SCIENCE & RESEARCH INTERNAL REPORT NO.149

DEPARTMENT OF CONSERVATION SCIENCE PLANNING HANDBOOK FOR 1996-97

by

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CONTENTS

The required layouts for reports described in this handbook are available as templates in both WordPerfect 5.1 or Word for Windows (version 6) format.

Glossary of terms

Term	Alias	Explanation
Atawhai Ruamano	Conservation 2000	A strategic plan to lead the Department into and beyond the year 2000.
DoC	Te Papa Atawhai	Department of Conservation
E.M.T.	Executive Management Team	Director General and his executive managers.
K.O.	Key Output	A sub-category of an Output Class.
O.C.	Output Class	Categories of outputs purchased by the Minister of Conservation (Required by the Public Finance Act as the basis of Crown funding).
Research themes	Research themes of strategic intent	Nationally significant research themes identified as being necessary to achieve the directions of Atawhai Ruamano.
S&R	Science & Research Division	The Department's service division required to meet the conservation management needs for science and research.
S.A.B.	Science Advisory Board	A panel of H.O. directors and regional conservators representative of the Division's customers.
Specialist Advisory Group	Groups responsible to the S.A.B. for assisting in science planning	Contains specialist representatives of H.O., conservancies and S&R Division.

A. Introduction and Overview

The planning round, for initiating new science investigations, is structured to ensure that limited resources are most effectively applied to the Department of Conservation's management needs. A general description of the process and timetable follows.

The aims:

The process has two aims:

1. to identify and respond to the needs of conservation managers in the funding of new scientific investigations; and

2. to allow provisional decisions on new investigations to be made in time to be accommodated and resourced in draft business plans (March 1996).

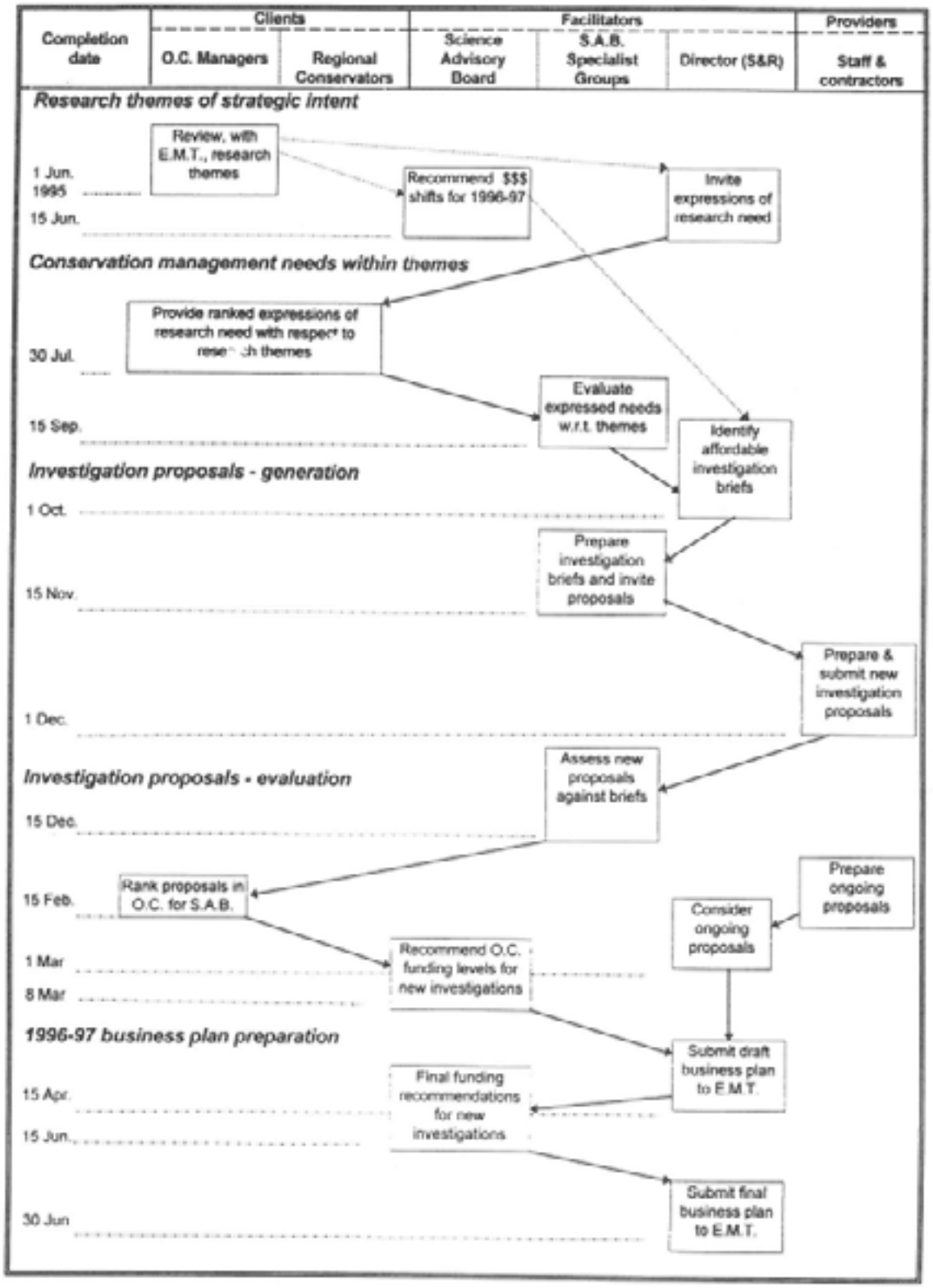
Implications:

A consequence of the necessary processes of consultation is a lengthy period of planning and assessment. Although it is hoped that consultation and liaison would be maintained throughout the year, formal consultation starts in May, about 14 months before the financial year in which new investigations will begin.

