

The need for the work

Introduction

- 3.1 In evidence to the Committee, the Department of Defence (DoD) advised that in 1995, in anticipation of the introduction into service of the Collins class submarines, to be based in Western Australia, former *HMAS Platypus* was declared surplus to DoD requirements.¹ From 1995 until 2000, contamination testing of the site was undertaken in parallel with land use planning studies to determine future use of the property.
- 3.2 The DoD advised the Committee that when properties are declared surplus to requirements, the DoD seeks to secure the relevant approvals for future land use prior to disposal so as to maximise the revenue return from a future sale.²
- 3.3 The remediation of the former *HMAS Platypus* site is intended to mitigate Commonwealth liability for the contamination of the site and to maximise the revenue to the Commonwealth from the sale of the site.³

Contamination of site

- 3.4 Scientific evidence submitted to the Committee as part of the Inquiry process indicated that the activities carried out on the site have resulted in

1 Evidence, p. 26.

2 Evidence, p. 26.

3 Evidence, pp. 9 and 26.

numerous sources of potential and actual contamination. The principal types of contaminants on the site include:

- polycyclic aromatic hydrocarbons (PAH's);
- total petroleum hydrocarbons (TPH);
- benzene;
- phenolic compounds;
- complex cyanides;
- cresols;
- heavy metals;
- sulfate; and
- toluene and xylenes.⁴

3.5 Scientific evidence presented to the Committee suggests that the use of the site as a gasworks between 1876 and 1941 resulted in most of the contamination. Contamination that may have resulted from the operation on the site of the RAN include:

- leakage of fuels, oils or sludge from underground storage tanks and associated pipeworks;
- spillage of fuels or oils on the ground surface during refuelling of vehicles;
- spillage of fuel in the area of the boiler house;
- ash, cinders and decomposed bitumen;
- spillage of transformer cooling oil; and
- imported fill.⁵

3.6 Scientific evidence obtained from the extensive sampling of the site indicated that fill beneath the upper carpark contains arsenic, copper, lead, mercury, TPH and PAH's.⁶ There is a BTEX (benzene, toluene, ethylene and xylene) concentration near the administration building at the upper entrance to site.⁷ The fill on top of the Bunker House contains TPH, PAH's, copper, lead and zinc.⁸ Fill beneath the floor of the Bunker House and

4 Exhibit 3, pp. 1-11 and Evidence pp. 16-20.

5 Exhibit 4, p. 39.

6 Exhibit 4, p. 45.

7 Exhibit 4, p. 45.

8 Exhibit 4, p. 45.

directly south of the Bunker House contains TPH, PAH's and lead.⁹ Fill beneath the navy's factory building contains chromium, copper, lead, nickel, mercury, TPH, phenol's sulphates and cyanides.¹⁰ Also, fill beneath the lower level of the site contains PAH's and lead, zinc, mercury, ammonia, sulphates, TPH and BTEX.¹¹

- 3.7 Scientific evidence indicated that groundwater beneath and around the site is contaminated with PAH's, arsenic, chromium, copper, nickel, zinc, total cyanide, ammonia and sulphates and to a lesser extent with TPH, BTEX and phenol's.¹² Analysis of samples from boreholes drilled near the western border of the site indicate that contaminated groundwater is flowing onto the site. Scientific evidence indicates that this water is coming from the direction of the Iora property.¹³ The contaminants identified in the groundwater are nickel, zinc, total cyanide, ammonia and soluble sulphates.¹⁴

Commonwealth liability

- 3.8 The mitigation of Commonwealth liability for the contamination of the site was a stated rationale given by the DoD for the need for the proposed works.¹⁵ Prior to the public hearing, the Committee sought a legal advice from the DoD regarding this issue. The Committee requested the DoD to provide advice regarding:
- (i) the potential liability of the Commonwealth in respect of existing contamination on the site; and
 - (ii) whether NSW law required thorough removal of contamination in order to redevelop the site and stop off-site pollution?
- 3.9 The advice received by the Committee addressed the issues raised by (i) above in terms of liability under the common law and the *Contaminated Land Management Act 1997* (NSW) (CLMA). In respect of liability under the common law, the Committee was advised that if contamination on, or issuing from, the site causes death, personal injury or damage to property

