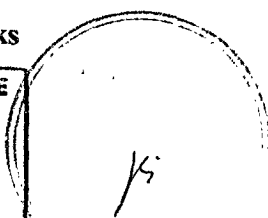


The Parliament of the Commonwealth of Australia

Parliamentary Standing Committee on Public Works

DEPARTMENT OF THE SENATE
PAPER No. 7937
DATE PRESENTED
24 JUN 1997
<i>Mary Evans</i>



Report relating

to the proposed

**Decontamination for disposal of the former
Albion Explosives Factory site,
Deer Park, Vic.**

(Sixth Report of 1997)



Parliamentary Standing Committee on Public Works

REPORT

relating to the proposed

DECONTAMINATION FOR DISPOSAL OF THE FORMER ALBION EXPLOSIVES FACTORY SITE, DEER PARK, VIC.

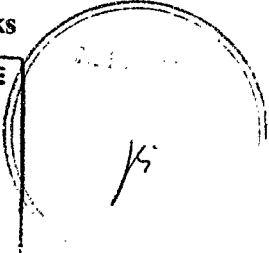
(Sixth Report of 1997)

THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA
1997

The Parliament of the Commonwealth of Australia

Parliamentary Standing Committee on Public Works

DEPARTMENT OF THE SENATE
PAPER No. 7937
DATE PRESENTED
24 JUN 1997
<i>Mong Ean</i>



Report relating

to the proposed

**Decontamination for disposal of the former
Albion Explosives Factory site,
Deer Park, Vic.**

(Sixth Report of 1997)

CONTENTS

	Page
Members of the 32nd Parliamentary Standing Committee on Public Works	vii
Extract from the Votes and Proceedings of the House of Representatives, No. 76 dated Thursday 6 March 1997	viii
	Paragraph
THE REFERENCE	1
THE COMMITTEE'S INVESTIGATION	2
BACKGROUND	6
Location	6
History	7
Factory closes	9
Topography, vegetation and drainage	12
Structures	16
Access	17
Current zoning	18
Surrounding land uses	19
Land sale	22
THE NEED	23
Explosives factory relocated to Mulwala	23
Land Use Concept Plan—contamination identified as a problem	25
Management of the Site—decontamination commences	27
Public Works Committee involvement	31
Project referred to Public Works Committee	38
Cost of proposed work	39
Public hearings	40
Committee cannot recommend project proceed	46
Independent study initiated	47
Remediation	48
More cost effective solution required	50
Defence obtains industry advice	51

Committee's Conclusions	53
THE PROPOSAL	55
Costs and risks	56
Outline	58
Involvement of the ULA	59
Structure and objectives of the ULA	61
Selection of the ULA	64
Remediation—alternatives considered	71
Thermal or biological treatment	73
Expense of thermal desorption	76
Biological processes	78
Off-site disposal	79
On-site repository	81
Preferred option	83
Remediation requirements	84
Contaminated soil—acceptance criteria	89
Proposed on-site repositories	91
Repository design	93
Further design details	94
Off-site former quarry	97
Biological treatment before containment	98
Mixing of Categories 1 and 2	99
Health risks and Commonwealth liability	100
Committee's Conclusion	104
Further breakdown of hazardous material	105
Monitoring	106
Repository locations	108
EPAV involvement	109
Environmental audit	110
Committee's Conclusions	111
Committee's Recommendation	115
Land use concept plan—Preliminary Land Use Plan	116
Preliminary Land Use Plan	117
Residential use	118
Market for residential developments	123
Industrial and mixed land use	126
Market for industrial land	128
Retail areas	130

Civic Centre	132
Open space corridors	134
Roads	137
Engineering services	142
Reaction from Brimbank City Council	145
Buffer zone between Albion site and ICI site	147
Planning to continue—Structure Plan	149
Contents of Structure Plan	151
Victoria University of Technology to benefit from the proposal	154
Justification	159
Benefit of the proposal	161
Committee's Conclusions	163
Committee's Recommendations	165
ENVIRONMENT	167
Significant flora and fauna habitats	167
High conservation values	169
Environment Australia—Biodiversity Group	183
Environment Australia—Environment Protection Group	184
Aboriginal heritage	186
European heritage	189
Nomination of the site by the Australian Heritage Commission	191
Brimbank City Council	192
Briefing by Australian Heritage Commission	193
Heritage listing	197
Committee's Conclusion	199
Committee's Recommendation	200
CONSULTATION	201
TIMING	204
Remediation	204
Structure planning and release of land	205
FINANCIAL ARRANGEMENTS	206
Remediation risk and benefit	206
Confidence of estimates	208

Cost increases	209
Total development of site unsatisfactory	213
Local Construction industry	214
Committee's Recommendation	215
CONCLUSIONS AND RECOMMENDATIONS	216

APPENDICES	Page
Appendix A - Witnesses	A-1 to A-2
Appendix B - Project Maps and plans	B-1 to B-5

MEMBERS OF THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

(Thirty-Second Committee)

Mr Neil Andrew MP (Chairman)
Mr Colin Hollis MP (Vice-Chairman)

Senate	House of Representatives
Senator Paul Calvert	Mr Richard Evans MP
Senator Alan Ferguson	Mr John Forrest MP
Senator Shayne Murphy	Mr Ted Grace MP
	Mr Michael Hatton MP*

* Replaced The Hon Michael Lee MP on 26 June 1996

Committee Secretary:	Bjarne Nordin
Inquiry Secretary:	Michael Fetter
Administrative Officer:	Lynette Sebo

**EXTRACT FROM THE VOTES AND PROCEEDINGS
OF THE HOUSE OF REPRESENTATIVES**

No. 76 dated Thursday 6 March 1997

**PUBLIC WORKS—PARLIAMENTARY STANDING COMMITTEE—
REFERENCE OF WORK — DECONTAMINATION FOR DISPOSAL
OF FORMER ALBION EXPLOSIVES FACTORY SITE, DEER PARK,
VIC.**

Mr Jull (Minister for Administrative Services), pursuant to notice, moved—
That, in accordance with the provisions of the *Public Works Committee Act 1969*,
the following proposed works be referred to the Parliamentary Standing
Committee on Public Works for consideration and report: Decontamination for
disposal of the former Albion Explosives Factory site, Deer Park, Vic.

Question—Put and passed..

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

**Decontamination for disposal of the former Albion Explosives Factory site,
Deer Park, Melbourne**

On 6 March 1997, the House of Representatives referred to the Parliamentary
Standing Committee on Public Works for consideration and report the
proposed decontamination for disposal of the former Albion Explosives
Factory site, Deer Park, Melbourne.

THE REFERENCE

1. The terms of the reference were as follows:

Subject to Parliamentary approval, the Department of
Defence proposes to enter into an agreement with the
Victorian Urban Land Authority for the decontamination of
the site of the former Albion Explosives Factory at Deer
Park in Melbourne's western suburbs. This would be part of
a package of arrangements which would also allow the
Urban Land Authority to develop the 460 hectare site for
housing, industrial, retail and community services, setting
land aside for nature conservation purposes, for open space
and for habitat protection.

Sale of undeveloped or developed clean areas of the site
would be carried out by the Urban Land Authority. The
decontamination of the site would be managed by the
Urban Land Authority. The return to the Department of
Defence for the sale of its land would be a series of
payments from the Urban Land Authority, based on the
value of the land assessed in an uncontaminated state.
Under these arrangements, the net cost to Defence for the
remaining remediation works is estimated to be \$3.84
million.

THE COMMITTEE'S INVESTIGATION

2. The Committee received a written submission from the Department of
Defence (Defence) and took evidence from Defence and Urban Land Authority
(ULA) officials at a public hearing held at Brimbank Council on Friday 11
April 1997. On Thursday 10 April, the Committee inspected the former

explosives factory site and was briefed on the financial aspects of the proposal by Defence and ULA officials.

3. The Committee also received written submissions from the following organisations and individuals and took evidence from them at the public hearing:

- Brimbank City Council;
- Victoria University of Technology;
- ICI Australia Operations Pty Ltd;
- Community Consultative Committee and Steering Committee;
- Dr Colin Hocking;
- Friends of the Striped Legless Lizard Inc; and
- Delfin Property Group Limited.

4. Written submissions were also received from the following individuals and organisations:

- Mr Bob Sercombe MP (Federal Member for Maribyrnong);
- Victorian Environment Protection Authority;
- Mr Ron Brons;
- Zoological Board of Victoria;
- Commonwealth Fire Board;
- Environment Australia—Environment Protection Group;
- Environment Australia—Biodiversity Group; and
- Australian Heritage Commission.

5. A list of witnesses who appeared at the public hearing is at APPENDIX A. The Committee's proceedings will be printed as Minutes of Evidence.

BACKGROUND

Location

6. The former Albion Explosives Factory is on the edge of Melbourne's western suburbs about 18 kilometres from the City centre. The site abuts the Western Highway to the south, the Western Ring Road to the south-west, and Station Road to the west. The site is about 460 hectares in area and is rectangular in shape, having dimensions of 2.5 kilometres by 2.05 kilometres.

History

7. The Albion Explosives Factory was established by ICI (Imperial Chemical Industries of Australia and New Zealand) on behalf of the Commonwealth Government in the late 1930s to develop and manufacture explosives for the Australian Defence Force and to provide munitions during the Second World War.

8. Construction began in 1939. Factory operations commenced in 1940, with the commissioning of a TNT plant, a nitroglycerine plant and a cordite plant. Facilities continued to be developed during and after the War. In 1949, the land area of the factory was extended to provide capacity for Research Development Explosive (RDX) production. In 1954, the site was transferred to Commonwealth management under Defence. High explosives capacity progressively increased through the 1970s and at its peak, the area of the factory site was 500 hectares. Production continued until September 1986. Acid reconcentration activities continued until 1989, to meet contractual obligations.

Factory closes

9. Following the Review of Explosives Factories, commissioned by the Government in 1984, the Minister for Defence announced, on 13 December 1985, that the factory would close with activities being transferred to Mulwala, NSW. At the time, the factory had a staff of 214.

10. Following the decision to close the factory, action commenced to release the property which had been identified for some time by local government and community groups as an opportunity to provide a range of facilities and housing.

11. A consultative committee, chaired by the local Federal Member, was established in August 1986 to examine and report on the future use of the site. The Committee, known as the Albion Redevelopment Steering Committee

(ARSC), includes Federal, State and local government members as well as representatives from the wider community.

Topography, vegetation and drainage

12. Albion is characterised by gently sloping basalt plains of 1 to 2 per cent grade, providing a flat to undulating land form with views of the City skyline, particularly from areas adjacent to the eastern boundary of the site.

13. Significant stands of mature eucalypts and cypress pines are established throughout the site, having been planted as wind breaks and visual screens. They remain in good condition.

14. Kororoit Creek traverses diagonally across the south west of the site, with an incised watercourse up to five metres deep.

15. Jones Creek, in the north east of the site, is an intermittent tributary that has little water flow except after periods of continuous or heavy rainfall.

Structures

16. Most buildings that were used for research, manufacturing and storage, have been demolished, with only a few administration buildings and ancillary structures remaining. These are located predominantly in the south east corner or centrally.

Access

17. Access to the site is via the former main entrance from the Western Highway. Other secondary access points are located along the Station Road boundary and from Furlong Road to the east.

Current zoning

18. Albion, being contained on Crown land under the control of the Commonwealth, is indicated in the Brimbank Planning Scheme as part "PP7 - Office of Defence Production" and part "PP1 - Commonwealth Government".

Surrounding land uses

19. The site is surrounded by the suburban residential areas of Deer Park to the west, St Albans to the north and St Albans South on the majority of the eastern boundary. Industrial use to the south is dominated by ICI Australia.

20. The surrounding area is well serviced with community and social facilities including St Albans Railway Station, Victoria University of Technology—St Albans campus, an hotel, shopping centres, schools and education facilities (primary, secondary and tertiary), community health centres and sports complexes.

21. Along the northern edge of the site, dual high voltage electricity transmission lines traverse from east to west. These and the significant buildings of the VUT, provide a highly visible element in the north and north eastern corner of the site.

Land sale

22. An area of 31.1 hectares in the north eastern corner of the site was sold to the VUT in two separate components in 1988 and 1990. These areas were certified as suitable for VUT use by the Environment Protection Agency—Victoria (EPAV).

