

SCIENCE AND RESEARCH INTERNAL REPORT NO.19

DIRECTORY OF TRANSFER FUNDED AGENCIES

Compiled and edited by

Jane L Napper

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Science and Research Directorate,
Department of Conservation,
P.O. Box 10-420,
Wellington, New Zealand

July 1988

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SECTION A : TRANSFER FUNDED AGENCIES AREAS OF EXPERTISE

1. Botany Division, DSIR
2. Ecology Division, DSIR
3. Marine and Freshwater Sciences Division, DSIR
4. Water Quality Centre, DSIR
5. Soil Conservation Centre, DSIR
6. Hydrology Centre, DSIR
7. Freshwater Fisheries Research, MAF
8. Forest Research Institute, MOF
(Indigenous Forest Management, Entomology Group and Pathology Group)
9. Forestry Research Centre, MOF
(Forest Animal Ecology and Forest and Grassland Ecology)

AREAS OF RESEARCH CAPABILITY

Agency	1	2	3	4	5	6	7	8	9
<u>Ecosystems</u>									
Marine	/	/	/	/			/	/	
Coastal	/	/	/	/			/		
Estuarine	/		/	/					
Freshwater	/		/	/		/			
Foreshores			/						
Islands	/	/	/						
Wetlands	/		/	/				/	
Dunes/Desert	/							/	
Herbfield/Alpine	/								/
Grass/Tussockland	/	/			/				/
Scrub/Shrubland	/	/			/			/	/
Forest	/	/						/	/
<u>Atmosphere</u>									
Urban	/								
Sub/Antarctic	/	/	/				/		
<u>Plants</u>									
Vegetation	/				/			/	/
Lower Plants	/		/	/				/	/
Upper Plants (incl. ferns)	/							/	/
Seeds/Reproduction	/	/						/	/
Plant Physiology	/								/
Plant Morphology	/							/	/
Diseases/Pests	/							/	
Taxonomy/Systematics	/		/						
Weeds/Noxious Plants	/				/				/
Introduced Species	/				/			/	/
Endangered Species	/	/						/	
Aquatic	/		/	/		/	/		
<u>Animals</u>									
Invertebrates		/	/	/				/	
Entomology/Arthropods		/					/		/
Molluscs			/	/			/		
Fish				/			/	/	
Amphibians		/							
Reptiles		/							
Birds	/	/	/					/	/
Mammals	/	/					/	/	/
Diseases/Parasites		/					/		
Predators		/						/	
Behaviour	/	/					/	/	/
Physiology/Reproduction		/					/	/	
Systematics			/				/		
Introduced Species	/	/						/	/
Endangered Species	/	/						/	

Agency	1	2	3	4	5	6	7	8	9
<u>Biology</u>									
Microbiology	/		/			/	/		
Genetics	/						/		
Biochemistry	/		/				/		/
<u>Ecology</u>									
Plant Ecology	/	/	/		/			/	
Animal Ecology	/	/	/				/	/	
Nutrient Cycling/ Ecophysiology	/	/	/				/		
Biogeography	/	/	/				/	/	
<u>Physical Sciences</u>									
Climatology/Meteorology	/		/		/	/			/
Geology	/		/		/				
Topography/Landforms/ Geomorphology	/		/		/				/
Geochemistry/Mineralogy	/		/						
Geophysics/Physics			/			/			
Geothermal	/		/						
Palynology/Paleoecology/ Palaeontology	/							/	
Speleology									
Pedology (Soils)	/				/				
Hydrology			/	/	/	/	/		/
Soil Conservation/Erosion			/	/	/				/
Air Pollution									
Water Pollution/Water Quality			/	/		/	/		/
Coastal Processes			/	/	/	/			
Oceanography			/		/		/		
Energy			/		/		/		
<u>Management</u>									
Fisheries			/			/	/		
Aquaculture			/				/		
Agronomy/Agriculture	/	/						/	/
Biological Control								/	
Indigenous Forest management	/							/	/
Agroforestry/Exotic Forestry Control			/		/			/	/
Introduced Mammal Control	/	/						/	/
Wildlife Management								/	/
Game Management								/	/
Endangered Species Management	/	/						/	

Agency	1	2	3	4	5	6	7	8	9
Protected Areas	/	/	/		/	/			
Mining Impacts	/	/	/		/				
Natural Hazards			/		/	/			/
Catchment Management			/	/	/	/			/
Hydro Management			/	/		/			

Social Sciences

Anthropology/Archaeology									
Maoritanga									
History									
Historic Buildings/									
Historic Sites									
Architecture									
Landscape Architecture									
Planning/Environmental Law								/	
Resource Management/EIA	/	/	/	/		/	/	/	
Resource Economics							/		
Sociology/SIA									
Demography									
Recreation								/	
Tourism									
Education		/	/						

Technical Skills

Stats/Biometrics	/	/	/		/		/	/	/
Computing	/	/	/	/	/	/	/	/	/
Data Modelling	/	/	/	/	/	/	/	/	/
Mapping			/			/	/	/	/
Photogrammetry/Photography	/	/	/				/	/	
Inventory/Survey	/	/	/	/	/	/	/	/	/
Information Systems	/		/			/	/	/	/
Chemical Analysis			/	/		/			/
C14 Dating/Physical/Nuclear Analysis			/						
Nurseries	/	/			/		/	/	/
Herbarium/Collections	/	/	/		/		/	/	/

SECTION B - CONTACT NAMES FOR TRANSFER FUNDED AGENCIES

1. Botany Division, DSIR
2. Ecology Division, DSIR
3. Marine and Freshwater Sciences Division, DSIR
4. Water Quality Centre, DSIR
5. Soil Conservation Centre, DSIR
6. Hydrology Centre, DSIR
7. Freshwater Fisheries Research,
8. Forest Research Institute, MOF
9. Forestry Research Centre, MOF

1. Botany Division

When appropriate contact

Director
Warwick Harris
Botany Division
DSIR
Private Bag
CHRISTCHURCH (03)252511
Location: Canterbury Agriculture and Science Centre
Ellesmere Junction Road, LINCOLN

Other contacts:

