STANDING COMMITTEE ON ENVIRONMENT AND PUBLIC AFFAIRS

PETITION 59 — BIO-ORGANICS

TRANSCRIPT OF EVIDENCE
TAKEN AT PERTH
MONDAY, 23 MARCH 2015

Members

Hon Simon O'Brien (Chairman)
Hon Stephen Dawson (Deputy Chairman)
Hon Brian Ellis
Hon Paul Brown
Hon Samantha Rowe

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Hearing commenced at 10.14 am

Mr JASON BANKS
Director General, Department of Environment Regulation, examined:

Mr JASON NELSON
Senior Investigator, Department of Environment Regulation, examined:

Ms KELLY FAULKNER
Executive Director, Licensing and Approvals, Department of Environment Regulation, examined:

Ms KERRY LASZIG
Director, Licensing and Approvals, Department of Environment Regulation, examined:

The CHAIRMAN: On behalf of the committee, I would like to welcome the witnesses to our hearing this morning. You have all signed the document entitled "Information for Witnesses". Have you all read and understood that document?

The Witnesses: Yes.

The CHAIRMAN: These proceedings are being recorded by Hansard and a transcript of your evidence will be provided to you. To assist the committee and Hansard, I ask if you could please quote the full title of any documents that you refer to during the course of this hearing for the record. I remind you that the transcript will become a matter for the public record. If for some reason you wish to make a confidential statement during today's proceedings, you should request that the evidence be taken in closed session. If the committee grants your request, any public and media in attendance will be excluded from the hearing. Please note that until such time as the transcript of your public evidence is finalised, it should not be made public. Publication or disclosure of the uncorrected transcript of evidence may mean that the material published or disclosed is not subject to parliamentary privilege.

Before I call on Mr Banks to make some opening remarks, I would like to address a welcome to the public gallery here today. On behalf of my colleagues, I welcome you to our proceedings. The fact that you are here in such numbers gives us a degree of confidence that we are examining a matter in which there is a great deal of public interest. There are a couple of other reasons it is important that you be here today. Firstly, this committee hearing is a proceeding of the Western Australian Parliament and it is important that proceedings of the Parliament to the greatest extent possible be public and accessible for members of the public to observe. With that in mind, the second responsibility you have undertaken by being here is to ensure that the proceedings of the Parliament are not interrupted in any way. While we appreciate your attendance and your interest in these matters, of course, this is not a participatory meeting. There is no option for interjection or spontaneous applause or anything like that. Thank you; and I hope you find our hearing very interesting.

Mr Banks, can you give us an overview of this matter in your opening remarks? The petition we received—petition 59—seeks an inquiry into the actions of Bio-Organics and the Department of Environment Regulation and its regulatory predecessors in relation to the contamination in and around the Bio-Organics composting site in Oakford. Shortly I will ask you to provide an overview of the site and its history, but can I first ask what determines how the department performs its regulatory role for a facility operating under an Environmental Protection Act 1986 licence?

Does the type of facility, in this case a composting facility, dictate the regulatory regime applying to that facility?

Mr Banks: Part 4 actually establishes a framework where there are a number of substantive offences for those parties that engage in activities that cause environmental harm or pollution. Subsequent to that, it also creates a licence provision that avails people of defences against those offences if they are operating in accordance with a licence. The actual operation and management of the facility is prescribed in a schedule in terms of those categories of premises that are unable to avail themselves of a licence, and the licence governs the operations from the environmental perspective.

The CHAIRMAN: In relation to our current inquiry, can you please provide an overview of the site and its surroundings, and advise what happened at the site that caused the involvement of your department?

[10.20 am]

Mr Banks: If I can address the history of the matter because I think it is quite a protracted matter spanning some 14 years—I will make reference to the Department of Environment Regulation's submission to this process entitled "Petition No. 59 Bio-Organics Pty Ltd, Department of Environment Regulation Comments to the Legislative Council Standing Committee on Environment and Public Affairs" dated November 2014; in particular, making reference to pages 8 and 12, which provide a background summary of the matter.

Before commencing I would just like to note that the submission was provided in private to the Council on the basis that at the time there were still appeals pending in relation to the decision to revoke the licence and also the closure notice that was subsequently issued. There are also ongoing investigations in relation to site contamination and compliance aspects.

For the history of this matter, you need to go back to 2000. In August 2000, the then Department of Environmental Protection received a final works approval application for the composting facility at Lot 36 Abernethy Road in Oakford. The company was then referred to as ATA Construction. After changes to the applications, the then department granted a conditional works approval facility on 20 November 2001. Following this there have been various receipt of compliance documents, and a licence for the premises was first issued in April 2002. There have been a number departments involved—the Department of Environmental Protection, the Department of Environment, the Department of Environment and Conservation. Now, the Department of Environment Regulation has subsequently issued licences for these premises until June 2014 when the licence was revoked.

By way of context, in early 2001, Bio-Organics was provided with a planning approval for the Oakford composting facility for a 10-year period by the then Minister for Planning and Infrastructure when an appeal against the granting of the planning appeal was upheld. On 16 February 2013, the company again applied to the shire for planning approval to include acceptance of poultry manure and liquid wastes. In February and March respectively—this sort of comes to the substantive part of when the issue commenced to emerge—the then Department of Environment and Conservation received two and 34 complaints regarding the company's operations respectively; so two in February and 34 in March. It should be noted that for a seven-year period from 2004 to the end of 2012 the department had received only 17 odour complaints; so there was a rapid increase in odour complaints in early 2013. This coincided with the application for expansion of planning approval.

DEC undertook site inspections and odour assessments on 24 January 2013, following a complaint lodged on the twenty-first. The inspection confirmed odour emissions from the operations and DEC wrote to Bio-Organics on 1 February 2013, raising the concern about the amount of liquid waste being accepted at the premises and with a view that this was probably the root-cause analysis required in relation to the emissions. Bio-Organics responded on 7 February 2013, accepting that

the odour emissions were from the premises and provided a report detailing the cause and actions to be taken to prevent reoccurrence.

As a result of the rising complaints, DEC then undertook a series of its own odour surveys between 25 February and 13 March 2013. In the department's report of 29 May the following findings were made: the odours were substantiated as emission from Bio-Organics for up to 1 100 metres from the facility; the odour intensity levels were up to "strong", which is classed as category 4, and were recorded and supported in nuisance complaints from the complainants; and odours from the nearby poultry farm and its clearing-out shed were detected at low intensities at "very weak" or "weak". Given these findings, DEC commenced an investigation into the waste acceptance practices at the facility. One of the licence conditions, G3(b) of the company's previous licence, allowed it to accept biological activators in the composting process. A review of DEC records showed that limited approvals restricted by either time or volume or that were temporary in nature for the trialling of certain waste had been granted. The department also reviewed its waste tracking records and identified the number of significant increases in the volumes of liquid waste that had been going to the premises.

On 24 June 2013, the department wrote to the company outlining the findings of the odour survey and the department requested that it cease accepting certain liquid waste. The company contested both the findings of the odour survey and the request to cease accepting certain liquid waste. The community was also advised of the outcomes of the odour survey around that time.

On 2 August 2013, DER officers responded to a complaint of discharge of liquid from Bio-Organics' facility. The concerns raised regarded potential surface and groundwater contamination. At the time of the inspection, a pipe was discharging from the facility. DER took field samples of the discharge that showed elevated levels of nutrients. As part of the review of the company's licence, DER formed the view that the condition relating to trialling the use of bio-degraders was invalid and not effective.

On 10 December 2013, DER classified the company's site as "possibly contaminated, investigation required" under the Contaminated Sites Act and required a following investigation of groundwater contamination. DER formally notified the site owner, occupier and local government authority, Western Australia Planning Commission, of the classification at that time.

On 16 December 2013, an amended licence was issued to the company, which limited it receiving a maximum of 1 200 tonnes of specified liquid waste per 28-day, four-week block, and a maximum of 9 000 tonnes per year. The amended licence also placed limitations on waste acceptance, required a complaint system to be set up, and a series of investigations and improvement reports to be provided by specified dates.

DER conducted three site visits on 20, 23 and 30 January. The inspections focused on compliance with liquid waste types and volumes being accepted post the issuing of the revised licence. On 3 February 2014, DER was of the view that the company had failed to comply with eight conditions of the amended licence. The noncompliances were varied and ranged from failure to deal with waste acceptance and reporting requirements to failure to undertake improvement actions required by the licence. Based on the licence breaches, DER served the company with a notice of its intention to suspend its licence on 7 February 2014, inviting it to make representations within 21 days of receiving the notice to show why this action should not be taken.

On 10 February 2014, the company provided some of the required information; the remainder was submitted later. The information was considered and it was decided not to suspend the licence but instead to commence the process of licence revocation.

