

Public Accounts Committee
Parliament of New South Wales

**Report on the Management of
Arson in the Public Sector**

1987-88
Parliament of New South Wales

Public Accounts Committee of the
Forty-ninth Parliament

Forty-Second Report

Inquiry pursuant to Section 57 (1) of the
Public Finance
and Audit Act 1983, concerning The
Management of
Arson in the Public Sector.

(Transcripts of Proceedings are printed in a
separate volume to this Report.)

December 1988

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MEMBERS OF THE PUBLIC ACCOUNTS COMMITTEE

The members of the Public Accounts Committee are:

Mr Phillip Smiles, LL.B., B.Ec., M.B.A., Dip. Ed, M.P., Chairman

Mr Phillip Smiles was elected Member for Mosman in March, 1984. A management and marketing consultant since 1974, Phillip Smiles has been involved with entrepreneurial business activities since his teens. Since entering Parliament he has been actively interested in the areas of small business, emergency services, welfare and financial analysis. He was appointed a Member of the Public Accounts Committee in 1984 and was elected Chairman in 1988.

Ms Wendy Machin, B.A., M.P.

Wendy Machin was elected Member for Gloucester in 1985. Following completion of a Bachelor of Arts (Communications) Degree she worked in Public Relations for the National Party and later established her own public relations consultancy business specialising in the rural sector. She also served as an independent alderman on North Sydney Council prior to becoming a Member of Parliament. In 1988, following a redistribution, she became Member for Manning.

Mr John Murray, B.A., M.P.

John Murray, formerly a teacher, was elected Member for Drummoyne in April, 1982. An Alderman on Drummoyne Council for three terms, John Murray was Mayor of the Council for five years and served four years as Councillor on Sydney County Council. He has served as a member of the Prostitution Committee and the House Committee, and is a former Chairman of the Public Accounts Committee.

Mr Allan Walsh, B.A.(Hons), Dip. Ed., M.P.

Allan Walsh was elected Member for Maitland in September, 1981. Following eight years as a Mirage fighter pilot with the RAAF, he was involved in business management. Allan Walsh has also taught industrial relations, management and history at technical colleges.

Mr Terence Allan Griffiths, M.P.

Terry Griffiths was elected Member for Georges River in 1988. Prior to being elected to Parliament he was the Chief Executive of the Scout Association of Australia. Before this he was an Army Officer. He is a graduate of the Officer Cadet School Portsea, a graduate of the School of Military Engineering and a Fellow of the Australian Institute of Management. He has been actively involved in Lions, Rotary and other community organisations.



Committee Members. From left: Wendy Machin, Allan Walsh, Phillip Smiles (Chairman), Terry Griffiths, John Murray

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MANAGEMENT OF ARSON IN THE
PUBLIC SECTOR**

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CHAIRMAN'S FOREWORD

Initiated by the Public Accounts Committee under Section 57(1) of the Public Finance and Audit Act, 1983, this Report estimates the cost of arson within the NSW public sector and examines ways in which the incidence and cost of arson might be reduced.

The Committee was astounded by the lack of actuarial data on the cost of arson within the public sector. Not only has there been a lack of consistency in the methodology used for calculating the enormous financial cost of arson, but there has been limited recognition of the enormous costs of disruption and relocation and of the lowered morale and human costs that result from arson.

The Committee was dismayed by the under-utilisation of existing expertise. Government departments and statutory authorities generally have dealt with arson in a fragmented and reactive manner and their failure to adopt cost effective arson control measures *indicates* that they have not acknowledged a responsibility to protect public property and to protect it in a cost-conscious way.

Evidence presented to the Committee in the course of this Inquiry provides many examples of the apathy of several government departments and highlights the narrow outlook they have adopted. This applies particularly to the Public Works Department, the Department of Education and to Treasury.

I hope this report will contribute significantly to a greater awareness of the problems arising from and associated with arson, that it will demonstrate the need for *accurate* actuarial data and that it will lead to the adoption of a coherent strategy to combat rising arson costs throughout the public sector.

I have much pleasure in gratefully acknowledging the generous support, professionalism and unstinting dedication of my Committee colleagues, the staff of the Committee's Secretariat and the consultants in the conduct of this Inquiry. In particular, I wish to express my appreciation to Ms Bronwyn Richardson, Senior Project Officer, for her valuable contribution

Phillip Smiles, LL.B., B.Ec., M.B.A., Dip. Ed., M.P.,

CHAIRMAN.

EXECUTIVE SUMMARY

The guiding principle adopted by the PAC in its investigation has been the reduction of waste associated with arson. Arson can lead to waste in two main ways:

1. unnecessary loss of public assets, disruption of activities and human costs; and
2. expenditure on programs intended to reduce arson that may not be cost effective.

Arson poses some special problems in risk management because average arson levels do not give a good indication of the occasional event which imposes very large losses. At present, NSW appears to lose about \$15M per annum in public assets because of arson but the potential loss is much greater. The \$15M figure does not include the very substantial costs of disruption and the considerable human costs which are usually associated with a fire.

THE POTENTIAL TO REDUCE COSTS

Existing public sector risk and asset management procedures are inadequate, and are a major potential source of waste. Proposals put forward by Treasury will go some way to addressing this problem, if implemented. Areas where the PAC has identified specific opportunities for reducing waste in the future are as follows:

- Better co-ordination and management of information about the risk of arson and its cost;
- A review of future commitments to the Schools' Electronic Surveillance System;
- Improvements to the State Rail Authority's emergency procedures, especially in relation to underground stations;
- Improvements in the training of Fire Brigades, Police and other persons closely involved in arson control and investigation;
- Centralisation of the Police arson units;
- Introduction of performance measurement of arson control programmes;
- Improvements in co-ordination via the establishment of an Arson Council;
- Strengthening District Fire Committees;
- A review of Department of Corrective Services fire safety systems;
- Development of a coherent strategy for control of arson in sport, recreation and racing facilities;
- Improvements in Public Works Department building design practices and management information; and
- Development of a more co-ordinated and strategic approach to media relations.

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LIST OF RECOMMENDATIONS

A full list of the Committee's recommendations follows. The recommendations are listed consecutively and should be considered in light of the discussion in the relevant chapters. No recommendations are contained in Chapters 1, 2, and 4.

CHAPTER 3

Recommendation 1

That a management information system be developed which will be capable of informing government of the exact size of its arson costs on a regular basis. It is envisaged that such a system:

- will co-ordinate the records of Police, Fire Brigades, Treasury, the Government Insurance Office, as well as records from individual Departments, Statutory Authorities and other public bodies; and
- will address the following deficiencies in the individual recording systems:
 - the absence of a "public sector" data base which includes number and type of incident, the estimated damage, replacement cost and other explicit or implicit costs;
 - the lack of common classifications of arson; and
 - the lack of a system to cross check trends in arson and the cost of arson.

CHAPTER 5

Recommendation 2

That an immediate review of proposed future expenditure on the Schools Electronic Surveillance System in line with the NSW Treasury Guidelines for Economic Evaluation of Capital Expenditure.

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Recommendation 3

That an independent cost effectiveness analysis of the existing Schools' Electronic Surveillance System be conducted.

Recommendation 4

That the role of District Fire Committees be reviewed with a view to increasing their effectiveness in dealing with arson.

Recommendation 5

That *the* Fire Investigation Unit review *the* evacuation and safety procedures established by the Department of Corrective Services.

Recommendation 6

That a coherent strategy to deal with arson in sport, recreation and racing facilities be developed.

Recommendation ?

That commercial development activity involving the use of State Rail Authority sites include the upgrading of assets and the establishment of appropriate fire safety procedures to minimise potential arson damage.

Recommendation 8

That the State Rail Authority review its current risk management procedures and develop' appropriate contingency plans and procedures as a matter of urgency. These developments should be independently reviewed within six months at most to assess their adequacy and cost-effectiveness.

CHAPTER 6

Recommendation 9

That the current practice of regionalisation of Police arson units be discontinued as a means of improving utilisation of scarce human resources.

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Recommendation 10

That design and operation of Police programs to combat arson should be monitored to ensure cost effectiveness and that cost-effectiveness performance measures be introduced by the Police Department as part of the overall management program.

Recommendation 11

That training of Police and Fire Brigade officers be reviewed with a view to co-ordinating the training of all fire control officers, specifically with respect to the collection and preservation of evidence.

Recommendation 12

That cost effectiveness of Fire Brigades' activities be monitored.

Recommendation 13

That the Public Works Department take a pro-active role in providing advice concerning security systems to other Departments.

CHAPTER 7

Recommendation 14

That the current Treasury review of insurance arrangements be extended to incorporate the issues raised by the PAC in this Report, including the role of the Fire Risks Account, the Government Insurance Office and private insurance companies in the management of arson risk.

CHAPTER 8

Recommendation 15

That an Arson Council, with the aim of improving co-ordination between relevant bodies, be established.

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CHAPTER 9

Recommendation 16

That the Public Works Departments

- increase its emphasis on building design to reduce arson and arson costs in its own design practices;
- develop data comparable with other organisations and develop research capability for this purpose; and
- specify in operating manuals and tender specifications the costs associated with building design features and the effectiveness of the features.

Recommendation 17

In conjunction with Recommendation 8, that the State Rail Authority specifically assess the likelihood of fire in underground stations and, if there is a significant threat to life or property, it should develop plans to circumvent disaster as a matter of urgency.

Recommendation 18

That a more co-ordinated and strategic approach to media relations with respect to public sector arson. This would be in keeping with private sector media relations practice in high risk areas.

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1. INTRODUCTION

ORIGINS OF THE INQUIRY

1.1 The Public Accounts Committee resolved on 19th May, 1988, to conduct an Inquiry under Section 57(1) of the Public Finance and Audit Act, 1983, into the Management of Arson in the New South Wales Public Sector.

1.2 This resolution was the outcome of deliberations concerning the following matters brought before the Committee:

1. A 1986 Report produced for the Criminology Research Council and the New South Wales Standing Committee on Arson. This Report calculated the cost of arson in NSW to be in the order of \$25M per annum, the number of arson incidents to be about 3,000 per annum (and increasing markedly over time) and the conviction rate for arsonists to be only about 10 per annum. While the cost to the NSW public sector was not costed separately, it was known that it constituted a sizable proportion of the \$25M bill.

The Sun Herald in reporting this study on 27th December, 1987, commented that:

"The findings have been kept from the public for more than a year o. o The study, which was dated October 1986, was finally made public in the Council 's 1987 Annual Report, tabled in Federal Parliament this month . o."

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2. The 1987 Annual Report of the Department of Education. The Annual Report, Page 57, noted that:

"Funds allocated to the security works program (electronic surveillance, patrols, physical security measures) in 1987/88 total \$13.7M and represent an increase of some 270% over the previous year".

3. Comments in the Auditor-General's Reports. The **reports** commented on claims paid from the Treasury Fire Risks Account, the reserve account which backs the government's role as a self-insurer **against fire risks for** government buildings and contents. Claims paid were as follows:

1984/85	\$ 2.4M
1985/86	\$ 4.9M
1986/87	\$ 3.7M
1987/88	\$20.9M

The Auditor-Genera 1 commented in his 1986 / 87 Report, Page 101, on school **arson as** follows:

incidents of fire damage to schools

Total cost of building restoration estimated by the Department was \$8.6M. Actual payments for restoration of buildings and replacement of equipment and furniture damaged by fire totalled \$5.5M for which claims had been submitted to the Treasury, for recoupment from the Treasury Fire Risks Account. In addition, costs of replacing stolen and unserviceable equipment and repairing departmental buildings as a result of other forms of vandalism are met from Consolidated Fund."

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The Auditor-General also commented in his 1987/88 Report, Page 171-172 that the Treasury Fire Risks Account:

"is now used to reimburse the Department of Education for expenditure incurred on the installation of electronic surveillance equipment in schools. This activity forms the major part of a special programme of \$40M to be made available over the next four years to combat school vandalism, This item was the major component of expenditure from the account during 1987/88 with being paid to the Department."

4. The PAC Inquiry "Payments Without Appropriation". The Committee noted from findings in a concurrent inquiry that the contribution from the Consolidated Fund and any interest paid on the balance of the Treasury Fire Risks Account (within Special Deposits) did not bear any relation to the risk borne by Government organisations . For example, the receipts into the Fund, payments out of the Fund and the balance in the Fire Risk Account at year end for the previous two years, are as follows:

<u>YEAR</u>	<u>ENDING</u>	<u>RECIPTS INTO FUND</u>	<u>PAYMENTS OUT OF FUND</u>
30/6/87	\$25M	\$3.7M	\$88.6M
30/6/88	\$10.5M	\$20.9M	\$78.2M

In evidence at Public Hearings, representatives from NSW Treasury informed the PAC that the Fire Risks Account was intended to pay for both fire damage and fire control measures, such as the schools' electronic surveillance system. In this sense, it was attempting to become a self-insurer.

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At Hearings held on Tuesday 26th July, 1988, the following evidence was given:

Is there any mechanism to encourage or ensure adequate awareness of fire risk by those who manage government buildings?

TREASURY: *I suppose the big affair .is. Education. I*

. feel they certainly have some incentive to reduce the fire risk because of the disruption it causes when a school burns down. But apart from that and the general obligation that departments will look after

their assets, there isn't any direct financial incentive, I guess."

7. A number of media reports of arson. mainly in public schools. for example. the' following:

DAILY MIRROR

26 MAY 1988

Schools arson Bill \$18m a Year

ARSON attacks on NSW schools and universities are costing a staggering \$18 million a year, new NRMA figures reveal

Although fires at educational establishments account for only 3% of all the State's blazes the necessary repairs make up 93% of NSW's total arson bill, the figures show. And every time an arsonist torches a classroom, it costs an average \$106,000 to fix ...

Detective Sergeant Howell of the NSW Tactical Intelligence Section (arson) said the cost of fires in schools was staggering. He said arsonists hit State schools hardest out of all educational institutions."

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TELEGRAPH 27 October 1988

Fire rips through school

Arson is suspected of causing a school fire which yesterday caused damage valued at \$500,000.

The fire at Bonnyrigg High School destroyed 12 classrooms, 2 laboratories and 3 staff rooms. A teacher said Year 11 pupils had to be sent home because there were not enough classrooms.

"We lost one quarter of the classrooms at the school", the teacher said"

"Until some portable classrooms arrive, we will have to send some pupils home":

"It is lucky our Year 12pupils have left school':

The fire broke out 12.49 am and took more than an hour to bring under control

TERMS OF REFERENCE

1.3 The PAC decide d to adopt the following Terms of **Reference** for its Inquiry:

- i) to examine the cost of arson;
- ii) to review current procedures to reduce arson;
- iii) to overview the existing funding and insurance arrangements associated with arson; and
- iv) to investigate the potential to reduce arson costs.

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METHOD OF INQUIRY

- 1.4 The PAC conducted its Inquiry between May and November 1988. A call for submissions was issued in the Australian Financial Review on 24th June, 1988, the Sydney Morning Herald and the Daily Telegraph on 25th June 1988. A small number of submissions have been received and reviewed (see Appendix 1). All Ministers and the Leader of the Opposition were notified of the Inquiry and asked for comment (see Appendix 2).
- 1.5 The Committee held public hearings with representatives from Treasury, the Public Works Department and the Department of Education (Appendix 3). There was significant follow up correspondence arising from the Hearings.
- 1.6 The Committee inspected a number of schools which had been subjected to arson, and the Department of Education's Security Centre (see Appendix 4).
- 1.7 The Committee also discussed key issues with a number of authorities in New South Wales country and metropolitan areas as well as in South Australia, Queensland and Victoria (see Appendix 5).
- 1.8 In addition, and following Hearings and Interstate inspections, the Committee corresponded with the key public bodies involved to clarify issues which had arisen.

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2. WHY IS ARSON A PROBLEM?

THREE EXAMPLES OF PUBLIC SECTOR ARSON

2.1 Since the PAC commenced its Inquiry, there have been a number of media reports of arson in the public sector. By way of background, three examples of arson have been reproduced here to illustrate the type of problem facing the public sector.

1. Kuring-gai High School:

In September 1988, fire caused approximately \$300,000 worth of property damage to the administration section of Kuring-gai High School. The fire was the result of three school students forcing entry to the building and using an accelerant in combination with the contents of filing cabinets and drawers.

Fortuitously, security guards at a nearby hospital noticed a car driving away from the school after midnight, and noted its registration number.. Shortly afterwards they were alerted by smoke and flames and contacted the Police and Fire Brigade. Had it not been for their prompt action, the damage would have been far more extensive, and it is less likely that charges would have been able to be made (a youth was charged the following morning).

Despite its isolated location the school was regarded as a low-risk site by the Education Department because it did not have a history of vandalism and break and enter. The school had no alarm system, and was not patrolled. Further, the school had no fire hydrants (and thus did not

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comply with Ordinance 70 requirements), although it was "on a list" to be fitted with fire fighting facilities.

As a result of the fire, the school lost virtually all of its past student and other records, and faces prolonged disruption to its teaching programs and administration functions.

2. Narooma High School

Narooma High School is located in a remote bushland setting. The school was built in 1978-79, with timber as the predominant construction material. According to the Public Works Department, which supervised design and construction in line with an Education Department brief, the building:

*"was designed in the mid seventies
in accordance with Ordinance 70
requirements and the standards expressed
in the relevant Public Works/Education
Department's Codes " .*

In January 1987, the school was damaged by an intentionally lit fire which destroyed four classrooms.