Peter Wardle
or Matt McGlone
or Colin Webb

of Botany Division
DSIR
Private Bag
CHRISTCHURCH (03)252511
Location: Canterbury Agriculture and Science Centre
Ellesmere Junction Road, LINCOLN

Nigel Clunie
Botany Division Regional Station
DSIR
PO Box 194 (0887)80556
KAIKOHE
Location: Cumbers Road, KAIKOHE

Alan Esler
Botany Division Regional Station
DSIR
Private Bag
AUCKLAND (09)893660
Location: Mount Albert Research Centre
120 Mount Albert Road, AUCKLAND

Bruce Clarkson (after December 1988)
Botany Division Regional Station
DSIR
C/o FRI
Private Bay
ROTORUA (073)473899
Location: Whakarewarewa

Peter Johnson
Botany Division Regional Station

DSIR
Private Bag
DUNEDIN (024) 774-052
Location: 764 Cumberland Street, DUNEDIN

Geoff Walls
Botany Division Regional Station
DSIR
Private Bag
HAVELOCK NORTH (070) 778-196
Location: Goddard's Lane, PALMERSTON NORTH

Ian Atkinson
Botany Division Regional Station
C/o Soil Bureau
DSIR
Private Bag
LOWER HUTT (04) 673-119
Location: Eastern Hutt Road, LOWER HUTT

Peter Williams
Botany Division Regional Station
DSIR
Private Bag
NELSON (054)81082
Location: Cawthron Institute
Milton Street, NELSON

2. Ecology Division, DSIR

General enquiries: Rod Hay (04)694859
Section Leader
Information and Advisory Services
Ecology Division
DSIR
Private Bag
LOWER HUTT

or

John Flux (04)694859
Scientist
Ecology Division
DSIR
Private Bag
LOWER HUTT

or

Mike Clout (054)81081
Section Leader
Ecology Division
Private Bag
NELSON
[Wellington callers 739-408 Wgtn]

or

Dave Ward (070)778196
Officer in Charge
Ecology Division
DSIR
Research Orchard
Goddard's Lane
HAVELOCK NORTH

Contact and business management enquiries:

Mike Rudge (04)694859
Business Manager
Ecology Division
DSIR
Private Bag
LOWER HUTT

Research management, policy, administration:

Malcolm Crawley (04)694859
Director
Ecology Division
DSIR
Private Bag
LOWER HUTT

Casual enquiries may be addressed directly to the staff members concerned. (See staff list section C.)

3. Marine and Freshwater Sciences Division, DSIR

Contact the person directly concerned with the information required. (See staff list, section C.)

4. Water Quality Centre

Staff may be contacted directly as appropriate, if however, there is doubt about whom to approach contact

Noel Burns
Scientist in charge

or

Burns Macaskill
Assistant Scientist in charge

at

Water Quality Centre
DSIR
PO BOX 11-115
HAMILTON (071)67026
Location: 100 Aurora Terrace
Hillcrest, HAMILTON

5. Soil Conservation Centre

Initial contacts are:

Grant Hunter
Group Leader (03)519233
or
Ian Whitehouse or
Marketing Manager (03)517471

or individual staff as appropriate

at
Soil Conservation Centre
DSIR
PO Box 1479
CHRISTCHURCH
Location: 85a-87a Clyde Road
CHRISTCHURCH 4

6. Hydrology Centre

Initial approach to

Steve Thompson or (Richard Ibbitt, Deputy)
Scientist in charge
Hydrology Centre
DSIR
PO Box 22037
CHRISTCHURCH (03)530099

7. Freshwater Fisheries Research, MAF

Contact through:

Manager
Bob McDowall
Freshwater Fisheries Research
MAF
PO Box 8324
Riccarton
CHRISTCHURCH (03)488939
Location: Kyle Street
Riccarton, CHRISTCHURCH

or

the Officer in charge of various research groups or
laboratories. The Officers in charge are:

Nigel McCarter
Freshwater Fisheries Research
MAF
PO Box 951
ROTORUA (073)479579
Location: Geyser Court Building
ROTORUA

or

James Boubee (073)479579
Freshwater Fisheries Research
MAF
Private Bag
HAMILTON
Location: Sir Charles Heaphy Building
HAMILTON

or

Eric Graynoth
Freshwater Research and Assessment Group
Freshwater Fisheries Centre
MAF
PO Box 8324
Riccarton
CHRISTCHURCH (03)488939

or

Peter Todd
Salmon Research
Freshwater Fisheries Centre
MAF
PO Box 8324
Riccarton
CHRISTCHURCH (03) 488939

or

Gavin James
Freshwater Fisheries
PO Box 96
Oamaru
Location: Government Building, OAMARU

However, once operational relationships are developed, interaction is best with the relevant individuals.

8. Forest Research Institute

Contacts are:

Botanical enquiries to Dr John Herbert
Zoological enquiries to John Innes
Insect enquiries to Gordon Hosking
Propagation, establishment and tending of native species enquiries to George Pardy
Pathological enquiries to Peter Graggill at Forest Health and Improvement Division
Forest Research Institute
Private Bag
ROTORUA (073)475899

9. Forestry Research Centre

Contacts are:

Jim Coleman
Research Field Leader
Forest Animal Ecology
FRC
PO BOX 31-011
CHRISTCHURCH (03)517099

or

Udo Benecke
Research Field Leader
Forest and Grassland Ecology
FRC
PO BOX 31-011
CHRISTCHURCH (03)517099

SECTION C :STAFF LISTINGS FOR ALL TRANSFER FUNDED AGENCIES

1. Botany Division, DSIR
2. Ecology Division, DSIR
3. Marine and Freshwater Sciences Division, DSIR
4. Water Quality Centre, DSIR
5. Soil Conservation Centre, DSIR
6. Hydrology Centre, DSIR
7. Freshwater Fisheries Research,
8. Forest Research Institute, MOF
9. Forestry Research Centre, MOF

* Contact person.

