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This is the sixth edition of a listing of LWRDC-funded R&D — the publication also includes a list of projects sponsored by the National Land and Water Resources Audit (Audit). This document includes both current research projects, and all projects completed under the management of the Corporation or the Audit. The listing of current R&D projects is arranged under our R&D topic and priority areas, and includes a brief description of all the major, commissioned R&D programs that the Corporation manages, or in which it is a funding partner. The Audit's projects are detailed in the section on Consultancies.

We hope this listing will help you to gain a clear understanding of the total LWRDC research portfolio, and the way in which R&D projects are integrated within the R&D program structures. If you would like more information about any of the programs mentioned in this document, please contact the Program Coordinator (details provided at the relevant section in the text), or the LWRDC/Audit manager responsible:

- | | | |
|--|-------------------|-------------------------------------|
| • Productive and Sustainable Land Use Systems | - Richard Price | email: richard.price@lwrrdc.gov.au |
| • Sustainable Management of Rivers and Water Resources | - Nick Schofield | email: nick.schofield@lwrrdc.gov.au |
| • Sustaining Vegetation in the Landscape | - Phil Price | email: phil.price@lwrrdc.gov.au |
| • National Land and Water Resources Audit | - Colin Creighton | email: colin.creighton@nlwra.gov.au |

Full details of each current R&D project we support can be obtained from the on-line database, 'Australian Rural Research in Progress' (ARRIP), accessible via the WWW at www.infoscan.com.au or on CD-ROM. Bibliographic details, including an abstract, of most of the final reports can be found on the Streamline database. Copies of the final reports for completed LWRDC R&D projects may be obtained through the Agriculture, Fisheries and Forestry - Australia (AFFA) library in Canberra (Tel: (02) 6272 4548, fax: (02) 6272 4709, email: library@abare.gov.au). Some final reports are also published through LWRDC's Occasional Paper Series. Copies of reports for completed Audit projects may be obtained from the Audit WebSite at www.nlwa.gov.au from the Audit Themes and Projects area. Alternatively, Audit project reports can be obtained from the AFFA shopfront.

For the first time, this publication is supported by an electronic version that enables free text searching and direct access to the ARRIP and Streamline descriptions of each project. Access this new electronic version on the LWRDC WebSite at www.lwrrdc.gov.au/publications.

I hope that the information in this book is useful to you, and that you will follow up on projects and people of interest to you. We welcome your comments on the style, content and usefulness of this book and its electronic counterpart, and particularly any suggestions you have on how to improve it further. Additional copies of this publication are for sale at a cost of \$5.00 through the AFFA Shopfront on 1800 020 157 (freecall).

Phil Price
Executive Director, LWRDC

HOW TO USE THIS LISTING

This listing is divided into five sections. The first covers LWRRDC's current research portfolio, the second lists the final reports resulting from completed R&D projects, the third lists consultancies and consultants' reports from completed consultancies. These sections are further divided into sub-sections which reflect the Corporation's key research areas: Productive and Sustainable Land Use Systems; Sustaining Vegetation in the Landscape; Sustainable Management of Rivers and Water Resources; and includes the National Land and Water Resources Audit. The fourth section provides information on fellowships and the fifth section provides two indexes to assist you with locating information.

Each entry is preceded by a sequential item number, which is referred to in the indexes. The LWRRDC project code appears next, followed by the title of the project. Current research projects also include contact details and start (year-month) and completion (year-month) dates. Projects have been grouped together as part of commissioned R&D programs or as part of the general call. Also included are postgraduate studies - marked with a hash (#).

If you would like further information about any of these projects we encourage you to conduct your own search through the LWRRDC WebSite <www.lwrrdc.gov.au> as described in the Foreword. Alternatively, contact the principal investigators shown within. Please note that whilst we have taken every endeavour to ascertain full and current contact details at the time of publication, there will be some instances of inaccuracy or omission that were beyond our control. This year, we have not included contact information for Final reports and Consultancies, since the reliability of the information we hold decreases as time since completion increases. For more details, we encourage you to access the electronic version of this listing, which can be found at <www.lwrrdc.gov.au/publications>.

