

TRANSCRIPT

ENVIRONMENT, NATURAL RESOURCES AND REGIONAL DEVELOPMENT COMMITTEE

Inquiry into the CFA training college at Fiskville

Melbourne — 19 November 2015

Members

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Witnesses

Mr Paul O'Donohue, managing director, and

Mr Geoff Cramer, manager, laboratory services, Central Highlands Water.

The CHAIR — We now welcome Mr Paul O’Donohue, managing director of Central Highlands Water, and also Mr Geoff Cramer, manager of the Central Highlands Water laboratory services. Thank you both for coming in to give evidence today. We will just go through the formalities before we hand it over to you to provide your presentation, and then of course after that we will have lots of questions for you.

Mr O’DONOHUE — Sure.

The CHAIR — I will just go through the preliminary formalities. As outlined in the guide provided to you by the secretariat, all evidence at this hearing is taken by the committee under the provisions of the Parliamentary Committees Act 2003 and other relevant legislation and attracts parliamentary privilege. Any comments you make outside the hearing will not be afforded that privilege. It is an act of contempt of Parliament to provide false or misleading evidence to the inquiry, and if there is any follow-up or anything that you are unable to provide today, we may ask, if you do not mind, to either come back or provide that in writing.

Mr O’DONOHUE — Yes.

The CHAIR — Also there will be a transcript. You will be provided with a proof of the transcript to have a look for accuracy before it is actually published. So I will now hand it over to you, and thank you again for coming in today.

Mr O’DONOHUE — Thank you, Chair, and thanks for the opportunity to speak on behalf of Central Highlands Water. As you said, I am Paul O’Donohue, the managing director, and I have Geoff Cramer with me, who is manager of our NATA accredited laboratory. We put a briefing note to the hearing last week, and I am assuming that that has been circulated and people have seen that.

The CHAIR — Just on that, we have received it. We have not actually had the full time to look at it. It was given to us today because of the processes. But of course we have it and we can refer to it; and if you want to refer to it, we can look at it.

Mr O’DONOHUE — Sure. That was really our attempt to give you an overview of the structure of our organisation and the touchpoints that we have had with the Fiskville site over many years as being the supplying water authority to that location. There are four or five things I would just like to say. We wanted to give you an overview of the reticulation water supply system that supplies the Fiskville area, what our testing regime is and our physical controls that we have in place on that site or adjacent to the site to ensure ongoing water quality not just to the site itself but also into the reticulation system, which is the rest of that location; what physical controls are in place to limit the risk to supply both to the site and also, as I said earlier, to surrounding residents and other industries down there; the laboratory testing that we have done for the CFA and their consultants such as Cardno over a number of years; and how we have responded to the event as it unwound in the period from 2 to 11 March of this year. That is really an overview and an introduction. As I said, we have a number of pages here. I am happy to go through that at a high level if you like, Chair, or however you want me to respond to that.

The CHAIR — You can leave it for us to ask you questions if you prefer it that way, or if there is anything that you have in this document, bearing in mind that we have not had a chance to go through it, or if there are particular points perhaps you might want to draw out before you answer questions.

Mr O’DONOHUE — Yes. I think that is probably the way to go, so I am happy to do that for 5 minutes or so if that suits.

The CHAIR — Sure.

Mr O’DONOHUE — At the front end, we supply town water or reticulated potable water supply to that site, and we have for a number of years. Central Highlands Water took over the old Ballan Water Authority in 1994, so we have been the responsible authority that supplied water to that site since that date. We have a connection basically in the adjoining roadway that goes onto the site, and that supply is from our Lal Lal Reservoir, which is approximately 15 kilometres away. All of the water we supply into any of our town reticulated systems under potable water supply meets the Australian drinking water standards and guidelines, and obviously we manage and monitor that as we move forward.

In the context of that site we have four test points out on what I will colloquially call the road reserve and the roadway, both on the upper side and the lower side of the Fiskville site, and under a normal testing regime we

would test water quality at either of those four sites randomly once a week. We have strong historical data that will show how the water quality has behaved in that location over a long period of time. If there was an issue, it would have been highlighted much earlier or at another time in how we manage and run our water supply. We have never had an issue of water supply to the site. As I said, we have weekly testing, and if that threw up anything that looked like it was abnormal or different, we would go out and do another test straightaway. Generally that is how that has been operated.

The other important part of that is that we have what we call a — and I will get the terminology right here — a backflow prevention system on that site. We have supplied some information in the briefing note, which is diagram 1A, around what that looks like. It is effectively a prevention device that is used to protect potable water supplies from contamination or pollution if there was a backflow issue off the site back into our reticulation system. That was put in a number of years ago. It is not exceptional that it was put in at the CFA site. We have a number of these in a lot of industries and locations across our 15 supply systems. It is really more about managing the risk and/or the potential risk that might exist at some time in the future if that was the case. It is a pretty sophisticated piece of equipment that, as I said, stops any potential backflow coming off a site or a location back into our reticulation system. That is another thing that we have at that location to manage any potential issues if there were any.

If I can move just to the events around 2 to 11 March, when this became more of a public issue, and it was raised, obviously, through a variety of means. We were brought into that fairly early in that process. What I have listed there are the seven or eight things that we did over the next nine days to manage whatever potential risk we saw that might be coming at us.

The CHAIR — That was 2 to 11 of March this year?