1. BOTANY DIVISION, DSIR

LINCOLN (Headquarters)

* Warwick Harris (Director)	Grassland ecology; genecology
* Peter Wardle	Book on NZ vegetation; vegetation survey, especially in mountainlands; vegetation processes, ecophysiology
Andrew Thomson	Plant science history; biographies, bibliographies; plant virology
Colin Meurk	Ecology and management of native grasslands; ecology and biogeography of subantarctic and mountain regions; conservation ecology; lichen identification
Brian Molloy	Quaternary and fire history of vegetation; production of field guides; taxonomy of several groups; floristic and vegetation analysis.
Trevor Partridge	Vegetation succession; quantitative ecology; estuaries and wetlands
*Matt McGlone	Quaternary botany, paleoecology; climate history; biogeography.
Rajni Patel	Wood anatomy
Melva Philipson	Ultrastructure of plant reproduction and secretion, plant endophyte relationships. Electron microscope services.
Elizabeth Edgar	Taxonomy of monocotyledons especially grasses, sedges and rushes.
Phil Garnock-Jones	Taxonomy of Dicotyledons, especially Caryophyllaceae, Asteraceae, Brassicaceae, Ranunculaceae and Hebe.
David Given	Astereceae, Roseaceae and Pteridophyta; endangered species; island and arctic-alpine floras; geothermal floras.

Bryony MacMillan	Taxonomy especially Acaena and bryophytes.
Bill Sykes	Naturalised and cultivated dicotyledons; introduced gymnosperms; flora of Pacific Islands.
Allan Fife	Taxonomy of cryptogams, especially mosses, liverworts and lichens.
*Colin Webb	Reproductive biology, naturalised dicotyledon flora; taxonomy of naturalised Asteraceae, Apiaceae, naturalised Fabaceae.
Murray Parsons	Taxonomy of marine benthic algae (seaweeds).

NELSON (Regional substations)

*Peter Williams	Vegetation survey; weeds; indigenous tall tussock grasslands; environmental impact assessment.
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DUNEDIN

* Peter Johnson	Vegetation survey; Otago, Southland; sand dunes; wetlands.
Ralph Allan	Indigenous and naturalised plant ecology; vegetation management.
Bill Lee	Indigenous and naturalised plant ecology; vegetation management

LOWER HUTT

*Ian Atkinson	Vegetation mapping; vegetation dynamics; soil-plant and plant-herbivore relationships; island management.
Geoff Kelly	Vegetation survey.

HAVELOCK NORTH

* Geoff Walls	Conservation ecology; off-shore islands; ethnobotany.
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AUCKLAND

*Alan Esler Ecological information on the Auckland area.

KAIKOHE

* Nigel Clunie Ecology of northern indigenous rainforests, scrublands, wetlands; vegetation survey and assessment; weed ecology; mammal browsing; software development - botanical information technology

ROTORUA

*Bruce Clarkson Botanical survey; native vegetation management

2. ECOLOGY DIVISION, DSIR

Dr R E Brockie
(Scientist,
Lower Hutt) Animal demography; distribution and numbers of possums and hedgehogs. Biomass of terrestrial ecosystems.

D J Campbell
(Scientist,
Lower Hutt) Forest ecology; influence of soils and geology on vegetation patterns. Effects of exotic animals on vegetation composition and succession. Flora, vegetation and biogeography of subantarctic islands.

*Dr M N Clout
(Section Leader,
Nelson) Ecology of New Zealand pigeons. Impact of exotic afforestation on wildlife. Ecology of possums in beech and exotic forests. Evolutionary relationships between frugivorous birds and native trees.

Dr J E Cockrem
(Scientist, Taita) Avian physiology, especially endocrinology. Seasonal reproduction cycles in birds and mammals. Antarctic wildlife.

Dr P E Cowan
(Section Leader,
Taita) Rodent and possum behaviour, particularly ethology of exploration. Denning behaviour of possums. Possum population dynamics. Energetics of mammals.

<p>*Dr M C Crawley (Director, Lower Hutt)</p>	<p>Seal biology, especially of the New Zealand fur seal. Wildlife management and conservation. Applications of ecological science.</p>
<p>Mr M J Daniel (Scientist, Lower Hutt)</p>	<p>Survey of bat distribution in New Zealand; ecology, biology, behaviour and conservation of New bats. Long-term studies of in lowland forests and correlation with climatic variables.</p>
<p>Dr M G Efford (Scientist, Lower Hutt)</p>	<p>Possum demography; biometrics; landsnails; spacing behaviour.</p>
<p>Dr B M Fitzgerald (Scientist, Lower Hutt)</p>	<p>Ecology of rodents, carnivores and forest birds. Tundra ecology.</p>
<p>*Dr J E C Flux (Scientist, Lower Hutt)</p>	<p>Starling population dynamics and genetics of clutch size; hare biology; distribution of rabbits; kaka nestbox design.</p>
<p>* J R Hay (Section Leader, Lower Hutt)</p>	<p>Rare bird ecology; Pacific island wildlife; reserve design and management; environmental assessment.</p>
<p>Mr M E Hearfield (Technical Officer, Lower Hutt)</p>	<p>Use of computers for collation and analysis of biological data.</p>
<p>Mr B J Karl (Technical Officer, Nelson)</p>	<p>Ecological aspects of feral cats and rodents. New Zealand pigeons. Faecal analyses. Radio-telemetry.</p>
<p>Dr N P E Langham (Scientist, Havelock North)</p>	<p>Ecology of feral cats in agricultural land. Population ecology of terrestrial and marine birds.</p>
<p>Mr K M Lay (Technical Officer, Havelock North)</p>	<p>Radio-telemetry design and manufacture.</p>
<p>Mr B W H McMillan (Technical Officer Auckland)</p>	<p>Diet of house sparrows in relation to available weeds in field crops. Bird surveys, especially kokako.</p>
<p>Dr J A McLennan (Scientist, Havelock North)</p>	<p>Foraging behaviour of feral pigeons. Food of brown and rainbow trout. Ecology and distribution of kiwis.</p>