THE NEED

Explosives factory relocated to Mulwala

23. In 1988, the Committee examined and reported on a proposal, estimated to cost \$78.4 million (November 1987 prices) for the relocation of the Albion Explosives Factory to Mulwala, NSW (*Committee's Seventh Report of 1988 Parliamentary Paper 143/1988*). Defence witnesses were questioned about the status of the Albion site and progress on its decontamination. A senior Defence official advised the Committee in the following terms:

There are still requirements to retain control over a significant area of the land at Albion. There has been a committee formed which includes Commonwealth, State and local representatives. The local Victorian Government representatives have conducted a fairly extensive campaign in the area. They have had consultants who have developed potential plans for the area to maximise what is the release of a very large area of land in that part of Melbourne. At the moment this Commonwealth, State and local committee is reaching the point where it will be recommending the potential development of that land. (*Minutes of Evidence—Public Hearing—4 May 1988, pp.165-6*)

24. In response to a question concerning the decontamination process and its scope, the same official advised the Committee:

The decontamination process is an essential part of the release of any of the land, and the process is taking place progressively on those parts of the factory which can be released. The decontamination takes the form of removal of machinery and plant, which in itself has got explosives materials and indeed may have other contaminants in it which have to be treated very carefully. Because the buildings have been used for explosive processes over many years, the buildings themselves have a level of contamination. And if the area is going to be released for public access it is absolutely paramount that we can say that the area is completely free of contamination. For an area of some 500 hectares which has been used for the production of explosives for many years, that is a major task. The Department [of Defence] is undertaking it progressively and it has been undertaken progressively since the factory closed in 1986. (*Minutes of Proceedings—Public Hearing—4 May 1988, pp. 165-6*)

Land Use Concept Plan—contamination identified as a problem

25. In 1989, the ARSC released a Land Use Concept Plan for the site. The plan provided residential and open space recreational uses with lesser areas for commercial, community and industrial uses. According to Defence, the Plan was endorsed by the Government in February 1989. During the development of the 1989 Plan, Defence advised that it had emerged that site contamination would have a major bearing on the release of the property. Against a background of heightened awareness of contamination issues at that time, State governments made site contamination an issue for explicit consideration in approving the redevelopment of land. The EPAV established a Register of Contaminated Sites. Albion was included on the Register in 1990.

26. The site became subject to the EPAV's environmental audit procedures under State legislation. Under the procedures, Defence would need to retain an environmental auditor, appointed by the EPAV, to obtain from the auditor certification that the site is suitable for proposed land uses before the land could be rezoned or released. Factors taken into account in the auditing process include site assessment, remediation and validation programs.

Management of the Site—decontamination commences

27. Government munitions factories, with the exception of Albion and Maribyrnong, were transferred to Australian Defence Industries (ADI) in May 1989. To maintain continuity of the Albion and Maribyrnong closure programs, a management agreement with ADI was entered into at the time of the transfer. In 1989, Dames and Moore, for the then Australian Property Group (APG) on behalf of Defence, conducted investigations to define the extent of site contamination to enable the design and evaluation of clean-up options. In August 1992, the agreement was replaced with a new Site Management Agreement. This agreement included soil contamination assessment and site decontamination (by removal of soil to registered landfill or stockpile only) as part of the tasks covered by the previous agreement.

28. Decontamination commenced with the demolition of buildings and removal of plant and equipment by ADI in 1987. In 1992, Defence appointed ADI as site manager for the remediation of the site. ADI conducted further investigations which were more extensive than those of Dames and Moore but which focused on specific areas of environmental concern identified by that Company. ADI data comprised more than 11,000 individual samples and composite analysis results for soil contamination in the remaining area to be remediated and audited. The ADI investigations also confirmed many of the original findings of the Dames and Moore investigations but acknowledged that the full and final extent of contamination was still unknown.

29. ADI investigations were followed by the commencement of clean-up activities (as recommended by Dames and Moore) in the western and northern sectors of the site. By 30 June 1995, these activities resulted in about 300 hectares or 60 per cent of the site being decontaminated and issued with certificates or statements of environmental audit. About \$22 million was spent on decommissioning including cleanup. Soil contamination in the remaining area was significantly high in some places and further cleanup costs of \$37 million were estimated at that time.

30. Earlier, in 1989, the Land Use Concept Plan was reviewed by Hassell Planning Consultants. In July, Sunshine Council resolved to support the revised concept plan for site development.

Public Works Committee involvement

31. In July 1993, following informal advice that a cleanup of the Albion site had been underway for some time, Defence invited the Committee for a briefing and inspection on the project. Defence advised the Committee that:

The nature of the work at Albion, which has been underway for some time, is for the most part repetitive, involving the collection of soil and water samples and the consequent relocation of materials found to be above acceptable levels of contamination...the Committee could then decide whether or not a formal referral of the project is required. *(Letter from the Department of Defence—23 July 1993)*

32. On 19 August 1993, the Committee was briefed by Defence in Canberra. Following the briefing, the Committee advised Defence that it had agreed that the project should be referred. The Committee also sought advice from Defence about the need to continue work and expenditure on the project to date.

33. On 25 August, Defence advised the Committee that:

...it is desirable that work programmed for 1993/94 continue in the interest of efficient work practices and cost containment, and to provide a basis on which to assess future costs...considerable difficulty has been experienced isolating costs attributable to the closedown, as distinct from the production phase down and plant cleanup for transfer to Mulwala. *(Letter from the Department of Defence—25 August 1993)*

34. An attachment to the letter showed that the 1993/94 budget for this task was \$5.167 million.

35. A summary of 'works' related costs associated with the decontamination of the property was subsequently provided by Defence. According to Defence the estimates were:

...best estimates at this stage since a reliable breakdown of expenditure into 'works' and 'non-works' categories is not readily available, particularly prior to 91-92 when there was a mix of production phase-down, plant clean-up for transfer to Mulwala, and other costs not attributable as 'works' eg. staff redundancies. *(Letter from the Department of Defence—31 August 1993)*

36. Details of costs provided by Defence, which were highly qualified, were:

- 1987-91—\$2.99 million—this may include some 'non-works' related costs - ie. administration, but these were not expected to be high in proportion to the total for the period;
- 1991-92—\$3.73 million—this includes an amount for scrap disposal, air testing and other minor items which are 'non-works', but similarly, these were not expected to be high in proportion;
- 1992-93—\$2.76 million—subject to finalisation of accounts for 1992/93; and
- 1993-94—\$3.58 million—estimated 'works' component of activity at the site.

37. Following this advice, in September 1993, the Committee wrote to Defence, expressing concern at the level of expenditure. The Committee advised Defence that further expenditure in 1993-94 should be kept to the absolute minimum necessary to maintain the decontamination process and that referral of the project should be undertaken as a matter of urgency. In March 1994, Defence advised the Committee that expenditure to the end of February 1994 was \$3.07 million, with further likely expenditure of \$1.0 million. Defence also advised the Committee that arrangements would be made for the decontamination project to be referred to the Committee during March 1994.

Project referred to Public Works Committee

38. The project was referred to the Committee by the House of Representatives on 23 March 1994. The Ministerial statement in support of the reference motion, moved by the Parliamentary Secretary to the Minister for Administrative Services (the Hon Con Sciacca MP), included the following:

Site decontamination to date has largely involved the excavation and removal of the contaminated soil to registered landfill sites. About 175 hectares has been remediated and certified as suitable for residential development. The progressive decontamination of the remaining area of the property is expected to be completed around 1997-98. A strategy for the release of the site has not yet been finalised.

The first step has been the revision of a 1989 cabinet endorsed land use concept plan in light of the changing

environmental and market circumstances. While the release and redevelopment of the property are important issues, *the proposal to be considered by the PWC [the Committee] will focus on the decontamination of the remaining area of the property, including soils being stockpiled for later treatment. The area under consideration is the most contaminated and together with the remediation of stockpile soil will be the most costly to clean up.* [Italics added] (Hansard—House of Representatives—23 March 1994, p. 2000)

Cost of proposed work

39. The estimated cost of the proposal was described as follows:

Although difficult to estimate accurately, the total cost of the decontamination project in the worst case could be up to \$57 million with some \$15 million having been spent to June 1993. Clearly, there is still a major amount of work to be done at Albion.

Public hearings

40. Following the referral, the Committee held public hearings at Sunshine on 14-15 June 1994 at which the following organisations and individuals gave evidence:

- Defence;
- City of Sunshine;
- Royal Australian Chemical Institute;
- Albion Redevelopment Steering Committee;
- Victoria University of Technology;
- Victorian Department of Planning and Development;
- Australian Nature Conservation Agency;
- Victorian National Parks Association;
- Dr Colin Hocking; and

- Dr Donald MacPhee.

41. In summary, the Committee was asked to consider

...the decontamination of the former explosives factory site and/or ground water to ensure that the site is suitable for development. (*Minutes of Evidence—Public Hearing 14 June 1994 p. 31*)

42. The Committee took evidence over a two day period, resulting in more than 321 pages of evidence.

43. Following the public hearings, the Committee Chairman (Mr Colin Hollis MP) wrote to the Minister for Defence (Senator the Hon Robert Ray), indicating that based on the evidence heard so far, the Committee was not convinced that the project could be justified. Reflecting the unanimous view of the Committee, the Chairman also advised the Minister that there be no further expenditure on the project during the course of the Committee's inquiry. A response from the Minister, dated 14 September, advised that to 30 June 1994, Defence had spent \$11 million to clean up 60 per cent of the site and that there were opportunities to contain costs associated with the \$57 million estimate. He assured the Committee that work on referable works was being wound down.

44. A further public hearing was held on 3 November 1994, at which the following organisations gave evidence:

- Plastics and Chemical Industries Association;
- Royal Australian Chemical Institute; and
- National Health and Medical Research Council.

45. Defence also appeared at the hearing and provided the Committee with a lengthy supplementary submission. Proceedings of the public hearing increased the number of pages of evidence to 746.

Committee cannot recommend project proceed

46. In December 1994, the Chairman (Mr Hollis) again wrote to the Minister for Defence (Senator Ray) and advised the Minister in the following terms:

The Committee has now thoroughly reviewed all the evidence and has reached a number of conclusions regarding the Albion project. While recognising that the

Commonwealth has a responsibility to decontaminate the Albion site, the Committee is not convinced that the current approach is necessarily the most effective and/or economical one. The Committee is not therefore, on the evidence presented to date, in a position to be able to recommend to the Parliament that the project proceed. To resolve this issue the Committee believes that Defence should commission an independent risk/benefit analysis of the Albion project to:

- provide a full assessment of the risks and benefits involved in decontaminating the Albion site; and
- provide an assessment and overview of the risk assessment-based approach adopted thus far by the environmental auditor who has been appointed to advise on the Albion site.

The Committee further believes that such a review should be undertaken by people who are both properly qualified to carry out a full risk/benefit analysis and are totally independent of the Victorian regulatory system. The review should also consider and advise upon alternative methods of decontamination including bioremediation. (*Letter to Senator Ray—7 December 1994*)

Independent study initiated

47. In February 1995, the Minister for Defence responded to the Chairman's letter, advising that Defence had been asked to initiate the independent study called for by the Committee. In July 1995, Defence advised the Committee that following a select tendering process (to ensure independence from the environmental auditor and the earlier decontamination and assessment works at Albion), Coffey Partners International Pty Ltd, were selected to undertake the review recommended by the Committee. The subsequent three volume independent review report was finalised in January 1996, just before the Federal election was called. The new Committee was provided with copies in June 1996. The Committee authorised the publication of the report.

Remediation

48. Albion is a large site, surplus to Commonwealth requirements, which has not been used since the factory closed. The site is in a growth area and unless

site remediation is completed, it will remain on the Commonwealth's assets register as a large amount of real estate surplus to requirements but unable to be disposed of.

49. A large proportion of the site has been decontaminated at great cost to the Commonwealth. Significant decontamination remains on 40 per cent of the site, some 169 hectares. More than 300,000 tonnes of soil require remediation—including soil stockpiled from previous remediation. Land use planning was undertaken in former years, but following the Committee's previous investigation of the proposed decontamination of the balance of the site, estimated to cost of \$57 million, the land has neither been developed nor sold.

More cost effective solution required

50. The previous Committee's inability to recommend to Parliament that decontamination of the balance of the site should proceed, was based on a view that the approach adopted was not necessarily the most effective or economical, especially in the light of funds already expended on decontamination and the magnitude of the cost of further remediation. The Committee therefore called for the independent review which resulted in the Coffey report (1996). Defence pointed out to the Committee that the Coffey report noted the need for a site development plan which would take account of constraints and costs imposed by contamination and remediation requirements. A minimum cost remedial response was advocated by Coffey in order to overcome the problem that:

Previous land use planning exercises for the Albion site have given only limited consideration to the financial feasibility of potential redevelopment options. In particular, site contamination and potential remediation requirements have not been considered as primary constraints in the redevelopment process. (*Coffey report—Volume 1—Text and Figures, p. 83*)

Defence obtains industry advice

51. In late 1994, Defence obtained advice from industry which indicated that the site had a net present value of between \$7-10 million, depending on Defence involvement in redevelopment.

52. Further advice from industry recommended that to minimise risk to the Commonwealth and maximise value, Defence should enter into an agreement

with the ULA to remediate and develop the site with the share of returns to Defence being assigned to remediation works.

Committee's Conclusions

53. There is a need to decontaminate and remediate the remaining 40 per cent of the Albion Explosives factory site and for total site disposal.

54. Any costs to the Commonwealth of decontamination and remediation should be offset against the potential value of the property.

THE PROPOSAL

55. The current proposal involves the decontamination of the explosives factory site and urban redevelopment of the decontaminated land. The remediation and redevelopment will be coordinated and implemented by the ULA.

Costs and risks

56. Under the proposal, Defence will have responsibility for the cost of remediation of the site and will retain the long-term risk arising from site contamination. The ULA will be employed to manage the site remediation. If remediation costs are below those provided to the Committee on a commercial-in-confidence basis, Defence would benefit directly and the ULA would be paid a higher percentage management fee.

57. The second part of the proposal involves the ULA being the prime developer of the site. Costs, returns and risks of development will reside with the ULA. The ULA will need to pay Defence the value of the site regardless of the commercial success or otherwise of its development. Defence advised the Committee that the risk is no different from that assumed by the Victorian Government for any other ULA development.

