

The 1998 Sydney Water Crisis (B)

On the morning of Monday, 27 July 1998, Sydney Water Managing Director Chris Pollett met with his Chairman David Hill and Minister Craig Knowles for their regular monthly meeting. But at no point during the gathering did Pollett mention the unfolding water contamination situation. He explained his decision thus:

“I was aware that we were meeting – my general managers – were meeting with Health later that morning and I wanted to have the benefit of that discussion. I clearly intended to raise it with both of them in my mind that day, but I recollect thinking to myself [that] I’d like the benefit of that discussion with Health because, as someone not involved...in the investigation, I wasn’t sure what the answers were, so I wanted to get those answers and brief the Chair and the Minister when I knew [them]. I had certainly intended to brief them later that day after they met.”¹

After the meeting, Sydney Water and NSW Health convened a teleconference at 11.45 am which they hoped would resolve some of the many questions surrounding the incident. Representatives from both organisations participated as well as experts in water testing, infectious diseases and public health. Sydney Water’s latest hypothesis was that localised episodes of negative pressure had allowed untreated water into the system. Sydney Water agreed to keep investigating the extent of the problem.

The next item on the agenda was deciding how and what to tell the general public. Both organisations concurred that a “boil-water alert” should be issued for the Eastern CBD.

This case was written by Marinella Padula for Dr Allan McConnell, University of Sydney. It is a sequel to case 2005-22.1 and was prepared as a basis for class discussion rather than to illustrate either effective or ineffective handling of a managerial situation. The use of sequels, epilogues and teaching notes is restricted to authorised persons only.

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¹ McClellan, P. ‘Sydney Water Inquiry, Second Interim Report: Management of the Events’ NSW Premier’s Department September 1998 p.34

However, Sydney Water wanted a low-key approach using letterboxing and newspaper advertisements. By contrast, NSW Health wanted to issue a media release warning residents in the affected areas to boil their drinking water until further notice. After considerable discussion, NSW Health's plan was adopted and it was agreed that the Sydney Water media branch and NSW Health media branch would liaise on the media statement. They also decided that the boil-water alert would be lifted once contaminated areas tested negative on three consecutive occasions and providing that the problem remained contained.

When the teleconference finished at 1.15 pm, Pollett was informed of the joint decision. Due to attend a subcommittee meeting of the Board at 2.00 pm, he advised David Hill of the situation shortly before it began. During the meeting, Pollett briefed the board members present, describing the high readings obtained over the weekend from the eastern CBD area and the boil-water alert. Hill concurred with the course of action. Pollett then called Minister Knowles, also informing him of the high *Cryptosporidium* and *Giardia* readings as well as suggesting that, although the cause was unknown, the situation could have been triggered by earthworks for the Eastern Distributor highway.

Clash of the media units

Meanwhile, NSW Health and Sydney Water were attempting to collaborate on the media release. Shari Armistead, the Acting Director of NSW Health's Media Unit claimed to have contacted Rod Metcalfe, Sydney Water's Acting Media Manager. She believed that they had agreed to issue a release warning people to boil water for one minute before drinking and seek medical advice in the event of any symptoms. *Cryptosporidium* and *Giardia* fact-sheets were to accompany the release. However, Metcalfe had a different recollection of their conversation. In his account, he told Armistead that Sydney Water wanted to conduct a media conference instead, claiming Pollett's endorsement. When Armistead refused to participate on the basis that it would inflate the issue, Metcalfe claimed that he informed Pollett of NSW Health's insistence on a press release.²

NSW Director-General of Health Mick Reid had a different recollection again. He asserted that when he called Pollett about the matter, Pollett appeared to have no knowledge of the proposed conference. According to Reid, Pollett agreed to go along with the media release.³ NSW Health's fact-sheets designed for both for the general and immunocompromised population were faxed to Sydney Water, where Metcalfe commenced drafting the statement. Metcalfe however, took the view that the NSW Health information was inappropriate:

