

*Performance Audit Report*

**Department of Housing**

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*Maintenance of Public  
Housing*

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## **Executive Summary**

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## Executive Summary

### **The Audit**

The Department of Housing (**DoH**) maintains over 130,000 public housing units valued at around \$17 billion.

The audit examined the management of the maintenance function at head office and three regions of DoH.

Among other matters, the audit reviewed the way in which standards and improvement targets have been set, the availability and use of information to plan and generally manage maintenance and the implementation of a program of maintenance reform.

### **Backlog of Maintenance**

DoH has accumulated a backlog of maintenance estimated to exceed \$750 million. The backlog is the consequence of both insufficient planning and funding in the past over many years. In addition DoH has assessed its costs of long term fire and safety upgrading as \$350 million.

Forward projections by DoH also show that despite significantly increased expenditure on maintenance since 1995, the backlog of maintenance (including emerging health and safety issues) will continue for the foreseeable future.

### **Audit Opinion**

**In recent years DoH has made a major effort to improve both the quality of service to tenants and its processes for maintenance. In addition, the funding for maintenance has also been increased.**

**There is, however, a need to ensure that the maintenance of assets is adequately planned for and funded from the start. Without adequate maintenance, the value of an asset will deteriorate more rapidly and can result in significant losses.**

**The Audit Office has no reason to believe that this would not be the case in respect of the housing stock maintained by the DoH.**

**Apart from the issue of funding, however, the planning for maintenance, including management information to support planning, had not been well managed by the Department in the past. Whilst major steps have been taken recently, there are still areas where attention is required.**

**DoH needs to give greater emphasis to completing property condition surveys in order to improve the way in which maintenance is planned and organised.**

**There is also a need for DoH to establish a performance reporting framework in order to assess the efficiency and effectiveness of the maintenance function in an objective way. The framework should benchmark maintenance across regions and with public housing authorities in other States.**

**The audit opinion is based on the following findings.**

### **Audit Findings**

#### **Initiatives**

DoH has established property standards, a centralised call centre, improved maintenance contracts and improved systems. Expenditure on maintenance has increased significantly in order to remove an accumulated backlog of maintenance work.

#### **The Backlog**

DoH, however, faces declining income and uncertainty of capital funding. The projected maintenance expenditure is unfunded and indications are that the maintenance backlog will not be eliminated for the foreseeable future.

DoH's options for the future would include, but are not limited to:

- realising efficiencies elsewhere in its operations
- increasing funding from other sources, for example, seeking reimbursement from the Government for reductions in income associated with rental rebates granted to tenants on low incomes.

The South Australian Housing Trust and the Queensland Department of Housing are progressively reducing public housing stock to a level that enables maintenance to be adequately funded.

#### **Planning for Maintenance**

The benefits of planned and regular maintenance include an increased service life for the components of a property, early identification and correction of deficiencies, and lower maintenance costs over the life of the asset.

DoH conducts minimal planning for property maintenance. There are few, if any, plans that describe the condition of each property, the work needed to be done in future years, its planned timing and estimated cost.

*Property Condition*

The assessment of property condition should drive maintenance planning including the provision of funding. DoH has developed comprehensive standards to assess the condition of properties. It is currently undertaking an assessment of property condition, based on a survey that seeks information on matters requiring immediate attention. An alternative method of assessment, which was attempted but discontinued by DoH, provides for a more comprehensive assessment of property condition.

The limited information on property condition currently available to DoH has tended to inhibit the process for the allocation of available funds to maintenance.

**Management Information**

DoH needs specific information so that it can manage maintenance more efficiently and effectively.

Whilst existing systems are being modified by DoH, and reports are being developed to better support the management of contractors and maintenance, DoH would benefit from a system that:

- supports maintenance planning and actively manages the progress of works orders through to completion
- provides progress reports to management against time and budget.

**Contract Management**

DoH has improved its contract management, including the development of standard specifications, standard conditions of tendering and contract, code of conduct for contractors contract administration guidelines, contractor performance systems and audit procedures.

DoH would, however, likely improve value for money from contractors by relying more on quoted costs to undertake work rather than a predetermined 'schedule of rates' (as set out in the contract).

Additionally, the new contract models need to be monitored and assessed. Benchmarking is suggested to establish whether the new arrangements lead to lower costs and improved tenant satisfaction.



Other contract models exist, such as the facilities management approach used for New South Wales schools now being trialed by Housing New Zealand (which involves a performance based contract).

**Quality Assurance** There are inherently many opportunities for inferior work or over-claiming in the building industry, particularly when using small contractors on a 'schedule of rates' basis of payment.

The move to bigger contractors with their own quality systems should assist in improving quality assurance.

Using a risk management approach DoH has established procedures for checking work undertaken by contractors. These procedures are not always followed and the required checks are not always undertaken.

**Performance Reporting** The monitoring of property maintenance services is based largely on reports of activity and expenditure against budget allocations.

There is limited performance reporting for maintenance or benchmarking of maintenance functions within regions and across DoH.

As a consequence, management of DoH is not able to currently assess the efficiency and effectiveness of its maintenance function in an objective way.

## **Recommendations**

### **It is recommended that DoH:**

#### **Funding**

Ensure that the maintenance requirements for public housing are identified, reported and adequately funded. To that extent:

- all options need to be identified and considered to support the funding of maintenance
- planning should proceed on the basis that all premises need to be maintained in a reasonable state of repair, and DoH needs to be in a position to assure the public to that effect
- annual financial statements should state the extent to which the provision (for maintenance) is adequate or not adequate, and any shortfall, for the maintenance of properties to a reasonable state of repair.

#### **Planning**

Establish a regime of planned maintenance, including the:

- conduct of at least one complete independent condition assessment of each property, using qualified surveyors, and provide regional staff with a clear means of prioritising maintenance works within available funds
- full documentation of maintenance histories of each property
- development of maintenance plans for a 5 to 10 year period for each property group or type
- development of strategic asset plans for a 15 to 20 year period covering all properties, including consideration of upgrading versus replacement of properties
- review of information needs to pro-actively manage maintenance works and assess the feasibility of upgrading existing systems, or alternatively moving to new systems.

**Contract Management**

Further improve contract management, including:

- limiting ‘schedule of rates’ contracts to responsive maintenance
- controlling more tightly the work by large contractors across a number of zones and regional boundaries
- monitoring and assessing the new contract models to establish whether lower costs and improved tenant satisfaction have resulted (a performance based facilities management contract should be considered for comparison purposes)
- using a risk management approach, the work of contractors needs to be more adequately checked against maintenance requirements.

**Performance Reporting**

Improve performance measurement and reporting by:

- providing a means of more readily assessing the efficiency and effectiveness of its maintenance function
- implementing a common performance reporting framework, including the benchmarking of maintenance functions across DoH regions and with the public housing authorities of other States.

## Response from the Department of Housing

I refer to your letter of 8 March 2001 enclosing the Performance Audit Report on Maintenance of Public Housing, conducted by the Audit Office under section 38C(2) of the Public Finance and Audit Act 1983.

I am please to be able to provide this formal response to the report.

The Department of Housing provides long term, secure and affordable housing for more than 130,000 predominantly disadvantaged households. Each year approximately 10,000 new applicants are housed and in addition over 40,000 households are assisted in the private rental market. In 1999-2000 the Department provided housing support to over 400,000 people in need.

The Department's asset base comprises over 130,000 dwellings valued at \$17 billion. Asset and tenancy management are core functions and are integrated in day-to-day operations.

The purpose of the NSW Department of Housing is to

*work in partnership with the community to supply and sustain safe, decent and affordable housing for people on low incomes, and enable people in need to create environments where they live with dignity, find support and make sustainable futures.*

The Department has four principal objectives which guide and direct its operations

- Assisting those with priority needs
- Building successful tenancies and communities
- Creating viable and efficient services
- Diversifying local housing responses.

The Department receives income from two main sources, the Commonwealth State Housing Agreement (CSHA) and rental revenue. Historically, CSHA funds have been used to add new dwellings to the portfolio, over 2000 dwellings per year, while net rental revenue following rebates to low income tenants of \$578M per year has funded council and water rates, loan repayments, maintenance of the portfolio and administrative costs.

Over the past decades the maintenance of houses has been a secondary consideration to the increase in supply of new houses to meet increasing demand. This situation was compounded by maintenance being treated as a balancing item in the operating budget. As rental receipts reduced as a result of increasing rental rebates to needy tenants the maintenance budget suffered.

There is now a significant maintenance backlog arising from historic underfunding of maintenance liabilities, and a legacy of large, high concentration estates which are particularly unsuited to provision of housing and related services to the Department's increasingly complex customer base.

Over the last few years the Department has balanced the pressure for new housing assistance with the need to maintain and improve the existing asset base. Increasingly, funds have been diverted from adding new supply to improving homes.

The Audit Office report acknowledges both the contribution to the Department's maintenance backlog arising from insufficient funding in the past over many years, and the increasing expenditure on maintenance since 1995. The report finds the Department faces declining income and uncertainty of capital funding: the maintenance backlog is unlikely to be eliminated in the foreseeable future.

Within these funding constraints, as the Audit Office report acknowledges, in recent years the Department has made a major effort to improve both the quality of service to tenants and its processes for maintenance. The report notes the Department has established property standards, a centralised call centre, improved maintenance contracts and improved systems, as well as significantly increasing maintenance expenditure. The large scale of these reforms requires an incremental approach to the management of change.

The report makes a number of findings and recommendations about planning and support systems for maintenance, and notes the limited information on property condition currently available to the Department has tended to inhibit the process for allocation of available funds to maintenance. It acknowledges the Department has developed comprehensive condition standards, as the platform for enabling improved maintenance planning, and is currently undertaking an assessment of property condition.

The Department is currently surveying all of its 130,000 dwellings against its standards. Development of tools to analyse the extent to which properties comply with the standards, estimate the cost of bringing them to standard and predict future costs for repair and replacement over time is nearing completion. These together with long term Asset Management Plans for Public and Community Housing, medium term asset management planning as part of the annual business planning cycle, and more detailed local area planning, are allowing the Department to establish an appropriate regime of planned maintenance.

In addition, the Department is developing asset decision support tools that will measure and analyse financial and non-financial indicators of property performance to assist in sound asset planning, resource allocation, program formulation and property level decision-making.

