The Parliament of the Commonwealth of Australia

Parliamentary Standing Committee on Public Works

Report Relating

to the

CSIRO Redevelopment North Ryde, NSW

(First Report of 1992)

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MEMBERS OF THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

(Thirtieth Committee)

Mr Colin Hollis MP (Chairman)
Mr William Leonard Taylor MP (Vice-Chairman)

Senate	House of Representatives
Senator Bryant Robert Burns	Mr Ewen Colin Cameron MP
Senator Paul Henry Calvert*	Mr Lloyd Reginald O'Neil MP
Senator John Robert Devereux	Mr Russell Neville Gorman MP
	Mr Bruce Craig Scott MP

*Appointed on 24.8.90 following the retirement of Senator Dr Glenister Sheil

SECTIONAL COMMITTEE ON CSIRO REDEVELOPMENT NORTH RYDE, NSW

Mr Colin Hollis MP (Chairman)
Mr Lloyd Reginald O'Neil MP (Vice-Chairman)
Mr Russell Neville Gorman MP

Committee Secretary:	Peter Roberts
Secretarial Support:	Jackie McConnell
	Sue Whalan

EXTRACT FROM THE VOTES AND PROCEEDINGS OF THE HOUSE OF REPRESENTATIVES

No. 86 dated Wednesday 11 September 1991

12 PUBLIC WORKS - PARLIAMENTARY STANDING COMMITTEE - REFERENCE OF WORK - CSIRO REDEVELOPMENT, NORTH RYDE, NSW: Mr Baldwin (Minister for Higher Education and Employment Services), for Mr Beddall (Minister representing the Minister for Administrative Services), pursuant to notice, moved - That, in accordance with the provisions of the *Public Works Committee Act 1969*, the following proposed work be referred to the Parliamentary Standing Committee on Public Works for consideration and report: CSIRO Redevelopment, North Ryde, NSW

Question - put and passed.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

CSIRO REDEVELOPMENT, NORTH RYDE

By resolution on 11 September 1991, the House of Representatives referred to the Parliamentary Standing Committee on Public Works for consideration and report the proposal for the redevelopment of CSIRO facilities at North Ryde, NSW.

THE REFERENCE

1. In April 1989 the Committee recommended to the Parliament the construction of the Stage 1 redevelopment facilities at CSIRO, North Ryde, at an estimated cost of $18.52m at August 1988 prices (Fifth Report of 1989 refers). CSIRO sought funds in the Budget context for this development to proceed. However, funds were not provided and it was decided that the project should be funded through rationalising CSIRO's property holdings at North Ryde. A review of the North Ryde site was undertaken and a redevelopment strategy proposed. The strategy involved a staged development and release of certain lands for high technology business park purposes. The proceeds from the staged land releases would be used to consolidate CSIRO activities on the site and upgrade and replace substandard facilities.

2. The main elements of the proposed strategy are:

- a rationalisation and consolidation of the CSIRO accommodation at North Ryde
- a progressive release of approximately 15.8 ha of identified surplus land and up to 11 indicative development lots to create a science and technology park
- the retention of principal CSIRO buildings in good condition to form the nucleus of the redevelopment in the divisional precincts
- the provision for all of CSIRO's anticipated accommodation needs for the foreseeable future in retained existing buildings, upgraded as necessary and state-of-the art new buildings

- provision of controlled access to the site to address urgent safety issues

- an orderly continuous redevelopment program anticipated to run some nine years, but the program to permit on-site research to proceed with little interruption

- the whole redevelopment to be self-funding.

3. The out-turn cost of the work when referred to the Committee was $101m to be funded from the sale and/or lease of identified surplus land. To reduce the construction timetable from 12 to 13 years to nine years, the Government has provided CSIRO with a loan of $10m which will be interest free for this project. This will reduce the out-turn cost to $98m ($78m in present-day value).

THE COMMITTEE'S INVESTIGATION

4. At a private meeting on 7 November 1991, the Committee resolved to appoint a Sectional Committee to conduct the investigation. It consisted of Mr C Hollis MP (Chairman), Mr L R O'Neil MP (Vice-Chairman), Mr R N Gorman MP.

5. The Committee received a written submission from CSIRO and evidence was taken from its representatives by the Sectional Committee at a public hearing held in North Ryde on 20 November 1991.

6. The following organisations also made submissions and presented evidence at the public hearing:

- New South Wales Department of State Development

- North Ryde Residents Group

- Coalition of Transport Action Groups

- Macquarie University

- Representatives of the Riverina Region.

7. A number of written submissions relating to the project were also received from other organisations and these are incorporated in the Minutes of Evidence.

8. Prior to the commencement of the public hearing the Sectional Committee inspected the North Ryde site and existing facilities. On 20 and 21 January 1992, the Sectional Committee visited Wagga Wagga and Griffith to inspect food processing research and industry facilities in the Riverina Region.

9. A list of the witnesses who gave evidence at the public hearing is at Appendix A. The Committee's proceedings will be printed as Minutes of Evidence.

BACKGROUND

10. The North Ryde site is CSIRO's principal research centre in NSW. It currently accommodates the Divisions of:

- Biomolecular Engineering - Laboratory of Molecular Biology
- Exploration Geoscience
- Coal and Energy Technology
- Building Construction and Engineering
- Mineral and Process Engineering
- Food Processing
- Plant Industry
- Horticulture.

11. Some research activities of the Division of Animal Production are conducted at North Ryde but these will be relocated to the Divisional Headquarters at Prospect as a part of the rationalisation process.

12. The major objectives of CSIRO activities on the site are to:

- carry out strategic research which can be applied by Australian industry or government for community benefit
- collaborate with other institutions and industry to strengthen the research effort and ensure its transfer and application
- lead, promote and expand the science and technology effort in Australia.

13. The site has been amalgamated only recently as a result of the acquisition by CSIRO of portions previously occupied by the Department of Transport and Communication's National Materials Handling Bureau and the incorporation of the National Building and Technology Centre (NBTC) into the Organisation.

14. Previously these groups largely pursued their own site development objectives. As such the distribution of buildings and development across the site has been disjointed, reflecting only the needs of individual groups at any point in time. Attempts had been made to organise and plan development on the site, the most notable being the 1984 Master Plan which essentially proposed a multi-precinct approach for the site. The major features of that plan were to:

- develop the entire site as a Commonwealth research/technology complex
- develop the site as a group of precincts and to minimise inflexible subdivisions and boundaries
- ensure coordinated development of then under-utilised land. This would have ensured cost effective land usage in the interests of site users, and sought to increase site densities, remove obsolete structures and enhance the development within the site

- provide integrated common facilities such as site entry, main circulation roads, car parking, engineering services, landscaping and security. The Plan recommended the provision of a single internal major loop road which provided appropriate access to each of the precincts and reduced site access points to two.

15. The 1984 Plan remained as policy for some years but was hindered by the differences between the two major land holders, CSIRO and the NBTC and the non-involvement of the National Materials Handling Bureau.

16. The opportunities presented by the amalgamations referred to, the need for new laboratories and ancillary site works, coupled with the government directive that any redevelopment should be funded through rationalising CSIRO's property holdings at North Ryde forced CSIRO to re-evaluate the original Master Plan.

17. As a first step CSIRO initiated a 'Pilot Planning Study - CSIRO at North Ryde' in June 1989. The aims of this study were to:

- establish the current and future accommodation requirements for existing North Ryde divisions and units (including institute directors' accommodation)
- assess in broad terms the economic viability of existing North Ryde structures
- evaluate the development potential of the 30 ha North Ryde site and the viability of relocating other CSIRO divisions and units to the North Ryde area
- determine the most efficient use of the National Materials Handling Laboratory complex
- identify areas potentially available for further building development and those which are likely to be surplus to CSIRO's anticipated long-term needs
- cost, at first estimates, the various options.

18. In the event it was found that if CSIRO rationalised and redeveloped its activities on the site, not only could the priority buildings be funded, but the land released could allow the development of a high quality technology park, with CSIRO as a central precinct.