On August 4 1987, while construction teams were still on the site undertaking repairs and replacement, the school was almost totally destroyed by a number of intentionally lit fires. There appears to have been no increase in surveillance following the first fire incident.

In its 1987 Annual Report the 'Fire Brigades noted that:

Although an architectural award winner, the school was constructed of combustible materials, had no effective fire separation between blocks, and no automatic fire alarm system".

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Reconstruction costs have been estimated at \$6 million. This does not include the cost of disruption which is very difficult to measure. For example, immediately after the fire, alternative local accommodation had to be hired (including the RSL), and up until September 1988, the school was still operating in demountables.

A youth has been charged in relation to the second fire.

3. State Sports Centre - Homebush

On 24 July 1988, approximately \$495,000 fire, smoke and water damage was incurred by the State Sports Centre as the result of an intentionally lit fire. The fire was started in the foam rubber base of the gymnastics pit, and activated automatic alarms and sprinklers.

A heavy metal rock music concert booked that evening for another part of the complex had been cancelled, but some ticket holders were not aware of the cancellation and turned up at the centre anyway. It appears that immediately prior to the fire, the duty supervisors had detected a number of youths in the area, and had asked them to leave and had actually escorted them from the area on at least one occasion. It is suspected that the youths who were escorted from the area were responsible for the fire.

THE KEY ISSUES

- 2.2 The above examples give an indication of individual incidents of arson in the public sector, and illustrate why arson is of particular concern in the public sector.

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2.3 There are six main reasons why arson is a particular problem in the public sector:

1. Arson Destroys or Damages Public Assets and may threaten life
2. Arson Disrupts
3. Arson Imposes Indirect and Subsequent Costs
4. It is Difficult to Apprehend: and Prosecute Arsonists, especially given that there is usually no financial motivation and that offenders are often juvenile "*first offenders*".
5. Arson Poses Special Problems in Risk Management:
 - a) It is difficult to predict arson
 - b) Arson management requires information and focus

Arson management requires appropriate incentives

- d) Arson is regarded as largely a public sector responsibility
- e) Publicity Induced Arson

2.4 Each of these key issues is discussed below.

2.5 Destruction and Damage: It is difficult to put a precise dollar value figure on the costs resulting from destruction and damage. Expert consultants have advised the PAC that destruction and damage costs are in the range

of \$10M to \$20M, the most likely estimate being around \$15M. However, these figures can only be considered rough estimates and are shown to vary considerably from year to year. Cost estimates are discussed more fully in the following chapter.

2.6 To put this figure of \$15M in context, as a proportion it represents the equivalent of 77% of the \$19.5M in funds set aside for major new capital works in Education in the

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1988/89 Budget, or 7.5% of the \$199M Total Education Capital Works budget (New South Wales Treasury, Budget Information 1988/89, Page 220).

- 2.7 Another way of putting this figure in perspective is to note that the following four new schools could have been constructed free of charge to NSW taxpayers had the \$15M in arson damage costs been avoided.

SCHOOL	ESTIMATED TOTAL
	COST
	\$M
Rosemeadow Public School, <i>Campbelltown</i>	3.2
Minchinbury Public School, Prospect	3.0
Murray Road Public School, Wingham	2.9
Clairgate, St Clair	3.0
Brook Avenue Public School, Killarney <i>Vale East</i>	<u>3.1</u>
TOTAL	15.2

Source: NSW Treasury, Capital Works Program 1988/89, List of Projects, Pages 8-12.

- 2.8 Alternatively, \$15M would enable the Department of Sport, Recreation and Racing to complete the rowing course-project at Penrith Lakes, within its Capital Works Project (estimated to cost \$12.1M) (NSW Treasury, Capital Works Program 1988/89, list of projects, Page 65) as well as \$3M worth of additional upgrading of facilities throughout the State.

- 2.9 Much public sector arson is potentially avoidable, and therefore, can be considered pure waste. Repairing and replacing arson damaged property can be seen as largely unnecessary, and therefore, pure public waste. There is

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rarely any pure economic incentive for public, sector arson. The arsonist may be motivated by revenge, excitement and peer approval. The public, on the other hand, incur the consequential social and economic damage.

- 2.10 Disruption: In the course of its investigations, the PAC has observed first hand the disruptive effects of arson. For example, additional resources are necessary to maintain programs or activities, morale is affected, and there is extensive time and effort devoted to re-organising and planning.
- 2.11 Students may be sent home from school while cleaning is performed and replacement buildings are arranged, school bands cannot perform or practice without instruments, students cannot read or study effectively without library books.
- 2.12 It is difficult to quantify the extent or dimension of disruption. The fire at the State Sports Centre at Homebush occurred just days before the planned National Gymnastics Championships. The fire at Kuring-gai High School destroyed student records, historical school photos and required the rental and placement of temporary buildings, new books, library cataloguing staff and cleaning bills. In neither case is it possible to accurately gauge the effect on individuals or organisations, but the PAC members have been witness to the strength of feeling of those directly affected.
- 2.13 Indirect and Subsequent Costs of Arson: The Committee found that the costs of arson included not only direct damage and disruption but administrative costs such as employing a library cataloguer to order new books, replacement of items such as tape recorders owned by teachers and items donated or paid for by parents,

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students and staff. For example, a fire at East Maitland Primary School in late 1988 resulted in the loss of the musical instruments used by the school band which had been provided from funds raised by parents and citizens.

2.14 There are also "costs" imposed when a National Park is burned which are not always costed because they cannot usually be replaced by public spending. There is no satisfactory way to measure the loss of particular species of fauna and flora or the loss of recreational and scenic attributes of National Parks; just as there is no satisfactory way of measuring the economic loss when a state forest, grazing lands and the like are destroyed.

2.15 Finally, there are many hidden costs associated with arson including the shock and emotional upheaval for children and teachers. The PAC was informed by psychiatrists and others working in the field that these costs could be considerable. When people are burned as a result of fire these effects are particularly important and as well as the emotional and pain aspects there are considerable hospital and medical costs involved. For example, a Victorian expert has advised the Committee that hospital costs for a Burns patient are a minimum of \$400 per day in bed costs alone.

2.16 Apprehension and Prosecution: Successful prosecution is generally regarded as a deterrent. In the case of arson, it is difficult to achieve successful prosecution, for three reasons, as follows:

1. Arson destroys evidence. To prosecute

successfully for the crime of arson, a case must be established beyond reasonable doubt. In the absence of strong supporting evidence, this is not usually possible.

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2. Public sector arsonists are usually juveniles. Arson is a serious charge and there is reluctance to prosecute juveniles, especially first offenders. The South Australian Department of Education has been interested in this issue and informed the Committee that virtually 100% of school arson offenders there are under 16 years of age, 80% under 14 years of age. School arson is clearly a problem related to youths. In addition to stepping up their conventional management of physical resources measures, the South Australian Department of Education has commenced work on the sociology associated with "the difficult child" in an attempt to intervene before the youth commits any crime.
 3. To prosecute an arsonist, it is necessary to catch the offender. The lack of any economic motive in most public sector arson and the unprotected nature of some public sector assets makes this more difficult.
- 2.17 It should also be noted that there is no particular pressure on Police or the Fire Investigation Unit to pursue the case because there is no financial incentive involved and no financial implications for the Police or Fire Investigation Unit, although both investigatory bodies would have a professional interest in establishing who is responsible for setting the fire.
- 2.18 This point was brought to the PAC's attention in Victoria, where there has been demonstrated tendency for some arsonists to continue lighting fires until caught. Failure to apprehend an arsonist on a first offence can lead to very high costs in the future.

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- 2~19 For this reason, the Victorian Fire Brigades (Fire Prevention Department) has initiated a "*Junior Fire Setters Scheme*", based on a successful US Scheme. More than 60 programs are now operational and they are considered by a variety of professionals to be successful because they address the problems which young fire setters and potential fire setters have.
- 2.20 While the programs have not formally been evaluated, Professor Bob Adler, Royal Childrens Hospital, Melbourne and the Chief Fire Officer, have initiated an experiment in which a randomised control test is carried out with two groups of children who have been caught playing with fire, one group assigned to a fire setters program, the others not.
- 2.21 There is also another Fire Brigade initiated education package called "*Operation Fire Care*" aimed at educating primary school children on how to prevent fire and control the spread of fire. There has been no evaluation of this Scheme to date, although it too appears to be an important preventative measure.
- 2.22 Further, in recognition of the need to intervene early in a young arsonist's activities, the Victorian Education Department's security section concentrate on apprehension of offenders as their major goal. They measure the success of their security program by the proportion of cases for which offenders are apprehended. Their apprehension rate in the 1987/88 Financial Year for school crime was 47%.
- 2.23 Risk Management: Risk management requires the proper collection of information and deployment of resources to minimise the avoidable risk commensurate with the costs of

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doing so. There are five problem areas in this respect, as follows:

1. Risk Management - Prediction
2. Information for Risk Management
3. Incentives for Risk Management
4. Public Sector Responsibility
5. Publicity Induced Arson

These are discussed below.

2.24 Risk Management - Prediction: Risk is the absence of certainty. Public sector arson is difficult to predict for two reasons, first because the expected loss due to arson is large relative to the average, and secondly because the distribution of expected loss is skewed positively.

This means that while the average amount of damage due to arson may be about \$15 million per annum, it may well rise to very much larger levels in some years. For example, one case (Narooma High School) alone accounted for about 50% of the public sector arson bill in 1987. Arson was suspected in some of the Ash Wednesday fires which led to more than \$400 million damage in public forests in Victoria and South Australia in 1983. A similar situation could easily occur in NSW.

2.26 This large variance means that trends in arson cannot readily be identified. For example, the PAC has noted Police estimates indicate a 56% increase over the last three years in public sector arson, but that does not imply that arson damage costs in the next three years will not be even greater. Costs could conceivably be smaller for a given year.

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- 2.27 Planning, especially for adequate insurance and emergency services is frustrated by this large variance.
- 2.28 It is also difficult to predict accurately where arson will occur. The past does not necessarily give a good indication of the future. For example, Kuring-gai High School had no significant history of security breaches prior to the fire (discussed earlier) and was, thus, not regarded as a high risk.
- 2.29 Information for Risk Management: Effective risk management requires information to assess the risk and to monitor the effectiveness of *counter* measures.
- 2.30 For example, to assess the relative level of risk exposure in schools or other public buildings, it is of considerable help to know:
- the degree of isolation from domestic housing
 - the degree of geographic remoteness
 - flammability (e.g. fire separation)
 - actual protection practice (such as securing the availability of flammable materials)
 - the level of surveillance and its reliability
 - the periods of occupation and presence
 - evacuation capability
 - fire fighting facilities and training
 - the incidence of security breaches
 - current compliance with building codes
- 2.31 while the establishment and maintenance of an appropriate data base and management systems is a common practice in private sector risk management, the PAC could find little evidence of it in NSW Public Sector operations.

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- 2.32 The problem is that without adequate management information systems, it is not possible to assess how big the problem really is and this in turn is a potential source of waste because it is impossible to set priorities, and monitor the effectiveness of counter measures.
- 2.33 There is also the potential for exaggeration when proper management information systems are not in place. For example, while the indirect and direct costs of a school fire are often high, there is very rarely any threat to life or health.
- 2.34 Most importantly, in the absence of a good management information system, it is not possible to identify precise targets on which to focus counter measures.
- 2.35 Incentives for Risk Management: It has been suggested to the PAC that there are insufficient incentives for public sector managers to take appropriate steps to deal with arson.
- 2.36 Assets destroyed through arson typically have been replaced out of funds held in the Treasury Fire Risks Account. These funds are topped up as required as illustrated in the following evidence given at public hearings on 26th July, 1988.

What input do you have in your official role with regard to setting the amounts that might be allocated by Treasury from Consolidated

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TREASURY.' None, virtually. My role is to manage an area that processes claims. The only input I've ever had in that area was where there had been a shortfall in Fire Risk Money and I'd sought supplementation of the amount provided in years gone by in the Consolidated Fund estimates as a contribution to the Fire Risk Account.

Who in Treasury knows what it's costing way of claims? Who would have input into making the decision about depositing money or not?

TREASURY: I think' the answer to that is that there's never been a study on that topic ... Quite franklin, Mr Chairman, the Fire Risk in the Public Liability Fund ... has been used as a repository of funds from time to time transferred there and often as a balance in item for the budget. There hasn't been comprehensive evaluation of those funds. They have been set up to be of a certain level of magnitude for prudence but whether that's an appropriate level has more or less not been formally determined in the past and that is why this review (an internal Treasury review yet to report) is looking at more actuarial basic policy to be established for the level of funds.

2.37 The PAC tried to discern if there was a greater preponderance of arson in statutory authorities which insure with Government Insurance Office than in departments which are insured through the Fire Risks Account.

Is there a greater differential in terms of the arson incidence in those authorities as opposed to government departments ... which are funded from Treasury, and there's no incentive there?

TREASURY: I don't think there's any incentive under either approach because in both cases it is an automatic payment. The costs are regarded as unavoidable, therefore, the allocation is made to them.

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2.38 While the Treasury is reviewing these current arrangements, the present system is such that there is no incentive for Departments or Authorities to take responsibility for arson costs because automatic payment is always made by Treasury in one form or the other. The fact that no one organisation sees the reduction in arson costs as its chief responsibility is the crux of the problem facing the public sector with regard to arson management.

- 2.39 The losses incurred in each of the three examples cited earlier (Ku-ring-gai and Narooma High Schools and the State Sports Centre) have been or will be met from the Treasury Fire Risks Account, with the Departments concerned bearing only the costs of disruption and some incidental expenses. In such circumstances, there is little direct incentive to attack the real problem of waste due to arson.

2.40 Management in the public sector is generally spread over a hierarchy. Managers, such as school principals, who are responsible for assets do not appear to have the necessary authority, resources, or access to knowledge and information to allow them to correctly assess risks and take appropriate actions.

2.41 No individual or group in the public sector can really ever be held responsible for inadequate managerial practice. Negligence (for example, windows left open), may be pinpointed to a particular individual, but school location, design and security are the responsibility of many, including Treasury which regards the costs as *"unavoidable"*.

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- 2.42 Regional and central office administrators are not necessarily aware of local peculiarities and circumstances. Principals, on the other hand, usually regard their main function to be the manager of curriculum not physical resources. This problem of "who is responsible" has been recognised explicitly by the South Australian Department of Education and action has been taken to promote responsibility for the management of physical resources at the school principal level.
- 2.43 In the absence of adequate management information and control systems, it is possible for public sector managers to spend disproportionate amounts on arson protection. This may be "under-spending" in the sense of "it's never happened before" or over-spending because of the desire to avoid publicity associated with a larger fire or recurrent fires in the same location. Coupled with an understandable tendency to risk averseness in public sector managers, this latter incentive to "over-protect" can lead to "the cure costing more than the disease".
- 2.44 Given the present Government's stated policy "that management has often been too risk averse in the past" Mr Ken Baxter, Office of Public Management to the Australian Society of Accountants, 30 November 1988, the PAC wishes to point out that arson management may be a good place to start reversing this tendency.
- 2.45 This is not to say that individuals are "irresponsible" in the usual sense of the word when, for example, a school burns down, only that there is no coherent overall management of risk and incentives at the system level.
- 2.46 Public Sector Responsibility: Control of crime (Police) and fire (Fire Brigades) are regarded as public sector responsibilities. Since arson is a combination of crime

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and fire, it too tends to be regarded as *"something the government should do something about"*.

2.47 This attitude tends to leave the Government with not just the responsibility for public sector arson, but for private sector arson as well. While the public sector can play a role in arson management, so can the private sector. For example, the Police and Fire Brigades have traditionally specialised, respectively in investigating crime and putting out fires. Arson management involves more than this; it also requires information and systems management, preventative schemes and surveillance where

the private sector may well have greater expertise. For example, the PAC has received submissions from organisations specialising in risk management and surveillance systems respectively. These submissions have

outlined procedures which are just as relevant to public sector risk management as to the private sector.

2.48 Publicity Induced Arson The PAC was informed by a number of authorities, including the Victorian and South Australian Departments of Education, that media reporting of arson often led to a spate of other arson cases, the reporting having sparked off the idea in other people's minds.

2.49 An instance was cited from 1975 when one arsonist and consequent publicity led to an average of one school fire per fortnight for some time afterwards culminating in a total of 15 fires over a 6-month period. The importance of good liaison between fire-prone Departments and the media was stressed to the Committee.

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- 2.50 In Victoria, a concerted effort to reduce sensational publicity was followed by a reduction in arson, the reduction being attributed to more responsible reporting.
- 2.51 Another problem with media advertising of arson is that because it is only news on the day it occurs, subsequent follow up investigation by police, fire brigades and others .is not reported. Nor is the apprehension and punishment of the offender reported.' As it is usually not possible to publicis e the names of offenders, especially if they are juveniles, it might be useful for journalists reporting an arson incident to report at the same time on a previous arson case where the arsonist had been apprehended, charged and convicted.
- 2.52 Not only is the manner of media reporting of fires an important factor, but government initiatives to combat arson, using the media to advertise its measures and spending and public responsibility could actually increase the incidence of arson by wha t 'could be termed an
- 2.53 There was some interstate comment that the NSW Education Department's 1987 campaign of wide advertising may have the opposite effect. While the PAC has not been able to verify the details of this particular instance, there is sufficient evidence to suggest that advertising campaigns may have unintended consequences and hence in the main. should be avoided.