9 Exhibit 4, p. 45.

10 Exhibit 4, p. 45.

11 Exhibit 4, p. 45.

12 Exhibit 4, p. 51.

13 Exhibit 4, p. 51.

14 Exhibit 4, p. 51.

15 Evidence, pp. 9 and 26.

(including any reduction in the value or utility of land adjoining the site caused by the transport of contaminants across the site boundaries), the Commonwealth would be liable at common law for those consequences.¹⁶

- 3.10 If the site were disposed of without remediation, the Committee was advised that the Commonwealth would no longer be liable in trespass or nuisance for any death, personal injury or damage to property which might arise from future migration of contaminants from the site.¹⁷ However, it remained possible that the Commonwealth's liability in negligence would continue.¹⁸ The legal advice in respect to liability under the common law concluded that:

the physical removal of all relevant contaminants from the site, in reliance on the advice of expert remediation consultants and an accredited land auditor would reduce the risk that any death, injury or damage to property would occur and will be matters of great relevance in determining whether the Commonwealth had discharged its common law duty of care in negligence.¹⁹

- 3.11 In respect to Commonwealth liability under the CLMA, the Committee was advised by the DoD that if the New South Wales Environmental Protection Authority (EPA) has reasonable grounds to believe that contamination of the site presents a significant risk of harm to human health, or to some other aspect of the environment, it is empowered to require the Commonwealth to investigate and report on the contamination on the site.²⁰ Where such a process establishes contamination presents a significant risk to human health or to some other aspect of the environment the EPA could require the Commonwealth to remediate the site and to monitor the effectiveness of that remediation.²¹ The legal advice also stated that:

The meaning of the expression 'significant risk of harm to human health or to some other aspect of the environment' has not been the subject of any judicial determination since introduction of the CLM Act, however, on the evidence available in respect of the site, there is at least a possibility that such a risk exists.²²

16 Exhibit 8, p. 1.

17 Exhibit 8, p. 1.

18 Exhibit 8, pp. 1 and 2.

19 Exhibit 8, p. 2.

20 Exhibit 8, p. 2.

21 Exhibit 8, p. 2.

22 Exhibit 8, p. 2.

- 3.12 The Committee was also advised through the DoD legal opinion that the Commonwealth would not be exposed to investigation or remediation orders under the CLMA after it has disposed of the site, except if the Commonwealth had principal responsibility for the contamination of the site.²³ On the basis historical and scientific evidence presented to the Committee it appears that only a relatively minor part of the contamination on the site could be attributed to the Commonwealth. Once this contamination is removed, the exception referred may not be applicable.
- 3.13 The legal opinion received by the Committee also addressed the issues raised by question whether New South Wales law required thorough removal of contamination in order to redevelop the site and stop off-site pollution, in terms of requirements imposed by the common law and the CLMA. In respect to the common law, the Committee was advised that the common law contains no principle which draws any distinction between techniques of remediation and as such the reduction or elimination of future liability is a matter of risk assessment based on expert advice.²⁴ The Committee was also advised that, in practical terms, this means that the objective in each case must be, with the assistance of expert advice, to remove any practical possibility that contamination on the site will cause any death, personal injury or damage to property.²⁵
- 3.14 In respect to requirements imposed by the CLMA, the Committee was advised that the CLMA does not draw any distinction between any particular technique of remediation, and that the critical criterion under the Act is a risk assessment. That is, the removal of any significant risk of harm to human health or any other aspect of the environment.²⁶
- 3.15 In addition, the legal opinion advised that the CLMA provides for a system of accredited contaminated land auditors who are empowered to issue statutory site audit statements. In general terms, the effect of the scheme is to require the accredited auditor to be satisfied that the site is suitable for a particular use before the proposed new use is carried out. In respect to the proposed remediation, the Committee was advised that the LEC decision requires a site audit statement to be issued before the site can be redeveloped for housing.²⁷

23 Exhibit 8, p. 3.

24 Exhibit 8, p. 3.

25 Exhibit 8, p. 3.

26 Exhibit 8, p. 3.

27 Exhibit 8, p. 3.

- 3.16 Further, the Committee was advised through the legal opinion that it will be a matter for the accredited auditor to decide whether all contaminants must be removed from the site, or alternatively, whether removal only down to a particular depth will be required in order to achieve an appropriate level of future risk.²⁸ The accredited Site Auditor for the proposed remediation is Dames & Moore Pty Ltd, which submitted a summary site audit report on 29 November 1999.²⁹