“On receipt of those fact-sheets it was the assessment of me and others in the communications team that they were too detailed and too complex in terms of a simple message for the media, so therefore should not be issued with the media release.”⁴

² McClellan, P. *Sydney Water Inquiry, Second Interim Report: Management of the Events* NSW Premier's Department September 1998 p.36

³ *ibid.* p.37

⁴ *opcit* p.37

Further delays ensued, with both Armistead and Metcalfe claiming that the other was slowing proceedings. Metcalfe maintained that he did not receive each of the fact-sheets until 3.31 pm and 5.30 pm respectively. He also claimed that he sent a draft media release to Armistead at 3.30 pm; one she said did not arrive until 5.00 pm, after a reminder call at 3.00 pm. At 5.15 pm, Armistead called Metcalfe to recommend some changes. According to Metcalfe, the alterations included the withdrawal of any Health statement of support for Sydney Water's actions. She also requested that the revised version be faxed back to NSW Health. When the release hadn't arrived by 6.00 pm, Armistead phoned Metcalfe again to ask for a copy. Metcalfe advised that the release had been sent out at about 5.45 pm. At 6:15 pm, Health received a copy of the release from Sydney Water. Tensions between Sydney Water and NSW Health were now simmering.

NSW Health takes the initiative

The next day (28 July) NSW Health got word of some positive low results from the central CBD while other eastern suburbs sites had tested negative. Sydney Water was in the process of completing a letterbox drop in affected neighborhoods. Meanwhile, NSW Health was drafting its own separate media release, prepared for the *Sydney Morning Herald* and explaining why the boil-water alert had been issued and the link between the presence of *Cryptosporidium* in the water supply and illness (*Exhibit 1*). It described the boil-water alert as a precautionary step and went on to say that:

No relationship has been established between finding *Cryptosporidium* in drinking water at any level (in Australia or elsewhere) and effects on human health. That means a high level versus a low level does not necessarily indicate an increased risk. This is also supported by a large survey of treated North American water supplies that showed that despite the presence of *Cryptosporidium* there was no evidence of human disease. The lack of association between *Cryptosporidium* in drinking water and human illness may be because the organisms are killed during water treatment processes.

However, the *Sydney Morning Herald* article which was published the following day (*Exhibit 2*) only quoted the statement in part:

No relationship has been established between finding *Cryptosporidium* in drinking water at any level (in Australia or elsewhere) and effects on human health.

Up until that point, the story had failed to register significantly in the press. This situation changed when media outlets across the country started to pick up on the issue. Both organisations attracted criticism, in particular, over the delay between receiving the high readings and notifying the public. The article quoting the NSW Health statement also reported comments made by Water Consumers of Australia chairman John Archer who described Sydney Water's actions as disgraceful and accused the corporation of "deliberately downplaying the risks." Other newspaper headlines included: "Water alert delay"⁵ and "Water bug alarm 'late'"⁶. But by that afternoon, Sydney Water and NSW Health had already found themselves facing fresh difficulties.

⁵ 'Water alert delay' *Adelaide Advertiser* 29/7/1998

⁶ 'Water bug alarm late' *The Daily Telegraph* 29/7/1998

Updating the alert

At 1.30 pm on 29 July, Sydney Water and NSW Health representatives met to discuss an extension of the boil-water alert in the light of further positive test results. Prior to the meeting, the NSW Health Media Unit contacted its Sydney Water counterpart to discuss drafting a release that could be approved while both parties were assembled. But the Sydney Water Media Unit wanted to wait for the outcome before preparing any material. However, both organisations interpreted the conclusion of the meeting differently. NSW Health was under the impression a media release would be issued, while Sydney Water thought that they would be placing an advertisement. Later that afternoon, NSW Health was concerned that the media release had failed to materialise. Reid had to contact Pollett and get his Minister's office to phone Sydney Water Operating Licence Minister Knowles' office before the media release was finally issued at 5.45 pm.⁷ While the relationship between the two parties was already strained, it was about to buckle under the weight of new developments.