Mr O'DONOHUE — This year, yes, 2015. That was around ascertaining whether there was any contamination that had occurred in any of our assets that might have then created any issue onto the CFA site, and if so, what was the potential cause of that contamination. It was ascertaining whether the contamination would affect CHW's supply of water to other customers, which was obviously important as well, confirming that our water quality being supplied to the Fiskville site was historically and continued to meet the *Australian Drinking Water Guidelines*. This included additional testing for PFOS and PFOA, which we did; and cooperating with other stakeholders, such as the EPA and the Department of Health and Human Services, to assist them in any work that they required to support ongoing information regarding our assets and our supply. We provided regular updates to the department that we report to, which is DELWP, the Department of Environment, Land, Water and Planning. We participated in a whole range of phone hooks and link-ups and meetings as requested by a variety of regulators, and we did additional water quality testing at that site over the next 10 days. Just to confirm that there were no issues coming off the site, we did daily water quality testing for those nine days just to make sure that there was nothing coming back into the town reticulation system.

That is what we did at that stage, and we have obviously been prepared to provide any other information that is or was needed through the appropriate channels. What I might do is quickly hand over to Geoff Cramer as our manager of our NATA-accredited laboratory so he can give you an overview of the sorts of interactions we have had with the CFA site from a testing perspective over a period of time.

Mr CRAMER — The laboratory at Central Highlands Water operates as a business unit. Some of the work that we do we bring in from outside. It basically supplements the income and the operation of the lab. Currently that is around about 20 per cent of our workload, and one of those clients has been the CFA at Fiskville. Our arrangement with them started in about 1997, and the arrangement at that time was to monitor their waste from the site relative to the firefighting PAD. It concentrated specifically on environmental parameters. Once again they are listed in the brief — things like biochemical oxygen demands; E. coli; oil and grease; pH; various nutrients, being phosphorus and other forms of nitrogen; suspended solids; and at a later date — my best idea is about 2011 — we started to monitor for *Pseudomonas aeruginosa*, which is an opportunistic pathogen.

That arrangement continued right up until earlier this year, but it did change back in 2012. We were requested to come and take the samples to give them some independence, but at that same time the sampling sites changed from the dams to the taps on the PAD — the red tap and the beige tap, as they were described. For that period, from 2012 on, my sampling staff were taking the samples. Every now and then CFA staff at the site may bring in an additional sample, and a couple of those were for the PFOA and PFOS, which we do not do in our laboratory, so that gets sent off to Australian Laboratory Services — ultimately Sydney I think it went to —

which was handy for us to have that arrangement prior to the water quality incident. We were then able to get samples done within a very short period of time, which I think was only a matter of days compared to some of the other samplers around the state trying to get the work done.

Mr O'DONOHUE — I suppose the important point to make there is that we were not providing any consulting or advisory services; we were just providing the sample results in an accredited format. As Geoff said, we are a NATA-accredited laboratory, which means we meet a whole range of Australian and worldwide standards to be able to take those samples, test them and give a result on those, but at no time were we ever in the situation where we were providing consulting services or advisory services to the CFA or any of their consultants. I think that is an important point of differentiation, where we were not in the position where we were providing advice on any of those outputs.

The CHAIR — Thanks for that clarification. To recap in my mind, the central water authority was testing the general drinking water that was going on to the Fiskville site?

Mr O'DONOHUE — Yes.

The CHAIR — It was on the nature strip or whatever, those four spots?

Mr O'DONOHUE — Yes.

The CHAIR — Then any other testing was the CFA as a customer going to the laboratory to have that water testing within the site?

Mr O'DONOHUE — Yes, that is correct.

The CHAIR — So all testing within the site was CFA testing that you were doing as a commercial operation?

Mr O'DONOHUE — That is correct. Yes. True. I think you have picked up an important point. There are two separate components to this, and hopefully we have explained that satisfactorily in the discussion document. If you need any further information on that, we are more than happy to provide that.

The CHAIR — Our questions will probably be along the lines predominantly around the commercial operation that was doing the testing for the CFA and in terms of Central Water more around the downstream or some of the other waterways off the site where testing was done, and what was going on there. I guess that is our two lines of questioning. Any anything else of course any committee member wants to talk about.

Mr O'DONOHUE — Absolutely. I think that is probably satisfactory as an overview, Chair. We are happy to take questions or comments as part of the hearing.

The CHAIR — Maybe just to start off with, Mr Cramer, about the laboratory services. Looking at the records we have, we are looking at the area 18 July 2000 to 25 June 2012 — the testing that was done there. How often was the CFA providing samples? Did they provide you with the samples or did somebody from the laboratory come out and determine where those samples would be collected and collect them?

Mr CRAMER — Up until 2012 CFA staff took the samples and delivered them to us. We would tell them what type of bottles to use and how to collect the samples. After 2012 it was CHW laboratory staff that took the samples from the designated site.

The CHAIR — Was there any reason for the change? What was the reasoning for the change?

Mr CRAMER — I do not know. My understanding was that they wanted it to be a little bit more independent, at arms length.

The CHAIR — Okay, so when the laboratory staff started collecting the samples, did they determine where they would collect them from, or was it the CFA still indicating where they would like the collections to be made?

Mr CRAMER — CFA staff indicated the sample site, and I guess there is one other difference there in the sense that the laboratory expanded our number of samplers from one dedicated sampler to three. Prior to that we

would not have been able to offer that service, because it is a professional service that we offer as part of our laboratory services.

The CHAIR — Sorry, so that is that you are actually going onto the site and collecting them.

Mr CRAMER — Going on the site and taking a sample.

The CHAIR — That was relatively new.

Mr CRAMER — Yes, because we do hold NATA accreditation for sampling services as well.

The CHAIR — In terms of what chemicals would be tested for, again who would make that decision?

Mr CRAMER — That decision was made by CFA and a lot of those parameters were the ones that were set in 1997 as part of an EPA licence.

