MANAGING PEOPLE IN AUSTRALIAN PARKS

4. ASSET MANAGEMENT

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Nature tourism within national parks and other protected areas is growing rapidly throughout Australia. The sustainability of this growth relies upon maintaining the quality of the natural environment, which visitors come to experience. Across the country, land managers are confronted with similar visitor management issues, and these issues are equally relevant for tourism operators.

At a national level, a new Ministerial Council (previously ANZECC) provides a coordinating mechanism between national parks agencies; and the Ecotourism Association of Australia (EAA) provides one within the nature tourism industry. To date there has been no formal national coordination between land managers and the tourism industry. The newly established Tourism and Protected Area Forum (TAPAF) has recently started to provide an informal forum for coordination.

To provide park agencies and tourism industry representatives with up to date information on the management of nature-based tourism in Australian national parks, the Cooperative Research Centre for Sustainable Tourism carried out a national review of the current management practices of national park agencies in relation to nature tourism, under the overall title 'Managing People in Australian Parks.' Results are described in a series of reports, covering aspects such as fees, permits, risk and asset management, and visitor services.

This review includes national parks managed by Parks Australia, but does not include the operations of other Commonwealth agencies such as the Wet Tropics Management Authority except in so far as these occur jointly with State and Territory agencies. It covers only terrestrial national parks, not marine parks such as the Great Barrier Reef Marine Park. In general it includes only lands designated as national park; i.e. IUCN Category 2 reserves. Other categories of protected areas are not included except where specified.

These reports do not aim to make best practice recommendations regarding park management practices. Each park agency has its own special circumstances and political frameworks. The purpose of this project is not to produce a single unified national approach. Rather, the aim is to provide accessible information and reduce duplication of effort between park agencies, and to improve the consistency in approach for tour operators.

State-by-state data are presented in geographical sequence from west to east and north to south. No order of priority or significance is implied.

This report reviews current practices of Australian national parks agencies in relation to the following aspects of asset management: asset categories; strategic frameworks; information systems; valuation; age and condition; condition monitoring and maintenance schedules; budget allocation; and capital works programs and budgets.

Assets may be categorised by park agencies in a variety of ways to meet the varying obligations of the agency. For example, assets may be classed differently for accounting purposes than for operational asset management. The main categories used by most Australian parks agencies are as follows:

• Capital works. This refers to construction of new infrastructure before it is included on the general asset register.
• General assets and/or infrastructure. This includes fixed assets such as roads and tracks, picnic tables, visitor centres and other buildings, toilets, signs, picnic tables, garbage bins, recreational equipment such as swings, etc. These are the main items on agency asset registers. In some agencies, only items valued at >$5000 (or similar) are included under general assets. Some agencies classify general assets into: buildings and services, corporate assets, visitor assets, cultural heritage assets, and others.
• Plant and equipment. These are usually listed on a separate register to general infrastructure, and include items such as lawn mowers, bulldozers and chain saws.
• Attractive items. These are small moveable items, generally valued at (e.g.) <$5000, such as cameras, global positioning systems and binoculars. Only some States and Territories distinguish between attractive items and general assets.

Five of the nine Australian parks agencies currently have, or are in the process of developing, a strategic framework to address asset management. NPWSA, WACALM, and Parks Victoria all have established asset management frameworks, while QPWS and PWS Tasmania are currently in the development phase. NSWNPWS, PWCNT and EACT do not have integrated asset management frameworks, but instead refer to several policies, plans and/or manuals that address various aspects of asset management. Each national park under the administration of PA has guidelines for asset management in their individual park Plans of Management.

All Australian parks agencies use some form of database to record existing assets, but these differ considerably in format and sophistication. WACALM, QPWS, NPWSA and Parks Victoria record assets as one module of multi-purpose information systems that also store data on financial management, visitor monitoring, risk management, commercial operations, and public information. PWCNT and EACT use dedicated asset management databases. TPWS is currently developing a database as part of an overall asset management systems, and NSWNPWS employs a range of computerised and manual systems for asset management.

The level of detail in information recorded differs between parks agencies but typically includes a brief description together with data on the category, condition, value and location of the asset. Location data may be recorded as GIS coordinates, a grid reference, and/or a verbal description.

Parks agencies value assets in one or more of the following ways: value-as-built, replacement value and/or depreciated value. All agencies except PWCNT record replacement value. WACALM, QPWS, TPWS and EACT also record depreciated value. Parks Australia and Parks Victoria record both the value-as-built and the replacement value. PWCNT records only value-as-built. One reason for these differences is that WACALM, NPWSA, QPWS, Parks Victoria and Parks Australia have recently changed their accounting methods from cash flow to accrual accounting, which routinely records depreciated asset values.

Parks agencies in Western Australia, Northern Territory, South Australia, Australian Capital Territory and Vic routinely record the age and condition of assets. NSWNPWS records the age and condition of some assets, but not all. QPWS and TPWS record the age of assets but not their condition.

The condition of assets is monitored for maintenance at least once every year in Western Australia and the Northern Territory, every 3 years in South Australia and every 5 years in Queensland and Australian Capital Territory. The frequency of maintenance varies considerably, depending on the type of asset and the availability of funds.

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ABS	Australian Bureau of Statistics
ANZECC	(former) Australian and New Zealand Environment and Conservation Council
CP	Conservation Park
CRC	Cooperative Research Centre
E & I	Education and Interpretation
EA	Environment Australia:
EACT	Environment ACT
GR	Game Reserve
I, I & E	Information, Interpretation and Education
NEAP	Nature and Ecotourism Accreditation Program
NP	National Park
NPWSA	National Parks and Wildlife South Australia
NR	Nature Reserve
NSWEPA	New South Wales Environment Protection Authority
NSWNPWS	New South Wales National Parks and Wildlife Service
PA	Parks Australia
PAN	Parks Australia North
PAS	Parks Australia South
PV	Parks Victoria
PWCNT	Parks and Wildlife Commission of the Northern Territory
QDEH	(former) Queensland Department of Environment and Heritage
QEPA	Queensland Environment Protection Agency
QPWS	Queensland National Parks and Wildlife Service
RA	Recreation Area
RIC	Ranger In Charge
RP	Recreation Park
RR	Recreation Reserve
SADEHAA	South Australia Department for Environment, Heritage and Aboriginal Affairs
SAEPA	South Australia Environment Protection Agency
TDPIWE	Tasmania Department of Primary Industries, Water and Environment
TPWS	Tasmania Parks and Wildlife Service
VDNRE	Victoria Department of Natural Resources and Environment
WACALM	Western Australia Department of Conservation and Land Management
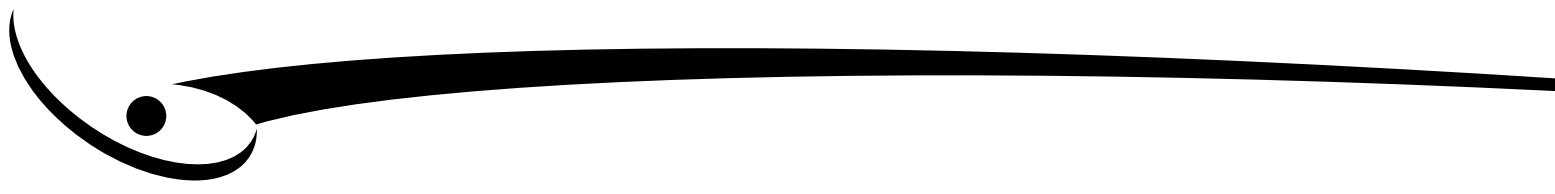
Parks agencies are responsible for a major proportion of Australia's natural assets, though it is only in recent years that these have come to be thought of as assets in a commercial management sense, as well as public goods. Management of these natural assets is not considered in this report.