More bad news

Despite the fact that positive readings were still being obtained, *Cryptosporidium* and *Giardia* levels were falling and Sydney Water engineers believed the system would soon be clear of contamination. All this changed at 5.30 pm when test results showed that one of the clear water tanks at the Prospect Plant contained contaminated sediment, although it was currently offline. This meant that the second tank was almost certainly affected and that parasites could be introduced into the system in regular bursts. Sydney Water executives were informed soon afterwards, and then at 7.00 pm they were notified about low-positive readings taken from samples in the second tank. To confuse matters further, clear readings had been taken from the Prospect Plant outlet the previous day. Another complicating factor was that they were unsure how to interpret readings taken from sediment as opposed to water. They understood the results to mean that contamination levels at Prospect were high. The new data also included some negative readings taken from the Potts Hill Reservoir before 7.00 pm. However, these samples were only taken from the perimeter of the facility, and Sydney Water believed it to be a potential source of contamination.

At 7.30 pm, new readings from Potts Hill confirmed the Corporation's worst fears. Contamination levels were at 10C/48G per 100L.⁸ This result raised several potential scenarios. Contamination could have been either: (1) coming from the Prospect Plant; (2) coming from the distribution system below the plant; or (3) entering at the Potts Hill Reservoir. The confused pattern of readings from different sites around the city made it difficult to pinpoint a source, but nonetheless Sydney Water now faced the possibility that the whole system downstream of Prospect was contaminated at a high level.

These results prompted lengthy discussions in the Operations Room at Sydney Water's head office. Richard Mackender, the Water Network Manager, took the view that they had

⁷ McClellan, P. 'Sydney Water Inquiry, Second Interim Report: Management of the Events' NSW Premier's Department September 1998 p. 40

⁸ *ibid* p.41

a significant problem on their hands and that Prospect was the likely source of contamination. He believed that the problem might be fixed by a careful program of balancing the water flow while cleaning the system, but there was a risk of releasing further contaminants. Other theories put forward included contamination coming from the catchment area, or perhaps a dead animal in the Potts Hill Reservoir. At 8.30 pm, Ron Quill, General Manager of the Sydney Water subsidiary Transwater, called the Operations Room suggesting that the Upper Canal, which supplied Prospect from the Upper Nepean dams, be shut off as it could be the contamination source. Chris Pollett, however, was unaware of the latest developments. He had left the office at 6.35 pm, but Distribution General Manager Jeff McCarthy asked him to come back into the office at 9.00 pm. Retail General Manager Geoff Morris was also called back. At 9.00 pm, Sydney Water also ordered additional tests from throughout the Prospect System, including areas not supplied by Potts Hill.⁹

Pollett returns

At approximately 9.30 pm, Pollett returned to the office and contacted Reid who was at a Health Ministers' dinner with NSW Minister for Health Andrew Refshauge. According to Pollett, he told Reid about the results from the Potts Hill reservoir and downstream from the facility, suggesting that a broadening of the boil water alert was required. He also explained the situation to NSW Health epidemiologist Andrew Wilson. By contrast, Reid and Wilson claimed that Pollett indicated that the likely source of contamination was Prospect and that the alert should be expanded to include the entire Prospect system which encompassed all of Sydney except the Blue Mountains, Penrith, Campbelltown and Illawarra. Nonetheless, both Pollett and Reid recalled agreeing that Sydney Water and NSW Health would liaise on the production of a new media release.¹⁰ Reid then informed Minister Refshauge who endorsed a widening of the alert. His Press Secretary, Julian Brophy, also stressed the need to finish the release in time for the late night news. Reid paged Shari Armistead, advising her to stand-by.