Outline

58. The proposal encompasses:

- decontamination of the site to approved environmental standards;
- development of residential uses (about 3,000 lots housing 8,000 to 10,000 people) in the western half of the site;

- development of public open spaces, including conservation areas, public sporting facilities, water features and historic preservation areas;
- development of industrial sites in the south eastern corner of the site to act as a buffer to major roads in that area and to make the most effective and efficient use of contaminated land;
- development of commercial centres including retail uses;
- provision for the future expansion of the VUT;
- development of educational facilities including a primary school and private secondary college;
- development of a new Civic Centre by Brimbank City Council in a central location; and
- development of a road network featuring major north-south and east-west routes linking with existing road networks outside the site.

Involvement of ULA

59. Defence sought the involvement of the ULA on the grounds of expertise and experience with the total redevelopment of complex and contaminated sites. A new model, offering an overall process and methodology for remediation, in conjunction with a new redevelopment plan, was prepared by the ULA.

60. The ULA believes that an integrated and practical remediation and development strategy would be the most effective means to minimise unnecessary decontamination. An integrated approach would offset continuing high costs to the Commonwealth against land sales. Such an approach would ensure that decontamination is matched to the standards required for specific land uses. A compatible land use plan is integral to the success of the strategy. The Committee's inquiry focussed on the need to involve the ULA and if the remediation strategy envisaged by the ULA would satisfy planning requirements.

Structure and objectives of the ULA

61. The ULA is a land development agency owned by the Victorian Government and is an independent body with Chairman and Board members

responsible to the Minister for Planning and Local Government. The ULA is a project management organisation which 'outsources' on a competitive basis expertise required in the land and community development process. Its objectives are to:

- stimulate economic development activity in the urban land market;
- supply and maintain levels of housing affordability;
- act as a vehicle for the achievement of planning policy objectives;
- provide good quality urban environments; and
- operate in a business like manner as a complement to the private sector and not as a substitute for it.

62. ULA activities support and promote the objectives by developing and maintaining a reasonable supply of land and conventional and medium density housing in Victoria. As a major developer, the ULA plans, develops and sells between fifteen and twenty per cent of all residential lots in Melbourne.

63. All ULA developments are planned from the outset to provide safe, accessible, attractive and environmentally sustainable living conditions for its future residents.

Selection of ULA

64. Defence acknowledged that although a single source arrangement with the ULA does not fully test the market, there are advantages for Defence in dealing with a State Government agency for the release of the site. Defence believes selection of the ULA is warranted because:

- it has a sound financial base and audit controls;
- it is well placed for liaison with other State stakeholders such as environment and planning bodies and with local government;
- it has an interest in developing land to achieve the best possible return and social and physical result; and
- it has vast experience in projects of the size and complexity required of the Albion site.

65. A submission to the Committee from Delfin Property Group Limited, in association with Transfield Ltd, endorsed an integrated approach to site remediation and property redevelopment. Such an approach is the most cost effective and appropriate method to maximise the potential of the site and minimise risks. The submission made the following additional points:

- Defence would benefit commercially by testing the proposal in the open market, with tenders for remediation and site disposal being called using the ULA proposal and assumptions as a benchmark against which bids can be assessed openly;
- Delfin/Transfield have repeatedly expressed interest in the integrated remediation/redevelopment and believe more cost effective outcomes can be achieved; and
- the involvement of the private sector will maximise opportunities to capitalise on non-residential uses and employment generation.

66. The submission pointed to a market survey undertaken in 1989 to ascertain if reputable companies were interested in devising a way to redevelop the site in a sustainable manner. Delfin was "shortlisted" as part of this exercise. In response, Defence advised that in 1989 Commonwealth property management was under the control of the Department of Administrative Services (DAS). Since then, arrangements have changed, and Defence operates independently of DAS.

67. In response to the suggestion from Delfin that the ULA concept be tested in the open market, Defence advised the Committee that the decision to appoint the ULA as the project manager was made after taking independent advice from Clayton Utz, a legal firm on the Defence legal advice panel, to engage Macquarie Bank Property Services (MBPS) for advice on options for disposal. Two questions were posed: First, options for disposal if the site were clean; and secondly, if the site were to be contaminated, the best way of combining remediation and disposal. The advice from MBPS to Defence was that the preferred option was to open negotiations with the ULA for the integrated approach. Defence stressed that this advice predated any contact between Defence and the ULA.

68. Before entering into commitments, Defence invited ULA officials to Canberra to address the Defence Facilities executive to assist the decision-making process. Defence also approached referees who expressed satisfaction with the type of work in which they were involved with the ULA.

69. In response to suggestions that the ULA approach be used as a benchmark to evaluate tendered proposals, Defence advised the Committee that the ULA has been put to substantial expense in developing the proposal under consideration by the Committee. Defence believes the ULA has potentially surrendered intellectual property and may have lost market position.

70. Asked if there would be a role for Delfin, Defence advised that the ULA will perform the role of the prime developer of the site. Transfield, on the other hand, would be free to tender for any of the works offered in the marketplace.

Remediation—alternatives considered

71. Remediation options were assessed by Defence and the ULA on the basis of providing effective contamination management. Remediation options should therefore provide realistic solutions which link:

- commercially viable land uses suitable to the area and surroundings;
- decontaminated soil levels suitable for those land uses as determined by an EPAV approved environmental auditor for contaminated land; and
- consideration of the best available remediation approach, whilst minimising long term risk, exposure and cost.

72. The options considered for the remediation of the contaminated areas of the site were:

- thermal or biological treatment;
- off-site disposal; and
- on-site repository.

Thermal or biological treatment

73. Defence advised the Committee that a number of treatment options were considered based on overseas experience of soils contaminated with organic chemicals similar to those at Albion. These options ranged from biological treatment such as composting through to thermal destruction including thermal desorption.

74. Defence concluded that although there may be techniques available for the treatment of these particular organic chemicals, there are risks and problems

associated with their experimental use at Albion. For example, the clayey nature of the soil has the potential to impact on the success of any treatment option. Defence therefore believes that no conclusions can be made on the applicability of these technologies without a large scale and costly treatment study.

75. Defence advised the Committee that in the opinion of Golder Associates, (consultants) there are significant risks associated with pursuing alternative treatment technologies as they are emergent technologies and therefore are associated with a lack of certainty and are unproven for the site. In addition, there would be significant costs associated with the development of these emergent technologies without any guarantee of success.

Expense of thermal desorption

76. The Committee questioned the decision not to proceed with thermal desorption and if biological processes could be used to treat biological contaminants.

77. Thermal desorption was examined previously in connection with the decontamination of the site. Although costly at \$90 per ton, thermal desorption is extremely effective in removing all traces of explosive organic compounds. The process would not, however, eliminate non-organic compounds.

Biological processes

78. Biological processes have been used in trials in the United States and it would be possible to use this technique to treat organic contaminants on the site. To do so would require further trials to demonstrate its feasibility in the on-site clay soils within specified timeframes and costs. Additional requirements such as bulking (the addition of green waste to act as a nutrient) would result in greater volume. Finally, as with thermal desorption, biological processes would not treat inorganic contaminants.

Off-site disposal

79. Defence advised the Committee that remediation using the off-site disposal of soils to a landfill was examined in previous studies for the site. The limiting factor that governs the feasibility of this option is the landfill acceptance criteria which are set by the EPAV. Evaluation of the contamination status of the soil from the Albion site indicates that most of the soil under consideration for off-site disposal is well above the limits set for disposal to existing landfills. As a result, this option is not feasible unless the landfill

acceptance criteria are changed to accommodate the levels of contamination found in the soil. It is unlikely that this will happen. An alternative would be partial treatment of soil prior to off-site disposal but this would increase costs significantly.

80. The other risks associated with this option are the uncertainty that the commercial landfills could accept the volumes of highly contaminated soil involved, the cost that would be charged and the complications and risks in moving large volumes of contaminated soils through local communities.

On-site repository

81. On-site repository for contaminated soils would involve the relocation of the soil to a specially engineered containment area. The repository would have to be designed to minimise health and environmental risk associated with soil remaining on the site. The Committee was advised that this could be achieved through the use of engineered lining, leachate collection and capping systems. Defence believes that an on-site repository provides the greatest flexibility in the management of contaminated soils as modifications to the storage volume can be made, if required during the process, by adjusting the depth of stored waste, without adding significantly to the remediation costs.

82. Defence acknowledged that the use of an on-site repository must be based on a design which has very low hazard risk so that the area can be accessible to the public on completion.

Preferred option

83. Defence prefers the option of remediation of the site by the use of an on-site repository because this:

- is feasible technically;
- avoids off-site cartage;
- is the lowest cost; and
- offers greatest flexibility.

Remediation requirements

84. The remediation works must meet Commonwealth and State environmental standards for each of the proposed land uses for specific areas of Albion.

85. Residential development must be in accordance with good planning principles as contained in the Australian Model Code for Residential Development (AMCORD), the Victorian Code for Residential Development - Subdivision and single dwellings (VicCode) and the Victorian Good Design Guide for Medium Density Housing (MDH Guide).

86. All forms of development and uses of the site must be carried out in accordance with Victorian planning legislation; with full servicing of the land in accordance with relevant authority requirements.

87. Remediation will require the systematic decontamination of the remaining contaminated soils and the obtaining of certificates or statements of environmental audit. Revenue from the development and sale of clean portions of the site will assist with the funding of the remediation process. The remediation will remove or manage sources of continuing ground water contamination and the environmental auditor will be required to ensure this is the case prior to the issuing of certificates or statements.

88. The ULA advised the Committee that the scope of activities undertaken in the development of the remediation strategy has included:

- review of relevant data about the site;
- preparation of a summary of key information relevant to the development of the remediation strategy;
- assessment of the extent of remediation necessary at the site;
- assessment of options for disposal or treatment of contaminated soil;
- development of a recommended remediation strategy; and
- assessment of indicative remediation volumes and costs.

Contaminated soil—acceptance criteria

89. Soil contamination acceptance criteria for alternative land uses have been discussed and confirmed with an EPAV approved environmental auditor for contaminated land. Soil at the site was categorised based on the intended land use for specific areas, which are proposed predominantly as residential, industrial, commercial, educational and open space.

90. Using the adopted acceptance criteria for each land use type, approximately 309,300 tonnes of contaminated soil were identified as requiring remediation. Most of this contaminated soil is located in the proposed industrial area, including stockpiled soil from previous remediation works on the site. This amounts to 210,700 tonnes, or 68 per cent of the total.

Proposed on-site repositories

91. The proposed remediation strategy for the site involves the construction of an on-site repository for containment of the soil which is contaminated to a higher degree than the acceptance criteria for proposed land uses.

92. Two types of repositories were considered and, in combination, are proposed as follows:

- Category 1—to contain 200,100 tonnes of low level contaminated soil; and
- Category 2—to contain 109,200 tonnes of more highly contaminated soil.

Repository design

93. The Committee was advised that concept designs have been prepared for repositories to provide a reasonable basis for costing. The category 1 repository design is based on experience with similar repositories in Melbourne, whilst that for category 2 is based on the use of double lining technology to provide a higher level of environmental security. Both Defence and ULA witnesses were questioned at length about the following aspects of the repositories:

- further design details;
- alternatives to their on-site location;
- biological treatment of material before containment;
- the practicalities of mixing Category 1 and Category 2 soils;
- health problems associated with on-site repositories and Commonwealth liability;
- further breakdown of hazardous material; and
- monitoring.

Further design details

94. The Committee was advised that design concepts require testing before detailed design commences. The proposed repositories will rely on a number of layers of material and membranes placed under and over the material being contained.

95. The Category 1 repository will have a 1 metre compacted clay layer with very low permeability. Waste material will be placed on this layer. It was pointed out that much of the waste itself is clay material and this will also be compacted in place. Another liner, 600 millimetres thick, will be placed on top of the waste and this will be covered with a 1.5 millimetre membrane. Covering layers of soil will be placed over the membrane for protection and to provide a growing medium for grass.

96. The Category 2 repository will, from the top, comprise:

- a 2 metre soil layer to minimise inadvertent penetration;
- a drainage layer;
- a 1.5 millimetre membrane to shed water to the side;
- 600 millimetres of compacted clay;
- the waste;
- a drain to collect leachate;
- a membrane to stop leachate moving out—if some leachate does escape, there will be another drain underneath the membrane which will act as a leak detection system or secondary collection system; and
- beneath the drain will be a further membrane and clay layer.

Off-site former quarry

97. The Committee was advised that this option was considered. The EPAV has set very low acceptance criteria for explosive contaminants at licensed landfill sites. Land would therefore need to be acquired, the material would need to be transported to the site and disposal permits would need to be obtained.

Biological treatment before containment

98. This option was also considered, but it would not lead to cost reductions. Unless the material is treated to a standard enabling it to be kept on the site (similar to thermal desorption), it would need to be placed in a landfill.

Mixing of Categories 1 and 2

99. At present, the two Categories of material are not mixed—they are located at separate sites. The Committee was advised, nevertheless, that if sufficient information can be assembled in the detailed design demonstrating that this option is feasible, it would be pursued.