For copies of LWRRDC final reports listed in this book, please call the Agriculture, Fisheries and Forestry - Australia library on (02) 6272 4548 (please remember to quote the LWRRDC project code when ordering copies of final reports from the library). Some older reports (distinguished by their LWRRDC code of letter and four numbers, such as P88/21, rather than the new numbers which have three letters followed by a number, eg. UWA2) may not be available. The older reports were originally funded under the former Australian Water Research Advisory Council (AWRAC). Abstracts of all final reports are available through the electronic version of this listing, on CD-ROM, or through the natural resources bibliographic database, Streamline - refer to <www.infoscan.com.au> for further details or contact the Streamline Manager, Pam Handyside, on (02) 6236 6267, Fax (02) 6236 6440, or email: <infoscan@acslink.aone.net.au>

Research in Progress Projects

June 1999

ITEM	CODE	PROJECT TITLE	CONTACT DETAILS	START (YR-M)	FINISH (YR-M)
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PRODUCTIVE AND SUSTAINABLE LAND USE SYSTEMS

TOPIC: PREVENTION AND REVERSAL OF SOIL DEGRADATION BY EROSION, ACIDIFICATION OR STRUCTURAL DECLINE

General Call

1	CDS17	A toolkit for hydraulic properties of Australian soils	Cresswell, HP, CSIRO Land and Water Ph: (02) 62465933 Fax: (02) 62465965 hamish.cresswell@cbr.clw.csiro.au	1997-07	2000-06
2	CEN4	Introducing earthworms to reduce soil acidity and increase pasture production	Baker, G, CSIRO Entomology Ph: (02) 62464911 Fax: (02) 62464000 geoff.baker@ento.csiro.au	1997-07	2000-06
3	CLW10	Mid infra-red spectroscopy for rapid prediction of soil physical properties	Merry, R, CSIRO Land and Water Ph: (08) 83038422 Fax: (08) 83038550 richard.merry@adl.clw.csiro.au	1999-07	2001-12
4	DAV14	Productivity, socio-economic and natural resource impact of changing catchment enterprises	Gyles, O, Victorian Department of Natural Resources and Environment Ph: (03) 58335244 Fax: (03) 58335299 oliver.gyles@nre.vic.gov.au	1994-07	1999-12
5	DAV22	Development of bacterial inoculants for enhanced root development of temperate perennial pasture grasses	Mele, P, Victorian Department of Natural Resources and Environment Ph: (02) 60304500 Fax: (02) 60304600 melep@rri.agvic.gov.au	1997-10	2000-09
6	DAV31	A decision support system to identify soil acidity and acidification	Hollier, C, Victorian Department of Natural Resources and Environment Ph: (02) 60304582 Fax: (02) 60304600 carole.hollier@nre.vic.gov.au	1999-05	1999-11
7	DAW12	Minimizing land degradation by soil acidification	Porter, WM, Agriculture Western Australia Ph: (08) 96222122 Fax: (08) 96221902 porterb@northam.agric.wa.gov.au	1992-07	1999-06
8	QPI14	Compaction control and repair practices for cropping lands in the sub-tropics	Yule, DF, Queensland Department of Primary Industries Ph: (07) 49360211 Fax: (07) 49361484 don.yule@dnr.qld.gov.au	1993-01	1999-06
9	UNE36	Meeting the need for function-based assessments of soil biological health	Hutchinson, KJ, University of New England Ph: (02) 67733627 Fax: (02) 67733238 khutchin@metz.une.edu.au	1999-07	2002-06
10	#USY2	Role of soil macro fauna and flora in structure development of apedal soils and responses to soil management	Elton, K, NSW Agriculture, Waterwise on the Farm Ph: (02) 63913674 Fax: (02) 63913767 eltonkl@agric.nsw.gov.au Postgraduate: Ms K Elton	1992-03	1999-06
11	#USY6	Environmental regionalisation for land management: Lachlan catchment, NSW	Jacobs, B, University of Sydney Ph: (02) 93515115 Fax: (02) 93514172 jacobsb@agric.usyd.edu.au Postgraduate: Mr S Billings	1995-03	1998-08

ITEM	CODE	PROJECT TITLE	CONTACT DETAILS	START (YR-M)	FINISH (YR-M)
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TOPIC: DEVELOPMENT OF SUSTAINABLE PRODUCTION SYSTEMS

Program: Sustainable Grazing Systems R&D Program

Early-warning indicators of farm production system health can assist farmers, resource users, regulators and government policy makers to monitor, and predict, the ecological impact of different farm management practices both on-farm and across catchments.