THE NEED

19. Each of the divisions at North Ryde plays a major role in providing research vital to its industry sector. These sectors represent major components of the Australian economy and include:

- coal with exports of $6 billion
- minerals with exploration expenditure of $600m and exports of $16 billion
- manufactured foods with exports of $17 billion
- a construction industry with $37 billion of new investment annually
- pharmaceutical and diagnostic products currently imported at a cost of $3 billion.

20. Currently the standard of facilities at North Ryde restricts the continuing development of industrially significant research initiatives with a high national priority for the biotechnology, mining and minerals, energy exploration and food industries as well as work of major environmental significance. To address this problem a working party was established in 1989, and a consultant appointed to advise on how CSIRO should plan future developments at North Ryde to maximise the efficient and effective use of the site.

21. The consultant found that much of the building stock was substandard with a number of more substantial buildings, including those of used by the Division of Food Processing, nearing the end of their economic and useful life. The site of 27 ha is, on average, very lightly occupied with a floor space to land ratio of 0.18:1 and currently accommodates some 650 staff.

22. A number of the single-storey buildings have already been extensively refurbished and are being employed well beyond their originally planned life and usage. They make inefficient use of the site and make interaction between staff extremely difficult. The inadequacies of laboratories and facilities include overcrowding, the lack of proper ventilation and specialised fume cupboard facilities, poor air-conditioning, substandard electrical and mechanical services, inappropriate space and conditions for highly sensitive equipment and the lack of adequate fire safety measures.

23. This proposal provides for a multi-stage redevelopment which will encompass:

- the construction of a genetechnology laboratory
- a chemistry laboratory and refurbished geophysics laboratory
- new fire technology facilities
- replacement and modification to a significant number of antiquated facilities
- the construction of new roads and replacement of many utility services.

24. The plan provides for the site to be developed as a number of consolidated precincts and the sharing of a main spine or ring road.

25. The construction of the three high priority buildings will provide facilities which are significantly more efficient, flexible and more capable of rapidly responding to the expected industrial and environmental research needs. As a result, CSIRO will be able to:

- substantially increase the number of industry staff contributing to such projects
- accelerate the transfer of technology from CSIRO to industry
- extend its effort in strategic research to enlarge the information base necessary for the development of new products and techniques.

26. CSIRO advised the Committee that all these initiatives are strongly endorsed by industry. The Committee previously evaluated the biotechnology and geophysics proposals in late-1988 and gave approval for their construction in April 1989. (*CSIRO North Ryde Laboratories Site Development, Stage 1* - Fifth Report of 1989). CSIRO also gave a commitment to construct the new fire technology facility as part of the conditions of transfer of the former NBTC to CSIRO. There has also been a ministerial directive that these facilities should be funded through the sale or development of surplus land at North Ryde and the current proposal has been determined by CSIRO to be the most effective method of achieving these objectives.

27. CSIRO believes that development of a prestige science and technology park on the site will also further foster links with industry and already it has received inquiries from multinational companies, major Australian companies and local manufacturers.

28. CSIRO advised the Committee that the proposed development will significantly enhance its ability to add value to Australia's traditional export earners and to establish a world presence in rapidly emerging new technology markets.

29. CSIRO believes that the establishment of a science and technology park will enable the replacement of old, substandard and inadequate buildings with facilities consistent with the need to do high quality research and development in the 21st century. The proposal will also provide the opportunity for potential collocation with compatible industrial partners. CSIRO believes this will lead to collaborative research and development between it and industry partners.

30. The Committee was advised that because of the high quality research environment to be established, there will be greater attractiveness to the outstanding scientists and technologists that CSIRO needs to employ to maintain its high level research and development output into the 21st century. The proposal will allow access to shared, often very expensive, research facilities and equipment.

Alternatives

31. The Committee was advised by CSIRO that three alternatives were considered before determining the redevelopment strategy. These are outlined in the following paragraphs.

No Action

32. CSIRO believes that to take no action would perpetuate the inefficiencies at the site. It would result in a gradual decline in the range and effectiveness of CSIRO research and deny the opportunity for introducing new initiatives, to the detriment of the Organisation and the country as a whole. By taking no action, the value of surplus land would not be realised.

Relocation Off-site

33. CSIRO considered, but rejected, the option of relocating its activities away from North Ryde. It advised the Committee that there are overwhelming grounds for remaining at the present site; these include:

- it is CSIRO policy to maintain a strategic centre of activity in each of the State capital cities of Australia. North Ryde is recognised as the focus of the Organisation's research in the Sydney metropolitan region. No other CSIRO site in the city is of an adequate size, or supports a sufficient diversity of research to replace North Ryde as the strategic centre. Nor has the Organisation been able to identify any other property whose size, location, quality and environment could adequately replace the existing venue

- CSIRO's activities at North Ryde enjoy the support of the scientific and local communities

- the capital investment (land and buildings) is significant - $71.3m approximately (a 1990 valuation based on land use restricted to scientific research and on the written down value of buildings)

- any relocation predicated a loss of experienced staff whose knowledge and skills cannot easily or speedily be recovered. Thus any move inevitably results in a significant long-term loss in research output

- redevelopment at the present site will be modest compared with the high cost of purchasing land and developing all new facilities elsewhere - CSIRO indicated that to redevelop all facilities on a new site would cost in the order of $160m excluding the cost of a new site. This assumes that CSIRO would receive $100m for the unrezoned North Ryde site

- the self-funded redevelopment can only be achieved on the present site. Development on another site would require capital input by CSIRO, to the detriment of the Organisation's research budget.

Alternative Site Development

34. A range of alternative development scenarios and uses was considered for the surplus land component of the site. These alternatives included:

- residential uses
- retail/bulky goods warehousing
- general industry
- commercial office space
- hotel/conference facilities
- high technology activities.

35. Suggested uses were assessed in terms of their suitability from the point of view of local and regional planning objectives, environmental impact and market viability.

36. Residential development is not considered appropriate on the site because of the possible incompatibility between the activities of CSIRO and future residents and impact on the State Recreation Area by way of greater

numbers of adjoining land owners causing problems such as illegal clearing, weed infestation, dumping of rubbish, and attacks on native animals by household pets.

37. General industry is not considered appropriate for the site for many of the reasons nominated for excluding residential use. However, 'clean' industries may be appropriate. Furthermore, to use the site for general industry or bulky goods retailing fails to take advantage of the opportunities offered by the close physical relationship for the creation of greater links between CSIRO and private research.

38. Retail use of the surplus land area would be inappropriate because of its isolated nature impeding the development of a direct catchment area, the competition from other centres and the lack of demand for retail space of a major quantity in this location. Small service retail support facilities may be required and would be justified to meet local workforce needs.

39. Commercial office uses are considered appropriate for the site based on the physical characteristics of the site and the possible association with adjoining land uses. The relatively clean and static nature of commercial office uses would have little impact on surrounding uses.

40. The most suitable land use for the site was determined by CSIRO and its advisers to be commercial/high technology based activities. Such activities are compatible with CSIRO facilities. The establishment of high technology uses in this location respects local planning intentions and is consistent with regional planning objectives which indicate the northern side of the Epping Road/Freeway Corridor as a research-based employment area.

41. The disposition and planning of development on the site was also investigated with a number of alternative site plans being considered. The basis for the consideration of alternatives included:

- the appropriateness of land uses based on current operations, surrounding land uses, planning and environmental considerations
- return to CSIRO on raw land values and building relocation cost
- marketability and ease of development

- internal site operation of CSIRO and preferences for the location of certain facilities.

42. Based on these criteria the disposition of CSIRO activities across the site were determined. See Appendixes C2 and C3.

Committee's Conclusions

43. There is a need to provide high quality research facilities at North Ryde to enable CSIRO to continue the development of research initiatives with a high national priority.

44. The development of a prestige science and technology park by the CSIRO at North Ryde is the most cost effective method available to it of providing the funds necessary for the development of high quality research facilities.

THE PROPOSAL

Redevelopment Strategy

45. The strategy proposed by CSIRO is to develop the high technology park by the staged release of the surplus land which will also finance the redevelopment. CSIRO believes that there is a market for a high quality research park at North Ryde. This confidence is based on the presence of CSIRO on the site, the size of the site which is seen as ideal for a high quality park and which is also located in close proximity to universities and dormitory suburbs.