From the information provided by the company on 10 and 27 February 2014, a further site inspection was conducted on 21 March. DER found additional breaches of two conditions of the licence that were fundamental in its view to preventing the emission of nutrients from the liquid

waste and the composting process from impacting the groundwater. These breaches related to the licence conditions which required the composting activities to be conducted on a hardstand, with appropriate permeability, and that no pooling of the leachate—the liquid that came out of the composting process.

Given the risk to the environment, on 27 March DER issued the company with a notification of its intention to revoke the licence, giving it 21 days to make further submissions. DER received representations from the company on 17 April disputing the breach of licence conditions and disputing the impacts on the groundwater. I considered those representations and determined that the licence was breached and that groundwater impacts had occurred.

On 16 May 2014, the department received additional groundwater data from a down-water gradient from the premises. The data confirmed DER's view that the Bio-Organics operation had most likely impacted on groundwater and that the appropriate regulatory response was to revoke the licence and issue a closure notice to manage the relevant matters in the wind-down of the operations, given the large amount of existing material on the site and the various stages of the composting process.

Given that we had received additional information, we gave Bio-Organics a further opportunity to respond to the decision to revoke, including reviewing the further data that we had obtained, and on 27 June 2014 I determined that Bio-Organics' licence would be revoked and a closure notice issued. These matters are the subject of continuing appeal. Subsequent to that, we have been undertaking regular site inspections. Since the closure notice, I think we are up to about 55 site inspections. We inspect the premises on at least a weekly basis.

[10.30 am]

The CHAIRMAN: What is the purpose of those inspections?

Mr Banks: To ensure compliance with the closure notice.

The CHAIRMAN: I understand the closure notice has been appealed.

Mr Banks: That is correct, so both the decision to revoke and the issuing of the closure notice are both subject to appeal with the Appeals Convenor.

The CHAIRMAN: Is Bio-Organics able to continue any form of operation on the site while those appeals are being resolved?

Mr Banks: Both the revocation and the closure notice have effect while they are subject to appeal. It no longer has protection of the defences within the act, so if it was to undertake activities that caused substantive offences under the EP act, it would run the risk of being subject to prosecution.

The CHAIRMAN: So, in effect, they are closed down?

Mr Banks: Yes.

The CHAIRMAN: Sorry, did you have any more?

Mr Banks: I was really just going to go into matters that were dealt with post the event, but we can deal with that later. You also asked for an overview of the site. Now might be an appropriate time, and maybe some of the commentaries I was making as to the pipe and also the hardstand will become more apparent from running through a few of the slides.

The CHAIRMAN: To get the lie of the land.

Mr Nelson: This slide depicts the two lots that were subject of the DER licence—lot 35 and lot 36 Abernethy Road, Oakford. The composting facility operates currently on lot 36. This is the compost, and the main sort of operating part is done here. The operations do extend in this whole rectangular area along the south of lot 36 just into lot 35, which is the machinery workshop and shed. Access to the site for deliveries when the licence was in operation was from Abernethy Road—on this road. There was also access through the battle axe road along here, which goes down

to King Road travelling east. This area to the south is lot 6 King Road, which is also owned by the Avila family and is their vineyard.

The CHAIRMAN: Lot 7, though, down in the bottom right-hand corner, I think, is also relevant.

Mr Nelson: Yes, that is right. That is the property owned by Mr Dempsey. When we talk in relation to the V-drain, there is an agricultural V-drain that runs down from north to south. It then turns east along this direction. There is a drainage culvert pipe that runs between the Avila property, which we will see in a slide in a moment, on to Mr Dempsey's property, where the drain then turns east.

The CHAIRMAN: That is normally intended for storm water drainage, is it?

Mr Nelson: Yes. It is just a normal agricultural drain that runs, I think, to the area of the main drain. Any further questions about that slide?

The CHAIRMAN: Please proceed.

Mr Nelson: This next slide shows the actual layout of the facility—a bit more of a close up. This is the engineering diagram that was supplied by Bio-Organics to DER. As explained earlier, this is the drain coming down from north to south before it turns east at this point—that is where the drainage culvert is. This is the location of the leachate retention pond. This drawing here describes how the designated hardstand is constructed, with the flow running north in this direction, south in this direction, and then it moves from west to easterly into two drainage grates, which then run through concrete piping to the leachate retention pond.

This is the drain culvert as described on the previous slides. The image to the left is looking north along the V-drain—the agricultural drain—which runs in a north to south direction. From where that picture was taken, that was looking north, and then subsequently a view south to where the drain culverts enters before it transitions through to Mr Dempsey's property to the south.

That is a close-up of the entry looking south through the drain.

The CHAIRMAN: It goes under a road there, does it?

Mr Nelson: No. It just goes under the property, from one property to another. I suppose you can drive a vehicle over that part of the area, but it is not particularly for road access. From memory, there is a gate into the adjacent paddock to the east of that culvert, so that is probably why that has been put in to allow access to the paddock to the east. The image on the right-hand side is on Mr Dempsey's property. You can see where the drain exits here, and then it runs eastwards.

That is a closer view of the culvert as it exits.

Hon SAMANTHA ROWE: Is that on Mr Dempsey's property?

Mr Nelson: That is Mr Dempsey's property, yes.

That is generally the overview.

The CHAIRMAN: This might now be an appropriate time to ask: the approved processes that were intended to be carried on in this area were for the manufacture of compost; is that the case?

Mr Banks: That is correct. The category for licence was for composting activity.

The CHAIRMAN: What are the raw materials that go into making compost?

Mr Banks: Generally green matter, moisture and biological activators.

The CHAIRMAN: What are biological activators?

Mr Banks: Bugs to help with the composting process.

Hon PAUL BROWN: Bacteria?

Mr Banks: Bacteria, yes.

The CHAIRMAN: So by far the main ingredient would be green waste in terms of mass; is that right?

Mr Banks: Yes, that is correct.

The CHAIRMAN: By far, I would think. Is there any role for grease trap waste to be used in the manufacture of compost?

Mr Banks: I think the general specification of grease trap waste is probably 90-odd per cent water, with some rubbish in it and some lipids, so in terms of a potential substitute for water content, it has that role. It also has nutrient value, so, obviously, that is a potential input for such a product.

The CHAIRMAN: Was Bio-Organics given a variation to their licence to enable them to receive controlled liquid waste?

Mr Banks: Yes, on 16 December 2013 they were.

The CHAIRMAN: How much controlled liquid waste did they receive in about the time that we are talking? Was it the amount contemplated by the licence or was it rather more than that?

Mr Banks: Prior to 16 December, there was no specification in their licence in relation to the quantity and types of controlled liquid waste that they could receive.

The CHAIRMAN: The committee understands that between 2009 and 2013, the Bio-Organics site received around 87 million litres of controlled liquid waste, with about 82.6 million litres, or 95 per cent of that, being grease trap waste, and that this controlled liquid waste was not authorised by the licence. Is that the case?

Mr Banks: The figures are correct in terms of they are drawn from the controlled waste tracking system, which records the movements of these wastes. In terms of the authorisation under the licence, as I said, there was no specific authorisation for specific types of controlled liquid waste or quantities prior to 16 December 2013.

[10.40 am]

The CHAIRMAN: Therefore, prior to that date, was a permit or licence required for them to lawfully receive such waste, or were they acting outside of the law, potentially?

Mr Banks: The issue with the licence is fundamentally the fact that there was a condition in there that provided for approval of trials. The trials we can identify that were acknowledged and endorsed do not reflect the quantities of waste that had gone to that site.

The CHAIRMAN: You pre-empted a question I nearly came out with: 87 million litres does not sound like a trial.

Mr Banks: I would not dispute that.

The CHAIRMAN: That is my understanding, too.

Hon BRIAN ELLIS: On that, if I can get it clear, the trial did approve some liquid waste?

Mr Banks: There were a number of trials—I think there were 15 trials that we can identify—where there had been acknowledgements that waste types were going to be tried on the premises, but they were generally limited by time or by quantity.

Hon BRIAN ELLIS: So when you approved liquid waste in a trial, what limit did you put on it? How much liquid waste was allowed to be used in the trial?

Mr Banks: If I can just go to the detail of the approvals.

Ms Laszig: The records that we have—back in 2002 there was maltings waste, but we do not have more detailed records than that; again in 2002, grease trap waste at 28 000 litres. In 2003, it was food-processing waste—a one-month trial. In 2004, it looks like food-processing or winery-style

waste at about a three-month trial; in 2005, phosphoric acid in the range of 80 to 1000 kilograms; in 2005, 700 litres of sludge; in 2005, drilling muds in a six-month trial.

Hon PAUL BROWN: Just for the sake of the record, can you determine or define what sludge means?