Meat and Livestock Australia, as co-lead agency with LWRRDC, with funding support from the Murray-Darling Basin Commission and CSIRO, is helping to develop indicators of the impact of grazing to assist producers wishing to move to farming practices that match land use with land capability. For further information, contact Richard Price on (02) 6257 3379 or email <richard.price@lwrrdc.gov.au>; or for specifics on Pasture Systems, contact Warren Mason on (02) 6363 1249 or email <wmason@world.net>.

Priority Area: R&D Projects

12	GRD4	Environmental management systems program	Carruthers, G, NSW Agriculture Ph: (02) 66261237 Fax: (02) 66283264 genevieve.carruthers@agric.nsw.gov.au	1999-01	2002-12
13	MRC4	Sustainable grazing systems key program	Russell, B, Meat and Livestock Australia Ph: (02) 94639252 Fax: (02) 94639100 brussell@mla.com.au	1996-07	2001-06
14	SGS3.202J	Use of alternative pasture species to improve water use and soil penetration	Atkins, J, Meat and Livestock Australia Ph: (08) 95741400 Fax: (08) 95741400	1998-04	2000-01
15	SGS.243	Benchmark survey on adoption of sustainable grazing management practices	Hoile, R, Solutions Marketing & Research Group Pty Ltd Ph: (02) 99536777 Fax: (02) 99536544 research@solutionsgroup.com.au	1998-05	1998-06
16	SGS.302	Develop and pilot an introduction to PROGRAZE	Nicholson, C, Nicon Rural Services Ph: (03) 52583860 Fax: (03) 52583860 nicon@pipeline.com.au	1998-04	1998-06
17	#SGS.1121	Biodiversity PhD	Wright, S, The Australian Museum Ph: (02) 93206346 Fax: (02) 93206050	1997-07	2001-06

Meat and Livestock Australia was not able to update details on projects under this program

General Call

18	CTC17	Implementation of a planning systems approach for improved management of natural resources in the Australian sugar industry	Johnson, AKL, CSIRO Tropical Agriculture Ph: (07) 32142200 Fax: (07) 32142288 andrew.johnson@tag.csiro.au	1999-07	2002-06
19	CTC21	Development of a business plan for the establishment of a program of research in northwest Australia	Johnson, AKL, CSIRO Tropical Agriculture Ph: (07) 32142200 Fax: (07) 32142288 andrew.johnson@tag.csiro.au	1999-06	1999-11
20	DRD1	Optimising phosphorus use for dairy pastures in New South Wales	Havilah, E, NSW Agriculture Ph: (02) 46338327 Fax: (02) 46406300 havilae@agric.nsw.gov.au	1995-07	1999-06

ITEM	CODE	PROJECT TITLE	CONTACT DETAILS	START (YR-M)	FINISH (YR-M)
21	#GRU24	Sub-tropical grasslands: structure, diversity and landscape function	McIntyre, S, Griffith University Ph: (07) 32142391 Fax: (07) 32142288 sue.mcintyre@tag.csiro.au Postgraduate: Katina Best	1999-07	2002-06
22	RDC8	Harmonisation of environmental management	Carruthers, G, NSW Agriculture Ph: (02) 66261237 Fax: (02) 66283264 genevieve.carruthers@agric.nsw.gov.au	1998-07	1999-06
23	SRC5	Improved integrated resource planning in the Australian sugar industry	Wallis, E, Sugar Research and Development Corporation Ph: (07) 32100495 Fax: (07) 32100506 ewallis@srdc.gov.au	1998-06	1999-06
24	UAD11	Development of a biological fertility index to evaluate the effect of herbicides on soil health	Vadakattu, G, University of Adelaide Ph: (08) 83038485 Fax: (08) 83038550 gupta@adl.clw.csiro.au	1995-07	1999-06
25	#UQL7	Nutrient management strategies for dryland farming systems on chemically degraded ferrosols	Menzies, N, University of Queensland Ph: (07) 33652059 Fax: (07) 33651177 n.menzies@mailbox.uq.edu.au Postgraduate: Ms J White	1996-01	1999-06

TOPIC: DRYLAND SALINITY

Program: National Dryland Salinity Program

The serious and widespread nature of dryland salinity is becoming widely recognised. Through research across Australia, the community is being assisted to predict, prevent, reverse, manage and live with dryland salinity.