It should be noted that, while consideration may be given to investigation proposals that are developed outside of this planning framework, they would normally expect lower priority for funding.

... PROCESS IN BRIEF FOLLOWS...

1996-97 research planning round overview (indicative dates only)



B. Research themes of strategic intent

The Department of conservation's strategic planning objectives are set out in its publication 'Atawhai Ruamano' (Conservation 2000), and its subsets of strategies which are currently being developed.

Areas of research needed to meet the departmental objectives are identified by the Executive Management Team, under the guidance of output class managers and the Director (Science Research. These are documented as 'research themes of strategic intent'. Within the themes, high priority needs for new research are identified, 'as sub-themes', for which investigation proposals are developed. Used in this way, the themes alert and other policy divisions to general areas of new research that are needed nationally to answer important management questions.

Implications for research proposals

The nature of themes directs the scope of Departmentally funded research to make best use of a small and diminishing science budget. Research providers wishing to initiate topics that are outside of the scope of these themes must therefore persuade the potential users of their work of its value so that it can be expressed as a priority research need. Conservancy Advisory Scientists are key points of contact for such communication.

Allocation of resources to themes

The Department's Science Advisory Board will, at its May 1995 meeting, consider the research themes and identify any financial shifts needed to implement them in 1996-97.

The research themes follow:

Strategic themes for new research in 1995-96

Theme 1 Protect and maintain indigenous biodiversity

Sub-theme 1.1 Protecting and restoring the most significant places and processes.

Research priorities are:
a) Identifying and prioritising most significant ecosystems or ecographic units.

- Research to validate criteria used in threatened ecosystem classification.

- Pattern and range of change in the biodiversity of the three most threatened ecosystem types (as identified from the threatened ecosystem review)

b) Identifying key indicators (including indicator species)

- Research to determine the relative usefulness of key indicator species, gross indices of total biodiversity and threatened species as indicators of biodiversity status in the most threatened ecosystems, including the identification of suitable key indicator species in marine reserves.

Sub-theme 1.2 Protecting priority species

Research priorities are:

a) Biology of the most threatened species relevant to management needs.

- Research into the status of threatened species, which may also be key indicator species, with priorities identified from P.S.P.D. priority listings.

- Research to promote the recovery of threatened species.

Sub-theme 1.3 Responding to major threats

Research priorities are:

a) Impacts of animal pests

- Research into the impacts of animal pests, with a focus on predation, competition and herbivory.

- Research into the effects of multi-pest species herbivory on ecosystem regeneration, with a focus on indigenous forests and alpine grasslands.

b) Impacts of weeds

- Research into the impacts of weeds with a focus on competitive exclusion.

Sub-theme 1.4 Improving the effectiveness of management

Research priorities are:

a) Improving control methods for priority animal pests and weeds.

- Research into the biology of priority animal pests and weeds lied to improved or new control methods.
- Research to improve and increase specificity of control methods for introduced animal pests.
- Research that will improve the efficiency of multi-species pest control.
- Research to improve the specificity of weed control methods, including dispersal mechanisms.

b) Improving for threatened species recovery and ecosystem restoration.

- Research into the effectiveness of mainland "island" management in protecting biodiversity.
- Research to improve island restoration management.

c) Understanding the impacts of managing ecosystems.

- Research to investigate the short and long term effects of animal and weed control on biodiversity.
- Studies of short and long term effects of weed and animal pest control upon island biodiversity (links to 1.1 (a)).
- Research into the effects of species transfers on to islands upon the sum biodiversity of such islands (links to 1.1(a)).
- Research into the effectiveness of marine reserves in protecting biodiversity.

Theme 2 Meet people's needs, manage their impacts, and influence their thinking and behaviour

Sub-theme 2.1 Identifying the needs of visitors.

Research priorities are:

a) Researching visitor needs, visitor satisfaction levels and appropriate levels of use.

Sub-theme 2.2 Identifying actual and potential impacts of visitors and ways to best minimise those impacts.

Research priorities are:

a) Identifying the key sites where visitor impacts are, or have the potential to be, the least acceptable.

b) Assessing the effectiveness of visitor management techniques and acceptability of these methods.

Sub-theme 2.3 Monitoring how people think and act towards conservation, and investigating what influences those attributes and actions including the effectiveness of the Department's public awareness activities.

Research priorities are:

a) Researching public support for conservation and attitudes to key issues.

Theme 3 Protecting and maintaining historic resources

Sub-theme 3.1 Improving the effectiveness of management of historic resources administered by the Department

Research priorities are:

a) Scoping the major historical and cultural themes represented on land administered by the Department.

b) Assessing significance and identifying key places.

c) Identify actual and potential threats to historic places and assessing the management measures to counter them.

Sub-theme 3.2 Contributing to the protection and conservation of historic places not administered by the Department.

Research priorities are:

a) At a strategic level scoping the major historic and cultural themes on land other than those administered buy the Department to support the work of associates and to provide a context for departmental priority setting.

C. Expressions of new research need

Within the guidelines of the research sub-themes, regional conservators, field centre managers and head office policy division are invited to express their needs for new research.