The report recommends the Department review its maintenance management information needs and improve its performance measurement and reporting. The Department accepts the need to continuously improve its measurement and reporting of asset and maintenance liabilities and performance. As the report acknowledges, existing systems are being modified and reports developed to better support the management of contractors and maintenance.

It is pleasing to note the report acknowledges the Department has improved its contract management, including the development of standard specifications, standard conditions of tendering and contract, code of conduct for contractors, contract administration guidelines, contractor performance systems and audit procedures. This is a process of continuous improvement, framed to suit the Department's contracting arrangements as they develop.

In addition, e-mail is now used for the delivery of orders and receipt of claims. Payments to responsive maintenance contractors are made by electronic funds transfer. Most of these orders can be sent and claimed directly through the Housing Call Centre.

The Department is currently reviewing its contract management framework to address a number of issues including the management of large contracts that span a number of local or regional areas. Current contract models are under review and new models are under consideration.

The report notes the many inherent opportunities for inferior work or over-claiming in the building industry. The Department's risk management approach to providing assurance that contractors have complied with work requirements is acknowledged. The Department is in the process of implementing a number of strategies to improve performance in this area.

The Department is continuing to develop its maintenance performance measurement and reporting capability. Customer satisfaction with property condition and maintenance services is measured through annual customer satisfaction surveys. The current condition survey of the Department's portfolio will provide a baseline for measurement of future improvement in property condition. In addition, the Department is reviewing its corporate performance indicators, of which asset and maintenance performance indicators are a subset.

In conclusion, the Department is committed to continuously improving the efficiency and effectiveness of its maintenance functions as a key element of its drive to ensure high quality service delivery and asset sustainability, in an environment of funding uncertainty. The initiatives currently under development together with those already in place will ensure the Department's maintenance operations achieve the best outcomes possible.

*(Signed)*

Andrew Cappie-Wood  
Director General  
Department of Housing

Dated: 28 March 2001

# **1. Introduction**

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## 1.1 Introduction

### Public Housing

The term 'public housing' used in this report describes those dwellings:

- rented to low and moderate income earners
- owned (or leased) by the New South Wales Department of Housing (DoH)
- administered by DoH.

The value of the housing stock owned by DoH is estimated to be around \$17.0 billion as at 30 June 2000.

### Public Landlord

New South Wales is the largest provider of public housing compared to other States and Territories in Australia.

The following table shows that New South Wales maintains public housing at twice the rate of the next most populous States.

<b>Households Occupying Public Rental Housing<sup>1</sup></b>		
	<b>Number (1998-99)</b>	<b>Percent of Total Households (1996)</b>
New South Wales	131,196	5.6%
Victoria	69,406	3.4%
South Australia	58,148	9.8%
Queensland	57,071	3.9%
Western Australia	36,565	5.1%
Tasmania	15,560	7.3%
Australian Capital Territory	12,823	10.3%
Northern Territory	8,933	14.3%

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<sup>1</sup> Steering Committee for the Review of Commonwealth/State Service Provision, *Report on Government Services 2000*, vol 3, sec 15.A2. and 15A.3



## **Distribution**

In New South Wales, public housing comprises:

- detached houses (around 45 per cent)
- ‘semi’s’ and other attached housing (around 18 per cent).
- apartments (around 37 per cent).

Of the apartment distribution, approximately 10 per cent are high-rise - located mainly in the Central Sydney areas of Redfern, Surry Hills, and Waterloo.

The properties range in age from new to over 50 years old:

- 46 per cent up to 20 years old
- 39 per cent between 20 to 40 years and
- 15 per cent over 40 years old.

## **1.2 Maintenance Needs and Expenditure**

### **Needs**

DoH identifies the need, and estimates of proposed expenditure, for maintenance by:

- inspection of tenanted and vacant properties
- using a ‘life-cycle cost’ based assessment
- using a formula approach
- general estimates by field staff.

Also tenants may request maintenance by contacting the Call Centre established by DoH (which responds on a 24 hour basis) or by contacting their local DoH client service team.

There are a number of factors that influence maintenance and refurbishment requirements. These include:

- the age of properties and type of construction
- the standards to which properties are to be maintained
- the condition of the properties.

### **Maintenance Work and Expenditure**

DoH places around 50,000 maintenance works orders a month and engages around 2,000 contractors annually to carry out maintenance.

Over the last five years expenditure on maintenance and upgrading has increased to around \$250 million per annum or \$2,000 per dwelling.

### 1.3 Mutual Obligations

#### DoH

DoH has a responsibility to ensure that its portfolio of public housing property is well maintained, aligned to the needs of its tenants, and financially sustainable.

As a landlord, DoH is obliged to provide a safe, secure and healthy living environment for its tenants. In particular DoH is responsible for:

- undertaking repairs to ensure properties are clean and fit to live in
- maintaining properties in reasonable repair
- maintaining and cleaning common areas.

#### Tenants

Tenants are responsible for:

- the cleanliness of premises
- damage caused (including notification of damage)
- leaving the premises in the same condition at the end of tenancy as the commencement apart from reasonable wear and tear.

### 1.4 Tenant Dissatisfaction

Concerns have been expressed about the adequacy of public housing maintenance in New South Wales for many years:

Complaints about day-to-day repairs were the main concern of the tenant representatives with whom I met during the course of the Inquiry. Problems included delays, poor workmanship and safety hazards.<sup>2</sup>

#### Surveys

Customer surveys indicate a high proportion of tenants have been dissatisfied with the condition and maintenance of their homes, despite significant increases in funding for repairs and maintenance. Based on a recent survey:

- 22% of tenants were dissatisfied with the condition of their homes
- 33% of tenants were dissatisfied with the provision of non-emergency maintenance
- 21% of tenants were dissatisfied with the provision of emergency maintenance services.<sup>3</sup>

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<sup>2</sup> Inquiry into the Department of Housing, *Report of Commissioner John Mant*, 20 November 1992 p33.

<sup>3</sup> Donovan Research, National Survey of Customer Satisfaction with Public Rental Housing Assistance, Report to Commonwealth Department of Social Security, December 2000 p29.

## 1.5 Reform

By 1995 the Government had recognised tenant dissatisfaction as a major issue and moved to increase significantly expenditure on maintenance:

As a result of inadequate maintenance provision in the past, accumulated maintenance liabilities are now a major issue, requiring a significant increase in funding.

Already the Government has moved to increase maintenance expenditure in 1995/96 by 13% to \$93 million. The Government will systematically increase expenditure on maintenance to \$120 million per annum by 1997–98, and continue to bring expenditure up to the industry rule of thumb of an average of 1.5% of the replacement value of the housing stock.<sup>4</sup>

By the mid 1990s it was determined that a new approach to maintenance was necessary:

In the past, the emphasis has been on simply increasing the supply of public housing. This emphasis has meant neglecting maintenance for existing tenants and allowing the existing housing to get older and run down. There has been no attempt until recently to adjust the existing assets to better match current needs.<sup>5</sup>

### **Rebuilding Maintenance Project**

In 1996 DoH commenced its *Rebuilding Maintenance* project consisting of a number of stages:

- establishing a centralised Call Centre providing one telephone number for tenants requiring maintenance services
- immediate improvement to the systems and procedures, eg printing orders after hours to speed up the process and staff giving tenants job numbers
- development of a maintenance manual for Call Centre operators and client service staff
- a review of all contractor performance and maintenance contracts.<sup>6</sup>

This was followed by the development of a strategy to increase the proportion of planned maintenance work and the use of major contracts, with maintenance needs being determined using condition standards and condition assessment of properties.

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<sup>4</sup> NSW Government, Housing Policy Green Paper, December 1995 p16.

<sup>5</sup> NSW Government, Housing Policy Green Paper, December 1995 p6.

<sup>6</sup> NSW Department of Housing, Annual Report, 1996–97 p14.

## **Blueprint**

In 1997 DoH issued its *Blueprint* for reform, which included:

The production of a planned maintenance module by June 1999 which will have the following features:

- condition assessment of all properties
- cyclic maintenance programs with corresponding contracts
- the re-tendering of all maintenance and upgrading contracts by December 1998.

Continued funding of maintenance at 1.75% of the value of the asset to address past under investment.

Implementation of a five year refurbishment program to bring older dwellings with disproportionately high maintenance liabilities in line with life cycle maintenance programs.<sup>7</sup>

## **Accelerated Improvement Project**

The development of a major “catch-up” program (known as the *Accelerated Improvement Project*) was seen as essential if DoH was to break the cycle of responsive and unplanned maintenance.

It would appear that the key problem confronting the Department at present is that a significant number of our properties fall well below these standards due to the past neglect in maintenance expenditure. Every time we try to address this problem we eat into our maintenance funds.<sup>8</sup>

## **Maintenance Improvement Project**

In 1998–99 DoH began work on a *Maintenance Improvement Project* which included the following aims:

- a reversal of the current 80:20 ratio of responsive to planned maintenance
- properties brought to an agreed standard as quickly as possible
- improved performance-based maintenance contracts and clear contract management guidelines.<sup>9</sup>

## **Client Service**

DoH has also committed to client service to its tenants, that includes:

- all property management and maintenance will comply with the Residential Tenancies Act
- urgent maintenance, eg sewerage problems, unsafe electricity, etc. is responded to within 24 hours
- all clients will have access to a formal complaints and feedback system.<sup>10</sup>

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<sup>7</sup> NSW Department of Housing, *Overview March 1999* p62-63.

<sup>8</sup> Department of Housing, *Regional Operating Plan Guidelines 1998/99*, App3 p4.

<sup>9</sup> Department of Housing, *1998–99 Annual Report*, p18.

<sup>10</sup> NSW Department of Housing, *Commitment to Service*, information leaflet.

## **2. Funding Maintenance**

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## 2.1 Allocating Funds for Maintenance

For many years DoH funded maintenance after all other commitments had been met.