Ms Laszig: The records that we have here indicate that it was related to acid sulphate soils, but that is all I have in front of me, I am afraid. In 2006, there was a trial of algae at 50 cubic metres; again in 2006, milk waste at 12 cubic metres; again in 2006, print wash water at one cubic metre; in 2006, a waste gel from a paper manufacturing process at two skip bins; in 2006, waste at 10 cubic metres—waste coolant; in 2006, again print wash at one cubic metre; in 2006, algae water at 50 cubic metres; and, in 2007, blood waste at 25 cubic metres.

Mr Banks: For the purposes of Hansard, that is detailed at attachment 23 of the submission.

Hon PAUL BROWN: You said "blood waste" at the end. What was that one, please; how much?

Ms Laszig: It was 25 cubic metres.

Hon BRIAN ELLIS: So, that was what you approved?

Ms Laszig: That is what the department's records show were approved, yes.

The CHAIRMAN: I think it is fair to say then, in summary, that there are relatively modest amounts of a variety of controlled wastes in the early parts of the first decade, and then that contrasts quite sharply with what sounds like very large amounts of controlled waste in the years 2009 to 2013?

Ms Laszig: That would be correct, yes.

The CHAIRMAN: Just before we come up to the latter period, I did want to go to 2005. There is an allegation contained in a local paper recently that in 2005 the Bio-Organics site received contaminated soils extracted from tunnelling work under the city for the Perth-Mandurah railway. I think you did refer to that in the course of your description.

Ms Laszig: I did, yes.

The CHAIRMAN: Was the department concerned about Bio-Organics' understanding of contamination issues back in 2005?

Ms Laszig: Yes. From the record, it would appear that the department was concerned about the receipt of this waste. The records are not entirely clear as to what happened to the waste, but it is certainly the case that the department was not convinced that those wastes were appropriate to be going to that location.

The CHAIRMAN: What were the quantities again of acid sulphate soil?

Ms Laszig: The quantities that I have read out here were the ones that were authorised under trials. I do not have before me an estimate of the other quantities that might have gone there that were not authorised under trials.

The CHAIRMAN: Did someone investigate that at the time?

Ms Laszig: Yes; departmental officers attended the site and inquired into the Bio-Organics' practices both in raising concerns about the contaminated material, and also in looking at their treatment of acid sulphate soils, because that is a material that, once it is exposed to air, requires neutralisation—basically, the addition of lime to render it harmless.

The CHAIRMAN: How did that issue resolve itself, or did it just disappear?

Ms Laszig: From my memory of reading through the files, everyone was advised that that was not a suitable facility for the receival of contaminated soil, and there was then work put into the, I suppose, review of advice provided to the company in relation to their treatment of acid sulphate

soils. Departmental officers reviewed their protocols and provided commentary to them on whether those met the department's guidelines for treating acid sulphate soils.

Hon PAUL BROWN: Was that followed up to make sure it had been achieved?

Ms Laszig: There were certainly two rounds of comment. There was an initial round of comment that raised some concerns about how they were handling acid sulphate soils, and there was a further acid sulphate soil management plan then submitted to the department that the department provided further commentary on.

Hon PAUL BROWN: Was there another probably more appropriate site for that contaminated soil to be delivered to, rather than the site at Oakford?

Ms Laszig: Typically, those sorts of contaminated soils would go to a licensed landfill facility.

Hon PAUL BROWN: Such as Redhill?

Ms Laszig: Such as Redhill, or another facility that is appropriately licensed, given the levels of contaminants in the material. I might just state at this point that in terms of facilities that are licensed to treat acid sulphate soils that are received from another site, they are also licensed under category 67A. So, in other words, that is the same licence that Bio-Organics holds or held, and the category description is compost manufacturing and soil blending.

Hon PAUL BROWN: So are you saying that Bio-Organics had an approved site, under 67A?

Ms Laszig: The category of licence that they held is the same category that facilities receiving and treating acid sulphate soils from other sites would hold.

Hon PAUL BROWN: But the department was not confident that that site would be an appropriate place for that treatment. Could that be an assumption to be made?

Ms Laszig: I would rather put it that the licence did not address the issue of acid sulphate soil receival or treatment in any specific way. In other words, the licence was silent on the issue of receiving acid sulphate soils, whereas other premises licences might well state that they are required to comply with the acid sulphate soil management plan, for example.

[10.50 am]

The CHAIRMAN: I am aware that this is now 10 years ago, but it is relevant to the current considerations. What are the potential consequences of a whole lot of acid sulphate soil being excavated, taken to this site and unlawfully dumped there?

Ms Laszig: The consequences would only arise if the materials were not appropriately neutralised. Acid sulphate soils are naturally occurring materials and where they are in their original location they are typically under water in a low-oxygen environment, so they are not exposed to the oxygen in the atmosphere. The problem with them is that they contain levels of sulphides, which when exposed to oxygen in the atmosphere, can react to form, basically, sulphuric acid and that acid can then mobilise any of the metals and metalloids that might be naturally present in the soils. The way in which they are handled is that they are neutralised, usually with something like agricultural lime, to make sure that the acid cannot generate and then mobilise the metals. Once they have been neutralised they would be regarded as pretty well benign, and it is certainly recognised they would be regarded and pretty well benign, and it is certainly recognised that a lot of those appropriately neutralised soils form suitable soil amendment products—you know, peat that can be used in gardens and that sort of thing.

The CHAIRMAN: As I understand it, from your earlier comments, the actions were taken about that time so that the regulator could be satisfied that any potential problem had indeed been neutralised.

Ms Laszig: Yes, to I suppose bring their management plan for acid sulphate soils in line with the published guidance at the time.

The CHAIRMAN: Does that sort of occasion arise often? The occasion I am referring to being where a receival point receives some form of waste that they are not really supposed to be receiving, or they are not licensed to receive, and the department has to step in to make sure that they have put proper processes in place to neutralise any risk. Does that happen very often?

Ms Laszig: It is not a hugely common occurrence but it does occasionally arise, where people have perhaps received material that they did not fully understand the consequences of that material. It is also fair to say that Western Australia as a state had not recognised the widespread occurrence of acid sulphate soils until early 2002 through some groundwater acidification issues that occurred elsewhere. So, there was quite a steep learning curve for everyone, both the regulator and people managing excavated soils in the period from 2002 through 2004–05, and there was also a fair degree of mapping that was done to try to identify, for everyone's benefit, where in the state we would be likely to encounter acid sulphate soils that would need to be managed.

The CHAIRMAN: We better now come back to more recent occurrences. I note, Mr Banks, that there is community concern about the site—has been for some time. Submissions we have received note complaints of odour, nausea, stinging eyes, sore throats and liquid waste spilling onto a neighbouring property—that is Mr Dempsey's property. Your website states that —

> … ground water in the vicinity of the Bio-Organics compost facility has been contaminated by leachate from putrescible waste, most probably as a result of activities at the Bio-Organics site.

And adds that —

> The concentrations of nitrogen in the groundwater were found to be significant, environmentally unacceptable and to pose a risk to the environment.

In addition to what you have already told us in your opening remarks, I wonder if you could describe the nature and extent of the odour, and the surface and groundwater contamination at and in the vicinity of the Bio-Organics site.

Mr Banks: The odour survey was conducted in early 2013 and I referred to that in my opening remarks in terms of the findings of that survey, which basically found odours up to 1 100 metres away from the premises and primarily linked to the use of grease-trap waste and also at a high rating of category. So, we have officers that have experience with odour and actually use a process of categorisation of it. In relation to the groundwater, the groundwater investigations are relatively in their early days, so really there is an indication of groundwater contamination, there is a co-occurrence of nitrogen and ammonia, which is why there is a view held that there is a linkage between it and the process of composting, because they co-occur. I guess we can talk more to what that indicative groundwater contamination looks like. We have a slide if you would like to refer to that. I will ask Ms Laszig to speak to that.

Ms Laszig: As was mentioned, what we have at the moment is the relatively early stages of the investigation. This slide was put together based on existing groundwater monitoring data—or monitoring that had been done both by the company itself on its bores, and also bore data that was provided to the department from work commissioned by others, so the department basically packaged that together. This slide represents the total nitrogen concentrations in groundwater in the period of November 2013 to March 2014. I might just explain that the relative size of the circles is a way of depicting how high the total nitrogen concentrations are so that the larger the circle, the higher the concentrations. I will also say that based on the data we have it is not entirely clear—the exact direction of groundwater movement in that area; it is certainly towards the east, but some of the datasets seem to indicate that it is moving in a more north-easterly direction and others that it is moving in a more south-easterly direction. That is one of the issues that will be further investigated under the investigation notice.

The CHAIRMAN: So each of those dark circles, whether they are in the red area or not, are they individual sample points?

Ms Laszig: They represent the location of a groundwater bore, and the relative amount of total nitrogen in the sample from that bore in the period. Basically, the inference drawn from that slide is that there are elevated concentrations of total nitrogen moving away from the Bio-Organics premises in a general easterly direction and one of the bore points that we have, and this "Monitoring bore BH-14" is not on the Bio-Organics premises, it is on one of the neighbouring premises, but the data there would appear to indicate that a plume of nitrogen passed through that monitoring bore location in around about November 2012. If you look at the graph on the right hand side, you will see that in samples taken in 2012 there was very little nitrogen moving up a bit, and then by the sample in about January 2013 there was some quite significant concentrations of total nitrogen in that bore and then reducing slightly by about a year later.