Mr M J Meads (Technical Officer, Lower Hutt)	Ecology and conservation of endangered invertebrates. Effects of possum browsing on tree rata. Invertebrate trapping techniques; the role of invertebrates in forest ecosystems.
Dr H Moller (Scientist, Nelson)	Ecology of rodents. Foraging behaviour of tuis, bellbirds, bees and wasps in relation to use of honeydew. Weta ecology and behaviour.
Mr R E R Porter (Technical Officer, Havelock North)	Control of bird damage to field and horticultural crops. Land use by large birds. Rook numbers and distribution in relation to control operations. Ecology of feral cats.
Mr A D Pritchard (Scientific Editor Lower Hutt)	Scientific editing; information transfer. Desktop publishing.
Dr H A Robertson (Scientific Leader Havelock North)	Ecology of pigeons. Bird use of kahikatea forest. Wetlands. Honeyeater ecology.
*Dr M R Rudge (Deputy Director Lower Hutt)	Ecology of feral goats; feral farm mammals. Studies on integrating land use and biological resources. Business management.
Mr R H Taylor (Scientist, Nelson)	Interaction between introduced mammals and native flora and fauna. Forest birds, particularly parakeets. Conservation and management of reserves. Subantarctic and antarctic ecology.
Mr B W Thomas (Technical Officer Nelson)	Ecology and distribution of New lizards. Study of vertebrates in South Island native forests. Red deer movements.
Mrs J A V Tilley (Technical Officer, Nelson)	Ecology and diet of forest vertebrates. Seedfall in forests. Wasps and honeydew.
Dr D C Waddington (Technical Officer, Taita)	Forest seedling regeneration. Possum diet and damage to forests. Captive bird management.
* Mr G D Ward (Senior Technical Officer, Havelock North)	Movement and activity patterns of mammals and birds. Radio-telemetry.

Dr P J Wilson
(Scientist, Nelson) Ecology of forest birds and mammals.
Management of parks and reserves. Feral stock
and seabirds on Campbell Island. Antarctic
penguins. Kakas.

3. DIVISION OF MARINE AND FRESHWATER SCIENCES, DSIR

Janet Bradford	Zooplankton, West Coast Programme, Kaikoura, zooplankton and thermal pollution.
Ruth Baldwin	Phytoplankton, computer geology.
Phil Barnes	Sedimentology/structural geology, geotechnics.
Lionel Carter	Dumping permits, sediment studies, structural geology, general shelf and harbour studies.
Hoe Chang	Phytoplankton primary productivity, algal blooms, toxic micro-organisms, phytoplankton nutrient requirements.
Dave Cullen	Phosphorite, glauconite, marine mining, structural geology.
Elliot Dawson	Benthos, Chatham Rise biology and mining, general biology, offshore islands.
Malcolm Downes	Nitrogen cycling, nitrification, denitrification; gas chromatography and high performance liquid chromatography.
Don Forsyth	Invertebrate ecology, benthos, zooplankton, population dynamics, production feeding, trophic interactions.
Max Gibbs	Analytical chemistry, hydrodynamics, sewage effluent contamination of ground water, instrumentation.
Alex Gilmour	Tsunamis, currents, time series analysis.
Geoff Glasby	Geochemistry, manganese nodules, heavy metal and radioactive pollution.

Dennis Gordon	S.W. Pacific Bryozoa, Northern N.Z. marine biology, marine reserves, effluent disposal.
Ken Grange	Biology of estuaries, harbours, fiords, Fiordland, Northland, Manukau harbour, black coral, power stations.
Malcolm Creig	Coastal climate, numerical modelling
Cameron Hay	Seaweeds (macroalgae), general marine biology, offshore islands and subantarctic islands, Marlborough Sounds, horse mussels.
Ron Heath	Currents, physical oceanography, tides, WESTPAC.
Clive Howard-Williams	Shallow water ecology, primary production and nutrient cycling processes. Wetland and antarctic ecosystems.
Des Hurley	Nelson slime, amphipod isopods taxonomy, oil pollution, nuclear waste disposal.
Jack Irwin	Lakes, navigation matters and ship movements.
Mark James	Radioisotope techniques, invertebrate ecology and feeding, nutrient regeneration, trophic interactions.
Keith Lewis	Sediment studies, structural geology of northern and eastern NZ.
Penelope Luckens	Intertidal rocky shore ecology, fouling species, venerid (bivalve) distributions.
Bill Main	Natant crustaceans
Lionel May	Phytoplankton identification and enumeration, culture methods, radioisotopic assays.
Anne McCrone	General Biology, computing.
Don McKnight	Benthos, taxonomy of echinoderms.
John Mitchell	Sedimentology, surveys.

Rob Murdoch	Fish larvae, Otago general marine biology and hydrology, zooplankton.
George Payne	Nutrient limitation studies, computer systems and programming.
Stuart Pickmere	Nitrogen and phosphorus chemistry.
Dick Pickrill	Beach processes and sedimentology of lakes, estuaries, fiords and harbours, dumping permits.
Virginia Reid	Phytoplankton identification and enumeration.
Dick Singleton	Benthic Biology, computing.
Basil Stanton	General physical oceanography, currents, wind, waves, internal waves, TASBEX.
Gary Stephenson	Shallow water benthos, polychaetes.
Warwick Vincent	Microbial ecology, primary production, nutrient cycling processes, phytoplankton. Antarctic ecosystems.
Anthony Viner	Algal dynamics, production ecology, lake sediment formation and chemistry. Environmental impacts.
Eddie White	Nutrient-phytoplankton dynamics, trophic indicators.
Paul Woods	Primary production, technology, auto-analytical techniques.
Ian Wright	Structural geology, paleomagnetism

4. WATER QUALITY CENTRE, DSIR

*Dr N M Burns (Scientist in Charge)	Research management; lake management; coordinating marine research
*Dr B Macaskill (Assistant Scientist in Charge)	Contract co-ordination; aquatic chemistry; automated monitoring.

Catchments

- Dr J G Cooke Wetland processes; catchment runoff processes; nutrient cycling; sediment-water interactions; land use effects on water quality.
- Dr A B Cooper Nitrogen cycling; land use and water quality; aquatic microbiology; riparian processes; wetlands.
- Ms C M Smith Riparian landuse effects on water quality; riparian management; nutrient cycling and runoff in agricultural catchments; soil chemistry.
- Dr R J Wilcock Reaeration processes in rivers; water chemistry, land disposal of effluents, catchment runoff processes; environmental aspects of pesticide use.
- Dr R B Williamson Urban runoff; aquatic toxicology; landuse and water quality; riparian management.
- Ms C E Thomsen Technical support; data management.