Parks agencies are also responsible for a wide range of human-made assets including tracks and roads, lookouts and boardwalks, buildings and similar structures, vehicles and heavy equipment, and smaller items for field and office use. It is these are the categories, which are considered in this report.

Operating funds available to park agencies have commonly been very limited, both historically and currently. Human-made assets have generally been constructed or purchased as opportunities allowed, and the agencies have rarely been able to construct, purchase, monitor and manage these assets according to any long-term plan. When funds do become available, particularly for larger capital items, they are often earmarked for a particular type of asset, not necessarily the agency's highest priority overall. In addition, such special-purpose funds typically provide only for initial capital costs, not for ongoing maintenance, so parks agencies may not be able to plan for upkeep or replacement in line with the lifecycles of various categories of asset.

Hence whilst relatively small maintenance items such as vehicle servicing are likely to be incorporated routinely into annual operating budgets, larger items such as upgrading visitor centres are often not. Even for assets such as tracks and lookouts which may have been in existence for decades or longer, maintenance may depend on short term factors such as the availability of volunteer labour, or perceived risk of public liability.

In recent years, however, parks agencies have been compelled by lack of public funding and a simultaneous increase in visitor numbers, to raise part of their operating costs from commercial and recreational users. This in turn has forced them to operate at least partly in a commercial milieu or market mode, in addition to their primary role as caretakers and conservators of the nation's prime natural assets.

This in turn has lead park agencies to catalogue their human-made assets more comprehensively than in the past, and to adopt plans for maintenance and replacement. It is these practices, which are reviewed in this report.

Progress to the mid 1990's was examined by the ANZECC Working Group on National Parks and Protected Area Management (SADEH, 1997). This report reviews current asset management practices in Australian park agencies as of late 2001.

Of course it is the natural rather than the human-made features which are the key assets in national parks, the primary attraction for commercial tourists and private visitors as well as the prime reason for the parks' existence and the prime management responsibility for the parks agencies. Arguably, cataloguing, valuation and maintenance is far more significant for natural than for human-made assets. This however, is beyond the scope of this report.

2.1   Western Australia

General assets and plant and equipment are recorded separately by WACALM. General assets include visitor facilities and infrastructure, for example tables, toilets, tracks, fencing, signs etc., and these are recorded on the RecData database. Assets in RecData are classified as: furniture, structure, building, parking, camping, roading, trail or miscellaneous. Whilst some plant and equipment may also be recorded on RecData, most are recorded in the Departmental asset register managed by the Financial Services Branch of WACALM.

2.2   Northern Territory

Asset management in the Northern Territory is undertaken at a Territory-wide level, so PWCNT is not responsible for recording information or reporting on items of a capital nature. In practice, however, PWCNT maintains comprehensive records for all assets valued above $5000. These are defined as either 'fixed assets' or 'capital items'. Capital items are classified into either 'operational goods' or 'plant and equipment'. Assets valued at less than $5000 are considered 'attractive items' and are registered as such, but not in the main asset register.

2.3   South Australia

The NPWSA defines any items valued above $2000, and from which benefits are derived, as fixed assets. Eight categories are recognised, namely: land, buildings and improvements, infrastructure, moveable vehicles, computing equipment, furniture and fittings, capital work in progress, and miscellaneous items. These asset groups are then subdivided by asset type. For example, a building may be classified as an ablution block, camp kitchen, office, residence etc; furniture includes barbeques, seats, signs etc; and miscellaneous items include showers, standpipes, towers, incinerators, fee pillars etc. Similarly, infrastructure items such as roads are classified into categories such as private, public, spillway, culvert etc. NPWSA also include several categories of assets, such as signs, which independently are valued at less than $2000, but which have an aggregate value of several million dollars.

2.4   Queensland

QPWS classify their assets into categories, class types and classes. Asset categories and class types are detailed below in Table 1.

TABLE 1: ASSET CATEGORIES AND CLASS TYPES, QUEENSLAND	
ASSET CATEGORY	**CLASS TYPE**
Land (about 5% of Queensland)	areas protected under the *Nature Conservation Act (1992)* reserves protected under the *Land Act* unallocated State land, and freehold land awaiting gazettal as a protected area administrative centres in towns
Buildings	offices information centres & accommodation worksheds buildings of heritage significance only recreational facilities – ablutions
Services infrastructure	roading aircraft landing fields, water access and protection fencing water supplies & communication facilities power generation and reticulation vehicle ramps animal enclosures plant nursery
Recreational infrastructure	walking tracks boardwalks lookouts pedestrian bridges recreational jetties and pontoons day use areas (includes all improvements) waste treatment systems carparks recreational shelters signage & interpretation facilities cave lighting cultural heritage items

2.5   New South Wales

Assets are divided into three classes: land, built assets and non-fixed assets. Further subdivision within these classes is detailed in Table 2.

TABLE 2: ASSET CLASSES AND TYPES, NEW SOUTH WALES	
ASSET CLASS	**CLASS TYPE**
Land (approximately 5 million hectares or 6% of the land area of NSW)	national parks historic sites nature reserves Aboriginal areas State recreation areas
Built assets	roads and other access buildings utilities and other infrastructure
Non-fixed assets	aircraft plant and equipment furniture and fittings

2.6   Australian Capital Territory

Environment ACT classifies assets into four basic types (EACT, 1998):

• Building assets: structures that are separately identifiable from the land they are constructed on

• Infrastructure assets: public utilities that are essential services, such as bridges, roads, stormwater systems etc.

• Community assets: provide for general community use or services, such as public parks and gardens, playgrounds, botanical gardens and land under infrastructure

• Heritage assets: assets that the Government intends to preserve indefinitely because of their historical, cultural or environmental attributes

2.7   Victoria

For operational asset management, Parks Victoria has a classification system based on functional use. The categories classified are asset groups, classes and types. Asset groups and classes are listed below in Table 3. Asset types consist of further subdivisions within asset classes, and are listed in the Appendices to this report.