Liability for contamination from the Iora site

- 3.17 The accredited Site Auditor concluded that seepage from the Iora site through the sandstone cliff face on the site has been assessed as having a potential to cause adverse health effects under extreme conditions. Additionally, the blue staining associated with this seepage has also been identified as an aesthetic issue requiring consideration.³⁰
- 3.18 Following the public hearing, the Committee sought advice from the accredited Site Auditor whether in his opinion excavation of the rock cliff is required to achieve the remediation standards set for the site. The accredited site auditor advised that excavation of the rock face:
- would provide a high degree of certainty that the environmental standards set for the site are achieved;
 - if the cliff is not excavated, detailed investigation and validation would be required; and
 - based on the tar already observed, at least selective excavation of the cliff would be required.³¹
- 3.19 The Committee noted that in January 1989 contaminated stormwater runoff from Iora residential site was investigated and notice under Regulation 21 of the *Clean Waters Act* (NSW) was issued.³² Sumps were installed below the Iora carpark and water collected and tested before discharge to the sewer system.³³ Further, in 1991 the North Sydney Council requested further investigation of blue staining at the Iora site. A New South Wales State Pollution Control Commission inspection determined that the

28 Exhibit 8, p. 3.

29 Exhibit 9.

30 Exhibit 9, p. 53.

31 Exhibit 10.

32 Submission, Environment Protection Authority, 18 October 2000, p. 9.

33 Submission, Environment Protection Authority, 18 October 2000, p. 9.

colouration was likely to be cyano-containing vapours or contaminated groundwater rising to the surface and reacting with iron in the sandstone used as a decorative trim.³⁴ In September 1997, the DoD forwarded a report to the New South Wales Environment Protection Authority indicating groundwater entering the DoD site was contaminated with gaswork related contaminants.³⁵

- 3.20 The Committee sought from the DoD advice as to who has legal responsibility for contamination of the DoD site from the Iora site. The DoD advised that at common law, the DoD is entitled to be compensated for any damage, by the owner of the Iora site caused by migration of contaminants across the boundary from the Iora site.³⁶ In addition, the DoD advised that it was entitled to restrain future cross-boundary migration of contaminants.³⁷
- 3.21 Further, the DoD also advised the Committee that under the CLMA, which applies to the Iora site, if the cross-boundary migration of contaminants represents a significant risk of harm, the EPA has the power to require the Iora site to be investigated and remediated to remove the risk.³⁸

Conclusions

- 3.22 Based on evidence presented as part of the Inquiry process, the Committee is of the opinion that the contamination on the site is causing ongoing pollution to the Neutral Bay area and the surrounding environment and is indicative of a need for the proposed works. The Committee is also of the opinion that, as the future use of the site is restricted while the contamination remains, for this reason also, there is an identified need for the proposed works.
- 3.23 The Committee is of the opinion that remediation of the site may mitigate the Commonwealth's liability for contamination of the site and is indicative of a need for the proposed works.
- 3.24 While the extent and nature of contamination from the Iora property has yet to be determined, the Committee notes that under the remediation

34 Submission, Environment Protection Authority, 18 October 2000, p. 9.

35 Submission, Environment Protection Authority, 18 October 2000, p. 9.

36 Exhibit 7, paragraph 17.

37 Exhibit 7, paragraph 17.

38 Exhibit 7, paragraph 17.

proposal it would be the Commonwealth which would be footing the bill for installing a management system for off-site contamination. In the Committee's opinion, responsibility for drainage from the Iora site is the responsibility of the New South Wales Government, both now and in the future, and the Commonwealth should be exempted from any future legal liability.

Recommendation 1

- 3.25 **The Committee recommends that the Minister for Defence write to the New South Wales Environment Protection Authority requesting that the Authority consider issuing an investigation order under Part 3 of the *Contaminated Land Management Act 1997* (NSW) in respect of the Iora residential site, after the former *HMAS Platypus* site is remediated.**

Recommendation 2

- 3.26 **The Committee recommends that the Department of Defence investigate the possibility of being compensated for any damage caused by the migration onto the former *HMAS Platypus* site of off-site contaminants, and costs associated with remediation and installation of a management system for such contaminants.**