The maintenance budget was, as a consequence, often varied during the course of the year in order that DoH achieve a balanced budget. The following statement, from the Annual Report of DoH (1987–88) illustrates the practice:

A substantial amount of discretionary maintenance and planned upgrading was carried out in the first half of the year. Following a half-yearly budget review, the program was adjusted to concentrate on necessary or non-discretionary repairs and maintenance allowing the Department to meet budget targets for the year.<sup>11</sup>

### Funding Requirements

DoH has projected its short to medium term known and estimated commitments as:

- \$200 million annually to maintain existing housing stock plus
- \$160 million annually (estimated until 2006–07) to substantially eliminate the backlog of maintenance work and other health and safety liabilities.

### Condition Audit

DoH has yet to conduct a full audit of the condition of properties.

For this purpose DoH is developing an approach for the use of condition assessments and modelling of long term maintenance requirements so that estimates of maintenance will be more reliable.

The lack of dwelling maintenance histories and the difficulty of assessing dwelling condition are obstacles to more accurately estimating maintenance liabilities. Introduction of the Integrated Housing System Maintenance Module with condition assessments will progressively clarify maintenance liabilities and improve the reliability of future estimates.<sup>12</sup>

The assessment of properties is discussed more fully at section 3.4 *Property Condition*. The means of identifying required maintenance is described in section 1.2 *Maintenance Needs and Expenditure*.

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<sup>11</sup> NSW Department of Housing, Annual Report 1987/88 p23.

<sup>12</sup> NSW Department of Housing, *Public Housing Asset Management Plan 1999 – Edition 1* p13.

**Benchmarks**

The National Public Works Council, based on a study of 1,000 identical houses, estimated the annual maintenance cost as a percentage of dwelling replacement cost for properties of varying age.

The percentage figures increase from 0.6 per cent pa for properties less than 10 years of age, to 2.3 per cent pa for properties more than 40 years of age.<sup>13</sup>

Using this approach, DoH has estimated routine maintenance to be \$200 million pa.<sup>14</sup>

**‘Backlog’**

The above formula, however, does not provide a means to estimate the level of funding to eradicate a ‘backlog’ of maintenance work. In this regard DoH has relied on regional estimates which suggest that the backlog exceeds \$750 million.

**Fire and Safety**

In 1997 the Australian Building Codes Board developed a performance-based building code for new building works (BCA96) which has been adopted by most States and Territories.

The code specifies a service, such as a fire detection and alarm system, and then specifies a performance requirement as a “deemed to satisfy” means of meeting the code.

Using the code DoH has assessed its costs of long term fire and safety upgrading as \$350 million.

**2.2 Expenditure**

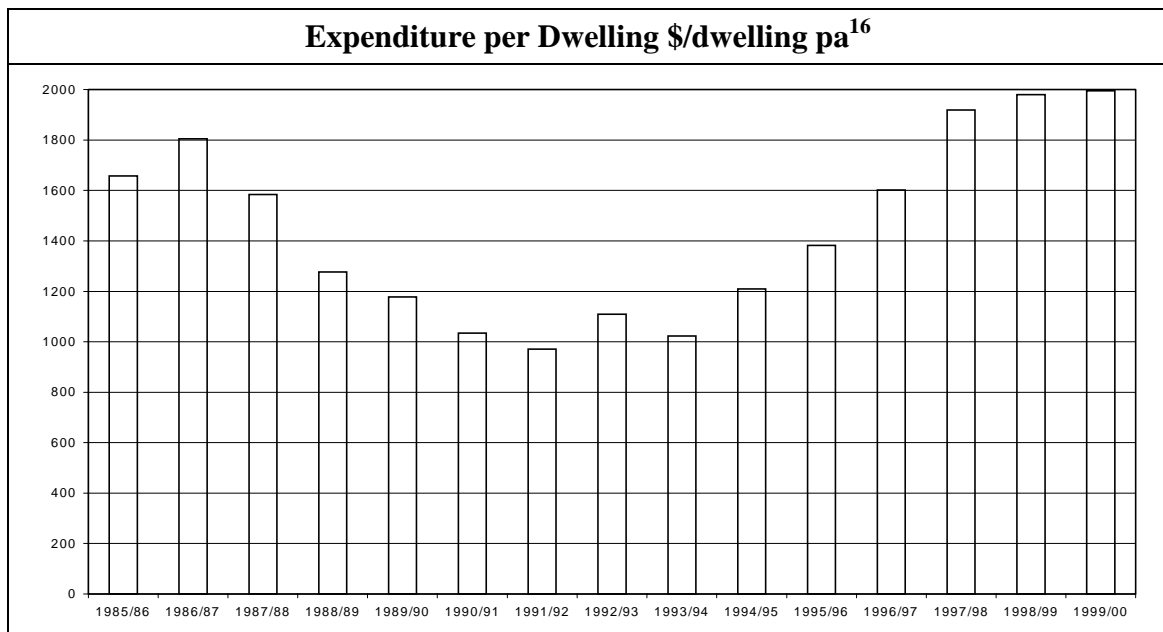
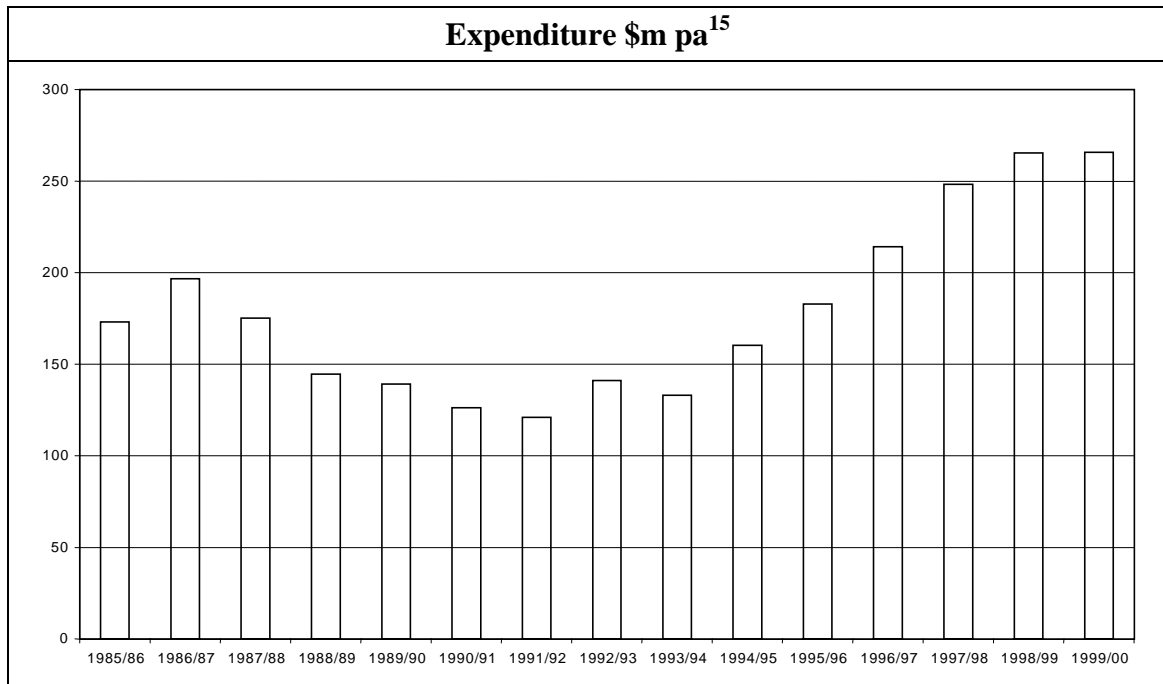
In recent years DoH has:

- doubled its annual real expenditure on ‘maintenance and upgrading’ to around \$250 million
- significantly increased the levels of maintenance expenditure from about \$1,000 to \$2,000 per dwelling in order to reduce the ‘backlog’ of maintenance work.

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<sup>13</sup> National Public Works Council, *Predicting Housing Maintenance Costs*, Asset Management Series Number AM-1-93

<sup>14</sup> DoH, *Public Housing Asset Management Plan*, 1999 tables 12, 13.



<sup>15</sup> Annual Reports of DoH showing expenditures for *maintenance, upgrading and neighbourhood improvement*, corrected for inflation using NSW private dwelling construction deflator, taken from the ABS quarterly State Accounts, with four quarters averaged to give annual numbers. The ABS index is based 1998–99 = 100.

<sup>16</sup> DoH Annual Reports showing expenditures for *maintenance, upgrading and neighbourhood improvement*, corrected for inflation using NSW private dwelling construction deflator, taken from the ABS quarterly State Accounts, with four quarters averaged to give annual numbers. The ABS index is based 1998–99 = 100.



**Shortfall**

DoH has estimated a substantial shortfall between the funding required for maintenance (assessed expenditure) and actual expenditure each year.

<b>Annual Shortfall between Assessed and Actual Expenditure <sup>17</sup></b>			
<b>Maintenance Type</b>	<b>Requirement \$m</b>	<b>Expenditure \$m</b>	<b>Shortfall \$m</b>
<b>Ongoing Maintenance</b>	200	153	47
<b>Maintenance Backlog</b>	130	80	50
• \$750 million (minimum)			
<b>Health and Safety</b>	30	10	20
• fire upgrading \$350 million			
• electrical wiring \$70 million			
<b>Total</b>	360	243	117

**2.3 Income**

DoH derives its income mainly from:

- rent and sales of properties
- the Commonwealth / State Housing Agreement.

Rents for public housing are nominally set at market levels.

However, rebates are provided to tenants on low incomes who are required to pay no more than 25 per cent of assessable income. Whilst the market rent for DoH's properties in 1999–2000 was assessed at around \$1.0 billion per annum, DoH received less than half this amount in rent (\$0.4 billion).

The rent receivable by DoH is declining, particularly in the longer term, as the proportion of tenants on low incomes increases.

Income from the sales of properties is limited to around \$40.0 million annually.

The Commonwealth / State Housing Agreement has been the source of capital grants to reduce the maintenance backlog. The Agreement, however, expires in 2003. Beyond this, there is uncertainty about the future and format of funding from the Commonwealth.

<sup>17</sup> DoH advice provided to the Audit Office 2 November 2000

## **2.4 Conclusion**

When assets are acquired by government agencies, there is a need to ensure that the maintenance of those assets, and the funding for their maintenance, are properly planned and provided for. Without proper maintenance the value of an asset deteriorates more rapidly than otherwise would and can result in significant losses which ultimately must be borne by the taxpayers.