The CHAIR — Okay, and then the *Pseudomonas aeruginosa* — can we just call that PA?

Mr CRAMER — We will just call it pseudomonas for the purpose of the exercise.

The CHAIR — Okay, pseudomonas, that sounds good. You were saying that the pseudomonas was tested for relatively late, I think in 2012.

Mr CRAMER — I think I said 2011 or thereabouts. A little bit ad hoc prior to that. I assume that would relate to how they may have wanted to use the water, because if we do swimming pools, we do pseudomonas in swimming pools. That is the type of organism it is.

The CHAIR — Were you aware of what the water that you were taking samples of or testing was being used for?

Mr CRAMER — No, we were not aware at that time.

The CHAIR — As we understand the evidence that we have heard, the recycled water was used for fighting fires. In terms of human contact, it would mean that it could be breathed in, might have fallen on the skin, be ingested, and also there was some evidence provided that people were swimming in the dams at least up until a couple of years ago. Also, there were people who would be eating fish or yabbies or whatever as well from the dam. That was way back.

Mr CRAMER — I do not know about all of that. The only thing I can say is that when we took over the sampling, we went on site to check that the site was safe for our samplers to go to and that they had a suitable sample point there. That is when it was obvious to us that the water was being re-used on what they called the PAD to put out fires and spray it around.

The CHAIR — If you had to go and check that it would be safe for your samplers to go, understanding the water that was there, what were the requirements or safety precautions that were undertaken to ensure that the people doing the samples were safe?

Mr CRAMER — Our understanding of the way the site operated was they would have a training program organised, and they would fill large tanks adjacent to the PAD. We would go and take the samples. We could not take samples if there was training going on at the time, so all of our sampling was taken prior to the operation for any training purposes.

The CHAIR — Were the samples taken out of the tanks rather than directly from the dam?

Mr CRAMER — They were taken from two pipes — one called the red pipe and one called the beige pipe.

The CHAIR — Do you know the difference between the two?

Mr CRAMER — No, I do not.

The CHAIR — In terms of the actual results of the testing, was there anything that stood out to you in terms of the quality of the water?

Mr CRAMER — Not specifically for water that would come off probably a fire site with oils burning and the like. We did see the dams when we were there to take the samples. I do not know about anybody swimming in the dams, but I certainly would not recommend it. Ultimately, I guess if we are looking for the period up to 2015?

The CHAIR — Yes.

Mr CRAMER — The water was changed over and was mains water. We were just verifying that it was, and looking at the data you could see the significant change in the water quality. Can I just ask whether you have that information?

The CHAIR — Which information?

Mr CRAMER — The water quality monitoring data.

The CHAIR — We actually have all of it, but we have identified some particular examples of the standard and recommended amounts versus what was in the water.

Mr CRAMER — Okay. It is just that I was aware that we received an FOI from the CFA. It was all their data, but we provided all that, so the data is there.

The CHAIR — Yes, thank you. We have received all the data. As far as we know it is all of it.

Mr CRAMER — Because you will see the points that I am pointing out there of the significant change in the quality.

The CHAIR — We might come back to that in terms of the actual data that is there. One other question is: we have heard a lot from Cardno Lane Piper, or we have heard that they had been doing a lot of testing as well. Did you take over from the work they were doing or were you working in conjunction with them?

Mr CRAMER — The request we had was for us to send a copy of our results each month to Cardno Lane Piper. That was our only dealing with them. We were aware that Cardno Lane Piper were consulting for the CFA — in other words, looking at the data, because as Paul stated that is not a service we provided. It was not an area that we got involved in.

The CHAIR — I guess one of the things that was raised by the MFB earlier was that some of the Cardno Lane Piper views on some of the water testing was peer reviewed by I think it was Ecowise, another consulting company in this area, and that there was disputation about the interpretation of the results. Is that a usual thing that happens, where different companies have different views on the test results and what they mean?

Mr CRAMER — You will always get a different opinion, but usually when you are dealing with drinking water per se there is a set criteria under the Australian Drinking Water Guidelines or the Victorian safe drinking water regs — what the water quality should be or should not be — and environmentally there is also a pretty rigid list of parameters that you must meet. I would not have thought there should have been too much toing and froing. My only professional opinion would be that you would have to really look at the type of monitoring you are doing relative to what you wanted to use the water for. If there was any discrepancy or any discussion between consultants, that is where it probably was.

The CHAIR — I think they were talking about the methodology.

Mr O'DONOHUE — Could I make a point? It is probably not unusual, depending on the importance of what is being sought here from time to time I guess in our industry, to have anything peer reviewed. It can happen from time to time, whether it is engineering, water quality or a range of other things. They may have just been seeking another opinion, but I guess we cannot comment too much on that.

The CHAIR — I do not expect you to. It is more about what could be the cause of any difference, but I think it is around methodologies, so I am assuming it might be more about where the samples are taken from and how they are interpreted. I am just asking.

Mr O'DONOHUE — I guess the point there is, as Geoff said, that we did not have any input or responsibility around that. We were asked to sample — —

The CHAIR — No, I suppose I was just asking in Mr Cramer's professional opinion rather than on behalf of Central Water.

Mr O'DONOHUE — Yes, sure.

Mr CRAMER — But that would be my point, that if there was discussion between the various consultants, it would be: what does it really want to prove here with the monitoring? Because that is always the hard bit. If you are looking at the use of the water, you really need to target your parameters and look at the risks you want to manage and monitor it from that perspective. We have to do that. Every water authority in the state will have different risks depending on what is in your catchment and what is not. It is the same whether you have got a rainwater tank at home or if you have a big TV aerial that swallows come and sit on every night, that type of thing, or if you have the Monsanto factory next door and there is drift coming over or crop dusting. You try to identify those risks and target the monitoring program accordingly.