46. The main elements of the proposed strategy, which will be undertaken in three stages, are:

- the grouping of all facilities of the Divisions of Exploration Geoscience, Coal and Energy Technology, and Building Construction and Engineering (other that the Fire Technology complex) within a discrete precinct which incorporates all those Mineral Research facilities to be retained

- the location of the new Fire Technology complex within a new precinct, to be shared with the existing Rock Magnetism complex of the Division of Exploration Geoscience and the Bread Research Institute, the latter a lessee on the site

- the consolidation and relocation of Institute Headquarters in a discrete new building, in a central site location also incorporating a site auditorium, a recreation centre, retail facilities and a child care creche

- the consolidation of the activities of the Division of Biomolecular Engineering within a discrete precinct which would incorporate the new genetechnology laboratory and replacements for the substandard workshop and animal house

- the refurbishing of the facilities within the existing complex occupied by the Division of Food Processing. If funds permit, depending on the returns from land sales over the next eight years, an alternative strategy envisages the complete relocation of the DFP and the Horticulture group into new facilities to be constructed with those proposed for the Division of Biomolecular Engineering as a consolidated complex within the precinct proposed for the latter (see paragraphs 92 to 128 for the Committee's view regarding the location of the Division of Food Processing)

- the relocation of the Division of Animal Production poultry facilities to that Division's site at Prospect, New South Wales

- progressive release of approximately 15.8 ha of identified surplus land in up to 11 indicative development lots to create the park and to finance the CSIRO redevelopment.

47. The final definition of the actual scope of works to be undertaken as part of Stage 3 of the project is ongoing. The revised estimated cost of works of $98m escalated cost ($78m present day value (PDV)) includes $6.5m (PDV) for the refurbishment of the food processing facility. It is, however, CSIRO's ultimate preference subject to sufficient funds being available in Stage 3 to replace the existing food processing building with new facilities at an estimated cost of $24.6m (PDV).

48. Because of the conservative nature of the Business Plan, which includes a refurbishment of the current food facility and not total replacement, CSIRO would prefer to submit Stage 3 to the Committee for consideration at the appropriate time when full details are available. The Committee also notes that Stages 1 and 2 have been referred to it at a very early conceptual stage. The Committee expects CSIRO to provide it with detailed plans of each aspect of the proposal as they become available prior to the commencement of construction.

49. The site redevelopment has been planned to maximise the benefits to all divisions on site taking into account their accommodation needs and priorities as they relate to the freeing up and disposal of surplus land in order to generate the funding required. This involves a relocation and rationalisation of existing facilities cognisant of the current standard of each individual building currently on the site. In particular, this has resulted in the geophysics laboratory, previously planned to be a new building now being located in an existing building. A new chemistry building is to be constructed to free up space in an existing building.

50. CSIRO advised that during the detailed design of the buildings energy efficiency will be important consideration. Energy management targets will be set and monitored.

Stage 1

51. Stage 1 includes planning and rezoning of the site, construction of access roads and site services, subdivision and disposal of initial development lots, construction of new minerals chemistry facility and construction of the new fire technology facility. In relation to the difficult road access to the site the Committee was advised that the Road Traffic Authority of New South Wales has been planning to upgrade the section of Delhi Road adjacent to the site for some time. This will include the installation of traffic lights at the Plessey Road intersection and the widening of Delhi Road to four lanes.

Infrastructure Works

52. Infrastructure works include:

- Delhi Road works including traffic lights
- demolition of approximately 45 redundant buildings to allow new development to occur, including asbestos removal (any asbestos removal will be undertaken in accordance with safety guidelines)
- construction of main internal access road and upgrading of site stormwater facilities
- other main site services including electrical, sewer, water, gas and telephone
- CSIRO precinct service roads and provision of car parking
- provision and upgrading of CSIRO precinct services including electricity, water, sewer, reticulated services
- Water Board head works
- site landscaping.

53. The Committee questioned the planned provision of car parking for 80% of the CSIRO staff. The number of spaces for CSIRO staff will increase from 620 to 820. CSIRO advised that this figure was related to the lack of adequate public transport services to the site. The Committee also expressed concern that the total number of car parking spaces will increase from 620 at present to approximately 2800 on the fully developed site. CSIRO advised that it is required to comply with the Ryde Municipal Council's car parking code in relation to the surplus lot development.

Major Facilities

54. CSIRO advised the Committee that the buildings will be designed in accordance with a new earthquake code which is currently being developed between Australia and New Zealand.

55. The following major facilities will be constructed:

- the first major facility to be constructed as part of the redevelopment will be the chemistry laboratory and it is planned to commence construction in December 1993. This highly serviced laboratory building will be based on the concept of a similar laboratory recently developed for CSIRO's Division of Chemicals and Polymers at Clayton, Victoria. It will have an area of 2375 m^2 and accommodate 63 staff

- a fire technology facility comprising three laboratory buildings, administration building and workshop and stores facility. Significant planning work for this facility was carried out by NBTC prior to its incorporation into CSIRO. This original work will form the basis for the detailed design of this facility. It will accommodate 70 staff and have a total area of 5040 m^2.

Minor Works

56. The following minor works will be undertaken:

- construction of 104 m^2 of office/lab space in the Wheat Research extension to replace the existing facility which is to be demolished to allow construction of the access road

- minor refurbishment of Biomolecular Engineering canteen facilities involving an area of 190 m^2

- relocate Division of Building, Construction and Engineering stores buildings and gas meter house to allow for construction of access road

- construction of a new general food stores building of 160 m^2 for the Division of Food Processing

- construction of two new glasshouses and horticulture laboratories with an area of 196 m^2 to replace existing facilities which are to be demolished to allow for the sale of Lot 9

- upgrading of existing CSIRO building facades for presentation and acoustic treatment

- raising of the roof of the Institute of Minerals, Energy and Construction building to house new and existing facilities

- preliminary refurbishment of the administration areas and laboratories within building 12 to address current safety issues and initial short-term accommodation of Geophysics requirements (complete refurbishment proposed in Stage 3).

57. The development in Stage 1 of the recreation facilities is considered essential to the presentation and marketability of the site to clearly communicate CSIRO's commitment to develop a high quality, fully serviced science and technology park.

58. Included in the recreation precinct is the refurbishment of the Division of Building, Construction and Engineering conference centre to provide a cost effective telecommunications and conference facility.

59. A child day care creche has been recently completed by CSIRO and is to form part of the recreation precinct. This facility will provide services to both CSIRO staff and future occupiers of the development lots.

60. It is intended that the recreation facilities with a total area of 1670 m^2 be operated on a commercial basis with the facilities being available to the community.

Stage 2

61. Stage 2 is a two and a half year program envisaged to commence early in 1995, and includes continued development of infrastructure and services, construction of the biomolecular engineering laboratories, animal house and workshops and the construction of Division of Building, Construction and Engineering construction material and hydraulic test laboratories, structural facade test laboratories and minor works.

Major Facilities

62. Major facilities in Stage 2 will include:

- construction of a new laboratory facility of 1800 m^2 on the concept of the genetechnology facility previously approved by the Committee in 1989 for which no funding was available

- Biomolecular Engineering animal house, quarantine and workshop. This facility of 1139 m^2, is required to replace existing outdated facilities which are to be demolished. The total number of staff in this facility will be 100

- new process bay facilities of 1110 m^2 will be constructed for the Construction Materials and Hydraulic Test Laboratories, to replace existing inadequate buildings

- acquisition of extra land

- landscaping and infrastructure associated with site and CSIRO facilities (multiple packages).

Stage 3

63. Stage 3 is a two-year program scheduled to commence in July 1998 incorporating the construction of institute administration building, upgrading of the food processing facility, construction of the Division of Building, Construction and Engineering acoustics laboratory and a full refurbishment of the existing minerals laboratory building to fully accommodate the geophysics laboratory.