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3. MEASURING THE COST OF ARSON

- 3.1 Effective resource management requires accurate and timely information. If the size and dimension of the arson problem cannot be gauged accurately, then it is not possible to set appropriate priorities, or to monitor expenditure effectively.
- 3.2 The PAC has experienced considerable difficulty in obtaining the necessary information and was not able to obtain a single accurate estimate of the direct cost of arson to the NSW public sector.
- 3.3 For this reason and before anything more is said about the cost of arson, the current management information systems and difficulties in interpreting the available information are discussed in this Chapter.
- 3.4 The difficulty in obtaining the necessary information is illustrated by the following points:
- Only Treasury has any record of fire damage specifically to public sector assets and this information cannot be readily analysed because it can only be retrieved manually.
 - Neither the Police nor the Fire Brigades distinguish public sector assets from private sector ones in their records. For example, the classification "education" includes arson in public and private schools.

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The Police statistics are based on a specific estimate such as, for example, \$55,000 while the Fire Brigade estimates are expressed as bands such as, for example, in the range of \$50,000 to \$250,000.

The Fire Brigades classification '*public assembly property*' includes such things as taverns, night clubs and restaurants whereas these are included in the classification '*business premises*' or '*recreational premises*' by the police.

Police and Fire Brigade records have only been in computerised form since about 1984 and they continue to use different classification schemes so that it is not possible to cross check or compare estimates of arson with any confidence.

3.5 Because existing management information systems are unable to provide accurate and useful information, the PAC has reason to believe that a contribution to the cost of arson in NSW may be due to the cost of misdirected arson management. This assertion is examined later in Chapter 9.

3.6 The five main sources of information on the size and dimensions of the arson problem in the NSW public sector are:

- the Police Department
- Fire Brigades
- NSW Treasury
- the Government Insurance Office
- Individual Departments and Statutory Authorities.

Each of these sources of information is discussed below.

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THE POLICE DEPARTMENT

3.7 The NSW Police Department has a statutory obligation to report all fires to the Coroner. In practice, not all fires are reported. For example, smaller fires, where there are no suspicious circumstances or fires which are reported as part of another crime are not always reported. For example, stolen vehicles which are subsequently torched sometimes go unreported.

The standard reporting form used by Police is a P60 -Fire Report form. This is usually completed by the uniformed officer attending the fire. Where there are suspicious circumstances, detectives (and where necessary 'the regional arson unit) will normally be called in.

Although these subsequent investigations generate information for the case file, all available statistical information on arson levels and costs is based on the P60 form originally completed by the attending officer.

10 Police officers are not trained in damage estimation, and the main purpose of the P60 is to collect information relevant to laying a charge. The officer has to complete up to 77 other questions on the form in addition to providing an estimate of damage. The accuracy and adequacy of Police estimates of damage must be seen in this context.

3.11 No specific information is collected on public sector damage separated from private sector damage.

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FIRE BRIGADES

- 3.12 The Fire Brigades attend about 25,000 to 30,000 fire incidents on average each year. The exact number of incidents varies markedly from year to year. In each case, the attending officer completes an Australian National Fire Data Incident Report, which includes an estimate of damage.
- 3.13 Although the Fire Incident Report is standardised for all Australian Fire Brigades, the methods of classification used are not comparable with those used by the Police in their statistical compilation of the P60.
- 3.14 As for Police records, no specific attempt is made to distinguish public sector damage.
- 3.15 As with the Police, estimates of damage need to be treated with some caution because they are given only as a broad first impression by the officer reporting. Examples of the difficulties in using and comparing police and fire brigade statistics are given in the next chapter.
- 3.16 The Fire Investigation Unit (FIU) is a special unit of the Fire Brigades in the process of developing a form for collecting information and storing it in data base format. The FIU only attends major fires or where there is serious injury or suspicious circumstances. Its information collection is separate and in addition to the standard "fire incident" report and the police "P60" form. At this stage there does not appear to have been any discussions held to ensure compatibility and ready transfer of information from the Fire Investigation Unit to the Police although the FIU indicated that they certainly did so when requested by the Police Department. The PAC believes it would be fruitful to do so.

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NSW TREASURY

- 3.17 The NSW Treasury, via its Fire Risks Account, only collects basic financial information relevant to Public Sector arson. Even this basic financial information is only available for Government Departments and not for the many Statutory Authorities.
- 3.18 All Government Department are "*insured*" by the Fire Risks Account. When a fire loss is incurred, the department lodges a claim for repair or replacement. The claim is usually based on estimates provided by the department concerned or the Public Works Department (in the case of property damage). Similarly, departmental claims are desk-checked, but no physical inspection is carried out to check the authenticity.
- 3.19 The PAC was told in evidence from the Public Works Department, *that* it would be possible for replacement assets to be either different in kind or to be more expensive versions.
- 3.20 Claims on the Fire Risks Account must be supported by documentation from the Fire Brigades and/or Police, and these in turn give an indication of any accompanying suspicious circumstances.
- 3.21 The account then records the amount approved for repair and replacement by the Minister and the actual disbursements.
- 3.22 In principle, the account should be able to provide information on actual costs of public sector arson. In practice, the way the account is presently structured, it

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does not lend itself to managerial use. For example, disbursements from the fund are controlled by a simple manual system of records which means that there is no automatic cross tabulation of information to monitor patterns by geographic location or other common characteristics involved in repeated episodes of arson.

3.23 The Treasury is currently reviewing the current model of Government risk management including its management information inadequacies. At a Public Hearing on 26th **July, 1988, a** representative stated:

TREASURY: "I would think it's fair to say that the model to date has some deficiencies in that there is not an appropriate financial incentive on the manager to identify risk and not an appropriate framework in which he can identify such risk and not an appropriate framework in terms of information to him to allow him to effect that sort of role. The model we're talking about would provide the responsibility and accountability and provide the information flow in ' terms of his experience relative to the average, where there was a fairly frequent claims experience, and provide professional advice to him on his cost from professionally accredited risk management consultants " .

3.24 The PAC considers that this review is long overdue and was surprised to learn that it was not a Treasury initiative but as the representative of Treasury, stated at Public Hearings, 26th July, 1988, in response a PAC question about whether he was the 'prime mover" in organising the review:

"Only in the sense that I'm reacting to the government's request to reviewing " .

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THE GOVERNMENT INSURANCE OFFICE

3.25 The Government Insurance Office provides insurance cover (on a competitive tender basis) for most outer budget operations such as Statutory Authorities. In principle, the Government Insurance Office should be able to extract management information on the level of arson in its claims history. However, file structures (necessary for privacy purposes) make retrieval difficult and the PAC was unable to acquire any estimate of actual costs incurred.

INDIVIDUAL DEPARTMENTS AND STATUTORY AUTHORITIES

3.26 Departments and Statutory Authorities are responsible for the care and maintenance of public sector assets, and for the management of risk. In this light, the Committee would expect Departments and Statutory Authorities to have records of the value of assets and to have in place monitoring systems to review their exposure to risk.

3.27 There is considerable variety in the quality of the necessary management information systems. In some public bodies exposed to arson risk, such as the Education Department and the Forestry Commission, the quality of available information is good. In other public bodies, the PAC has had difficulty in obtaining useful information, and has instead been provided with blanket assurances including:

"The existing Emergency Procedures for the Authority are currently under review and will be updated considerably at some time in the future"
(correspondence from the State Rail Authority dated 12th September, 1988).

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- *"Whilst the Fire Safety Programme has not covered all Departmental Properties. the Department will continue to improve fire safety standards to the extent permitted by funds available to the Department"* (correspondence from The Department of Family and Community Services dated 6th September, 1988)..
- *"... It is considered that the level of risk at the State Sport Centre is very low"* (correspondence from the Minister for Sport, Recreation and Racing, undated letter, Page 3). This was written not long after the fire at the State Sports Centre which resulted in \$495,000 damage and the preceding paragraph described how 500,000 people use the Centre annually, between 7 am and 11 pm, 7 days a week.

MISINFORMATION

- 3.28 The PAC also observed a degree of misinformation present in some public bodies and in the public. For example, the FIU of the Fire Brigade in its Monthly Return of the Work - July 1988 contained the following comment:

"It has come to the notice of FIU officers that a number of dwelling fires have been deliberately lit by persons reported to be housed in a 'private' situation under the terms of the Richmond Report having been transferred from psychiatric institutions. This matter has been referred to the Public Accounts Committee as a subject for examination under 'the terms of the Committee's enquiry into arson in the public sector."

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3.29 The PAC requested information concerning these fires from the Department of Health and was informed on 23rd November, 1988:

"there have been no instances of individuals with a developmental disability deliberately lighting 'dwelling fires'. The only instance of a person living in a group home for persons with developmental disability deliberately lighting a fire, related to a fire in an outdoor garbage bin."

3.30 While there had been two cases where mental health patients allegedly deliberately lit fires, both were in hospitals, not homes. (Letter also dated 23/11/88). The PAC had noted that *'a comprehensive review of fire safety standards in the State's Fifth Schedule Hospitals'* by the Minister had been announced on 10th July 1988.

3.31 The PAC was also informed by a staff member that there had been a number of arson incidents at Haberfield Demonstration School. Advice from both Department of Education, dated 26th October, and from the school principal, dated November 1988, indicated that there had been no such cases of arson, although the Principal commented:

"It is interesting that following your Committee's interest in this school a number of visits have been received from the Department of Education's Security Officers and that steps are being taken to install window grills, strengthen store room doors and to place the school on the alarm installations list for 1989"

3.32 **On the basis of** the observations **in this** Chapter, the PAC **considers** current management information covering arson to be inadequate and in need of a common approach.

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Recommendation 1

3.33 It is recommended that a management information system be developed which will be capable of informing government of the exact size of its arson costs on a regular basis. It is envisaged that such a system:

will co-ordinate the records of Police, Fire Brigades, Treasury, the Government Insurance Office, as well as records from individual Departments, Statutory Authorities and other public bodies; and

[] will address the following deficiencies in the individual recording systems:

- the absence of a "public sector" data base which includes number and type of incident, the estimated damage, .replacement cost and. other explicit or implicit costs;
- the lack of common classifications of arson; and
- the lack of a system to cross check trends in arson and the cost of arson.

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4. THE COST OF ARSON

4.1 The Police, Fire Brigade and individual asset-owning Departments have estimates of the property damage costs of arson. These estimates and their reliability are discussed below.

POLICE ESTIMATES

4.2 Table 4.1 summarises property damage estimates of deliberately lit and suspicious fires from Police Department records. As noted in the previous Chapter, classifications used by the Police do not distinguish public assets. Thus, for example, the "educational" category includes public and private schools. This makes it virtually impossible to separate out the incidence of public sector arson in some categories such as warehouses and offices.

4.3 The categories listed in Table 4.1 are predominately public sector, but may include some private sector assets as well. Conversely, some damage to motor vehicles, office buildings and other assets may have been to public assets but is not shown here.

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TABLE 4.1

**POLICE ESTIMATES OF PROPERTY DAMAGE, DELIBERATELY LIT AND
SUSPICIOUS FIRES, TOTAL AND SELECTED CATEGORIES**

CATEGORY	1985/86	1986/87	1987/88
	\$M	\$M	\$M
Total Deliberately Lit & Suspicious Fires (Public & Private Assets)	\$57.7	\$45.7	\$55.4
Educational	4.8	10.6	10.9
Other government	1.2	0.3	2.0
Recreational	1.7	1.0	0.5
Rail	0.007	0.14	0.12
National Parks/Bush	1.6	1.4	1.1
Total likely to be Public	\$9.3M	\$13.4M	\$14.6M
Public as % of all	16%	29.6%	26.5%

Source: From NSW Police Department records.

Note: The first line shows the total of all fires apparently caused by arson. The five categories shown below are those mainly concerned with public sector assets. For example, Rail and National Parks and Other Government are almost totally government owned, although National Parks includes significant Commonwealth Government responsibility. The Educational and Recreational components would include some private Sector assets, however, the precise proportion in each category which is public sector is not known.

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4.4 Four themes stand out from the Police estimates:

- 1.. Damage levels due to arson vary markedly over time. What happened last year or the year before does not give a good indication of what might happen next year.
2. There appears to be a growth in public sector arson damage. Public sector arson was just over \$9M in 1985/86 and nearly \$15M in 1987/88.
3. As a percentage of total arson, public sector arson seems to have increased from 16% of all damage due to deliberate and suspicious fires to a figure of over 26%.
4. Education constitutes the single biggest area of loss, comprising 70% of public sector arson in 1987/88.

FIRE BRIGADES ESTIMATES

4.5 As previously remarked, Fire Brigades' estimates of property damage cannot be compared with those of the Police. The Fire Brigades use a different classification system, and use a calendar year rather than the financial year used by Police.

4.6 The Fire Brigades estimated that in the 1987 calendar year there was damage due to incendiary or suspicious circumstances of the magnitudes shown in Table 4.2.

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4.7 Table 4.2 illustrates a number of the problems the PAC found in obtaining accurate and reliable estimates of arson damage, as follows:

1. The Fire Brigades (as with the Police) do not distinguish public and privately owned assets. Damage to "educational property" for example, may include some damage to private schools, although the PAC is led to believe that this is a relatively small component.

2. The Fire Brigades form only provides estimates for a range of damage for each incident. Table 4.2 is based on the midpoint of each range. The Police, on the other hand, simply provide an estimated damage figure for each incident. Consequently,

Police and Fire Brigade estimates are not comparable even for the same incident. For example, the Police estimate may be \$11,000 whereas the Fire Brigade may record a range of \$10,000 to \$24,999 for the same fire.

3. The Fire Brigades classification scheme distinguishes over 600 different classes of property, including such items as specific as:

Class	735	Textile finishing plant
	612	Nuclear ordinance plant
	578	Car washing facility

The manual necessary to fill in the Fire Brigade form is 100 pages long. The system does not provide useful information about arson. For example, there were:

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- 679 incidents of incendiary and suspicious fires recorded in 1987 as involving the property categories:

(962) street, roadway which includes associated parallel or angle parking;
and

- (963) street, roadway which includes paved driveways.

The corresponding damage costs amounted to approximately \$3.3M in 1987.

It is obviously difficult to set fire to roadways, but this somewhat absurd situation arises because the Fire Brigade apparently interprets 'property' to sometimes mean location of incident. Hence, some of the damage to surrounding grass or bush, or to parked motor vehicles gets attributed to the above categories whereas in the Police statistics it would be classified under Cars, Trucks, Grass or Forests.

Table 4.2 should, therefore, be interpreted with caution.

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TABLE 4.2

**FIRE BRIGADE ESTIMATES OF PROPERTY DAMAGE MAINLY TO PUBLIC ASSETS,
INCENDIARY OR SUSPICIOUS CIRCUMSTANCES,
1987**

Educational Property	17.01
Institutional Property	0.5
Streets and Roadways	3.3

RELIABILITY OF THE ESTIMATES

4.8 A comparison of Table 4.1 and 4.2 illustrates again the point that Police and Fire Brigade estimates are based on different data sets. Both data sets are .subject to errors in reporting and estimation, especiall y as officers have limited training in property damage assessment, and cover different types of arson incidents.

4.9 Neither estimate can be considered of much value in public sector management of arson because they are both subject **to** problems.

4.10 Thus, the Committee has not been able to arrive at an accurate estimate of the overall costs and level of arson. The estimates shown here are the best that can be made with available information, but they should be interpreted with some caution.

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- 4.11 The Committee considers that both Police and Fire Brigade estimates understate the real costs, not only because of the problems in deriving the estimates of property damage paid by Government, but because they do not include the cost of "non replaceable" property such as national parks.

DISRUPTION AND HUMAN COSTS

- 4.12 The above estimates refer to property damage costs paid by government, and do not include costs borne by the community privately (for example, raising funds from school fetes to pay for equipment, furnishings or musical instruments lost through arson), and the very considerable human and disruption costs which were described to the Committee by school staff, students and parents in arson affected schools and discussed in a previous Chapter.

THE COST OF ARSON IN SIX GOVERNMENT BODIES

- 4.13 There are numerous public sector organisations which either own or are responsible for assets in NSW. Not all of these constitute a significant arson risk, and for this reason the PAC has focused in this Report on six organisations which have significant arson costs or potential exposure to arson risk.
- 4.14 Table 4.3 summarises the predicted annual loss from arson in six organisations.

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TABLE 4.3

PREDICTED ANNUAL LOSS FROM ARSON AND VALUE OF TOTAL ASSETS, SELECTED ORGANISATIONS

Organisation	(1)	(2)	(3)	
	Approximate Annual Loss	Total Assets	Risk	
	Due to Arson \$M	Approx. \$M	Assets	Public Liability
Dept of Education	5-15	10,767	High	Low
Forestry Commission	0.5-1.5	1,054	High	Medium
Dept of Corrective Services	0.005	562	High	Medium
Dept of Family & Community Services	0.35	333	Medium	High
Sport, Recreation & Racing Portfolio	0-0.5	65	Low	Medium
State Rail Authority	0.5-1	18,361	Medium	High

NOTES:

(1) Estimates are based on information supplied by relevant organisations. The Department of Corrective Services advised that the order of magnitude would only be about \$500 per annum, although estimates are not usually made unless a conviction is made and this appears to be rare.