Health risks and Commonwealth liability

100. Advice from a Principal of Golder Associates (consultants) indicated that there will not be any health problems caused by the use of on-site repositories. The design criteria used for lower risk material is not dissimilar to that used for industrial land. The more hazardous Category 2 material will have a two metre soil cap to minimise any risk of inadvertent penetration of the capping layer.

101. The Committee asked about the potential for Commonwealth liabilities being transferred to the ULA and, ultimately, to the Victorian Government. The following evidence was given in response by a consultant appearing on behalf of Defence and the ULA:

The question of liabilities is a legal issue. My understanding of the Environment Protection Act in Victoria is that the polluter pays—the polluter is responsible. There are, of course, issues as to whether the Commonwealth is responsible in Victoria. (*Minutes of Evidence—Public Hearing—11 April 1997, p. 231*)

102. Asked if, in 100 years, something unforeseen were to occur, the Committee was further advised:

It would depend on what contracts and agreements the Commonwealth puts in place with the ULA or other parties as to what responsibility other parties are prepared to take. (*Minutes of Evidence—Public Hearing—11 April 1997, p. 231*)

103. When it was suggested that the Commonwealth might be responsible, the Committee was advised:

Yes, there is a fair chance that the Commonwealth might be responsible. (*Minutes of Evidence—Public Hearing—11 April 1997, p. 231*)

Committee's Conclusion

104. On the basis of evidence received, all appropriate measures are being taken to minimise health risks.

Further breakdown of hazardous material

105. Defence advised the Committee that there is some evidence on-site of decreasing concentrations of organic explosive contaminants due to biological breakdown of the substances. This breakdown may continue in the repositories, but it is not the intention that the repositories use biological agents to break down the material. The purpose of the repositories is to contain the material.

Monitoring

106. With the long term operation of the repositories, there will be a requirement for monitoring for some years. The Committee was advised that while it is not intended that there will be perpetual monitoring, it will need to continue for ten years, after which the results of monitoring will be used to determine if it can be discontinued or diminished. In response to questions concerning the identity of the agency responsible for undertaking the monitoring, Defence advised the Committee that it considers future ownership and monitoring are linked. It was submitted that the sites will have an assessable value and their intended future users will gain access to the repository areas for the cost of maintenance and monitoring. The surfaces of the repositories will need to be maintained, but this will be similar to the management of open space areas involving grass cutting and management of surfaces. When asked who will be responsible for undertaking the monitoring, the Committee was advised that:

There will have to be someone designated, such as a council or whoever is responsible for other public open space areas. (*Minutes of Evidence—Public Hearing—11 April 1997, p. 230*)

107. The Committee also questioned the manner in which the location of the repositories will be recorded. The Committee was advised by Defence that the entire site will undergo an environmental audit which will result in the issuing of a certificate or statement of environmental audit. There will need to be a

statement of environmental audit for the repositories as well as a management plan and the location and nature of the repositories noted on the title to the land.

Repository locations

108. The proposed repositories will be located in the south east of the site, partly over an old landfill, to reduce rehabilitation costs, and partly as a screening mound along the recently opened Western Ring Road. It is envisaged that it would be an open space link between Kororoit Creek and Jones Creek. The layout can be modified to suit landscaping requirements. Height and layout may also vary as the repository landfill design is finalised. A detailed survey of the proposed site will be required during the local structure planning phase of the Albion project.

EPAV involvement

109. Discussions have occurred with the EPAV concerning the proposed remediation strategy and the public consultation process intended as part of the implementation of the strategy. The Committee was assured that the EPAV has examined the remediation strategy, including the repository design concepts and the degree and extent of contaminated soil and has agreed with it in principle. It has also agreed in principle that the remediation strategy consultation and approval process will be incorporated in the public consultation and approval process for the local structure plan, which is described below.

Environmental Audit

110. In all sections of the site, the intent is to complete an Environmental Audit. In sensitive areas such as those proposed for residential uses, the outcome would be a Certificate of Environmental Audit, whereas in commercial or industrial areas, the remediation works completed will be sufficient to obtain a Statement of Environmental Audit indicating that the site is suitable for those purposes.

Committee's Conclusions

111. The involvement of the Urban Land Authority as the manager of the cleanup and development of the site can be justified on the basis of expertise and a proven track record. The decision by Defence to enter into a single source arrangement with the Urban Land Authority, without

testing the market, was based on independent advice to Defence from a number of sources.

112. Based on expert advice, of the remediation options considered, the on-site repositories are feasible technically, offer the greatest flexibility and have cost advantages.

113. The design concepts of the on-site repositories will require testing before detailed design commences.

114. Whilst the Commonwealth will retain the long-term risk arising from site decontamination, expert advice to the Committee indicated that there will not be any health problems caused by the use of on-site repositories.

Committee's Recommendation

115. Responsibility for undertaking regular monitoring of the on-site repositories should be assigned to relevant State authorities at the time of the finalisation of the formal agreement for the remediation, disposal and development of the site by Defence and the Urban Land Authority.

Land use concept plan—Preliminary Land Use Plan

116. The 1989 Land Use Concept Plan was updated in 1993 and was called the Option 6 Plan. The ULA has prepared a new Preliminary Land Use Plan. The Committee was advised that this Plan is the first costed strategy for the combined remediation and development of the site.

Preliminary Land Use Plan

117. The main features of the Preliminary Land Use Plan are:

- 47 per cent of the site proposed to be developed for residential uses;
- 25 per cent of the site reserved for a range of open space areas, including conservation areas, public sporting facilities, water features, historic areas and VUT managed open space;
- 8 per cent (approximately), or 39 hectares, set aside for industrial development located in the south eastern corner to act as a buffer to major roads in this area and to make the most effective and efficient use of contaminated land;

- approximately 2 hectares proposed for retail uses including a neighbourhood centre;
- provision for the future expansion (by 7.4 hectares) of VUT;
- a total of 17.3 hectares allocated for educational facilities including a primary school and private secondary college;
- approximately 9 hectares allocated for Brimbank City Council to develop its new civic centre; and
- a road network featuring major north-south and east-west routes linking with existing road networks outside the site.

Residential use

118. About half of the site is proposed for residential use. This will be located to avoid the most contaminated land and north of the buffer zone to the ICI plant. It is proposed to provide about 3,000 lots housing between 8,000 and 10,000 people.

119. Residential densities will be in the range of 12 to 15 lots per hectare, with some opportunity for higher densities near activity centres and near the VUT to augment on-campus student housing.

120. The gross area of residential land on the Preliminary Land Use Plan is about 219 hectares, which is less than the 251 hectares proposed on the 1993 'Option 6 Plan'. Most of this reduction is the result of the associated remediation strategy and real estate and marketing advice to increase the allocation for industrial and peripheral land, retail and community facilities (increased by 8.9 hectares) and education facilities (increased by 9.9 hectares).

121. The ULA advised the Committee that there will be excavation of the site and that excavated areas will be backfilled. The Committee therefore questioned Defence and ULA representatives about possible liability for claims relating to cracking in buildings which may be attributable to inadequate foundations. Defence assured the Committee that the Commonwealth will not be at risk of such claims. The Commonwealth is responsible for remediating and divesting itself of the site and the ULA will be responsible for developing the site. The ULA confirmed that the development agreement to be entered into between Defence and the ULA would protect the Commonwealth. The developer will be obliged to disclose any filling that has taken place on individual housing sites.

122. The ULA also pointed to experience in a number of projects where liabilities or problems associated with allotments, such as the presence of filled land, have been identified and disclosed. The ULA also assured the Committee that compaction control of backfill to appropriate levels will ensure a site is suitable for building. Intending purchasers will have the presence of filled land and compaction disclosed to them, which will enable house foundations to be designed appropriately. The ULA also pointed out that there is a known shrink/swell problem with clayey soils in the Western suburbs and building codes require the implementation of features to take this into account.

Market for residential developments

123. According to the ULA, the Melbourne residential market has been through a turbulent period over recent years but the industry is poised for increased activity. The Indicative Planning Council (IPC), considers that pent up demand in Victoria is likely to lead to a higher level of dwelling commencements in 1997. This forecast provides a sound base for increased activity and, coupled with projected strong economic growth, will enhance demand for vacant residential lots.

124. The competitive advantage of Albion as a choice for new house builders and residents lies in its:

- location—proximity to primary, secondary and tertiary education as well as extensive shopping, transport and community facilities;
- size—ability to create a destination for marketing new house and land products with the number of future residents providing weight to a new community with its civic centre providing a hub for community activities;
- natural features—a focus on the natural waterways, preservation of mature trees and native grasslands and creation of lake systems, will create a rare environment in this geographic market area;
- leisure areas—features such as open space for recreation and the entertainment precincts, will add value to the lifestyle at Albion; and

- potential—as a new development site to be planned to include a range of house and land packages that will suit a wide variety of future residents.

125. Albion residential lot sales are estimated at 240 to 300 per year, which compares favourably with similar estates in the western region of Melbourne.

Industrial and mixed land use

126. The Committee was advised that there has been an increase in demand for industrial land in the western suburbs of Melbourne in the past few years, especially in the vicinity of the Western Ring Road. There has also been an increase in demand for peripheral sales and mixed use sites on main roads such as Station Road opposite Deer Park Shopping Centre and Western Highway. For these reasons, an additional allocation of land for these uses is provided. This allocation includes land for the proposed Council depot.

127. The proposed location of the industrial, peripheral sales and mixed use areas, is designed to maximise 'passing trade' advantages whilst minimising any adverse effects of unnecessary through traffic in Albion. In addition, the sites are located to minimise decontamination costs which would be much greater if residential use were contemplated in those areas. The Committee was assured that careful attention in detailed design would ensure that these areas complement the overall image of Albion.

Market for industrial land

128. The industrial market has also undergone a major transformation over recent years with the surplus supply in the western suburbs, in the early 1990s, having been taken up, resulting in a shortage of industrial accommodation.

129. Industrial land demand at Albion is estimated at 10 to 13 hectares per year.

Retail areas

130. The proposal includes two retail areas:

- a community centre (2.2 hectares with proposed small supermarket and ancillary retail facilities) adjacent to the civic centre; and

- the peripheral sales area (about 6 hectares with possible super store, homemaker centre or similar) adjacent to the Deer Park Shopping Centre in Station Road.

131. An entertainment centre (hotel/gaming, accommodation, reception centre, conference facilities and ancillary retail) is proposed with frontage to the Western Highway.

Civic centre

132. The ULA conducted a detailed study of the civic centre 'core'. The location and layout of this core has been developed after extensive discussions with Brimbank City Council and meets its desire to locate a new civic centre for its newly amalgamated municipality on the Albion site. Advantages of this location include its centrality and ability to become the 'heart' of Albion.

133. The previously proposed 1993 'Option 6 Plan' allocated 2 hectares for community facilities and the civic centre. This earlier proposal predated the detailed work carried out by the ULA with Brimbank City Council, which has resulted in the allocation of an additional 5.2 hectares of land for the civic centre. The Preliminary Land Use Plan also allocates 7.6 hectares of land for the proposed Council depot site (utilising approximately 1.6 hectares of land shown as industrial on the 1993 Plan) and about 6 hectares of an old landfill site (shown as public open space on the 1993 Plan).

Open space corridors

134. The two primary waterways which run through the site, Kororoit Creek and Jones Creek, form the spine of the major open space corridors proposed in the Preliminary Land Use Plan. This fulfils a number of urban design and conservation objectives which are summarised below:

- the corridors provide major pedestrian and cycle links through the site and to neighbouring areas, with separated pathways under internal arterial road crossings;
- incorporation of conservation sites of national, State and regional significance for flora, fauna and aboriginal heritage and the provision of links between them; and
- provision of down stream flood control, of wetlands for on-site treatment of internally generated stormwater and of lakes for amenity, habitat enhancement, water treatment and flow balancing purposes.

135. With the exception of small neighbourhood parks within residential areas, all major open spaces proposed in the Preliminary Land Use Plan would be adjacent or connected to the open space corridors, thereby increasing the effective area available for use, maximising the habitat value of retained open spaces and reducing maintenance and management costs.

136. The Committee was advised that at about 25 per cent of the site area, the proposed open space in various categories is considerably higher than is the case in most metropolitan developments in Melbourne. This higher level of public open space is a result of the need to preserve special conservation, historic and natural features.

Roads

137. The Committee was advised that the road hierarchy on the Preliminary Land Use Plan meets the traffic needs of the development. The proposed road network is characterised by:

- its facilitation of north-south and east-west access, including by bus services, through the site;
- linkage to Furlong Road, an intersection with Western Highway and two intersections with Station Road; and
- various proposed intersections on Station Road, the details of which will be resolved during fine tuning of the Preliminary Land Use plan.

138. Mr Bob Sercombe MP (Federal Member for Maribyrnong) expressed strong support for the proposal in a submission to the Committee in the following terms:

Continuing delays in establishing productive land uses on the site represent huge missed opportunities and hence cost to the total community. An appropriately planned blending of residential, educational, open space, industrial and commercial uses will greatly contribute not only to western Melbourne but to the whole of metropolitan Melbourne. The site's relatively close proximity to the CBD and its easy access to airport and port means that the area will be attractive both residentially and industrially. (*Minutes of Evidence—Public Hearing—11 April 1997, p. 237*)

139. Mr Sercombe identified a number of important considerations which, from a local perspective, require further and more detailed discussion. In this context, Mr Sercombe believes traffic issues are a vital consideration. Mr Sercombe submitted that the proposed development should not add to current traffic problems and consequentially, that the ULA accept responsibility for off-site works required to alleviate them.