Major Works

64. Major works include:

- the Business Plan allows the refurbishment of the existing food processing facility, however CSIRO's ultimate objective is to relocate the food processing facility into new buildings located on the North Ryde site (see paragraphs 92 to 128 for the Committee's view)

- construction of a two-level office/administration building to house the Institute Headquarters. This building will have an area of 1310 m^2

- construction of a new acoustics facility of 400 m^2 for the Division of Building, Construction and Engineering, incorporating laboratory and workshop space

- refurbishment of the existing minerals laboratory building to upgrade the facilities to current CSIRO standards

- landscaping and infrastructure.

Potential Acquisitions of Neighbouring Property

65. There is potential to purchase properties adjacent to the site. While the Committee was advised that such acquisitions are not essential to the successful completion of the Business Plan, however, they may be advantageous to the redevelopment as a whole. Preliminary cost benefit studies have been carried out and CSIRO advised the Committee that the acquisitions if proceeded with should add value to the project and at least be cost neutral.

Future Requirements

66. The Committee sought an assurance from CSIRO that the proposed facilities will meet its requirements for the foreseeable future. CSIRO indicated that the buildings have an economic life of 30 years and was confident, following detailed analysis, that its research programs will be in line with the expected main economic areas over the next two decades. While recognising that changes in scientific research will require modification to facilities, CSIRO added that its major laboratories serviced their designed functions for 15 to 20 years before modifications were necessary. CSIRO also believed that the staged nature of the redevelopment would allow land to be retained by it for the construction of additional scientific facilities should they be required.

67. The Committee was advised that the design of the buildings would be flexible enough so that the internal spaces could be reorganised without the need for structural changes.

68. CSIRO also indicated that the amount of land available and the design of the buildings will allow for a 20%-25% increase in staff levels.

69. In its submission the New South Wales Department of State Development indicated that the New South Wales Government has strong reservations about CSIRO's intention to divest itself of spare land as it believed CSIRO may need that land for future expansion. While CSIRO

stated that it would prefer to be able to retain the land it recognised that the funds generated by the disposal of identified surplus land would provide it with the resources needed to commence the redevelopment of the North Ryde site.

70. CSIRO stressed that in identifying surplus land it had taken into account its perceived requirements for the next 10 to 20 years. The first option would be to dispose of the land on long-term lease of 50 to 60 years - although if the market is not strong it may have to sell on a freehold basis. However, even in that case it would aim to retain some land on a long-term lease.

Land Values

71. The New South Wales Government raised concerns regarding the values of the North Ryde site being used by CSIRO. It believed the values are an over-estimation of the true value of the North Ryde site. In response CSIRO indicated that the values on which the redevelopment strategy are based is considered to be realistic in current market conditions. The values were considered by three separate agents as being at the bottom of the market. The values are also related to the stage at which CSIRO does not want to sell its property given the return it will get. The values in the Business Plan represent a reasonable return for the loss of the land. CSIRO pointed out that the redevelopment strategy was based on a ten-year program and values were expected to rise during that time. Its financial model is based on an average price of $450 per m^2 over ten years. Prices at the height of the boom peaked at $800+ per m^2. The current figure is $485 per m^2. CSIRO assured the Committee that the project was viable on current projected values. The program has been developed so that there is no significant capital expenditure until successful sales or contracts have been signed. If the time taken to achieve that commitment is longer than expected the program will be extended. The strategy is income driven not only to ensure the success of the project, but also to remove any financial risk to CSIRO.

Access for Persons with Physical Disabilities

72. ACROD sought an assurance that there would be a convenient path of continuous access to all buildings through the site for individuals with physical disabilities. CSIRO indicated that the Master Plan provided such

access and also that all construction work will comply with Australian Standards as they apply to disabled people. CSIRO is also prepared to consult with ACROD on these matters.

Committee's Recommendations

73. **CSIRO should provide the Committee prior to the commencement of construction with detailed plans of each aspect of the proposal.**

74. **During the detailed design phase CSIRO should pay particular attention to energy efficiency.**

Committee's Conclusion

75. **CSIRO has made adequate provision for additional expansion of its facilities at North Ryde should this become necessary in the future. The redevelopment strategy developed by CSIRO is realistic in current market conditions.**

ENVIRONMENTAL CONSIDERATIONS

76. CSIRO has sought an environmental clearance for the proposal from the then Department of Arts, Sport, the Environment, Tourism and Territories (DASETT) in accordance with the requirements of the *'Environment Protection (Impact of Proposal) Act' 1974.*

77. The Notice of Intent (NOI) prepared by CSIRO and submitted to DASETT:

- outlines CSIRO's present and future research and identifies the statutory and, where no mandatory controls exist, self-imposed controls adopted by the Organisation to minimise or eliminate the impact of its activities on the environment

- describes the site management constraints to be imposed upon all non-CSIRO development to contain and control environmental impact resulting from potential activities of all future occupants

- identifies the likely long-term beneficial social and economic impact of the proposal.

78. The NOI also identifies measures that will be adopted throughout the redevelopment stages and in the longer term to:

- preserve native flora and fauna
- minimise the visual impact of all future development within a proposed park setting
- control erosion, run-off, sedimentation and pollution
- reduce bushfire risk
- assess and, if deemed desirable, maintain two possible Aboriginal archaeological sites.

79. CSIRO indicates in the NOI that the proposal is compatible with the character of other high technology industry development in the North Ryde region. The developments and subsequent uses will have no adverse environmental or social aspect which cannot, or will not, be controlled by available technology and compliance with relevant standards and regulations.

80. It is CSIRO's view that the project will have no adverse environmental impact and that it does not require any further investigation through a public environmental report or an environmental impact statement.

81. Prior to the public hearing DASETT advised the Committee that, following consultation with the Australian Heritage Commission and the New South Wales Department of Planning, it had determined that neither a public environment report nor an environmental impact statement was required to satisfy the objects of the Act in this case.

82. In reaching this conclusion DASETT noted that CSIRO will be required to submit a rezoning proposal in accordance with Part III of the New South Wales Environmental Planning and Assessment Act and that the proposal will be subject to public review.

83. DASETT recommended that the following conditions be satisfied by CSIRO in implementing the proposal:

- all environmental protection measures, safeguards, recommendations and standards outlined in the NOI should be implemented

- consultations should continue with relevant authorities including New South Wales National Parks and Wildlife Services

- it noted that the availability and capacity of water and sewage treatment facilities to service the site will require further assessment prior to consideration of the rezoning proposal under New South Wales legislation. (The Committee notes that the Water Board has recommended that a stormwater management plan be developed detailing both temporary and permanent control measures. Monitoring of water quality will also be required.)

- the possible effects on water quality of the Lane Cover River should be assessed and appropriate safeguards implemented

- on completion of the project, and to assist DASETT monitoring the outcome of projects considered under the Act, it should be notified of:

  - the effects of construction on the environment

  - any variations between predicted and actual impacts including those resulting from any changes to the proposal

  - CSIRO's success in implementing these recommendations with details of any problems or discrepancies

  - any feedback received from the community or specific interest groups regarding the project.

Local Reaction

84. The Committee received submissions and took evidence from two local groups in relation to the proposal - the North Ryde Residents Group and the Coalition of Transport Action Groups Incorporated. Their views are summarised below.

85. The North Ryde Residents Group does not dispute the obvious need to upgrade CSIRO facilities at North Ryde. It also supports CSIRO'S overall scientific and technology programs.

86. However the Group had a number of concerns regarding the statement of evidence provided to the Committee by CSIRO and also the NOI:

- the documents fail to provide a competent assessment of probable development impacts on:
  - the immediate vicinity
  - the suburbs of Ryde, Willoughby and Lane Cove
  - the Chatswood to Milsons Point region
  - the Sydney region
- CSIRO'S assessment is inadequate in its consideration of:
  - urban amenity
  - air quality
  - water quality
  - indigenous flora and fauna
- the failure to make the NOI freely accessible to the public amounts to suppression of information necessary to make informed comment

- fails to consider the principles of ecologically sustainable development and "Better Cities".

87. The North Ryde Residents Group also pointed to the need for a light rail link to the North Ryde area which it believed would alleviate transport problems in the region.

88. In a supplementary submission to the Committee, the North Ryde Residents Group raised a number of issues including:

- redevelopment on Delhi Road pre-empting the North West Transport EIS
- rezoning determinations by Ryde Municipal Council
- lack of CSIRO fauna/flora site audit
- Lane Cove River pollution.