In the case of housing stock held by the DoH, proper maintenance has not always been catered for. As a consequence, the backlog of maintenance, estimated by DoH, exceeds \$750 million. Additionally DoH has assessed its costs of long term fire and safety upgrading as \$350 million.

Despite a significant increase in expenditure in recent years, DoH management believes that the backlog of maintenance will not be eliminated in the foreseeable future.

DoH estimates that at the current rate of funding, the backlog of maintenance will not be eliminated for at least 20 years, and DoH has made representations to the Minister for Housing and to Treasury for additional funding to address the issue.

The problem is exacerbated by the fact that DoH faces an uncertain and challenging environment in regard to maintenance which is characterised by:

- uncertainty as to the actual condition of properties and the implications for the quantum of funds required to address the backlog of maintenance
- a declining revenue base and uncertainty of future income including capital funding under the Commonwealth / State Housing Agreement
- rising community standards, including health and safety issues
- the ever present risks of damage due to natural forces.

DoH's options to fund maintenance in the future would include, but are not necessarily limited to:

- developing contingency plans to provide a reasonable assurance that maintenance will be funded given the many uncertainties
- realising efficiencies elsewhere in its operations, so as to increase funding available for maintenance
- increasing funding from other sources, for example, seeking reimbursement from the Government for the losses associated with rental rebates (similar to the funding received by transport agencies for designated Community Service Obligations)
- assessing the cost implications of property standards (to be established by DoH).



### **3. Managing Maintenance**

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### 3.1 Organisation

#### Regions

DoH operates three regions in metropolitan Sydney, a Hunter region, and three regions spanning the north, west and southern areas of the State.

Most maintenance work is organised by regional client service teams and asset managers who, for example:

- raise 59 per cent of all works orders (or 31,836 works orders per month)
- expend 91 per cent of maintenance funds (or \$8.0 million per month)

The average cost of a works order is \$252.<sup>18</sup>

Tenants may undertake minor repairs in certain situations and be reimbursed by rental credit.

#### 'Resitech'

'Resitech' is an in house technical specialist group providing support services for construction, housing acquisition and major redevelopment of existing stock. For these activities, Resitech acts as a 'managing agent' for the regions.

DoH has moved towards establishing Resitech as a separate commercial entity. The intention is that Resitech should compete with external specialist groups for future DoH work.

#### Call Centre

Tenants may request maintenance by contacting a *Call Centre* established by DoH. The centre operates 24 hours a day although only emergency requests are actioned from 10pm to 7am. Tenants may alternatively contact their local DoH office for assistance. The *Call Centre*:

- raises 41 per cent of all works orders (or 22,061 works orders per month)
- expends 9 per cent of maintenance funds (or \$691,000 per month)
- requests 5,135 inspections per month or 61,620 per annum.<sup>19</sup>

The average cost of a works order issued by the Call Centre is \$31.

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<sup>18</sup> DOH Briefing to Contractors February 2000 (based on 5 month period in 1999).

<sup>19</sup> DOH Briefing to Contractors February 2000 (based on 5 month period in 1999).

**Strategic Asset Management Group**

The Strategic Asset Management group within Head Office has a policy development and oversight role for maintenance and is staffed by specialists.

The group's responsibilities include:

- establishing a strategic asset framework
- the management of the Maintenance Improvement Project
- the development of contract and project risk management policies
- strategically managing property related environmental and health and safety issues.<sup>20</sup>

*Audit Observations*

The Strategic Asset Management group is being restructured and many positions are not as yet filled. The group is believed to be currently under-resourced as evidenced by the fact that:

- many policies, systems and procedures are yet to be developed
- the means of planning and resourcing desired outputs and outcomes has to be defined
- the group has been unable to satisfy many of the responsibilities assigned to it, but maintenance reform is dependent on its efforts.

### **3.2 Asset Management**

Planned maintenance is considered fundamental to asset management and is an integral part of the overall planning cycle.

In this regard the Government has promulgated, throughout the public sector, various principles of asset management as outlined in the publication the *Total Asset Management Manual*. The manual focuses on the management of assets from a whole-of-life and system-wide perspective.

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<sup>20</sup> DoH, Directorate of Strategic Asset Management, position description for Executive Director 2000.

In accordance with the Government's *Total Asset Management Policy*, agencies are required to:

- develop asset maintenance plans that indicate the nature, timing and estimated cost of major periodic maintenance work
- set out maintenance programs for each asset or grouping of assets which focus on ensuring that the assets continue to support the planned delivery of services
- identify any deferred maintenance requirements
- establish a funding plan.

Apart from the Government's *Total Asset Management Manual*, DoH has prepared a range of documents which describe its overall approach to asset planning. These documents are summarised in Appendix 6.2.

### **3.3 Property Standards**

DoH has developed a number of property standards in order to establish a consistent approach to asset planning.

The standards describe what constitutes a fair condition for over 100 components of a property.

Each component is described in terms of meeting, nearly meeting or failing the condition standards when assessed for safety, function and finish, [referred to as "critical", "essential" and "acceptable" respectively in the DoH Asset Standards Manual].

DoH has defined a 'maintained dwelling' as one where:

- there is full compliance with the critical and essential standards, and
- less than 1% of items are classed as 'not meeting' the acceptable standards, and
- less than 5% of items are classed as 'nearly meeting' the acceptable standards.<sup>21</sup>

Other standards relate to the provision of items, the functioning of the dwelling and the amenity of the area.

DoH will measure compliance of its asset base with these condition standards and a basic provision standard.

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<sup>21</sup> DoH, Property Survey Mart manual, p3.



DoH has developed business rules for the asset standards which require an immediate response to safety issues, a timely response to function failures, and a discretionary response to finish [stains, discolouration, etc]. Documentation and training in the use of the standards was first provided to staff in 1999.

### 3.4 Property Condition

#### Legislation

The Residential Tenancies Act 1987 requires DoH to maintain its premises in '*a reasonable state of repair*'. However, the Act does not define the term, nor describe the new requirements for such matters as fire upgrading.

DoH is establishing its own standards to meet the criterion of '*a reasonable state of repair*'. The financial impact of complying with the standards is not known.

#### Audit Observation

In view of the extensive backlog, DoH needs to consider how it can demonstrate that it meets the requirements of the Residential Tenancies Act 1987 to maintain its premises in '*a reasonable state of repair*'.

#### Regular Inspection

One of the benefits of regular inspection is the ability to identify more readily what is normal wear and tear, and what is not. Anecdotal evidence suggests the incidence of tenant damage is significant.

#### Condition Assessment Project

In July 1995 DoH commenced a *Condition Assessment Project* which involved the inspection of approximately 10,000 properties by five private firms.

The properties were selected to include statistically valid samples so that the results could be extrapolated across all DoH properties. Private quantity surveyors specified costings for the work required.

This assessment estimated that the maintenance liability was:

- approximately \$713 million
- plus an additional \$172 million for building code fire requirements
- plus undetermined amounts for responsive and common area costs such as cleaning and lawn mowing<sup>22</sup>.

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<sup>22</sup> Department of Housing, Condition Assessment Project, *Report on Project Development and Pilot Data Collection*, June 1996 p3.

A cost benefit analysis was to be carried out to determine the options for advancement of, and the time frame for, extending the condition assessment to all DoH properties.<sup>23</sup>

The project was included in the IT Strategic Plan:

#### **Condition Assessment**

This project will be developed to enable property condition data to be recorded and utilised for forward planning. It will also involve integration with systems such as CMS to ensure that condition data is automatically updated when work is carried out on the property.<sup>24</sup>

The *Condition Assessment Project* was subsequently abandoned. DoH has advised the Audit Office that one reason for this was that it did not have a suitable IT platform on which to load the data.

**Limited Assessment** In 1999 DoH introduced a more limited form of assessment. It designed a survey form to be completed by its client service officers. The survey asks, for each 'component' of a property whether it meets, 'nearly meets', or fails to meet the standards for safety, function and finish.

DoH has also developed a model to estimate the cost to rectify identified failures that are neither critical nor essential. The estimates of costs are based on DoH's 'schedule of rates' and compared with surveyor's estimates. The model assumes that failures which are critical or essential have been rectified.

DoH is also developing a 'predictive model' to provide longer term cost projections by modelling factors that influence future asset expenditure.

This includes geographic location of an asset, asset type and number (properties and buildings), asset components, component life cycles, component age and component cost. DoH technical staff has provided the life cycles used in the predictive model.

DoH intends that an accredited third party will be engaged to review the costs and life cycle time periods.

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<sup>23</sup> Department of Housing, Condition Assessment Project, *Report on Project Development and Pilot Data Collection*, June 1996 p25.

<sup>24</sup> DoH, IT Strategic Plan 1995/99 p9

Resitech conducts an assessment of the work to be done on properties selected for the *Accelerated Improvement Program*, but this does not assess the need for future work.

*Audit Observations*

The 1995–96 *Condition Assessment Project* provided extensive information in terms of planning future maintenance, including the state of deterioration and assessed times for programmed maintenance, but was restricted to a sample of properties.

The more limited 1999 assessment is easier to administer. However, aside from identifying critical/essential failures for responsive maintenance, it provides only limited information for planning maintenance.

It does not assess and record for each component the time remaining until programmed maintenance is necessary and the estimated cost. It records only those components that have 'failed' or 'nearly failed' - more useful if focusing on a responsive 'fix when fail' approach.

The modelled costs will not include actual expenditure and actual conditions. The risk is that the modelled costs may not be sufficiently accurate, particularly at the local level.

### 3.5 Maintenance Programs

DoH has organised its maintenance and upgrading work into several distinct programs, each with a defined source of funds.

The programs reflect budget categories and distinguish between works that can be funded from income and those that can be funded from capital grants. The programs are outlined in more detail in Appendix 6.3.