140. The ULA advised the Committee that traffic problems in the area have been identified. The ULA believes that the opening up of the Albion site, particularly with east to west road connections, will contribute to an easing of the problems on Main Road West. In response to off-site road upgrading, the ULA advised the Committee that this is an issue which will be addressed through the local structure planning process. This process will involve the requirement for the identification of developer contributions to off-site infrastructure, if appropriate.

141. Brimbank City Council is preparing a transport strategy for the municipality. The draft report highlights the potential to construct an essential east-west arterial link through the site to provide improved access from Melton East and Deer Park to St Albans and the Western Ring Road, via Rockbank-Middle Road and Furlong Road. At the public hearing, the Committee was advised by a Council representative that, from the Council's perspective, the proposed Preliminary Land Use Plan is not necessarily an ideal situation and that the road network will need further development with the ULA.

Engineering services

142. Preliminary discussions with all service authorities have confirmed that there are no servicing impediments to incremental development of the site.

143. The drainage authority would require the ULA to preserve the flood plains of the existing watercourses and complete water quality improvement works for run off generated from areas of new development within the site.

144. The ULA believes the Preliminary Land Use Plan for the Albion site responds to conservation priorities, remediation requirements and sensible costing, viable land use needs and other design issues specific to the site and surrounding area.

Reaction from Brimbank City Council

145. Brimbank City Council has taken part in attempts at site remediation and redevelopment over the years and strongly supports the redevelopment. In the words of the Council's Policy and Project Coordinator

...from a Council and community perspective, the site as it stands, is considered to be a blight on the landscape in terms of its weed invasion. It is a big hole in the municipality...Council views this land as providing a number of significant opportunities. (*Minutes of Evidence—Public Hearing—11 April 1997, p. 70*)

146. Council has recently developed a Municipal Strategic Statement which recognises the Albion site as a key location for mixed use development. Council also pointed out that the proposed redevelopment is consistent with State Government urban consolidation policy, providing an opportunity for the provision of a range of housing types and better utilisation of existing infrastructure.

Buffer zone between Albion site and ICI site

147. ICI occupies a large site to the south of Albion. The Preliminary Land Use Plan provides for some residential development in the southern sector. ICI advised the Committee that activities carried out on the ICI site, or to be carried out in future, require a buffer distance of 1,000 metres in accordance with EPAV recommendations. This buffer zone would therefore impinge upon proposed residential areas. If residential development were to occur within the buffer area, ICI submitted that significant amounts of the ICI site would be unusable and effectively quarantined. ICI therefore submitted that adequate buffer zones must be retained in the planning.

148. In response, a senior ULA official advised the Committee at the public hearing that:

We have received three pieces of advice from ICI and the EPA[V] with respect to the boundaries of buffer zones. The Preliminary Land Use Plan, as it is presented at the moment, complies with one of those. We have had a preliminary discussion with ICI and received a proposal from ICI to undertake a review of the buffer zones to determine what buffer is appropriate from each of the existing uses on their site. We would expect the 1,000

metres to be the limit of it. (*Minutes of Evidence—Public Hearing—11 April 1997—p. 228*)

Planning to continue —Structure Plan

149. Subject to a favourable report from the Committee, the remediation strategy and plan will require more detailed study before development can commence. The process that would follow a decision to proceed with the project involves three closely related steps:

- converting the Preliminary Land Use Plan into a detailed Albion Local Structure Plan (LSP);
- fine tuning the proposed remediation strategy; and
- preparation of a marketing plan for the new development area.

150. The LSP is a statutory document under the Brimbank Planning Scheme and is based on the Preliminary Land Use Plan. It involves more detailed investigations, more consultation with the local community and all relevant authorities and the preparation of a planning scheme amendment to rezone the land for residential, industrial and mixed use purposes.

Contents of Structure Plan

151. Typical content of a comprehensive LSP includes:

- existing natural systems including geology, soils, climate, topography, flora and fauna;
- archaeological history and heritage issues;
- engineering services and infrastructure (existing and proposed);
- remediation works details;
- market demand analysis;
- housing type, density, diversity, quality and affordability;
- retail provisions;
- community facilities, services and community plan;
- public open space and management plans;

- development contributions;
- traffic and transportation;
- landscape proposals;
- the results of the consultation process;
- development guidelines;
- siting and design requirements;
- the overall land use plan and development layout; and
- the statutory planning system and requirements.

152. The LSP would form the guide for the activities of all authorities and parties with interests and works at Albion.

153. Brimbank City Council advised the Committee it will undertake the planning process required for the redevelopment. Council considers that community consultation throughout the planning process is important to ensure that local community issues are addressed in the planning and development of the site.

Victoria University of Technology to benefit from the proposal

154. Victoria University of Technology expressed support for the remediation and development of the site. The University also expressed support for the appointment of the ULA as remediation and development manager. The Preliminary Land Use Plan will provide significant elements of the site for University use. These, and the University's reactions to the offer, are set out below:

- 8 hectares on the western side of Jones Creek, adjacent to the campus—the University fully supports this proposal as part of a total land transfer and management package;
- ownership of the borrow pit land to be vested with the University, with the University managing the site—the University believes this land can never be built upon. Because of capping, it will not be possible to plant trees in the area. The University is therefore willing to negotiate the management of the land on condition that:

- ownership be vested with Parklands Victoria as Crown Land,
 - the land be used for the re-establishment of nature grasslands,
 - long term costs of maintenance is taken into account as part of a total land transfer and management package negotiated for the university,
 - all responsibility and costs linked to any contamination leaking into the borrow pit site will rest with Defence for an indefinite period,
 - any refuse from the borrow pit site found in the amphitheatre area on university land will be taken to the Albion repository at no cost to the university and the land made good.
- acquisition of the former incinerator site adjacent to the proposed extension of Furlong Road—the University will enter into negotiations concerning the acquisition of this land on the following conditions:
 - it is part of a total land transfer package negotiated for the University,
 - the site is cleared of all contamination and a Certificate of Occupancy is issued by the EPAV,
 - all responsibility and costs linked to any contamination on, or leaking from the site, will rest with Defence for an indefinite period.

155. Defence advised the Committee, in response, that the involvement of the VUT in the management of parts of the site is essential for the development of the site as a whole—this is reflected in the transfer of land to the University. Defence also advised the Committee that the ULA is undertaking a process of consultation about the ownership and management of parts of the site which will not be sold on the open market. The long-term cost of maintaining the borrow pit site will be taken into account as part of the land transfer and management package to be negotiated with the University.

156. The University also endorsed the vesting of the ownership of a 40 hectare area, to the west of the campus in Parklands Victoria, as Crown Land. This site

has been confirmed as being of national and State significance due to the presence of an endangered species of reptile and grasses. The management regime for this site is discussed later in this report.

157. The University believes the development of a civic centre at a central location will provide scope for cooperation and joint projects between Brimbank City Council and the University. The development of a private secondary college to adjacent to the University's south-western boundary, was also supported.

158. In summary, the University expressed strong support for decontamination and the Preliminary Land Use Plan—it recognises the importance of the Albion site to the Western suburbs, it is environmentally sensitive and combines quality residential development with community, educational and recreational requirements.

Justification

159. It was submitted to the Committee that the redevelopment of the Albion site in the manner outlined by the ULA can be justified because it will provide benefits to the Commonwealth and the wider community on a number of levels including:

- enabling the systematic and economic remediation of the site;
- ensuring retention of significant environmental elements;
- delivering an economic use of under utilised land;
- providing significant community benefits from the urban consolidation of a large vacant site in metropolitan Melbourne, which forms a barrier to efficient accessibility, communication, social interaction and servicing; and
- removing continuing financial and environmental liabilities upon the Australian taxpayers by remediating and selling land surplus to Commonwealth requirements.

160. The alternative of leaving the site 'locked up' is not an option because it neither solves the contamination problems nor meets the expectations of the community. In fact, the contamination is likely to increase due to ground water contaminants moving off-site over time.

Benefit of the proposal

161. The primary benefit of the proposal for the joint remediation and development of the site is that the Commonwealth liability for clean-up of contamination ceases within a relatively short time frame at least cost, whilst maximising the commercial opportunities for Albion.

162. The second major benefit is to the local community. The utilisation of long term derelict land provides significant economic and social benefits.

Committee's Conclusions

163. A Preliminary Land Use Plan has been developed which forms an integral part of the combined remediation and development strategy for the site. This plan will need to be further developed into a Local Structure Plan under the Brimbank Planning Scheme.

164. The State of Victoria will assume ownership of a large amount of parkland to be managed by the Victoria University of Technology.

Committee's Recommendations

165. In land transfer negotiations between the Commonwealth and the State of Victoria the significant improvement to public amenity arising from the transfer should be recognised.

166. Any additional costs associated with infrastructure improvements on land designated for public use should not be the responsibility of the Commonwealth.

ENVIRONMENT

Significant flora and fauna habitats

167. Albion has been the subject of flora and fauna assessments undertaken in 1993 and 1996. The assessments resulted in the identification of five significant flora and fauna habitat areas as follows:

- 24 hectares in the north was confirmed, in 1996, as being of national significance as a fauna habitat due to the presence of the Striped Legless Lizard (*Delma impar*) and of State significance for flora (Plains Grassland and Grassy Wetland);

- 5 hectares in the south-west which contain flora and fauna of State significance—the Striped Legless Lizard, Plains Grassland and other floristic values; and
- three other small areas, each of several hectares, located on Kororoit Creek; containing flora and fauna of regional significance—native grasses, Cunningham’s Skink, Marbled Gecko and Riparian Sedgeland.

168. The Committee was advised by Defence that each area has been assessed in terms of its overall significance and contribution to habitat values of the site. This assessment has included consultation with Federal and State departments, authorities, local government and environment groups and studies by expert consultants. Recommendations from these consultations and studies have assisted in determining the Preliminary Land Use Plan and in particular, have identified areas of significant conservation value which will be preserved.

High conservation values

169. The Victorian Department of Natural Resources and Environment (NRE) has been involved in the planning processes for the Albion site for many years due to the high conservation values of areas on the site. The larger area in the north is of national conservation significance, being the most important known site of *D. impar* in Victoria. Also significant is the Plains Rice Flower. The provisions of the Commonwealth Endangered Species Act apply to endangered and vulnerable species on Commonwealth land. Both species are listed in Schedule 1 of the Act. It will therefore be necessary to ensure that appropriate levels of protection are ensured prior to any transfer of land from the Commonwealth to the State.

170. NRE has been involved with the ULA and other interested parties in preliminary discussions concerning future land ownership and management arrangements for public open space areas. Parks Victoria has indicated that it is not expecting to manage the conservation areas, but will assist where possible in providing advice to future land managers, as required.

171. NRE supports the VUT managing the large conservation reserve in the north east of the site. The grasslands should be transferred from the Commonwealth to the State in good condition.

172. The Committee questioned NRE about the State significance of the larger conservation area. The NRE advised that the area is one of the last remnants of basalt plains grassland in the State. These grasslands once extended from

Melbourne to Portland and comprised 21,000 square kilometres. All that remains now is between 2,000 and 3,000 hectares. The rest has been turned over to agriculture, improved pasture, urbanisation, infrastructure and residential development. Grasslands are acknowledged as containing the majority of plant species and plant communities threatened with extinction.

173. The Albion grassland site is estimated to be 30 hectares, of which seven or eight hectares are infested with weeds. The Committee was advised that the balance of 22-23 hectares is close to its native condition but is interspersed with deteriorating and infested areas.

174. The VUT advised the Committee that following the transfer of the site, a Management Committee will be convened to manage the land, drawing upon the University's considerable expertise. The Management Committee could also manage the public open space land (of State and local significance) along Jones Creek immediately south of Furlong Road.

175. A joint submission to the Committee from Dr Colin Hocking, senior lecturer in Ecology at VUT, and Professor John Stearn, Head of the St Albans Campus, expressed agreement with the proposed development of the site. From the perspective of conservation, the submission acknowledged the positive features inherent in the conservation reserves proposed. It was submitted that there is a need to undertake significant infrastructure and conservation works in the large conservation area in the north-east, prior to transfer to the State. Defence would be responsible for meeting the cost as part of the relinquishment of ongoing environmental obligations. The extent of the works envisaged was:

- infrastructure costs of a protective fence, fire breaks, water supply and storage facilities for equipment; and
- returning the area to a state of health to allow cost effective management. This would include the replacement of Serrated Tussock and other weeds with Kangaroo Grass and other native grasses, control of invasive grasses on the borders of the reserve, removal of dead Kangaroo Grass overburden and the repair and supplementation of edges of Jones Creek.

176. At the public hearing, Dr Hocking provided estimates for the cost of the management works. These were as follows:

- initial weed control and fencing—\$50,000;

- Serrated tussock removal and replacement with Kangaroo Grass—\$175,000;
- Vegetation repair along Jones Creek—\$75,000;
- Total—\$300,000.

177. Costs associated with ongoing management of the reserve should be taken up by the Victorian Government as part of ongoing management of significant reserves.