The CHAIRMAN: What would be a normal neutral reading in a neutral location somewhere for total nitrogen. Would it be zero, or would it be something else?

[11.00 am]

Ms Laszig: It would vary. Certainly, on the Swan coastal plain a lot of the groundwater is quite vulnerable to contamination from nutrients because of our soils. It will depend on whether there are other inputs like fertilisers. Even septic tanks can contribute nitrogen to the groundwater. But, I suppose, looking at those bore locations, if one looks at the bore shown on the extreme left-hand side of the picture, it has a concentration of total nitrogen of 15 milligrams per litre. That is what I would be saying. At that location that is the upgradient bore away from the composting operations, so that would be a reasonable indication of groundwater in the area.

The CHAIRMAN: When we have a reading of around 150, as we did at monitoring bore BH14 in about November 2012, that is significant.

Ms Laszig: Yes, that is quite significantly higher than the surrounding groundwater.

Hon SAMANTHA ROWE: Can I just clarify something? Are the darker red circles—the 130 and the 79—on someone else's property?

Ms Laszig: They would be on someone else's property.

Hon SAMANTHA ROWE: Is that Mr Dempsey's?

Ms Laszig: It looks like 79 is just on Mr Dempsey's property and 130 looks as though it is on Mr Stephen Kargotich's property.

The CHAIRMAN: When this November 2012 reading and others were obtained, what would you conclude from that?

Ms Laszig: The data that we received for BH14, we only received in April or May of 2014.

The CHAIRMAN: In 2014?

Ms Laszig: Yes. The off-site bores were not monitored under the licence conditions. Other people have bores and other people might be monitoring those bores for their own purposes. The data for the off-site bores was obtained at various times but certainly the data from Mr Kargotich was only obtained in 2014. That was some of the data that, I suppose, fed into the decision to revoke the licence.

The CHAIRMAN: I was going to ask, if this occurred in November 2012, why was something not done about it in response to it but we do not receive that information in real time in this case?

Ms Laszig: In this case the only data that we were receiving was the data from the bores on the Bio-Organics property, which were monitored under the licence conditions.

The CHAIRMAN: Can you perhaps confirm if there were any neighbouring properties that have been classified, possibly "contaminated—investigation required" on the contaminated sites register, like the Bio-Organics site or could this happen?

Ms Laszig: At this time no neighbouring properties have been classified under the Contaminated Sites Act. One of the neighbouring properties has been formally reported to the department under the Contaminated Sites Act and the department has chosen to defer that classification using the powers that it has under the act. We are awaiting the investigations that will flow from the investigation notice to allow us to make an informed decision on the classification of that neighbouring property. That is lot 7, Orton Road, Mr Dempsey's property, the other one that has been formally reported at this stage. We will also use the results of the investigations undertaken under the investigation notice to determine whether any other properties that might not have been reported yet should be classified under the Contaminated Sites Act. One of the primary purposes, if we were to form the view that other properties and the Bio-Organics property need to be classified, is to ensure that information around the contamination status of the property is formally notified to people, including future owners and occupiers, but we are not at that stage yet. We still need that data to make an informed determination on the contamination status of any other properties.

Hon PAUL BROWN: Obviously, with Mr Dempsey's property being inside that orange plume or flow, the Kargotich property would also be under threat from possible contaminated site registration.

Ms Laszig: Potentially. As I say, we need to understand exactly where the groundwater impact is and what its levels are and make an informed determination around the risk that that might pose to people's health or to the environment. In general, where we are classifying properties under the Contaminated Sites Act due to groundwater contamination, it is so that people can be informed that that groundwater is not suitable for particular uses. At this stage we just do not have the data to make that informed determination.

Hon PAUL BROWN: If there is a deferral of classification of Mr Dempsey's property or further contamination of Mr Kargotich's property, what would be the possible implications for those properties in land use and possible sale or resale?

Ms Laszig: Frankly, it is sometimes hard to say what the implications would be. There may be a perception of impact on property values but there are certainly a whole heap of residential subdivisions around the greater metropolitan area that are classified under the Contaminated Sites Act for one reason or another. Some of the anecdotal evidence we have had has not affected the sale price of those properties in any way.

Hon PAUL BROWN: Would there be any conditions of land-use restrictions on those properties that may affect their day-to-day operations? Is agriculture stock cropping or any of those sorts of activities going to be prevented or restricted through a contaminated sites registry?

Ms Laszig: Given the nature of the substances we are talking about, it is highly unlikely that there would be restrictions on the normal agricultural use of that land. Total nitrogen is a nutrient. It is something that is deliberately applied in the form of chemical fertilisers to land. So irrigating water with increased nitrogen levels is really just adding fertiliser to the land.

The CHAIRMAN: Turning now to the question of the controlled liquid wastes received in 2009 to 2013, could you provide the committee, probably by way of supplementary information, with a list of the types of waste and amounts of each liquid received in each calendar year from 2009 to 2013?

Mr Banks: Yes, we can.

The CHAIRMAN: You can take that question on notice.

When did the controlled waste branch of the department and the licensing and regulatory branch identify that this large volume of waste was being transported to the site?

Mr Banks: The file has been reviewed by Ms Laszig.

Ms Laszig: The first indication that the department had on file in relation to concerns about liquid waste quantities being received at the premises was in 2007. It certainly appears that the department considered whether there were grounds for some form of enforcement action at the time. The determination was that the licence was not sufficiently specific around what could and could not be received at the premises. It is fair to say that from there the record goes silent until probably early 2013 when the odour complaints started to be made. There was that record in about 2007 but it does not appear to have been followed through in the form of an amendment to the licence, for example. I might just add at this point that a facility receiving liquid waste is a different category of prescribed premises; it is category 61, so that any facility that receives more than 100 tonnes a year of liquid waste would trigger the prescribed premises threshold for category 61.

[11.10 am]

The CHAIRMAN: What are the implications of that?

Ms Laszig: Generally, premises receiving liquid waste would also have that category explicitly on their licence and would have conditions relating to the management of the activities around the receival and handling of liquid waste.

The CHAIRMAN: But Bio-Organics did not.

Ms Laszig: The Bio-Organics premises did not, no.

The CHAIRMAN: Yet there was what appears to be a very large volume of liquid waste received prior to 2013. Why would that large volume of liquid waste not have been identified during compliance inspections and site visits prior to 2013?

Ms Laszig: I am afraid, sir, I am going only from the record on the file and it is not clear to me why that was not done.

The CHAIRMAN: Just as part of a process, if you have a licensed premises such as Bio-Organics, would there be periodic compliance inspections by officers of your department?

Mr Banks: Yes.

Ms Laszig: Yes, there would be.

The CHAIRMAN: What sort of things would they examine during such an inspection?

Ms Laszig: The primary focus of those inspections would be on compliance with the licence conditions. So they would typically go in there with the licence conditions and attempt to confirm compliance with each of those conditions. Certainly, in some cases —

The CHAIRMAN: Would those conditions include the amount of waste received?

Ms Laszig: It depends from one licence to another. In the case of this specific licence, there was a nominal rate of throughput, if you like, of the amount of composting done at the premises, but the conditions did not specifically go into the amount of green waste that might be received. The conditions said something like "only green waste may be composted at this premises", under the licence as it existed at the time.

The CHAIRMAN: I might be wrong, but when we are talking about tens of millions of litres of controlled waste, that sounds like an excessive amount, or a very large amount. Should that have been noted during compliance inspections?

Ms Laszig: I would have expected that sort of thing to come up, and certainly after some compliance inspections the department will itself identify, perhaps, licence conditions that need to be changed or amended and initiate an amendment to the licence. All I can say at this stage is that from the record that does not appear to have been done until the department started to progress towards amending the licence in December 2013.

The CHAIRMAN: How is controlled liquid waste usually disposed of legitimately? What is the process?

Mr Banks: Our understanding is that these wastes, in particular grease-trap waste, quite often were treated at the Water Corp Woodman Point facility. So, there are other ways of having it treated other than applying it to compost.

The CHAIRMAN: It seems that the inference one might draw from the information we have seen is that this site started to be used as an alternative disposal point for very large amounts of grease-trap waste. Is that a reasonable assumption?

Mr Banks: I think it is an entirely reasonable inference to draw.

The CHAIRMAN: Yes. What would be the cost involved in disposing of liquid waste, say, through the Water Corp facility as opposed to dumping it?

Mr Banks: I am unable to answer that. I am not privy to the commercial arrangements for waste dumping at Water Corp sites. They may be able to provide that information.