Pollett then reached Chairman David Hill at 9.46 pm. Hill gauged that his presence was required and started making his way over to the Sydney Water office. Meanwhile, Acting Media Manager Rod Metcalfe had arrived. He spoke to Mackender, Morris and McCarthy who suggested that the problem was Prospect-wide and would probably require a release to that effect. He began drafting the media statement and assembling sufficient staff to deal with the anticipated deluge of media enquiries. Recalling the events of that evening, Metcalfe claimed that Pollett saw him just before 10.00 pm and read the release containing the warning for the entire Prospect system. He did not make any changes. Rather, he instructed Metcalfe to send it to NSW Health and "get them to sign it off".¹¹ He then read the release to Armistead who requested one change. Pollett instead claims that he instructed Metcalfe as follows:

"Please prepare a draft media release for 'boil water' along the lines of Monday's release in the CBD. You should consult with Shari Armistead of NSW Health in preparing the draft. Sydney Water is going to release the statement as we did on Monday. I'm going to get

⁹ McClellan, P. *'Sydney Water Inquiry, Second Interim Report: Management of the Events'* NSW Premier's Department September 1998 p.42

¹⁰ *ibid*

¹¹ *opcit* p.47

advice from our General Managers and other experts on what areas are affected. When you prepare the draft media release, please include, at the moment, the whole of Sydney, but not Blue Mountains, Illawarra, Penrith, North Richmond and Macarthur.”¹²

At approximately 10.00 pm, Chris Pollett joined his staff in the Operations Room where the debate about the source and extent of contamination was still in progress. They had no further data to analyse and were still unable to reach a consensus but Mackender was of the impression that the technical people assembled agreed it was potentially a system-wide problem and that all Prospect users should be warned. Meanwhile, others maintained it was a localised issue. Quill arrived shortly after Pollett and added his opinion that the contamination was coming from Prospect. He recalled conversing about the appropriate public health response, but according to Quill, they were no closer to resolving what the extent of the alert should be.

Hill arrives

David Hill was next, arriving shortly after 10.00 pm. He went straight to the 23rd floor of the Sydney Water building where the media unit was located. Before going in he heard a “tremendous amount of noise” and upon entering the room, regarded it as, “not a situation that I would say, in management terms, [was] under control”.¹³ He overheard one of the media staff asking if they should inform the Education Department whereupon Hill interjected, instructing her to hold off. He then asked if any media statement had been issued and was told there was one awaiting Pollett’s approval. Metcalfe also told Hill that he was liaising with NSW Health on the media release but nothing had been sent out to any other person. Hill looked at the draft, taking exception to the words “severe diarrhea” and “urgent” as he considered them alarmist. However, he didn’t pay specific attention to the area identified in the alert.

Hill then proceeded to the Operations Room. Different staff had varying accounts of his response to the situation. In Pollett’s opinion, those present had not formed a firm view of the situation at the time of Hill’s arrival. Pollett said:

“My recollection is that we were still talking about [it]– I mean, it was early days... this [was] a rapid response to a situation to get everybody into the office. People were still coming in, coming and going. Phones were ringing, information was being collected, etc. etc.; so I certainly don’t recollect the meeting, say, ‘aha, it’s that or something else’.”¹⁴

According to him, Hill’s first words on arrival were to state very strongly: “We need to consider this carefully – we don’t want to cause undue alarm.”¹⁵ But McCarthy remembered Hill arriving and saying:

“I hope you blokes know what you’re doing...Do you realise that what you’re doing here will affect the organisation for the next ten years, and probably longer than that.”¹⁶

¹² *ibid* p.47

¹³ McClellan, P. *Sydney Water Inquiry, Second Interim Report: Management of the Events* NSW Premier’s Department September 1998 p.49

¹⁴ *ibid* p.52

¹⁵ *ibid* p.52

¹⁶ *ibid* p.49

Quill's recollection was slightly different. In his version Hill's opening remark was: "Why do we need to issue a boil-water notice?"¹⁷