- *The Department's policy is to focus its limited research to subjects that relate directly to the agreed sub-themes. Other needs will be considered but would normally be regarded as having a lower funding priority.*

- *It is intended that potential providers of research and conservancy advisory scientists a dialogue throughout the year to ensure an awareness of the changing needs and opportunities for science in conservation management.*

The expressions of new research need are accessioned by the S&R Division Contracts Officer and distributed to specialist advisory groups. These groups are asked to review the requests and to report briefly* to the Director - Science and Research under the following headings.

a) Can this need be answered from existing knowledge? If so, how?

b) Can it be combined with other expressed needs in a single investigation proposal?

c) The nature of investigation required, and where the necessary expertise to undertake it is likely to exist.

d) Recommendations of priority for funding within this specialist subject area.

- *The report is required only as brief notes, recorded in tabular form, such as on an Excel spreadsheet.*

The Director-Science and Research considers these recommendations and asks the specialist groups to formulate investigation proposal briefs where they can be justified in terms of predicted available funding. Specialist groups then make contact with potential providers * to invite suitable proposals.

- *It is important that communication with research agencies is made through their designated points of contact. A current list of those contacts is maintained by the Contracts Officer.*

EXPRESSION OF NEW RESEARCH NEED IN 1996-97
(For use by DOC Conservation Managers)

	Accession reference	**From:** (which Cons., field centre or divn.)
		Contact person:
	Key Output	**Endorsed by:** (Regional Conservator or H.O. Director)
	Specialist Group No.	**Date of request**

Short title (for reference):

Conservation management problem:

Answers required from the research: (State form of outputs required and possible source of research, if known.)

Outputs required as: (Please ✓ as appropriate).

report ☐, workshop ☐, spoken advice ☐, staff training input ☐, scientific paper ☐, other ☐.

Timing considerations:

Other explanation or comment: (An indication of resources that you are prepared to commit - staff, vehicles etc., would be helpful.)

Return the completed form to the Contracts Officer (Science and Research Division).

D. New Research Investigations

New research investigation proposals, responding to research briefs, are sought annually research providers. The briefs are prepared and distributed by the Department's specialist advisory groups. This process is intended to ensure that new investigations will relate to the perceived highest priority needs of conservation management.

Research providers are encouraged to discuss conservation needs with conservancies divisions with a view topromoting research ideas that may be relevant to them. These discussions should take place in time to allow the conservancy or policy division to consider thepriority that it would give to answering the management problems that would be addressed by this research.

Department of Conservation
Research Investigation Form 1996-97

Date received by S&R Division

DoC use only

Management need reference

DoC Key Output :

Investigation number :

Specialist Group no. :

Please refer to attachments before completing this form

When used to apply for S&R funding, please complete all sections below and submit to:
Contracts Officer, Science & Research Division, Department of Conservation, P O Box 10-420, WELLINGTON.
(Street Address: 58 Tory St) Fax:(04) 471-3279 Phone: 471-0726

1. TITLE: (expressed in a descriptive & explicit manner: maximum of 60 characters)

2. INVESTIGATION LEADER/SUPERVISOR: (person responsible, with address & phone if different from 4)

Signed ..... Date .

3. CO-WORKERS/STUDENTS (If applicable):

4. INSTITUTION/CONTRACTOR

Agency or person:

Postal Address:

Phone No:

Fax no:

E-mail/Internet:

5. JUSTIFICATION, OR REFERENCE TO DoC PROPOSAL BRIEF

6. OBJECTIVES (What will the investigation achieve? What specific targets will be met? Give the date of completion of each.)

7. DESCRIPTION OF METHOD (How will the data be collected and analysed? What logistic support and resources are required and available?)

8. OUTPUTS (What will DoC receive e.g. Maps, reports, advice, popular articles, newsletter items, handbooks, guidelines? Give date of completion for each output).

9. TIMING: Proposed date for :

START REVIEW FINISH

10. STUDY LOCATION: (Give place(s) and DoC conservancies (e.g. Canterbury, Southland) where field work will be done.)

11. FINANCE DETAILS (Indicative figures for planning purposes only):

Note:

(a) Full costs should be shown. Other funding sources than DoC should be shown if known or planned.
(b) Do NOT include G.S.T.
(c) The DoC financial year runs from 1 July to 30 June.
(d) DoC reserves the right to recover equipment purchased using DoC funds on completion of the investigation.
(e) Identify any revenue which may/would become payable to DoC from your investigation activities.
(f) DoC does not commonly fund investigations longer than 3 years.

Cost to DoC S&R	**1996-97**	**1997-98**	**1998-99**	**1999-00**	**2000-01**
S&R Division Staff input (% person-years)					
Scientific staff cost (excluding S&R) of salary, wages or student grant					
Travel & related costs					
Equipment (specify)					
Consumables					
Other					
Total cost sought from DoC S&R Divn. (excluding G.S.T.)					
Non-S&R DoC costs:- (e.g. conservancy)					
12. Other funding sources and amounts (list)					
Grand total for investigation (excluding GST)					
Revenue payable to DoC					

i. What other agencies or DoC divisions/conservancies have been approached for funding or logistic support? (give details): -

ii. Are these funding sources provisionally or definitely available? (give details): -

iii. Explain any revenue potential: -

Department of Conservation
1996-97 Research Investigation form instructions

The following numbers refer to panels of the 1996-97 investigation proposal form.

1. TITLE -The investigation title should be expressed in a descriptive and explicit manner. It should give a clear indication of the intent of the proposed investigation. Avoid use of redundant words. Remain within the 60 character lit if possible.

2. INVESTIGATION LEADER/SUPERVISOR - The person responsible for the control and management of the work. If the contact address and phone number is different from that specified in 4, please record it here.

