The last *Conservation Advisory Science Note*

Nine years of published science advice

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Keywords: conservation, advice, science, index.
Abstract

The origin and rationale of the Conservation Advisory Science Notes series is explained along with its relationship to the external unprogrammed science advice fund of the Department of Conservation. The series will cease publication in June 2001. The full series of 346 titles is listed with an index to authors.

1. Introduction

The Department of Conservation (DOC) asserts the need for conservation management to be underpinned by good science. Many programmes within the Department have day-to-day needs for science advice to underpin, support and explain management needs and actions. Often these arise unexpectedly and have not been programmed into the annual budget.

When the Department was formed in 1987, its in-house science unit was recognised as having capacity covering only part of the broad-spectrum needs of the Department. Accordingly, bulk funding was provided to secure external science research and advice. During the first five years of the Department the advice funding was limited to 4 agencies primarily within the then Department of Scientific and Industrial Research (DSIR).

DOC staff requiring science advice were able to consult with staff in these agencies, and the cost of such consultations were charged against the advisory component of the external science funds. During the first 5 years of the Department's operations some $1.2 million were expended in obtaining such science advice or services. Much of the advice was to individuals and verbal. While such individuals and the Department may have benefited, there was little residual evidence of what advice was received and by whom. Similar advice was often requested by different parts of the Department.

With the formation of various Crown Research Institutes from the previous DSIR in 1992 the Department introduced new procedures for obtaining external Unprogrammed Science Advice and Services (UPSA). The network of Conservation Advisory Scientists (CAS) had recently been extended so that a scientist was generally provided in each Conservancy. A paper allocation of advisory funding was made to each Conservancy, and management staff requests to use the fund were channelled through the relevant CAS.

The usual scenario entails a manager with a problem. The CAS or Science & Research Unit (SRU) of the Department is consulted for assistance in defining the problem and in finding a prompt answer. In many cases this consultation reveals that relevant
information or methods are already known and available within the Department, or the published literature, and can be applied to the problem. If this is not the case, then a search is made for a suitable contractor within the local or national scientific community. In some cases the search needs to be made world-wide.

The funds for purchasing external advice were retained by the SRU, which ultimately arranged for payment of the external contractor. Crucially, the decision was made to, where possible, publish the advice received. This would enable others to not only see and make use of the advice received, but to see who was able to provide advice, and potentially solve a science problem within their own programmes.

These published items were gathered in a registered series entitled Conservation Advisory Science Notes (ISSN 1171-9834). Their defined brief has been printed on the cover of all publications in the series:

**Short Answers in Conservation Science**

_This report is published by Head Office, Department of Conservation, and presents the results of scientific services or advice purchased from a consultant outside the Department or provided by Departmental scientific staff._

The unprogrammed science advice fund process was designed to be a simple one, with the prime requirement being a written question, which clearly states the management or scientific problem, requiring a written answer which _may_ be published in Conservation Advisory Science Notes (CASNotes). Answers which were not published include chemical analyses, raw data for inclusion in other reports, and reviewers comments on other advice or reports, where the CASNote reader does not have access to the original document under review.

There have been some primary rules covering access to the fund (see also Appendices A and B):

1. All unprogrammed science advice paid for by SRU must be received as written advice to a written question or request for laboratory or other approved technical service.

2. As a general rule these funds are only for the payment of costs (including overheads) for written advice - a report. Travel and other expenses such as survey or field investigation are the responsibility of the Conservancy or part of the Department needing the advice or service.

3. **Funding does not cover** oral advice, routine survey, routine analysis of materials, appearance at tribunals or hearings on behalf of the Department, or services which are obtainable from SRU or other Conservation Service Units. Advisory tasks associated with a contracted DOC funded external research investigation must be charged to that investigation and not UPSA. No new UPSA on the same topic or extension of a topic is allowed in another financial year - it should then have been programmed. All contracts let to universities must be to a permanent staff member (who may use a supervised student of their choice to provide a report, which should also include the contracted staff member as an author).
Initially the advice was published as it was received, with only the addition of a standard series cover. This was the most economic form of distribution, but did produce a variable image according to the visual quality of the material provided by the contractor. In spite of this visual quality, it did show the scientific quality of the advisory product being purchased.