Phase I of the National Dryland Salinity Program (NDSP) was initiated in 1993 by LWRRDC. In recognition of the significance of the problem, a number of partners have joined LWRRDC in supporting and managing a second phase which commenced in 1998. Partners are the Grains R&D Corporation, the Murray-Darling Basin Commission, Agriculture Fisheries and Forestry - Australia, the Rural Industries R&D Corporation, the National Land and Water Resources Audit, CSIRO Land and Water, and the State Governments of NSW, Queensland, Victoria, Western Australia and South Australia. The partners are collectively investing some \$15 million into research, development, extension and communication. In addition to gaining further insights into the causes and mechanisms of dryland salinity, considerable effort is being directed toward productive uses of saline resources, socio-economic and policy issues and implementation of solutions. For further information, contact Nicholas Newland on (08) 8204 9153 or email <nnewland@dehaa.sa.gov.au>.

Priority Area: Phase I Projects

26	CDS16	Evaluation of the different measurement and modelling techniques for comparing the deep drainage under current and alternative farming systems	Williams, J, CSIRO Land and Water Ph: (02) 62465940 Fax: (02) 62465913 john.williams@cbr.clw.csiro.au	1995-01	1999-12
27	DAS16	Willalooka wetlands project: sustainable pasture production systems in a region of shallow water tables and seasonally flooded wetlands	Ebsary, R, South Australian Department of Primary Industries Ph: (08) 83039527 Fax: (08) 83039555 ebsary.roger@saugov.sa.gov.au	1995-07	1999-06
28	LPM2	Investment of programs and institutional arrangements for effective natural resource management	McDonald, JA, Liverpool Plains Management Committee Ph: (02) 67457380 Fax: (02) 67424018 jimcdlp@msn.com	1996-06	1999-08
29	QNR12	Paddock scale guidelines for salinity management in the Balfes Creek catchment	Gordon, I, Queensland Department of Natural Resources Ph: (07) 38969471 Fax: (07) 38969591 ian.j.gordon@dnr.qld.gov.au	1997-07	1999-06

ITEM	CODE	PROJECT TITLE	CONTACT DETAILS	START (YR-M)	FINISH (YR-M)
30	#UAD8	The role of trees in management of dryland salinity	Nuberg, I, University of Adelaide Ph: (08) 83037729 Fax: (08) 83037979 inuberg@roseworthy.adelaide.edu.au Postgraduate: Mr P Taylor	1994-02	1997-12
31	UWA15	Defining soil constraints to tree water use, growth and survival for managing groundwater recharge	Smettem, K, University of Western Australia Ph: (08) 93801506 Fax: (08) 93801050 hydsole@cyllene.uwa.edu.au	1995-07	1999-06
32	#UWA16	Why is dryland and water salinisation still a major environmental problem?	Smettem, K, University of Western Australia Ph: (08) 93801506 Fax: (08) 93801050 hydsole@cyllene.uwa.edu.au Postgraduate: Ms E Kington	1996-01	1999-06
33	VCE8	Evaluating the impact of land management changes on water balances at the paddock scale	Clifton, C, Victorian Department of Natural Resources and Environment Ph: (03) 54446777 Fax: (03) 54446721 cclifton@skm.com.au	1995-03	1998-06
Priority Area: Communication					
34	CWW27	National Dryland Salinity Program State Communication Coordinator: Western Australia	Bryant, M, CSIRO Land and Water - Perth Ph: (08) 93870215 Fax: (08) 93837208 margaret@per.clw.csiro.au	1997-08	1999-06
35	ECO4	National Dryland Salinity Program State Communication Coordinator: Queensland	Metcalfe, J, Econnect Ph: (07) 38467111 Fax: (07) 38467144 jenni.econnect@b022.aone.net.au	1997-08	1999-06
36	MUN1	National Dryland Salinity Program State Communication Coordinator: South Australia	Munday, B, Mr Bruce Munday Ph: (08) 85387075 Fax: (08) 85387075 bcmunday@senet.com.au	1997-08	1999-06
37	SCS12	National Dryland Salinity Program State Communication Coordinator: New South Wales	Newling, A, New South Wales Department of Land and Water Conservation Ph: (02) 67645947 Fax: (02) 67645980 anewling@dlwc.nsw.gov.au	1997-08	1999-06
38	SPC1	National Dryland Salinity Program State Communication Coordinator: Victoria	Curkpatrick, J, SPAN Communication Ph: (03) 93297380 Fax: (03) 93297380 jocurk@enternet.com.au	1997-08	1999-06
General Call					
39	#UMU12	Understanding the recruitment biology of vegetation communities on saline soils	Bell, R, Murdoch University Ph: (08) 93602370 Fax: (08) 93104997 rbell@essun1.murdoch.edu.au Postgraduate: Ms Michelle Carey	1999-01	2001-12