The CHAIRMAN: All right. There is an inference there that needs to be tested, so we will follow that up with the relevant agency.

Hon PAUL BROWN: Chair, if I may?

The CHAIRMAN: Please, Mr Brown.

Hon PAUL BROWN: Going back to the odour complaints, you said earlier that in 2013, in February and March respectively, there were two complaints in February and 34 complaints in March. Prior to that, there were only 17 odour complaints between 2002 and 2013. Are you able to provide us with the dates on which those 17 odour complaints were received?

Mr Banks: Yes.

Hon PAUL BROWN: Were they spread through that time period or were they more towards the 2010, 2011, 2012 end of that time period, given when there was obviously substantial tonnage of liquid waste being deposited on the Bio-Organics site in that time frame?

Mr Banks: Yes. That data has been provided and is at attachment 3 and 4 of the submission, so I can walk you through those if you like.

Hon PAUL BROWN: If you may, please.

Mr Banks: I have only got them in the quarterly, rather than specific dates.

Hon PAUL BROWN: That is okay.

Mr Banks: In 2004, there was one complaint between January and March, one complaint between April and June, one complaint between October and December. There was nothing in 2005. In 2006, there were two complaints between April and June, two complaints between July and September, one complaint between October and December. In 2007, there were two complaints between January and March, three complaints between July and September. In 2009, there was one complaint between January and March, two complaints between April and June, and no further complaints until 2011. There was one complaint between January and March, and no further complaints until January and March of 2013.

Hon PAUL BROWN: Would those dates roughly correspond with the trial periods that were being undertaken?

Mr Banks: I have not conducted an analysis.

Hon PAUL BROWN: Okay. Perhaps by way of supplemental answer we could have a look at whether or not those odour complaints were in conjunction with some of the trials that were undertaken. Obviously, they were not all at the same time but it would be interesting to see if they

corresponded to some of those trials as well. Have you got any opinion to the fact that in 2013 the majority of complaints started—two and 34—and then, given that there was significant liquid waste being delivered to the site from 2009 onwards, have you got any opinion as to why there was very much a rapid increase in 2013, and not 2009 and 2010, or subsequent years, shall I say?

Mr Banks: No.

Hon PAUL BROWN: Good answer. I am just trying to see why there was a strong increase—a very rapid increase in complaints in 2013. Do your records indicate any particular noxious waste being delivered in that time frame that would specifically account for that odour?

[11.20 am]

Mr Banks: I think, from our odour survey, we were attributing the odour primarily to the grease trap waste odour, so there was a continuing increase in the volume of grease trap waste going on site. I do not know why there is a correlation between very few complaints to a rapid spike in complaints.

Hon PAUL BROWN: I am not trying to lead you into your answers, but was there any increase at that time through human waste, blood waste, or anything like that, or poultry waste and things like that that was being applied to the site, outside the conditions?

Mr Banks: I am only saying that we are not aware of any manures going on site at that time, or anything.

Hon BRIAN ELLIS: Just following along similar lines, the committee understands that in early 2013 a number of odour complaints about the site were made. The licensing branch of the department became aware of the volume of liquid waste at the site. However, only in the second half of 2013 was the groundwater risk identified and later, in June 2014, the licence was revoked, and the closure notice issued. Do you acknowledge a protracted time frame in regulating the site at any stage?

Mr Banks: Certainly, the time frame was roughly 18 months, I guess, from the February identification of the odour issue. The odour issue then escalated to a potential contamination issue. There was a licence amendment to try to get the premises into compliance with acceptable environmental practices. That was followed by a process which intended to suspend the licence. Rather than suspending it, I then went down the pathway of revoking the licence. Some of those time frames are related to appropriate procedural fairness, statutory consultation requirements in terms of before making statutory decisions. Yes, I acknowledge it was 18 months.

Hon BRIAN ELLIS: That is one of the obvious questions to ask, then, because once you identified this volume of liquid waste, which was not approved, and it was outstanding, you decided to amend the licence rather than prosecute or close, so, why? Why was the closure not done immediately?

Mr Banks: So, why was the decision not to prosecute? It was largely based around whether or not there was compliance with the licence. I think we have already identified the condition within the licence that did not specify the controlled waste by type or volume but, rather, as some generic descriptor in terms of biological activator. That was obviously problematic from an enforcement and compliance perspective, so that sort of answers that one. In terms of closure, I guess, like most regulators, we tend to try and work collaboratively in the first instance with companies to bring them back into compliance before we move straight into revocation.

Hon BRIAN ELLIS: The only thing there is that it was an extraordinary amount of what you would have expected to control. Just to say it was not specified, it was an extraordinary amount of waste that had not been approved.

Mr Banks: Agreed.

Hon BRIAN ELLIS: So one would have thought that you might have come down a little heavier than you did at the time.

Mr Banks: The volume was dramatically reduced by that licence amendment in December, so, relative to what historically had been going to the site, you are talking about less than a third.

Hon BRIAN ELLIS: It took you until 27 June 2014 to issue the closure notice. You felt that that was a reasonable time frame?

Mr Banks: Yes. There are 21-day consultation periods under the act, so I went through two of those plus an additional consultation period, as well as doing the work to develop the decision document to take the decision.

Hon BRIAN ELLIS: So when did the department identify that the hardstand was too permeable, contrary to the licensing conditions?

Mr Banks: That was as a result of some improvement conditions that were associated with the licence amendment of 16 December, so in amending the licence on 16 December, the department required Bio-Organics to undertake some investigations into the permeability of the hardstand. That was actually as a direct result of modifying the licence that we gained that information, so I think if you reflect on that, you can see a pattern of regulatory response there.

Hon BRIAN ELLIS: There may have been, but was the hardstand complying before the operations, or was it checked before the operations?

Mr Banks: The departmental records indicate that there was a site inspection undertaken at the time of the works approval back in 2002, but I do not believe that we have been able to locate the—I might ask Ms Laszig whether or not the works approval actually included the specification from the relevant qualified engineer or whatever as to the permeability of the hardstand.

Ms Laszig: From my recollection of the file, it was simply a compliance document submitted by the works approval holder, being ATA Construction Pty Ltd at the time, but the original works approval did certainly specify the construction requirements for the infrastructure.

The CHAIRMAN: The closure notice arose from the breach of licence conditions which related to pooling leachate liquid from the base of the windrows on the hardstand areas, which were too permeable. That is our understanding. Can you describe what the problem was there? You might want to do that with respect to some of the illustrations that you have brought.

Mr Banks: I might ask Mr Nelson to speak to the slides, because he was actually there for the site inspection. The obvious issue is that it is a leachate risk into the groundwater, so the hardstand is intended to be effectively sealed, and preventing leachate from dripping down into the groundwater. Obviously, that risk increases if fluid is allowed to pool on it.

The CHAIRMAN: Mr Nelson, can you give us the lie of the land, please?

Mr Nelson: Yes, sure. The first image you can see on the left-hand side is from the south west corner of the designated hardstand area, looking approximately north west, towards the southern end of the windrow that was located there at the time. A process that Bio-Organics were undertaking at the time on site was to open up each windrow so that there was a moat running down the centre of the windrow. The liquid waste trucks would back up to the windrow and pump their liquid waste into the moat, and then the windrows would be folded back in on themselves. As you will see from some of the images I will show you in a moment, the level at the foot of the windrow is opened up, and the liquid waste has dropped down to a lower level. What essentially happens is that once you have closed the windrow up, the amount of liquid waste that we observed on site appeared to be leaching out from the foot of each windrow. I will just take you through some of these pictures here. This is some of the leachate here, running out of the foot of this windrow, and again there is some pooling here and here. That is a closer image of the one I first showed you, and you can see that the surrounding area is relatively dry, and we can see what we believe is

contaminated water and leachate seeping out from the side of the windrow. This image is looking north along the western side of the designated hardstand area. You see in the distance here, again, that there is some leachate leaking out, we believe, from the side of this windrow. You can see that the rest of the area is relatively dry.

The CHAIRMAN: This area is described as a hardstand. The mental image when one hears the word is of some constructed concrete pavement, for example, which would be impervious to liquids, but these photos actually look like it is ground.

Mr Nelson: I use the terminology "designated hardstand area", because that is what we have named it in the actual closure notice. That is why I am referring to that label, if you like. There are different types of hardstands—there are concrete hardstands that can be bituminised or they can be limestone.

The CHAIRMAN: What is it about this land, then, that is intended to make it impermeable?

Mr Nelson: I am not aware of the actual construction myself.

Ms Laszig: It is intended to be, basically, two layers of compacted clay to form the hardstand, each layer of about 150 millimetres, to give you a total of 300 millimetres, and there are geotechnical tests that are done on hardstands like that to confirm whether they meet the permeability requirements.