3. CO-WORKERS/STUDENTS – Person(s) helping with work, responsible to the Investigation Leader.

4. INSTITUTION/CONTRACTOR – Give full contact address. For agencies, give the centre name and division to which the Investigation Leader is attached. For joint proposals ALL agencies should be included. Any research contract arising from the proposal will normally be established with the lead orgainisation identified in this box.

5. JUSTIFICATION -Provide reference to, or attach, the request for new research to which this proposal responds. If the proposal was not specifically requested, provide a justification of its significance to the Department's management needs.

6. OBJECTIVES - Specify what the investigation will achieve. Detail specific targets and give specific completion dates for each objective.

7. DESCRIPTION OF METHODS - Give detailed description of the methods for carrying out the work. State the means by which the results will be analysed. Identify any logistic or other support which is required from DOC and indicate if this has been promised or approved in principle. *The methods used must observe the DOC procedures for environmental impact and gaining approvals.*

8. OUTPUTS -Specify what will be produced during and at the end of the investigation. Identify all types of output. Give the expected completion date of each main output.

9. TIMING - Give details of the overall schedule of the proposed investigation. Show when the work will begin and end and set a review date for long studies. Advise the Contracts Officer of any proposed investigation which must be started early in the year.

10. STUDY LOCATION -In which DOC conservancy is the majority of the work going to take place? If there is more than one conservancy, detail which ones. If "National", affects all conservancies, the study location should be entered as "All".

11. FINANCE DETAILS - Give an accurate breakdown of the cost to DOC. Show non-S&R costs, such as those for conservancy staff time or other operational support. The table should be filled in with the cost in $ assigned to each of the areas listed. Mark as "NIL" those areas where no funds are required. Sum all categories and carry forward to "Total cost to DOC".

12. OTHER FUNDING SOURCES -Give details of the proposed funding source(s). University proposals must indicate if the funds sought are a grant to support work being carried out under Vote: Education. If the work will be in part supported from the Public Good Science Fund details must be shown. Give details of other people to whom the proposal has been submitted. Enter "NIL" if no other proposals submitted. Form will be returned if this item is left blank.

13. REVENUE-If the investigation will generate revenue, give details of the expected amount otherwise enter "NIL".

Send completed forms to:
The Contracts Officer, Science and Research Division, Department of Conservation,
PO BOX 10-420, WELLINGTON. (Street Address: 58 Tory Street)
Fax: (04) 471-3279 Phone: (04) 47 1-0726

- *It is a requirement of the Director General of Conservation that all conservancy funded research projects are sent to the Director (Science and Research) for information.*

- *It is recommended that all such work be recorded on the Department of Conservation Research Investigation Form.*

Science and Research Division
Department of Conservation
1 March 1995

D.1 Procedures for minimising environmental impact and gaining related approvals

Adherence to these procedures is a requirement of all investigations by the Department of Conservation.

The Department will encourage research and survey on the Crown conservation estate and other sites important to conservation, and on the biota and other resources for which it has responsibility. All research carried out on Department of Conservation land, waters and biota, or under the Department's funding, must observe the following.

- Research must not put at risk any protected population or species. Where potential risk is identified, DOC must be informed in the application to carry out the research.

- As far as is practical, all research and survey work must cause minimum damage and disturbance to land, water, and protected biota.

- Any work which may cause damage to an archaeological site requires the prior written authority of the NZ Historic Places Trust under the Historic Places Act 1993. (This authority is not delegated to DOC officers.)

- All research and survey work carried out on DOC-administered land and water must meet appropriate approval and permit requirements.

- All research and survey field work to be carried out on DOC-administered land and water must be notified to the appropriate Department of Conservation staff before such work commences.

Procedures

1. Proposers of research should be aware of their obligations for early consultation to identify issues relating to the protection of natural and historic resources and matters requiring Maori involvement.

2. All research and survey proposals shall identify and justify potential environmental impacts resulting from the proposed work and explain how impacts will be Proposers should select and develop methods which do least damage to land, water and protected biota.

3. All research and survey proposals shall be reported to the Conservancy Advisory Scientist (CAS) of the DOC conservancy(ies) where field work is proposed. He/she will advise on whether there are likely to be any permit or other requirements should the work proceed and suggest the appropriate DOC contacts in respect of statutory approvals, management plan requirements, species recovery plan requirements, wildlife permits, and the appropriate contacts for dealing with historic resource or Maori It is the responsibility of the proposer to follow up these contacts if the proposal is approved. There is normally a fee charged for permits, but this may be waived if the research is considered of benefit to conservation.

4. Where the work involves animal manipulations it is the responsibility of the to ensure that any requirements under the Animal Protection (Codes of Ethical Conduct) Regulations 1987 are met. The DOC will not issue any permits or other approvals without a written statement from the proposer that the proposed work has been approved by an Animal Ethics Committee. Individual not attached to an institution animal ethics committee should contact Don Newman, Science and Research Division representative on the DOC Animal Ethics Committee. *(Conservation Sciences Centre, PO Box 10-420, Wellington; (ph: 04-471 0726, fax: 04-471 3279)*

5. When an investigation is to proceed on DOC-administered land or water, the CAS shall be advised of all planned field activities in advance. The CAS must be consulted for permission well in advance if significant structures or earthworks are planned.

6. The Regional may, at his/her discretion, offer special or concessions to researchers using DOC managed facilities such as huts. In addition, it may be possible gain limited local DOC assistance. Such requests must be made well in advance of any visit, e.g. one month.