Hill was told it was due to the high contamination levels and Hill indicated that he wanted more information. Mackender felt that Hill didn't quite comprehend the extent of the problem. Using a map and test results to illustrate the situation and potential ramifications, he recalled that Hill repeatedly said:

"Tell me the facts...Where have you actually observed this parasite? Where have you actually observed it?"¹⁸

Mackender explained although they had had clear readings downstream from the Prospect Plant previously, experience showed that clear areas often turned out to be contaminated later. He told Hill that he was not prepared to rule out Prospect as the source of the contamination and that the entire system was potentially affected. According to Mackender, Hill considered this "speculation", saying:

"I don't want to know about your theory, I want to work on the actual data you've got where there is a problem."¹⁹

Reflecting on the evening Mackender also said:

"I think [David Hill] listened to what I had to say and took the bits that he wanted to hear and made a decision. Now, he may have put less weight...on my 'speculation' and more weight on the part where we had numbers but...maybe that's the way he makes a decision."²⁰

Mackender asserted that Hill didn't announce any decision to the managers at that point. Instead he left with Pollett, apparently saying, "I feel like a cup of tea. We'll go and have a cup of tea, Chris."²¹

Hill's account

Hill again had a different recollection. Mindful of the "bedlam" he said he'd witnessed on the 23rd floor, he believed it was important to try and settle the staff. He remarked to Pollett: "We should calm everybody down, tell them to have a cup of tea and send most of them home."²² He believed he was in the Operations Room for a total of 5-10 minutes and recalled the episode thus:

"The advice I got then from Chris and subsequently was that they were trying to calculate on the basis of where they'd got positive results as distinct from negative results, what areas of Sydney could be at risk as distinct from those where there was no evidence that they were at

¹⁷ *ibid* p.49

¹⁸ McClellan, P. 'Sydney Water Inquiry, Second Interim Report: Management of the Events' NSW Premier's Department September 1998 p.50

¹⁹ *ibid* p.50

²⁰ *ibid* p.51

²¹ *ibid* p.51

²² *ibid* p.52

risk and I concurred...Given my lack of technical expertise, I could not make any useful contribution to the calculation which was being conducted...they did try and explain it to me but I brought absolutely no skill to that, no qualifications for that. I didn't then, and I don't now understand where all the pipes run ... I couldn't make that calculation and I couldn't even make a contribution to the calculation so I accepted their advice.”²³

Hill's understanding of their advice was that the boundaries of the affected areas were still indeterminate, that not all of Sydney was at risk and therefore a blanket alert for the entire Prospect system was unnecessary. He said: “In my view it was not responsible to force people to boil water unnecessarily.”²⁴ Hill didn't recollect any mention of Prospect during this briefing, but did recall stating that the event would do “irreparable damage to the company for a number of years”.²⁵ Once Hill was finished in the Operations Room, he returned to the 23rd floor.

The decision is made

During the Operation Room meeting, Pollett left briefly to take a call from Reid who wanted to know the latest on a possible contamination source. Pollett recalled telling Reid that:

“...the causes were not known at that stage but [I] mentioned some possibilities to him including naturally occurring *Giardia* and *Cryptosporidium* in the catchments and raw water, the operations of the Prospect Plant, and ingress of *Giardia* rich water into storage canals, sediments in the Potts Hill Reservoir, ingress of surface water or other objects into Potts Hill Reservoir, or other reservoirs, and biofilms in the pipelines. I informed him that we were still assessing the data and discussing the areas which could be affected.”²⁶

Pollett said he returned to the Operations Room, still weighing up the evidence in his mind as well as considering Hill's view that “we shouldn't be alarmist and should go with the area that we could justify on the data”.²⁷ He was also aware of other issues:

“...the other thing that was going through my mind, as [Hill] was talking about not being alarmist... was the fact that in my experience in the water industry, particularly in the UK with boil water notices... the view there is that you do need to be cautious and they have evidence, they told me, that you can get quite a lot of injuries from boiling water, particularly with old people and young people and, you know, you need to be cautious about not overdoing it.”²⁸

When he returned upstairs with Hill to advise the media unit in the Boardroom, Pollett remembered Hill saying

“The precautionary notice should cover only affected areas which can be supported by facts and data. To go wider would be reckless and cause unnecessary alarm.