89. In its submission the Coalition of Transport Action Groups Incorporated (CTAG) did not challenge the need for the redevelopment proposal but believes that it has not been accompanied by a proper evaluation of the likely traffic impact on the local area. CTAG also believes that a light rail system linking the North Ryde area to Parramatta, Chatswood and the Central Business District should be encouraged to mitigate traffic problems in the area. CTAG was particularly concerned that the project had not been subject to the New South Wales environmental legislation.

90. In response to the issues raised by the local groups CSIRO made the following points:

- CSIRO has submitted the proposal to DASETT in accordance with the *Environment Protection (Impact of Proposals) Act 1974* and DASETT had indicated that neither a public environment report nor an environmental impact statement was required to satisfy the objects of the Act for the proposal. However, in reaching this decision DASETT noted that CSIRO will be required to submit a rezoning proposal in accordance with Part III of the New South Wales Environmental Planning and Assessment Act and that the proposal will be subject to

public review. DASETT also set down a number of conditions to be satisfied by CSIRO in implementing the proposal (this is discussed at paragraph 83)

- while CSIRO supports the development of a light rail link between Parramatta/Epping/North Ryde and Chatswood or Artarmon, it believes that it is not CSIRO's responsibility to fund and establish such a link

- CSIRO also pointed out that comprehensive traffic studies have been undertaken by its consultants and resolution of traffic issues is being negotiated with the Ryde Municipal Council and the New South Wales Road Traffic Authority

- in relation to the absence of a fauna/flora site audit CSIRO intends to retain as much of the existing vegetation as possible and will limit the height of buildings so that they will blend with the landscape. CSIRO will also consult with its Division of Wildlife and Ecology and the New South Wales National Parks and Wildlife Service regarding the protection of native fauna.

Committee's Conclusion

91. **While recognising the provision of public transport is not the responsibility of CSIRO the Committee believes that CSIRO should urge the relevant State authorities to upgrade public transport facilities including light rail to the North Ryde site.**

RELOCATION OF THE DIVISION OF FOOD PROCESSING

Role of the Division

92. There is no national facility other than the CSIRO Division of Food Processing (DFP) which covers the wide range of food manufacturing research and development. Recognising that the food industry represents the largest manufacturing sector in Australia, worth over $30 billion a year, and also recognising that there are very major export opportunities in the Asia-Pacific region, the DFP has adopted a deliberate policy of undertaking research and development which underpins the export potential.

93. The Division has a long history of providing new knowledge and ongoing assistance with the exploitation of existing knowledge to the Australian food industry. A good many of the innovations created by the Division's research are in continuing use in the industry and are delivering benefits in terms of export income.

94. The food industry has been identified by government and its agencies as having the greatest potential of all industries for increased exports, particularly in highly processed products. This has led the Division to take new initiatives including the following:

- the setting up of research capability for the understanding of sensory and other preferences for foods in non-traditional markets
- research on the technologies required to process, package, store and transport foods to target markets so that they arrive in attractive, wholesome and safe condition
- the development of new, highly efficient process technologies to minimise the cost of adding value in Australia
- the establishment of capability for highly sophisticated analysis, detection and identification of substances which cause off-flavours and taints in foods.

95. The DFP, through its North Ryde laboratory, has also established a major research and development consortium comprising four prominent Australian companies and CSIRO for the development of highly sophisticated sensing devices which can be used for process control, environmental monitoring and for other purposes including medical and veterinary use.

96. The Division is also involved in areas of human nutrition, largely in collaboration with the CSIRO Division of Human Nutrition located in Adelaide.

97. CSIRO informed the Committee that all of these activities bring the Division into close contact across Australia with the food processing industry with which it has strong ties. The Division devotes a little over 10% of its total resources to information and technology transfer to industry and food consumers. This has been done through the establishment of specific groups of staff with the responsibility for assisting industry when inquiries are made, when requests for in-plant help are received, and through being pro-active in distributing new information and helping in the introduction of new technologies. The research of the Division is supported heavily by industry funding. Research grants, contracts and collaborative work provide over 35% of its research and development expenditure.

Review of Future Structure and Location

98. In late-1990, at the initiative of the retiring Chief of the Division, Dr D J Walker, CSIRO, set up a working party to study the future structure of the DFP and the role and activities of its three component laboratories, the Dairy Research Laboratory (DRL) located at Highett (Melbourne), the Food Research Laboratory (FRL) located at North Ryde and the Meat Research Laboratory (MRL) located at Cannon Hill (Brisbane).

99. As a result of inputs from stakeholders, there are options for consideration which include both prospects for a more cost effective way of operating the Division, and the potential to affiliate more closely with other food research and development institutions. There has also been identified a need to resolve the structure and location issue in terms of the situation in which the best and most appropriate research can be done, and in terms of the most effective delivery of benefits to stakeholders. Stakeholders include the food industry, industry councils, commodity producers, research and development corporations, consumers, staff, unions and other research establishments.

100. The study is a preparatory step to a major external review of future directions for the DFP and related research areas in CSIRO to be conducted during 1992.

Possible Relocation to Riverina Region

101. The Committee received a number of submissions advocating the relocation of the DFP to the Riverina Region. Those making submissions included:

- the Riverina Regional Development Board (RRDB)
- Charles Sturt University
- the Council of the City of Wagga Wagga
- the Council of the City of Griffith
- Dr Edwin Brooks.

102. Representatives from the Riverina Region appeared at the public hearing on 20 November 1991. The Sectional Committee visited Wagga Wagga and Griffith on 20 and 21 January 1992 and inspected research and industry facilities in the region.

103. Relocation to the Riverina Region was also strongly supported by the Hon. Wal Fife MP, Member for Hume and Mr Noel Hicks MP, Member for Riverina-Darling. Mr Fife and Mr Hicks accompanied the Sectional Committee at inspections in Wagga Wagga and Griffith respectively.

104. In essence the Riverina group sees the location of the DFP within the Riverina Region, which has a strong agricultural industry which favours food processing activities, as offering real benefits to both the industry and the research body. It is also believed that significant savings can be made in both operation and construction through collocation with the Charles Sturt University at Wagga Wagga. Possible private enterprise involvement in the financing, design and construction of new facilities could also lead to cost savings.

Benefits of Riverina Region Location

105. In its submission the RRDB indicated that it is formulating an economic development strategy to guide development in the region into the next century.

106. A prime opportunity for economic growth in the Riverina has been identified as the establishment of agricultural processing and other value-adding enterprises which capitalise on the existing agricultural strengths of the region.

107. The RRDB believes that the presence of the DFP in the region could stimulate and enhance such development, while the considerable synergy gained from the existence of a major research centre within an area with a great deal of relevant industrial activity would benefit both the region and CSIRO.

108. The main advantages of the Riverina Region as seen by the RRDB are summarised in the following paragraphs.

Location

109. The region is centred on the major inland city of Wagga Wagga and has strong road and rail links to both Melbourne and Sydney. In addition regular air services are also available from Wagga Wagga to Sydney, Melbourne and Canberra as well as to other regional centres.

Economic Structure

110. The agricultural sector has a pivotal role in the Riverina economy. Agricultural activities include:

- beef
- lamb
- pig and poultry production
- dairying
- cereal and grain production
- major use of irrigation for the production of fruit and vegetables for both fresh and processed markets.

111. The RRDB has identified for further development food-based manufacturing and processing activity based on this established agricultural growth complemented by value-adding.

Existing Infrastructure

112. In addition to public sector research activities undertaken by authorities responsible for soil and water administration, the Riverina Region also possesses tertiary education and research facilities centred on the Riverina campus of Charles Sturt University at Wagga Wagga, and the specialised agricultural research undertaken at research institutes at Yanco, Wagga Wagga, Griffith and Temora. Many of the commercial food processing companies have developed research facilities thus increasing the potential for the region to become a centre for applied agricultural research and development activities.

113. With the Riverina Region established as a major food production centre and with a significant degree of food processing already established and with more planned, the RRBD believes there is considerable scope for the practical application and testing of research initiatives in the overall food processing area.

