Mr WEIGHTMAN: Is there any toxicity in the—

Mr Pincock: None whatsoever.

Mr Marriott: It is fake chlorine and polymers which we use for the flocculation process. That is the only chemicals that are in there. The main chemical in there is salt from the sea, so it is residual salt within that cake.

Mr WEIGHTMAN: So by and large it is organic?

Mr Marriott: Yes.

Ms Booth: There were some previous investigations to try to re-use some of that product in industries such as horticulture. We could provide a submission to the committee on how that has progressed.

Mr HOPPER: It says here that there has been a study undertaken to provide for the production of an additional 47 megalitres of water a day. Can you expand on that?

Mr Marriott: This was during the October-November period 2007. I will outline what happened since the start of this project. The government advertised in the papers for emergency drought relief measures. A series of studies and a series of proposals were put forward by various companies, including bringing water from northern Queensland, tanking in water from New Zealand, building importable desalination plants on the river and those sorts of things.

As part of that process we were asked to look at the feasibility of expanding this plant. We carried out feasibility and came to the conclusion that there was about another 40 megalitres a day within the design of the intake and outlet tunnels. So we did not have to do any additional civil works or major tunnelling. We had to do some additional site remediation to make room for the additional reverse osmosis. We could maximise the use of existing facilities on this site. We came to the conclusion that it was feasible within the constraints of the intake and outlet and within the constraints of the network to add another 47 megalitres a day approximately.

We finished the initial feasibility study. During that period there was quite heavy rainfall. I understand the government decided that a lot of those emergency drought relief measures therefore did not need to proceed within that time scale. So we were asked to put the feasibility study on hold and not do any further work.

Mr COPELAND: I understand that a value for money assessment was completed by the Gold Coast City Council and the Queensland government prior to novation of the project alliance agreement to SureSmartWater. Can the committee get a copy of that report, if it is available?

Mr Gould: Is that a reference to the review? So that is the review of target out-turn costs?

Mr COPELAND: Yes, that is correct.

Ms Booth: We would have to seek some advice on giving you the report and get back to the committee.

Mr COPELAND: In the SureSmartWater submission on page 30 it said that a value for money assessment was completed by Gold Coast City Council and the Queensland government prior to the novation. We were just wondering whether we could get a copy of that?

Mr Marriott: Project support—

Mr COPELAND: Yes.

Mr Marriott: Yes, we can get a copy of that for you.

Mr WEIGHTMAN: I have a question in relation to renewable energy. We just had a very brief discussion about it over at the plant. The Queensland government is actually looking at either a single or blended renewable energy source to make this project and future projects 100 per cent carbon neutral. I know that SSW has put in an expression of interest for renewable energy and carbon offset options for the desalination plant. What has been the response to that expression of interest?

Mr Marriott: There has not been any response yet because the responses are due in on 1 September, which is Monday. We have had a number of telephone inquiries. I have a fair idea of the companies I think will respond, but I have not yet had any formal submissions. I expected them to be coming in today but it is a public holiday on the Gold Coast. They will not be delivered today. I expect the responses in on Monday.

Mr WEIGHTMAN: If possible can you give us some information in relation to the potential subsidy funding from the Commonwealth government's National Urban Water and Desalination Plan?

Mr Gould: The announcement was made earlier in the year that the government would look to source renewable energy or relevant offset products in relation to the energy consumption by the desalination plant. We are in the process of providing information to the relevant Commonwealth department. There are conditions associated with the provision of funding support from the Commonwealth under the National Urban Water and Desalination Plan. One of those relates to having a zero carbon footprint or fully offsetting the carbon emissions associated with the project.

We have been in discussions with the relevant Commonwealth department to get a full understanding of exactly which type of renewable energy products and offsets and such would be considered and accredited for that scheme. So we certainly have been in dialogue with the Commonwealth department informed by a couple of things. On full advice from the Commonwealth department on the accreditation of the relevant renewable energy and offset products and informed by the procurement process that SureSmartWater is undertaking we will be in a position to provide them with more definitive advice on that. The government has flagged that it will be applying to the Commonwealth for funding support under that scheme which we understand, based on our advice from the Commonwealth government and announced by the Commonwealth government, for a project of the size of desalination could be up to $100 million.