²³ McClellan, P. 'Sydney Water Inquiry, Second Interim Report: Management of the Events' NSW Premier's Department September 1998 p.53

²⁴ *ibid* p.53

²⁵ *ibid* p.53

²⁶ *ibid* p.56

²⁷ *ibid* p.58

²⁸ *ibid* p.57

Also it should only refer to Giardia because of Health's media release to the *Sydney Morning Herald* on 28 July."²⁹

This meant any mention of *Cryptosporidium*, potentially, the more potentially dangerous organism of the two, was to be deleted. Pollett then addressed the room thus:

“As we discussed downstairs with our experts, it appears that on the information received and the sample data now available there are recent clear results in water from the Prospect Plant as well as other areas being fed by the plant. On the present data, the area affected is the Potts Hill system.”³⁰

Morris, who joined Hill and Pollett in the Boardroom shortly thereafter, confirmed that they had decided to limit their warning to the Potts Hill system. But before they could make much headway on the revised version, they were interrupted with some news: NSW Health had already issued the draft release with the Sydney-wide alert.

The release is “killed”

On Reid's instructions, Shari Armistead had sent out Sydney Water's draft statement which did indeed make the late night news. Hill was “appalled”³¹ and insisted on speaking to Armistead immediately. According to his account, the following exchange took place:

“I said ‘This is irresponsible. It's unauthorised and inaccurate.’ Armistead said ‘You people should have put the release out earlier. That's why we put it out.’ I said ‘You're in enough shit already. Don't argue. Just retract the bloody thing and get Mick Reid to ring me’.”³²

Armistead remembered a verbally abusive conversation where Hill “shouted”, “yelled” and “screamed”.³³ After Hill had finished speaking to Armistead he instructed Metcalfe to “kill” the release as soon as possible. Metcalfe then contacted Australian Associated Press (AAP) the national newswire service, and told the news editor to “kill the story” on the grounds that it was inaccurate.³⁴ Pollett received a call from Reid at around 11.40 pm and notified him of Sydney Water's retraction. Hill then spoke to Reid, reiterating his disapproval. Unaware that he was speaking to Hill, Reid made some choice remarks and hung up. Hill and Pollett then sat down to re-draft the media statement, removing all reference to *Cryptosporidium* in the process (*Exhibit 3*). After it was issued to the media in the last minutes of 29 July, Pollett called Reid to promise future cooperation and also called Minister Knowles to apprise him of the situation.

²⁹ McClellan, P. ‘*Sydney Water Inquiry, Second Interim Report: Management of the Events*’ NSW Premier's Department September 1998 p.58

³⁰ *ibid* pp.58-59

³¹ *ibid* p.60

³² *ibid* p.60

³³ *ibid* p.60

³⁴ *ibid* p.60

Knowles in the middle

On the morning of 30 July, Sydney residents woke to news of the widened water contamination scare. State Opposition Leader Peter Collins took the opportunity to declare: “Two years out from the Olympics, we get a reputation for being a city whose water supply has to be boiled before you can drink it.”³⁵ Meanwhile, Sydneysiders started stocking up on bottled water. The media also seized on the discrepancy between the two releases. During his conversation with Knowles, Pollett had neglected to mention the fallout between Sydney Water and NSW Health but now their poor working relationship was painfully apparent and the handling of the incident was being described as a “shambles”.³⁶ The latest advice from Sydney Water was that the contaminated water was coming entering the Prospect plant from Upper Canal. The canal was to be closed and chlorine levels increased. Knowles was faced with a government department and statutory authority at loggerheads, while a once contained situation now threatened the greater part of the city. He had to call the Premier soon and both he and Sydney were waiting on a solution.

