DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT

POLICY STATEMENT NO. 16

COMPUTER PURCHASE AND USE

DECEMBER 1986

1. BACKGROUND

The use of computers is seen as part of a wider departmental problem of management of information technology. The Department is keen to see the wider use of computers to:

(a) increase productivity of all staff;
(b) improve the quality of many tasks performed;
(c) enable us to tackle problems which we were unable to do before;
(d) enable efficient sharing of corporate data.

However, it is important that computerisation of tasks, and especially the introduction of microcomputers, is done in a planned, rational and efficient manner. It is well recognised that there is wide interest in the Department in the computerisation of systems and the use of microcomputers. We have a number of programmer/analyst staff (less than we should have) who develop major systems and we also use contract programmers to the limit of available funds. With the resources available to us it is not possible to meet all requirements at once. There are, however, many commercially available software packages which will meet many of our requirements. The Manager, Computing Branch, is able to advise on selection of commercial packages. A list of commercial packages currently used is appended (A).

The Department has a 5-year rolling Information Technology Plan which guides overall development in this area. There is also a departmental Computer Policy Committee which decides on priorities for systems development and approves all hardware purchases. A number of sectional computer user committees coordinate activities at user group level.

There is particular concern that, because of the apparent slow progress in the area, individual sections will tend to go their own way and obtain microcomputers and systems which may satisfy their own requirements but may be inefficient and may not fit into a rational use of the Department's corporate information base. To this end it is proposed to have a consultant examine the Department's information technology needs in the near future, make recommendations as to its more efficient management and produce an information management strategy.

The following policy is intended to inform staff as to the general direction we are taking and the procedures to be followed in proposals for new systems.

2. POLICY

2.1 Hardware

2.1.1 Departmental Network

CALM will maintain a centralised computer system with a network of terminals in all relevant sections of the Department, for all corporate information and systems. Corporate information is defined as "all that information which is of interest to more than one user". The present "commercial" computer, the Perkin Elmer (now Concurrent) 3240, will require major upgrading in 1987/88 due to the rapid growth of usage in the last few months. Commercial system development on the Concurrent will continue.

It is intended to purchase a Vax computer in the current financial year to enable the orderly development of the CALM-wide geographic information system, which is a further development of FMIS. The Vax will also be available for scientific computing and staff will be expected to minimise the use of the CYBER at WA Regional Computing Centre as soon as the Vax is operational. The Vax will be accessible through the network and could also be used for commercial systems if required in the future.

CALM will maintain a link with the LISSC Vax to access cadastral mapping data, but will withdraw from all other use of the LISSC Vax, once our own is installed.

2.1.2 Microcomputers

CALM will expand the use of microcomputers, in line with funds available, as part of a departmental information management strategy. All requests for micro purchase, or hire/lease, must have the approval of the Computer Policy Committee. It is not intended that the Committee inhibit development but it is vital that compatability with the network is ensured and that already purchased software can be utilised.

A microcomputer will be approved only where the proposer has identified a clearly defined purpose for it and can show a real benefit in terms of a reduction in future budget, staff available for other duties or a worthwhile productivity increase.

In principle, all micros must be capable of linking into the network and the number of types should be kept to a minimum to minimise training and maintenance costs.

2.1.3 Workstations

A limited number of workstations (eg. the Intergraph) will be made available to specialist branches or major regional offices where their use can be justified.

2.2 Software

2.2.1 Major System Development

Proposals for major system development must be put to the Computer Policy Committee. Proposals must:

(i) clearly identify the purpose of the system;

(ii) indicate the likely magnitude of the task; and

(iii) clearly set out the financial and staff savings the system will achieve.

Following approval and development of any major system the benefits identified must be demonstrated in the form of staff positions available for other duties, significant budget reductions or significant improvement in deadlines met, etc. In other words users must accept that they have an obligation to deliver the benefits claimed for the investment. It is the responsibility of district/regional and branch managers to ensure this is done.

Major system development may be carried out in-house by Computing Branch or by external contractors, or by a mixture of these approaches.

A list of systems in use and under development is appended (B).

2.2.2 Software Packages

The Department will not limit software packages to an approved list so that new developments can be utilised if needed. However, the Manager, Computing Branch, will keep a list of software available within CALM and that which is preferred in

order to minimise training requirements. The list will be circulated for general information periodically. The exception to this may be in the accounting area, where audit requirements may require use of a particular package. You will be further advised of this aspect when the current review of financial systems has been completed.

It is essential that the Department comply with the law on copyright as it applies to software packages. All staff should be aware that copying, apart from authorised back up, is not permitted.

2.3 General

2.3.1 Data

Following the consultancy mentioned above in 1, the Department will implement a corporate information management strategy to govern all data flows in CALM. In the meantime the following principles will be followed for all data of a corporate nature:

(i) Data input to the computer must always be the basic data collected from a particular activity, not filtered or summarised data. This ensures that all subsequent use of data from the activity draws on the same data base

(ii) Authorised users will have access to corporate data on a planned basis so that necessary security requirements are met.