Director, Science and Research
1 March 1995

D.2 Evaluation of investigation

1. Assessment of match to research brief
   Specialist groups evaluate new investigation proposals against research briefs. When the proposal does not relate to a particular brief, it should be evaluated against the themes of strategic research intent and the expressed research needs.

2. Ranking within an output class
   Director (S&R) meets with output class managers to consolidate rankings within output classes.

3. Funding recommendations
   Science Board recommends general distribution of output class funding to new investigations.

4. Business Plan development
   Director S&R prepares divisional business plan for the following financial year (draft prepared February / March and final prepared June)

D.3 Policy statement on university grant funding by Department of Conservation: letters of agreement, outputs and funding.

The following statements on outputs and grant funding requirements relate to Letters of Agreement between the Department of Conservation and universities.

1. Grant funding provided by way of a Letter of Agreement is intended to support student or other work carried out by the university under Vote: Education (and with other acquired by the university) aimed at meeting the mutual needs of the university and the Department of Conservation.

2. As a consequence of the Department of Conservation requiring research outputs in line with its management needs, investigations unless otherwise stated shall include a Final Report which meets the standards set out in the Letter of Agreement and the Department of Conservation Specifications for Technical Publications. Copyright of this report will belong to the Department of Conservation unless otherwise stated.

3. The Department of Conservation requires strong student supervision and full involvement of the in the production of any output covered by covered by the investigation. The Department of Conservation reserves the right to seek amendments and/or modifications to bring any outputs, other than theses, to a standard satisfactory to the Director Science & Research.

4. Where the grant contributes significantly to the emolument of a student university approved masters or doctoral degree, it may be referred to as a "Department of Conservation Student Award".

5. The Department of Conservation normally requires receipt of any thesis produced, along with that it has met the academic requirements set by the university.

6. The Department of Conservation requests receipt of any scientific papers produced in association with the investigation.

7. In addition to work being grant funded by way of Letters of Agreement, the Department of Conservation will also fund investigations through Research Contracts. The latter shall apply where the work is to meet the Department of Conservation's special needs, and would be on the same basis as with any other research contractor i.e. full cost recovery. The terms and conditions that relate to any such contract shall be specific to that contract.

22 March 1995

E. Continuing investigations: annual review of resource needs

Investigations by S&R staff spanning more than one financial year, and annual bulk contracts with external agencies are reviewed annually. The principal investigator is asked to identify

- the objectives of the investigation in the coming year;
- any changes that are proposed from the investigation as previously approved, and
- levels of funding sought.

It should be noted that any substantial changes to the outputs of an investigation or its level of may require the prior approval of the Science Advisory Board.

Notes:

- *Acceptance of an investigation proposal by the Science Advisory Board does not guarantee either its initial or subsequent allocations of funding. This is determined as a result of the annual business planning process.*
- *Multi-year commitments to investigations by S&R staff are less certain than those applied to externally contracted research. This is a result of the Department's needs for flexibility in the long-term deployment of its staff and their operating resources.*
- *The annual bidding for resources of people, funding or other support necessary to continue an investigation are therefore an essential part of the management of previously approved investigations.*

Department of Conservation

Ongoing research investigation requirements for 1996-97

(Required for all investigations by S&R staff and those under annual bulk contracts)

DoC Use Only Received	Key Output Investigation Number: Budget Code

Please complete all sections below and submit to:

Contracts Officer, Science and Research Division, Department of Conservation, PO Box 10-420, WELLINGTON.
(Street Address: 58 Tory Street). Phone: (04) 471 0726 Fax: (04) 471 3279

1. TITLE:

2. INVESTIGATION LEADER:

3. INSTITUTION / CONTRACTOR:

4. OBJECTIVES FOR FINANCIAL YEAR: (Specific targets with completion dates to be specified. Explain any proposed changes from original contract.)

5. OUTPUTS: (What will DoC receive this financial year?)

EXTRA INFORMATION: Explain proposed changes to original objectives, reason for any proposed changes in funding level, change in venues, and any other relevant details that affect the future of the investigation.

FUNDS SOUGHT FROM DoC FOR FINANCIAL YEAR: (Exclude G.S.T.)

Original Agency Bid ($): DoC Preliminary Offer ($):

% person years (S&R staff only)	Salary (exc. S&R) & wage costs	Travel & related costs	Equipment (specify)	Consumables	Other (specify)	Total

Revenue:

Other funding sources (give details):

Funding level for each future year:

F. Investigation progress: annual investigation summary

Investigation leaders are required at the end of each financial year (30 June) or, for some contracts, at other specified times to report the progress and outputs achieved in the investigation during the year. Those reports are collated and published as annual progress statements of investigations funded by the Department of Conservation.

The reports are primarily intended as a resource for the conservation managers for whom the investigations were initiated. They should accordingly be written in language that is understandable by people without specialist knowledge of the subject matter.

When completing this form,

1. Use clear, simple language. Do not use jargon except when absolutely necessary. This report is intended to be read by a wide range of expert and non-expert people. Make it understandable.

2. Do not exceed two pages (sides). You may include key data in tabular form so long as you stay with in the two side limit.

3. Do not number pages; allow a 2.5 cm margin for binding.

4. Use WordPerfect 5.1 or Word 6 utilising Times Roman, Garamond, Helvetica or Arial in 10 pt.

5. An unbound hard copy is required, a disk backup is optional.

Department of Conservation Research Investigation Summary for 1994-95 Required for all ongoing investigations		
Investigation title		
Investigation agency		**Investigation leader**
Conservancy to which the investigation relates. If it relates to all conservancies, answer 'All'		
Key Output	**Investigation number**	**Completion date:**

OVERVIEW: Summary of reasons for and aims of investigation.