The introduction of the DOC publication standards in 1996 required that CASNotes adhere as far as possible to this standard. A compromise was allowed, in that while text should be formatted according to the standard, tables and illustrations could remain in the format provided by the contractor and would be treated as appendices. Adherence to this design standard, however, introduced the costs of typesetting, formatting and an increased amount of proofing and administration, which ultimately reduced the amount of money available for advice. In 1999, the fund was increased to cover these costs plus the costs of printing previously borne by SRU. In 2000/2001, some 21% of the fund was used for these production costs.

In 2001, SRU decided that the CASNote series should cease, and that material previously channelled to the series would in future be subsumed within the DOC Science Internal Series. Their publication from July 2001 would initially be on the DOC intranet, and hard copies of groups of reports would be published as compendia later. This final CASNote provides a commentary on the origins, operational summary and index of the full series.

2. Discussion

CASNotes have proven to be an efficient method of ensuring accountability and the visibility of urgent science advice during the past nine years. Designed to provide rapid responses to specific questions, the processes of formatting and publication have in recent years tended to slow the immediacy of the advice to other than those with the original problem.

They have provided a significant pool of generally reliable advice to the Department in a manner which has enabled the wider general and scientific community to view what advice has been given. I have searched without success for a similar system world-wide and can find no equivalent. As a publicly available advisory series it enabled this part of the scientific underpinning of the Department to be assessed alongside other DOC series which directly report on scientific research results.

Advice based on the best available knowledge, advance results of research, or the contractor's experience can often provide more immediacy for the manager than the results of a closely focussed research programme which may not directly address the specific problem faced, while still needing further interpretation to enable a useful scenario and "advice" for the manager.

However, advice does have caveats. It may represent only a narrow point of view, and in some cases there are alternative points of view and wider questions for the manager to consider. There are examples of this within this series, some published as separate pieces of advice, while others have the results of other consultations included.
Ultimately the manager must make a decision, while recording how that decision was made, the range of advice received, and reasons for its acceptance or rejection.

The benefit to science and the Department has been a growing understanding by managers that science, scientific methods and advice, can help to solve management needs, and especially the small day-to-day problems which may arise. This is a continuing problem in any organisation which has to operate in an applied science environment. Often, advice based on the best available knowledge and experience may be the only material which a manager can use. A result from a specific research programme and its peer-reviewed journal publication may be years away.

Publication of advice provides an important science transfer and advocacy tool for the Department, in that the advice published is often received from independent sources and provides views which complement or criticise proposed actions. This has assisted and should continue to assist in providing healthy and informed debate. The advice received is also a window in time and represents the best answers when given. This is not to presume that advice will always remain constant and will not change as knowledge increases.

Another important result of the unprogrammed science funding and the publication of this series has been the significant number of topics which have later developed into more closely focussed research projects, or to report methods or trials leading to further research work. As such, the USPA fund and the publication series have in themselves provided an important underpinning to conservation science, as well as management.

Appendix C gives a full listing of the CASNote series. The advice they contain has been required by, and affected, most of the statutory functions of the Department over a nine-year period. This role will now be promulgated through the DOC Science Internal Series.

4. Acknowledgements

I wish to acknowledge the initial support and contribution of Rob McColl in the formulation of processes for the Unprogrammed Science Advice fund and the principle of publishing the results; the responsibility of administrating the fund and the CASNote series referred to me by Richard Sadleir, the late John Holloway and Geoff Hicks as the Managers of Science & Research in the Department of Conservation and as the final arbiters of approval for publication; the Conservation Advisory Scientists who over the years have committed the UPSA funds wisely, and struggled at the interface of management and science to find answers to some interesting and provoking questions; Miriam Dangerfield of Hutcheson Bowman & Stewart who successfully matched the publication standard layouts; Geoff Gregory of Word Therapy who provided some of the formatting as well as a smooth transfer process and proofing from original to final copy; Kaye Green and Sue Wilkins have managed the production of the final product. Since May 2000, Ian West has provided me with the administrative and managerial link to the departmental processes; Ian West and Kaye Green reviewed a draft of this report.
# Appendix A