(iii) No corporate data will be collected or stored on a microcomputer, since it will not then be available to the rest of the organisation.

(iv) Users have the responsibility for determining whether data they collect is of interest to others by contacting their computer user committee or the Manager, Computing Branch. Users may set up a system to store corporate data on the Perkin Elmer or Vax by contacting the user support officer, Mr D Caddy, who will advise on standard procedures.

2.3.2 Message Systems

Systems which are designed to send messages or data between different users are not to be run on a microcomputer. The central computer facility is better suited to this type of work and the Department has installed an electronic mail system for this purpose. Microcomputers can be used as terminals to the central computer to use the system.

2.3.3 Standards

All computer systems developed by users should follow the departmental standards for naming systems, programs, files, records and fields. The Manager, Computing Branch will provide details on request.

2.3.4 Documentation

A user manual and system documentation is required for all computer systems. It is the responsibility of the relevant managers to ensure that this documentation is written and available. Specifications for documentation are also available from the Manager, Computing Branch. In all financial areas, it is essential that Treasury and Audit Department requirements are met.

Syd Shea
EXECUTIVE DIRECTOR

Distribution Lists: A,B,C,D,E,F.

Commercial Computer Packages

Packages in use on the Concurrent Computer (Perkin Elmer) are

- NEM - Electronic Mail
- RMS - Records Management
- Status - Information Retrieval
- RUS - Database updating
- RQL - Database queries
- Reporter 32 - Database report writing

- SPSS - statistics
- STX - multistage sampling
- IMGRID

Packages in use on the Vax are

- Intergraph geographic information and mapping
- Digital terrain modelling
- Elastic body transformations
- Polygon processing
- NTP numerical taxonomy
- SAS statistics

Packages in use on microcomputers are

- DBase III - database
- Knowledgeman - database and graphics
  (Dataflex-database
  (PC-file-database
- Lotus 123-spreadsheet and graphics
  PC-CALC-spreadsheet
- Multimate-word processing
- PC-Write-word processing
- Open Access II-database, spreadsheet
- Adapt - Land planning
- PE6312 - Concurrent terminal emulation
- Kermit - Terminal emulation, file transfer
- SAS - statistics
- Displaywrite-word processing

Major Computer Systems in Use

The major computer systems in use on the Concurrent computer (Perkin Elmer) are

- General Ledger
- Debtors
- Pine logging
- Hardwood logging
- Vehicle & plant management
- Budgeting
- Telephone directory
- Training courses
- Staff mailing lists
- External mailing lists, publications subscriptions
- Fire Behaviour
- Safety accidents
- Crown reserves register
- NEM electronic mail
- Seed store stocks
- Piles, poles and sleepers
- MLI management level forest inventory
- POTS pine operation thinning schedules
- Free growth trials
- FMIS land management information
- Smoke predictions
- Pine plantation areas
- Hardwood and pine permanent inventory plots
- Noise level calculations
- Log volume calculations
- Pine mapping
- Forest region geographic information
- Dieback mapping
- Husky portable data capture

PRIORITY LIST OF COMPUTER PROJECTS

PRIORITY	SYSTEM	UNDER DEVELOPMENT OR PROPOSED	EXPECTED COMPLETION
High			
	Records Management System	Development	Feb 87
	Hardwood Logging	"	87
	FMIS Conversion to Vax	"	Nov 86
	Automated Data Capture	"	
	Computer Mapping	"	
	Collect Land Data	Development	
	Pine Information System	Deferred	
	Crown Register Rewrite	Development	Dec 86
	Kangaroo Management Rewrite]	Development	Mar 87
	Wildlife and Land Licenses]	Development	" "
	Karri Regrowth Model	Development	
	Personnel (PIMS)	Proposed	Feb 87
	Payroll	Proposed	June 87
	Computing for new Regions	Proposed	
	General Ledger Rewrite	Proposed	Dec 87
	Flora Atlas Plot	Development	
	Fire Ecology	Development	
	Rare Flora Database	Proposed	
	Fire Suppression	Deferred	
	Dieback geographic analysis	Development	
	Seed site mapping	"	
dium	Mining Rehabilitation	Proposed	
	Apiary Sites	"	
	Management Planning Review	"	
	Word Processing document transfer	"	
	Land Records and Tenure	"	
	Business Graphics	"	
	Creditors	"	
	Improve Statistics for Research	"	
	Rewrite Pine Logging	"	
	Species Distribution	"	

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Biological Survey	Devel ment
Vegetation Survey	Propo d

Low

Logging Plans	Propo: d
Hardwood Mapping	"
Dieback Modelling	"
Jarrah Simulation	"
Landscape	"
Aerial Photo Index	"
Waterbirds	"
Vegetation Monitoring	"
Cartographic Systems	"
Migration of systems	"