Coastal

- Dr R G Bell Ocean outfalls; hydrodynamic and dispersion numerical modelling; physical oceanography; time series analysis.
- Dr T M Hume Inlet and shoreline stability; marine geology; sedimentation processes; estuarine processes.
- Dr D S Roper Coastal biology; ecological effects of pollution; marine ecology; environmental impacts of coastal outfalls.
- Dr S Thrush Coastal and estuarine ecology; monitoring of benthic communities; effects of pollutants on marine ecosystems.
- Mr R K Smith Beach processes; coastal sand resources; hydrological processes.

Mr B L Williams Coastal wastewater outfalls; hydrodynamic and dispersion numerical modelling.

Mr J W Oldman Technical support and oceanographic equipment

Inland Waters

Dr R J Davies-Colley Optical properties of water; water chemistry; aesthetics of waterbodies.

Dr C W Hickey Aquatic biochemistry; benthic microbial effects on river oxygen; aquatic ecotoxicity; microbial ecology.

Dr J M Quinn Growth of micro-organisms in rivers; benthic invertebrates; river ecology

Dr C Rutherford River oxygen modelling; temperature modelling in rivers; applied statistics; lake eutrophication and deoxygenation studies.

Mr W N Vant Lakewater appearance -phytoplankton, sediments, oxygen depletion, macrophyte success; management of lakes and impoundments.

Ms G F Croker Technical support and data management; ecotoxicity screening and slide collection.

Mr J W Nagels Technical support; electrolytic respirometry; diving and boating administration.

Water Quality Monitoring

Mr G B McBride Water quality monitoring systems, especially the statistics of their design and evaluation; modelling of pollutants in rivers and estuaries; numerical modelling techniques; water resources management.

Dr R D Pridmore Biological and water quality monitoring; nutrient/algal relationships in lakes; freshwater ecology; phycology.

Dr D G Smith Water quality standards and monitoring; heavy metal toxicity in aquatic ecosystems; water quality indexes; environmental impacts of coastal outfalls.

Data Management

Mr G L Latimer Automated monitoring systems; electronic applications; computer interfacing

Ms J E Hewitt Technical support and data management

Mrs J A Baars Library Services

Scientific Support Services

Mr G G Bryers Analytical and field support
(Laboratory Manager)

Mr K J Costley Analytical and field support

Mrs L A Hindmarsh Analytical and field support

Ms D A Jensen Analytical and field support

Mr J Mol Analytical and field support

Administration

Mr C J Milmine Administration Officer

Mrs M L Stokes Word Processing

Mrs C J Murray Clerical Support

5. SOIL CONSERVATION GROUP, DSIR

James R Barringer Snow and snowline variation, erosion processes, erosion assessment, land resource inventory and assessment.

Dr Les R Basher Pedology, geomorphology, soil erosion, erosion assessment, high country/steep/land/hill soils, land resource surveys and assessment.

Trevor H Chinn	Alpine and polar processes; glaciology; glacial history, climate change, Antarctic glaciology, Antarctic hydrology.
Ross Christian	Developing and programming algorithms for processing river and land-resource data.
Dr D Murray Hicks	Sediment transport, coastal processes, river processes, sediment yields from catchments, land-use effects on sediment yield, coastal hazards survey.
Graeme Howard	Land-resource surveys, criteria and standards, quaternary geomorphology and hazard assessment, erosion processes, land classification as it applies to land allocation.
*Grant G Hunter (Group Leader)	Land resource inventory and evaluation, including land use capability -application and interpretation; monitoring trends in tussock grasslands.
Ian H Lynn	Soil and land resource evaluation and mapping, soil landscape variability, geomorphology, erosion, soil erosion.
Roger I McPherson	Geology, mining and mineral exploration (Au, Ti, Cu, Ni); resource inventory surveys for soil conservation; geomorphic mapping for natural hazards evaluation.
Dr Mauri J McSaveney	Steepland geomorphology, natural hazards, quantitative erosion assessment, erosion processes, steepland hydrology, quaternary geology, glacial geology, alpine climatology, effects of natural hazards on urban and rural land uses and communications and energy corridors, problem solving in matters relating to Earth Surface Processes and Landforms.
Dr John S Sheppard	Selection of plants for: soil conservation and revegetation, erosion mitigation, windbreaks, river bermlands, coastal sites.

*Ian E Whitehouse
(Marketing Manager)

Geomorphology, mountain land erosion, man-induced erosion, mountain land rainfall and rainfall intensity, hazard assessment, geomorphic appraisals for development in steep land or mountain environments.

6. HYDROLOGY CENTRE, DSIR

Barry Biggs

Ecology of river algae; algal blooms in rivers; water quality monitoring with periphyton; ecological effects of hydro power development; river low flow effects.

Michael Broadbent

Geophysical prospecting and investigation methods (seismic electrical resistivity, gravimetric, magnetic).

Murray Close

Water quality, groundwater chemistry, groundwater hydrology, chemical indicators of sewage pollution.

Maurice Duncan

Instream flow needs assessment; land use effects on hydrology; field hydrological and sediment transport measurement; irrigation efficiency.

Derek Goring

Hydraulic modelling, flood forecasting, tidal analysis, coastal engineering.

Guy Halliburton

Power systems engineering, electronics, computers.

Roddy Henderson

Hydrological database development and applications. Data processing management quality assurance software development.

Paul Hutchinson

Low flow estimation; geographic data processing and applications; rainfall-runoff and soil moisture modelling.

*Richard Ibbitt

Rainfall to river flow modelling for flood forecasting, and land use change assessment. Hydrological data processing. Numerical techniques.