³⁵ ‘Warning issued after bacterial parasite found in Sydney water’ AAP 30/7/1998

³⁶ McClellan, P. ‘*Sydney Water Inquiry, Second Interim Report: Management of the Events*’ NSW Premier’s Department September 1998 p.62

Exhibit 1: NSW Health Statement

A Statement from NSW Health for Sydney Morning Herald

28th July 1998

Over the past year NSW Health has conducted intense active surveillance for evidence of disease which could be attributed to cryptosporidium in drinking water. So far no disease has been detected.

During the weekend NSW Health carefully monitored reports of water testing from Sydney Water.

On Monday new evidence came to light showing the source of the organisms was possibly due to a problem with the pipes that allowed contaminated water to be sucked in.

It was at that point it was decided a warning should be issued as a precaution.

No relationship has been established between finding cryptosporidium in drinking water at any level (in Australia or elsewhere) and effects on human health.

That means a high level versus a low level does not necessarily indicate an increased risk.

This is also supported by a large survey of treated North American water supplies which showed that despite the presence of cryptosporidium there was no evidence of human disease.

The lack of association between cryptosporidium in drinking water and human illness may be because the organisms are killed during water treatment processes.

Two-day silence on tainted city water

By LINDA DOHERTY

Health and water authorities waited two days before making public that high levels of potentially fatal *Cryptosporidium* and *giardia* parasites had contaminated city drinking water.

Sydney Water issued a news release at 5 pm on Monday warning city residents within a two-kilometre radius of College Street to boil water for at least a minute before using it.

But staff first detected low levels of the parasites in a water main near Parliament House in Macquarie Street on Friday.

On Saturday, high levels of both parasites - which can cause gastro-intestinal illness in healthy people and have fatal consequences for babies, the elderly and people with AIDS - were found in Macquarie and College street mains.

Sydney Water and NSW Health did not meet to discuss notifying the public until Monday.

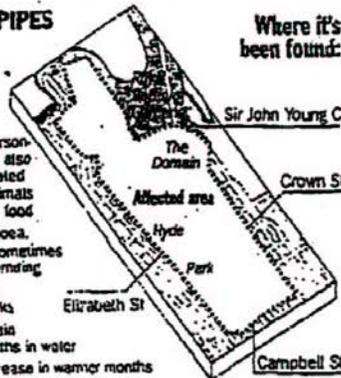
The Opposition Leader, Mr Collins, said the "unprecedented crisis" risked Sydney's clean water reputation two years before the Olympics.

"The real question is why it took the Government two days to release this information," he said.

A Sydney Water spokesman said it could be another day before the contamination source

PERIL IN THE PIPES

- ▶ **Cause**
Cryptosporidium, a parasite which infects intestines
- ▶ **Transmission**
Mostly through person-to-person contact, also through contaminated water, infected animals and in rare cases, food
- ▶ **Symptoms** Diarrhoea, abdominal pain, sometimes slight fever and vomiting
- ▶ **Recovery** Usually less than two weeks
- ▶ **Parasite may remain infectious for months in water**
- ▶ **Cases tend to increase in warmer months**



was identified, but it was thought to be stormwater which seeped into the mains after construction work disturbed soil.

The chairman of Water Consumers of Australia, Mr John Archer, said Sydney Water had acted "disgracefully" by not informing the public of the potentially fatal risks of infection, especially to people with depressed immune systems.

"In America this would not be tolerated," Mr Archer said. "President Clinton recently identified *Cryptosporidium* contamination as a very serious problem.

"Sydney Water is deliberately downplaying the risks."

Cryptosporidium and *giardia* are naturally occurring parasites found in human and animal intestines. Illnesses such as diarrhoea are caused when the organisms are ingested.