TABLE 3: ASSET GROUPS AND CLASSES, VICTORIA	
ASSET GROUP	**ASSET CLASS**
Corporate buildings & services	office buildings dwelling work depots storage facilities emergency services essential services minor plant and equipment
Infrastructure services	water supply sewerage drainage electrical gas dams communication utilities
Maritime & waterways	breakwaters piers fixed landings floating landings boat ramps & slipways navigation aids general maritime & river assets shipwrecks marine protected assets
Access	roads paths, trails & walking track carparks bridges access structures fencing signage
Visitor facilities	toilets buildings shelter\viewing lookouts park furniture roofed accommodation camping grounds playgrounds general facilities
Other cultural heritage	assets ruins & archaeological sites historic landscapes historic earthworks sundry heritage places
Landscaped assets	gardens & landscaping ornamental lakes sporting ovals golf courses

2.8　Tasmania

TPWS classifies assets into 6 categories, namely: land, land and buildings, infrastructure, plant, equipment and vehicles, heritage assets, and other items. Recording of items valued at less than $5000 is optional.

2.9　Parks Australia

Parks Australia records assets with a value of $5000 or greater on a central Asset Register. Assets valued at less than $5000 are listed on the individual park registers only. Asset classes and types are summarised in Table 4. Further detail is provided in the Appendices to this report.

TABLE 4: ASSET CLASSES AND TYPES, PARKS AUSTRALIA	
ASSET CLASS	**ASSET TYPE**
Buildings	housing other minor structures public office storage workshop
Infrastructure, plant and equipment	airstrip audio visual equipment boat & marine boat ramp bridges & platforms camping day use areas carpark caravan communication equipment computer display drains sewerage & stormwater electricity supply fencing fire equipment fuel storage & supply gas storage & supply/generator helipad landscaping bank protection motor vehicle other equipment ramp road signage software toilet ablution block trailer walkways & paths water storage supply & reticulation
Intangibles	e.g. irrigation licences etc.
Land	e.g. freehold and leasehold land owned by PA
Leased assets	e.g. any plant and equipment leased by PA
Leasehold improvements	e.g. improvements to buildings leased by PA

3. ASSET MANAGEMENT SYSTEMS

3.1 Western Australia

WACALM has a Site Description and Asset Inventory Manual (WACALM 1996) to assist staff when collecting data for its RecData database. The Financial Services Branch of WACALM has a policy statement titled 'Recording and Maintenance of Asset Detail' (1997). The two documents assist in the management of assets but remain discrete processes undertaken by separate divisions within WACALM. It is intended that these processes will be streamlined and integrated in the future.

3.2 Northern Territory

A number of separate policies applying to the procurement, maintenance and replacement of assets, including those in parks, are administered by different Northern Territory government agencies as appropriate. The Department of Information and Corporate Services (DCIS) administers financial management and is responsible for recording details and reporting on capital items. DCIS also administer the procurement guidelines and tendering process for all Northern Territory government purchases (currently under review). Northern Territory Treasury administers works programming procedures. Northern Territory Department of Transport and Works sets construction standards and arranges construction and maintenance works on fixed assets. The Northern Territory Power and Water Authority manages power generation equipment. The Northern Territory Fleet leases all vehicles and mobile equipment to the PWCNT.

3.3 South Australia

NPWSA have a framework addressing the management of assets. A policy addressing the accounting aspects of asset management is currently being developed. A set of guidelines details the operational instructions for asset management.

3.4 Queensland

Acquisition, recording and disposal of assets is subject to Queensland Government and QPWS purchasing policies and financial management standards. QPWS is currently in the process of developing a specific asset management system.

3.5 New South Wales

NSWNPWS utilises a Strategic Resource Planning (SRP) framework for asset planning. SRP is designed to: "Identify the links between overall government policy, service outcomes and resource allocation; prioritise competing demands for resources; achieve overall cost reduction and value for money" (NSWNPWS, 1999, p5). NSWNPWS also complies with other NSW Government policies such as *NSW Government Total Asset Management Manual*, and with NSWNPWS policies, plans and manuals, including management plans (NSWNPWS, 1999). Similarly, there are several NSWNPWS and NSW Government policies, guidelines and tools, such as the *NSW Government Procurement Manual*, the *NSWNPWS Contracting Manual*, and the *NSWNPWS Building Code* that cover the acquisition and construction of assets for NSW national parks. Finally, NSWNPWS also has a formal Asset Maintenance Strategy (NSWNPWS, 1999).

3.6 Australian Capital Territory

Policies that address asset management apply to the whole of Government in the ACT. Most relevant to EACT are the *ACT Accounting Policy Manual* (1996) and the *Asset Management Strategy and Framework Guidelines for Asset Management* (1997), both produced by the Office of Financial Management, Australian Capital Territory Government; and *Methodology for Measuring, Monitoring and Reporting on Performance of Fixed Assets* (1996), produced by the Australian Capital Territory Department of Urban Services (EACT, 1998).

3.7   Victoria

Parks Victoria have a *Strategic Asset Management Framework* (1999) to assist them in the adoption of the best appropriate practice for built asset management, and to provide direction through the development of an integrated asset management framework (Gutteridge, Haskins & Davey Pty Ltd., 1999). The framework details: the asset management mission and vision statement; the benefits of strategic asset management; levels of service; asset life cycle functions; financial planning; information systems; and data management processes. It is the outcome of an internal review of asset management processes, practices and systems, and the development of a focused improvement program (Mumford, 2000). Ultimately this program is intended to include packages for: asset inventory, registration and valuation; asset and financial reporting; asset information and management system; levels of service; asset maintenance by contract; and demand determination and analysis (Mumford, 2000).

3.8   Tasmania

TPWS is currently developing a strategic paper addressing asset management and external financial reporting requirements. As this paper is not due for completion until at late in 2001, no further information is currently available. The current policies used to guide asset management are based at the district level.

3.9   Parks Australia

Guidelines for asset management are provided in the Plan of Management document for each park.

4.1 Western Australia

RecData is a comprehensive asset database and a key component of the Recreation and Tourism Information System (RATIS). RATIS is an interactive database designed to service the information requirements of the various staff that manage WACALM's Parks and Visitor Services program. RATIS consists of a set of inter-related databases, which contain information on: WACALM licensed commercial operators; visitor data; registered WACALM volunteers; National Park Pass holders; and asset information on RecData. At present the RecData asset inventory is 95% complete, with site information on over 1,100 recreation areas around the State. This information can currently be accessed through the Department's Intranet by the majority of WACALM's regional and head office staff.

4.2 Northern Territory

The inventory information for all Northern Territory fixed assets is recorded in the Asset Information System (AIS) within the Northern Territory Government mainframe, which is managed by the Department of Transport and Works. Building asset information resides in the Building Asset Management (BAM) module. Civil assets information resides in the Road Information Management System (RIMS) module.

4.3 South Australia

There are two integrated asset registers within the Department of Environment and Heritage: the financial fixed asset register, which is a module of the masterpiece accounting system; and ARAMIS, the Asset Register and Management Information System which is the Heritage and Biodiversity division's asset management system. ARAMIS is written in Oracle Java and contains information on infrastructure assets only. The masterpiece system contains the entire asset base, but does not include management information such as maintenance schedules. Plant and equipment currently resides in the masterpiece system, but will eventually be transferred to ARAMIS.