<b>Maintenance Programs within DoH<sup>25</sup></b>		
<b>Program</b>	<b>Description</b>	<b>Funding Source</b>
<b>Repairs and Maintenance</b> Responsive Maintenance	Urgent, priority or necessary repairs to dwellings, generally in response to tenant request and carried out by schedule rate contractor on order raised by call centre or client service team.	Rent
Service	Maintenance of property components requiring servicing to a predetermined frequency (eg low risk: common area maintenance; high risk: fire protection, lift maintenance).	Rent
<b>Improvement</b> Planned	Maintenance or replacement of property components that are deemed to have reached the end of their effective life, or which have fallen below a maintained state.	Capital
Accelerated	Major one off project to bring dwellings with accumulated maintenance backlogs to a maintained state.	Capital
Special Projects	Major one off projects which are necessary in response to changing laws, regulations, community expectations or Departmental policy. (includes estate infrastructure)	Capital
Disability	Works required to enable a dwelling to be utilised by disabled occupants.	Capital

<sup>25</sup> NSW Department of Housing, *Public Housing Asset Management Plan 1999 – Edition 1* p19.

### 3.6 Maintenance Planning

**Benefits**

The benefits of planned maintenance include an increased service life for the components of a property, early identification and correction of deficiencies, and lower maintenance costs over the life of the asset.

**Responsive Maintenance**

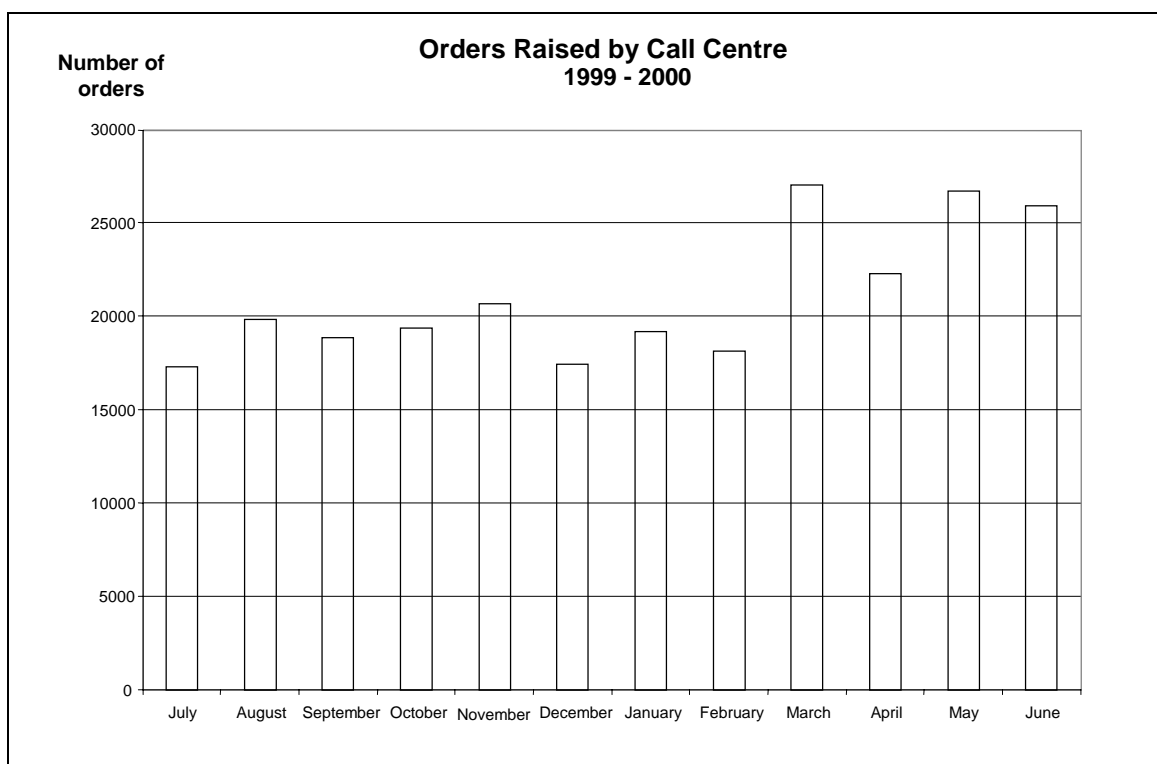
DoH acknowledges that its maintenance work tends to be responsive rather than planned. For example:

- maintenance is predominantly undertaken in response to requests from tenants
- there is no mechanism for analysing and prioritising maintenance
- client service teams are not able to compare relative maintenance priorities
- work is assessed on an ‘order by order’ basis rather than globally
- spending the maintenance budget has been seen as the objective, rather than planning for maintenance
- vacant properties are seen as an opportunity to improve the property.<sup>26</sup>

The Call Centre (which deals with responsive maintenance) is issuing a greater number of works orders.

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<sup>26</sup> Department of Housing, *Maintenance Improvement Project*, 1999.



The difficulties experienced by regions that contribute to the level of reactive maintenance include:

- client service teams relying on program funding intended for responsive maintenance, instead of identifying works that could be funded under the planned works program
- the cost of the new round of responsive maintenance contracts has increased approximately 20 per cent (partly for improved occupational health and safety requirements)
- there has been a lack of understanding by client service teams of the role of single, compared to multi-trade, contractors. The latter attract a significant premium.

Responsive work tends to be more costly compared to planned works as it involves multiple call outs (and call out fees) and is, therefore, not efficient.

In 1998–99 DoH began work on a *Maintenance Improvement Project*. One of its objectives is ‘a reversal of the current 80:20 ratio of responsive to planned maintenance’.<sup>27</sup>

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<sup>27</sup> Department of Housing, *1998–99 Annual Report*, p18.

The intention is that all dwellings will be subject to maintenance plans, based on condition assessment:

All dwellings will be subject to maintenance plans, including condition assessment integrated with IHS, ensuring that long term maintenance liabilities are monitored and contained and that improvements to dwellings keep pace with changing regulations and community expectations.<sup>28</sup>

Government guidelines also require that tasks be ranked in order of priority as it is unlikely that funds will be available to carry out all maintenance:

The maintenance tasks are then ranked in order of priority. It is unlikely that funds will be available to carry out all the desired maintenance tasks and therefore the more important tasks should be identified.

List the criteria which determine the importance and urgency of maintenance. These may include:

- statutory
- occupational health safety and rehabilitation
- social
- commercial

The maintenance tasks are then evaluated and ranked against these criteria with an agency-wide perspective to remove regional or operational unit bias.<sup>29</sup>

*Audit Observations* The present practice of mainly responsive maintenance falls short of the intent of the *Maintenance Improvement Project* and does not comply with government guidelines as set out in the *Total Asset Management Manual*. For example:

- regional allocations for the maintenance category of planned maintenance are being reduced, not increased
- new contracts for accelerated improvement work are being called on the basis of 'schedule of rates', not lump sum tenders based on planned packages of work.

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<sup>28</sup> NSW Department of Housing, Public Housing Asset Management Plan 1999 – Edition 1 piii.

<sup>29</sup> NSW Government, *Total Asset Management manual, Asset Maintenance*, sec 4.

DoH conducts minimal property maintenance planning, as evidenced by:

- there is as yet limited use of property surveys to plan or prioritise work (maintenance continues to be dictated by available funds)
- there is no system that analyses and lists future works in priority order for regions with limited funding (regions tend to concentrate on older areas)
- there are few property maintenance plans even though some properties contain large building complexes
- planned work tends to include bathrooms, kitchens, painting and obligatory health and safety items.

### **3.7 Maintenance Procedures**

DoH has developed a range of maintenance procedures which are accessible via the intranet. The procedures cover areas such as contracts, repairs, finance, tenancies and the use of DoH information systems.

Information on contract administration is currently being consolidated and simplified.

### **3.8 Management Information Systems**

#### **Financial System**

DoH's computerised financial system monitors maintenance budgets, payments and cash management.

The system is used by head office and senior management as a financial tool.

For each program of work it provides a summary budget and variance information by month and for the year to date. Reports are produced on a cost centre basis along the lines of the organisational hierarchy, by:

1. department
2. division/region (eg Hunter Region)
3. business unit (eg area A)
4. lowest level (eg client services team).

Typically a region manually extracts such information from the financial reports and prepares spreadsheets that display the information most relevant to the region.



**Integrated Housing System**

The Integrated Housing System (IHS) has been developed to better link tenancy and property data bases.

The IHS is used by client services teams as an operational tool for:

- recording the address of a property and the number of bedrooms available
- recording those people waiting for public housing
- matching people to vacant properties
- providing rental assistance to those who are not able to be accommodated in limited public housing.

The IHS is used for maintenance activities such as:

- logging a reported fault
- calling for an inspection
- creating and placing a work order (delegations are built into the system)
- initiating payment for work done.

The IHS is linked to the financial system in order to pay contractors and suppliers.

*Audit Observations*

IHS contains minimal information on DoH's properties beyond address, type, and number of bedrooms and date first tenanted.

The IHS system does not readily link with other maintenance activities. For example, after a property has been surveyed and results recorded, the record is not updated by maintenance work subsequently undertaken.

IHS property records do not include planned works nor include costs incurred as part of a maintenance contract.

DoH has surveyed approximately 30,000 of 130,000 properties in terms of its new property standards and the results, relative to the standards, have been entered to the IHS. DoH intends that all properties will be surveyed by July 2001.

It appears that no information in regard to repairs to properties was transferred to the IHS from the previous card-based maintenance histories maintained by regions.

No part of the IHS system is specifically designed to manage maintenance projects, although maintenance information may be recorded against the property data base as described above.

DoH has recognised deficiencies in its management information, such as the absence of a:

- performance database for contractors with the ability to cross reference between regions
- uniform framework for monitoring and reporting the performance of contractors.

Further, regions are not able to request or undertake analysis of available maintenance information at all levels of contractor performance management<sup>30</sup>.

DoH has no information system that tracks the progress of a works order or a job through to completion or providing periodic progress reports against time and budget. It is more difficult, therefore, to plan maintenance and to manage contractor performance.

**Monitoring and Reporting:** - no agreed set of performance measures. IHS unable to provide accurate data and reports on contractor performance and on contract administration performance measures. Quarterly contractor performance reports not being completed and limited formal feedback to contractors.<sup>31</sup>

DoH intends to record more information on IHS and to improve the capability of the IHS to interrogate information. But as the IHS database is fundamentally based on individual properties, this may present difficulties when managing larger contracts.

Other options deserve consideration. For example, a maintenance module is offered by the same organisation that supplied the financial system currently used by DoH. This module:

- supports planning and monitors planned and actual costs, progress and capacities
- manages documents and tools, and automatically checks that materials, funds and resources are available on schedule.