(2) Estimates are based on a survey of organisations carried out by Treasury in 1987. It should be noted that not all assets are exposed to arson (e.g. sewers and mains of the Water Board).

(3) Ratings are subjective, and based on a number of factors such as past history, adequacy or protection, and likely size of extreme loss (i.e. one An a hundred years loss).

"Assets" refers to physical assets such as buildings.

"Public Liability" refers to the risk of injury or loss of life from fires.

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4.15' Again the PAC found it difficult to assess the actual cost of arson when estimates for individual organisations were so imprecise.

THE BEST ESTIMATE OF COST'

4.16 On the basis of information available, the PAC considers that property damage due to arson in the NSW public sector is in the range \$10M to \$ 20M, the most likely estimate being around \$15M with significant variations from year to year.

4.17 This \$15M is sizeable and justifies a closer examination of the management of arson, the subject of the following three Chapters.

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5. MANAGEMENT: ASSET OWNING ORGANISATIONS

5.1 As discussed in the preceding Chapter, there are numerous public sector organisations which either own or manage assets. Not all constitute a significant arson risk and for this reason the PAC has focused here on six organisations which have significant risk exposure, as follows:

- Department of Education
- Forestry Commission
- Department of Corrective Services
- Department of Family & Community Services
- the Sport, Recreation and Racing portfolio and
- State Rail Authority

5.2 The incidence and management of arson in each of the organisations is discussed below. In particular, the following questions have been addressed:

- a) What is the level of risk exposure, specifically in terms of the incidence of arson, assets affected and public liability arising from arson?
- b) What management information and control systems are used to monitor arson, establish priorities, and evaluate the effectiveness of counter measures?
- c) What practices and incentives are in place to reduce arson incidence and risk?

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d) What is the cost effectiveness of these measures?

DEPARTMENT OF EDUCATION

5.3 The Incidence of Arson and Risk Exposure; The incidence of arson, and the level of damage has risen steadily in recent years, as evidenced by the figures (provided by the Department) in Table 5.1.

TABLE 5.1

DEPARTMENT OF EDUCATION - ARSON EXPERIENCE

Year	Fires (Number)	Total Restoration Costs, <u>Building only</u> (\$M)
1983/84	103	4.2
1984/85	123	3.1
1985/86	158	4.1
1986/87	111	5.0
1987/88	88	*10.1

NOTE *: \$6M of this is due to one fire at Narooma High School

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- 5.4 The total building restoration costs of \$10.2M can be considered high when compared with Capital Works Programs by the Education Department. For example, Newtown High School, the most costly of the new schools budgeted for in the 1988/89 Capital Works Program is estimated at \$13M.
- 5.5 Alternatively, Byron Bay High School (\$5.7M) and North Lakes Public School (\$4M) could both be built for less than the total building restoration costs caused by arson in the previous year.
- 5.6 The figures in the table represent building replacement costs only. They do not include the costs of replacing other assets such as books and equipment, much of which is donated to schools.
- 5.7 For example, the PAC visited Baulkham Hills Public School following a fire which totally destroyed the library costing an estimated \$300,000 in damage. The library collection was 25 years old and many of the original books are now out of stock or out of print and hence cannot be replaced. The librarian *"cannot spend the funds fast enough"* because there are not so many new books on the market. Meanwhile, the students are without resources necessary to their education. The administration involved in the replacement of the library collection is so voluminous that the Regional Office has provided a library liaison officer to assist in assessing costs and reestablishing the library.
- 5.8 Another example which the PAC observed was North Rocks School. The losses beyond *"bricks and mortar"* included furniture, estimated at \$19,000, teachers' equipment at \$20,000 and other school equipment at \$75,000.

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5.9 The PAC also observed that disruption costs in Education are considerable. For example, although the damage at Pittwater High was estimated at \$600,000. This does not include the cost of donated equipment; the time spent by students, parents and staff in cleaning up and salvage; the cost of demountables for temporary accommodation; or the disruption suffered by students who did not have access to science and other facilities.

5.10 The PAC believes disruption costs are substantial and is unaware of any detailed examination of this issue.

5.11 The Department of Education bears the brunt of public sector arson, and makes up over 70% of the fixed asset replacement costs. Most incidents occur outside normal school hours.

5.12 The PAC is aware from media releases and FIU sources that

- incidents of arson appear to be more common in public schools than in Colleges of Advanced Education, Universities, Technical and Further Education Colleges and private schools.

5.13 This difference in incidence is due to a number of factors, including:

- the greater number of public schools
- accessibility of public schools
- discipline at primary and secondary schools
- age composition of students
- usage patterns of schools after hours
- community attitudes

5.14 Since there has never been a comprehensive review of the difference in arson across different educational facilities, the PAC is unable to comment further.

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5.15 Management Information Systems, Priorities and Evaluation:

The Education Department does not have a comprehensive risk management system. Information on security breaches is collected via school principals and security staff. Regular statistical compilations are made relating to security breaches. A breakdown of arson incidents and damage by region for 1987/ 88 is set out in Appendix 6.

5.16 Priorities appear to be largely determined by reference to the security history of a particular site. While this is a necessary consideration, it may not be sufficient, as illustrated in the case of Kuring-gai High School; although the school had no history of security breaches, it was nevertheless significantly at risk because of its remote location.

5.17 Evaluation of counter measures is apparently based largely on the observed reduction of security breaches. No cost benefit assessment is made, although the Department does undertake some cost effectiveness assessment..

5.18 As a result of Treasury initiatives in February 1988 (Asset Appraisal Guidelines) the Department intends reviewing (a) standards- (b) planning and procedures and (c) available surplus sites. Examples of cost effectiveness evaluation cited by the Department are:

- construction of core-plus to minimise fixed assets (basic buildings plus additions)
- use of demountables to achieve flexibility
- consideration of life cycle costs when selecting materials and finishes

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5.19 Cost Benefit Analysis (CBA) involves the economic appraisal of proposals or projects by quantitative comparison of expected benefits with expected costs. Cost Benefit Analysis allows ready comparison of a range of different options, and reduces the likelihood of projects being adopted which cost more than they produce in benefits.

5.20 Cost Effectiveness Analysis (CEA) compares the 'costs of different options with the same or similar outputs or results. For example, if there are three options for achieving a basic objective, then cost effectiveness assessment will permit the identification of which option meets the objective at lowest cost.

5.21 The NSW Treasury has recently (April 1988) introduced "Asset Appraisal Guidelines" for Government Departments engaged in capital works expenditure. The key objectives of the Guidelines, which encourage the use of CBA and CEA are to:

"encourage a more consistent approach to project appraisal and asset management by departments and authorities. and improve the information available to. the Ministerial Capital Works Committee ".

5.22 The PAC commends this initiative and considers that it will assist in ensuring that value for money will be achieved in arson control management.

5.23 The Schools' Electronic Surveillance System: The Department has a number of practices designed to combat arson, and has initiated a major security surveillance program.

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5.24 The schools' electronic surveillance system is designed to detect intruders once they are inside the building. The system works on a matrix of infra red detectors, which are connected back to a central base station via modem and telephone lines. No alarm is given at the site, but the system allows the base station to monitor where an intruder is in the building and report their position to security guards.

5.25 The Department experimented with a surveillance system as early as 1977. In August 1987, the then Minister announced that the State Government would spend \$40M on improvements to school security. Following this announcement the Department commenced its current accelerated security works programme with emphasis on electronic surveillance. Connection of schools to the Department's Electronic Surveillance System proceeded as follows:

1985/86	10	(Commi ssioned in December 1985)
1986/87		49
1987/88		209
1988/89	<u>71</u>	(To 25/11/88)
TOTAL AS AT	339	
NOV '88	===	

5.26 All 969 metropolitan schools are planned to be connected by 1992, with an accelerated program of connection in 1988/89.

5.27 The system will not detect intruders until they are inside the building and within the infra red detection range. It does not offer any protection from damage such as graffiti on the outside of school buildings and provides limited protection from fires which are well underway before

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affecting the inside of buildings. A survey of principals in 1983 indicated that 67% of damage to schools was mainly external.

- 5.28 It should be noted that the system will detect fire but not smoke. This may be important if the system is only installed in selected sections of buildings and a fire occurring elsewhere.
- 5.29 By way of comparison, Victoria started installing silent alarm systems in a number of high risk schools in 1977, and by 1983 some 600 metropolitan schools had been connected. As of 1988, Victoria has 830 schools fitted with alarms out of a total of 2,200 schools (1,475 "systems" and 51,625 "detectors").
- 5.30 The PAC visited the Victorian Department of Education security section and was impressed with the surveillance system, its management and apparent cost effectiveness. The PAC became aware during its inquiries, that there have been a number of visits by NSW Department of Education officers to Victoria's security section since 1975.
- 5.31 The PAC was amazed that despite these numerous visits, no action was undertaken until recently and then a more expensive system was implemented.
- 5.32 There is no doubt, that electronic silent detection systems are effective in terms of catching intruders. The Victorian experience' has been that nearly 45% of entries or alarms identified lead to arrests.
- 5.33 In NSW, the experience to date has been that some 241 offenders have been apprehended and 50 charged.

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5.34 About 87% of those apprehended in NSW were under 18 years of age, the ages of the offenders being as follows:

AGE	NO.
6	1
7	1
8	3
9	2
10	14
11	7
12	25
13	19
14	36
15	40
16	24
17	12
Adults	26
Unknown	31

5.35 In both Victoria and NSW, there has been an observable decline in the incidence of damage at schools covered by electronic surveillance.

5.36 In NSW, for example, in the 1987/88 year there were 88 fires, 66 of which occurred in schools without alarms, 22 occurred in schools with alarms and of these 22, 11 were in areas not alarmed (such as demountables) and 11 were detected. Damage to the latter was restricted to a total of \$9,250.

5.37 There is some doubt concerning the cost of the NSW system. Even allowing for differences between NSW schools and Victorian schools, the capital cost of the . NSW surveillance system appears to be significantly more expensive than the Victorian system, with no demonstrable gain in performance.

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- 5.38 It is proposed to install the system in another 701 NSW schools over the next three years at an estimated cost of \$37M. This represents an outlay of \$54,000 per NSW school as against around \$23,900 per school in Victoria. 310 schools have already been connected at a capital cost of nearly \$13M.
- 5.39 According to the Public Works Department Report provided to the PAC a comparison indicates that the performance levels of the two systems are similar. In fact, the performance of the NSW system has been inferior in the sense that it has had 30% more false alarms but the Department argues that this is due to teething problems.
- 5.40 Even taking account of different school sizes and other factors, it appears that the proposals for NSW involve a system which may be 30% more expensive than necessary. This could mean up to \$11M of unnecessary expenditure on proposed outlays to 1990.
- 5.41 Victoria uses 8 companies to design systems. Tender is via school principal, inspected by security section {Education and Public Works Departments} companies are local and small and work almost exclusively for Education Department.
- 5.42 One other matter of concern noted by the PAC is that the weak link in the surveillance system is the "switching on" after school activities end for the day. In some schools this function was delegated to cleaners, teachers, community groups or others. The PAC heard of cases where due to forgetfulness, systems were not turned on every night and of cases where "multiple after school" use by various community groups meant that the likelihood of gaps in protection could occur.

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- 5.43 The PAC was also informed that immediately following a fire, in which equipment is damaged, there is a tendency for the school to suffer repeated arson attacks.
- 5.44 The PAC was concerned to learn that alarm systems publicly reported as being installed in some schools were not fully operational. For example, the Sydney Morning Herald's 27th **April, 1988** reported:

'Last year's spate of school fires prompted demands for sophisticated security systems, and Fairfield High was fitted with one such a few months ago, at a cost of \$84,280. However, the system is not yet working, due to a delay in 'line clearance' from Telecom. Gosford High has also been waiting six months for its new system to be connected'

- 5.45 The PAC visited **two schools** whose alarm systems could not be operated on request - one due to damage, the other apparently due to the headmaster's lack of knowledge of how to activate the system.
- 5.46 Surveillance in Country - Schools: Country schools are covered by a separate scheme, described by the Department as follows:

"The Department has arranged the installation of return to base security alarm systems in 119 high risk country schools. The systems provide protection in specified high risk areas within each school with installation, monitoring response and maintenance by private firms under contracts arranged by the Public Works Department. At this stage the approved program includes 145 schools and subject to satisfactory tenders being received it is expected that the program will be completed in the New Year".

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- 5.47 Fire Hydrants in Schools: In 1984, Ordinance 70 was altered to require installation in Class IX buildings (including schools) of internal fire hose reels and hydrants subject to some floor area limitations.
- 5.48 The Crown is not legally bound by Ordinance 70, but it is government policy that its Departments should comply with all Ordinances and regulations.
- 5.49 For example, the Minister for Local Government and Minister for Planning issued a Memorandum to all Government members notifying them, among other things of proposals **to:**

*"... Codify and consolidate the Theatres
and Public Halls Regulation into
Ordinance No. 70".*

and,

*"... Codify and consolidate the building regulations in the Liquor
(Entertainment
Areas) Regulation into Ordinance No.*

5.50 The Department of Education' has sought from the Minister exemptions from the application of Ordinance 70, and sought instead to establish a specific fire safety code for school buildings.

5.51 The PAC notes that an extension of Ordinance 70 to apply to all schools would require an immense capital outlay. For example, five hydrants installed in North Rocks School were reported to have cost \$11,000. Given that it is only rarely that lives are threatened by school arson, blanket application of Ordinance 70 may not be the most cost effective solution.

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- 5.52 The PAC has also heard comment that water damage due to use of fire hydrants can be an important contribution to the total damage cost.
- 5.53 Because Ordinance 70 policy is currently the topic of Government consideration, the PAC makes no recommendation, but does refer the matters raised here to the Minister for Planning to be included in Government debate and Ordinance 70 policy - Refer Appendix 7.
- 5.54 Joint Police/Education School Community Awareness Security Program (South West Area) This program is a pilot program set up in 1988 to counter illegal entry, vandalism and arson via increased community and school awareness.
- 5.55 The program is staffed full time by a team of 4 "consultants" - 2 police and 2 teachers located at Heckenberg in Sydney's south west.
- 5.56 The main strategies adopted are:
- School Watch (community passive patrols of schools at night and weekends)
 - Curriculum Workshops (lessons on pride in the school)
 - Crime Prevention Workshops (involve young people in ways to prevent crime)
 - Student participation and clubs
- 5.57 While it is too early to judge the success of the program in terms of cost effectiveness, the PAC commends the Departments for their innovative approach and for undertaking assessment of the programme.

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- 5.58 On-going physical Security Measures. The Department allocated \$916,848 to physical security improvements in 1987/88.
- 5.59 Mobile & Static Security Guards - The Department has used mobile security patrols to protect high risk schools. In special cases, static (sit in) guards are used as, for example, in cases of bomb threats. The total cost in 1987/88 was \$1.6M.
- 5.60 Security guards are also used to back up the electronic surveillance system. The Department has recently adopted a policy of employing, training and providing physical support (cars, uniforms, radios, etc) to its own guards as against using contract operators. The Department estimates the recurrent cost alone of this will be \$4M per annum
- 5.61 The Victorian Education Department informed the PAC that "*dedicated*" Security 'Patrols, i.e. patrols exclusively employed to secure departmental property, accompanying the Electronic surveillance system have been superior to private company area security patrols. The NSW Department of Education is currently examining the cost and the usefulness of private versus staff "*dedicated*" patrols. The PAC notes that the proposed annual cost is in the order of \$4M per annum and hence adoption of such a system should only be done after analysis of its cost effectiveness.
- 5.62 One concern the PAC has is that the Department operated security may lead to over-staffing and some of the problems of overtime and call back outlined in the PAC'S previous reports on Police and Corrective Services.

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5.63 The PAC asked the Department of Education in a letter dated 14th September, 1988, to provide estimates of any additional costs of the Schools Electronic Surveillance System, including:

'any costs borne by the rest of the Education Department or other organisations, for example, the commercial value of buildings, administration, personnel functions'

5.64 The Department replied on 4th October, 1988, that:

"There are no other costs relating to electronic surveillance".

5.65 Thus, the figure of \$4M presumably includes the cost of vehicles, stores and all the "on costs" of salaries. It does not, however, include the surveillance schemes in country areas. Thus, the figure of \$4M is an estimate for security guards in metropolitan Sydney only.

5.66 Cost Effectiveness: The PAC has had the opportunity to interview and receive evidence from a significant number of people in the Department. The level of commitment of individuals to address the problem of security and arson is exceptional.

5.67 However, the PAC has some serious reservations about the cost-effectiveness of the way security has been implemented, and believes that significant cost savings could have been, and still could be, achieved without affecting security levels adversely.

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5.68 The PAC, in a letter to the Education Department of 16 August, requested information about the Department's procedures and policies for evaluating the relative costs and benefits of major capital works expenditures and concluded:

"I note that the system installed in Victorian schools was known to require less than half the proposed expenditure (i.e. \$20,000) per school in NSW. also note results of an independent consultant's report into the relative performance of the two systems. Are you satisfied that the NSW system is so superior to available alternatives that it justifies twice the expenditure?"