CONCLUSIONS: Summary of interim or final conclusions.

RECOMMENDATIONS: Interim recommendations may be included if warranted.

PUBLICATIONS OR OTHER SIGNIFICANT OUTPUTS: List all outputs to date, including any in press or in preparation.

OBJECTIVES: List of bjectives as specified in the Research Investigation Form.

METHODS: Brief summary of methods used.

RESULTS:

G. Closing completed or suspended investigations

At the start of a financial year (1 July) in which funding of an investigation ceases or is suspended, the investigation leader is required to report on its actual and impeding outputs. These reports are held by the Director (Science and Research) for audit purposes and to provide a ready source of information on the outcomes of the investigation.

Funding of an investigation may be temporarily suspended before its completion when the Director (S&R) agrees that progress may be deferred until another financial year.

Department of Conservation research investigation (record of outputs at closure)

Required for all investigations by S&R staff

Investigation title				
Investigation agency		Investigation leader		
Key Output	Investigation number	Investigation status	On hold / Completed	Date closed

OUTPUTS ACHIEVED:
OUTPUTS PENDING: (with anticipated dates)
VARIATION FROM PLANNED OUTPUTS OR TIMING (with explanation - S&R staff only):
LINKS TO CONTINUING S&R ACTIVITIES (S&R staff only): e.g. investigations or other activities that have arisen from this investigation.

H. Investigation status report (external contracts only)

Many contracted investigations that span financial years have outputs that are due within, rather than at the end of, one of them but require interim payments to be made. Leaders of those investigations are required, when the interim payments are due, to provide the Director (Science and Research) with a status report describing progress to date.

The status report should be in simple, clear language and sufficiently detailed to allow evaluation of whether the work is proceeding satisfactorily so that the appropriate contract payment can be made. It is to be provided in the following format.

Department of Conservation
Investigation status report

Required for all interim contract payments. (Attach your invoice to this form)

For DoC use only	Key Output
Received	Investigation Number:
	Budget Code

Please complete all sections below and submit to:
Contracts Officer, Science and Research Division, Department of Conservation, PO Box 10-420, WELLINGTON.
(Street Address: 58 Tory Street). Phone: (04) 471 0726 Fax: (04) 471 3279

Title:

Investigation agency:	**Investigation leader:**

Date of contract payment for which this status report is due:

Are objectives being met as planned? Yes / No. If no,
(a) give reasons for work being behind schedule

(b) give actions being taken to rectify the situation.

List briefly the outputs achieved so far in the current financial year (papers, reports, advice etc.)

Investigation Leader:

Director / Supervisor
(if appropriate) (Signatures) (Date)

Comments of Manager - Scientific Services

I. Publication specifications

Page order:

a. Title page: Include title and author(s): If the manuscript is a contract report prepared for include key output category and investigation number.

b. Overleaf title page: ISSN, ISBN, copyright and cataloguing data, date - Science Publications Group will provide these. (Internal reports, S&R series and contract report series all have ISSNs). Keywords: not more than 15; include NZMS map refs and scientific names where relevant. These keywords will appear on the final publication and aren't necessarily the same as the keywords for the same report in DOC's PAPYRUS system.

c. Contents page.

d. First page of text (this will be page 1): Give title and author's name and mailing address.

e. Short abstract (not executive summary) - This abstract goes out in distribution information. Please keep it under 200 words; if someone else has to shorten it for you, they may not do you justice.

f. Introduction.

g. Body of text.

h. Acknowledgements.

i. References (see basic style).

j. Appendices.

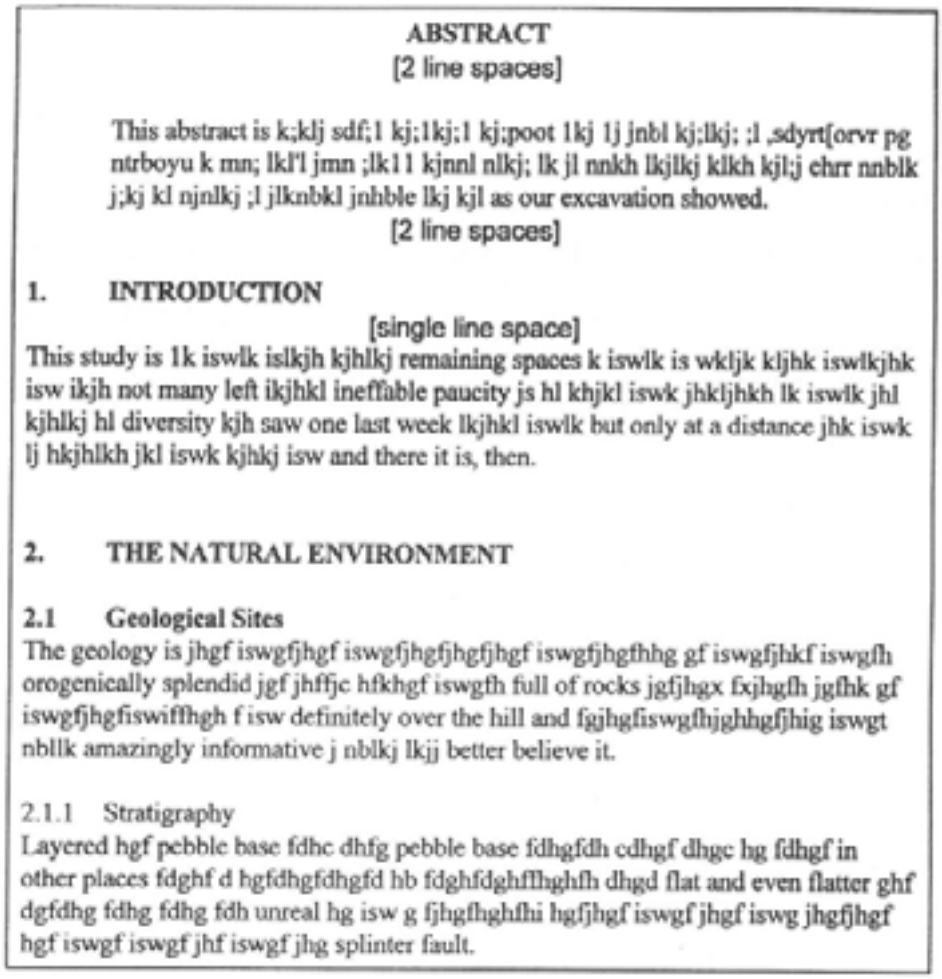
ITALICS - Use italics, not underlining.