4.4 Queensland

QPWS currently record existing assets in an asset management module of the QPWS financial management system. The information can be accessed in a spreadsheet format. There are currently over 18,000 items listed.

4.5 New South Wales

Asset maintenance programs in NSW are currently conducted at the regional level. NSWNPWS employs a range of computer and manual systems to manipulate and store asset data and information. Some areas of NSWNPWS store asset data in Microsoft Excel and Microsoft Access databases, while other sections have databases that are specifically designed for their purposes. For example, the Roads Unit, which operates in Kosciuszko national park, uses the Roads Asset Management System (RAMS) to store asset data (NSWNPWS, 1999).

NSWNPWS recently installed the SAP business/finance computer package, which includes an Asset Register and an Asset Maintenance module. The current NSWNPWS Asset Register data, and all the information contained in RAMS and in Excel and Access databases, will be transferred to the new SAP system. NSWNPWS will use SAP as a management tool and it will ultimately store information on most assets valued at more than $1,000. Data entry will continue until around 2005 (NWSNPWS, 1999).

4.6 Australian Capital Territory

Data is currently recorded using Microsoft Access, pending the conclusions to Departmental deliberations on the selection of a more sophisticated asset management database. Whilst no final decision has been made, it is likely that EACT will adopt the system that is currently used by Canberra Urban Parks and Places

(the ACT's urban park managers). The system consists of a client server system based on an Oracle database, constructed by the Park Management System company and based upon their Park Manager database product, which has been custom designed to record assets based on Australian Capital Territory systems of land classification and management. EACT also makes use of Geographic Information System (GIS) technology to record attributes of natural, built and heritage assets. New asset management systems will have the ability to interface with the GIS.

4.7   Victoria

Parks Victoria has recently engaged an Oracle consulting service to develop a high level data warehousing strategy, designed to support management reporting and decision-making. The soon to be adopted Enterprise Data Model (EDM) will provide two basic functions: a central repository of corporate information; and a source of detailed data. Reporting from the EDM is being developed through a data warehouse, which currently exists for financial reporting and will ultimately be extended to other functions, including built asset listings, and capital project tracking. Direct links between Microsoft Access and Oracle will be established, and the existing Access based asset register will be modified to meet the new Oracle structure. The Asset Register will then be a component of the overall data warehouse system (Gutteridge, Haskins & Davey Pty Ltd., 1999). Improvements may also be made to the user-friendliness of the asset register to ensure that the system works effectively in terms of data input and output, and updating or editing procedures.

4.8   Tasmania

TPWS is currently undertaking a review of its existing asset management system. Part of the review involves the development of an asset information system. The review is not due for completion until late 2001, and no further information is currently available.

4.9   Parks Australia

The current Asset Register in contained in an Excel Spreadsheet. It is proposed to transfer these assets to SAP (the system used by NSWNPWS) in 2001.

5. ASSET INFORMATION RECORDED

5.1 Western Australia

RecData stores information on the location, type, condition and replacement cost (materials only) of all recreation facilities down to the level of individual assets.

5.2 Northern Territory

The Northern Territory's Building Asset Management inventory is a comprehensive, hierarchical, five tiered numbering system. The first level specifies the number of assets in a particular park. Levels two - four are logical incremental levels providing information on geographical locations within the park to the level of individual buildings. Level five details inspection areas and includes fine level information on assets contained in individual rooms of buildings, for example, construction/fabric types. A GIS based website provides an output of the stored data to assist in asset management.

5.3 South Australia

ARAMIS consists of an asset register, a development/capital investment program, and both preventative and breakdown asset maintenance planning. ARAMIS contains information on: asset identification, name, category, item, type, location grid reference, climatic factor, locality factor, replacement value, useful life, replacement date, written down value, and condition. The masterpiece central asset register contains lists of: plant and equipment; land; personal computers; works of art, etc.

5.4 Queensland

The asset register contains financial management information, including: asset type, description, age, location, cost, rate of depreciation, replacement value, responsible officer, etc. There are plans to include more detailed information. Additional asset information, such as plans and designs for built infrastructure, is available from other sources within QPWS, but is not integrated into the asset register. Information on visitor facilities is also being gathered by the project called the Outdoor Recreation Inventory (ORI), to help delineate outdoor recreation opportunities.

5.5 New South Wales

NSWNPWS currently employ a range of computer and manual systems that contain varying levels of information. The recently installed SAP system contains information on: asset number and class, description and details, design details and standards, asset maintenance plans, maintenance works completed, maintenance costs, GIS coordinates, mapping information, relevant drawings, plans and reports, generation of work schedules, and work orders.

5.6 Australian Capital Territory

The current database used by Environment ACT records: asset names, descriptions, location description, grid locations, asset class, asset sub-class, facility type, construction date, current condition, value, last valuation date, next valuation date, valuer name, and estimated remaining life. The future asset management database will also include an asset maintenance monitoring system networked to remote locations.

5.7 Victoria

The hierarchy for the asset management system has been designed around the asset groups and classes listed in Table 3. The asset class and type are the prime level of asset definition within the asset management system. The asset management system (Maximo software) will use these classifications in the Asset Register. For reporting purposes the equivalent existing Parks Victoria (Melbourne Parks and Waterways) Category, Natural Resources and Environment Category, and Land Classification will be accommodated.

The Asset Register will also include information regarding condition evaluation, effective life, priority works for asset classes, and total current cost value of built assets. The Asset Register will be linked to the Parks Victoria Asset and Financial Reporting package, which will provide financial information regarding asset management within Parks Victoria (Mumford, 2000).

Parks Victoria are also currently completing a 'Facility Manual' that will detail the standard asset types (e.g. park furniture; toilets etc.), and include contemporary standards and construction drawings for many of them. Future replacement of assets will also reflect the level of service to be delivered at specific locations, which will affect the classification status of assets and the standards to which they are built and operated.

5.8   Tasmania

When completed, the asset management system is intended to contain information such as maintenance schedules, condition reports, insurance values etc. Information for external reporting requirements such as cost of assets, locations, and depreciation rates are currently recorded on an external reporting system.

5.9   Parks Australia

Parks Australia records the following information on assets: asset number, photo reference, type, region, district, location, asset descriptor short, asset descriptor long, EBA in m2, manufacturer, model number, serial number, capitalisation date, licence plate number, asset class, asset category and condition, and general comments.

WACALM records the replacement value (materials only) of existing park assets on the RecData asset inventory database. The depreciated value of WACALM's general plant and equipment is also calculated and recorded on the asset register managed by WACALM's Financial Services Branch, in accordance with Australian Accounting Standard AAS29, to meet the needs of the Department's accrual accounting system. WACALM is currently completing the valuation of all existing assets, and is intending to streamline both databases.

In the Northern Territory, the value as built or when purchased is recorded in the Building Asset Management system for all assets under the management of the PWCNT. Where these details are unavailable, assumed replacement values are applied, based upon square meter quantities and construction costs of similar type structures.