5.69 The Education Department in its letter of response of 2 September, 1988 indicated that:

"To date the Department has not carried out specific program or cost benefit studies"

and,

"There is no detailed cost comparison available for consideration"

5.70 However, the Department concluded that:

"Based on available information the Department is satisfied that the system being installed in schools in NSW is the superior method to protect schools"

and,

"The Department has not been able to obtain a total cost per school for the Victorian approach"

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5.71 The PAC finds this quite unacceptable. Even if the NSW system is technically superior in its performance (and the PAC has not found any evidence to that effect) the question of whether its superiority is such as to justify nearly twice as much expenditure per school has not even been addressed by the Department.

5.72 On the basis of information requested from the NSW and Victorian Education Departments, the PAC was able to arrive at some comparative figures, shown in Table 5.2.

TABLE 5.2

COSTS OF ELECTRONIC SURVEILLANCE SYSTEMS, NSW & VICTORIA

	NSW	VIC
Total No. of Schools with Full System Coverage	310	830
Capital Costs:		
Installation Costs to date	\$12,954M	\$19.2M
Base Station to date	\$0.292M	\$0.654M
Total Capital Outlay to date	\$13.246M	\$19.845M
Capital cost per School	\$42,730	\$23,900

5.73 Furthermore, the NSW Department provided projected future costs, as follows:

Proposed installations to 1992:	701 schools
Additional installation capital cost:	\$37M
Additional base station capital cost:	\$1M
Total Additional Capital Outlay:	\$38M
Cost per School:	\$54,210

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know what its right hand was doing". While this does not necessarily imply waste, it is only a fortuitous accident if resources are not wasted by unco-ordinated and ad hoc approaches to risk management.

4. The PAC understands that there is apparently a difference between arson levels in public sector schools and private sector schools. The point was made repeatedly to the PAC that increased community involvement and participation in school use after normal hours would be a relatively cheap way of reducing risk. The Department has provided the PAC with documents relating to a number of initiatives and schemes and indicated its support for such an approach in evidence. In discussions with teaching staff, parents and potential users, the PAC found a somewhat different perception of the Department's actual support.

Recommendation 3

- 5.78 It is recommended that an independent cost effectiveness analysis of the existing Schools' Electronic Surveillance System be conducted.

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- FORESTRY COMMISSION OF NSW

- 5.79 The Forestry Commission is inevitably involved in fire management as part of its basic functions. The Commission maintains detailed records of all fires, and has developed damage assessment methods to gauge losses due to fires.
- 5.80 Incidence of Arson and Risk Exposure: Establishing arson to be the cause of forest fires is not always a clear-cut task. Of 5,588 fires recorded over the ten-year period to 1988, 4,461 were significant, and 1,210 (27%) were most probably due to arson. Of the 452,204 hectares burnt (196,040 hectares being State forest), arson was believed to be responsible for about one quarter of the State forests lost by fire.
- 5.81 Attaching a dollar figure to this is not easy. The Commission's estimate is of about \$500,000 per annum, or about \$25 per hectare burnt out. This does not include costs associated with soil dehydration, loss of scenic and recreational values, effects on flora and fauna, or the hydrological impact.
- 5.82 Some high value forests such as pine plantations are more susceptible to fire damage, and incur damage costs in the order of \$5,000 to \$10,000 per hectare.
- 5.83 The Forestry Commission is particularly exposed to the risk of arson because of the following:

the sheer area of land for which it has responsibility;

much of the area is easily accessible; and

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- some of its holdings are adjacent to built up areas, where fire can do extensive damage, and where the Commission may have some liability for fires initiating from its property.
- 5.84 Arson Management Practices: The main thrust of the Forestry Commission's arson management is via fuel management. Managed burning and clearing to reduce fuel hazard is a well-established way of reducing both the chance of ignition and the intensity of a fire.
- 5.85 The Commission also maintains an extensive fire detection system via watch towers and aerial reconnaissance as necessary. This is believed to have some deterrent effect on arson; early detection can often mean that all people and vehicles in the area can be identified and investigated.
- 5.86 Annual protection costs amount to approximately \$7.6M. Since arson accounts for about 25% of fires, a reduction in arson risk would reduce at least a part of this \$7.6M, which the Commission estimates to be in the order of \$1.9M.
- 5.87 In other areas, such as fuel management or the detection of fires, it is difficult to see any potential cost savings, because those activities need to be maintained to deal with accidental fires.
- 5.88 The Commission has argued that District Fire Committees could have a significant impact in reducing arson, if given appropriate support. The District Fire Committee (or District Bush Fire Protection Committees) include representation' from those organisations with a direct or associated role in bush fire control. They have generally moved to develop emergency fire fighting plans on a co-

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operative and co-ordinated basis, and provide training at a district level. The PAC supports the view that this may be a cost-effective approach and warrants further investigation.

Recommendation 4

- 5.89 It is recommended that the role of District Fire Committees be reviewed with a view to increasing their effectiveness in dealing with arson.

DEPARTMENT OF CORRECTIVE SERVICES

- 5.90 The Department is exposed to risk from arson in two ways. First, many of the State's prisons are old and constructed of combustible materials (wooden floors, layers of paint on cell walls). This, coupled with a prison population some of whom are predisposed to arson, tend to place prisons in a fairly high risk category.
- 5.91 Secondly, prisons are difficult to evacuate in the event of fire, thus exposing prisoners, staff and visitors to risk.
- 5.92 It is difficult to estimate the size of arson damage to prisons because any major damage incurred (e.g. the Bathurst fires) is usually the result of a number of factors. It is evident, however, that fire damage can be considerable in older prisons and can lead to substantial disruption costs where prisoners have to be relocated.
- 5.93 Arson Management: The PAC is mindful of the importance of general management and supervision of prisoners and security in prisons because of its previous inquiries into "Overtime Payments to Corrective Service Officers" (May

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1983 - 6th Report) and

Payments to Corrective Service Officers" (June 1986 - 24th Report).

5.94 A major avenue for management is that of fire and evacuation management. In this respect the PAC is satisfied that the Department is aware of the risks and is adopting, or has adopted, appropriate strategies, such as:

- establishment of evacuation procedures for all institutions;
- six monthly inspections by local fire authorities to determine the adequacy of fire fighting equipment;
- regional emergency units supplied with emergency generators, lighting or other safety equipment; and
- establishment of a fire safety officer position to provide assistance in setting up fire fighting teams and providing basic fire training to prison officers.

5.95 The PAC is of the **opinion that** it may be fruitful for these strategies to be reviewed by the Fire Investigation Unit of the Fire Brigade to assess their effectiveness.

Recommendation 5

5.96 It is recommended that the Fire Investigation Unit review the evacuation and safety procedures established by the Department of Corrective Services.

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DEPARTMENT OF FAMILY & COMMUNITY SERVICES

- 5.97 The Department of Family and Community Services is responsible for a number of residential facilities (refuges, etc) which are prone to vandalism and arson.
- 5.98 Details of claims on the Treasury Fire Risk Account over the past three financial years are shown in Table 5.3.

TABLE 5.3

DEPARTMENT OF FAMILY AND COMMUNITY SERVICES

CLAIMS ON THE TREASURY FIRE RISK ACCOUNT, 1985 TO 1988

Year	Unit	Date of Fire	Date of Approval	Approval \$'000
85/86	* Endeavour	n/a	19.9.85	0.9
	· Minda	15.11.85	6.6.86	159.2
			15.2.88	315.0
86/87	Kamballa	24.12.86	29.3.88	13.9
	McCredie	26.1.86	4.11.87	0.9
	* Werrington			
	Park	16.8.87	19.10.87	12.5
			3.8.88	30.3
87/88	* Faulds	11.1.88	16.8.88	3.5
	· Linnwo0d			
	Hall	9.11.87	19.8.88	1.5
Average cost of Arson per annum 1985 to 1988				\$35.5

NOTE: * Indicates Arson

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5.99 The main risk is to the physical asset, and because these are mostly relatively small residential structures, the size of the risk is limited.

5.100 Departmental staff are trained to deal with emergency situations and to assist in evacuation.

5.101 The Department has built a "*Fire Safety Program*" into the Capital Works Program. This involves smoke detectors, provision of fire fighting equipment and improved egress.

5.102 The PAC noted that the November 11, 1988 "*Bulletin*" of the NSW Department of Family and Community Services reported a call by the Operations Director for:

"a timely review of the Department's Disaster Welfare. operational procedures following warnings of one of the worst bush fire seasons in the history of

SPORT, RECREATION AND RACING PORTFOLIO

5.103 The Department of Sport, Recreation and Racing has experienced no incidents of arson. However, one such facility, the State Sports Centre, Homebush, has been the

subject of arson and this is the direct responsibility of the Minister for Sport, Recreation and Racing. Other assets in this portfolio include Sydney and Parramatta stadiums and the SCG, the Totalization Agency Board and TAB centres.

5.104 The risk exposure to arson is of two main forms to property and to people. These are discussed below.

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5.105 First, there is the risk of damage to physical assets. There is some lack of consistency in the level of protection afforded. For example, some assets (e.g. TAB centres) are extensively covered by a risk management program, while in other cases (e.g. the Sydney Cricket Ground) there is only basic fire fighting equipment and no alarms or detectors.

5.106 Even though the Department has not had a record of arson incidents, the extent of damage to the State Sports Centre in July 1988, which sustained an estimated \$495,000 damage from a relatively minor fire, is a reminder of just how large the potential risk is to such facilities, especially to the various other stadiums, including those at Sydney, Parramatta, the Sydney Cricket Ground and to TAB centres.

5.107 Secondly, some of the facilities are used by a large number of people, often in crowds and often in a somewhat emotional context. The risk of panic associated with fire is sometimes greater than the potential damage from fire itself. For example, the PAC was reminded of the Belgium soccer stadium disaster.

5.108 There is some lack of consistency in the policies adopted with respect to crowd control and evacuation. For example, the Department provided emergency plans for a number of recreation centres and the NSW Academy of Sport, but indicated that all inspections of horse, harness, motor vehicle and greyhound racing areas are left to the Police on an annual basis. The Department indicated that it is the responsibility of individual clubs to ensure that safety standards are met, in order to obtain the necessary license from the Department.

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5.109 It would appear that the Sport, Recreation and Racing portfolio would benefit from an overall assessment of its physical and human risk management policies, with a view to developing a coherent strategy. The Department indicated that for the State Sports Centre only, a

"comprehensive management plan to deal with all potential instruction (is being) established".

5.110 Part of the problem seems to be that while the Minister is responsible for all sport, recreation and racing facilities, the Department is only responsible for the low risk facilities. There appears to be no united management of arson within the portfolio.

Recommendation 6

5.111 It is recommended that a coherent strategy to deal with arson in sport, recreation and racing facilities be developed.

STATE RAIL AUTHORITY

5.112 The PAC received a rather unsatisfactory response to its requests for information from the State Rail Authority.

5.113 First, the State Rail Authority has a significant number of assets (parked rolling stock, unattended stations, etc) which are at risk to vandals and to arson. No official estimates could be provided as to the dimension of this problem or the management practices for dealing with it. The PAC understands the cost is estimated to be in the order of \$0.5M to \$1M per annum and involves about 20 to 30 arson incidents each year.

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5.114 *Second, as the recent London tube fire has shown, there is a potential risk to the public and its staff from fire and smoke in tunnels, underground facilities and stations where the airspace rights have been sold or leased off for development.*

5.115 Considerable mention has been made by Government throughout 1988 of development opportunities associated with lease or sale in conjunction with railway properties. Developments at rail sites significantly increase problems of fire control and evacuation. The SRA is not compelled to comply with Ordinance 70 and, therefore, developments may lead to unsatisfactory risk exposure to the public.

Recommendation 7

5.116 The PAC recommends that commercial development activity involving the use of State Rail Authority sites include the upgrading of assets and the establishment of appropriate fire safety procedures to minimise potential arson damage.

5.117 The State Rail Authority indicated that:

"existing emergency procedures for the Authority are currently under review and will be updated considerably. at some time in the future ..." and "this Authority is also addressing the overall need to make a commitment to the 'Disaster Management ' and one meeting has already been held to create liaison

involved ..."

The PAC believes that such a review is considerably overdue.

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5.118 The PAC takes the view that the State Rail Authority is not adequately prepared to manage the risks to which it, its staff, and the travelling public are exposed, and that the Authority is not taking adequate steps to address the problem. Potential for disaster exists.

Recommendation 8

5.119 It is recommended that the State Rail Authority review its current risk management procedures and develop appropriate contingency plans and procedures as a matter of urgency. These developments should be independently reviewed within six months at most to assess their adequacy and cost-effectiveness.

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6. MANAGEMENT: ARSON CONTROL ORGANISATIONS

6.1 Organisations which are involved in fire control, especially after a fire has occurred, are as follows:

- Police
- Fire Brigades
- Bush Fire Brigades
- Local Government
- Public Works Department

6.2 In this Chapter, these organisations are examined from the viewpoint of current practices and potential for arson reduction.

6.3 The questions the PAC addressed were:

- a) What practices are in place to control arson and limit damage?
- b) What is the potential to reduce the incidence and cost of arson?
- c) What evaluation and monitoring is done of the cost effectiveness of counter-arson measures?

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POLICE DEPARTMENT

6.4 Current Practices: The Police are required to report on all fires to the Coroner, although, some smaller fires go unreported. For example, it appears that there are a large number of stolen cars which are subsequently torched, although there are no estimates of the orders of magnitude involved. Where suspicious circumstances are noted, the local detectives may be called in and where necessary they may in turn request the assistance of the regional arson unit.

6.5 There are four regional arson units operating in NSW; one each for the north, north west, south west and south regions. The State Intelligence Group co-ordinates information from the regional units and monitors trends in arson.

The main focus of Police practices is on investigation and the laying of charges after the event. Clear up rates (i.e. percentage of incidents considered to be due to arson for which a person is charged with an offence) are low. In the 1987/88 financial year, there were 2,169 arson offences and 162 apprehensions, giving a clear up rate of only 7.4%.

6.7 The clear up record contrasts markedly with the apprehension rate for school arson in Victoria, which for the same period was 47%. The apprehension rate for NSW schools specifically is not known. Most apprehensions result in charges but less than 1% result in convictions.

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6.8 Relatively little emphasis is placed on preventative activity, although the Police are trialing a program jointly with the Education Department in Sydney's South West region as part of an effort to increase community involvement and responsibility.

6.9 Potential for Arson Reduction - Regionalisation: A number of informed sources suggested to the PAC that regionalisation of the arson units had not been a success, and that there is a case for re-centralising the activities of the four units. The main reasons given were:

difficulties with "*seeing a pattern*" when arson activity spread across regional demarcation lines;

loss of a critical mass of expertise and knowledge;

officers with specific skills in arson investigation may not utilise those skills because the incidence of arson in any given region does not warrant continuing employment of the existing skill level.; and

- increased costs in administering, gathering and providing intelligence.

Recommendation 9

6.10 It is recommended that of the current practice of regionalisation of Police arson units be discontinued as a means of improving utilisation of scarce human resources.

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6.11 Potential for Arson Reduction - Training: NSW has no current program to train arson investigators, police officers or detectives in matters of evidence, analysis and deterrent practices.

6.12 Given the size of the arson problem discussed in Chapter 4 and the expertise which the PAC observed to exist in the Police and Fire Brigades, this situation is most unsatisfactory.

6.13 The PAC believes that an evaluation of training needs and opportunities be undertaken, but that evaluation should extend beyond the Police to include Fire Brigades. The evaluation should address means of improving apprehension rates.

Potential for Arson Reduction - Role: There is some potential for overlap and conflict (and thus, waste) in the roles of the Police and Fire Brigades in fire investigation.

6.15 The Fire Brigades, and specifically the recently established Fire Investigation Unit see their investigative role as extending beyond collecting evidence to charge an offender; they are generally more interested in analysing the general causes and contributing factors involved in ignition and fire damage/control.

The Police, on the other hand, have a specific purpose, and quite specific requirements for collecting and preserving evidence. Fire destroys evidence' (as do fire extinguishing and control activities) and because of this it is often difficult to bring successful criminal charges.

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- 6.17 In the discussions the PAC had with both Police and Fire Brigades, it was clear that both groups were aware of the problems, and had taken steps to improve liaison and co-operation. The PAC commends both organisations for the positive steps which they have taken in this regard.
- 6.18 The PAC believes that the question is not so much one of who should have sole responsibility for investigating arson. It is quite clear that the Police have a basic role in collecting evidence for the purposes of laying charges. Equally it is clear that the Fire Brigades have a basic role in collecting information about fires and how to prevent them. It is clear that on some occasions that Fire Brigade personnel will be on the scene first, and have prime responsibility for extinguishing the fire and containing loss to property and persons.
- 6.19 The real question is one of ensuring that evidence is preserved wherever possible. The best way of achieving this lies with improved training, particularly of officers (Police, Fire Brigade, and Bush Fire Brigade, etc) who are likely to be first on the scene.
- 6.20 The PAC, therefore, affirms its recommendation that an evaluation of Police training needs with respect to arson and opportunities be carried out with this particular aspect to be addressed specifically - See Recommendation 11.
- 6.21 Cost-Effectiveness: The Police do not as a matter of course monitor the cost effectiveness of the on-going or trial programs.

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Recommendation 10

6.22 It is recommended that design and operation of Police programs to combat arson should be monitored to ensure cost effectiveness and that cost-effectiveness performance measures be introduced by the Police Department as part of the overall management program.