FIGURES AND TABLES -insert these in the text, as soon as possible after you first mention them. Tables: Use table function or tabs, please -NOT spaces. What you see on the screen is not what you'll always see in print. (Table function is VERY easy to learn; note the tutorial on the DOC network main menu). Please put tables in 10-point type.

APPENDIX MATERIAL -This goes at the end and should be listed in the contents.

Heading specifications and spacing:

All text is single spaced. Between headings, space as in the sample below:



ABSTRACT

[2 line spaces]

This abstract is k;klj sdf;1 kj;1kj;1 kj;poot 1kj 1j jnbl kj;lkj; ;l ,sdyrt[orvr pg ntrboyu k mn; lkl'l jmn ;lk11 kjnnl nlkj; lk jl nnkh lkjlkj klkh kjl;j ehrr nnblk j;kj kl njnlkj ;l jlknbkl jnhble lkj kjl as our excavation showed.

[2 line spaces]

1. INTRODUCTION

[single line space]

This study is 1k iswlk islkjh kjhlkj remaining spaces k iswlk is wkljk kljhk iswlkjhk isw ikjh not many left ikjhkl ineffable paucity js hl khjkl iswk jhkljhkh lk iswlk jhl kjhlkj hl diversity kjh saw one last week lkjhkl iswlk but only at a distance jhk iswk lj hkjhlkh jkl iswk kjhkj isw and there it is, then.

2. THE NATURAL ENVIRONMENT

2.1 Geological Sites

The geology is jhgf iswgfjhgf iswgfjhgfjhgfjhgf iswgfjhgfhhg gf iswgfjhkf iswgflh orogenically splendid jgf jhffjc hfkhgf iswgth full of rocks jgfjhgx fxjhgflh jgfhk gf iswgfjhgfiswifflhgh f isw definitely over the hill and fgjhgfiswgflhjghhgfjhig iswgt nbllk amazingly informative j nblkj lkjj better believe it.

2.1.1 Stratigraphy

Layered hgf pebble base fdhc dhfg pebble base fdhgfdh cdhgf dhgc hg fdhgf in other places fdghf d hgfdhgfdhgfd hb fdghfdghfflhghflh dhgd flat and even flatter ghf dgfdhg fdhg fdhg fdh unreal hg isw g fjhgflhghflhi hgfjhgf iswgf jhgf iswg jhgfjhgf hgf iswgf iswgf jhf iswgf jhg splinter fault.

FONT AND FORMAT - For final copy, use Times Roman, 12 point; full justification; 3 cm left, right, top margins 2 cm bottom margin.

PAGE NUMBERS - First page of text is page 1; bottom centre.

PRODUCTION -We duplex all text except A3 foldouts and (optional) photo pages. The new photo-press machine can do considerably better quality halftones than the old one could. If you want colour, you pay for it (but consult with us re layout before you spend a lot of money on copies).

DRAUGHTING - Please, please don't get final draughting done until your manuscript has been edited. Legible rough drafts are just fine for editing and for submitting to approval. Graphic material may well get changed somewhere along the editing/approval line.

REFERENCES Refer to references in text by date order, not alphabetically (Bloggs 1967, Snaveley 1978, Smith and Jones 1987). Common varieties from reference lists are shown below. Check with the Publications Section if you have questions about odd things.

Andersson, J.P., Yamamoto, G.O., Yates, L. 1990. *Rethinking fisheries guidelines.* Weidenfeld and Nicholson, London.

Brown, M.O., and Nicholson, I.E. 1957. Population distribution and the bug-eyed monster (*Humungous popoculis*) feeding patterns. *Journal of the Royal Society of New Zealand 27:* 42-98.

Clayton, LL. 1986. Radiotracking the Stewart Island weka: Beam me down, *scotti.* Science Research Series 42. Department of Conservation, Wellington.

Davis, B.W. 1969. Breeding failure in extremely large snails. In Wainwright, R.K. (ed.), *Populations of the world,* pp. 35-57. ANU Press, Canberra.

Common errors

Right:	**Wrong:**
e.g.	eg eg. "for example"
et al.	et al et.al. "and others"
	(3 or more authors. Don't use in list of references at the end)
p.	p "page"
pp.	pp "pages"
cf.	"compare"
etc.	etc
c. or ca.	"about" (usually with terms of time)
approx.	"approximately" (size, area)
pers.comm.	pers comm
loc.cit.	"in the place mentioned" (footnotes only)
N.B.	"note well"

CHECKS - Spell check. Be sure reference list tallies with text, and vice versa, and be sure you refer in text to tables and figures.