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<sup>30</sup> DoH, Strategic Asset Management, *Contractor Performance Review Report*, July 1998.

<sup>31</sup> DoH, Change Management Strategy: Contract Administration, October 2000.

### 3.9 Conclusion

#### Planning

Planned maintenance is considered fundamental to asset management, as outlined in the Government's *Total Asset Management Manual*.

Planning for property maintenance by DoH, including management information to support planning, is regarded as inadequate.

DoH needs to develop/undertake:

- at least one complete independent condition assessment of each property, using qualified surveyors, to underpin the application of its new property surveys and costing models
- fully documented maintenance histories of each property
- 5 to 10 year maintenance plans for each property group or type
- strategic asset plans for a 15 to 20 year period covering all properties, including consideration of the value of upgrading versus replacement of properties which require substantial work
- periodic assessments of the condition of each property and a clear means of prioritising maintenance works within available funds.

The preparation and updating of plans and the achievement of nominated maintenance targets should be referenced in the performance agreements of regional directors.

#### Management Information

DoH needs better information so that it can manage maintenance more efficiently and effectively. Current gaps are considered to be:

- a management information system that supports maintenance planning and pro-actively manages the progress of works orders through to completion, providing periodic progress reports to management against time and budget
- the condition of all public housing properties should be known and recorded
- maintenance and improvement programs and resource allocation should be derived from an assessment of condition conducted independently of the regions, not from budget bidding processes.



## **4. Contract Management**

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## 4.1 Contract Management

DoH is extensively involved in contract management, issuing around 600,000 works orders each year to:

- 1,000 contractors utilised on 3,700 schedule rates contracts
- 1,000 contractors providing specialist quotes
- 1,000 contractors utilised at any one time on tendered lump sum contracts
- 200 contractors utilised on 1,000 separate contracts for grounds care and cleaning.

The current types of contract are outlined in Appendix 6.4.

### Identified Shortcomings

In 1998 a review by DoH identified several shortcomings in the way contracts were managed including:

- an unsatisfactory level of variations to contracts
- inadequate quality assurance
- no uniform framework for reporting and monitoring contractor performance
- no pro active surveillance strategy for identifying poor performing contractors.<sup>32</sup>

### Response

DoH has overhauled its contract management procedures. New forms of contract and new contract procedures have seen changes in a number of areas:

- client service - including a code of conduct, required hours of contractor availability and time frames for response, depending on the urgency of the work
- technological - including use of e-mails for orders and claims
- legislative/ policy - including compliance with statutory requirements and required submission of safety, environmental and quality management plans
- procedural/ administrative - including conditions of payment
- contract management - including nomination of a Contract Manager in each region for all contractual issues (client service teams and the call centre limited to issuing works orders).

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<sup>32</sup> DoH, Strategic Asset Management, *Contractor Performance Review Report*, July 1998.

More recently, the experience of challenging some large contractors, problems with performance, and the subsequent claims and counter claims, highlighted difficulties with the new contracts:

New contract arrangements with large multi-trade contractors have been in place since March 2000. In the first six months of these contracts, there have been numerous reports from Public Housing Regions that contractors are failing to perform as per the terms of the contract(s). Some contractors have also made claims that the Department is failing to meet its obligations under the contract<sup>33</sup>.

Further internal reviews have since highlighted a number of additional shortcomings. For example, DoH staff have:

- no accurate method of monitoring and reporting delays to programmed work
- altered many works orders, so invalidating the original orders and time standards
- been slow to inspect completed works and process claims for payment.

The internal reviews have also identified inadequacies in coordination and contract management when dealing with large contractors across regions:

Roles and Responsibilities: reporting lines not always clear and sometimes duplicated, structural issues, lack of clarity about roles and responsibilities and delegations, cross-Regional issues. Roles and delegations of CSO(T), Regional Contract Manager, Asset Managers, SAM require clarification. Need to and standardise contract administration functions in Regions.<sup>34</sup>

This has made it particularly difficult when managing disputes with large contractors:

... there is no clear direction as to who has the authority to make decisions concerning the Contract and disputes with Contractors - under the Contract it is clear this is the Department Representative, however internal demarcation issues (which I understand are state wide) cloud who is responsible.

There appear to have been continual communication problems between the parties; these are at least partly the product of there being no set policies / procedures across regions concerning contract management<sup>35</sup>.

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<sup>33</sup> DoH, Change Management Strategy: Contract Administration, October 2000.

<sup>34</sup> DoH, Change Management Strategy: Contract Administration, October 2000.

<sup>35</sup> DoH Legal Services Branch, *Hunter Case Study*, 9 September 2000.

DoH has reviewed its contract management and taken action to address these shortcomings, including:

- more accurate measuring of delays
- establishment of a Contract Manager position in each region
- efforts to improve DoH staff adherence to the requirements of DoH's contracts
- new guidelines for reporting and dealing with poor contractor performance.

*Audit Observations*

Whilst DoH has made major improvements in contract management, the audit also observed:

- as yet there is no evidence that the move to larger contractors has lowered costs or increased tenant satisfaction, although it is too early to be conclusive
- other models exist, such as the 'facilities management' approach used for New South Wales schools and now being trialed by Housing New Zealand (which involves a performance based contract). The contractor provides a full range of maintenance and building services, scheduling work, carrying out routine repairs and replacements, and responding to urgent calls with the objective of maintaining properties to a standard defined by contract
- the extensive use by DoH of contracts based on a predetermined 'schedule of rates' provides limited assurance of value for money and limited incentive for efficiency on the part of the contractor. The arrangement:
  - relies on an agreed scale of payments for individual tasks, related to a costing framework pre-determined by DoH
  - the main incentive for the contractor is to identify and complete as many tasks as soon as possible
  - takes no account of the size and nature of particular projects and provides little incentive for innovation by the contractor
  - is labour intensive to manage and difficult to audit.
- the management of large contractors, undertaking work across a number of zones and regional boundaries, needs to be more tightly controlled
- the involvement of the Strategic Asset Management group in both contract management operations and contract management policy/oversight confuses responsibilities with regional management and confuses the role of the group (which needs to focus more on oversight and audit).



## 4.2 Assurance

DoH adopts a risk management approach to provide assurance that contractors have complied with work requirements.

In seeking that assurance, DoH relies on feedback from tenants and a combination of full inspections and partial inspections of contractors' work. For example:

- claims for completed works orders valued up to \$1,000 are paid without inspection of the work. Tenants are asked to sign the respective claims indicating satisfactory work completion
- claims for orders over \$1,000 are subject to a detailed work inspection at the property by client service staff before payment is certified. Tenants are asked to sign the respective claims indicating satisfactory work completion
- work performance is also subject to the following random checks: 5 per cent of all orders valued under \$1,000 are selected for detailed inspection by client service staff after payment has been made.

Work found not to be of specification quality is referred to the contractor for rectification. Where tenants independently report unsatisfactory work, regardless of the random inspection process, DoH also requires its staff to inspect the repairs involved.

However, it has been recognised within DoH for some time that these checks are not being undertaken as required:

- the absence of an ongoing quality assurance component in the review process of contractor performance
- inappropriate level of quality assurance by contractors, especially those who employ staff or subcontractors<sup>36</sup>.

There appears to be a difficulty in resourcing the assurance function, in the face of more stringent contract conditions that increase the complexity of inspections.

Previously the work on each order was inspected in terms of timeliness, variations, workmanship, and attitude to tenants. New contract conditions now involve matters such as code of conduct, occupational health and safety, environmental management, the wearing of badges by contractors, whether contractors are contactable 24 hours/day, notification to tenants, and checking the parts retained by contractors.

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<sup>36</sup> DoH, Strategic Asset Management, *Contractor Performance Review Report*, July 1998.

Reliance by DoH on the use of many small contractors, operating on 'schedule of rates' contracts, contributes to the size of the task.

Also, contractors are permitted to vary orders provided that the work relates to the detail shown on the initial order, the work is necessary to remedy the original problem, and/or the work remains lower than \$1,000. Contractors are able to manipulate this policy to the financial detriment of DoH.

An earlier DoH review recommended the establishment of a specialist head office section to provide an independent capability in this area:

require an ongoing quality assurance component in the review process of contractors by a specialist central Compliance Audit Section similar to the Victorian model. The Victorian model has a central group of technical officers who randomly carry out quality checks on contractors state wide.<sup>37</sup>

No such section has yet been established, although the Strategic Asset Management group has been assigned the responsibility for establishing audit procedures:

... to ensure the risk management processes are applied appropriately and consistently to maintenance, improvement and new supply programs and projects across the Department.<sup>38</sup>

#### *Audit Observations*

There are inherently many avenues for poor quality work or over-claiming in the building industry, particularly when using smaller contractors on 'schedule of rates'.

The move to bigger contractors with quality systems should assist in improving quality assurance.

While DoH has clear procedures for checking work undertaken by contractors using a risk management approach, these procedures are not always followed and the required checks are not always undertaken.

The results of checking should be periodically analysed by type of work and by contractor, so as to reduce checking that may be unnecessary and increase checking where it is warranted to do so.

The function needs to be adequately resourced, not regarded as an optional activity, and needs to operate with a degree of independence across regions.

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<sup>37</sup> DoH, Strategic Asset Management, *Contractor Performance Review Report*, July 1998.

<sup>38</sup> DoH, *Draft Business Rules & Processes for Asset Programs 1999/2000*.

### **4.3 Conclusion**

DoH has improved contract management, including the development of standard specifications, standard conditions of tendering and contract, code of conduct for contractors contract administration guidelines, contractor performance systems and audit procedures.

Whilst DoH has done much to improve contract management, there is scope for further improvement. For example:

- DoH could obtain greater assurance of value for money and provide more incentive for efficiency on the part of the contractor by reducing its reliance on contracts based on a predetermined 'schedule of rates'
- the management of large contractors, undertaking work across a number of zones and regional boundaries, needs tighter control
- the new contract models need to be monitored and assessed, by benchmarking 'before' and 'after', to establish whether they lead to lower costs and improved service delivery
- the work undertaken by contractors needs to be more adequately checked against maintenance requirements, using a risk management approach.