Dennis Jamieson	Water resource development, community irrigation scheme development. Application of water resource technology in developing countries.
David Leong	Civil engineering, with emphasis on hydraulic engineering, hydrology and numerical methods.
Heng Seng Low	Numerical and laboratory modelling of river hydraulics, sediment transport in gravel bed rivers, hydraulic engineering.
Alistair McKerchar	Design flood estimation; rainfall-runoff modelling; quality control and quality assurance applied to hydrological data collection. Courses in hydrology.
Charles Pearson	Flood statistics; rainfall-runoff modelling; applied and theoretical statistics.
Mark Rodgers	Electrical engineering; microprocessor developments software developments.
David Scott	Application of computer techniques to groundwater resource evaluation.
Ude Shankar	Computer systems programming, software development in database systems, graphics.
Lester Sinton	Water quality, groundwater contamination, groundwater biology/microbiology, microbial tracers, microbial indicators of sewage pollution.
Stephen Thompson (Scientist in Charge)	Hydraulic modelling; flood estimation; sediment transport and scour in gravel bed rivers; database design.
Hugh Thorpe	Groundwater resource evaluation and development. Liquid waste disposal.
Darryn Waugh	Linear and non-linear waves, solutions of PDES, numerical methods.
Paul White	Groundwater studies using electrical resistivity and geophysical logging methods.

7. FRESHWATER FISHERIES RESEARCH, MAF

M L Bonnett Technician Christchurch	General field sampling and habitat surveys; drift diving; native fish biology.
*J Boubee Scientist in Charge Hamilton	Limnology, freshwaer invertebrates (chironomids); impact assessment of thermal discharges; large river ecology; paleolimnology.
S Bloomberg Technician, Oamaru	Salmonid biology, spawning; scuba and drift diving; jet boating.
N C Boustead Technician Christchurch	Salmonid and other fish diseases including whirling disease detection, diagnosis, treatment, prevention.
S F Davis Scientist, Christchurch	Impact assessment and reporting; angler surveys; resource surveys.
R A Dougherty Scientist, Christchurch	Liaison with client groups in the commercial/recreational fishing sectors.
G A Eldon, Technician Christchurch	Native fish biology, habitats, sampling, distributions.
M S Field-Dodgson Scientist, Christchurch	Salmon aquaculture and husbandry salmon ecology and enhancement; stream improvement; fish pass technology
M Flain Scientist, Christchurch	Ageing fish from scales and otoliths
G J Glova Scientist, Christchurch	Behavioural, interactive and general ecology of native and fishes; fish habitat use curves; minimum flows for angling and maintenance of fish stocks; fish feeding and food chains in freshwater ecosystems; impact assessment; radio-tracking of fish movements.
T Gough Technician, Christchurch	Fish tagging using coded-wire micro tags
J P Graybill Scientist, Oamaru	Salmonid ecology; ecology of regulated rivers; flow needs and methodology.

*E, Gravnoth, Scientist in Charge, Christchurch	Salmonid and other exotic fish biology; salmonid population management; impacts of forestry on stream ecology; flow requirements of fish.
L J Hawke, Technician, Christchurch	Salmonid hatchery design and management; live fish and ova husbandry and transport.
S P Hawke, Technician, Christchurch	Salmonid hatchery design, construction and management; live fish and ova transport; fish trap construction and design.
J W Hayes Scientist, Rotorua	Salmonid spawning and ecology, faunal surveys; fish habitat modelling.
C L Hopkins Scientist, Christchurch	General ecology of and native fishes; benthic production in streams; sexual manipulation of salmonids; koura ecology and systematics.
*G D James, Scientist in Charge, Oamaru	Salmonid and native fish ecology and management; coastal marine fish population dynamics and management.
J D Jellyman Scientist, Christchurch	Eel ecology and fisheries; eel aquaculture; impact assessment in rivers; native fish life histories.
I G Jowett Scientist, Christchurch	Hydraulic modelling of natural rivers; design of fish passes; analysis of flow regimes in rivers and simulation of flow modifications; water temperature modelling; physical habitat (IFIM) survey and simulation; drift diving survey/database; computer programming for above operations.
D A Lucas, Technician Christchurch	Salmon tagging using micro-tags -programme management; scale reading and ageing.
*N H McCarter Scientist in Charge, Rotorua	Fish feeding and growth; reserve management; aquatic plant management; aquaculture hatchery management.
*R M McDowall Manager, Christchurch	Native fish life histories and systematics; whitebait fishery.

C P Mitchell Scientist, Rotorua	Life histories and ecology of native fish; fish passes for native fish; artificial spawning and hatchery technology of Chinese carps; aquarium, hatchery and fish pond management.
K Palmer Technician, Oamaru	Salmonid biology, drift diving.
J Richardson Scientist, Rotorua	Salmonid ecology and impact assessment benthic invertebrate flow requirements and identification; freshwater fish base manager; drift diving.
P M Sagar Scientist, Christchurch	Stream invertebrates -ecology and survey, impact assessment, and their relationships with fish populations; aquatic ecosystem processes.
G B Smith, Technician Christchurch	Electric fishing design, construction and repair; microtransmitters and other electronics.
R R Strickland Technician, Rotorua	Maori fisheries; scuba and drift -training and surveys; fish and habitat surveys.
*P R Todd, Scientist in Charge, Christchurch	Eel and lamprey biology/fisheries; salmon biology, fishery, aquaculture.
M J Unwin Scientist, Christchurch	Salmonid population dynamics and biology; programme design and management, coaed wire tagging; release strategies for ocean ranching of salmon; design and analysis of angler surveys; freshwater fish databases.
T J Washbourne Technician, Christchurch	Live fish transport; salmonid hatchery operation; jet boating.
M Weeks Technician, Christchurch	Electric fishing training and certification - machines and personnel.