The CHAIR — Because there is a commercial element to the laboratory, if you see figures that are concerning — and I guess in the situation at Fiskville there is run-off that can run into waterways and there are creeks and things like that — if you identified some samples say at Fiskville that were much greater in terms of health or the recommendations, would you be able to act or use that information in terms of trying to protect waterways? We know, for example, that PFOS or PFOA has been found something like 12 kilometres downstream from Fiskville.

Mr CRAMER — The answer is no; we do not have any authority there. Anything that any client brings to us, be it the City of Ballarat, Central Highlands Water or the CFA — their information remains confidential between the client and the laboratory.

The CHAIR — Even if it was a matter of human health?

Mr CRAMER — That is where it is very difficult. It is not quite to the level of doctor and patient, but not dissimilar. You could suggest they go and talk to a consultant about it, but we were aware they were talking to consultants. We were not aware about everything that went on at the site; it was just an area we did not get into, whether there was significant run-off or there was not.

Mr TILLEY — Gentlemen, thank you for your time today. I appreciate the accreditation and all that, but I just want to explore briefly the technology, the equipment and the methodology. There are all kinds of labs and they have different standards. We heard from an earlier witness today about how good is the testing regime. I want some detail around the age of the testing equipment. What is the standard to meet the NATA accreditation compared to other water authorities or scientists using what labs? How high a standard is it compared to others?

Mr CRAMER — I believe that our accreditation system is extremely good. We operate under the National Association of Testing Authorities. That is where NATA comes from; that is the acronym. Particularly in the water industry we hold accreditation in both chemical testing and microbiological testing, and up until very recently with the change under the safe drinking water regulations we also held individual accreditation for individual analysts. That would be to perform particular microbiological or chemical tests — more specifically for drinking water as distinct from environmental water. However, we have an audit every 12 months from a peer assessor, and that will include representatives of the NATA association as well as an independent assessor from another water lab from possibly Sydney, or quite often they come from Queensland. They will come in and go through all of our quality management systems. It is all done under a standard called ISO 17025, and we have to meet that. We have held that accreditation now since 1985 — 30 years.

In-between we run our own audits every six months. That is run by our own staff. A microbiologist will do the chemistry section and vice versa. We also have a system to measure our competency at the testing, which is run by an organisation called Proficiency Testing Australia — PTA. That is an arm's-length group from NATA.

They will bring in unknown samples from, say, America or New Zealand or wherever. Every accredited lab has to do that — go through them and send the results off, and they will come back and tell you whether you have got your z-scores, and when I say z-scores it is like standard deviations from a mean. You have to prove that you are still competent for those tests. We have an extremely good record in that area. In our last audit the auditor congratulated us on our performance. We can make our PTA — in other words, our competency information — available if need be.

Mr TILLEY — You have probably answered the next question in relation to the chain of continuity with sampling. You can assure us that there is no break in the continuity at any stage?

Mr CRAMER — That is right — the chain of custodies with samples, proper storage, that sort of thing. With our samplers we regularly have an update meeting with them explaining how important it is. This is the water I drink and my grandkids drink. One thing about having a laboratory — and we are one of the few water authorities outside of Melbourne that still have a laboratory, which we are pretty proud of — it also gives us about 24 hours start on analysis, so that we know a problem sooner than most other water authorities. So we are going pretty well, I think.

Mr TILLEY — Going back to the pseudomonas, you briefly mentioned the levels — and we will get to a bit more of that shortly — and that it is an opportunist bacteria.

Mr CRAMER — Yes, opportunistic pathogen, so it causes infection or illness.

Mr TILLEY — In other areas, apart from where we are talking about at present — you mentioned swimming pools.

Mr CRAMER — Yes.

Mr TILLEY — Farm dams.

Mr CRAMER — Yes, farm dams; could be.

Mr TILLEY — Waterways.

Mr CRAMER — Yes, it would be common in the environment.

Mr TILLEY — At the levels that you found them out of the samples from Fiskville, where do they rate?

Mr CRAMER — In most cases it is presence – absence. The fact that they are there is that they could be high or they could be low. From memory, and you are testing me a little bit here, but in most cases they were not too bad for that environment. If it was an exercise pool in a hospital environment and those organisms were present and there might be people with open wounds or something, it could be a real problem. It needs to be put in perspective, but you are right: environmental waterways that are not disinfected and if the water quality is not controlled, they are likely to be in those environments too.

Mr TILLEY — Going onto the sampling, the CFA provided sampling. You mentioned you were taking samples from the red and the beige pipe.

Mr CRAMER — Yes.

Mr TILLEY — Do you know what the source of that water was?

Mr CRAMER — I believe early it was from the dams, the recycled water. There are a couple of large tanks there that would be filled with it so they could pump the volume required. Then probably after about 2012 I think they were back on the mains water coming out of the CHW system.

Mr TILLEY — Going back to the chain of custody, you were satisfied when the CFA were collecting the water samples in containers that were appropriate?

Mr CRAMER — We provide the containers, the sample esky and the cool bricks.

Mr O'DONOHUE — I guess out the back end of that, though, you have got to remember they were operating under an EPA licence, so our assumption was — and it is only an assumption — that they were collecting samples and testing for the right parameters based on what that EPA licence was telling them. It is not us, and it is certainly not our role or responsibility to be checking with them as to whether they were lining up against that, because there is another process there.

Mr CRAMER — I will clarify that. As an approved analyst and a NATA-accredited laboratory, we have the right to refuse samples if we believe they have been compromised in some way. If a bacteriological sample was just taken in a soft drink bottle, for argument's sake, we would reject it and regularly do, which upsets a few people, particularly if they have driven a few hours. But it becomes a bit pointless, so we are very strict about that.