In South Australia, the replacement value of all existing assets is recorded in the ARAMIS database. Replacement value is calculated using the useful life, condition, climate and category factors. The acquisition cost and the professional valuation are also recorded, but the depreciated cost is not. Assets are re-valued every three years in accordance with the Auditor General's requirements and the Australian Accounting Standard AAS29.

In Queensland, QPWS records both the replacement and the depreciated (deprival) value of existing assets. The inclusion of the depreciated value is a direct result of the State's movement from cash flow to accrual accounting systems in July 1999. In June 1995, assets were valued by external valuers according to the AAS29. This included the 'deprival value' of each asset. This valuation process is due to be repeated in the 2000-2001 financial year, but QPWS is awaiting directions from Treasury in relation to the new Australian standard, AAS35.

No information on asset valuation has been provided by NSWNPWS.

In the Australian Capital Territory, both replacement and depreciated values are recorded by Environment ACT in the asset management database. The last valuation date and next valuation date of all existing assets are also recorded. Valuation of assets is based on a three to five year cycle depending on the asset type: 3 years for major buildings, and 5 years for minor structures. The Australian Capital Territory government uses accrual accounting systems.

In Victoria, the value of assets is recorded in Parks Victoria's financial system, the Oracle Fixed Asset Register. Valuation of all built assets consists of a preliminary estimate and finalised value (Mumford, 2000). The replacement value is also calculated, using a Cost Guide.

In Tasmania, TPWS records both replacement and depreciated values of existing assets, but replacement costs are calculated only at the time of asset replacement. This information is recorded in the cashflow accounting system, which is used by all Departments of the Tasmanian State Government.

Parks Australia records the replacement value, depreciated value and actual cost for newly acquired assets. Parks Australia uses accrual accounting systems.

In Western Australia, the installation date (age) and condition of all existing assets is recorded in WACALM's RecData asset inventory. The condition of assets is classified into one of the following categories: excellent/as new; good; average; poor; remove/replace. These asset categories help staff to develop asset maintenance schedules.

In Northern Territory, age and condition of assets are recorded and stored in the Building Asset Management system. Every element within each building asset inspection area is inspected annually. A condition rating of one to five is applied to every element.

In South Australia, the age and condition of all existing assets is recorded by NPWSA in the ARAMIS database. The condition of assets is classified into one of the following categories: excellent/as new; good; average; poor; remove/replace.

In Queensland, the QPWS asset register records the age of assets, but does not directly include their condition. The condition of assets can, to some extent, be extrapolated from valuation reports that include the depreciated value.

In the Australian Capital Territory, the age and condition of all existing assets is recorded by Environment ACT in the Microsoft Access asset management database. The condition of assets are classified into one of the following: excellent; good; satisfactory; and poor.

In Victoria, the age and condition of all existing assets will be recorded in the Oracle Fixed Asset Register. Condition evaluation will vary according to the type of asset. For example, while assets contained within buildings may only require a simple condition rating, road assets may require a condition rating that accounts for a variety of distress modes, i.e. surface texture loss, disintegration, cracking and distortion (Gutteridge, Haskins & Davey Pty Ltd., 1999, p.43). Accordingly, Parks Victoria plans to use a three-part condition assessment: conformance to standards, simple condition rating, and a detailed condition score.

Conformance to standards requires that, within the asset management system, an identification flag be used to indicate whether an asset conforms to a pre-determined standard. The flag is accompanied by an appropriate adjoining comments field where comments on individual assets can be inserted. If an asset is flagged as non-conforming, either a repair work order is generated or the asset is replaced.

The simple condition rating consists of a simple one - five ranking system defining the condition of assets, which allows for determination of consumption of an asset and residual life expectancy. The condition of the asset is rated according to the perceived percentage of effective life remaining. This enables long term funding for future maintenance and the replacement of the asset.

The detailed condition score involves the assessment of an asset based upon distress modes. For example, distress modes for roads include cracking, distortion, surface texture loss and edge breaking. Each distress mode is then assessed using the one - five condition rating. A weighting factor is then applied to each mode as a measure of its relative importance.

Parks Victoria uses the above techniques in conjunction with each other to compute an overall condition score, which enables them to gain an appreciation of the remaining life of their assets.

In Tasmania, the age of assets is recorded on the external reporting system. For some assets, information pertaining to their condition has been compiled, but not yet recorded on the asset management system.

Within Parks Australia, age and condition of some assets are recorded. Comments on condition are provided by the Australian Valuers Office at the time of asset revaluation.

8.1 Western Australia

Monitoring of assets depends on the type and location of the asset, and the intensity and frequency of use it receives. The condition of many park assets is monitored daily or weekly by park rangers and other field staff as part of their routine management and maintenance responsibilities, and all regions and districts have weekly or monthly maintenance schedules. It is now required by the Valuer General that more formal assessments of asset values and conditions be undertaken annually, and WACALM is in the process of introducing a program to bring this requirement into effect.

Maintenance of assets also depends on the type of asset and the intensity and frequency of use it receives. For example, visitor facilities such as toilets in heavily used parks may be cleaned and serviced at least once, and sometimes twice a day, while in more remote locations, such facilities may be maintained on a weekly basis. The same applies for gas bbq's, fire rings, rubbish bins, etc. WACALM also varies the maintenance program to suit peak periods, thus over long weekends and school holidays, facilities that might ordinarily only be serviced every two to three days may be visited by maintenance staff daily, or even more frequently.

8.2 Northern Territory

Although the PWCNT carry out a number of maintenance functions associated with the operation of facilities, building maintenance is carried out largely by contract labour. The PWCNT negotiates a scope of work with the Northern Territory Department of Transport and Works, which administers call tenders and supervises the work. Maintenance is considered in three major categories: specific or programmable works; cyclical works, predominantly routine servicing of fixed mechanical equipment; and unforeseen urgent repairs.

8.3 South Australia

Monitoring of assets occurs at least once every three years, at the time of asset revaluation. Asset maintenance is based on industry standard specification of maintenance for each asset type. An annual maintenance program is developed for each district.

8.4 Queensland

Local monitoring of asset condition typically occurs as deemed necessary by the Ranger in Charge or the District Manager. Valuation of assets is required at least once every five years. The valuation report provides an indication of the condition of the asset. More extensive assessment of asset condition has recently been conducted to facilitate the Environmental Protection Agency's transition from a cashflow to an accrual accounting system. Maintenance is generally undertaken as needed, rather than in accordance with a routine schedule.

8.5 New South Wales

NSWNPWS divides maintenance into four main categories: routine, minor corrective, major corrective, and programmed preventative maintenance. NSWNPWS decides whether to perform major periodic or routine maintenance of assets based on the following factors: "the type of asset; the services provided by the asset; short and long term financial benefits; community expectations; legal obligations; regional priorities; and risk management (financial, public liability, OH & S)" (NSWNPWS, 1999: p.17).

8.6 Australian Capital Territory

Formal condition assessments are taken by qualified valuers at the time of valuation, i.e. every three to five years, depending on asset type. Park managers also conduct regular inspections when compiling their annual maintenance programs.