DEPARTMENT OF CONSERVATION  
SCIENCE & RESEARCH UNIT  
ORDER FOR EXTERNAL UNPROGRAMMED SCIENCE ADVICE/SERVICES

<table>
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<th>Conservancy:</th>
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**TO (Supplier) Name:**

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<th>Address</th>
<th>Telephone</th>
<th>Fax.No.</th>
<th>Email</th>
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**FROM (Client) Name:**

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<th>Address</th>
<th>Telephone</th>
<th>Fax.No.</th>
<th>Email</th>
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1. Please provide written science advice report/services on the topic/question(s) listed, and at the price quoted below.
2. Please provide one typed copy of the advice/service to the originator of this order.
3. Please provide one typed original (see over for instructions) of the advice/service with your GST Invoice to: CAS Co-ordinator, SRU, PO Box 10-420, Wellington.

**Supplier Quotation Provided by (Name):**

<table>
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<tr>
<th>Date Written Advice/Service required:</th>
<th>Date Quotation provided:</th>
<th>Quoted cost (excluding GST):</th>
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**Question(s) for which advice/service is required (Please type or print clearly). Use extra page if needed.**

**Name & Signature of person authorised to order advice/service:**

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<tr>
<th>SRU Alloc.</th>
<th>Other Authority</th>
<th>Not valid unless signed.</th>
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CAS Co-ordinator Signature if Bid for unallocated funds approved.

**Extra Amount Approved from SRU $______________________**
Appendix B

ORDERS FOR EXTERNAL UNPROGRAMMED SCIENCE ADVICE/SERVICES
ALL PARTIES TO READ CAREFULLY AND FOLLOW REQUIREMENTS

PROCEDURES TO BE FOLLOWED BY DOC STAFF

1. DOC Client to prepare written question(s)/request for services/advice for action by Conservancy Advisory Scientist (CAS), or Head Office Director (HOD), or CAS Co-ordinator, SRU.

2. Client, CAS or HOD to obtain verbal or written quotation (excluding GST) from supplier. Please ensure that any supplier is aware of the conditions for delivery and payment as set out below, before a quotation is given or an order made.

3. CAS or HOD complete advice/service request form (see attached). Provide local Reference No. (top right).

4a. If allocated funds still available, forward original to supplier and copy to CAS Co-ord. CAS or HOD to keep copy.

4b. If allocated funds are wholly or partly exhausted, but Conservancy or HO policy division is able to provide the extra funds needed - add payment authorisation codes plus dollar amount and send original to supplier and a copy to CAS Co-ord. CAS or HOD to keep copy. PLEASE NOTE the instructions to suppliers (1) below. Agreed additional costs (not funded by SRU) over and above the cost of the required report should be added by Client authorisation code so that the supplier only incurs the cost of one invoice.

4c. If allocated funds exhausted and Conservancy or HO policy division cannot pay locally, submit the original order and two copies to CAS Co-ord as a bid for unallocated funds. If approved CAS Co-ord. submits order. Copy is returned to CAS or HOD if successful in bid. All copies returned if the bid is not successful.

5. CAS and HOD to keep register of all authorities given as a check on use of allocations.

PROCEDURES TO BE FOLLOWED BY SUPPLIERS OF SERVICES/ADVICE

1. Provide quotation on request for written services/advice. Please note that if supplier is not registered for GST the amount quoted will be the maximum amount paid. Suppliers not registered for GST will have withholding tax deducted from any final payment except reimbursement of an approved and listed expense. Unless previously agreed and written in the order specifications, payment will only be made for the provision of a written report. PLEASE NOTE. Charging for any oral advice, or travel and other expenses will not be accepted by SRU. Suppliers giving extensive oral advice to DOC clients and/or incurring travel or other expenses may need to make their own arrangements with the Client for payment that is separate from amounts agreed to in this order. See also Note in 4b above.