Ms Booth: I will give a bit more information on that. The Commonwealth is still developing their criteria or guidelines to access the subsidy funding as well. There may be an indication as to what those guidelines are in the next month or two. They will be looking for submissions from proponents to access the subsidy funding next year.

Mr WEIGHTMAN: Excellent.

Mr COPELAND: In regard to emergency supply, I think you said that it was underground supply. How far and where does it come from? It is a fairly significant energy supply that is required. How is that delivered?

Mr Pincock: Through the existing Energex network.

Mr COPELAND: I do not know the area particularly well.

Mr Pincock: I am not familiar with the Energex network either. We have two cables coming in. I am told by Energex that we have what is called 'end line' as one reliability of power supply which means that we have two independent circuits coming into the plant. If one fails we still have power supply through the other. They come off the existing Energex network and I am not familiar with the Energex network. They come through common transmitters leading into our plant into our substation.

Mr COPELAND: You said there was no requirement for Energex to upgrade?

Mr Marriott: There is no specific requirement to upgrade this plant as far as quantity of energy is concerned. I believe Energex is upgrading the circuits to give increased reliability of energy to other areas of the southern Gold Coast but it is very much an Energex project.

Mr HOPPER: When we walked in we saw the screen saying 90-odd days to go. Are you happy that you are going to finish on time?

Mr Pincock: If I can just explain the 90-odd days to go. We have several of these countdown clocks around the site. The 93 days to go—I notice one clock was wrong this morning—is to first water. 30 November is the target date for us.

Mr Marriott: That is the date under the water regulation issued by the state government.

Mr Pincock: Yes, we are on target to produce first water, with 100 per cent water in the first quarter of next year.

Mr LINGARD: As members of the public we have seen water purification systems on golf courses and football fields and we have all seen mistakes occur. What mistakes have occurred around the world with these systems? What processes are in place to ensure that 'just-a-moments' problem does not occur? After all, you are putting this water back into the drinking water. What problems have occurred in the world over the history of desalination?

Mr Pincock: The companies that build these plants—for instance, Veolia Water—have done these plants throughout the world. Obviously, we are the next generation. They learn with this historical experience that they have had that we have built into this project. For instance, we have all of the fail-safe systems in the plant, as I mentioned before, to ensure that the only water that goes out from the plant is in accordance with the guidelines.

There are many water treatment plants in Australia and on the Gold Coast that are treating water from different areas—from the dams, for instance. There is still water treatment assessment that has to happen. They are covered by the same guidelines. It is not new technology. This is very well proven technology. We learn from all the mistakes—maybe 50 years ago—and we build that into our processes. The modern technology with control of all of these systems eliminates quite a lot of human error. The systems are being monitored.

You ask what strategy we have in place to ensure mistakes are not made. It is very similar to running a power station or an oil refinery or something like that. We have all of these processes in there and there are fail-safe systems. If something does not work the plant is designed to shut down so it does not cause any issues.

That is all built into the operational technology. The experience of the companies involved in that is used. With the international desalination organisation all learnings go in and it is given out as free information. It is all built into the plant so the risk of the plant failing and causing contamination of water is

absolutely minimal because the plant is designed—not just this one, but many plants in the world are designed—so that that does not happen and it shuts down and isolates the plant. That is why we have one big valve at the discharge end of the plant. It is an automatic system that closes everything down so that we do not get any major issues with shutting the plant down.

Mr WEIGHTMAN: You mentioned before that this is new generation technology. What capacity do you actually have to accommodate future technology leaps?

Mr Pincock: I suppose I should just clarify, when I say 'new generation' I mean the latest generation. It has all been tried and tested. Most things in the control plant are electronic and software. Software runs the program. It is like anything, if we have an update of that it is very easy; we just load the update into the computer.

Mr WEIGHTMAN: In terms of reverse osmosis and that type of technology, what capacity does it have to actually accommodate any movement in that?