8. INDIGENOUS FOREST MANAGEMENT GROUP, FOREST RESEARCH INSTITUTE

*John Herbert Scientist	Protected natural area management, identification of protected natural areas, management of wildlands, of indigenous trees and shrubs, rehabilitation and revegetation of wildlands, podocarp forest dynamics, management of research.
David Bergin Scientist	Revegetation and rehabilitation of disturbed sites using native trees and shrubs. Seed studies, nursery practice and planting trials with natives. Totara provenance studies.
Bruce Burns Scientist	Plant population ecology, forest pattern and forest dynamics. Forest ecosystems (especially of northern North Island) including mangrove ecosystems.
*John Innes Scientist	Small mammal ecology and management; bird ecology and management
John Leathwick Scientist	Numerical analysis of ecological data e.g. vegetation pattern, animal-habitat relationships, geographic data.
Geoffrey Rogers Scientist	Landscape history, fire ecology, tussock grassland successions, geomorphology, biogeography, palynology.
William Shaw Scientist	Vegetation mapping, assessment of scientific and conservation values of wildlands. Wildland ecology and management. Botanical surveys.
Mark Smale Scientist	Forest and shrubland ecology, specially dynamics. Indigenous forest management, specially selective logging.
*George Pardy Technician	Seed collection, establishment and tending of indigenous tree species. Selection management of indigenous forests.

Gregory Stewart
Technician Seeding of native trees, nursery techniques
for receiving indigenous seedlings,
outplanting trials.

Dale Williams
Technician Ecological data collection. Flora and Fauna
survey techniques.

PATHOLOGY GROUP, FOREST RESEARCH INSTITUTE

Margaret Dick
Pathologist Disease identification, diseases of eucalypts,
pathogens of beech and *Metrosideros*.

*Peter Gradgil
Research Field
Leader Conifer needle diseases, exotic diseases and
general forest pathology.

Ian Hood
Pathologist Root diseases, fungi of native tree species

ENTOMOLOGY GROUP, FOREST RESEARCH INSTITUTE

John Bain
Entomologist Insect taxonomy, biological control and
quarantine

Malcolm Kay
Entomologist Eucalypt insects, biological control

*Gordon Hosking Beech Forest entomology, health of pohutukawa,
forest health protection and contingency
planning

John Hutcheson
Entomologist Sampling arthropod communities, beech forest
entomology.

9. FORESTRY RESEARCH CENTRE

FOREST ANIMAL ECOLOGY

*Jim Coleman
Research Field
Leader Possum ecology and management. Tuberculosis in
wild animals.

Les Batcheler Montane ecology, animal management. Toxicology
of 1080.

Chris Challies Management of deer.

Colin Clarke Ecology of chamois, commercial and
recreational hunting of pigs.

Wayne Fraser Ecology and management of rabbits and sika.

Brian Fredric	Computing and statistics
Graham Hickling	Ecology of possums. Population modelling.
Dave Morgan	Control of possums, census methodology.
Graham Nugent	Deer management, recreational hunting.
John Parkes	Ecology and management of goats and hares, thar biology.
Case Pekelharing	Possum ecology in rata/kamahi forests.
Eric Spurr	Effect of forest management on birds, wasp control.
Bruce Warburton	Possum management, wallaby control, trap research.

Other Technical support staff

Dorothy Batcheler
 Kevin Drew
 Ray Henderson
 Steve Hough
 Steve Sutton
 Peter Sweetapple
 Malcolm Thomas
 Caroline Thomson
 Kath Varcoe

FOREST AND GRASSLAND ECOLOGY

*Udo Benecke Research Field Leader	Forest ecology and management.
Rob Allen	Beech ecology and management, stand dynamics, forest survey, impact of ungulates on forest regeneration.
Peter Espie	Tussock grassland ecology, plant/soil relationships, survey methods and interpretation, conservation.
Graeme Evans	Forest and grassland productivity and biomass.
Graeme Hall	Computing, software development for vegetation survey.
David Hollinger	Forest ecophysiology, forest and environment interactions, global influence of forest.

Ian McCracken	Climate and tree growth, field and laboratory technology for relating forest growth to site.
Ian Payton	Dieback processes in mixed forests, tussock grassland ecology, land snail ecology.
Alan Rose	Grassland community ecology and dynamics, forest/possum dieback, survey methods and interpretation.
Glenn Stewart	Beech and mixed forest ecology, impact of disturbances on forest dynamics, survey methods and interpretation.
Gary Ytsma	Entomology of beech and mixed forests, ecology of pinhole borer.
Larry Burrows	Vegetation survey data collection and processing, national survey data bank
John Byers	Electronic measuring and control systems including telemetry, data transfer, meteorology instrumentation, and support services for ecophysiology.
John Hunt	Vegetation survey data processing, technical support for field studies of forest growth and ecophysiology.
Kevin Platt	Plant taxonomy, growth of native plants.
Graeme Rogers	Biomass processing, growth cabinets, growing plants.
Tony McSeveny	Maintenance of technical support for climatology, growth and productivity assessment.

SECTION D : POLICY PAPER ON TRANSFER FUNDING



Science and Research Directorate

ARRANGEMENTS FOR OBTAINING WORK
FROM EXTERNAL RESEARCH AGENCIES

1. Introduction

This paper describes how Department of Conservation staff should proceed when they wish to advice and services from external research agencies. The paper distinguishes between those requirements that can be planned in advance and those that arise unpredictably. It makes special reference to acquiring work under the "looped funding" arrangement with DSIR, MOF, MAF and MWD.

2. Provision of scientific work by external agencies

Work done by external science and research agencies will consist of research, and services which are (a) unprogrammed, or (b) planned annually.

This paper describes the procedures to be used when Department of Conservation (DOC) staff seek and obtain unprogrammed or annually planned work from:

- (a) government research agencies linked to DOC by 'transfer-funding' agreements (refer Appendix 1); or
- (b) other external research agencies.

(Transfer of scientific advice within DOC is dealt with in policy paper "Regional Science Advisory Services and Liaison", 7 August 1987.)

Unprogrammed work includes any scientific task (e.g. verbal or written advice, database retrieval, investigations or survey) which is not reasonably predictable as part of the annual programme and which DOC staff need on demand to be able to deal with day-to-day management issues.

3. Unprogrammed work from transfer-funded agencies

The contracts with the transfer funded agencies provide for access by DOC personnel to unprogrammed work. The arrangements for access and amount available differ between agencies. Arrangements will also differ if a piece of work is a small task or a substantial task:

(a) Small tasks (up to 20 hours)

DOC personnel may approach staff of the agencies directly for small tasks to be carried out. Unless individual regional managers and directors decree otherwise, it is envisaged that DOC personnel will not need to obtain prior permission to seek advice of this nature unless significant travel or other operational costs are likely to be involved.