178. The submission also drew attention to records and sightings of Striped Legless Lizards on parts of the site proposed for residential development. These areas are not suitable for reservation because they contain infestation by noxious weeds which are difficult to deinfest on a large scale. It was therefore suggested that a salvage operation be carried out prior to the development of these areas.

179. It was also suggested that residential development proposed in the large relatively intact grassland remnant in the south-west of the site be minimised or eliminated. The north/south tongue of residential development proposed would compound management difficulties for the site.

180. Finally, it was suggested that some effort be given to including other grassland remnants identified on the site into open space.

181. Defence advised the Committee that the Preliminary Land Use Plan is the result of substantial consultation and represents an acceptable compromise between interested parties and at the same time being a cost effective plan for the development of the site.

182. In response to specific matters raised by Dr Hocking, Defence advised the Committee that:

- the structure planning process will determine the detailed layout of the development, including grassland areas, open space links, school locations, allotments and road layouts. This phase will be subject to further public consultation;
- Defence is providing considerable land for reserves and conservation purposes and does not accept responsibility for providing further funds for infrastructure development;

- the ULA has accepted responsibility to facilitate the development of an acceptable management plan for the ongoing management of the conservation reserves, including the identification of avenues for funding; and
- some of the property will remain in Defence ownership during development and Defence has a responsibility under the Endangered Species Act to ensure that permits are obtained to carry out any works which might lead to injury to endangered species. Relevant authorities have indicated to Defence that the issue of these permits would be conditional on rescue operations being carried out prior to any such work.

Environment Australia—Biodiversity Group

183. Environment Australia—Biodiversity Group (EABG) advised the Committee that the process being established by Defence for the progressive removal of the site from Commonwealth ownership will adequately provide for Commonwealth commitments relating to protection of listed species on the site. EABG also supports the involvement of the ULA in the staged development of the land. The proposed strategy is expected to allow for land to be transferred to new non-Commonwealth owners subject to a range of measures which will ensure that provision of appropriate management is in place to ensure the long term protection and survival of the listed species.

Environment Australia—Environment Protection Group

184. Environment Australia—Environment Protection Group (EAEPG) suggested the Local Structure Plan should address all environmental issues including:

- leachate collection and treatment and the monitoring of surface and ground water;
- access control to wetlands and water features until monitoring indicates that surface water and sediment present a low risk to health;
- appropriate measures to ensure that dust and odours do not have an adverse impact on the community during site remediation; and
- the areas shown as public space should be regarded as the minimum necessary for conservation.

185. EAEPG also endorsed the concept of wildlife corridors linking as many conservation areas as possible and suggested that the corridors be linked as far as practicable and that they be of sufficient dimensions and continuity to allow the movement of fauna. Remnant vegetation should also be protected and enhanced.

Aboriginal Heritage

186. The Committee was advised that the Victorian Archaeological Survey advised the Australian Property Group in 1993 that Albion is not a significant site in relation to Aboriginal heritage.

187. A heritage study, undertaken in 1988, noted that “the greatest number of artefacts have been found on the banks of the Kororoit Creek near the permanent water holes. Other concentrations of sites are along Jones Creek where water would have been available for much of the year. Both Creeks would also have been valuable food sources”.

188. The Preliminary Land Use Plan proposes to retain both these Creeks as corridors of public open space linking the significant conservation areas on the site.

European Heritage

189. Heritage values described and assets recommended for retention in the 1988 heritage study have been addressed in the Preliminary Land Use Plan, although discussions with relevant Commonwealth and State heritage organisations and demolitions in the last eight years, have resulted in changes to some of the earlier findings.

190. The Defence submission to the Committee advised that the heritage assets recommended for retention and able to be retained include:

- wind break trees, grasslands, magazines and mound—south of the proposed primary school near the centre of the site;
- air raid shelter, casualty room and dry stone wall—near the south site entry;
- black powder mill—within the Kororoit Creek proposed open space area as indicated on the Preliminary Land Use Plan; and
- tree lines which formed wind breaks—various areas of the site.

Nomination of the site by the Australian Heritage Commission

191. The Australian Heritage Commission (AHC) advised the Committee by letter dated 7 April 1997, four days before the public hearing, that in February 1997 the Commission had decided to include the historic elements of the former explosives factory in the Register of the National Estate. The AHC provided the Committee with a copy of the Register of the National Estate Database—Place Report which identifies elements and parts of the site which “...contain historic national estate values and which therefore would need protection in any future site development.” The Committee notes that the AHC did not formally notify Defence until 23 May 1997 of its intended nomination.

Brimbank City Council

192. The Committee, having inspected the site and existing structures and elements, was perplexed by the inclusion of a number of elements identified as worthy of protection. These included in particular the dry stone walls and the ammunition storehouses and associated earth mounds. At the public hearing, the Committee questioned representatives of Brimbank City Council about the significance of the remaining structures and other elements on the site and asked for comments on their maintenance. Brimbank City Council advised the Committee that a post-contact cultural study is being completed. This study will specify the significance of structures. If considered significant, the Council would pursue appropriate management plans for their retention in a safe manner.

Briefing by Australian Heritage Commission

193. Following the public hearing, the Committee requested officers of the AHC to provide a briefing on the procedures involved in listing sites in the Register of the National Estate and the background and rationale behind the listing of elements at Albion in the Interim Register. The briefing took place on 5 June 1997.

194. For the purposes of this report, two administrative issues arising from the *Australian Heritage Commission Act 1975* need to be mentioned. First, the processes involved in a “place” being entered in the Register of the National Estate, and secondly, the overriding need for Albion to be listed in the Register.

195. Section 30 of the Act provides that Commonwealth agencies should not take any action that has an adverse effect on any part of the National Estate, unless there are no prudent and feasible alternatives. The same Section also requires Commonwealth agencies to take reasonable measures to minimise

adverse effects if there are no feasible and prudent alternatives. Procedures followed in a place being placed in the Register are:

- an initial assessment is undertaken—in the case of Albion, this was translated into a formal proposal—a nomination, developed by AHC staff, for consideration by the AHC Commissioners;
- the proposal is then formally considered by the Commissioners and if agreed to, a notice is placed in the Gazette that the nomination has been placed in the Interim Register of the National Estate; and
- objections may then be lodged under the Act.

196. The rationale for listing remaining structures and elements on the site was explained in terms of:

- the need for decontamination work to take priority—in the case of Albion, it was not possible to undertake an assessment of the site until decontamination work was advanced to the stage where it was known what was to be retained;
- the importance of the remaining elements, remaining as isolated remnants, relate to the history of the site as an explosives factory—they provide an indication of the previous use of the site; and
- community associations with the site.

Heritage listing

197. The Committee understands that following the briefing, the AHC and Defence held further discussions on the question of the significance of the nominated structures and places. The Committee also understands that Defence has advised the AHC that it does not support the listing of a number of elements for which, because of the likelihood of contamination, or the difficulty of conservation in the longer term due to the quality of materials used, conservation would be impractical. The elements comprise:

- the administrative and services area—the most heavily contaminated part of the site and likely to lose most or all of its buildings during the decontamination of the site;

- explosives storehouses and associated earth mounds—no practical re-use exists and they contain asbestos-based building material. The redevelopment proposal envisaged their retention, but this depends on replacement of the asbestos with a suitable alternative and the need to find an owner or manager;
- air raid precautions shelter—because it has no individual architectural merit or interpretive value in relation to the site;
- drystone walls—effectively piles of stones. Two walls on the southern boundary are considered for retention subject to them being made structurally sound; and
- propellant manufacturing area—without the former buildings, the remnants give little or no appreciation of explosives manufacture. They are unsafe and are riddled with rabbit burrows and infested with weeds.

198. Defence has no objection to the individual listing of:

- the black powder mill—to be retained within grasslands; and
- treelines—which provide definition of the site to assist in interpretation of the site's history.

Committee's Conclusion

199. Relevant Commonwealth environment protection agencies are satisfied that the process involved in the progressive sale will adequately provide for Commonwealth commitments relating to the protection of endangered species on the site.

Committee's Recommendation

200. Apart from the treelines and the black powder mill, all existing structures on the site should be demolished as they present a potential health and safety hazard. A management regime will need to be developed for the black powder mill.

CONSULTATION

201. Consultations to date have occurred at Commonwealth, State and Local Government levels as well as with local interest groups and service providers in the region. The consultations have helped to develop the proposed remediation

and development strategy for the site. The objective has been to gain a general acceptance of the proposed process and strategies whilst acknowledging that the full range of development, environment and community issues will be the subject of more intensive consultation at the LSP preparation stage.

202. The groups thus far consulted by the ULA have been:

- Brimbank City Council;
- Victorian Environmental Protection Authority;
- City West Water and Melbourne Water Corporation;
- Vic Roads;
- Victorian University of Technology;
- Telstra;
- Department of Natural Resources and Environment;
- Striped Legless Lizard Working Group;
- ICI Australia;
- Deer Park Shopping Centre;
- Albion Redevelopment Steering Committee (chaired by Mr Bob Sercombe MP);
- Community representatives; and
- Solaris Power.

203. All of those consulted have indicated general initial support for the strategy principles, subject to the more detailed proposals which would be finalised as part of the LSP stage.

TIMING

Remediation

204. The implementation program for the remediation strategy has been aligned with the land development program but with the intention of completing the decontamination of the site within the shortest period possible. This was estimated at between three to four years.

Structure planning and release of land

205. A period of about nine months would be required for further studies and the preparation and approval of the LSP. The Committee was advised that based on the assumption that the structure planning process will take about six months and the planning approval process takes another three months, the first development works could commence in early to mid 1988. The release of land would occur progressively. The total project development timing is estimated at eleven years.

FINANCIAL ARRANGEMENTS

Remediation risk and benefit

206. In terms of remediation risk and benefit, if remediation costs increase above those provided by Defence to the Committee on a commercial-in-confidence basis, Defence incurs additional costs. The ULA project management fee, however, would reduce by an equivalent percentage. If the ULA is negligent in its role as project manager, the additional costs relating to this negligence would be borne by the ULA. Conversely, if remediation costs decrease, Defence would benefit with a reduced requirement for funds while the ULA project management fee would increase by the equivalent percentage.

207. In terms of development risk and benefit, if development costs increase and/or revenue from sales decreases from that contained in Defence commercial-in-confidence details, the ULA takes the risk. Conversely, if development costs decrease and/or revenue from sales increases, the ULA benefits.

Confidence of estimates

208. The greatest uncertainty in implementing any contaminated land remediation strategy is the actual volume of contaminated soil which will have to be remediated. A change in the actual soil volume (from that predicted during the preparation of the strategy) will have a direct bearing on remediation costs. For the remaining areas of the Albion site, the remediation strategy preparation process already undertaken and the proposed remediation strategy itself, manage this uncertainty through:

- a thorough review of the comprehensive existing ADI data having been completed;
- an extensive program of further testing and validation of remediation areas having been allowed for in cost estimates;

- ensuring that technologies which contain uncertainties have not been included in the remediation strategy;
- the repository designs that have been adopted being of a very high standard (and in the case of the Category 2 repository, the design is considered to be the equivalent of the highest standard of landfill design in Australia);
- discussions having been held with the EPAV and in principle agreements having been reached regarding the feasibility of use of an on site repository;
- remediation cost estimates having been obtained from contractors experienced in this field;
- realistic contingencies having been included in the cost estimates; and
- a remediation strategy having been adopted which enables the greatest flexibility in managing the possibility of a higher actual contaminated soil volume than has been predicted and at the lowest marginal cost.

Cost increases

209. The Committee questioned the likelihood of cost increases during the development of the project. Defence indicated that past expenditure of approximately \$20 million would need to have been spent on remediating the site and this remediation, and the costs incurred so far, are consistent with the approach now being adopted. Defence advised that the net cost to Defence of \$3.84 million is a "worst case" situation. Defence is continuing negotiations with the ULA on the agreed value of the land in accordance with the Draft Development Plan. Independent advice is being sought by Defence on any public expenditure involved.

210. The ULA has prepared cost and revenue estimates for the remediation and development project. Estimates are based on the experience of the ULA in major and complex development projects, on its utilisation of expert project team inputs in real estate valuations and expected revenue projections, engineering and related development costs and remediation costs.

211. Defence advised that based on the cost/revenue analysis the project is feasible and viable in the combined remediation and development strategy proposed.

212. Commercial-in-confidence financial details are not publicly available, but were provided to the Committee at a private meeting prior to the site inspection and public hearing.

Total development of site unsatisfactory

213. Defence also pointed out that it would have been possible to arrive at a more favourable economic outcome by the total development of the site. This, Defence believes, would produce an unsatisfactory result. Instead, Defence examined conservation values, open space requirements and the need to balance residential, industrial and other mixed development of the site.

Local construction industry

214. The Committee questioned the ULA about the capacity of local contractors to undertake the work. The Committee was advised that a number of development contractors are based in the western suburbs and these would be considered as tenderers for development contracts.

Committee's Recommendation

215. The Committee recommends that the Urban Land Authority and the Department of Defence enter into an agreement for the decontamination and disposal of the former Albion Explosives Factory site, Deer Park at an estimated cost to the Commonwealth of \$3.84 million.