[11.30 am]

The CHAIRMAN: Okay. Just to consolidate my understanding, then, that means that the liquid controlled waste which comes on-site cannot permeate through the hardstand you have just described, thereby protecting the groundwater underneath, and so then we come to the question of what happens if controlled liquid waste on top of the hardstand is allowed, as this apparently is, to run off. Is that the problem we are approaching now?

Mr Nelson: That was the concern from the information that the department received about the permeability of the hardstand. There were concerns of the pooling leachate, but also the directing and reporting of the leachate to the leachate retention pond.

The CHAIRMAN: So is it a case that it is permeating through the hardstand or running off the hardstand or both?

Mr Nelson: The risk of it running off the hardstand would be more likely from a significant rain event, which would cause localised flooding. That has been significantly reduced now with the clay bund that has been put around the hardstand. However, the main risk that we saw was the actual pooling with waste that was actually in the leachate on the hardstand itself permeating through.

Hon PAUL BROWN: Could one then infer from this that Bio-Organics were putting too much liquid onto their organic waste—the compost—so much so that it was leaking out of the bottom? I do not know how you would put it, but if they are trying to make a composted material, I would imagine the green waste versus the liquid that you put on to activate the bacteria would need to be fairly well controlled to make sure you get the best compost available. It would, in my opinion—maybe you might have an opinion about it—seem that they are putting far too much liquid on that to cause it to run off.

Mr Nelson: I certainly do not know the specifications or the minimum or maximum amounts that you can put into a windrow of that size; I am not qualified to answer that. To allow it to sit within the windrow and leach out, or not to conduct ongoing regular practices on-site to clean that up as quickly as possible, is certainly a concern.

These are closer pictures from the previous slide, looking north along the western side, and the pooling of leachate. As you can see, that is a view of it looking towards the east. The discoloured nature of it looks quite a stagnant type of brown.

The CHAIRMAN: In the photo—I notice it is 21 March in that year, so it is probably unlikely—it does look like they are puddles formed after some rain. But I think you are advising us that in fact it is not rainwater; it is leachate.

Mr Nelson: That is what appeared on-site, yes. There is minor pooling that does occur from using a water cart for dust suppression, for example. However, at the time on-site, there was so much composting fines on the surface of the hardstand that any water that would be applied, whether through rainfall, dust suppression or leaching, was basically soaked up and pooled within the actual product left to sit on-site.

This image is looking along the eastern boundary facing south of the hardstand area. We can see one of the windrows that was on-site at the time. The image on the right-hand side is off the actual designated hardstand area. This area, if I take you back to the previous slide, is this area here. This is the designated hardstand area. These areas to the south and to the south east are not on the actual hardstand area that we believed had been constructed under the works approval.

The CHAIRMAN: So what were the works that were going on in those areas off the hardstand? Was it just stockpiling for loading onto trucks?

Mr Nelson: Yes, stockpiling. There were different stockpiles in that area. From memory, it was native mulch, completed product, blended soils, some sand and some stockpiles of peat as well, which were all quite historical.

This is looking approximately more south than west, I would say, and looking across the area off the hardstand. These are some of the stockpiles that I have just described and completed product here. This is a sand stockpile and what is described as native mulch by the company. You can see the amount of composting fines on the actual surface. This is off what we believe is the hardstand.

This image to the right-hand side is of the drainage grates, which are on the eastern side of the designated hardstand area, approximately two-thirds of the way up on that eastern side. This is where any contaminated stormwater or leachate report into these grates and then that is directed into the leachate retention pond in the south-eastern corner off the hardstand.

The CHAIRMAN: Hopefully, any leachate produced that is not going to be reabsorbed is channelled through a retention system.

Mr Nelson: Into a leachate retention pond. However, there are some concerns about the permeability of that pond in itself.

The CHAIRMAN: That is starting to get on, then, to the problem that the neighbour in particular has, which is about the integrity of the leachate retention.

Mr Nelson: Yes.

The CHAIRMAN: Are you going to be able to tell us about that as part of this presentation?

Mr Nelson: As part of the previous DER licence, one of those improvement conditions was to repair and/or prove to DER that the leachate retention pond was constructed to allow that permeability. Plus, at the time, there was also a pipe that was connected from the leachate retention pond to a stormwater drain which eventually runs into Mr Dempsey's land on the agriculture drain. That was also one of the improvement conditions—to remove that interconnecting pipe. As a result of that information—or not information—coming forward, that is another one of the reasons why DER revoked the licence—because of the potential risk of that leachate.

The CHAIRMAN: So you actually had a pipe going from the leachate retention pond just into the general stormwater drainage.

Hon PAUL BROWN: That would be that pipe there, is it?

Mr Nelson: That is correct, yes. I will get to that.

The CHAIRMAN: Perhaps you can lead us through to that.

Mr Nelson: This is the leachate retention pond as it was back in March 2014. This is looking south across the pond. The pipe in question used to come into the pond here, and there is like an inspection drain here and an agricultural drain that runs from the Avilas' vineyard from west to east along the southern boundary and interconnects into the culvert before it turns east onto Mr Dempsey's land. The information from the Avilas was that that interconnecting pipe was introduced to help fill up the pond when they did not have enough water in the leachate retention pond. However, a discharge occurred back in March 2013, I believe, where a lot of debris kept the valve open from the leachate retention pond and a discharge occurred into the drain, which the department was notified of on 2 August 2013. Unfortunately, as part of the investigation, there was no prima facie evidence there to suggest that there was any intentional discharge from that pond; however, it did open the risk and the knowledge of potential risk going forward. As a result of that discharge in August 2013 that pipe was blocked off by the Avilas and remained blocked off even prior to the pipe being removed and capped. This just shows what the leachate retention pond looks like when there is very little leachate in. I will get back to the actual pipe now.

[11.40 am]

As I explained earlier, one of the improvement conditions under the former DER licence was to remove the pipe. This is a cross-sectional diagram provided to DER by Bio-Organics to explain how they were going to remove that pipe or cap it off. This is the inspection drain, which I explained before. This is a cross-section, if you can imagine, the view of the photographs I showed of the leachate retention pond we are viewing south, so looking across this direction, and this is a cross-section looking from west to east. This is the interconnecting agricultural drain which runs from west to east and eventually enters into that culvert and joins the agricultural drain. This shows the pipe exposed from the side of the leachate retention pond prior to capping. This cone, at the top of the pond, is where the inspection drain is, which I have just showed you on the cross-section diagram. These are photographs showing the pipe capped. This is inside the inspection drain. This is where the pipe outlet still is, but it has been blocked off with wedged items. That is now capped. This is looking across the leachate retention pond north, and the exposed pipe or the capped pipe would have been approximately here. This is where the drain from the Avila's vineyard runs from west to east and eventually enters the culvert which I showed you previously. Again, there is another view of the inspection drain, and this is the pond once it had been capped and the lining had been reinstated.

Hon PAUL BROWN: That pipe that was capped went in a southerly direction from the retention pond into the agricultural drain, and the agricultural drain goes from west to east into the culvert?

Mr Nelson: That is correct. What used to be on this pipe here is like a flap valve, which should only allow water to enter from here into the pond to refill the pond. However, during the discharge on 2 August 2013, this valve had been obstructed or kept open because of debris and that is why it was allowed to discharge into the drain. However, this is now blocked off.

Hon PAUL BROWN: What was the practical purpose of having stormwater flowing from that drain into the leachate pond? I know you mentioned it earlier, but I did not quite grab it then. Does anyone want to have a crack at this one just to inform the committee why there was a need to have stormwater go back in to keep the leachate pond full?

Mr Nelson: The facility re-uses what is retained into leachate pond into the composting process, as far as increased moisture content. So, I suppose, if the leachate retention pond does not have enough water and there is enough flowing through the agricultural drain, they can fill the pond up.

Hon PAUL BROWN: So they suck out of the leachate pond back on to the windrows?

Mr Nelson: Yes.

Hon PAUL BROWN: And that would be in addition to the 87 million tonnes?

Mr Nelson: Correct.

Hon PAUL BROWN: That is a lot of zeroes. That would be adding that on top of the 87 million litres that were already, let us just say, well outside their licence conditions.

The CHAIRMAN: Mr Banks, I want to take the opportunity here to air a number of concerns, in part, to give the agency an opportunity to respond as well as to establish certain matters of fact. What are the risks or the impacts that have been or could be visited on people around the Bio-Organics site in terms of risks to their health or any other?

Mr Banks: The general proposition around bore water is that we advise, in conjunction with the Department of Health, that bore water should be tested and not used for domestic purposes. So I guess we started with that presumption. The main issue is an environmental issue from my perspective in relation to this matter—that is, I guess, additional nutrient load potentially going into the Peel–Harvey catchment. Obviously, I think people are well aware of nutrient loads and its contribution to the issues in that catchment.

The CHAIRMAN: In the first instance, going to the potential contamination of bore water, is it not just a matter of fact that people in areas such as this use bore water for domestic purposes, including consumption?