The transfer funded agency will make no direct charge for carrying out these. small tasks, but it will:

- (i) debit the cost against an agreed annual allocation for unprogrammed work which will be part of the transferred funds;
- (ii) keep a record of the nature, recipient, and cost of the advice provided, inform the Director (Science and Research) six-monthly, and, in particular, warn of impending under or over-expenditure.

DOC staff are strongly encouraged to circulate to regional managers and Central Office directors advice they have received which could have general benefit to the department.

(b) Substantial tasks (greater than 20 hours' work)

DOC officers wishing to obtain work in this category under transferred funds will be required to obtain a quotation of the costs from the agency and must seek financial approval from the Director (Science and Research) before any of the work is done.

Regional managers, directors and the Director (Science and Research) will, as necessary, confer and advise the research agency whether the work can proceed.

The research agency will deliver the advice through the relevant regional manager, director(s), and notify the Director (Science and Research) of the nature and cost of all advice provided.

4. Unprogrammed work from other research agencies

In principle, this should be handled similarly to work sought under the arrangements described in 3 above, that is:

- (a) If the work sought relates to an existing research contract then small tasks may if the agency agrees, be treated as part of the contract; more substantial tasks may require a separate funding source. There is still a need to inform others in DOC of the advice received:

- (b) If the work sought does not relate to an existing contract then it may be necessary to seek additional funds.

5. Annually planned work

The department's project planning system provides a means of identifying annual science advice and servicing needs in advance and giving external agencies a statement of our requirements.

Regional and directorate staff should not commission major scientific work directly from external agencies without prior consultation with Director (Science & Research) and the relevant conservation management director.

Proposals for contracts for scientific work with external agencies should be referred to the Director (Science and Research) who will advise on the science and choice of agency. The directorate will provide, as required, standard contract documents and research record sheets to assist in science contracts using a common system. (The procedure for entering requests for research work into the DOC research planning system is described in policy paper "Annual Research Plan", 9 September 1987.

6. Informing the Science and Research Directorate of work received from external research agencies

Informing the directorate of what work was sought, what was received and whether it was useful, will facilitate other DOC staff being informed and benefiting from the transaction.

This directorate will, if requested, comment on advice received from external research agencies. This may be especially desirable if significant management decisions are involved. Regions and directorates are invited to copy to the Director (Science and Research) all substantial written advice received from external research agencies. In response, a written appraisal of the advice will be sent to the appropriate regional manager and director.

7. Advice with implications for DOC policies

Both research agencies and DOC managers should be cautious in dealing with scientific advice that has implications for DOC policies. In these instances, the advice of the Director (Science and Research) and the appropriate Central Office director should be sought.



Richard Sadleir
Director (Science and Research)
6 January 1988

APPENDIX 1: The external agencies involved in the 'transfer-funding'

- (a) Department of Scientific and Industrial Research: Botany, Ecology, and Marine and Freshwater Sciences Divisions.
- (b) Ministry of Agriculture and Fisheries: Freshwater Fisheries Section, Fisheries Research Division (Christchurch).
- (c) Ministry of Forestry: Forestry Research Centre (Ilam, Christchurch) and Indigenous Forest Management Group, Forest Health and Improvement Division (Rotorua), Forest Research Institute
- (d) Ministry of Works and Development: Water Quality Centre (Hamilton), Soil Conservation Centre (Aokautere) and Hydrology Centre (Christchurch) of the Research and Survey Section, Water and Soil Directorate (soon to be transferred to DSIR).

SECTION E : CONTACTS AND STAFF LISTS OF NON TRANSFER FUNDING

- (a) Forest land - use impacts, Forestry Research Centre,
Christchurch
- (b) Forest Management and Productivity, Forestry Research Centre,
Christchurch.

* Contact person.

(a) FOREST LAND-USE IMPACT, FOREST RESEARCH CENTRE, CHRISTCHURCH

*Rick Jackson Research Field Leader	Soil water and forest hydrology, wetland hydrology and effects of wetland drainage.
Russell Coker	Forest land-use planning, harvesting impact assessments, low-impact roading.
Barry Fahey	Tussock grassland hydrology, water quality, surface erosion, sediment erosion related to forest roads.
John Gray	Water quality, analytical chemistry.
Frank Kelliher	Forest tree and understorey transpiration, eddy correlation techniques, modelling canopy processes, soil water, effluent treatment.
Stephen Kitchingman	Hydrological data collection and data processing.
Michael Marden (located at Gisborne)	Erosion, slope stability, land-use planning.
John Payne	Soil water, hydrological data collection and data processing.
Chris Phillips	Erosion, slope stability, land-use planning.
Celia Pruden	Data processing, water analyses.
Donna Rowan (located at Gisborne)	Earth flow and soil water monitoring, data processing.
Lindsay Rowe	Forest hydrology, water chemistry, water balance, nutrient flux, data-base management.
Heather Thomas	Hydrological data collection, data processing, vegetation surveys.
Alex Watson	Tree root morphology, root strength, erosion surveys.
Peter Weir	Field data acquisition and telemetry systems, climatology, snow, geographic information systems.

(b) FOREST MANAGEMENT AND FOREST RESEARCH CENTRE, CHRISTCHURCH

*Dudley Franklin Research Field Leader	Silviculture of beech and special purpose species, farm forestry.
Alan Nordmeyer	Forest biomass and productivity, mountain lands rehabilitation.
John Balneaves	Weed control, seedling establishment.
Lisa Crozier	High country forestry, rehabilitation with natives.
Murray Davis	Legume selection, soil improvement, and tree nutrition.
Carl Kelland	Soil nutrients, fertilisers.
Murray Lang	Plant and soil analysis.
Marina Manning	Protected Natural Area programme.

RANGIORA RESEARCH NURSERY

Gordon Baker Manager, Rangiora	Nursery stock contracts, Craigieburn Research Base.
Nick Ledgard	High country forestry, tree spread, special purpose species.
Brian Cosslett	Firewood production, seed collection and storage.
Patrick Milne	Site preparation, silviculture, agroforestry.