TOPIC: DEVELOPMENT OF PRODUCTION SYSTEMS BASED ON INTEGRATED CATCHMENT MANAGEMENT

Program: Social and Institutional Research Program

This new Program was established by LWRRDC to build awareness of all factors which drive or impede improved natural resource management, and to provide options for enhancing the drivers and overcoming the impediments. The Program incorporates the former Integration and Adoption of R&D Results at the Catchment Scale Program.

LWRRDC supports this Program in partnership with catchment management groups, research agencies, state governments and rural industry groups. For further information, contact Ken Moore on (08) 9388-1172 or email <kathken@cygnus.uwa.edu.au>.

ITEM	CODE	PROJECT TITLE	CONTACT DETAILS	START (YR-M)	FINISH (YR-M)
Priority Area: R&D Projects					
40	CTC7	Evaluation of integrated catchment management in a wet tropical catchment	Bellamy, J, CSIRO Tropical Agriculture Ph: (07) 32142345 Fax: (07) 33770328 jenny.bellamy@tag.csiro.au	1994-07	1999-06
41	CWA20	Development of an integrated catchment management software (ICMS) package	Young, WJ, CSIRO Land and Water - Canberra Ph: (02) 62465729 Fax: (02) 62465853 bill.young@cbr.clw.csiro.au	1996-01	2000-12
42	GRU21	Farm decision-making and resource use: new structures and changing responsibilities	Burch, DF, Griffith University Ph: (07) 38757223 Fax: (07) 38757656 d.burch@sct.gu.edu.au	1997-02	2000-06
43	UME29	Integration of research and development in catchment management	McMahon, TA, University of Melbourne Ph: (03) 93446641 Fax: (03) 93446215 t.mcmahon@civag.unimelb.edu.au	1996-07	2001-05
44	UQL10	Integrated information management system for catchment managers	Hooper, B, University of Queensland Ph: (07) 33656707 Fax: (07) 33656899 b.hooper@mailbox.uq.edu.au	1996-07	1999-07
General Call					
45	ANU11	Citizens' juries for environmental management: an alternative to CBA?	Blamey, R, Australian National University Ph: (02) 62494900 Fax: (02) 62490312 russell.blamey@anu.edu.au	1999-01	2000-01
46	#ANU12	Sustainable resource management: consumers' preferences or citizens' deliberations	Stern, DI, Australian National University Ph: (02) 62490664 Fax: (02) 62490757 dstern@cres.anu.edu.au Postgraduate: Mr Simon Niemeyer	1998-03	2001-05
47	#ANU14	Innovation by resource management institutions: Australia, New Zealand, North America	Wasson, RJ, Australian National University Ph: (02) 62492745 Fax: (02) 62493770 robert.wasson@anu.edu.au Postgraduate: Mr John Dore	1998-12	2001-11
48	ANU17	Processes and institutions for resource and environmental management: Australian experiences	Dovers, S, Australian National University Ph: (02) 62490669 Fax: (02) 62490757 doveb@cres.anu.edu.au	1999-04	2000-12
49	#ANU18	Environmental science: from independent experts to post-modern process managers	Keen, M, Australian National University Ph: (02) 62490349 Fax: (02) 62493770 meg.keen@anu.edu.au Postgraduate: Lorrae van Kerkhoff	1999-03	2002-03
50	CWE17	Decision points for land and water futures	Foran, B, CSIRO Wildlife and Ecology Ph: (02) 62421710 Fax: (02) 62413343 barney.foran@dwe.csiro.au	1998-07	2001-12
51	CWE18	Spatio-temporal effectiveness of natural resource and rural adjustment policies	Walker, P, CSIRO Wildlife and Ecology Ph: (02) 62421715 Fax: (02) 62413343 paul.walker@dwe.csiro.au	1998-11	2000-11
52	DUV4	Land retirement as a conservation policy	Hone, P, Deakin University Ph: (03) 92446530 Fax: (03) 92446520 hone@deakin.edu.au	1998-07	2000-06
53	SRC3	Quantifying the socio-economic impact of harvesting residue retention systems	Windle, J, Bureau of Sugar Experiment Stations Ph: (07) 47825455 Fax: (07) 47825487 jwindle@bses.org.au	1996-10	2002-02