Mr TILLEY — Do you have any records that reflect that any samples were rejected from the samples taken at Fiskville?

Mr CRAMER — No, I do not think I do.

Mr TILLEY — Yes; okay. You were talking about some data. We will provide those sheets. My colleagues will probably want to ask some question further, but I have got some very brief ones. If you look at the one from Central Highlands Water, it is lab report 11/1634. It is dated 12 April 2011. You can see some highlights on your pages, gentlemen?

Mr O'DONOHUE — Yes, there are.

Mr CRAMER — Yes.

Mr O'DONOHUE — 2400, is that one?

Mr TILLEY — Yes, that is correct. The highlighted areas are just the date, where it talks about E. coli and there is an amount of 2400. What size is that? Is it parts per million?

Mr CRAMER — The 2400?

Mr TILLEY — Yes.

Mr CRAMER — That is organisms per 100 millilitres, basically half a glass, which is a pretty significant count.

Mr TILLEY — That is the sample taken from dam 2?

Mr CRAMER — Yes. These E. coli are faecal bacteria. They are from a faecal source, and they only live in water for roughly 30 days. It would indicate that there is recent faecal pollution, probably birds, but we do not know from that data.

Mr TILLEY — So around that period it could have been duck season, couldn't it?

Mr CRAMER — Yes, easily. That would be a possible source.

Mr TILLEY — I draw your attention to the bottom where it says this report replaces report no. — the same number — dated 4 May, which was found to be in error. Can you give us some commentary on that?

Mr CRAMER — This is part of our quality management system. When we go through it, you can see this report has been countersigned by myself as well as one of my micro staff. We obviously found an error and withdrew the original report and replaced it with this one. We would have highlighted that to the client, as we have on this report. We do not want two reports around, one being in error. My guess, relative to the look of it, is it was probably to do with that E. coli reading and the fact that it is right to the limit of the test that was done — 2400 is the limit of the E. coli Colilert testing regime.

Mr TILLEY — It potentially could have been higher than that?

Mr CRAMER — No, it would have a 'greater than' on it in that case.

Mr TILLEY — Would Central Highlands Water be able to provide us with the other report, the other page that is in error?

Mr O'DONOHUE — The one that was withdrawn?

Mr TILLEY — Yes.

Mr O'DONOHUE — I do not see an issue with that. We will take that on notice.

Mr CRAMER — I should have a copy of that in the file, because that is what we are required to do.

Mr TILLEY — Yes; terrific.

Ms WARD — You said that up until 2012 the CFA took their samples and then CHW staff took the samples from the designated site. Was there any change in the results? Were they taking the samples from the exact same locations, do you know? Were the results consistent?

Mr CRAMER — I cannot recollect changes in the samples per se. The only difference at that time was the sampling sites altered from the dams to the two hydrants on the fire PAD. We did not know the exact origin of that water as such, whether it was all dam water or whether it was mains water. If I went back and reviewed the data, I could probably give you, I do not know about a correct answer, but something a little bit more of an opinion as to whether there was a significant change. But I do not recollect there being a major issue of change.

Ms WARD — Do you know why they went from the dams to the pipes?

Mr CRAMER — No, I do not.

Ms WARD — Why would you think that would be the case? Is it a more accurate way of reading?

Mr O'DONOHUE — I think the point that Geoff has made is that there may have been a change in supply, but we do not know that.

Mr CRAMER — I can only imagine that someone has come on site and suggested that is a better place to take a sample, relative to the use of the water. But I am only surmising. Certainly it did not have anything to do with what we were doing from CHW.

Ms WARD — Is it common practice for clients to supply their own samples to you?

Mr CRAMER — Yes, it can certainly be the case.

Ms WARD — Is it the exception to the rule?

Mr CRAMER — We have clients that go right through even into South Australia at times, and we are not going to provide a sampling business travelling down there, unless they have got a lot of money. However, it is important to us to advise the client about the need to get the sample to us within 6 hours for bacteriological monitoring and 24 hours for BOD testing and that sort of thing, otherwise there is no point. We then generally put on the bottom of the report something like 'Samples as received', and you will see that on the one that has just been handed around. That takes it out of our area of responsibility, apart from just giving them advice about how to correctly take the sample and how to manage the sample once it has been taken.

Mr O'DONOHUE — I suppose the short answer is no, it is not unusual for clients to bring their own samples to the laboratory.

Ms WARD — That is within the NATA accreditation process? That is a pretty standard practice?

Mr O'DONOHUE — Yes.

Mr CRAMER — Yes.

Ms WARD — In 2011 your testing found that with pseudomonas there were 1000 organisms. In 2007 Ecowise found that there were 33 000 organisms. How would you explain such a high number of organisms

being in the water? When you are looking at 10 organisms per 100 millilitres as being safe, how do you explain 33 000 being found in the water?

Mr CRAMER — These types of organisms are not like salt in water. They are not consistently spread through the water column. Depending upon where you take the sample, you can get a massive difference. You might — no, you probably do not — I was going to say you might remember in the early days the EPA checking the beach around Port Phillip Bay. They would take five samples to get a consistent reading about what the beach was, mainly for that type of reason. You could take it in one spot and there may have just been a waterbird there; you do not know with those things. That is one of the instructions we give to clients — to try to take samples at a suitable spot. If we are talking to the council in Ballarat taking Lake Wendouree, we will say, ‘Don’t go up and take samples where everybody is feeding the ducks, because you’re obviously going to get a really high spike in bacteria’. It is something to be aware of. I will not say it is common, but it is not uncommon to get quite a variance in bacteria readings relative to those sorts of situations.