Report of Feasibility Study

114. In January 1992, CSIRO released the findings of the feasibility study into the future structure of the DFP and the role and activities of its three component laboratories. In relation to the location of the Division's laboratories, the study recommended that during the 1992 external review the following options be considered:

- FRL at North Ryde and DRL at Highett be relocated to Werribee and collocate with the Victorian Department of Agriculture's Food Research Institute while MRL at Cannon Hill remain at its present location

- FRL relocate and merge with DRL at Highett while MRL remains at Cannon Hill

- the Division retain its present physical distribution
- DRL relocate to Werribee and collocate with the Victorian Department of Agriculture food research facility.

115. The study also recommended that the evaluations of other options for relocation put to the working party not be proceeded with on the grounds that they fail to satisfy the evaluation criteria to the extent achieved by the suggested proposals.

116. The working party examined a number of suggestions, including from the Riverina Region, for non-capital city locations for the DFP. According to the working party these suggestions were generally based around the presence of newly-established universities or new campuses of established universities, proximity to agricultural and/or horticultural production regions, lower costs of land for CSIRO buildings, attractive lifestyle and favourable real estate prices (especially compared with Sydney).

117. To assist with the formulation of conclusions and recommendations, the working party developed a set of criteria against which the principal options were assessed. The criteria used were:

- intellectual climate
- staff recruitment
- collocation/integration with research establishments
- number of laboratories to benefit from move
- proximity of industry
- DFP resource use efficiency
- capital costs
- availability and cost of land
- ease and cost of access
- number of personnel to move

- opportunity for spouse employment
- educational opportunities
- lifestyle in new locale
- real estate costs
- average removal distance
- Co-operative Research Centre obligations.

118. The working party found that compared with a single or multiple capital city locations, the proposals to relocate to regional centres are weaker on several of the identified assessment criteria. It found that although varying in strength of attraction, the non-capital city options were less persuasive, even in the longer term, in:

- intellectual climate (capital cities have more universities with strong emphasis on disciplines underlying food R & D)
- consequent likelihood of attracting the best research staff
- collocation with other significant food R & D groups
- proximity of the food processing industry
- ease and cost of physical access
- opportunities for spouse employment.

119. The working party concluded that while the lifestyle advantages, children's educational, land cost and real estate value criteria for several non-capital city options were more attractive, the professional needs of scientists, reflected in the more important criteria, were overriding in the final analysis.

Committee's View

120. Having examined the evidence presented by CSIRO and from the Riverina Region and taking into account the views of the Sectional Committee which visited the region, the Committee believes that the DFP's Food Research Laboratory can operate efficiently in a suitable non-capital city location. The Committee suggests that if all projects were judged on the criteria identified by the working party, there would be no movement of bodies such as the DFP, from the major capital cities. The Committee is aware that CSIRO transferred its Divisions of Fisheries and Oceanography from Sydney to Hobart in the early-1980s.

121. The Committee notes that the working party concluded that the professional needs of scientists, as reflected in the more important criteria, were overriding in the final analysis. In the judgment of the Committee, bodies such as CSIRO should also be heeding the national interest when it examines such issues. In this situation it has a perfect opportunity to assist regional development, allow closer interaction with both food producers and processors and provide opportunities for contact with other scientists working in these industries.

122. The Committee notes with interest evidence given by CSIRO at the public hearing when asked a question in relation to the accessibility of the North Ryde site to its client base, 'They are moderately indifferent to where we are, provided if possible, it is close to the airport on to their places of business. But in fact from here [North Ryde], especially in exploration, and in building and construction, we work all over Australia ... So our location is not so important to them as our capability to conduct the research'.

123. While it is not prepared to make a recommendation in relation to the DFP's Dairy and Meat Research Laboratories, the Committee believes that the Food Research Laboratory can operate effectively from the Riverina Region as it has good transport links and an existing scientific base on which CSIRO could build. At the same time it would provide a stimulus to the scientific and industrial sectors in an important food growing and processing area.

Committee's Conclusions

124. The Committee believes that the Food Research Laboratory of the Division of Food Processing can operate effectively in a non-capital city location.

125. The Committee further concludes that the Riverina Region of New South Wales has the facilities, both scientific and industrial, to support the operations of the Food Research Laboratory.

Committee's Recommendations

126. The Committee strongly recommends that the Food Research Laboratory of the Division of Food Processing be relocated to the Riverina Region of New South Wales.

127. The Committee recommends that the Minister for Science and Technology do all within his power to ensure that the Food Research Laboratory be relocated to the Riverina Region.

128. The Committee further recommends that CSIRO commence discussions immediately with the relevant authorities in the Riverina Region regarding the relocation of the Food Research Laboratory.

SITE

129. The site is on the northeastern fringe of the Ryde Municipality, adjacent to the Lane Cove State Recreational Area, with frontages to Delhi Road and Epping Road, North Ryde. It has a total area of 27.77 ha and is approximately 12 km northwest of the Sydney CBD.

130. It is bounded to the west by the former Channel 10 television studio, to the south by Epping Road and the Lane Cover River. To the east lies the Lane Cove State Recreation Area and to the north, Delhi Road.

131. The property is made up of two portions located either side of Delhi Road. The small portion of the site owned by Australian Construction Services (ACS) is located on the southern side of the site adjoining Epping Road. CSIRO is currently negotiating with ACS over the sale of this parcel of land.

132. The site has a range of landforms dominated by a ridge on the northern Delhi Road boundary. The land slopes to the south from the ridge with the grade increasing to become very steep at the southern edge of the site. There is a fall of approximately 40 m from the Delhi Road frontage to the lowest point of the site adjacent to the State Recreation Area.

133. The centre of the site is characterised by gentle slopes (1 m in 15) which do not present physical constraints to development. The greatest opportunity offered by these slopes are the excellent views of the surrounding area. Existing bushland along the plateau edges provides visual relief, filtering views of buildings on the plateau and minimising building mass as viewed from surrounding areas.

134. A steeper section of land in the southeastern corner of the site forms the other major physical characteristic. The escarpment is characterised by areas of remnant bushland and good views. The existing vegetation associated with the steeper slopes gives the site a park-like appearance as viewed from Epping Road, especially on the Lane Cove side of the river where the site appears to be densely vegetated.

Committee's Conclusion

135. The North Ryde site is suitable for both the redevelopment of CSIRO's facilities and as a high technology business park.

CONSULTATION

CSIRO Staff

136. A North Ryde Redevelopment Management Committee (NRRMC) has been established to oversight the development of the strategic plan for the redevelopment of the North Ryde site. This Committee is chaired by the CSIRO Director with responsibility for the North Ryde site and is comprised of representatives from each of the institutes represented at North Ryde plus representatives from the corporate centre. All relevant documentation provided by the consultants has been discussed in this forum. Preliminary plans of the proposed development have been displayed to

enable all staff to have an opportunity to comment on the proposed redevelopment. Further, meetings have been held with all staff on the site at which representatives of the NRRMC discussed the proposal and elaborated on any issues of concern to staff. All comments provided have been taken into consideration. Further meetings will be held with staff during the detailed development and implementation of the project.

CSIRO Staff Associations

137. The general secretaries of all staff associations represented at North Ryde have been informed of the proposed redevelopment and together with other staff representatives were invited to attend a meeting with representatives of the NRRMC to be briefed on the proposal. At that meeting agreement was reached that staff representatives would sit on the NRRMC. It was decided that staff could best be served by the formation of two working parties, with the chairperson of each group serving on the NRRMC. The first working party will consist of a representative of each division currently on site. Their role will be to bring to the attention of the NRRMC issues of concern regarding the redevelopment project. Each representative is to have the authority of the chief in raising issues. The second group will be a staff representative from each division elected to represent the interests and concerns of staff. These representatives are to meet and elect a chairperson who will represent the staff on the NRRMC.

Staff and Staff Associations' Concerns

138. The main concerns of staff and staff associations were:

- the loss of open space - CSIRO advised the Committee that during the site planning great care had been taken to preserve the treed nature of the site

- traffic density - CSIRO believes that when the Castlereagh Freeway is built it will alleviate traffic congestion in the area. CSIRO strongly supports the development of a light rail system in the North Ryde area

- dislocation during development - CSIRO intents to keep dislocation to a minimum.