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## **5. Performance Monitoring and Reporting**

## 5.1 Guidelines

Government guidelines point to the need for performance monitoring and control of maintenance.

In preparing the Maintenance Plan each agency will need to:

- provide a framework for performance monitoring and control
- include targets and indicators to evaluate performance achieved
- ensure assets perform efficiently and effectively.<sup>39</sup>

## 5.2 Monthly Reporting

A region typically receives a monthly report on *Regional Property Services* in both narrative and tabular formats.

The narrative format report is prepared by the Manager, Regional Property Services and includes information under the following headings:

- service delivery - including general comments on meetings and issues arising
- external painting - actual number of properties painted and repaired versus target, expenditure and number of instances of unsatisfactory performance
- accelerated improvement program - numbers of properties scoped, properties under contract, properties completed
- client visits - percent of properties visited
- smoke alarm servicing - number of properties inspected
- capital works program - status of new works, future works, works in progress, and disposals.

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<sup>39</sup> NSW Government, *Total Asset Management* manual, *Asset Maintenance*, sec 3.1.

The tabular report is prepared by Property Services project management. A monthly report includes:

- abbreviated descriptions, status, costs and dates for each capital project
- number of properties completed of each painting contract
- number of condition inspections completed by each client service team
- abbreviated descriptions of works recently tendered, tender dates and successful tenderers.

*Audit Observations*

The current form of reporting does not provide a basis for performance monitoring of dwellings. DoH has recognised this as a shortcoming:

No consistent basis for identifying and comparing the performance of individual dwellings, and components of the portfolio, across a range of indicators, to inform asset decision-making and priority of expenditure<sup>40</sup>.

It has also proved difficult to assess and compare the performance of contractors in terms of contract performance standards, particularly time standards. Typical performance indicators might include:

- downtime as a proportion of total operating time (%) (or number of days vacant lettable vs waiting for sale vs redevelopment)
- maintenance cost to relevant occupant unit (\$/occupant)
- maintenance cost to facility replacement cost (%)
- ratio of responsive maintenance cost to total maintenance cost
- ratio of breakdown call-outs per period to average call-out rate (%)
- maintenance backlog cost to useable physical measure (\$/m<sup>2</sup>)
- average time taken to respond to work requests vs standards set
- satisfaction rating with housing conditions and maintenance levels
- percentage of portfolio that meets property standards.

Further examples are shown in Appendix 6.5.

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<sup>40</sup> Asset Management Framework, Strategic Plan 2000–02, May 2000.

### **5.3 Conclusion**

The monitoring of property maintenance services is based largely on reports of activity and expenditure against budget allocations.

There is no performance reporting framework or benchmarking of maintenance functions within regions and across DoH.

As a consequence, management of DoH is not able to currently assess the efficiency and effectiveness of its maintenance function in an objective way.



## **6 Appendices**

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## Appendix 6.1 About the Audit

<b>The Audit</b>	The audit focused on DoH's management of public housing maintenance, using best practice evaluation tools and the New South Wales Government's asset maintenance requirements (eg <i>Total Asset Management</i> manual).
<b>Definition</b>	<p>For the purpose of this audit, 'maintenance' also includes works that are sometimes identified as 'upgrading', including:</p> <ul style="list-style-type: none"><li>• maintenance long overdue – the 'backlog'</li><li>• works to repair storm or flood damage</li><li>• work needed to address emerging health and safety concerns (eg lead contamination, electrical safety, fire safety)</li><li>• work to 're-align' properties to better suit the new accommodation needs (such as for single occupants).</li></ul>
<b>Scope</b>	<p>The audit has examined:</p> <ul style="list-style-type: none"><li>• the way in which standards and improvement targets for public housing maintenance have been set and reform programs implemented</li><li>• the availability and use of maintenance information</li><li>• management oversight and organisational arrangements</li><li>• arrangements for assuring the future sound management of public housing maintenance.</li></ul> <p>The scope of the audit does not include the Office of Community Housing and does not include the Office of Aboriginal Housing.</p>
<b>Approach</b>	<p>The audit approach was based on:</p> <ul style="list-style-type: none"><li>• discussion and review of documentation at DoH head office</li><li>• discussion with staff and review of documentation in three DoH regions</li><li>• discussions with related agencies, such as Treasury, DPWS and CSIRO</li><li>• visits to public housing authorities in South Australia and Queensland.</li></ul>
<b>Acknowledgement</b>	<p>The Audit Office would like extend its appreciation to the management and staff of DoH for the way they have advanced the course of this audit.</p> <p>In particular, the Audit Office wishes to acknowledge the regions visited during the conduct of the audit for the assistance that was provided to audit staff.</p>
<b>Cost of Audit</b>	The cost of the audit was \$153,148. This figure includes the estimated cost of printing the report (\$7,000) and travel and incidentals (\$1,605).

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## Appendix 6.2 Planning Framework

DoH has a range of documents which describe its overall approach to asset planning:

- Blueprint
- Public Housing Business Plan
- Public Housing Asset Management Plan
- Asset Management Framework Strategic Plan
- Planning Guidelines
- Community Housing Business Plans
- Public Housing Regional Business Plans
- Local Area Plans
- Client Service contracts.

The Blueprint calls on the organisation to organise its policies, resources and services to seek a balance between three major objectives:

- assisting those with priority needs
- building successful tenancies and communities
- creating a financially sustainable organisation.

The Public Housing Business Plan 2000–01 identifies major strategies to be undertaken within Public Housing over the coming year. It is structured in accordance with the key result areas developed for the DoH corporate plan. The key result area ‘asset management’ aims for improved maintenance practices with higher performance standards, progressive removal of the maintenance backlog and attention to urgent health and safety issues.

DoH’s Public Housing Asset Management Plan examines the factors influencing current and future priorities, identifies specific challenges and required outcomes, and develops a ‘model asset strategy’ to achieve those outcomes. This combines actual 1999–2000 maintenance, improvement and new supply budgets with projected future expenditure to indicate the rate of new supply and asset realignment which is possible, given the best available assumptions on acquisition costs and funds availability. (See earlier table *Projected Funding Requirements*).

The Asset Management Framework Strategic Plan describes the outcomes required over the next 2 - 3 years, actions and projects to address identified shortcomings and anticipated time frames for project delivery.

The Department's Planning Guidelines describe the distribution of available funds across providers and programs in accordance with the Bilateral Housing Agreement between the Commonwealth and the State. The output from each housing provider is a three year business plan which describes how they will apply their share of funds to targets for asset improvement, new supply and non-asset housing assistance, aligned with the Bilateral Agreement and the Department's Corporate Plan. Provider Business Plans are signed off by the Deputy Director General.

Public Housing's Business Plan is informed by individual Regional Business Plans. Each Region is also provided with targets around capital funds which they must respond to. All Regional Business Plans are signed off by the Deputy Director General (Public Housing).

## Appendix 6.3 Maintenance Program Categories

### Responsive Maintenance

The Responsive Maintenance Program has three parts:

**Urgent Repairs** - works required within 24 hours of notification where there is a health or safety danger or where further damage may result if not carried out as soon as possible.

**Priority Repairs** - non-urgent works which are however essential for habitation of the property, with completion required within seven days.

**Programmed Repairs** - non-priority works which can be deferred until funds are available, but which nevertheless should be carried out as soon as possible, while the most cost effective way to undertake the work is by single order off the schedule rates contract.

### Service Contracts

The Service Contracts program includes maintenance of property components which require servicing at a pre-determined frequency for legislative, health and safety, functional or aesthetic reasons. Service contracts will be categorised as either:

- low risk (eg lawns/grounds, common area cleaning) or
- high risk (eg fire protection, high-rise plumbing and lift maintenance).

### Planned Works

Planned works consist of maintaining or replacing property components that are deemed to have reached the end of their effective life or fallen below DoH's condition standard. There are two categories of planned works:

- cyclic - where intervention is based on a period of time (eg. paint externally every seven years)
- condition based - where intervention is prompted by assessing the condition of components as below the standard eg. roof or window replacement.

### Special Projects

Special projects are major one off projects. They may be necessary in response to changing laws, regulations, community expectations or Departmental policy where significant intervention to dwellings or surrounding infrastructure is called for. Current examples include installation of smoke alarms, upgrading fire protection, installation of lifts, managing lead contamination, improving estate infrastructure and facilitating subdivision of super lots.

**Accelerated Improvement**

The Accelerated Improvement Program has been developed in response to the large maintenance backlog which has accumulated over previous years. The Program aims to bring the condition of all dwellings to be retained, to a consistent, documented, acceptable maintained standard over a five year period.

All types of works, internal, external, fencing and grounds can be included in Accelerated Improvement, however only to the extent required to bring the property to the defined condition standard. Major remodelling, extensions or other improvements on the original condition should be carried out under other programs if warranted.

**Disability Modifications**

The disabled Modification Program consists of works required to enable a dwelling to be utilised by disabled occupants.

- disabled modifications include smaller scopes of work (eg grab rails, light switches, flick taps, etc.) and larger scopes of work (eg ramps, bathroom/kitchen upgrades, door widening, etc)
- in some cases major modifications will require a Development Application.

**Note** that the names of the categories have been somewhat simplified. For example:

- categories, other than planned (or cyclic) works, may be planned
- categories, other than responsive maintenance, may also contain works that are responsive or reactive (although deferred for a few months), but not planned
- accelerated improvement reduces the backlog, but at the same time improves a property to the latest standards
- categories, other than accelerated improvement, may contain works that assist to reduce the backlog<sup>41</sup>.

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<sup>41</sup> DOH, Draft *Business Rules & Processes for Asset Programs 1999–2000*.

## **Appendix 6.4 Contract Types**

At the present time there are approximately 6,000 maintenance providers registered on the DoH's financial system. Not all of these hold current contracts but are used from time to time when contract arrangements are arranged by public tender or negotiated quote.

Minor maintenance, vacant dwelling preparation, and some programmed maintenance (including a proportion of the cyclic external painting program), is presently arranged by DoH using individual schedule rate contractors (carpenters, plumbers, electricians, roofers, painters, cleaners, etc) and a number of head contract arrangements.

The present Schedule Rate responsive maintenance contracting configuration involves approximately 1,400 separate contracts being undertaken by approximately 300 contractors across the State.