Ms WARD — That would explain why in 2011 within a six-month period there is a reading of 200-odd organisms and then there is 1000 six months later.

Mr CRAMER — This stuff changes day to day, hour to hour.

Ms WARD — Are you confident that the CFA was gathering water properly and following your instructions?

Mr O’DONOHUE — I do not think we can comment on that.

Mr CRAMER — All I can say is that to the best of our knowledge they were taking them as required. The only other qualifier I would put on that is that we quite often did not know exactly who. Quite often a different person would pick up the sample bottles to the person who would drop them off, so we would not necessarily be able to interrogate who took the samples. Our contact was John Myers. To the best of our knowledge he was the one taking the samples.

Ms WARD — We have learnt that the standard for E. coli was increased from 10 organisms per 100 millilitres, which is class A water guideline standard, up to 150 organisms per 100 millilitres. Are you aware of how that changed or why that change occurred?

Mr CRAMER — No. I do know that the EPA reading for swimming used to be 200 back in the 70s. In other states it was 1000.

Ms WARD — But that has continually decreased, whereas this is an increase.

Mr CRAMER — Yes. They are looking at different types of organisms and the problem that you will get, depending on the number of people using our waterway and what they are using it for. It makes sense to me that they need to manage the risk relative to as they see it. I would not argue the case about it, but I will not give you an opinion other than that.

Ms WARD — So in the instance where this water is being re-used and people have swum in it or where it has been re-used to fight fires and it is going over people, would you recommend that kind of number?

Mr CRAMER — No.

Ms WARD — We have got E. coli readings of 2500, so you would think that was particularly unsafe then for firefighters to be exposed to that in fighting fires?

Mr CRAMER — As I mentioned earlier, it is an indication that there has been recent contamination with faecal bacteria in that water, and as such it would be unsafe to not only drink but also swim in.

Ms WARD — Or to work in.

Mr CRAMER — Yes. It is even over the limit for casual contact. There are a couple of different limitations there.

Ms WARD — Who was helping the CFA to understand these results?

Mr O'DONOHUE — Our understanding was that they would have had a number of consultants. We saw some of them, which was Cardno in recent times, and before that we are not sure.

Ms WARD — You have got the test results, and you have got your table with all the numbers on it. A layperson like me would look at it and go, 'Okay, I now know how to say pseudomonas, but other than that how do I read this?'

Mr O'DONOHUE — Sure.

Ms WARD — You are not aware of what practice they had to work it out and how to respond appropriately when there was pollution found in their water?

Mr O'DONOHUE — I would assume that they have employed the right professional advice to help them understand what the results were telling them and then make the proper changes, if they needed to, to arrange the things that they were doing, but we were not involved in that.

Ms WARD — Do you know who advised the increase in the E. coli testing level?

Mr O'DONOHUE — From the EPA specifically?

Ms WARD — For the CFA's perspective.

Mr O'DONOHUE — No, we do not. I do not think Geoff does.

Mr CRAMER — No. The EPA generally do not provide that type of advice unless they like to have a standard to refer to. The one we have been working on, there were ANZECC guidelines that most environmental scientists would refer to to look for a suitable limit, otherwise it just becomes one person's opinion over the other. Everyone does try to refer back to some primary standard that you feel confident about relative to the level of risk.

The CHAIR — This was on private property, these water samples, but you assume that the samples were being taken in order to understand the quality and see what risk it posed for those people who worked there or who were going to be exposed to it. If you found these sorts of figures in our drinking water or in a public waterway, what would be your action? What would you do about it?

Mr O'DONOHUE — The first thing, we would always go back and retest and resample because, as Geoff said earlier, sometimes these can be just an aberration of the sample or something localised is happening. It is common practice in the water industry to go back straightaway and retest and resample, so that would be the first step, based on that number. And it is not unusual that, for whatever reasons, things fall back into the accepted standards, but if they did not, we would certainly take immediate steps to do A, B or C, depending on what the example was, and then look at what the risk to human health is right at the front end, because that is what our business is about, and take the appropriate steps to ameliorate the problem and fix it.

The CHAIR — Would you be advising people not to have contact with that sort of water?

Mr O'DONOHUE — In this instance?

The CHAIR — On these figures. You do not know, I guess, what happened at Fiskville, but in terms of the figures that Vicki was mentioning, which are on those documents, if those were the readings that you were receiving in any public waterway or whatever, what would you be advising the public to do?

Mr O'DONOHUE — The first stage in that is you have to understand what the fit-for-purpose is — what is this water being used for? That is your first point, and then from there you would look at what controls you needed — —

The CHAIR — So in this case if we were talking about swimming, direct skin contact, breathing it in, those sorts of things, what would the advice be on these sorts of numbers?

Mr O'DONOHUE — Immediately in my role I would get technical advice that was very clear on what we should be doing or what the risk was, and then we would work out the controls and what we would do with that immediately. At those levels — and I am not a scientist, so I am relying on technical advice to tell me what the

risk is from a human animal environment whole perspective — pretty quickly you would be putting controls into place to manage that.

Mr CRAMER — These results on this one that has been tabled from 19/10/2011, the faecal bacteria was quite significant in dam 1 and then at very low levels through the other four samples. Obviously you would not recommend people go swimming at greater than 2500 E. coli, but you need to understand the E. coli organism. They are only an indicator organism. If you take faecal matter, every 1 gram has tens of millions of E. coli living where they live and when they get in the environment they start to die, and so the longer they are held in water, the lower the number gets. E. coli in themselves are not necessarily an issue, but if they are present, the likelihood of pathogens being present is significantly increased. This report also shows that there is potentially a higher level of pseudomonas as well, and that is what happens. That is why an E. coli result is quite valuable —

The CHAIR — Indicative of a whole lot of other problems.