ITEM	CODE	PROJECT TITLE	CONTACT DETAILS	START (YR-M)	FINISH (YR-M)
54	#UME32	Landcare: The Next Generation: a model for sustainable agriculture in Australia	Finlayson, B, University of Melbourne Ph: (03) 93446333 Fax: (03) 93444972 brian-finlayson@muwayf.unimelb.edu.au Postgraduate: Mr Don Thomson	1997-03	2000-03
55	#UMU11	Making decisions for agricultural sustainability: scale as a critical influence	Moore, S, Murdoch University Ph: (08) 93606484 Fax: (08) 93104997 smoore@essun1.murdoch.edu.au Postgraduate: Mr G Jennings	1997-02	2000-02
56	UNE35	Ecological and social functions influencing governance of natural resources	Brunckhorst, D, University of New England Ph: (02) 67733001 Fax: (02) 67732769 dbrunckh@metz.une.edu.au	1999-07	2002-06
57	UNE37	National audit of changes in farmers' environmental attitudes since 1991	Reeve, I, University of New England Ph: (02) 67732220 Fax: (02) 67733245 ireeve@metz.une.edu.au	1999-07	2001-06

TOPIC: CLIMATE VARIABILITY IN AGRICULTURE

Program: Climate Variability in Agriculture R&D Program

This Program is focused on improving climate forecasting capability and resource monitoring methods. It is developing decision support systems that incorporate climate forecasts into risk management strategy scenarios. Emphasis is placed on marketing climate information, developing adaptive production systems and enhancing extension services and networks.

LWRRDC manages the program with major partnership funding support from Agriculture, Fisheries and Forestry - Australia. Additional funding support is also provided by the Rural Industries R&D Corporation, Grains R&D Corporation, Dairy R&D Corporation, and Sugar R&D Corporation. For further information, contact Barry White on (07) 3371 5878 or email <bjwhite@b022.aone.net.au>.

Priority Area: Climate Forecasting

58	BOM4	Improved climate prediction during El Nino events	Wright, W, Bureau of Meteorology (Victoria) Ph: (03) 96694781 Fax: (03) 96694981 w.wright@bom.gov.au	1999-07	2000-06
59	BOM5	Effective implementation, adoption and utilisation of new climate model results	Voice, ME, Bureau of Meteorology (Victoria) Ph: (03) 96694086 Fax: (03) 96694515 m.voice@bom.gov.au	1999-01	2001-06
60	COR5	Extended seasonal climate predictions using a dynamic climate model	Meyers, G, CSIRO Marine Research Ph: (03) 62325208 Fax: (03) 62325123 meyers@ml.csiro.au	1999-01	2001-12
61	CTC16	From oceans to farms: integrated management of climate variability	Ash, A, CSIRO Tropical Agriculture Ph: (07) 47538540 Fax: (07) 47538600 andrew.ash@tag.csiro.au	1998-07	2001-06
62	QNR9	Australian grassland and rangeland assessment by spatial simulation: 'Aussie GRASS'	Brook, K, Queensland Department of Natural Resources Ph: (07) 38779379 Fax: (07) 38779606 kenb@dpi.qld.gov.au	1997-01	2000-03
63	QPI44	Can decadal variability (DCV) impact on cropping systems management	Meinke, H, Queensland Department of Primary Industries Ph: (07) 46881378 Fax: (07) 46881193 meinkeh@dpi.qld.gov.au	1998-10	1999-12