2. Advise whether the task can be completed by the required date. Give adequate notice if an extension of time is required at any time.

3. Written advice to be provided as specified below with a covering letter on official letterhead of the supplier. Please show in the report:-
   a) a short, clear descriptive title and up to 10 Keywords
   b) name and address of person(s) and organisation(s) supplying advice
   c) question/service sought by client
   d) reported information and references
   e) statement recording any restrictions on the use of the information

4. Send copy of report to the client.

5. Send original copy of report plus GST Invoice for payment to CAS Co-ordinator, SRU, PO Box 10-420, Wellington. No invoice will be paid unless copy of written advice is provided. Please note that Invoices sent anywhere else will incur delays in payment.

6. Most reports received will be automatically considered for publication in the series Conservation Advisory Science Note. Accordingly all final reports should be in a format submitted to the CAS Co-ordinator as follows:
   1) One original hard copy on one side of A4 sheets. 2) Disk copies as (a) WordPerfect/Word file and (b) DOS ASCII file. No Macintosh files please. 3) All original figures, tables, and other illustrations must be provided in final hard copy form to fit without change in final presented material within an A4 page (maximum margins 2.5 cm top and bottom; 1.5 cm left and right of page). Ideally all text printed within or on figures (not captions) to be in Helvetica/Arial typeface. Fold out pages not accepted. 4) All tables, figures and illustrations to be presented and referred to as Appendices to the text of the report and placed after the completed text. 5) Photographic illustrations will be dot screened for printing purposes and printed in Black & White. No material for colour printing will be accepted except in exceptional circumstances and only with prior approval from CAS Co-ordinator. 6) Suppliers may order up to 20 copies of their published report free of charge.

C J R Robertson. (CAS Co-ordinator SRU), 25 July 1995
Appendix C

SERIES LIST,
CONSERVATION ADVISORY SCIENCE NOTES
(ISSN 1171-9834)

10 Spurr, E.B. 1993. Comment on proposed experimental control of wasps on Tuhua island using 1% 1080 in water.
13 Lalas, C. 1993. Status and monitoring of marine shags in Otago Conservancy, with recommendations on research needs.
21 Wilcock, R.J. 1993. Effects of Roundup® and Pulse® on aquatic ecosystems.
23 Lambert, D. 1993. DNA fingerprinting studies of teal and ducks.
Atkinson, IAE. 1993. The kiore threat to kakapo.


Nugent, G. 1993. Recalibration of the regression model used to predict deer densities in the Blue Mountains recreational hunting area.


Patrick, B. 1993. Use of CCA tanalised timber in or near waterways.


Chisnall, B. L. 1994. An unexploited mixed species eel stock (Anguilla australis and A. dieffenbachii) in a Waikato pastoral stream, and its modification by fishing pressure.


Bourner, T. C.; Syrett, P. 1994. The suitability of New Zealand moss species and heather litter as oviposition sites for the heather beetle, Lochmaea suturalis (Coleoptera: Chrysomelidae).


99 Ecroyd, C. E. 1994. Regeneration of *Pittosporum tenueri*


103 Moore, P. J. 1994. What is a bad season for yellow-eyed penguins?


114 Davis, P. 1995. The domestic fuelwood sector in Whangarei and Northland and the role of manuka as a fuelwood and a forest.


117 Simpson, P. 1995. Alongside the water - Parewai: a concept to restore ecological health to riverbanks and similar places.