Ms Laszig: I suppose the Department of Health would always advise that particularly bore water from the shallow or superficial aquifer, which is vulnerable to contamination because of where it is, basically, should not be used without testing and treatment. Certainly, bore water may well be used for things like garden watering, stock watering and those sorts of purposes, but generally, if people were looking at using bore water for domestic purposes, as far as possible, one would expect them to be targeting a deeper aquifer or preferably a confined aquifer that is less vulnerable to contamination, rather than the superficial aquifer where most garden bores are.

Hon SAMANTHA ROWE: Do you know how many homes in the surrounding area actually rely on bore water for domestic purposes?

Ms Laszig: Not at this time. There is no requirement to register bores in this state, so that is not a dataset that we can tap into. However, the investigation notice does require what is termed "a doorknock survey" to be undertaken of people in the area, and part of that would be to try to gather that information.

Hon SAMANTHA ROWE: I understand that you have on the website that people who have bore water and use bore water for domestic purposes should have it tested, but not everyone would be accessing the internet or necessarily going to your website. If they are not aware of the potential contamination, how do you communicate with them to let them know that this has occurred and they might need to get their bore water tested?

Ms Laszig: At this stage we do not actually know how far the contamination or any groundwater impact might extend from the premises' boundary. We also know that the nature of the substances we are talking about—total nitrogen—is something that the natural bacteria in the soil in the aquifer matrix will consume over time. Generally, nutrient plumes travel only for a finite distance. At this stage there is not the data to support widespread engagement with people in the area to suggest there might be a risk to their health.

Hon SAMANTHA ROWE: So there was no communication done?

Mr Banks: We have done some stakeholder mail-outs and the last one was only a matter of weeks ago.

Hon SAMANTHA ROWE: To the surrounding homes in the area? Is that who they were sent to?

[11.50 am]

Mr Nelson: I would not know exactly which ones, but there have been stakeholder letters sent out to local residents.

Hon SAMANTHA ROWE: When was that—a couple weeks ago?

Mr Banks: Yes, there have been a couple, I think.

The CHAIRMAN: How long does it normally take to confirm the nature and extent of groundwater contamination?

Ms Laszig: To do a thorough investigation that covers seasonal variations as well, one is normally looking at a one-year period so that one can understand how things change with seasons. Just mobilising drill rigs to site, getting bores installed, letting it stabilise so that one can take representative samples, even for the first round of sampling, to do it inside six weeks would be doing it really quickly.

The CHAIRMAN: What would you say, then, to a concerned resident who might say, "If we have got contamination in our groundwater now, we need to know about it now so that something can be done about it"? What is the response to that? Have you heard those sorts of views expressed; and, if so, what is your response?

Ms Laszig: I am not aware of such views being expressed to the department, but I have not necessarily seen all the records.

Hon BRIAN ELLIS: One of the problems you have, obviously, is that you have informed the residents, but they were probably happily using these bores long before this operation took place with no problems at all, and you are saying for them to check their water and get it tested. Should someone else not be testing it—perhaps the department or even Bio-Organics?

Ms Laszig: The purpose of the investigation notice issued to Bio-Organics is to understand where this contamination is. Certainly, in terms of groundwater bores in this sort of area, one would assume that most of the homes are on septic tanks rather than deep sewer, and it is an agricultural area—there will be fertiliser applied to land and there will be other potential sources of impact to a shallow unconfined groundwater aquifer. So, this would certainly not be the only potential source of nitrogen in the groundwater for individual domestic bores.

Hon BRIAN ELLIS: I take that point but, yes, it is their responsibility to look after their own water without the addition of something else that has contaminated it. They would have done all that, but I imagine a lot of these places, a lot of these residents, would have been using bore water well before, as I said, Bio-Organics came along. We are talking about an additional contamination that seems to be, I would have thought, someone else's responsibility, not the residents'.

Mr Banks: I think we agree with that proposition and I think we are also saying that the investigation notice is the primary vehicle for doing that and so at the time—I think October last year—the investigation notice was issued that required them to undertake specific investigations because we did not feel they were progressing their investigation sufficiently quickly enough. That was appealed and that appeal was recently dismissed by the contaminated sites committee, so we will now look to enforce that notice.

Hon PAUL BROWN: Just going back to the pipe between the agricultural drain on the leachate pond, given that we just discussed that it was there to have stormwater coming back in to allow Bio-Organics to put it on to their windrows, and given that it is a controlled site and you are trying to control or have an understanding of what is coming on to site and what the level of contamination is, was there any way to determine how much waste through stormwater was coming onto the site? Was any testing done of that stormwater? Was any reporting done on how much water—stormwater or any other water such as leachate or pond water—was being taken off out of leachate pond back onto windrows?

Mr Nelson: It is a controlling method for the site itself, so any leachate or stormwater from rainwater that sits on that hardstand is directed to the leachate pond.

Hon PAUL BROWN: Effectively, stormwater could—I am being devil's advocate here—be contaminated coming from the stormwater drain on site, which you have no oversight of. It could have been upstream contamination from the vineyard or any other person or property accessing that agricultural drain and you are allowing stormwater, potentially contaminated—maybe not, but potentially—to come back into their and be put onto that site. Everything else that was going to the front door was supposed to be licensed, reported and regulated, and you would have thought you would have had a full understanding of what was coming on site, but the stormwater that was coming on site from parts unknown with contaminants unknown you had no reporting on.

Ms Laszig: There is no mention in the licence of this as a source of water for the site and I did not observe any mention in the records of the files that I reviewed of any of this water—stormwater or otherwise.

Hon PAUL BROWN: So what are you saying—they were not supposed to be using stormwater on the site?

Ms Laszig: It was not addressed in the licence. Certainly, a composting facility requires liquid to keep the compost in the right state of moisture and there were periods in the facility's history from the controlled waste records when we know they were receiving very little, if any, controlled waste, but they must have had some water for the composting process to continue.

Hon PAUL BROWN: I do not disagree with that. What I am saying is that this is a controlled site and you are trying to understand the level of controlled waste and the types of controlled waste coming onto the site. In effect, you have had other potential waste from stormwater that was upstream coming onto the site and it was not being monitored and tested.

Mr Nelson: I do not think the department was aware of that pipe being there until the discharge of that.

Hon PAUL BROWN: That is the point I am trying to make.

Mr Nelson: Unless the leachate pond, for example, was at such a low level, you would not actually see that pipe submerged underwater. There are agricultural drains that run across the whole area.

Hon PAUL BROWN: So access to stormwater was not part of the licence conditions and therefore —

Mr Nelson: Without the licence in front of me, I would not know what the conditions are, unfortunately. I was not part of the original licence —

Hon PAUL BROWN: I am just trying to make the point that there were potentially other contaminants coming on site. If they had been allowed to use stormwater drain water that was not being observed or monitored, parts unknown with contaminants unknown were allowed to come onsite from another access point. Considering we are talking about a controlled waste site and now a contaminated site that, nobody in the department knew they were actually using that facility to top up their facility.

[12 noon]

Mr Banks: I think we would agree; it should be a sealed system. It should not have egress and —

Hon PAUL BROWN: No, look, you have answered that; that is fine. I am just trying to understand whether it was a known or unknown —

Mr Banks: It was not something we sanctioned, I do not think, explicitly.

Mr Nelson: Until that event, it is not obvious to the naked eye on site, unless you know the construction itself.

The CHAIRMAN: Before we close, we probably need to get on to matters of relations with the public. There has been a great deal of public interest in this incident, as I imagine there is in similar incidents elsewhere. Is that the experience of the department?

Mr Banks: Yes, I certainly think a number of our sites have a high degree of community interest around them.

The CHAIRMAN: With that in mind, how would you review your department's engagement with the public over this particular incident?

Mr Banks: I think it is problematic in some ways. Even giving private evidence to the committee would probably not necessarily be my preference. I guess there have been issues, too, in terms of expectations around what information the department as a regulator can provide. There is a tension here in terms of being able to regulate industries and then having the confidence that they can provide us information that is not necessarily for general public consumption; it is for the purpose of discharging our regulatory functions and also the desire of the community to understand what is going on. I think that probably my biggest observation in relation to this matter is that that tension has not served, probably, the department well.

The CHAIRMAN: What can we do to improve that? Are we hampered by the legislation or the legal system?

Mr Banks: I do not think the legislation is necessarily inappropriate. It creates offences for the department to disclose commercially sensitive information, which leads to a degree of caution. But, as I said, the department is privy to commercial information that the companies have an expectation will be held in appropriate privacy.

The CHAIRMAN: Is that why the public has to rely sometimes on FOI applications to get the information they are asking for?

Mr Banks: Generally principally, if it relates to information that the company is likely to consider commercial-in-confidence. The FOI process, I guess, can be protracted, but it is well established, it is established by law, it provides opportunities for consultation, and it enables those matters to be considered and resolved. That was the case with some of the information that was being requested in relation to this matter.