Mr CRAMER — to give you an overview of whether the water is safe for whatever purpose.

The CHAIR — I guess it is still going back. On those figures what would be the normal recommendation to the general public?

Mr CRAMER — Avoid contact, and definitely even a farmer would say, ‘Don’t let your stock drink that water’.

Mr YOUNG — Thanks for coming along today. I am just reading through your briefing notes here, and it says:

More specialised organic analysis such as PFOA and PFOS was performed on our behalf by Australian Laboratory Services at Scoresby laboratory on an ‘ad hoc’ basis and was not part of the routine testing program.

Could you just elaborate on what is meant by an ‘ad hoc’ basis and why that might not have been part of the routine program?

Mr O’DONOHUE — This was related to — sorry, I was thinking that was in our reticulation system. We normally would not test for those in our retic. system — only by exception. We did do those tests based on what we were understanding maybe were the potential problems on the site. So we tested in our reticulation system to make sure that there was no presence of both of those in the system, which proved to be the case. I will just hand over to Geoff to talk in the sense of the laboratory.

Mr CRAMER — What we did for CFA — and I think they are the ones you are referring to, and they are the ones I referred to as an ad hoc parameter for testing — we tested twice, once in February 2011 and then in October 2011. Apart from one of them, they were not the usual sites we would have expected them to be from. They were submitted by CFA staff to us. They contacted us and said, ‘Can you carry out these tests?’. So we agreed, ‘Yes, we can organise them. I will need X amount. I will have to get some appropriate sample bottles and submit them to ALS’. They are also very expensive to have done. That is probably no reason, if you know it is present, not to have it done, but I have no doubt on any monitoring program for them it would be a contributing factor.

Mr YOUNG — Was there any indication of why those two occasions warranted tests for those things?

Mr CRAMER — No.

Mr YOUNG — And was there anything statistically significant that came out of those tests?

Mr CRAMER — The significant thing was that they were found on both those occasions, but I could not tell you whether the reading is considered high or low; it was the fact that they were actually there.

Mr YOUNG — Given that it is only ad hoc, on a couple of occasions, the continuity is obviously non-existent in there.

Mr CRAMER — No.

Mr YOUNG — So there is no significance taken from that?

Mr CRAMER — I do not know whether CFA carried out any other testing. They did have other environmental consultants there apparently who were probably taking samples for both these wetting agents, but I do not know.

Mr O'DONOHUE — I think that is the important point. There is no exclusivity in the agreement with the CFA with us nor would we have one with any of our clients, so they may have been using other laboratories and consultants for opinion, but we were not aware of that.

Mr YOUNG — It is possible that it could have been for comparison.

Mr O'DONOHUE — Yes, it could be; it absolutely could have been. It could have been for a whole host of reasons. That is a fair point.

The CHAIR — Just moving on now to the Water Act, which is part of the responsibility of your organisation. One of the responsibilities is to make sure that water does not flow on through water courses to contaminate other people's land. Looking at Fiskville and then you had the surrounding properties such as the Lloyds' farm, where as I understand there was testing done through their dam and other areas for whether it was arsenic or this or that, all sorts of heavy metals as well as PFOS and PFOA. How do you explain that in terms of the responsibilities of a water authority, one, that it happened, and then two, it has continued to happen and there does not seem to have been any action taken?

Mr O'DONOHUE — I guess at a high level my sense — and you cannot hold me to an exact date on this — but in 2011 I think there was some conversation around our water physically leaving the site and getting into waterways, and we were contacted around that — —

The CHAIR — By who?

Mr O'DONOHUE — I would need to check that for you. I just do not have it.

The CHAIR — Sure. You will let us know.

Mr O'DONOHUE — In effect we are an urban water authority taking supplies of water from a variety of sources — reservoirs, groundwater et cetera — under entitlements that are set in the Crown and in legislation. We are a player in the environmental space, but we are not the key lead agency there. I suspect in this case, and I would need to check again, but I suspect the CMA — the catchment management authority — has the overall responsibility across or to the south of that site. We were responding to a request for information from them about what our role was at the Fiskville site. I am pretty sure we came back and said, 'Well, actually, the potable water supplier to the site, but we do not have any management or responsibilities on the site itself'. We would have expected that with an EPA licence for that site and a range of other regulatory compliance that the site would operate under, that that would manage that. We did not have any direct involvement in that per se.

The CHAIR — Did anyone tell you as an authority that is supposed to have some responsibility that there was contamination in other properties, their dams, in their creek water courses?

Mr O'DONOHUE — As I said, I would need to verify this. My understanding of the conversation was something about there was a concern — not actually saying that there was, but there was a concern — and what were our responsibilities and what interaction and impact did we have in and around the Fiskville site. So our conversation was very much about, 'Well, we are the urban water supplier and we do do some sampling on the site for the CFA', but it was nothing more or nothing less than that.

The CHAIR — But in terms of the legislation do you think you have responsibility or that perhaps further action should be taken?

Mr O'DONOHUE — In a strict sense I would say no. Obviously we have responsibilities under the legislation for ourselves and under our statement of obligations, which sits below the legislation, to make sure that we are not fouling the environment, that we are being good environmental citizens and that we are maintaining the environment at the accepted levels, whether that be in waterways, groundwater or other locations. We generally respond in that space, and as an authority we have a number of EPA licences across all of our key assets. Those licences are fairly strict about what parameters we need to meet and what sorts of areas we need to keep a focus on. We manage our responsibilities in that space. We also have relationships with three

or four of the catchment management authorities, and we manage our relationships in the environmental space with them — for instance, we provide water for the environment in some of our reservoirs. It is generally discharged according to the requirements of the catchments.