Outside Research and Industry Bodies

139. Consultations and discussions have taken place with other relevant individual organisations, universities and Commonwealth and State departments concerning the various aspects and benefits of the proposed redevelopment.

Local Government and Planning Authorities

140. The CSIRO property is located within the Ryde Local Government Municipality and planning is governed by the Ryde Planning Scheme (1979). At present the site is zoned Special Use 5(a) Research - an occupancy which is satisfactory for CSIRO but imprecise for commercial users. In order to facilitate the development of the site as a high technology science business park, CSIRO is negotiating with the council for a rezoning which will better reflect this concept. The classification, identified as 4(d) Industrial Special (University), is consistent with CSIRO's uses and activities and will encourage compatible private development on the remainder of the site. The proposed zone is also the one preferred by the council's planners; accordingly the Organisation is confident that its application will be endorsed. The Committee was advised that CSIRO will liaise with the New South Wales Fire Brigades during the detailed planning stage.

COST

141. The revised estimated out-turn cost of the works is $98m which includes $6.5m for the refurbishment of the FRL at North Ryde. The Committee has recommended that the FRL be relocated to the Riverina Region and accordingly the refurbishment at North Ryde will not be necessary.

Committee's Recommendation

142. **The Committee recommends the redevelopment of the CSIRO site at North Ryde at an estimated out-turn cost of $91.5m.**

CONCLUSIONS AND RECOMMENDATIONS

146. The conclusions and recommendations of the Committee and the page in the report to which each refers are set out below:

		Page
1.	There is a need to provide high quality research facilities at North Ryde to enable CSIRO to continue the development of research initiatives with a high national priority.	12
2.	The development of a prestige science and technology park by the CSIRO at North Ryde is the most cost effective method available to it of providing the funds necessary for the development of high quality research facilities.	12
3.	CSIRO should provide the Committee prior to the commencement of construction with detailed plans of each aspect of the proposal.	21
4.	During the detailed design phase CSIRO should pay particular attention to energy efficiency.	21
5.	CSIRO has made adequate provision for additional expansion of its facilities at North Ryde should this become necessary in the future. The redevelopment strategy developed by CSIRO is realistic in current market conditions.	22
6.	While recognising the provision of public transport is not the responsibility of CSIRO the Committee believes that CSIRO should urge the relevant State authorities to upgrade public transport facilities including light rail to the North Ryde site.	26
7.	The Committee believes that the Food Research Laboratory of the Division of Food Processing can operate effectively in a non-capital city location.	35
8.	The Committee further concludes that the Riverina Region of New South Wales has the facilities, both scientific and industrial, to support the operations of the Food Research Laboratory.	35

9. The Committee strongly recommends that the Food Research Laboratory of the DFP be relocated to the Riverina Region of New South Wales. 35

10. The Committee recommends that the Minister for Science and Technology do all within his power to ensure that the Food Research Laboratory be relocated to the Riverina Region. 35

11. The Committee further recommends that CSIRO commence discussions immediately with the relevant authorities in the Riverina Region regarding the relocation of the Food Research Laboratory. 35

12. The North Ryde site is suitable for both the redevelopment of CSIRO's facilities and as a high technology business park. 36

13. The Committee recommends the redevelopment of the CSIRO site at North Ryde at an estimated out-turn cost of $91.5m. 38

Colin Hollis
Chairman

26 March 1992

WITNESSES

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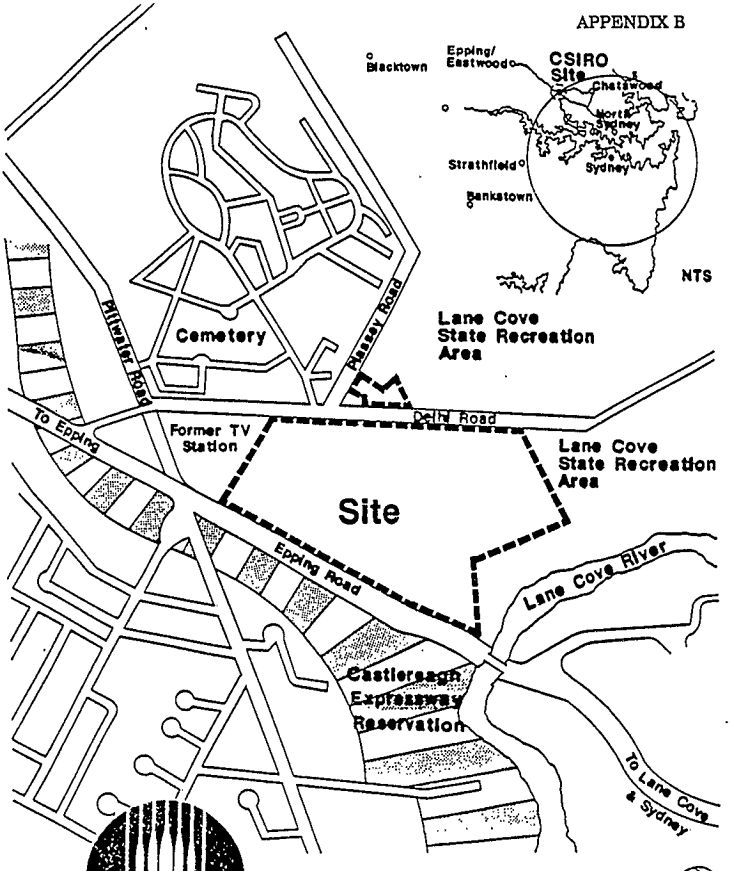
WILTON, Mr James Ignatius, Consultant Project Manager, CSIRO, Level 7, 53 Walker Street, North Sydney, New South Wales