Maintenance planning is undertaken by field based units on the basis of condition, use, access, and risk. The level of maintenance required depends on a number of factors such as the type of construction, age, use, vandalism and climatic conditions. Maintenance requirements can hence differ greatly between assets. Maintenance may either be scheduled (e.g. hydraulics, electrical etc.), or as required (after routine or annual inspection). A relatively high proportion of maintenance and repairs result from vandalism damage, and as such, are urgent and unforeseen. This is particularly applicable in parks close to the urban areas.

8.7   Victoria

Regular condition monitoring is carried out on all important asset types, particularly in relation to visitor safety and compliance with PV regulations. Examples of assets considered important include playgrounds, elevated structures such as viewing lookouts, and visitor centres. Formal improvement programs in developing appropriate monitoring schedules have been implemented, supported by engineering and expert consultant assessments. The frequency of monitoring and engineering condition assessment varies with the type and level of visitor risk, but typically ranges from six months to two years. Routine ranger patrols, often weekly or daily, provide a continuous monitoring presence and are supported by established asset and incident procedures and training. Internal capital works budget allocations have targeted risk programs that run for several years.

Programmed asset maintenance occurs for major assets and roads, but generally, asset maintenance is reactive. The implementation of an asset management system has a core aim of increasing programmed maintenance and improving asset lifecycle performance.

8.8   Tasmania

All assets are continually monitored and/or inspected by TPWS, but this information is not recorded centrally. Due to lack of funding, repairs rather than programmed preventative maintenance have been the norm for assets in Tasmania national parks. However, TPWS recently received $8 million over four years to rectify their maintenance backlogs. Assets will be rationalised prior to the development of preventative maintenance schedules, so that resources may be directed proportionally towards assets in areas of the highest visitor use.

8.9   Parks Australia

Information regarding asset monitoring and maintenance has not been provided by PA.

9.1 Western Australia

Maintenance and running costs for existing assets are allocated from the annual State budget to the park service. At present, the estimated replacement cost of 90-95% of existing assets is $80m. The total cost of the Parks and Visitor Services Output for 2000/01 is approximately $34 million, including operating revenues. WACALM is currently in the process of developing internal service provision agreements, and according to the budget allocation figures associated with these draft agreements, WACALM will expend in the order of $4.62 million on monitoring and maintaining recreation areas and facilities. This expenditure comes primarily from WACALM's annual recurrent budget allocation, although park entry and camping fees are also used to help maintain and improve visitor facilities.

9.2 Northern Territory

Following each annual inspection, the Northern Territory Department of Transport and Works advise the PWCNT of the identified maintenance liability. A level of funding required to retain the existing level of functionality from PWCNT assets is recommended. PWCNT then bid to the Northern Territory Treasury for this sum and receive an endorsed amount in each annual budget.

9.3 South Australia

Under South Australia's previous cash budget system, appropriation for the management of assets was received from the Government in the form of 'recurrent funds' and 'capital funds'. Under the newly established accrual-output budgeting system, a single amount called 'payment for outputs' is now received, which is intended to cover all of NPWSA's annual operating costs and also provide for the replacement of assets as they wear out. Where payments received for outputs are insufficient to cover the cost of the NPWSA's planned asset purchases, the Government may agree to provide extra funding as a 'contribution of equity'.

9.4 Queensland

Approximately $8.5m of the operating budget is spent on asset servicing and maintenance per annum. This includes all relevant costs, including wage and salary expenses, vehicle costs etc. However, it should be noted that where an asset has deteriorated significantly, it might be extensively refurbished or replaced as a capital works project, rather than repaired from operating funds. Allocation of operating funds tends to be based on previous needs and allocations, taking into account any new circumstances.

9.5 New South Wales

Information regarding how the NSWNPWS allocate money to asset management has not been provided.

9.6 Australian Capital Territory

No set budgets are allocated for asset maintenance. EACT district managers receive an overall budget allocation that they then manage in the context of their overall funding requirements. The costs of maintenance materials and maintenance contractors are recorded, but staff time spent on maintenance is not recorded against specific maintenance tasks. It is estimated that $1.8m is spent on asset maintenance out of a recurrent park budget of $10m.

9.7 Victoria

Budget allocations to asset management are divided into operating and maintenance, and refurbishment and replacement. Asset management funding is determined through the Parks Victoria budget building and prioritisation process each year. Operating and maintenance costs are then allocated from the annual Parks Victoria budget. The total asset maintenance budget for 1999-2000 was around $6 million, and an additional park operating/servicing budget of around $6 million was also received.

9.8   Tasmania

Money for asset management, including the maintenance and replacement of assets, is provided from the TPWS annual budget. Approximately $4 million per annum is spent on asset management in TPWS. Additional asset expenditure may be appropriated upon application to the State Government. As mentioned previously, TPWS has recently received an additional $8 million over four years for maintenance backlogs.

9.9   Parks Australia

Information regarding how Parks Australia allocate money to asset management has not been provided.

10.1 Western Australia

WACALM currently receives a capital budget of $1.6 million per annum for the development and upgrading of park and visitor facilities. This money is spent on new capital works programs, but is insufficient to cover the replacement costs of existing assets. Additional injections of capital are therefore necessary for the replacement of many existing assets. WACALM also receives an annual tourist road grant from Main Roads Western Australia of $2 million. Approximately $1.5 million of this is spent on road construction and improvement projects, with the remaining $500,000 spent on routine maintenance.

The amount of capital works projects undertaken per annum varies depending on the level of funding available, and the scale of the projects themselves. In 1999-2000, for example, WACALM funded 15 projects through a capital allocation of $1.1 million, while for the 2000-2001 financial year, the number of projects is likely to be 39, from a capital allocation of $1.6 million. WACALM also undertake between 20 and 40 road improvement projects each year. In 2000-2001 there were 33 such projects, with a capital allocation of $1.48 million.

10.2 Northern Territory

Capital works initiated by the PWCNT are funded separately from ongoing maintenance costs. New works are identified by the PWCNT and specified in the PWCNT 15 year Masterplan. The Northern Territory Government may also identify specific capital works initiatives to be undertaken by the Commission. A five-year Capital Works Program is developed and reviewed annually by the PWCNT. It is further reviewed and endorsed by the Northern Territory Cabinet as part of the annual budget allocations. In addition to the funds for specifically identified major projects, an allocation is provided for 'minor new works,' for individual projects valued at less than $150,000. Projected works are passed to the Department of Transport and Works for design, tender and construction.

10.3 South Australia

The South Australia State Budget Papers provide Capital Works Statements including a schedule of the major projects that NPWSA plans to undertake within the upcoming financial year. Progress reports that detail expenditure against budgets of works in progress are also provided by the Department of Environment and Heritage to the Department of Treasury and Finance each financial quarter (NPWSA, 1998). 212 capital works projects were undertaken in the 1999-2000 financial year. Capital works expenses are provided from the annual NPWSA budget, and additional money for specific capital works programs is also provided.

10.4 Queensland

In 1998-1999 a total of $9.1m was spent on 108 capital works programs. Capital funding tends to vary from year to year, depending on allocations to particular projects. Much of the capital works funding allocation is spent on major refurbishment, replacement or upgrading of existing assets.