The CHAIR — So you do not have any regulatory role. You self-regulate to make sure that what you are doing is not contaminating or causing any problems for the environment, but in terms of waterways generally within the area that you cover, you have no responsibility or regulatory obligations or anything to ensure that those other waterways, whether they run through people's properties or on public land, are clean?

Mr O'DONOHUE — I guess my answer to that is that we are at the table but we are not the lead agency.

The CHAIR — Which means that you are not responsible or that somebody else is responsible?

Mr O'DONOHUE — No, we are responsible. What I was trying to explain earlier is that under EPA licences — and we have a number of EPA licences across the region that we are responsible for — we need to make sure we meet the compliance that is agreed to under those.

The CHAIR — For what you do?

Mr O'DONOHUE — For what we do.

The CHAIR — Not what others do?

Mr O'DONOHUE — No; that is right.

The CHAIR — So you do not have any jurisdiction over what others do in terms of polluting or contaminating waterways?

Mr O'DONOHUE — No. If we saw that, we would be referring those sorts of conversations back via the EPA or the catchment management authorities.

The CHAIR — Okay. So when you are saying that you assumed, because there was an EPA licence, that everything was okay, you would not be doing anything anyway, you would just report it had you seen anything?

Mr O'DONOHUE — I think the short answer is that that is probably right, we would report. If we saw an incidence, we would report it to the appropriate authority.

The CHAIR — Okay; thanks.

Mr TILLEY — Just a couple of quick ones.

The CHAIR — We are sorry that we are keeping you a bit behind; we started behind.

Mr TILLEY — Which CMA is it? Corangamite, is it?

Mr O'DONOHUE — I got a sense that it is Corangamite, yes.

Mr TILLEY — Just confirming. Have you at any stage had any communication with them about any concerns at all with sampling?

Mr O'DONOHUE — Sorry, with — —

Mr TILLEY — Any concerns at all with the water sampling out of Fiskville?

Mr O'DONOHUE — Not directly, no.

Mr CRAMER — We have heard nothing. Actually it might even come under Port Phillip, because I think it could be in the Werribee River basin.

Mr TILLEY — So potentially some crossover, is there?

Mr CRAMER — Yes, there is a boundary line almost through there.

Mr O'DONOHUE — Very much topographical. They are not lines on maps, I guess; that is the short answer, Bill.

Mr TILLEY — Yes, that is right. Just going back to confirming the 2011 ad hoc PFOS and PFOA test, do you actually have, apart from that you cannot say whether it is high or low, any quantitative information from your data there?

Mr CRAMER — I do. It is in micrograms per litre, which is basically parts per billion. The PFOS was significantly higher than the PFOA, and we are up into the 100s.

Mr TILLEY — When you say 100s, there is an exact figure, is there?

Mr CRAMER — Yes, 126 was the highest PFOS and 110 on the second occasion. But I do not know what that — —

The CHAIR — Sorry, just for the record — unless you have already mentioned what the document is — just so the transcript knows what you are — —

Mr CRAMER — This is a transcript of all of the results from the CFA monitoring, which we provided under the freedom of information at the request of the CFA.

The CHAIR — Okay; thank you.

Mr CRAMER — Yes, sure.

The CHAIR — It is just for the transcript so that people reading it will understand what it is.

Mr CRAMER — Therefore my understanding is that it is public information.

Mr TILLEY — The two samples — so it is 126 for the PFOS, and the second is 110.

Mr CRAMER — Yes — that was the worst case.

Mr TILLEY — The worst case, yes. And just for the PFOA, what are those readings?

Mr CRAMER — And the PFOA was around about 5 on both occasions.

Mr TILLEY — Five, single figure?

Mr CRAMER — Five, yes. But as I said, they do not really mean anything to me, because it is not an area I work in.

Mr TILLEY — I appreciate that. Thank you.

Ms WARD — On the Ecowise results from 2007 there is a little note here that says:

The presence of *Pseudomonas aeruginosa* ... indicates the water is unsuitable for primary contact e.g. swimming — et cetera, and may cause infections and so on. Do you ever put that kind of notification on your own test results?

Mr CRAMER — Rarely.

Ms WARD — Rarely.

Mr CRAMER — Unless — —

Ms WARD — What would be the trigger?

Mr CRAMER — The trigger is if a client asks us, and we cannot put an opinion on a NATA-endorsed report, and I notice the Ecowise one does not have an endorsement on it, which is a little bit rare. You have to cite the standard that you are comparing it to, and you would normally only do that at the request of the client.

Ms WARD — Okay.

Mr CRAMER — So we do that for Parks Victoria with mineral water, and we do it for CHW new main clients. There is a Water Services Association of Australia standard for water quality for the connection of new mains into the distribution system, and we cite whether it conforms with that standard or it does not.

Ms WARD — Thank you. So it is very clear, then, that the CFA only ever asked you for results, never for interpretation?

Mr CRAMER — No

The CHAIR — Thank you very much for coming in. I am sorry that we started a bit late and finished a little bit late.

Mr O'DONOHUE — That is okay. Thank you.

The CHAIR — So thank you. There may be, just based on when we look at the transcript, other questions.

Mr CRAMER — Sure.

The CHAIR — You do not mind if we contact you for follow-up?

Mr CRAMER — Absolutely.

Mr O'DONOHUE — Emily has our contact details.

The CHAIR — Okay; great. Thanks very much.

Witnesses withdrew.