CONCLUSIONS AND RECOMMENDATIONS

216. The Committee's conclusions and recommendations and the paragraphs in the report in which they occur are set out below:

1. There is a need to decontaminate and remediate the remaining 40 per cent of the Albion Explosives factory site and for total site disposal. (Paragraph 53)
2. Any costs to the Commonwealth of decontamination and remediation should be offset against the potential value of the property. (Paragraph 54)
3. On the basis of evidence received, all appropriate measures are being taken to minimise health risks. (Paragraph 104)
4. The involvement of the Urban Land Authority as the manager of the cleanup and development of the site can be justified on the basis of expertise and a proven track record. The decision by Defence to enter into a single source arrangement with the Urban Land Authority, without testing the market, was based on independent advice to Defence from a number of sources. (Paragraph 111)
5. Based on expert advice, of the remediation options considered, the on-site repositories are feasible technically, offer the greatest flexibility and have cost advantages. (Paragraph 112)
6. The design concepts of the on-site repositories will require testing before detailed design commences. (Paragraph 113)
7. Whilst the Commonwealth will retain the long-term risk arising from site decontamination, expert advice to the Committee indicated that there will not be any health problems caused by the use of on-site repositories. (Paragraph 114)
8. Responsibility for undertaking regular monitoring of the on-site repositories should be assigned to relevant State authorities at the time of the finalisation of the formal agreement for the remediation, disposal and development of the site by Defence and the Urban Land Authority. (Paragraph 115)
9. A Preliminary Land Use Plan has been developed which forms an integral part of the combined remediation and development strategy for the site. This plan will need to be further developed into a Local Structure Plan under the Brimbank Planning Scheme. (Paragraph 163)

10. The State of Victoria will assume ownership of a large amount of parkland to be managed by the Victoria University of Technology. (Paragraph 164)

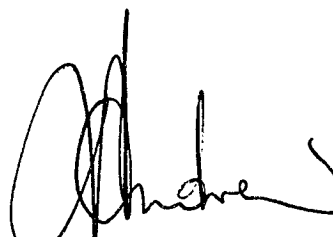
11. In land transfer negotiations between the Commonwealth and the State of Victoria the significant improvement to public amenity arising from the transfer should be recognised. (Paragraph 165)

12. Any additional costs associated with infrastructure improvements on land designated for public use should not be the responsibility of the Commonwealth. (Paragraph 166)

13. Relevant Commonwealth environment protection agencies are satisfied that the process involved in the progressive sale will adequately provide for Commonwealth commitments relating to the protection of endangered species on the site. (Paragraph 199)

14. Apart from the treelines and the black powder mill, all existing structures on the site should be demolished as they present a potential health and safety hazard. A management regime will need to be developed for the black powder mill. (Paragraph 200)

15. The Committee recommends that the Urban Land Authority and the Department of Defence enter into an agreement for the decontamination and disposal of the former Albion Explosives Factory site, Deer Park at an estimated cost to the Commonwealth of \$3.84 million. (Paragraph 215)



Neil Andrew MP
Chairman

19 June 1997

APPENDIX A

WITNESSES

BRENNAN, Mrs Clare Maria, Community Representative, Albion Explosives Factory Site Community Consultative Committee and Member, Albion Redevelopment Steering Committee, c/- 66 Trafalgar Street, St Albans, Victoria, 3021

CLARK, Professor Paul, Deputy Vice Chancellor, Victoria University of Technology, Ballarat Road, Footscray, Victoria, 3011

EGGINGTON, Mr Michael James, State Manager, Victoria, Delfin Property Group Ltd, Level 3, 1 Collins Street, Melbourne, Victoria, 3000

HOCKING, Dr Colin George, Senior Lecturer in Ecology, Department of Biological Sciences, Department of Biological Sciences, Victoria University of Technology, St Albans Campus, P.O. Box 14428, Melbourne Central Mail Centre, Melbourne, Victoria, 3000

KENNEDY, Air Commodore James Frederick George, Director General, Facilities, Air Force, Department of Defence, Campbell Park Offices, Canberra, Australian Capital Territory, 2601

MALPAS, Mr Keir Justin Guy, Director, Major Decontamination Projects, Facilities and Property Division, Department of Defence, Campbell Park Offices, Canberra, Australian Capital Territory, 2601

MEALE, Mr David William, Site Manager, Deer Park, ICI Australia Operations Pty Ltd, Gate 6 Tilburn Road, Deer Park, Victoria, 3023

MOORE, Mr Bryce Anthony, General Manager, Development, Urban Land Authority, Melbourne Central, Floor 11, 360 Elizabeth Street, Melbourne, Victoria, 3000

O'BRIEN, Mr Walter, Community Representative, Albion Explosives Factory Site Community Consultative Committee and Member, Albion Redevelopment Steering Committee, c/- 66 Trafalgar Street, St Albans, Victoria, 3021

O'SHEA, Miss Megan Bernadette, Convenor, Friends of the Striped Legless Lizard Inc., 90 Kent Street, Richmond, Victoria, 3121

OPIE, Ms Amanda Lesley, Policy and Project Coordinator, Brimbank City Council, Municipal Offices, Alexandra Avenue, Sunshine, Victoria 3020

PARKER, Mr Roger John, Principal, Golder Associates Pty Ltd, 25 Burwood Road, Hawthorn, Victoria, 3122

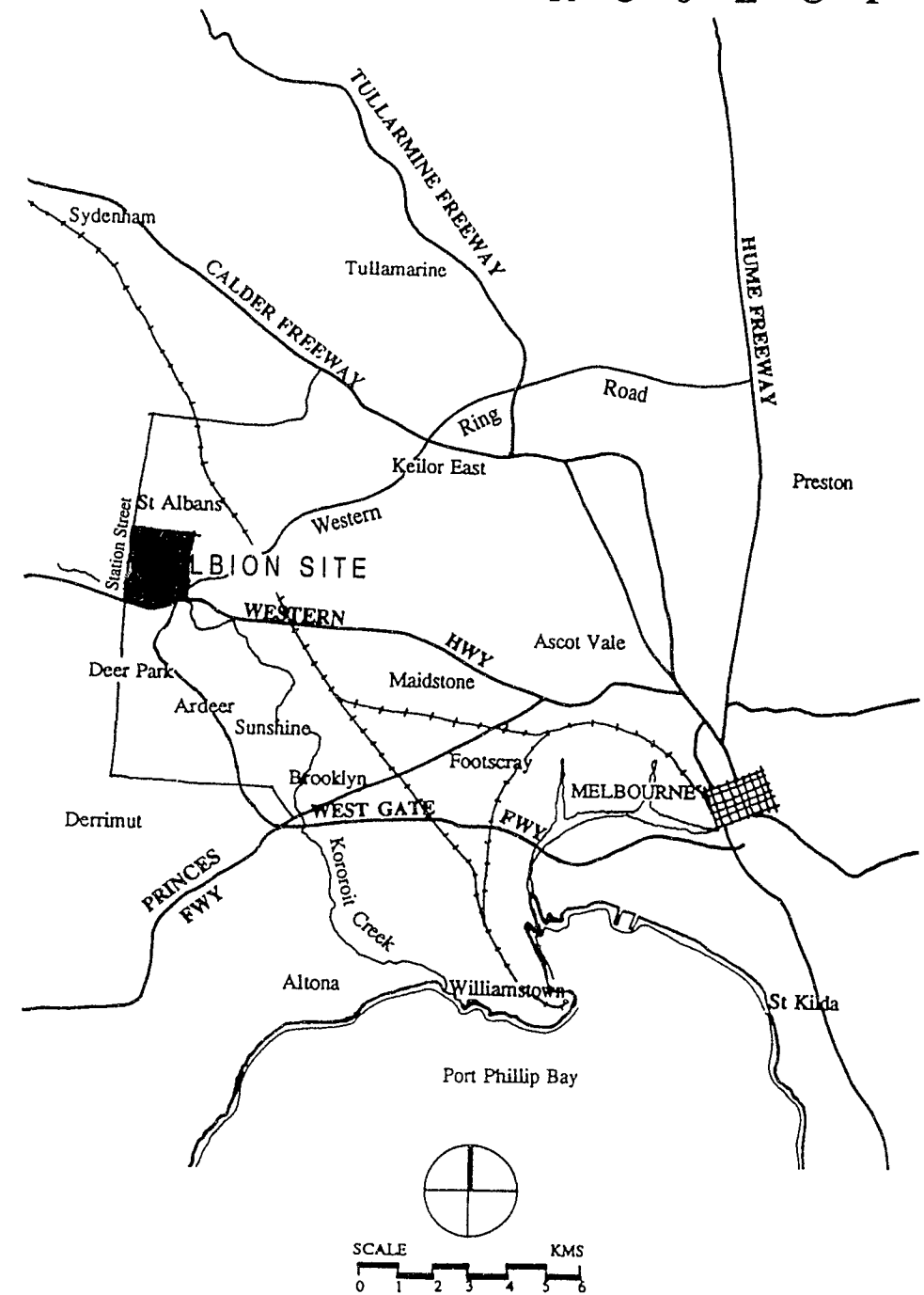
WEBSTER, Mr Alan Garnet, Threatened Species Management Officer, Department of Natural Resources and Environment, 49 Spring Street, Melbourne, Victoria, 3000

APPENDIX B

PROJECT MAPS AND DRAWINGS

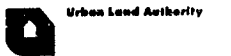
	Page
Locality Plan	B - 1
Neighbourhood Plan	B - 2
Existing Conditions Plan	B - 3
Soil Decontamination Status Plan	B - 4
Preliminary Land Use Plan	B - 5

ALBION PROJECT



HASSELL

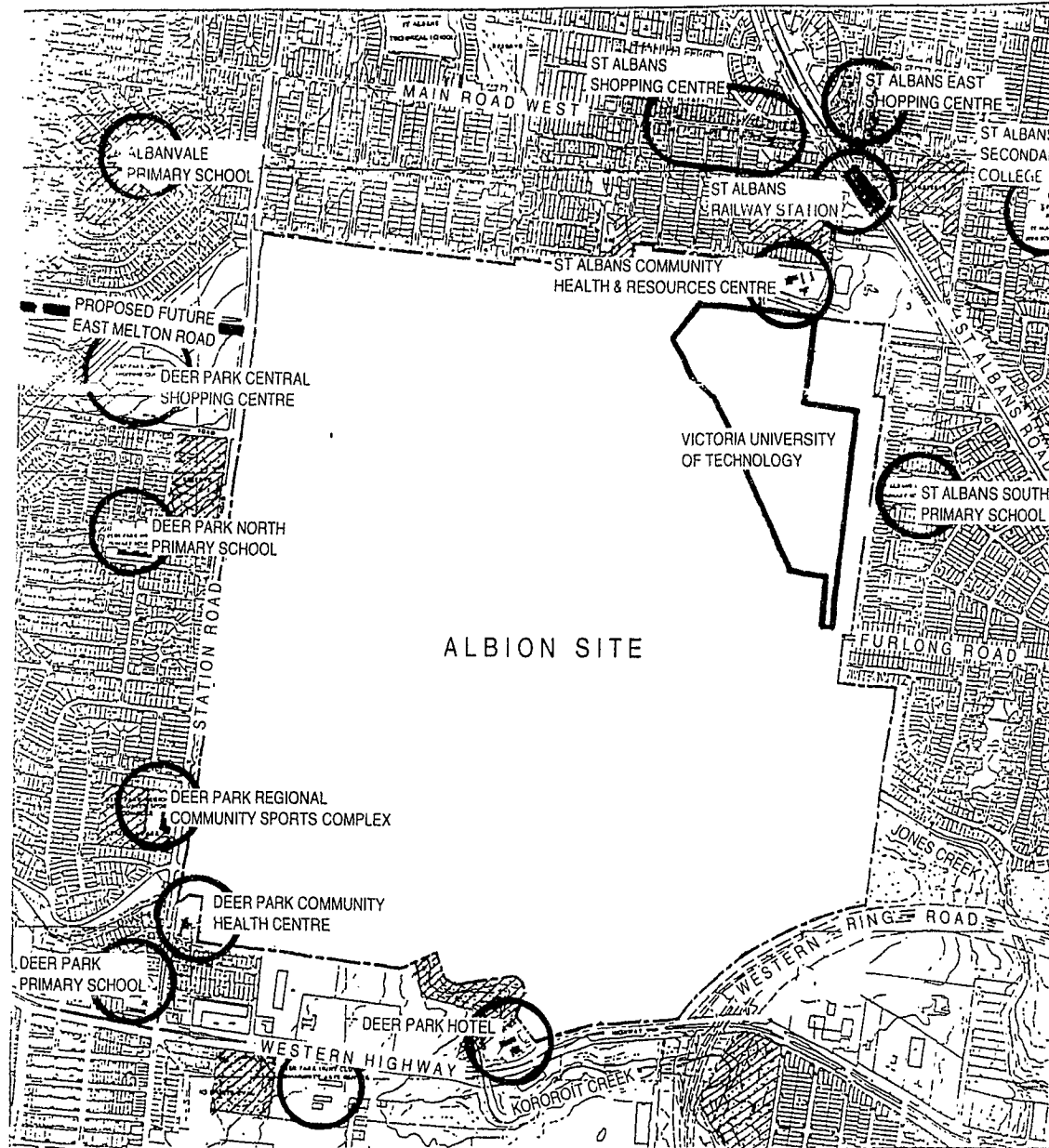
LOCALITY PLAN



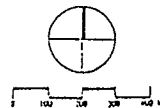
COOMES CONSULTING GOLDER & ASSOCIATES ARTHUR ANDERSON

COLLIE PLANNING URBAN ENTERPRISES

ALBION PROJECT

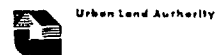


PUBLIC OPEN SPACE
(RESERVES, OVALS, ETC)