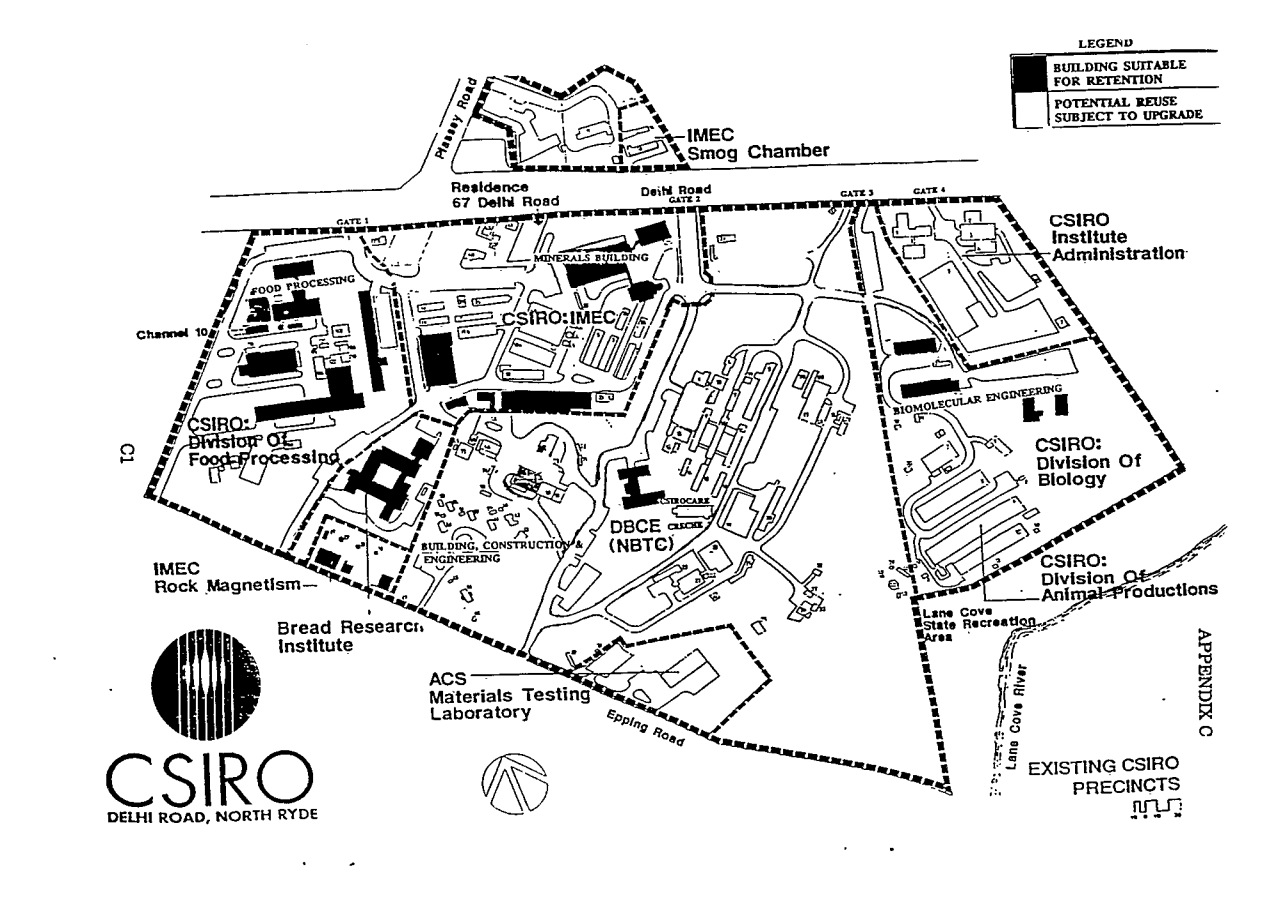
CSIRO

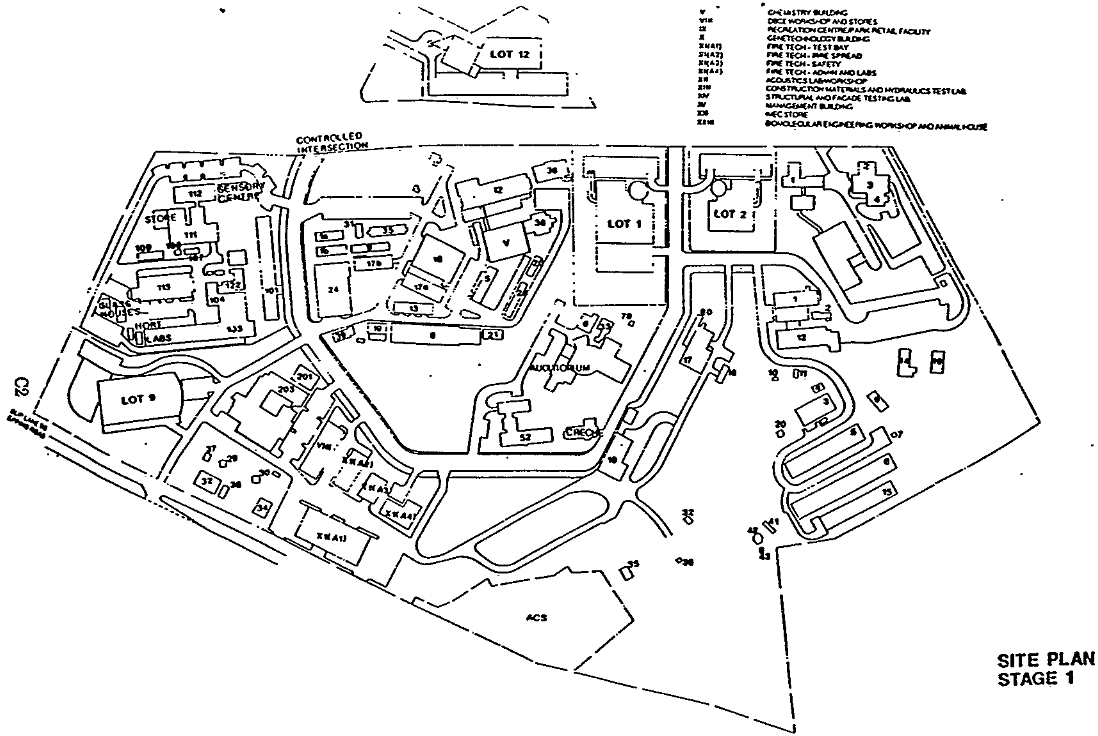
DELHI ROAD, NORTH RYDE

SITE LOCATION

0 100 200 300 400

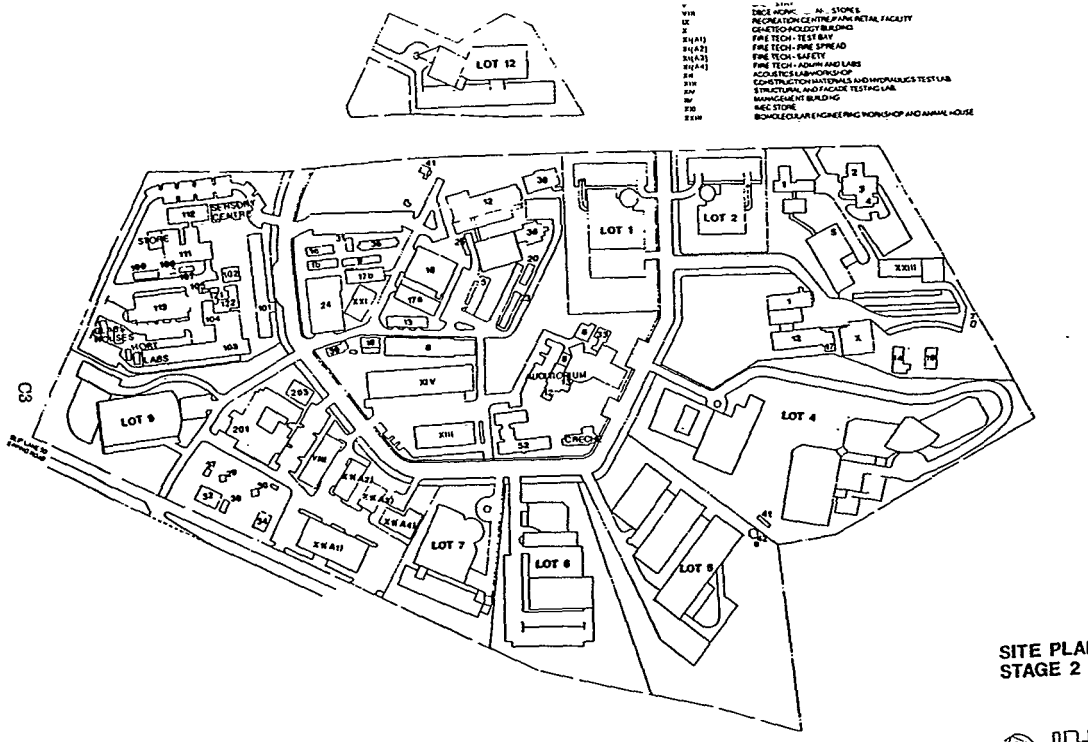
MARCH 1991


LEGEND
BUILDING SUITABLE FOR RETENTION
POTENTIAL REUSE SUBJECT TO UPGRADE
Plassey Road
IMEC
Smog Chamber
Residence
67 Delhi Road
Delhi Road
GATE 1
GATE 2
GATE 3
GATE 4
MINERALS BUILDING
FOOD PROCESSING
CSIRO:IMEC
Channel 10
CSIRO
Institute
Administration
CSIRO:
Division Of
Food Processing
BIOMOLECULAR ENGINEERING
CSIRO:
Division Of
Biology
CSIROCARE
CRECHE
DBCE
(NBTC)
BUILDING CONSTRUCTION & ENGINEERING
IMEC
Rock Magnetism
CSIRO:
Division Of
Animal Productions
Lane Cove
State Recreation
Area
Bread Research
Institute
ACS
Materials Testing
Laboratory
Epping Road
Lane Cove River
CSIRO
DELHI ROAD, NORTH RYDE
EXISTING CSIRO
PRECINCTS
APPENDIX C



SITE PLAN
STAGE 1

CSIRO SCIENCE & TECHNOLOGY PARK



SITE PLAN
STAGE 2

CSIRO SCIENCE & TECHNOLOGY PARK