The *giardia* levels found on Saturday were 200 to 300 cysts of the parasite per 100 litres of water, while the *Cryptosporidium* readings were just under 20 oocysts per 100 litres. Normal levels for both parasites are zero. Three high-level readings were registered at the two sites over the weekend.

Where it's been found:

The area affected was bounded by Crown, Elizabeth, and Campbell streets and the Royal Botanic Gardens.

The Sydney Water spokesman said pipes in the area were flushed and by Monday the parasite readings were zero.

Testing took 24 hours and there was no "real time" test in Australia to speed up the process, he said.

A NSW Health spokeswoman said no illnesses had been reported and the precautionary warning was issued on Monday when the test results were available.

"On Monday, new evidence came to light showing the source of the organisms was possibly due to a problem with the pipes that allowed contaminated water to be sucked in," she said.

"No relationship has been established between finding *Cryptosporidium* in drinking water at any level, in Australia or elsewhere, and effects on human health."

A senior lecturer in biological sciences at Macquarie University, Dr Duncan Veal, said the readings were "unusual and highly undesirable to find in finished [treated] water".

Seven Sydney pools were temporarily closed after the chlorine-resistant parasite was detected in March.

Source: Sydney Morning Herald, 29/7/98

Exhibit 3: Media Release and Re-draft

Understand that the source of the giardia is believed to be from

29 July 1998

URGENT PUBLIC ANNOUNCEMENT

①

Extensive testing by Sydney Water Corporation has identified the presence of the microorganisms Giardia and Cryptosporidium in parts of Sydney's water supply.

A batch of water containing ^{the} these organisms in the Eastern Sydney CBD was identified late last week.

A second batch has now been identified which could affect a much wider area.

~~In conjunction with NSW Health, Sydney Water is issuing this precautionary alert for all areas of Sydney including Penrith, the Blue Mountains, Campbelltown, Richmond and the Murrumbidgee.~~

Residents of the affected area are advised to boil drinking water for one minute and allow it to cool naturally before drinking.

Normal hot water can be used for bathing, dishwashing and cleaning cooking utensils but ~~these should be avoided. These should be dried for should be made from filtered water.~~

Sydney Water believes it has identified the source of the contamination and is working to rectify the city's water supply as quickly as possible.

~~The microorganisms can cause severe diarrhoea. People concerned should seek professional medical advice.~~

Sydney Water will keep the community informed through the media.

The Sydney Water Hotline is available: 1800 644 522 (24 hours)

Media Information

Rod Metcalfe/Colin Judge
02-9350-5940/029350-5151
Pager 02-9966-7941

can't find monitoring & testing throughout the metro area

which could affect



The giardia can cause stomach upset and may require seeking profes. medical advice.

Head Office

115-123 Bathurst Street, Sydney, NSW 2000, Australia PO Box 453, Sydney South, NSW 2000, Australia

Phone (02) 350 6969 DX 14 Sydney

SYDNEY WATER CORPORATION LIMITED



29 July 1998

PUBLIC ANNOUNCEMENT

Extensive testing by Sydney Water Corporation has identified the presence of the microorganism *Giardia* in parts of Sydney's water supply.

A batch of water containing the organism in the Eastern Sydney CBD was identified late last week.

A second batch has now been identified which could affect an area East of Bankstown - Silverwater; South of the Harbour and North of the Georges River.

Residents of the affected area are advised to boil drinking water for one minute and allow it to cool naturally before drinking.

Sydney Water will advise as soon as the water supply is clear and further precautions become unnecessary.

Normal hot water can be used for bathing, dishwashing and cleaning cooking utensiles.

Giardia can cause stomach upsets and may require seeking professional medical advice.

Sydney Water will continue monitoring and testing throughout the metropolitan area.

The Sydney Water Hotline is available: 1800 644 522 (24 hours)

Media Information

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