HASSELL

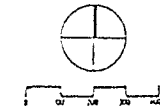
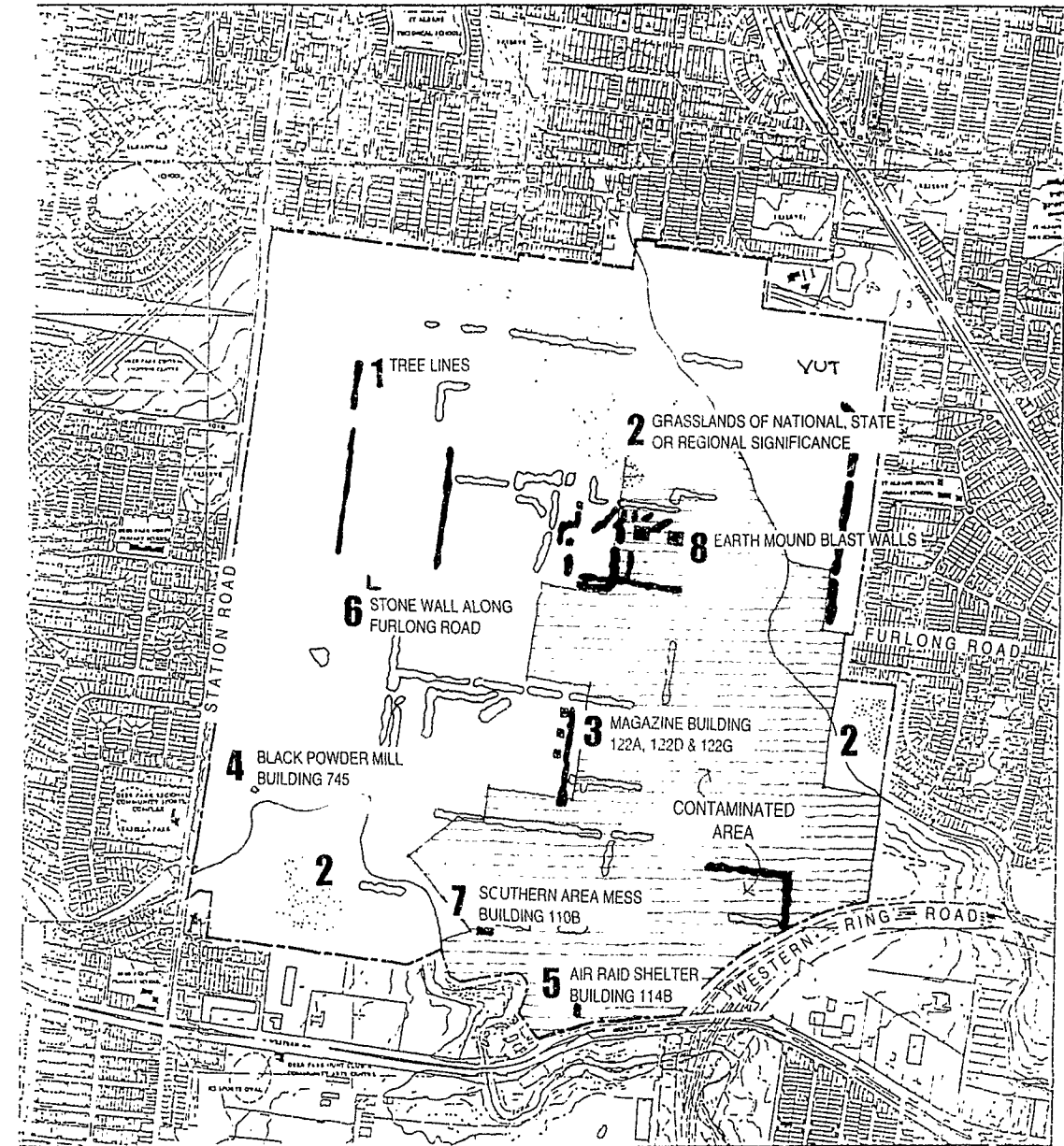
NEIGHBOURHOOD PLAN



COCMES CONSULTING GOLDBER & ASSOCIATES ARTHUR ANDERSON

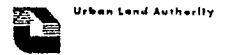
COLLIE PLANNING URBAN ENTERPRISES

ALBION PROJECT



HASSELL

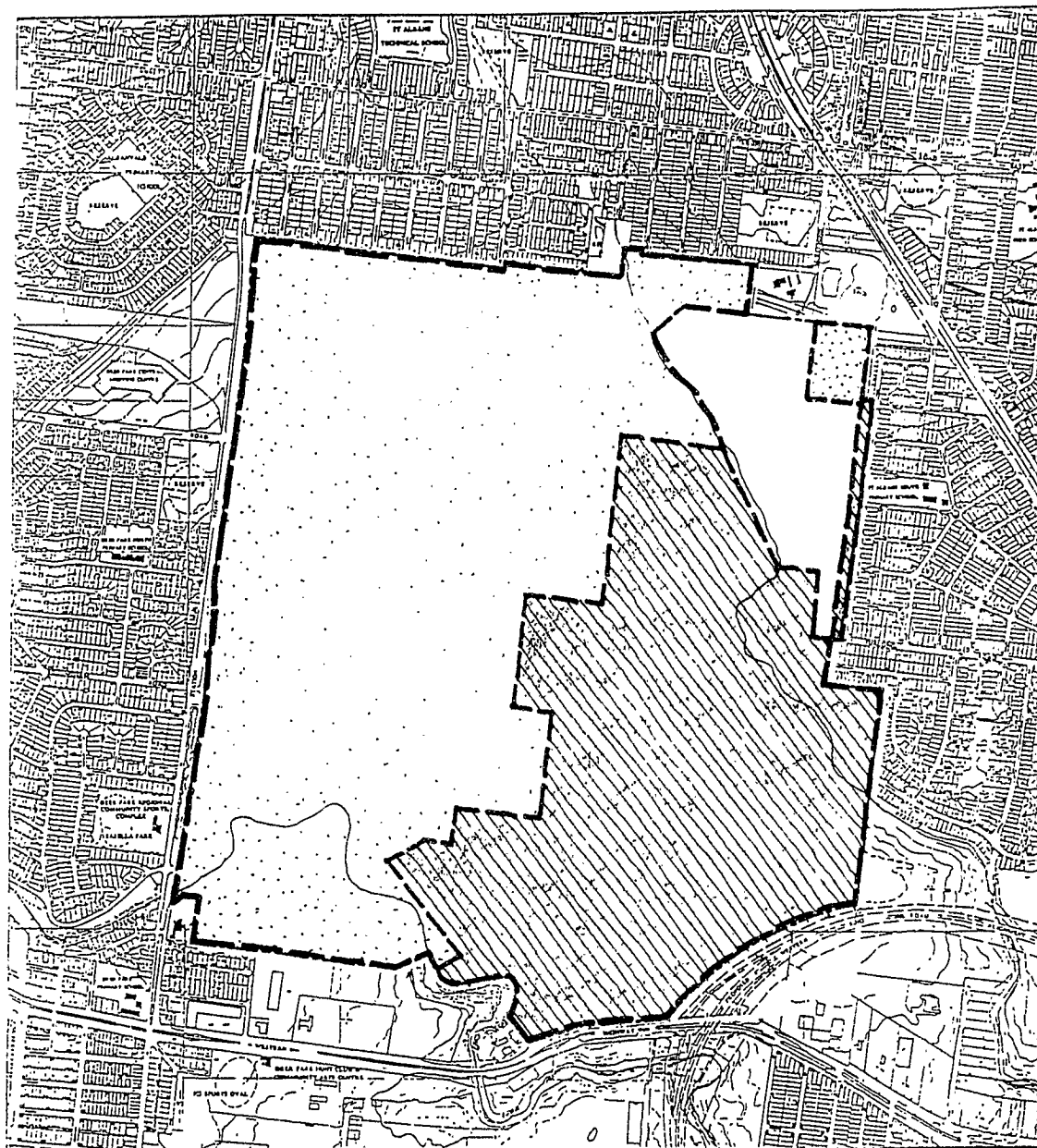
EXISTING CONDITIONS PLAN





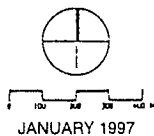
COCMES CONSULTING GOLDBER & ASSOCIATES ARTHUR ANDERSON

COLLIE PLANNING URBAN ENTERPRISES

ALBION PROJECT



-  DECONTAMINATED AND AUDITED AREA
-  AREA STILL TO BE DECONTAMINATED



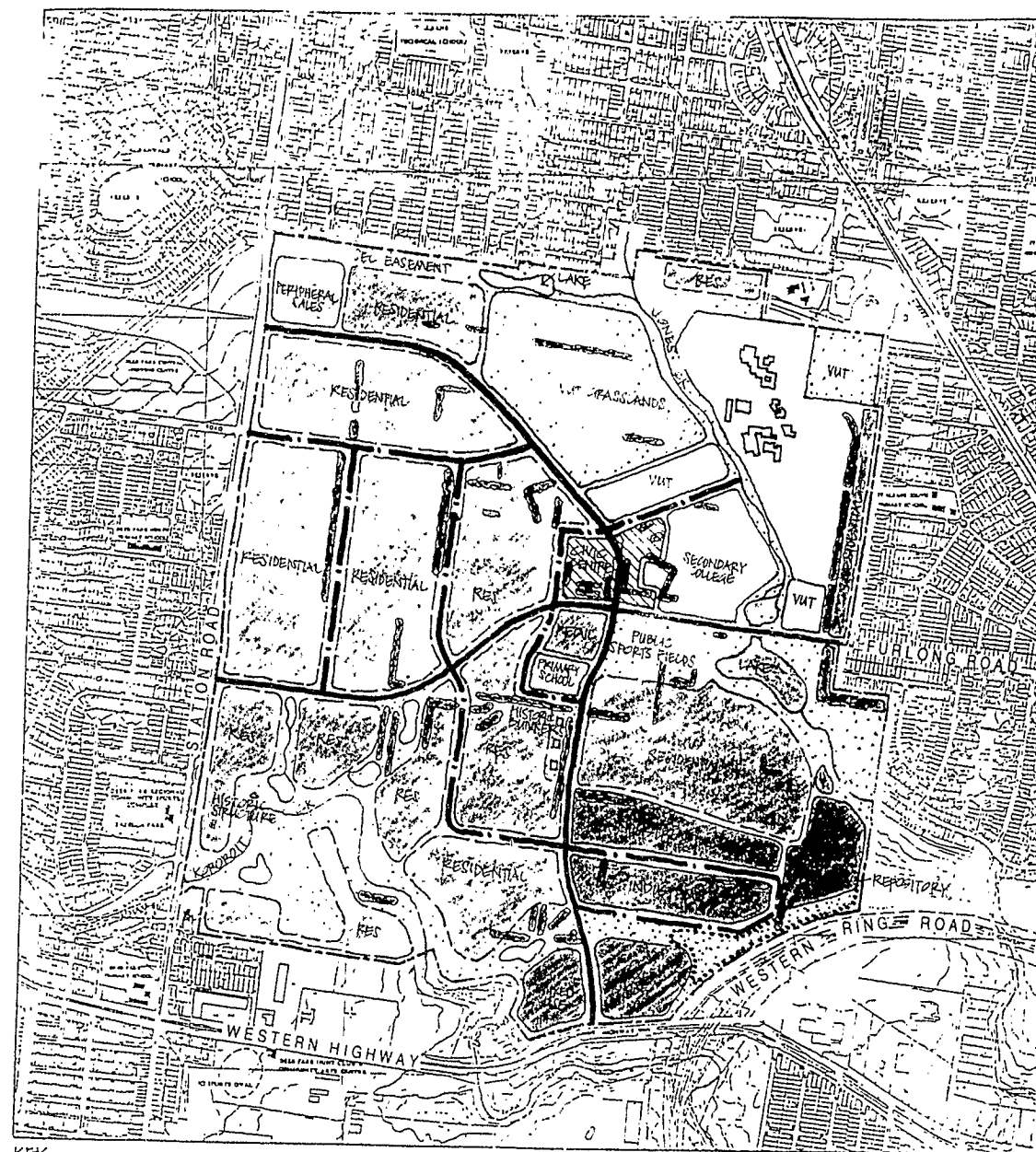
HASSELL SOIL DECONTAMINATION STATUS PLAN







Urban Land Authority

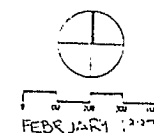
COOMES CONSULTING GOLDBER & ASSOCIATES ARTHUR ANDERSON

COLLIE PLANNING URBAN ENTERPRISES

ALBION PROJECT



-  RESIDENTIAL
-  INDUSTRIAL
-  COMMERCIAL
-  PUBLIC PURPOSE
-  PUBLIC OPEN SPACE
-  WATER-TREATMENT LAKES



HASSELL

PRELIMINARY LAND USE PLAN

Urban Land Authority

COOMES CONSULTING GOLDBER & ASSOCIATES ARTHUR ANDERSON

COLLIE PLANNING URBAN ENTERPRISES