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Cost

5.1 The cost of the proposed works is $16.5 million.[1] This includes all design, site establishment and environmental controls, demolition, excavation, treatment and removal of contaminated material, backfilling and compaction of clean fill, seawall protection and management of contaminated groundwater.[2]

5.2 Subject to Parliamentary approval, the remediation works will commence in early 2001, with the objective of having the works completed by December 2002.[3] The project will be implemented as a managing contractor contract.

5.3 A number of aspects of the cost of the project were raised by the Committee with the Department of Defence (DoD) during the Inquiry process. These included:

- indepdendent audit;
- GST;
- haulage of waste materials; and
- low densit option;

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1 Evidence, p. 12.
2 Evidence, p. 12.
3 Evidence, p. 26.

Independent audit

5.4 It has been the Committee's experience with remediation works that such projects often experience cost over-runs that are significantly more than the original cost submitted to the Committee. The Committee is of the view that the construction budgets for remediation projects must include adequate contingency allowances that are well above those normally allocated to other projects. The Committee considers there is a need for such high contingency allowances because of the greater levels of uncertainty associated with remediation projects.

5.5 Prior to the Public Hearing the Committee requested that the DoD obtain an independent audit of the budget for the proposed works. Subsequently, the DoD provided the Committee with an independent audit, undertaken by the firm of Sinclair Knight Merz Pty Ltd.

5.6 The independent audit concluded that there was a high level of confidence that the cost to remediate should lie within the project budget. The main findings of the assessment, upon which the conclusion was based, were:

- all major tasks required to remediate the site appear to have been adequately reflected in the schedule of tasks specified in the project cost details;
- the quantities used in the project costing appear to be reasonable and provide an appropriate level of contingency;
- the unit rates used in the project costing appear to be generally consistent with market rates or conservatively defined; and
- the remediation strategy is one that is most likely to minimise commercial risks.

5.7 While concluding that there is a high level of confidence that the cost to remediate the site should lie within the project budget, the independent auditor recommended that certain actions be undertaken, including:

- in relation to the dewatering of excavations and water disposal –
  - ⇒ Thiess include in their equipment spread sufficient spare pumping capacity to provide backup in case there is a breakdown in the 100m diameter pump that has been allowed for in the project budget for a period of 76 weeks.
  - ⇒ Thiess has in place procedures for accessing additional pumping capacity in emergency situations.

- ⇒ Thiess plan the excavations in such a way that dewatering flows can be discharged into soaker pits located within unremediated areas of the site that are designed to provide sufficient retention capacity.
- ⇒ The width of the soil barrier be increased to 4m in order to minimise seawater migration into the excavation area.
- ⇒ Consideration be given to including a sub-soil drain at the base of the soil barrier that can be used to remove seawater prior to it being impacted by leachate from the site.

- In regards to unit rates in the project costing, the auditor recommended:
  - ⇒ Arrangements should be made for landfills to accept loads in wet weather; ensuring excavations and water inflows are properly managed to avoid construction delays; and program work to ensure alternate tasks are available for equipment during wet weather.
  - ⇒ The project budget is exclusive of GST charges. An additional allowance will need to be included should the project budget be required to include GST costs.
  - ⇒ In order to mitigate risk, it is recommended that Theiss engage sub-contractors on rates that remain fixed for the anticipated construction period.

5.8 At the public hearing the Committee asked the DoD whether it accepted the recommendations of the auditor. The DoD stated that it did.[4]

5.9 The Committee is strongly of the view that because of the high levels of uncertainty associated with remediation projects, all agencies seeking Parliamentary approval of such projects should obtain an independent audit of the projects budget.

Recommendation 3

5.10 **The Committee recommends in respect of future submissions relating to land remediation, that the Department of Defence and other agencies provide the Committee, in the interest of public accountability and transparency, with an independent audit of the project's budget.**

4 Evidence, p. 28.

GST

5.11 In its submission, the DoD did not advise the Committee whether the cost of the proposed works included or excluded any GST related costs.

5.12 At the public hearing, the Committee questioned the DoD as to whether the project had to account for GST costs.[5] The DoD advised that GST costs would be refunded.[6]

Haulage of waste materials

5.13 The DoD proposes to transport by truck contaminated excavated material from the site to approved disposal sites. At the public hearing the Committee questioned defence whether it had considered hauling contaminated excavated material by barge and what the cost would be to remove material from the site by barge rather than by road.