ITEM	CODE	PROJECT TITLE	CONTACT DETAILS	START (YR-M)	FINISH (YR-M)
64	RDC7	Further development and application of AUSTRALIAN RAINMAN to improve management of climate variability	Clewett, JF, Queensland Department of Primary Industries Ph: (07) 46881244 Fax: (07) 46881199 clewetj@dpi.qld.gov.au	1997-01	2000-12
Priority Area: Marketing					
65	BRR7	Framework for analysing climate variability for policy	Laughlin, G, Bureau of Resource Sciences Ph: (02) 62723581 Fax: (02) 62724734 gregory.laughlin@brs.gov.au	1998-09	2001-06
66	CTC18	Better management of climate variability within the agribusiness service sector	Carberry, PS, CSIRO Tropical Agriculture Ph: (07) 46881377 Fax: (07) 46881193 peter.carberry@tag.csiro.au	1998-10	2000-09
67	CWE23	Do government policy instruments support sustainable grazing on-farm?	Stafford-Smith, M, CSIRO Wildlife and Ecology Ph: (08) 89500162 Fax: (08) 89529587 markss@dwe.csiro.au	1998-09	2000-12
68	DAN12	Survey of agricultural climate research, development and services in Australia	Tupper, GJ, NSW Agriculture Ph: (02) 63913143 Fax: (02) 63913767 graeme.tupper@agric.nsw.gov.au	1998-07	1999-02
69	QNR3	The Australian On-Line Agrometeorological Information Service (WeatherWise)	Beswick, A, Queensland Department of Natural Resources Ph: (07) 38969741 Fax: (07) 38969606 alan.beswick@dnr.qld.gov.au	1996-10	1999-06
70	QPI42	International Workshop on Farm Management Decisions with Climatic Risk	Saal, R, Queensland Department of Primary Industries Ph: (07) 46881457 Fax: (07) 46881199 saalr@dpi.qld.gov.au	1998-07	1999-12
71	QPI43	CLIMARC: Computerising the Australian climate archives	Clarkson, NM, Queensland Department of Primary Industries Ph: (07) 46881248 Fax: (07) 46881199 clarksn@dpi.qld.gov.au	1998-10	2002-06
72	UQL20	Seasonal climate information and farmers' risk assessment and decision-making	Dalgleish, L, University of Queensland Ph: (07) 33656805 Fax: (07) 33654466 len@psy.uq.edu.au	1999-01	2000-12
73	UWA21	Innovative workshops to improve understanding of price and climate variability	Kingwell, R, University of Western Australia Ph: (08) 93683689 Fax: (08) 93683751 rkingwell@agric.wa.gov.au	1998-07	2000-06
74	VIR5	Improving the communication of climate information to dairy farmers	Hayes, G, VCG Australia Pty Ltd Ph: (02) 60411150 Fax: (02) 60232768 gbhayes@pdp.com.au	1998-10	1999-07
Priority Area: Industry & Extension					
75	FRD2	Climate and fisheries on the southeast Australian continental shelf and slope	Koslow, T, CSIRO Marine Research Ph: (03) 62325358 Fax: (03) 62325000 t.koslow@marine.csiro.au	1996-07	1999-03
76	HRM1	Improved management of climate variability on Australian grain farms	Wylie, P, Horizon Rural Management Ph: (07) 46624899 Fax: (07) 46625244 macdalby@peg.apc.org	1998-08	2001-06
77	QNR14	Can seasonal climate forecasting prevent degradation of Australia's grazing lands?	McKeon, G, Queensland Department of Natural Resources Ph: (07) 38969548 Fax: (07) 38969606 greg.mckeon@dnr.qld.gov.au	1998-07	2001-06
78	QPI38	Evaluating the role of seasonal climate forecasting in tactical management of cropping systems in northeast Australia	Stone, RC, Queensland Department of Primary Industries Ph: (07) 46332678 Fax: (07) 46314293 stoner@dpi.qld.gov.au	1996-07	1999-12

ITEM	CODE	PROJECT TITLE	CONTACT DETAILS	START (YR-M)	FINISH (YR-M)
79	QPI39	Seasonal stream flow forecasts to improve management of water resources: RAINMAN Stream Flow Project	Clarkson, NM, Queensland Department of Primary Industries Ph: (07) 46881248 Fax: (07) 46881199 clarksn@dpi.qld.gov.au	1997-02	1999-12
80	SRC6	Seasonal climate forecasting to improve industry competitiveness	Muchow, RC, CSIRO Tropical Agriculture Ph: (07) 33770253 Fax: (07) 33770206 russell.muchow@tag.csiro.au	1998-07	2002-06
81	VCE14	Strategies to cope with climatic variability in the perennial pasture zone of south-eastern Australia	Clark, SG, Victorian Department of Natural Resources and Environment Ph: (03) 55730900 Fax: (03) 55711523 steven.clark@nre.vic.gov.au	1998-07	2001-06