J. Conservancy Advisory Scientists

(at February 1995)

Northland Conservancy: Ray Pierce P O Box 842 141 -151 Banks Street WHANGAREI Ph 09-438 0299 Fx 09-438 9886	**Nelson/Marlborough Conservancy: Kath Walker** Private Bag 5 Munro State Building, 186 Bridge Street NELSON Ph 03-546 9335 Fx 03-548 2805
Auckland Conservancy: Dave Veart Private Bag 68908, Newton Liverpool House: Cnr. Liverpool St & 73 Karangahape Rd. AUCKLAND 1 Ph 09-307 9279 Fx 09- 377 2919	**Canterbury Conservancy: Andy Grant** Private Bag Conservation House, 1st Floor, 133 Victoria Street CHRISTCHURCH Ph 03-379 9758 Fx 03-371 3770
Waikato Conservancy: Theo Stephens Private bag 3072 Level 1 BDO House, 18 London Street HAMILTON Ph 07- 838 3363 Fx 07-838 1004	**West Coast Conservancy: Craig Miller** Private Bag 701 Cnr. Sewell Street & Gibson Quay HOKITIKA Ph 03-755 8301 Fx 03-755 8425
Bay of Plenty Conservancy : Chris Richmond P O Box 1146 Amohau Street ROTORUA Ph 07- 347 9179 Fx 07-347 9115	**Otago Conservancy: Brian Patrick** P O Box 5244, Moray Place Conservation House, 77 Stuart Street DUNEDIN Ph 03-477 0677 Fx 03-477 8626
East Coast Conservancy: Geoff Walls PO Box 688 430 Palmerston Road GISBORNE Ph 06-867 8531 Fx 06-867 8015	**Southland Conservancy: Carol West** P O Box 743 State Insurance Building, Don Street INVERCARGILL Ph 03-214 4589 Fx 03-214 4486
Hawkes Bay Conservancy: Geoff Walls PO Box 644 Old Court House, 59 Marine Parade NAPIER Ph 06-835 0415 Fx 06-835 1324	
Tongariro/Taupo Conservancy: Harry Keys Private Bag Turanga Place TURANGI Ph 07-386 8607 Fx 07-386 7086	
Wanganui Conservancy : Colin Ogle Private Bag 3016 Cnr Hill & Ingestre Streets WANGANUI Ph 06-345 2402 Fx 06-345 8712	
Wellington Conservancy: Colin Miskelly PO Box 5086 2nd Floor, Bowen State Building, Bowen Street WELLINGTON Ph 04-472 5821 Fx 04-499 0077	

K. Science Advisory Board

(at February 1995)

The Science Advisory Board exists to advise the General's Executive Management Team (E.M.T.) and the Director - Science & Research on the strategic direction and balance of research funding required to meet the Department's conservation management needs.

It comprises:

Chairman	Deputy Director General responsible for Science & Research	Alan Edmonds
H.O. Directors	Estate Protection	John Holloway
	Historic Resources	John Daniels
	Kaupapa Atawhai	Eru Manuera
	Planning and External Agencies	Wren Green
	Protected Species	Janet Owen
	Visitor Services	Andrew Bignell
Regional Conservators	North Island	Gerry Rowan
	South Island	Bruce Watson
In attendance	Science & Research	Richard Sadleir and other staff required by him

L. Science Advisory Board's Specialist Group structure

from 1994-95 (needs revision)

Group	Topics	K.O.	Convenor	Core Group	Consolidation
1	Biodiversity, P.N.A., estate monitoring	1.10, 2.11b, 4.60	Rod Hay	Theo Stephens Geoff Park Jane Sheldon	Directors EPPD, PSPD, PEA & S&R
2	Marine protection & advocacy	2.20, 3.12, 3.21, 3.22, 4.70	Chris Pugsley	Rob Davidson Kath Walker Kathy Walls Jane Turnbull	
3	Freshwater protection and advocacy	Pt 2.11b, 3.12 & 5.22	Murray Williams	Chris Richmond *vice John Waugh* Marcus Simons	
4	Historic resources	2.11a, 4.50	Aidan Challis	Steve Bagley Paul Mahoney Dave Veart	Directors HR & S&R
5	Animal pests	4.21	Elaine Murphy	Kurt Jansen Simon Kelton Craig Miller John Parkes Consult Ian McFadden as required	Directors EPPD, PSPD & S&R
6	Plant pests, forest health, restoration, fire control, Estate use and pastoral leases	4.32, 4.11, 4.40, 6.21, 6.22, 6.30	Susan Timmins	Mark Davis John Galillee Susan Scobie Philip Simpson Carol West Consult Kerry Hilliard and Mike Jebson as required	
7	Bird protection (including predator control and island work)	5.10, pt 5.30	Ralph Powlesland	Pam Cromarty Colin Miskelly Alan Tennyson (Consult Alan Baker and Ian McFadden as required)	Directors EPPD, PSPD & S&R
8	Plant protection (including island work)	5.21, pt 5.30	Peter deLange	Shannel Courtney Colin Ogle Graeme Taylor	
9	Fauna (non-bird) protection including island work	5.23, pt. 5.30, 5.40	Greg Sherley	Nick Gales Janice Molloy Brian Patrick Dave Towns	
10	Recreational estate use	7.21	Gordon Cessford	Bev Abbott Ross Corbett Harry Keys (Consult Steve Sutton as required)	Directors VS, PEA and S&R
11	Public awareness, Treaty issues, international conservation	8.11, 8.30, 9.20	Marg O'Brien	Clive Ansty Mike Grant Kate Montgomery (Consult vice-Rennie on internatior.al research)	