Mr Pincock: At the end of day, if there is a new development with respect to membrane technology, if we can adapt it here then it can be done. That is a very difficult thing to answer because it depends what the new technology is. They might reduce the size of the membranes because they have been able to get a much more efficient one but they would not fit into our vessels. They may get a new material and if we do a membrane replacement then maybe we can put that new material in to make the process more efficient. We would have to make sure it was the right fit, it was the right size et cetera. We can do a certain amount, but it depends what it is.

Mr LINGARD: Do you have problems with back flow in times of flood? How do you cater for back flow in a very serious flood which might occur wherever you are storing the water?

Mr Pincock: We have two tanks and they are 15 megalitres each, which is about six hours worth of supply. The reason we have that is for any minor plant upsets or maintenance that we have to do. If there was a major thousand-year flood, the draining system on the site is designed to get rid of the water. We are in a far better situation because we have remediated the site and we have put in what we call engineered fill. That has very good drainage. We have had heavy rainfall on the site. We would not get that this year. We have a drainage system in place to take that water away. There would not be any contamination of our systems from any floodwater because we have designed systems to cope with that. If you had four or five cyclones at once, I am not quite sure how that would do. We have designed the plant in accordance with the historical data.

Mr Marriott: Any sort of floodwater cannot get into the potable water system. It is a sealed system. So, even if there was groundwater around the potable water tanks, those potable water tanks are sealed. There is no way we can get an ingress of water. They are sealed all the way up into the pipeline. The pipeline is sealed as well. If there was so much floodwater on site, it would be getting into the intake shaft, but that is prior to treatment, prior to it going through the process. There is no way any floodwater can get into the output side.

Mr WENDT: Can I just go back to the membrane technology that you were speaking about. I had the advantage of being in Singapore a couple of weeks ago looking at the Public Utilities Board and talking about their new water project. How often do you plan to change the membranes here? What life span do you give them?

Mr Pincock: There is a membrane management system, and I think the life of the membranes is probably about five years. There is a management program that would make sure that we can get the maximum life out of the membranes by moving them around, turning them around. Because they go into the vessels, we can turn them around and that will maximise the life of the membranes.

Mr WENDT: That is what they told me over there as well. In relation to the target out-turn costs that we spoke about before, on page 12 of the department of infrastructure's submission it talks about a TOC of $1.122 billion. I also understand that CBRC actually allocated $1.209 billion, which is about an $87 million difference. Can we get a breakdown of why that was the case?

Mr Pincock: I only know one figure.

Mr WENDT: I am an accountant unfortunately. That is where I come from.

Mr Marriott: Again, I am not familiar with the CBRC submission. But I thought they approved more than that because there are additional costs over and above direct costs associated with construction. There are funding costs and all those other costs.

Ms Booth: The $1.122 billion figure is the capital cost for the project. The $1.209 billion takes into account the total project cost. So that is the costs of the company. There are land costs in there as well and also some risk contingency for the government's purposes.

Mr WENDT: So is the total project funding still anticipated to be $1.209 billion? We did talk about potential savings before. I want to make sure that there are savings, that we are not going to go that far.

Ms Booth: Yes, that is right.

Mr Gould: And the savings which Mr Marriott was referring to previously are against the target out-turn cost, which SureSmartWater and the alliance would be working within.

Mr HOPPER: Just on that costing, when your plant is up and running, how much will it cost to produce a megalitre of water?

Mr Marriott: It depends. We have done some cost modelling. We did cost modelling way back to day one when we first took over the project, but again the output cost of the water very much depends on the input assumptions. One of those major input assumptions is your return on your capital and what interest breaks your ceiling and the second one is what you assume as far as energy is concerned. Energy costs are still a significant part of operating this plant.

Then, depending on whether you talk about initial costs or levelised costs over time, from the initial studies we did at the time, which are historic, the cost was about $2.20 a kilolitre, but we expect that now to go up somewhere around $3. But I would not want those costs to be considered absolute because we still have to do our final cost of production when we get all our final costs in. Again, the final capital costs on the delivered project, what the government wants to assume as far as a rate of return on that cost and also the final cost of the electricity are three very significant costs that are still not yet finalised.

Mr COPELAND: So have you got an updated estimate though?

Mr Marriott: The first thing I will do when I get those final costs is to do an updated estimate.