10.5 New South Wales

Information regarding the capital works program and budgeting arrangements has not been provided by NSWNPWS.

10.6 Australian Capital Territory

New infrastructure or refurbishment requirements are identified through plans of management, implementation plans, specific policies or planning documents. Funding for capital works is received through a bidding process to the Australian Capital Territory Government. Capital works bids are prepared each year by Environment ACT and compete with bids from other areas within the Department of Urban Services and the Australian Capital Territory Government. In general, Environment ACT receives

approximately $1.5m per annum for capital works projects. This is an additional injection to the normal Government payment for outputs.

10.7   Victoria

The capital works program consists of refurbishment and replacement activities. The costs relating to these activities are allocated from several Government sources, including the general Parks Victoria annual budget. The funding for the capital works program for 1999-2000 was around $10 million.

10.8   Tasmania

The budget for capital works projects varies from year to year, as most money is externally funded through bids to the central Tasmanian Treasury and Commonwealth allocations. In the 1999-2000 financial year the capital works budget was approximately $2.5 million.

10.9   Parks Australia

Information regarding the capital works program and budgeting arrangements has not been provided by PA.

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4.1 WACALM

    4.1.1   Recording and maintaining of asset detail – background and assets definition

4.2 NSWNPWS

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Appendix 4.1
WACALM

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT

POLICY STATEMENT NO.

RECORDING AND MAINTAINING OF ASSET DETAIL

1.   BACKGROUND

With the advent of accrual accounting all Government Departments will be required, in accordance with Treasurers' Instruction 1101A, to officially report their 1995/96 Financial years activity in an accrual format. Essentially this means producing an
A)   Operating Statement (Income/Expense)
B)   Statement of Financial Position (Balance Sheet)
C)   Statement of Cash Flows (Cash Position)

It is with regard to point B, Statement of Financial Position, that CALM must be able to produce reliable Financial detail for all its Assets and Liabilities.

To facilitate this, CALM implemented the Oracle Financials Asset module in July 1994. As a further enhancement this module was integrated to the Oracle Accounts Payable module as at November 1, 1995.

A review of the assets module and the instructions relating to the recognition and recording of assets has recently been undertaken. This review highlighted the need for clear and firm guidelines to be established for the purposes of defining and recording of CALM's assets in a reliable and consistent manner.

It is for these reasons the assets policy has been developed.

2.   ASSETS DEFINITION

Assets are service potential or future economic benefits controlled by CALM as a result of past transactions or past events.

They are used in the provision of goods or services and thus provide a means for CALM to achieve its program objectives.

Assets principally fall into two categories:

i)   **Current**
      Those assets that would in the ordinary course of business be consumed within 12 months after the end of the Financial Year. (eg. cash; inventory stationery)

ii)   **Non-Current**
      Are all assets that are not current. i.e. not consumed within the one Financial Year. (eg. aircraft, buildings, plant and equipment).

3.   CAPITALISATION RATIONALE

Appendix 4.2
NSWNPWS

AN OVERVIEW OF

INFRASTRUCTURE DELIVERY AND MAINTENANCE

WITHIN THE

NSW NATIONAL PARKS AND WILDLIFE SERVICE

September 1999

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Appendix 4.3
PV

ASSET HIERACHY

ASSET CLASSIFICATIONS for BUILT ASSETS

Parks Victoria's assets have been classified into the Groups and Classes shown in the following Tables. The Asset Types included in each Class are then identified. The Asset Hierachy for the Asset Management System has been designed around these Groups and Classes.

The Asset Class and Asset Type are the prime level of asset definition within the Asset Management System. The list of Asset Classes has been developed taking into account the Service Delivery function of the assets and appropriate level of detail needed for data collection, reporting and valuation requirements.

The Asset Management System (Maximo software) will use these classifications in the Asset Register. For reporting purposes the equivalent existing PV(MPW) Category, NRE Category and Land Classification will be accommodated.

Asset Group	Asset Class	Asset Types included in this Class
Corporate Buildings & Services	Office Buildings	Corporate, Regional, District Work Centres, Portable Offices
	Dwellings	Residential Accommodation
	Work Depots	Depots, Workshops, Nurseries
	Storage Facilities	Chemical;Fuel;General
	Emergency Services	Evacuation Area, Helipad, Firetower
	Essential Services	Egress & Access; Electrical Services; Fire Detection & Suppression Equipment; Fire Resistence; Mechanical Services
	Minor Plant & Equipment	Minor Plant & Equipment (note: not included as part of the first stage implementation)

Asset Group	Asset Class	Asset Types included in this Class
Infrastructure Services	Water supply	Fire Services, Irrigation, Mains, Pipe, Pump, Storage Tank, Treatment Plant
	Sewerage	Pipeline, Pump, Pumping Station, Sullage Pit, Treatment Works
	Drainage	Culverts, Major Open Channel, Major underground drain, Minor underground drain, Pipe
	Electrical	Lighting, Lines, Poles, Supply, Transformer
	Gas	Bio Gas Facility, Bottles, LPG Gas, Pipes, Mains
	Dams	Major Dams, Fire Dams, Reservoirs
	Communication Utilities	Communication Tower, Optic Fibre Line, Radio Mast, Telephone Lines/Poles,

Asset Group	Asset Class	Asset Types included in this Class
Maritime & River	Breakwaters	Breakwaters
	Piers	Jetties, Piers, Wharves
	Fixed Landings	Fixed Landings
	Floating Landings	Portable Floating Landing; Fixed Floating Landing
	Boat Ramps, Slipway	Boat Ramps, Canoe Launch, Slipway
	Navigation Aids	Navigation Aids
	Marine Protection assets	Levee banks, Retaining walls, Sheet pilings
	General Maritime & River Assets	Rope Swings, Litter Traps
	Shipwrecks	Shipwrecks

Asset Group	Asset Class	Asset Included in this Class
Access	Roads	Roads and Vehicle Tracks
	Paths, Trails & Walking Track	Pedestrian paths, tracks, trails, routes
	Carparks	Sealed, Gravel, Natural Surface
	Bridges	Pedestrian, Vehicle, Underpass, Overpass, Ford
	Access Structures	Boardwalk, Elevated walkway,ramp,staircase,Ladder, Grid, Retaining Wall, Toll Booth
	Fencing	Bollards;Fences;Gates;Handrails and Barriers;Safety Barrier Fencing;Vehicle Control Barrier;Wheel Stop;Other
	Signage	Signs

Asset Group	Asset Class	Asset Types included in this Class
Visitor Facilities	Toilets	Toilet;Toilet & Shower Block, Laundry
	Buildings	Visitor Centres, Kiosk, Lighthouse, Pavilions, Herit Buildings, Other Buildings
	Shelter	Picnic & BBQ Shelters, Information Shelter, Bird Hide
	Viewing Lookouts	On Ground, Cut Section, Fill Section, Cantilevered, Platform/Tower, Natural
	Park Furniture	Tables/Seats/Benches
	Roofed Accommodation	Cabins, Huts, Lodges, Motor Huts, Caravans
	Camping Grounds	Dispersed sites, Designated Sites
	Playgrounds	Playgrounds, Playscapes
	General Facilities	Drinking Fountains/ Fireplaces/ BBQ's/Bins

Asset Group	Asset Class	Asset Included in this Class
Other Cultural Heritage Assets	Ruins / Archeological Sites	Building / structure ruins, Building / structure foundations,Settlement / house ruins, Machinery / equipment remains, Surface scatter, below ground deposits,Other
	Historic Landscapes	Pastoral,Resource utilisation, Scenic, Settlement, Other.
	Historic Earthworks	Aqueduct / water race, Cutting, Embankment, Mound / mullock heap, Quarry, Shaft, Tramway / track formation, Tunnel, Other
	Sundry Heritage Places	Cemeteries, Grave / burial site, Memorials / monuments, Site of an event, Other.