FIRE BRIGADES

6.23 Current Practices: The Fire Brigades attend approximately 30,000 fire incidents and a significant number of false alarms each year. Of these incidents, perhaps as many as 5,000 will involve suspicious circumstances.

6.24 The general practice of the Fire Brigades in all cases is to report the fire to the local police (if they are not already in attendance) and to bring suspicious circumstances to the attention of the attending Police officer.

6.25 Where a fire is large or involves serious injury, unusual or suspicious circumstances, the Fire Investigation Unit may be called in. This unit was established in September 1987, but in a smaller and different form has had a predecessor for some three years.

6.26 The unit does not function solely to investigate suspicious fires. Rather its purpose is to build up knowledge on how fires start and spread, with a view to longer term prevention and better fire fighting techniques.

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- 6.27 The Fire Investigation Unit is comprised of six district officers and an inspector. The unit operates State wide on a 24 hour call roster and investigates about 60 to 80 fires per month.
- 6.28 Potential for Arson Reduction: Suggestions specific to the Fire Brigades' role include .training, information, investigative strength and cost effectiveness. These are discussed in Chapter 8.
- 6.29 Training: Improved training of fire officers at the scene of the fire (fireground) is important in the identification of arson. In particular, the preservation of evidence essential to prosecution of an offender.
- 6.30 Existing training facilities are perfunctory and limited to a relatively few individuals. One point noted by the Fire Investigation Unit was that while 20% of incendiary and suspicious fires occur in country areas, the category of cause know as " *undetermined fires*" in the country is nearly double that of the city.
- 6.31 While the PAC could find no further illumination on this point, it does suggest that the real level of arson may be much higher in the country than existing figures suggest, and only better training and investigation will help reveal the accurate picture.
- 6.32 In South Australia, the PAC noted that basic training of officers includes detection and avoidance of destroying evidence. There was also some attempt to address the issue of giving evidence in court since some officers not used to giving evidence had suffered ridicule. Such curricula might prove useful in the development of training in NSW.

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6.33 Given the similar need for training by the Police, the PAC believes that improved training facilities for fire officers would be of potential net benefit, provided that it is on-going and is designed to facilitate complementary operation of Police and Fire Brigade personnel. Subject to an overall evaluation of needs, opportunities and priorities in this area, the PAC is of the opinion that any such training program should be broadly based so as to be of use to both Police and Fire Brigade personnel, and available to insurance companies and others on a user pays

basis.

Recommendation 11

6.34 It is recommended that training of Police and Fire Brigade officers be reviewed with a view to coordinating the training of all fire control officers, specifically with respect to the collection and preservation of evidence.

6.35 Potential to Reduce Arson - Information and Investigative Strength: The Fire Brigades, and specifically the Fire Investigation Unit collect a considerable amount of useful information. This is available to police on request, and is often accessed by them.

6.36 It has also been suggested that increasing the strength of the Fire Investigation Unit would be an effective option in reducing arson. At this stage, it is difficult to evaluate the effectiveness of the unit because it has only been operating for a year, and as yet has no indicators on which to assess its performance.

6.37 The PAC believes that an effective system for access and evaluation of information is required. This could take the form of an Arson Council. The PAC considers that this would best be in a key central location and that the

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Tactical Intelligence Section of the Police Department may be the best central point at present. The Council would be responsible for maintaining data bases relevant to the management of arson in NSW. This would require a strong co-ordinating role and an interest in the many facets of arson prevention and control apart from the pure Police role - Refer Chapter 8 and Recommendation 15.

- 6.38 Cost-Effectiveness: The Fire Brigades do not at present maintain any on-going system of cost-effectiveness evaluation, although the Board of Fire Commissioners does maintain statistics on a variety of performance indicators such as response time. The PAC is aware of the difficulties of establishing clear performance measures in organisations such as the Fire Brigades, but is of the view that more attention should be paid to the matter in the context of the overall management plan.

Recommendation 12

- 6.39 It is recommended that cost effectiveness of Fire Brigades' activities be monitored.

BUSH FIRE BRIGADES: THE BUSH FIRE COUNCIL OF NSW

- 6.40 There are approximately 2,500 Bush Fire Brigades in NSW. These are staffed by volunteers and funded by State Government (25%), Local Government (25%) and insurance companies (50%).
- 6.41 According to statistics collected by the Bush Fire Council, about 10% of fires attended are found to be deliberately lit with another 35% having an unknown cause.

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6.42 There is no specific training provided to bush fire brigade volunteers on arson. The PAC considers that there is merit in developing a short component on arson to be included in the Basic Training Course.

LOCAL GOVERNMENT

6.43 Local Government currently has a role in arson and fire reduction through its powers to enforce and monitor compliance with Ordinance 70. This is explained fully in Appendix 7.

6.44 The Government is currently reviewing the policy of Ordinance 70. For this reason and as noted earlier, the PAC declines to comment on whether Ordinance 70 ought to be extended to all public buildings.

6.45 The PAC has, however, written to the Minister for Local Government, The Hon. D. A. Hay, M.B.E., M.P., advising him of the issues raised during the course of this Inquiry.

DEPARTMENT OF PUBLIC WORKS

6.46 Current Practice: The Department is responsible for coordinating the design and construction of almost all public buildings. As such it is in a position to advise "clients" (i.e. other departments) on the means available to avoid arson damage via security and construction design.

6.47 The Department provided a detailed submission outlining its operation. In summary the Department follows a number of practices designed to reduce the cost and incidence of arson, including:

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Contribution to the development of statutory codes, such as Ordinance 70

- Programs and meetings to encourage greater awareness of security issues and options
- On-going client liaison through groups such as the Schools Branch Research Group, and the Safety and Security sub-committee

Provision of maintenance manuals for users (e.g. school principals)

- Design input and technical advice

Cost-effectiveness and value engineering designed to reduce the cost associated with a given client specification
- Rapid restoration and cleaning up of damaged property, including installation of demountables, as a means of reducing disruption

6.48 While the Department of Public Works provides a number of construction and advisory services to Public Sector clients, it takes the view that the decisions rest ultimately with the client department, who in turn takes the responsibility for the particular design and construction methods.

6.49 The PAC notes that since public sector departments expect to use the Department of Public Works for consultation, their opportunities for seeking alternative advice is *de facto* limited.

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- 6.50 Thus, while the Public Works Department considers that its clients take responsibility for design and construction methods client Departments consider that they do not know much about such matters and in good faith "leave it to the experts" in the Public Works Department.
- 6.51 The PAC observed that this has caused some problems. For example, the PAC visited Baulkham Hills Public School which had experienced the loss of its Library Resources Centre at an estimated cost of \$300,000 damage'. The building, which was positioned some distance from the road and houses, was being replaced with an identical building including the same windows as had permitted entry. It was clear from discussions with school staff that they were relying on the Public Works Department for advice and no-one had suggested that an alternative design might be considered.
- 6.'52 While the PAC is not in a position to comment on whether this particular building is or is not appropriate, it is concerned that the Principal and staff did not have input into the design of the replacement building.
- 6.53 Potential for Reducing Arson: 'In its submissions, the Department made a number of helpful suggestions as to general options available to reduce arson. These are dealt with in Chapter 9.
- 6.54 Cost-Effectiveness:_____The Department has established a number of procedures to encourage cost effectiveness in its operations, notably the use of value engineering, or value management, as described by the Public Works Department. This involves technical reviews which aim at reducing the cost associated with meeting the specifications of a particular brief.

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- 6.55 The main use of these procedures is to reduce the costs for a given task or brief. Thus, the procedures do not generally assist clients in increasing their overall cost-effectiveness. In this respect the Department does not seem to have fully understood the basic principle of cost-effectiveness as it is used by Treasury. There appears to be a Problem at the time of accepting a brief from a client department; issues of the alternative design options are not evaluated. In the view of the PAC and Treasury, omission does not contribute to a proper approach to cost-effectiveness if such an approach was adopted, a Department may well be advised to revise its brief to achieve its objectives cost-effectively.
- 6.56 The PAC had cause to look at two examples of these procedures.
- 6.57 The first involved the establishment of a computer based tendering system to facilitate the accelerated installation of electronic surveillance units in Schools. This appeared to be cost effective at reducing the administrative costs and in controlling a computer tendering process so as to reduce the time wasted by both the Department and the private sector firms tendering.
- 6.58 The second involved the overall evaluation of the Schools Electronic Surveillance System. This was not carried out by the Public Works Department until April 1988, millions of dollars having already been committed. A value engineering study was commissioned and a consultant commissioned (Marc Security) to analyse and report on the System.

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6.59 The Department accepted a number of recommendations that the System was "*cost effective compared to commercial systems*", without any supporting figures to back up the assertion. Indeed, a comparison of the Victorian and **NSW** systems shown in Table 6.1 was provided by the consultants.

TABLE 6.1

SCHOOL SECURITY SYSTEMS AND PROCEDURES

COMPARISON BETWEEN NSW AND VICTORIA

<u>Area</u>	<u>NSW</u>	<u>VIC</u>
Cost	Accurate total unit costs not available	Cheaper & more cost effective
Capabilities	Apparently greater	
Performance	Apparently similar	
Contracting	Different approaches, similarly efficient	
Central Station	Requires greater alarm handling facilities	Standard commercial equipment
Alarm Response	Under development police relations	Unique, effective, very good
Maintenance	Education Department, higher frequency and more specialised	Contractors; lower frequency and cost

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6.60 In short, the Victorian system was cheaper and more cost-effective for a similar performance standard, and with more readily available, more efficient standard commercial equipment and low cost of operational maintenance.

6.61 The principal recommendations and advice that the Department acted upon was that cost savings of approximately \$4,000 per school installation could be achieved, although it is not entirely clear why this is the case from the study supplied to the PAC. It is the PAC's view that it is relatively easy to demonstrate "cost savings" if the costs are unreasonably high in the first place.

6.62 The PAC is not satisfied that the Schools Electronic Surveillance System is the most cost effective system, and it is not satisfied with the advice provided by the Department of Public Works to the Education Department as to the additional costs associated with whatever additional facilities are offered by the NSW system. Further, it is the belief of the PAC that the Department of Public Works, given its familiarity with specifying, tendering and contracting work to the private sector, should have advised the Department of Education as to the options available to it in regards to the overall system, and the potential cost savings, if any, that could be achieved.

Recommendation 13

6.63 It is recommended that the Public Works Department take a pro-active role in providing advice concerning security systems to other Departments.

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7. MANAGEMENT: TREASURY AND INSURANCE ORGANISATIONS

7.1 At Public Hearings on 26th July, 1988, the following description of Government risk management was given:

TREASURY: "Basically, the State Government runs a mixture of models or approaches with insurance and risk management. Partly it's a self-insurer, partly it doesn't recognise an insurable risk, partly insures on a commercial basis. There's a whole mixture of models with no coherent theme to them at all".

7.2 At present, all inner budget Departments are insured by the Treasury Fire Risk Account. Most outer budget organisations such as statutory authorities insure with the Government Insurance Office.

7.3 The questions the PAC addressed were:

- a) What practices are in place to insure against loss from arson, and how is the risk assessed?
- b) Are any steps taken to advise clients or encourage them in the use of arson risk reduction?
- c) How adequate are the funds available to cover potential risk?

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TREASURY

- 7.4 The role of Treasury has, in the past, been limited. As noted in Chapter 2, Treasury has seen its role in terms of processing claims on the Treasury Fire Risks Account not in determining whether the claims or the balance in the Account are an appropriate use of public funds.
- 7.5 The Treasury Fire Risk Account is a simple stewardship account used for controlling disbursements from an approved sum. The existing practice is for Departments to file claims for losses arising from fire with the Treasury.
- 7.6 Information concerning the account cannot be readily analysed from the manual recording system. There is no site inspection carried out to assess risks, or claims, although a "desk check" is made.
- 7.7 As noted earlier, while this manual system may be sufficient for the purposes of Treasury disbursement of funds, it is totally inadequate, under current arrangements, as a means of measuring and monitoring arson costs, common characteristics of fire incidents and hence, management to reduce and control arson.
- 7.8 Departments at present have relatively little financial incentive to improve their risk management. They do not bear any of the major capital cost associated with fire damage and there is no direct financial penalty for poor claims performance. Departments to bear some costs and disruptive costs, and outgoings are usually met out of their own budget. For example, Education has an account, "*Compensation: Replacement of Equipment*".

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7.9 Certainly, and as noted in Chapter 2, the full cost of the fire which may include loss of musical instruments or other equipment and furnishings provided by parents and citizens is not included.

7.10 Treasury - Review: Treasury is currently in the process of substantially reviewing its insurance procedures. The proposals for change have not been finalised, but **the** scheme should include the following elements:

There would be a managed fund approach to all risks, with sub-accounts for major risk classes;

- Departmental and Statutory Authority Heads would have primary responsibility for identifying risks and modifying practices related to risk management;

An information service of accredited risk management consultants would be available to

assist Heads of Departments and Statutory Authorities;

Incentives would be applied to Departments to improve claims performance;

A fund manager would be appointed on a fee for service basis;

The fund manager would be responsible for establishing appropriate levels of insurance, and re-insurance in consultation with Departments;

A separate investment manager would manage the fund investment, ideally over two or more entities with regular performance assessment;

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Statutory Authorities would be able to utilise the fund, but it would not be compulsory to; and

- It is proposed that the existing funds of \$78M in the Treasury Fire Risk Account and \$33M in the public liability fund be used initially to establish the fund. This would, according to Treasury, provide a solvency margin of around 40%, well above the statutory minimum of 20%.

7.11 Because of the inadequacies of the present arrangements, the PAC is generally supportive of the Treasury moves to improve the situation, although the lack of specific information makes it difficult to accurately assess the likely effectiveness of the scheme.

7.12 The PAC perceives four main problems with the proposals and recommends that they be addressed although not necessarily by Treasury. The problem areas are as follows:

There is a tendency for public sector organisations to be risk averse when they are likely to bear all or part of the cost associated with the risk. Imposing financial penalties for poor claims performance may lead to simply shifting the waste from poor risk management to excessive counter-risk expenditure, particularly where the latter takes the form of capital and is the subject of one off claims. For example, the PAC was concerned that this risk averseness may have been responsible for some over zealous spending on school security as noted in Chapter 5.

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- ii) In some areas such as arson, past claims performance is not necessarily a good indicator of future claims. A fully funded approach, whereby purchasers contract to pay fully for the cost of cover in the years covered by the contract, may lead to steep rises in premiums in some years, making recurrent budgeting difficult. For example, as noted previously, the cost of arson could explode in one year as the result of one single major fire.
- iii) It is necessary to develop and maintain an adequate information base in order to monitor relatively low frequency of unusual events. The PAC has had great difficulty in obtaining useful, comparable information, and there is a case for some central organisation being required to collect information pertinent to overall risk management, as discussed in Chapter 3.
- iv) Responsibility for assets and risk management already rests with Heads of Departments and Statutory Authorities. While the PAC is supportive of the concept of providing financial incentives to these organisations, it has the following reservations:
- a) some of the risk management tasks may be outside the control of the public body with the arson problem, or could sometimes be more cost effectively undertaken by another Department or organisation. For example, as noted in Chapter 6, most Departments do not have expertise in the design of asset and choice of building material;

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- b) some organisations have a tendency to devolve responsibility downwards to those responsible for day to day management of the asset or risk, without necessarily providing the necessary or commensurate financial authority. For example, in many schools, the cleaner or ballet teacher may be the person who has full responsibility for the security safety checks.

7.13 The PAC was concerned that Treasury was not in a position to make decisions for Government about insurance against arson. The following exchange at the Public Hearings, 26th July, 1988, illustrates this point:

"That raises a very interesting question my mind. There's an assumption in what we've heard today that the Treasury should be the repository for managing Fire Risk and the like. Is Treasury really the best government department to so manage?"

TREASURY: Well, we're not really defining ourselves as the experts on asset management, risk management. We see that as the role of the department, hence we're not particularly au fait with the issue of various surveillance techniques or techniques or approaches to security of assets. We simply see our role as running a self-insurance fund. That's a purely financial role. We do not see ourselves in any sense running risk management or running policies in terms of how departments should manage their assets, that's their responsibility. What we're got to make certain is that they've got the financial incentive and motivation to do a good job and the information to back it up. We propose to run a managed fund, an insurance scheme.

PAC: Well, then to whom is the department accountable?

TREASURY: Ultimately to its Minister.

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PAC: *But doesn't Treasury want to make sure that there is some degree of cost effectiveness there?*

TREASUREY *Sure. But once again, we are not the department responsible for running education or health. We do not have information on their assets. They and their managers are in the best position to know their assets, the state of their assets, the level of risk they're running. We can't do an audit on that. All we can do is simply get the information in and provide them with the information so that they can assist themselves against their peers. We can then identify that this entity is doing better or worse than its peers and obviously if there is an area there that is doing worse, then it should be looked at, but we're not in the position and do not have the responsibility for the management of individual departments.*

7.14 While Treasury officials clearly cannot be expected to be asset managers, the PAC considers that Treasury does need to know basic management information concerning assets because it provides the funds out of' the Fire Risks Account, not only for the cost of replacement building but for the cost of installing security devices such as the Schools' Electronic Surveillance System.

GOVERNMENT INSURANCE OFFICE AND OTHER INSURANCE COMPANIES

7.15 The Government Insurance Office and some private insurers and risk management consultants indicated to the PAC their interest and willingness to provide services to the Government.