Mr COPELAND: But you have not done any work on that since the original estimate.

Mr Marriott: I am doing work on it all the time, yes.

Mr COPELAND: Have you got a figure now?

Mr Marriott: It is probably still within that same range.

Mr COPELAND: Still at that $2.20.

Mr Marriott: In the feasibility study—which again is available to the committee; the government has it—there is some updated modelling as well to compare this project with other sources of water.

Mr COPELAND: Do we have that information on the comparisons?

Mr Marriott: I can happily let the committee have that.

Mr COPELAND: If you could, that would be good.

Mr Marriott: That was the last serious modelling we did as part of the business case for the expansion.

CHAIR: I just want to talk about the submission from SureSmartWater. It discusses the project governance and the alliance. There has been some revision. In broad terms, can you tell us what changes and variations were made?

Mr Marriott: One of the first things we did when we inherited this project was to make sure that the state was going to get maximum value for money. I basically inherited a project, a company, that did not exist. There were a number of issues. One was that the processes were not in place to make sure the project was delivering properly. There were no resources at all—no project manager or resources or desalination expertise. So we set in place a company organisation. We put in place appropriate processes and we went out and got expertise. There is a whole raft of other measures associated with process, structure, governance, reporting, accountability structures and various ways we have amended the decision-making process.

Right across-the-board we have addressed every one of those concerns that were raised by the Queensland Audit Office and that were also raised through a review that we initiated as owner of the governance of the project. That was executed by SRD Consulting and DLA Phillips Fox. That came out with a whole raft of recommendations, even amending certain clauses within the contract to make sure that the accountabilities were more clearly defined and that proper accountability and reporting guidelines were in place. Basically they were across the whole board of how the project was being delivered and how it was being accounted for, managed and reported to government.

Mr COPELAND: Can we have a list of those recommendations? We obviously have the Audit Office recommendations. Are we able to get a list of recommendations from your own internal review?

Mr Marriott: I can give you a copy of the SRD Consulting and DLA Phillips Fox final report.

Mr COPELAND: Thanks.

Mr Marriott: There are two recommendations we have not implemented and we have not implemented them by choice, and they are related to how far we go on the alliancing best practice model as published by the Victorian government. A pure alliance is based on a collective assumption of risk by all parties. Within this alliance contract, the primary responsibility to deliver the project is with the alliance contractor. We have therefore chosen not to go with the recommended collective assumption of risk model but to stick with the allocated risk model that we inherited. So that is the only recommendation that we have not implemented, and we have not implemented it based on informed choice.

Mr COPELAND: What liabilities has the contractor assumed under that model?

Mr Marriott: He is liable for all deficiencies and errors. There are four basic things in the contract which I quote verbatim in the submission. But it is basically any error, omission or stuff-up as far as design or construction is concerned. He has a liability up to the extent of his fee.

Mr HOPPER: Are you happy with how the budget is going?

Mr Marriott: Yes, I am very happy with how the budget is currently going. I believe that the committee will be as well when I give them the figures in three weeks time. I think the government will be very happy with the actual out-turn costs as well. It has been an exceptional implementation program.

CHAIR: We have time for one more question.

Mr WEIGHTMAN: Just in terms of the impost on the local community, what has the organisation put back into the community over the life of the project?

Mr Pincock: If I can start with the local community. When we first started the project we had to take over some of the training grounds that the soccer club had, so we actually built the soccer club a new soccer field. We built the Rugby League club a new Rugby League field. In Betty Diamond Park we put in some additional equipment for the dog agility park. We put the new road in so we can take the traffic off Boyd Street. Some of our pipeline route had to go through or close by some playgrounds, and what we have had to do in some cases is take away those playgrounds, put the pipe work in and reinstate the playground, and we have put back a much better playground than was there before.

We have actually gone close to one of the schools. Because we were going to be a bit noisy we asked the school what we could do. The school said, 'We could do with some air conditioning.' So we put some air conditioning into the school. There is quite a lot that we have done. For me to rap them all off is a bit difficult. When our traffic was still coming down Boyd Street there was a bit of dust and so on that had gone into people's homes. So just before Christmas we got someone in to clean all of their windows and clean the outside of their houses.