Asset Group	Asset Class	Asset Types Included in this Class
Landscaped Assets	Gardens & Landscaping	Formal gardens
	Ornamental Lakes	Ponds. Ornamental Lakes, Springs Ornamental Fountains
	Sporting Ovals	Sporting Ovals
	Golf Courses	Golf Courses

Parks Victoria

Final Report on

Strategic Asset Management Framework

August 1999

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Appendices

Parks
VICTORIA

ASSET MANAGEMENT - OVERVIEW OF PROGRESS (April 2000)

Prepared by Joseph Mumford,
Team Leader Systems
Park Services Division

Purpose:
An overview of the progress to date regarding improved asset management for Parks Victoria.

Background:
In recognition of the importance asset management plays on the future success of the Parks Victoria business and the imperative for reporting to government on the condition and value of assets there has been a steady improvement program under way over the past 3 years. Specifically, Parks Victoria has:

- re-structured to ensure senior manager accountability and focus at corporate and field ends of the business for capital programming, reporting and delivery; and to review and deliver improved contract asset maintenance,
- developed and finalised a three year capital program based on regional and corporate priorities. In turn priority setting has been driven utilising a range of criteria including public risk (safety), environmental impact/capacity/sustainability, visitor satisfaction, asset renewal, asset maintenance, economic contribution, emergency response and level of service,
- developed and finalised a three year planning program and allocated resources to pre-planning for capital projects scheduled in years 2 and 3 of the capital program in order to improve on-time and on-budget delivery,
- finalised a built asset inventory to capture volume, location and condition of 80% of the built assets managed by Parks Victoria.

In addition to above gains, a consultant was commissioned to assist in a review of the current asset management processes, practices and systems and the development of a focused improvement program. The reports titled (a) Asset Management Framework – Current Status and Improvement Plan, (b) Asset Management – Strategic Report and (c) Asset Management – Implementation Plan, outlined a way forward to achieve best appropriate asset management practices within Parks Victoria. (refer attached Strategic Report).

In recognition of the principle that built assets exist or are created to support the service offer that Parks Victoria provides to visitors, the Visitor Strategy and the work on the

Levels of Service Project will be a major influence on the asset improvement program outputs. Already the built asset inventory is being utilised to record the service levels and standards being proposed per visitor site across the estate.

Report:

An asset improvement program, priorities and strategy for resourcing and management accountability has been developed. The improvement program bundles improvement projects into 6 packages. In summary the packages of projects include:

1. **Asset Inventory/Register & Valuation Package**
   Major Output:
   Finalised Built Asset Inventory including evaluation of condition, effective live, priority works for asset classes and total current cost value (preliminary estimate and finalised value) of Parks Victoria's built assets.

2. **Asset & Financial Reporting Package**
   Major Output:
   Reconciliation of asset management financial information required within Parks Victoria, for reporting to NRE and the linking of this information to the Fixed Assets Register.

3. **Asset Information & Management System Package**
   Major Output:
   Develop the specification of the asset management system and implement the information system platform and functional asset management modules

4. **Levels of Service Package**
   Major Output:
   Determination of service level and standard per visitor site across the estate managed by Parks Victoria.

5. **Asset Maintenance by Contract Package**
   Major Output:
   Contemporary maintenance contracts for urban & regional parks with centralised administration.

6. **Demand Determination & Analysis Package**
   Major Output:
   Systematically linking the Visitor Research Program and demand analysis to future asset expenditure.

Appendix 4.4
EACT

ENVIRONMENT ACT

ASSET MANAGEMENT HANDBOOK

AN IMPLEMENTATION GUIDE FOR MANAGERS

SEPTEMBER 1998

ACT GOVERNMENT

URBAN SERVICES

VOLUME 1:

BUILDINGS, INFRASTRUCTURE AND COMMUNITY ASSETS

ASSET MANAGEMENT HANDBOOK

VOLUME 1: BUILDINGS, INFRASTRUCTURE AND COMMUNITY ASSETS

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Appendix D   Condition Ranking Scale

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Prior to working within the CRC Tourism's Program 1, Michaela travelled for several years throughout much of south-east Asia and parts of Europe. Michaela completed a Bachelor of Science degree in Ecology and Environmental Policy, and in 1999 completed Honours in Science exploring the sampling methods for estimating fish and crustacean density in shallow seagrass habitat. Michaela is currently a PhD student at Griffith University on trophic dynamics in estuarine habitats.

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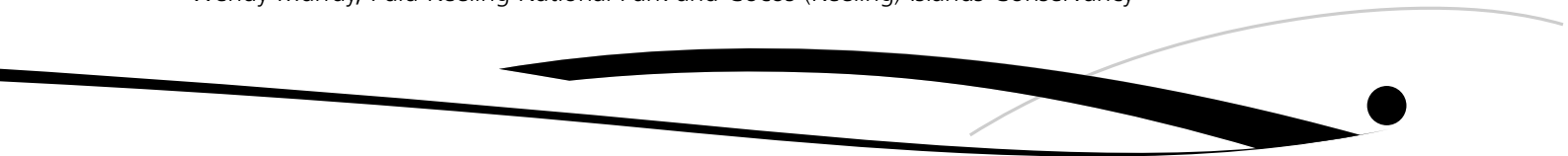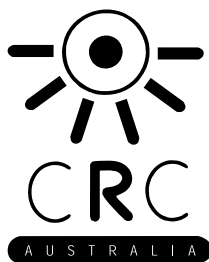
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The Cooperative Research Centre for Sustainable Tourism was established under the Australian Government's Cooperative Research Centres Program to underpin the development of a dynamic, internationally competitive, and sustainable tourism industry. Our mission: Developing and managing intellectual property (IP) to deliver innovation to business, community and government to enhance the environmental, economic and social sustainability of tourism.

DEVELOPING OUR IP
Director of Research – Prof Bill Faulkner

1. **Tourism environmental management research**
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   • Wildlife Tourism
   • Mountain Tourism
   • Nature Tourism
   • Adventure Tourism

2. **Tourism engineering design and eco-technology research**
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   • Waste management
   • Physical infrastructure, design and construction

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