The CHAIRMAN: While you are regulatory body, do you think you also have an obligation to inform the public about the progress of examinations and findings on contamination and so on?

Mr Banks: Certainly, the classification of contamination is a well-structured, legislative process, and there are processes in place to inform—we make that stuff publicly available, so there is a register to make sure that that information is publicly available. I think it is the transition period from the time between, say, something being reported and it subsequently being classified that obviously creates some angst. Also, in this instance, once we have classified, we still have a detailed investigation process to go through to ensure it is confirmed, and the classification is potentially reviewed.

The CHAIRMAN: Have some of your dealings with the public been hampered by the fact that there are a number of appeals pending against actions that you have taken?

Mr Banks: I think it is easier to operate in an environment where there are not appeals, but I guess in terms of the release of information, the same rules would apply regardless.

The CHAIRMAN: How could we improve from this exercise? What can we learn from it? Are there better ways that we can interact with the public to make sure that we do not have large turnouts of people making petitions and demanding inquiries and so on because they do not know what is going on or they claim they do not know what is going on? How can we do that better?

Mr Banks: I guess that is something the department can look to as to how it better engages the community. But, as I say, I think there will always be a sense of frustration because of wanting to know the detailed specifics of what is going on rather than general status statements. If we were doing more regular updates to the community, a lot of them would have been repetition and with no real commentary, and perhaps even further contribute to their frustration, which clearly is evident.

The CHAIRMAN: What about some members of the public who are closer to the action than others? Is there a point of liaison that you have or is it just left to members of the public to try to work their way through your bureaucracy to get answers?

Mr Banks: I might ask Mr Nelson to speak to that, because he is more regularly on site and I understand he is having fairly regular contact with some of the more directly affected parties.

Mr Nelson: The complainants—the members of the public who contact me are the residents who do tend to live closer to the premises. I am in regular contact with them, and if they have any concerns, they are be raised with me, in addition to going out onto site on a weekly basis.

The CHAIRMAN: The site's neighbour, a Mr Dempsey, whom we have not spoken to yet, was recently quoted in *The Sunday Times*, saying he had not heard diddly squat from the department. Would that be fair? I do not know whether there is anyone here from *The Sunday Times* before I say anything about them being the best source of information, but is that a fair criticism if it was true?

Mr Nelson: As far as the contaminated sites side of stuff, I will probably let Kerry speak to that. I have personally met Mr Dempsey and spoken to him on a number of occasions with regards to allegations made against himself and speaking to him with regards to the Bio-Organics site. But as far as the investigation conducted by the contaminated sites functional area, I will let Kerry answer that.

The CHAIRMAN: Before I go to Ms Laszig, I am putting myself in the situation of a neighbour who has a stormwater drain and who finds there is what appear to be contaminated liquids in some quantity coming out and potentially contaminating his own property. So he turns to a regulator and says, "Help", and then all of these other processes kick in. Who is there to answer the question that he will ask, which is, "What about me?" Do we have a mechanism to assist that neighbour, because, heck, the closure notice is coming up for its first anniversary on 1 June. Where is the empathy for people who are directly affected?

Ms Laszig: Certainly, the department has written to Mr Dempsey on a number of occasions. The first formal communication under the Contaminated Sites Act would have been to inform him that his property had been reported as a suspected contaminated site, and that was in early September 2013, following this particular spillage incident that was talked about. The department then subsequently communicated with him to explain that it had suspended classification of his property, and the department has also provided some further updates in writing, including a copy of the investigation notice for his information when that was issued to Bio-Organics. The department has also had several telephone conversations with Mr Dempsey.

The CHAIRMAN: What are the impacts on Mr Dempsey—the implications of being treated as a potentially contaminated site or not?

Ms Laszig: At this stage his property has not yet been classified, because the department is awaiting the results of the groundwater investigation to determine whether his property requires any sort of restriction on its use. I cannot speculate at this stage until the investigation has been completed.

The CHAIRMAN: When might that be?

Ms Laszig: That is the investigation being done under the investigation notice. But certainly one of the reasons why the department has deliberately not classified his property at this stage is to reserve open to it the option to classify the property as "report not substantiated". That option no longer

exists if a property has already been classified "possibly contaminated, investigation required". At this stage we simply do not have sufficient information to be able to make that call, and that was part of the reason why the investigation notice was issued to Bio-Organics to obtain the data required to make that determination.

The CHAIRMAN: There are a couple of questions that arise out of that, which I must put to you. Again, is there an indication of time frame?

[12.10 pm]

Ms Laszig: Now that the appeal has been dismissed, the effective date of the investigation notice becomes 18 March 2015, so all the requirements in that notice, in terms of time frame, apply from that time onwards. Basically, the investigation notice requires the installation of a number of additional bores within the general area of the plume that was shown on one of the earlier slides, and then monitoring of those bores over four quarterly events to obtain that seasonal groundwater information. Without having the detailed timetable in front of me, approximately a year from now I would expect us to be close to having that detailed information.

[Interruption.]

The CHAIRMAN: Order!

I am just putting myself in Mr and Mrs Dempsey's position. While all this is happening, what are the actual effects on them? I thought that was a question I asked a little while ago, and I am hearing about investigations and processes and further on, but what is the impact on Mr and Mrs Dempsey of all this?

Ms Laszig: I can talk only from a legal perspective, which is to say that under the Contaminated Sites Act there is no legal implication, there are no memorials registered on the title, it is simply a question that is waiting to be answered.

The CHAIRMAN: There is nothing wrong with that answer—technically. I have asked a couple of times now, but no-one is able to—I am going to have to go around myself, I think, and find out, "How is this impacting on your lives? You reached out and made a complaint. As I understand it, you made a complaint to the government regulator saying there is a concern next door which is polluting my property and I do not know what I can do with my land. I cannot sell it. Can I grow things on it? I do not know." Has nobody been around to have a cup of tea with this guy and find out what sort of impact it is having on them personally? That is what I am trying to get at. There is no law that you administer as regulators that tells you to do that. I just want to know: has this agency done that?

Mr Nelson: I have had conversations with Mr Dempsey when I have been out on site and, yes, he has expressed his clear frustration about what is going on on site, and his frustrations to me over the phone. We have definitely had those conversations. Again, we have explained the processes we are going to have to go through to be able to formally get to an end, to decide what we can and cannot do with the land going forward.

The CHAIRMAN: So in the meantime, what do the Dempseys do on their land? How are they impacted?

Ms Laszig: I suppose I would put this another way to say that if the department had a clear indication of a potential risk to people's health, the department would have contacted all those people and notified them of it. The substances we are talking about are levels of nutrients in groundwater in an area where we would not—while there are certainly levels of nutrients that are higher than the background there, it is not completely unexpected in that sort of agricultural area to find those levels of nutrients. The department certainly does not have any major warning bells going off of an imminent or serious risk of harm to anyone.

The CHAIRMAN: Is it a case that Mr Dempsey noticed this leachate coming down his stormwater drain and contacted you and just said, "Just to let you know", if it does not otherwise affect him or bother him?

Ms Laszig: I am not sure how the department received the initial report of the spillage.

Mr Nelson: The initial spillage that came through in August 2013, as result of our investigation, that is why that pipe has been blocked off and removed as part of the ongoing licence conditions —

Hon PAUL BROWN: Was that self-reported or was that a complaint?

Mr Nelson: That was a complaint made by a neighbour of Mr Dempsey, I believe, who was walking his dog on site. The results of that investigation have definitely been reported, which as I mentioned before, there is no prima facie evidence to prove an offence. Any one individual was culpable for that incident; however, as a result of that, and the ongoing concerns of the site, that is why we are at the position we are today.

Ms Laszig: Certainly, if I may, just in terms of Mr Dempsey's property, looking at the aerial photograph—and this is not one that we have in the slide, but it is the bigger one that was circulated in hard copy—it would appear that the buildings on that property are all pretty much due south of where the composting activities have been occurring on the Bio-Organics premises. As we know from the groundwater flow direction in that area, the groundwater flow—and I did talk about there is some uncertainty, but it is somewhere in the general easterly direction. If there is any bore on Mr Dempsey's property in the vicinity of the buildings that show on the aerial photograph, it is highly unlikely that that bore would be in any way affected by any groundwater contamination coming from Bio-Organics simply due to the direction of groundwater flow in the area.

The CHAIRMAN: Thanks very much for that information. Mr Banks, thanks very much to your officers for attending with you today to assist us in our inquiries. We will have to draw this session to a close for now, but obviously there will no doubt be some further correspondence, including one or two questions that you have taken on notice. We will conclude today's hearing now and, again, thank you for your attendance.

Mr Banks: Thank you very much for the opportunity to attend and I hope this has been of some assistance to the community that has attended as well. Thank you.

Hearing concluded at 12.17 pm

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