Schedule Rate Contracts have been let, to date, on two year terms, and are tendered on pre-priced schedules which require tenderers to indicate competitive percentage rates.

The last Schedule Rate Contracts commenced progressively from 1st March, 1996 and have been extended on three occasions with the final extension expiring on 29 February 2000. In March, new contractors were engaged on 'schedule of rates' as single trade contractors and multi-trade contractors.

From time to time during each Maintenance Program financial year, individual quotes are arranged by client service teams in each region and by the call centre on specialist trades on one-off and short term repetitive quote minor repair arrangements. These cover work generally not covered in the schedules of works and prices and where there is a lack of contractors.

The number of quote arrangements in play at any one time is difficult to assess as generally each arrangement is a one-off job order. Up to 1,000 contractors (or possibly more) involved in this type of work would be registered on the financial system.

Up to a further 1,000 contractors state-wide are utilised at any one time by the regions on tendered lump sum contracts in other service and cyclic maintenance programs including:

- external painting (not included in the Schedule Rate arrangement)
- asset improvement programs
- common area and
- service infrastructure works and other special programs.

Lawns and grounds and apartment common area cleaning includes common area grounds care and recurrent grass mowing in apartment grounds and some medium density precincts as well as cleaning of foyers and internal common stairways and halls in apartment blocks.

Up to 1,000 separate contracts being undertaken by approximately 200 contractors are involved in this program across the seven regions.



## Appendix 6.5 Typical Performance Indicators<sup>42</sup>

- Planned Outcome 1** Physical assets are available and serviceable as required:
- assets are available within appropriate levels of downtime and/or service disruption
    - downtime as a proportion of total operating time (%) (or number of days vacant lettable versus waiting for sale versus redevelopment)
    - number of breakdown call-outs on critical services (lifts, airconditioning etc) (or number of urgent and priority orders in a period by type of incident)
  - assets perform at their specified standard
    - number of client complaints of service interruption / area
    - age profile of assets for example:
      - age / floor area target/trend
      - age / value per category trend over time
  - assets comply with appropriate health and safety requirements
    - OH&S defects reported / period target
    - number of accidents/injuries attributable to asset defects per period.
- Planned Outcome 2** Maintenance is conducted both cost- and time-efficiently:
- cost of maintenance is reasonable
    - maintenance cost to relevant occupant unit (\$/occupant)
    - maintenance cost per unit of service delivery (\$ per user)
    - maintenance cost to facility replacement cost (%)
    - maintenance cost to useable physical measure (\$/m<sup>2</sup>)
    - maintenance cost to total operational cost (%)
    - maintenance cost to 5 year moving average maintenance cost (%)
  - majority of maintenance is programmed rather than emergency
    - cost of defects arising in key categories eg: statutory, structural, waterproofing, key plant items
    - ratio of emergency maintenance cost to total maintenance cost (emergency maintenance index)
    - ratio of breakdown call-outs per period to average call-out rate (%).

<sup>42</sup> NSW Government, *Total Asset Management* manual, Asset Maintenance Sec 4 App B

- response time is appropriate
  - average time taken to respond to work requests
  - number of incomplete work orders at period end to number of work orders received during period (%).

**Planned Outcome 3** Stakeholders are satisfied with the maintenance program:

- corporate, property managers with Treasury, clients and community perceive maintenance to be: cost efficient, timely, of an appropriate standard:
  - percentage of clients surveyed annually (for key stakeholder categories) who express satisfaction regarding: - effectiveness, - timeliness, - condition of assets (stakeholder sentiment index)
- maintenance programs are completed within budget allocations:
  - number of complaints of unacceptable standards per period
  - ratio of actual maintenance expenditure to budgeted expenditure (%).

Investment in physical assets is protected:

**Planned Outcome 4** • maintenance backlog cost to useable physical measure (\$/m<sup>2</sup>)(asset decline index).

**Planned Outcome 5** Exposure to risks is appropriately managed:

- risks are identified and contingency plans are in place
  - risk management plan being implemented
- effective management practices are in place
  - no. of management checklist items being implemented.

## Common Terms

<b>Accelerated Improvement</b>	A program of funding specially designated to address the ‘backlog’ in public housing maintenance.
<b>Asset</b>	An item of property having an independent physical and functional identity.
<b>Backlog</b>	Maintenance requirements accumulated through deferral of maintenance.
<b>Call Centre</b>	Service Centre that responds to tenants’ phoned maintenance requests.
<b>Client Service Teams</b>	DoH local area staff are organised into ‘client service teams’.
<b>Commonwealth State Housing Agreement</b>	An agreement in which the Commonwealth allocates funds to each State for the provision of housing assistance to those in need.
<b>Condition Based Maintenance</b>	Maintenance initiated as a result of knowledge of the condition of an asset from a condition survey.
<b>Condition Survey</b>	An inspection of assets to record those elements which are defective or deteriorated, together with the functional impact of that defect or deterioration, recommended rectification, costs and priority rating.
<b>DoH</b>	New South Wales Department of Housing
<b>IHS</b>	Integrated Housing System - a computerised system in DoH which contains the property register and is linked to the financial system.
<b>Life Cycle</b>	An asset’s <i>life-cycle</i> is the estimated period of time over which an asset is expected to be able to be used.
<b>Maintenance</b>	All actions for retaining an item in, or restoring it to, a specified condition.
<b>Maintenance Planning</b>	A maintenance plan indicates the nature, timing and estimated cost of maintenance work to be done. Maintenance planning balances available resources to optimise spending and maintain satisfactory service levels.
<b>Public Housing</b>	Dwellings owned (or leased) by the State and rented to low and moderate income earners.

<b>Property Standards</b>	<b>Condition</b> standards relate to the current state of repair and wear and tear on the asset. <b>Amenity</b> standards which include such things as proximity to services and the more qualitative aspects of the asset and its setting. <b>Provision</b> standards indicate what the DoH is prepared to provide. eg hot water to the kitchen, or the number of power outlets deemed adequate.  <b>Functionality</b> is the capacity of the property to provide for a resident's activities. (eg. the capacity of sleeping and dining areas).
<b>Responsive Maintenance</b>	Urgent, priority or necessary repairs, generally in response to tenant requests.
<b>Total Asset Management</b>	The management of assets from a whole-of-life and system-wide perspective. Planned maintenance is an integral part of this process.
<b>Upgrading</b>	Includes: <ul style="list-style-type: none"><li>• maintenance long overdue – the 'backlog'</li><li>• works to repair storm or flood damage</li><li>• work needed to address emerging health and safety concerns (eg lead contamination, electrical safety, fire safety)</li><li>• work to 're-align' properties to better suit the new accommodation needs (such as for single occupants).</li></ul>
<b>Works Order</b>	Statement of work required of contractor.

# **Performance Audits by the Audit Office of New South Wales**

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## Performance Auditing

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The legislative basis for performance audits is contained within the *Public Finance and Audit Act 1983, Division 2A*, which differentiates such work from the Office's financial statements audit function. Performance audits examine whether an authority is carrying out its activities effectively and doing so economically and efficiently and in compliance with all relevant laws. These audits also evaluate whether members of Parliament and the public are provided with appropriate accountability information in respect of those activities.

Performance audits are not entitled to question the merits of policy objectives of the Government.

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3	Public Servant Housing	<i>Rental and Management Aspects of Public Servant Housing</i>	28 September 1992
4	Police Service	<i>Air Travel Arrangements</i>	8 December 1992
5	Fraud Control	<i>Fraud Control Strategies</i>	15 June 1993
6	HomeFund Program	<i>The Special Audit of the HomeFund Program</i>	17 September 1993
7	State Rail Authority	<i>Countrylink: A Review of Costs, Fare Levels, Concession Fares and CSO Arrangements</i>	10 December 1993
8	Ambulance Service, Fire Brigades	<i>Training and Development for the State's Disciplined Services: Stream 2 - Skills Maintenance Training</i>	13 December 1993
9*	Fraud Control	<i>Fraud Control: Developing an Effective Strategy (Better Practice Guide jointly published with the Office of Public Management, Premier's Department)</i>	30 March 1994
10	Aboriginal Land Council	<i>Statutory Investments and Business Enterprises</i>	31 August 1994
11	Aboriginal Land Claims	<i>Aboriginal Land Claims</i>	31 August 1994
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35	NSW Health Department	<i>Medical Specialists: Rights of Private Practice Arrangements</i>	12 March 1997
36	NSW Agriculture	<i>Review of NSW Agriculture</i>	27 March 1997
37	Redundancy Arrangements	<i>Redundancy Arrangements</i>	17 April 1997
38	NSW Health Department	<i>Immunisation in New South Wales</i>	12 June 1997
39	Corporate Governance	<i>Corporate Governance Volume 1 : In Principle Volume 2 : In Practice</i>	17 June 1997
40	Department of Community Services and Ageing and Disability Department	<i>Large Residential Centres for People with a Disability in New South Wales</i>	26 June 1997
41	The Law Society Council of NSW, the Bar Council, the Legal Services Commissioner	<i>A Review of Activities Funded by the Statutory Interest Account</i>	30 June 1997
42	Roads and Traffic Authority	<i>Review of Eastern Distributor</i>	31 July 1997
43	Department of Public Works and Services	<i>1999-2000 Millennium Date Rollover: Preparedness of the NSW Public Sector</i>	8 December 1997
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72	Hospital Emergency Departments	<i>Delivering Services to Patients</i>	15 March 2000
73	Department of Education and Training	<i>Using computers in schools for teaching and learning</i>	7 June 2000
74	Ageing and Disability Department	<i>Group Homes for people with disabilities in NSW</i>	27 June 2000
75	NSW Department of Transport	<i>Management of Road Passenger Transport Regulation</i>	6 September 2000
76	Judging Performance from Annual Reports	<i>Review of eight Agencies' Annual Reports</i>	29 November 2000
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78	State Rail Authority (CityRail) State Transit Authority	<i>Fare Evasion on Public Transport</i>	6 December 2000
79	TAFE NSW	<i>Review of Administration</i>	6 February 2001
80	Ambulance Service of New South Wales	<i>Readiness to Respond</i>	7 March 2001
81	Department of Housing	<i>Maintenance of Public Housing</i>	April 2001

\* The report includes a Better Practice Guide

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