139 Freeman, A.B.; Hickling, G.J.; Bannock, C.A. 1997. Responses of the native skink Leiolepis macconnelli to two pest control baits.
141 Wigley, P.J. 1997. Elimination of microsporidian infections from quarantined heather beetle populations.
146 Miskelly, C.M. 1997. Whitaker's skink Cyclodina whitakeri eaten by a weasel Mustela nivalis.
151 Spurr, E.B. 1997. Assessment of the effectiveness of Transonic@ESP and YardGuard@ ultrasonic devices for repelling stoats (Mustela erminea).
160 Freeman, A.; Wilson, K.J. 1997. Results of the Westland petrel satellite tracking programme 1995 season
161 Beggs, J.; Rees, J. 1997. Honeydew abundance in two areas at St Arnaud
162 Collier, K.J. 1997. Changes in substrate and diet of blue duck on Tongariro River after the 1995 Mt Ruapehu eruption
173 Spurr, E.B.; Wright, G.R.G.; Potts, M.D. 1998. Persistence of sodium monofluoroacetate (1080) and diphacinone in hen eggs for control of stoats (Mustelaerminea).
185 McDonald, S. 1998. The parasitology of the black stilt (Himantopus novaezelandiae).
188 Bellingham, P.J. 1998. A potential network of permanent forest plots for the West Coast Conservancy.


Brook, F.; McFadden, I. 1998. Placostylus hongii at the Mokohinau Islands.


Bockett, F.K. 1998. Ungulate effects on tawa (Beilschmiedia tawa) forest in Urewera National Park.


Buckingham, R. 1998. South Island kokako search, Abut Head, South Westland

Singers, N. 1998. Rare plant conservation at the Tangimoana dunelands.


Miller, C.; Slater, M. 1998. Representative areas: Research needs of indigenous forestry.


Walls, G. 1998. Motu-o-Kura (Bare Island), Hawkes Bay: Monitoring since rat eradication.


225 Brook, F. 1999. Invertebrate conservation in Northland.
228 Tocher, M. 1999. Big Bay skink (Oligosoma sp.): taxonomy, distribution and habitat requirements.
234 Lawrence, B. 1999. Live rats and mice as lures for stoats.
235 Walls, G. 1999. Forest monitoring on Pitt Island: "Just you ask the plants".
238 McDowall, R. M. 1999. West Coast whitebait fishing closed areas workshop.
239 Wallis, G. 1999. Genetic status of New Zealand black stilt (Himantopus novaezelandiae) and impact of hybridisation.
241 Miller, C. 1999. Significant Natural Areas and Timberlands West Coast production forests.
242 Walls, G. 1999. Rapid assessment of ecological condition and trend of conservation areas in Hawke's
244 Jamieson, C. 1999. Existing records of the carabid beetle Oregus inaequalis Castelnau in coastal Otago.

258 Richardson, T. 1999. DNA finger printing of maire (Nestegis cunninghamii) tissue.


266 Andrew, N. L.; MacDiarmid, A.B. 1999. Sea urchin fisheries and potential ecological interactions with a kina fishery in Fiordland.


269 McQueen, J.; Forester, L. 2000. Succession in the Kaimaumau Gumland, Northland, following fire.


272 Wiles, G. 2000. Love them or lose them... Palm forests of Pitt Island and their wildlife. An ecological assessment of management needs, with comment from Pitt Islanders.


302 Chisnall, B.L. 2000. The Australian long finned eel, Anguilla reinhardtii, in New Zealand.
304 Allibone, R. 2000. Fish population and fish passage monitoring for Orokonui Creek, Otago.
306 Lawrence, B.L.; Dilks, P.J. 2000. Effectiveness of diphacinone to control stoat populations.
310 Murray, D.P.; Sanders, M.D. 2000. Assessment of Chatham Island as a location for liberation of black stilts.
313 Wilson, K. J. 2000. Trial of burrow flaps to protect petrel chicks.
316 Lawrence, B.; Palmer, D. 2000. Detecting critical changes in mohua (Mohoua ochocepheala) populations.
318 Studholme, B. 2000. Shiprat (Rattus rattus) irruptions in South Island beech (Nothofagus) forest.
319 Greene, T.C. 2000. Forbes’ parakeet (Cyanoramphus forbesi) population on Mangere Island, Chatham Islands.
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