Mr Marriott: We gave them free car wash vouchers as well.

Mr Pincock: Yes, that is right. We have been mindful of the impact on the community. Obviously there will be some instances where we have not pleased everybody, but mostly the community acceptance has been very, very good. We did do a survey some time ago. I think the survey showed 80 or 90 per cent—in fact, it may have been higher—acceptance of the project. We had to do a creek crossing, for instance, and we had to work around the clock. So we gave people the offer of going to a hotel for a couple of nights, and we have done that. We have contributed to quite a number of community organisations, including surf-lifesaving clubs. We sponsor a number of clubs as well. All of that is going on all of the time. So I think we have done a very good job in keeping in with the community.

Mr WENDT: I would not disagree with what you have just said. What I would suggest though is that you need to provide or produce a benefit statement. It would not be bad from your perspective to say, 'These are the things we have actually done.' So if there is any criticism, at least you as an organisation and we as a parliament can say, 'These are some of the advantages that have flowed from this particular project.' That is something I think would be useful from your perspective. Would you agree?

Mr WEIGHTMAN: Yes, absolutely.

Mr Pincock: And I am sure there are a number of things that I have not—

Mr WEIGHTMAN: I am sure there would be more.

Mr Pincock: There is such a lot of stuff that goes on. I will be honest with you: there is probably a lot of stuff that goes on that I do not know about either. Our community relations group have really done a terrific job on this project, going out there interfacing with the community, looking at what the issues are. We are doing it all of the time. I am sure that if our community manager would want to get up and shout high and low he would do that, but he is not here as a witness.

Ms Booth: There is also project support for local industry and the employment of local people. As John was saying earlier, I think there are over 700 people on site that are locals.

Mr Pincock: We have over 1,000 people on site all together—250 are staff. Over 70 per cent of the workforce has been drawn from the local area. As far as contracts let, we have let over 600 contracts for this project. I think well over 60 per cent are local contracts. Some of them are not small. We would not let a contract for the big pumps locally, but wherever we can get something local we have done that. We have supported local industry. I think there is a significant number of contracts that have been let to the local community.

Mr WENDT: They are the things that need to be documented. It is a suggestion anyway.

Mr WEIGHTMAN: I have one last environmental question in relation to your outflows and the monitoring of the environmental impacts. We have not mentioned that. I would like to get an understanding of that on the record.

Mr Pincock: We have continuous monitoring—I think you would have seen in that brief presentation this morning—of what is happening out at sea. We are monitoring a number of areas. We monitor what the marine life is doing. That is ongoing throughout the life of the plant.

Mr WEIGHTMAN: Do you have a marine biologist employed or referenced?

Mr Pincock: Yes. Many universities have looked at it. We have had contracts with marine biologists. The ongoing review of all of that is part of our brief. We have to do that.

Mr WEIGHTMAN: You are talking about the dispersal system. Is that new technology?

Mr Pincock: I think it is fairly standard technology. We have modelled that. A number of universities have modelled that for us. We have the optimum result there.

Mr WEIGHTMAN: Are there any set standards that you have to work by?

Mr Pincock: When we are doing the studies there will be standards. But what we need to do is ensure that the return water is mixed in with the environment in as small a space as possible, and we have done that. That has all been approved by the EPA. There are not any issues there at all. We do have the approvals to operate. Of course we have to answer to the EPA regularly. There will be regular checks and inspections, and that will be ongoing.

Mr WEIGHTMAN: Excellent.

CHAIR: I have a feeling that we will be sending you a few more questions. There is a lot to this. I think even today we would have more to think about and talk about as a committee. So we might be giving you some more questions to answer at a later date and also there are those questions that you have taken on notice. Thank you for coming along today. I believe that the committee definitely has gathered some valuable information that will assist in its inquiry. I would like to formally place on record the committee's appreciation for the assistance of all those involved in the inquiry and what you have provided to us.

Mr WENDT: I move—

That, pursuant to section 50(2)(a) of the Parliament of Queensland Act, the committee authorise for publication the evidence given here before it this day.

Committee adjourned at 12.45 pm