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7.16 The PAC had some difficulty in pursuing the question of whether the private sector insurers could play a significantly greater role in public sector arson management. The question of appropriate insurance services is one that extends well beyond arson, or even fire. To assess the merit of substantial changes to government insurance procedures was felt to be beyond the scope of the present inquiry. Further, as explained at the beginning of this Chapter, the whole question of insurance is currently under review by Treasury.

7.17 The PAC wishes, however, to make the following points:

1. Private sector insurance cover is generally on a fully funded basis, so that total claims must be covered by total premiums in the short or medium term. This means that the public sector budget commitment for insurance would be fixed for a given year (at present it may increase as a result of claims on the Treasury Fire Risks Account), but any increase in risk or claims would simply be reflected in premiums in future years. The use of private sector insurers does not necessarily reduce the cost of arson or the premiums necessary to provide cover.
2. Reducing the cost of arson is partially a matter of providing incentives to those facing risks to manage them more effectively. The normal

incentives provided by private sector insurers (deductibles, increased premiums, etc) are of limited relevance to public sector organisations unless budgetary policy and fiscal responsibilities are altered.

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Recommendation 14

- 7.18 It is recommended that the current Treasury review of insurance arrangements be extended to incorporate the issues raised by the PAC in this Report, including the role of the Fire Risks Account, the Government Insurance Office and private insurance companies in the management of arson risk.

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8. CO-ORDINATION OF ARSON CONTROL

- 8.1 Arson is not the prerogative of a single Department; effective arson management requires a portfolio of approaches, and this cannot be achieved within the resources and charter of any individual Department.
- 8.2 In assessing the way overall arson management is co-ordinated~ the PAC adopted three guiding questions:
- a) What liaison and co-ordination occurs between organisations, and why?
 - b) Is there any unnecessary duplication?
 - c) Could some other organisation (public or private) do the job more cost effectively?

INFORMATION AND DATA COLLECTION

- 8.3 As outlined in Chapter 3, information pertinent to arson management is collected by a number of different organisations in a number of different ways for a number of different purposes.
- 8.4 In some areas, notably Police and Fire Brigade information gathering, there appears to be a considerable amount of overlap, but little automatic sharing of information. Both Police and Fire Brigade personnel collect much the same information at a fire, and then enter it on to their respective forms. The information is categorised and classified in different ways, and so it is not comparable

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for checking or statistical analysis purposes. It is impossible, for example, to merge Fire Brigade and Police computer files to establish a data base at present.

8.5 In other areas there is difficulty in obtaining access to information. Insurance companies, for example, are reluctant to release information about suspects in case they are prosecuted under the State's defamation laws, or may offend community standards associated with privacy. This inhibits the exchange of information between insurers, Fire Brigades and Police. This reduces cross checking of suspects and reduces the probability of identifying offenders.

INVESTIGATION

8.6 The problems associated with investigation liaison were dealt with in Chapter 6. The PAC notes that at the senior level, liaison and co-ordination between Police and Fire Brigades has improved substantially over the last few years, and could now be regarded as very good.

TRAINING

8.7 The issue of co-ordination of training arson investigations was also dealt with in Chapter 6. The PAC is of the view that training officers in the following areas could be better co-ordinated:

- investigation and evidence

- risks associated with fire

- risk management

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8.8 At present, there is duplication in that both Police and Fire Brigades teach these topics to specific groups of officers. There is also a need to external basic training in these areas to all officers in both organisations.

8.9 It would be wasteful to set up a series of independently operated, Department ally centred training programs. Improved training will require more liaison between relevant organisations and a system of concurrent and shared programmes.

ELECTRONIC SURVEILLANCE

8.10 In the course of enquiries it was put to the PAC that the Department of Corrective Services has developed considerable expertise in the assessment and installation of electronic surveillance equipment for a range of purposes.

8.11 The Department of Education in the development of its Schools' El ectronic Surveillance System has apparently not made any attempt to use this expertise. The PAC believes that this lack of liaison is a potential source of waste.

PHYSICAL DESIGN

8.12 The physical design of buildings is important in reducing the damage caused by fire, and in reducing the security risk. Additional design requirements may impose significant costs on the owner of a building.

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- 8.13 There are a number of organisations involved in the development of design standards and their enforcement. The existing arrangements for liaison appear adequate to the PAC, but it is not clear the extent to which existing arrangements tend to ignore cost considerations. An obvious example is the question of the application of parts of Ordinance 70 relating to fire hoses and hydrants to schools raised in Chapter 5 and Appendix 7.
- 8.14 Because the organisations involved in recommending the changes to design standards do not generally have to bear the costs (and in some cases may benefit) there may be some tendency to cost escalation. For example, recent changes to Ordinance 70 require fire hydrants to certain buildings which leads to increased costs.
- 8.15 The PAC believes that it may be advantageous if there were to be some preliminary assessment of the benefits and costs associated with increased standards requirements prior to their adoption.

IMPLEMENTATION OF INITIATIVES

- 8.16 There is a case that co-ordination of initiatives across organisations can have a potentially greater impact than an uncoordinated approach. For example, when a school or public building is torched it is usually replaced with an identical building without regard to the likelihood of its future fire potential.

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8.17 There is no incentive to modify buildings on the basis of past experience, by either the Education Department, which is not a design expert, or by the Public Works Department, which acts on a brief from the Department of Education to supply an identical building. The PAC observed this phenomenon in a number of schools, including the rebuilding of a library at Baulkham Hills Public School as noted in Chapter 5.

8.18 This suggests that there may be benefits arising from a joint task force or co-ordinating body. The NSW Standing Committee on Arson has operated as an informal point of

• liaison between a number of affected and interested organisations (insurance council, some insurance companies, Police, Fire Brigades and some Statutory authorities such as Elcom and SRA).

8.19 The PAC considers that the establishment of the Standing Committee on Arson has been a step in the right direction. However, it is apparent that its advice has not always been taken seriously by Ministers or Departments. In part, this may be because it is dominated by insurance industry representatives and arson control organisations which all advise that "*more resources should be allocated*" and emphasise fire control rather than prevention and apprehension of the arsonist.

8.20 The PAC can see some potential benefit from giving the Committee, or some similar body, such as an Arson Council as described in Chapter 6, formal recognition and a charter to provide balanced advice on arson control to the relevant ministers, provided that:

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- The Committee is reconstituted to represent a balance of experience and interests;
- It is provided with a small secretariat support facility; and
- It has strict reporting requirements, and possibly, a sunset clause.

Recommendation 15

8.21 It is recommended that an Arson Council, with the aim of improving co-ordination between relevant bodies, be established.

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9. THE POTENTIAL FOR REDUCING THE COST OF ARSON

9.1 Arson imposes substantial costs to the public sector through loss of assets and indirect costs associated with disruption.

9.2 Virtually all public sector arson may be considered "unnecessary" in the sense that it is usually due to spite, revenge or thrill-seeking, not due to the desire for financial gain.

9.3 Attempts to reduce arson, however, are similarly costly. Hence, the government must make decisions about arson control which are not only "effective" but are "cost

9.4 The effectiveness and cost effectiveness of the various measures in place are discussed in this Chapter.

THE COST OF ARSON CONTROL

9.5 Risk management is a matter of gauging the risks as accurately as possible, taking what steps are cost effective in reducing the risk, and insuring or providing for those risks which are unavoidable. In this sense, the "unavoidability" of a risk is a question of the cost of reducing the risk.

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9.6 To take a simple example, if the cost of one option to reduce arson is \$100,000 and it has the effect of reducing the expected probability of a loss of \$1M from 100% to only 75%, then (since 25% of \$1M = \$25,000) the expenditure would not be a cost effective solution. It may be cheaper to insure unless there were other cheaper options (e.g. a \$10,000 option, for achieving the same performance improvement).

9.7 In broad terms, these options fall in five main categories:

- i) Preventative Measures
- ii) Responsive Measures
- iii) Risk and Information Management
- iv) Insurance, Funding and Other Incentives
- v) Broad Organisational Management Measures

These are discussed below.

PREVENTATIVE MEASURES

'9.8 Preventative Measures include: Design and Construction Standards; Compliance; Security; Arson Counselling; Community Awareness and Use of Facilities; Emergency Procedures; Asset Management and Risk Management; and Publicity and Arson Awareness.

Public Accounts Committee

9.9 Design and Construction Standards: The design of a building, a forest plantation or other public assets, can potentially reduce arson by:

- restricting unauthorised access and entry (e.g. fences, security grilles, etc); and
- limiting damage once a fire is lit, either by early detection (alarms), by containment (fire doors, separation) or by fire fighting facilities (booster valves, hydrants, etc).

9.10 The PAC has received somewhat conflicting advice on design. For example, the Public Works Department, in response to questions about the design in the Narooma

School fire (cited in Chapter 2), indicated that.'

"given the nature of the arson attack (multiple fire sources), the type of outer cladding (in this case, timber) was academic to the final outcome, i.e. a brick or concrete slab building would have been totally destroyed".

9.11 By contrast, the FIU and the Board of Fire Commissioners' Annual Report strongly expressed the view to the PAC that the lack of fire "separation", particularly at ceiling height, made it difficult to contain fire damage in schools.

9.12 The incorporation of design elements can be quite expensive. For example, on the advice of the Public Works Department in 1988, the inclusion of the following elements add to the construction costs of a school initially estimated to cost \$5M.

Report on The Management of Arson in the Public Sector

Sprinkler System	3.75%	\$187,500
Electronic Surveillance	0.45%	22,500
Security Bars, Security Locks	2.0%	100,000
Industrial Perimeter Fencing	0.55%	27,500
Courtyard Security Screens	<u>0.35%</u>	<u>17,500</u>
	<u>7.1%</u>	<u>\$355,000</u>

9.13 The PAC has doubts about the accuracy of the costing, given that the electronic surveillance system actually being fitted to schools in NSW is costing in 1988 closer to \$43,000 than the \$22,500 quoted.

9.14 The point remains that it is not possible to design an arson-proof building, and whilst some design features reduce risk, their incorporation in construction may be expensive or may be contrary to other purposes. As noted in the NSW Department of Education's Annual Report 1987

(Page 57):

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"It is not the intention of the Department to fortify schools to the extent where it adversely affects the processes of education."

9.15 To justify additional expense, it is necessary to know as accurately as possible:

- a) the level of risk involved, or likely to be involved;
- b) the effect of the design on that risk; and
- c) the cost.

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9.16 The PAC has heard much anecdotal evidence and assertion on these matters, but very little in the way of a systematic data base to assist in making construction and design decisions. As far as the PAC could see, there is no documented evidence concerning the cost effectiveness of design in reducing the likelihood of arson, or reducing the total damage costs once a fire has started.

Recommendation 16

9.17 It is recommended that the Public Works Department:

increase its emphasis on building design to reduce arson and arson costs in its own design practices;

- develop data comparable with other organisations and develop research capability for this purpose; and
- specify in operating manuals and tender specifications the costs associated with building design features and the effectiveness of the features.

9.18 In the absence of such information it is not possible for public sector managers to make valid assessments about the cost effectiveness of particular design features.

9.19 While the PAC received no formal submission from the State Rail Authority on the matter, the PAC has been informed that there is a threat to both life and public property from potential fires in underground stations in Sydney and that the risk has been increased with the use of space and "air space" for commercial activity.

Report on The Management of Arson in the Public Sector

9.20 It has been suggested to the PAC that a disaster similar to the London tube fire could occur and that the problem is not being addressed adequately because of the expense involved in redesigning the old assets.

Recommendation 17

9.21 The PAC recommends, in conjunction with Recommendation 8, that the State Rail Authority specifically assess the likelihood of fire in underground stations and, if there is a significant threat to life or property, it should develop plans to circumvent disaster as a matter of urgency.

9.22 Compliance: There is little point in developing design and construction standards if there is no compliance. Equally, there is little point in insisting on compliance if not enforced.

9.23 AS noted earlier in Chapter 5, the PAC observed that many public buildings, including schools, do not comply with the existing requirements of Ordinance 70.

9.24 Given that the Ordinance has now been operating for over 15 years, and compliance has tended to grow only by increments over that time, the PAC believes there is a case for review of the operational effectiveness of Ordinance 70 and has referred the matter to the Minister for Planning.

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- 9.25 The PAC has also received submissions concerning who should bear responsibility for inspection and enforcement of compliance. At present, Local Government has this responsibility. By contract, the United Kingdom system of a Fire Safety Act which gives wide powers of inspection and direction to fire officers. While the PAC does not see **any strong case for similar provisions to be made in NSW**, it does see some opportunities **for privatisation** of the inspection and compliance function.
- 9.26 Security: The PAC has repeatedly had its attention drawn to the need to improve security and security consciousness in public buildings. In many cases, this simply means using common sense; locking doors and windows, securing flammable materials, switching on alarm and surveillance equipment, developing a roster of people responsible for securing the school and responsible for a final nightly safety check.
- 9.27 In practice, this remains one of the most cost-effective ways of reducing arson and vandalism costs.
- 9.28 The only difficulty may be a "displacement" effect; in South Australia, improved school security and surveillance has reportedly displaced some arson attacks from public schools to other at risk public buildings such as church and community halls or to private schools.
- 9.29 Arson Counselling: Efforts have been made in South Australia to identify children with the potential to become arsonists, and providing appropriate counselling advice.

Report on The Management of Arson in the Public Sector

- 9.30 The PAC believes that some of the experience built up may be useful to teachers in identifying problem cases at a relatively early stage. There may be potential for liaison between the Department of Education and Department of Community Services on this matter.
- 9.31 Community Awareness and Use of Facilities: The PAC has noted the very considerable difference in arson rates in State schools relative to private schools. The PAC believes that encouraging increased community use of school facilities, especially after normal hours, may have a substantial impact on reducing arson levels in schools.
- 9.32 The PAC is aware of a number of schemes being piloted by the Education Department to encourage greater community pride and awareness, but it could not find any clear strategy or program for encouraging greater community use of facilities.
- 9.33 Use of "*neighbourhood watch*" or "*schoolwatch*" programs are considered useful interstate. While the Annual Report of the Department of Education records that such programs exist, the PAC found that they were not operating in every school.
- 9.34 Emergency - Procedures: The development of procedures (and the practising of these on a regular basis) does not appear to be widespread even in public sector organisations exposed to arson or fire risk. The PAC noted, however, some excellent documentation from the Maritime Services Board about evacuation procedures.
- 9.35 Such procedures have the potential to substantially reduce panic and loss in an emergency.

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- 9.36 Asset Management and Risk Management: As discussed throughout this Report, the PAC has not been impressed with the level of asset or risk management practices of many public sector organisations.
- 9.37 publicity and Arson Awareness: There is some evidence that increased publicity about arson can actually increase the incidence of arson. Hence, whilst increased community awareness can be useful in lowering arson, the publicity which leads to it can make the problem worse.

Recommendation 18

- 9.38 The PAC recommends a more co-ordinated and strategic approach to media relations, with respect to public sector arson. This would be in keeping with private sector media relations practice in high risk areas.

RESPONSIVE MEASURES

- 9.39 Responsive measures include: Increased Penalties;
Investigation - Arson Reporting Immunity Legislation; and
Training and Evidence.
- 9.40 Increased Penalties: The PAC has received a number of submissions suggesting increased penalties, and more strict sentencing as a solution.
- 9.41 The penalties for arson are already severe and in fact, for the first two categories shown above are double the sentence for destruction of property by other than fire.

Report on The Management of Arson in the Public Sector

9.42 The penalties for arson under the Crimes (Criminal Destruction and Damage) Amendment Bill, 1987, Section 197 and Section 195 of Act 40 are as follows:

- 14 years penal servitude for dishonestly destroying property by means of fire with a view to making a gain
- 10 years penal servitude for maliciously destroying or damaging property by fire
- life sentence for maliciously setting fire to a building which is occupied

9.43 Thus, the penalties for arson are indeed severe. In the first two cases, they are "double" the penalties for damage by other than fire.

9.44 The PAC does not believe that increasing penalties even further will have any effect. Many arsonists, especially in schools, are juveniles. The PAC takes the view that it may be more effective to require such juveniles to spend a significant amount of their free time repairing damaged community resources under organised supervision.

9.45 Investigation: Arson Reporting Immunity Legislation:
Arson reporting immunity legislation is widely adopted in the US. It would allow insurance companies and others to more readily share information relating to suspected arsonists. The PAC is conscious of the privacy implications of such legislation, but can see some merit in a more detailed assessment of its potential to reduce arson.

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- 9.46 Training and Evidence: The question of appropriate training for those involved at the fireground and subsequently in investigation has been dealt with in Section 4. The PAC is of the view that training procedures need improvement in NSW, but notes that it is likely to be wasteful and duplicative unless there is liaison and co-ordination between the organisations involved.
- 9.47 Building Design: There is a need to consider redesigning buildings which have been subject to arson on the basis of risk reduction in the future.