5.14 In its submission to the Committee, the Platypus Combined Precincts Committee, argued that road haulage would significantly increase the cost estimate for the project beyond the $16.5 million requested.[7]

5.15 In response to the Committee's question as to the cost of haulage by barge, the DoD advised:

> I would think we would be looking at several million extra [for haulage by barge] over cost on the project. More importantly, though, from a technical point of view why we have recommended to Defence to go with trucking rather than barging is simply the environmental risks which a barging operation entails, particularly when you are dealing with contaminated materials of the type that are found on this site.
>
> If we were to barge, we would need to barge the materials to White Bay, say, or some other location, unload the materials at that location and then put them back onto trucks for transport to landfill. … We see that there are significant risks to the Commonwealth and to the environment from such an operation.[8]

5 Evidence, p. 29.
6 Evidence, p. 29.
7 Evidence, p. 77.
8 Evidence, pp. 29 and 30.

5.16 Following the public hearing, the Committee requested from the DoD an assessment of the likely costs associated with barging contaminated material from the site. Subsequently, the DoD advised the Committee that it had evaluated a number of different barging systems and reviewed the suitability of each for the application at Neutral Bay, with particular regard to the potential for spillage of contaminated material to the Harbour, and the potential for odour release at the site and barge unloading location.

5.17 In summary, the DoD advised that likely cost for haulage by barge would be between $2.6 million and $9.2 million, implying a revised estimated cost of approximately $26.0 million for the project.[9] The direct costs of the contaminated material disposal operation were estimated by the DoD to increase from $46.60 per tonne, to $80.29 per tonne as a consequence of the barging.[10] Other costs included in the DoD's assessment are:

- nominal allowance for the rental of wharf space at White Bay;
- managing contractor overheads associated with the extended duration on site;
- additional requirements for occupational health and safety associated with the extended duration on site;
- additional water management requirements associated with the extended duration on site; and
- managing contractor margin.[11]

Low density option

5.18 The DoD proposes a residential land use scheme for the remediated site comprising 95 dwellings and approximately 5,400m^2 of public space.[12]

5.19 The Committee found that the number of dwellings that had been approved by the LEC for the remediated site to have been a significant issue for both witnesses at the public hearing and those who made submissions.[13]

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9 Exhibit 14.

10 Exhibit 14.

11 Exhibit 14.

12 Exhibit 6, p. 3.

13 See for example, Evidence, pp. 78, 84, 97, 112, 131 and 140.

5.20 The Committee notes the conclusions of Justice Sheahan of the LEC in respect to the issue:

> I attach little weight to the Council's claim that the proposal is an excessive development. It is quite clear that when compared with the development adjoining it, it is certainly not excessive. Indeed, it is generally consistent with the average dwelling density in the precinct as a whole.
>
> …
>
> The development provides an entirely appropriate and adequate solution to the reuse of a relatively difficult site presently used for a quasi-industrial activity. The project will provide a unifying element between the existing and somewhat intrusive development of "Iora" and the waterfront below, where at the moment there is no relevant visual connection.[14]

5.21 At the public hearing, the Committee questioned the DoD about the cost benefit of the development proposal. Above all, what had the DoD done to look at other options, in particular, whereby profit could be maximised with a low-density residential option. The Committee also sought clarification as to whether lower density landuse would result in a lower remediation requirement.[15]

5.22 The DoD advised the Committee that it had considered just about every development option for the site, including small boutique hotels, high-rise apartments and high-rise towers.[16] In respect to the financial viability of a proposal put forward by a witness at the public hearing, Mr Linker, for a development of 25 to 30 luxury houses, the DoD advised the Committee that it would seek someone to independently examine that proposal.

5.23 Subsequently, the DoD provided the Committee with a financial model it had obtained from independent property consulting firm, Hill PDA Pty Ltd, for a low-density residential option. The model indicated that the residual land value for the site would fall by approximately half. For the low-density option, the model assumed:

- 25 sites, at an average size of 360 square meters;
- that Defence had remediated the site; and
- that 30% of the site was dedicated for open space.

14 Exhibit 1, pp. 49 and 51.

15 Evidence, p. 143.

16 Evidence p. 143.

5.24 In respect to the whether a lower density future landuse would result in a lower remediation requirement for the site, the DoD sought the advice of the EPA accredited Site Auditor. Subsequently, the Site Auditor advised the Committee:

> In assessing urban redevelopment sites, the Auditor is required to assess soils at the site against both health based investigation levels and environmental levels. The health investigation levels are contained in the NSW EPA (Environment Protection Agency) "Guidelines for the NSW Site Auditor Scheme" (1998) and the National Environment (Assessment of Site Contamination) Measure 1999. The applicable health based investigation levels are dependant on the proposed future land use, and four different land use scenarios are listed. The four different landuses can be summarised as:
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> - "Residential with gardens and accessible soil…". This is typically low density residential developments.
> - "Residential with minimal access to soil…". This is the type of development which is proposed for the majority of the Platypus site.
> - "Parks, recreational open space…". Criteria for this landuse apply to part of the proposed Platypus site redevelopment.
> - "Commercial or industrial".
>
> The most stringent health investigation levels are for "residential with gardens and accessible soil".[17]

5.25 The Site Auditor further advised, that based on EPA Guidelines, a lower density development would result in more stringent remediation objectives and that the concentrations of contaminants detected over the site generally exceeded even the least stringent health investigation levels.[18] Consequently, the amount of remediation required would be the same or similar regardless of the future landuse.[19]

17 Exhibit 15.

18 Exhibit 15.

19 Exhibit 15.