RISK AND INFORMATION MANAGEMENT

- 9.48 Risk and information management includes co-ordination across organisations, including an Arson Council as discussed in Chapter 6.
- 9.49 The PAC has observed a widespread need for improved asset, risk and information management. The PAC believes that the initiatives by Treasury, outlined in Chapter 3, are basically moving in the right direction and support them, subject to the points raised in that Section.
- 9.50 Co-Ordination across Organisations: Arson Task Force: Arson Task Forces are widespread in the USA; over 70% of cities with populations in excess of 300,000 have task forces which serve to co-ordinate and focus activities. The PAC believes that there is a role for such an organisation in NSW, particularly in terms of:
- providing a global perspective, Via the collection and dissemination of information;

Report on The Management of Arson in the Public Sector

- [] providing a managerial framework to allow the assessment of strategies and establishment of priorities; and
- [] developing and monitoring the effectiveness of the framework of incentives designed to reduce the cost of arson.

INSURANCE, FUNDING AND OTHER INCENTIVES

9.51 Insurance: The present system whereby Treasury provides for fire losses as described in Chapter 3 does not work effectively. The PAC believes that it is a matter of some importance that the inadequacies in the system be rectified as soon as possible, and generally supports the recent moves by Treasury to do so.

9.52 Funding: Expenditure on arson for preventative measures can itself be a source of waste, as explained in Chapter 5 and illustrated by the case of the Schools Electronic Surveillance System in Chapter 5.

9.53 The PAC considers that the funding of such measures should be subject to the normal guidelines for investment appraisal wherever practicable, and that some check should be instigated on "*creeping funding*" (funding that is linked to the CPI or to the incidence of arson) funds are not progressively committed without any attempt to undertake cost benefit or cost effectiveness appraisals.

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BROAD ORGANISATIONAL MANAGEMENT MEASURES

- 9.54 The PAC has noted the problem that the budget authority is not necessarily commensurate with responsibility and no one person can be held responsible.
- 9.55 The PAC considers it important that individual Departments clearly identify responsibility for arson management and take steps to give appropriate budgeting authority to the appropriate person. In some cases this will involve decentralisation.
- 9.56 Decentralised Management: In Victoria, each Region of the Department of Education bears the cost of arson and the cost of the arson control. This gives the Region an incentive to control arson, but not to such an extent that the cost of the control outweighs the cost of arson damage.
- 9.57 Centralised Managements On the other hand, the NSW Police Department's Arson Units are now regionalised and, as noted earlier in Chapter 6, this has meant spreading the staff and other arson squad resources too thinly.
- 9.58 The PAC was informed that there is now a problem that the "critical mass" of staff required to react to, say, a spate of arson incidents in a country town, is insufficient and that there is inadequate flexibility to move staff to where they are needed.

Report on The Management of Arson in the Public Sector

THE NEED FOR A PORTFOLIO APPROACH

- 9.59 The principle guiding the PAC in its investigations has been the reduction of waste associated with arson. This is quite different from the reduction of arson in its own right, since in some cases the cost of the means used to reduce arson may not be warranted by the end results, even though the level of arson is reduced.
- 9.60 There are a very large number of options and initiatives available to reduce arson, and the PAC expresses its appreciation to the individuals and organisations who made submissions outlining these to the PAC.
- 9.61 Few options are likely to be effective in significantly reducing arson in isolation from others. The cost effectiveness of any one option may also depend upon the particular level of implementation relative to other options, and the particular circumstances prevailing. This points strongly to the need for a portfolio approach in arson management.
- 9.62 A portfolio approach involves assessing the size and dimension of the problem, and then selecting a number of options on the basis of which combination of options offers the most promise, and then monitoring the individual and collective performance. Where necessary, the mix of emphasis may be altered, or the degree of overall implementation may be altered to improve the cost-effectiveness of performance.

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9.63 The Committee noted, for example, that the Victorian Department of Education had implemented strong '*responsive measures*' such as electronic surveillance and security patrol measures which was improving the number of apprehensions and appeared to be the reason for the reduction in arson. In South Australia, on the other hand, there was an emphasis on '*preventative measures*' such as guidance for "*at risk*" children and in promoting physical property management responsibility among school principals.

Report on The Management of Arson in the Public Sector

APPENDIX 1

SUBMISSIONS RECEIVED

1. Alexandra Fry, Research Officer, Minister for Sport,
Recreation and Racing
2. Forestry Commission of NSW
3. Board of Fire Commissioners
4. Public Works Department
5. Government Insurance Office
6. The Council of the Shire of Warringah
7. NSW Fire Brigade Employees' Union
8. Alexander Stenhouse Limited
9. A.R. & A. B. Spooner
10. Mr R. P. Londregan, Fellow Fire Engineer
11. L. K. M. Brown
12. I. F. Perry

Public Accounts Committee

APPENDIX 2

LETTER TO MINISTERS AND LEADER OF THE OPPOSITION

June 22, 1988

Dear

Pursuant to section 57(1) of the Public Finance and Audit Act, 1983 the Public Accounts Committee has resolved to conduct an Inquiry into public sector management of arson in New South Wales.

The terms of reference for the Inquiry are:-

- (i) to examine the cost of arson;
- (ii) to review current procedures to reduce arson;
- (iii) to overview the existing funding and insurance arrangements associated with arson; and
- (iv) to investigate the potential to reduce arson costs.

In view of the specialised expertise required, the Committee has engaged the consulting firm Nicholas Clark & Associates to assist with the Committee's Inquiry.

The Committee, its Secretariat and Consultants may require assistance from your Department's officers during the course of this Inquiry and their full co-operation would be appreciated.

Yours faithfully,

PHILLIP SMILES, LL.B., B.Ec., M.B.A., Dip. Ed., M.P.

Report on The Management of Arson in the Public Sector

APPENDIX3

WITNESSES AT PUBLIC HEARINGS

(Transcripts of Evidence in Separate Volume)

DATE OF HEARING

26 July 1988

NAME OF WITNESS

Department of Education

Mr J. E. Allsopp, *Director of' Properties*

Mr J. L. Lambert, *Assistant Director (General Resources)*

Mr M. J. Wills, *Assistant Director (Development)*

Mr M.. G. Lambert, *Senior Assistant*

Secretary

Mr P. R. English, *Chief Administrative Officer, Insurance & Pensions Section*

public Works Department

Ms S. Tanner, *Acting Principal Architect*

Public Accounts Committee

APPENDIX 4

NSW INSPECTIONS

6 September 1988

Police Department

Detective Sergeant Steve

Fire Brigade

Inspector Boath,

Fire Investigation Unit

NSW Standing Committee on Arson

Mr Allan

Shalvey High School

Baulkham Hills North Public School

North Rocks Public School

Pittwater High School

Department of Education, Security Centre

- Blacktown Public School

9 September 1988

Ku-ring-gai High School

Mr C. O'Neill, Relieving Principal

Mr R. G. Nicholls, Regional Director

13 October 1988

Dubbo North School

Mr K. Kelly, Deputy Principal

Mr D. O'Malley,, District Inspector

Report on The Management of Arson in the Public Sector

APPENDIX 5

INTERSTATE INSPECTIONS

- 27 June 1988 Metropolitan Fire Brigade '
David Grubb, Deputy Chief Officer
- State Transport Authority
*Mr Bill Newman, Detective Inspector in
Police, seconded to State Transport Authority*
- South Australian Public Accounts Committee
- South Australian Department of Education
*Ms Helga Kolbe, Director of Resources
Mr Trevor Simmons, Security Manager*
- 30 June 1988 Royal **Brisbane Hospital**
Professor B. Raphael, Psychiatrist
- Mr R. L. Hart, Acting Deputy Chief*
- 28 July 1988 Victorian Police Arson Squad
Mr Allan Pleitner, Detective Chief Inspector
- 29 July 1988 Royal Children's Hospital, Melbourne
Professor Bob Adler, Psychiatrist
- Department of Education, Melbourne
Mr Co O'Neil, Manager, Security Section
- Economic & Budget Review Committee**

APPENDIX 6

**DEPARTMENT OF EDUCATION
DIRECTORATE OF PROPERTIES**

SCHOOL FIRES 1/7/87 - 30/6/88

<u>DATE</u>	<u>SCHOOL</u>	<u>REGION</u>	<u>LOCATION</u>	<u>ESTIMATED COST ~BUILDINGS ONLY)</u>
1/7/87	Pittwater H.S.	M.N.	Block B	\$600,000
7/7/87	Canley Vale H.S.	M..SW	Science Block	170,000
11/7/87	Shalvey H.S.	M.W.	Demountable	25,000
13/7/87	Shalvey H.S.	M.W.	Assembly Hall	7,000
16/7/87	Shalvey H.S.	M.W.	Admin.	1,000
17/7/87	Bass H.S.	M.SW	Staff Room	5,000
17/7/87	Mr. Druitt H.S.	M.W.	Toolshed	4,000
9/7/87	Lidcombe P.S.	M.W.	Admin.	2,539
12/8/87	Quakers Hill East P.S.	M.W.	Community Nurse Room	1,500
15/8/87	Tempe H.S.	M.E.	Science Block	60,000
15/8/87	Dunheved H.S.	M.W.	Hall (External)	1,000
16/8/87	Hammondville P.S.	M.SW	Classrooms	160,000
17/8/87	Glebe H.S.	M.E.	Admin.	60,000
5/8/87	Airds H.S.	M..SW	Demountable	500
19/8/87	Balmain H.S.	M.E.	Classrooms	5,000
22/8/87	Doonside P.S.	M.W.	Classrooms	10,000
25/8/87	Jannali B.HS.	M.E.	Classrooms	150,000
31/8/87	Dunheved H.S.	M.W.	Storerroom (External)	300
27/8/87	Kingswood H.S.	M.W.	Classroom 1 Staff Room	150,000
28/8/87	Ingleburn P.S.	M.SW	Storerroom	5,000
22/8/87	Malabar P.S.	M.E.	Duplicating Room	500
4/8/87	Narooma H.S.	S.C.	Total Classrooms	6 million
8/8/87	Dubbo North P.S.	W.	Classrooms	100,000
26/8/87	Bulli H.S.	S.C.	Reading Room	6,000
2/9/87	Picnic Point H.S.	M.SW	Staffroom/ Classrooms	150,000
3/9/87	The Grange P.S.	M.SW	Classroom	8,000
6/9/87	Sarah Redfern H.S.	M.SW	Admin.	3,000
16/9/87	Campbelltown P.S.	M.SW	Classroom	5,000
20/9/87	Blaxcell St. P.S.	M.W.	Classroom	12,000
27/9/87	Metella. Rd. P.S.	M.W.	Staff Common Room	17,000
6/9/87	Lake Munmorah P.S.	M.N.	Old Canteen	3,500
23/9/87	Abermain P.S.	H.	Classrooms	12,000
5/10/87	Glossodia P.S.	M.W.	Canteen	500
23/10/87	Balina H.S.	N.C.	Classrooms	85,000
23/10/87	Ingleburn P.S.	M.SW	Classroom	2,500
7/11/87	Chester Hill P.S.	M.SW	Garden Shed	14,000

DEPARTMENT OF EDUCATION

DIRECTORATE OF PROPERTIES

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SCHOOL FIRES 1/7/87 30/6/88

<u>DATE</u>	<u>SCHOOL</u>	<u>REGION</u>	<u>LOCATION</u>	<u>ESTIMATED COST (BUILDING ONLY)</u>
7/11/87	Daceyville P.S.	M.E.	Main Block	210,000
15/11/87	Forest Glen P.S.	M.N.	Classroom	20,000
23/11/87	Ingleburn P.S.	M.SW	Classroom	3,000
11/11/87	Georges Hall P.S.	M.E.	Storeroom	3,800
9/11/87	Newtown North P.S.	M.E.	Canteen	5,000
1/11/87	Tamworth H.S.	N.W.	Science Prep. Room.	70,000
9/11/87	Kincumber P.S.	M.N.	Resource Storeroom	5,000
22/11/87	Blacktown G.HS	M.W.	Doorway	200
2/12/87	St. Mary H.S.	M.W.	Classroom	2,000
6/12/87	Miller P.S.	M.SW	Demountable	40,000
3/12/87	Cambridge Park H.S.	M.W.	Rubbish only	Nil
13/12/87	Carlingford West P.S.	M.W.	Classrooms	200,000
16/12/87	Bankstown B.HS	M.SW	Classroom	700
4/12/87	Albion Park P.S.	S.'C.	Classroom	5,000
6/12/87	Brewarrina C.S.	N.W.	Principal's Office	10,000
7/12/87	Concord H.S.	M.E.	Library	3,000
25/12/87	Lethbridge Park P.S.	M.W.	Classroom	Nil
25/12/87	Shalvey H.S.	M.W.	Admin.	50
26/12/87	Marrickville H.S.	M.E.	Unoccupied Residence	10,000
31/12/87	Wiley Park G.HS	M.E.	Demountable	3,000
2/1/88	Lethbridge Park P.S.	M.W.	Classroom	200
17/1/88	Baulkham Hills North P.S.	M.W.	Library	300,000
29/1/88	Shalvey P.S.	M.W.	Classroom	15,000
4/1/88	Grafton South P.S.	N.C.	Classrooms	48,000
4/1/88	South Grafton H.S.	N.C.	Admin.	1,500
7/2/88	North Rocks P.S.	M.W.	Classrooms	650,000
3/2/88	Randwick B.HS	M.E.	Storeroom	3,500
8/2/88	Castle Hill P.S.	M.W.	Library	1,000
24/2/88	Glenwood P.S.	M.SW	Demountable	55,000
28/2/88	Hannans Road P.S.	M.E.	Admin.	55,000
3/3/88	Randwick B.HS	M.E.	Block F.	500
6/3/88	Annandale P.S.	M.E.	After School Care Room	200
19/3/88	Guildford P.S.	M.W.	Portable Classroom	120,000
23/3/88	Wiley Park G.HS	M.E.	Classrooms	500
23/3/88	Batemans Bay P.S.	M.N.	Demountable	3,000
26/3/88	Gosford H.S.	M.N.	Science Lab.	5,000
2/4/88	Lansvale P.S.	M.SW	Library	80,000
8/4/88	Fairfield P.S.	M.SW	Classroom	60,000

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DIRECTORATE OF PROPERTIES**

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SCHOOL FIRES 1/7/87 - 30/6/88

<u>DATE</u>	<u>SCHOOL</u>	<u>REGION</u>	<u>LOCATION</u>	<u>ESTIMATED COST (BUILDING ONLY)</u>
3/4/88	Gorokan H.S.	M.N.	Classroom	20,000
15/4/88	Kanahooka H.S.	S.C.	Classroom	4,000
2/4/88	Gosford H.S.	M.N.	Science Lab.	1,000
6/5/88	Brisbania P.S.	M.N.	Portable Classroom	120,000
15/5/88	Sarah Redfern H.S.	M.SW	Staffroom	1,000
15/5/88	Whalan P.S.	M.W.	Classroom	500
15/5/88	St. Marys South P.S.	M.W.	Canteen	200
22/5/88	Ashfield P.S.	M.E.	Ablution Block	5,000
23/5/88	Strathfield G.HS	M.E.	Assembly Hall	600
23/5/88	Miller H.S.	M.SW	Science Block	1,000
4/6/88	GyMEA Bay P.S.	M.E.	Canteen	45,000
10/6/88	Seven Hills H.S.	M.W.	Science Block	1,000
19/6/88	Westmead P.S.	M.W.	Storerroom	25,000
28/6/88	Bondi P.S.	M.E.	Staffroom	120,000

\$10,171,000

REGIONAL SUMMARY

<u>REGION</u>	<u>NO.</u>	<u>OF</u>	<u>FIRES</u>	<u>ESTIMATED COST (BUILDINGS ONLY)</u>
Metropolitan East	(ME)	20	'	740,600
Metropolitan North	(MN)	9		777,500
Metropolitan South West	(MSW)	19		763,700
Metropolitan West	(MW)	29		1,548,489
Hunter	(H)	1		12,000
North Coast	(NC)	3		134,500
North West	(NW)	2		80,000
Riverina	(R)			-
South Coast	(SC)	4		6,015,000
Western	(W)	1		100,000

\$10,171,000

Report on The Management of Arson in the Public Sector

APPENDIX 7

ORDINANCE 70

Ordinance 70 of the Local Government Act prescribes certain building standards for different classes of building. Compliance with these standards at the time of building generally adds to the cost of the building, in extreme cases by as much as 50% to 75% according to some industry estimates.

Amendments introduced to part 59 of Ordinance 70 require Local Government Councils to assess all building applications for new or altered buildings (other than dwellings) in terms of a schedule of essential services which include:

- Automatic sprinkler systems
- Drencher systems
- Emergency lifts
- Emergency lighting
- Emergency power supply
- Emergency warning and inter-communication systems
- Exit signs
- Fire alarm systems
- Fire dampers
- Fire doors
- Fire mains
- Fire shutters and fire windows
- Hose reels and hydrants
- Mechanical exhaust and other ventilation and air conditioning systems
- Portable fire extinguishers

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Further, Councils are required to:

- specify the minimum acceptable operational standards
- require a certificate from the building owner that equipment has been inspected and tested
- check compliance
- require regular certificates of operation on all equipment from the building owner every 12 months
- where certificates are not forthcoming, or where compliance is not satisfactory, take steps to ensure compliance

A number of issues arose concerning Ordinance 70 during PAC inquiries, including the following:

1. non compliance by some Government departments
2. the costs of compliance
3. the importance of compliance in some contexts (especially where life is threatened) but dubious benefits of compliance in other contexts (where there is no threat to life)
4. who should monitor compliance?
5. the costs of monitoring compliance

These matters have been referred to the Minister for Local Government and Planning for consideration in the Government's current review of Ordinance 70.