TOPIC: REDESIGNING AGRICULTURE FOR AUSTRALIAN LANDSCAPES

Program: Redesigning Agriculture for Australian Landscapes R&D Program

Plant production systems and practices employed in Australia are largely modified versions of those long-used in the Northern Hemisphere. Despite their economic success, these practices have led to significant degradation of natural resources in this country. This Program is comparing current agricultural systems with the native plant communities that they have replaced. Researchers are looking for key processes that may be missing in the introduced systems. It aims to identify species characteristics that enable full use of available water and nutrients. The initial focus is on the broadacre grain cropping/pasture region of southern Australia and the tropical coastal region of northern Australia. R&D results will be used in developing plant production systems that offer both increased productivity and greater environmental sustainability.

This Program was established and is supported jointly by LWRRDC and CSIRO. For further information, contact David Clarke on (03) 9710 1530 or email <sustain@ozemail.com.au>.

Priority Area: R&D Projects

82	CDS20	Manipulating water and nutrient uptake to minimise leaching	Smith, C, CSIRO Land and Water Ph: (02) 62465960 Fax: (02) 62465965 c.smith@cbr.clw.csiro.au	1997-03	2000-06
83	CPI7	Innovative soil and water management for sustainable agriculture in the Mediterranean climatic zone: Western Australia	Fillery, IRP, CSIRO Plant Industry Ph: (08) 93336200 Fax: (08) 93878991 i.fillery@ccmar.csiro.au	1997-10	2001-03
84	CPI8	Modelling the processes which result in soil acidification in Australian landscapes	Randall, PJ, CSIRO Plant Industry Ph: (02) 62465119 Fax: (02) 62465000 p.randall@pi.csiro.au	1997-07	2000-10
85	CTC11	A modelling framework to assess performance of natural and managed systems	Keating, B, CSIRO Tropical Agriculture Ph: (07) 32142200 Fax: (07) 32142288 brian.keating@tag.csiro.au	1997-03	2000-06
86	UWA18	Water and nitrogen economies of native plant communities and comparison with agricultural systems in Western Australia	Pate, JS, University of Western Australia Ph: (08) 93802205 Fax: (08) 93801001 botany@uniwa.uwa.edu.au	1997-07	2000-06

ITEM	CODE	PROJECT TITLE	CONTACT DETAILS	START (YR-M)	FINISH (YR-M)
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TOPIC: NORTH AUSTRALIA PROGRAM

Program: North Australia Program of R&D

LWRRDC is collaborating in Meat and Livestock Australia's (MLA) ongoing North Australia Program (NAP) of research and development, with additional support from Environment Australia. Beef production is the major land use and dominant agricultural enterprise across inland Queensland, the NT and the north-west of WA. This area accounts for about half the Australian beef herd. Resource management issues include biodiversity, nutrient and water, grazing, management and ecosystem relationships, and whole property management. This Program is emphasising the sustainability of a pasture resource that extends from tropical grasslands in monsoonal rainfall areas to arid zone herb fields. Around 98% of this resource comprises native species and almost 50% is degraded to some extent. For further information, contact Judy Lambert on (02) 9948 7862 or email <comsols@ozemail.com.au>.

Priority Area: R&D Projects

87	NAP3.103	Legumes for clay soils	Clem, B, Queensland Department of Primary industries Ph: (07) 41611602 Fax: (07) 41611954	1996-07	1998-06
88	NAP3.201	Effects of interaction of burning and legume introduction with stocking rate on soil surface characteristics	Sallaway, M, Queensland Department of Natural Resources Ph: (07) 41537850 Fax: (07) 41537896 mark.sallaway@dnr.qld.gov.au	1996-10	1998-06
89	NAP3.205	Managing woodlands: developing sustainable beef production systems in northern Australia	Ash, A, CSIRO Tropical Agriculture Ph: (07) 47538540 Fax: (07) 47538600 andrew.ash@tag.csiro.au	1996-07	2001-06
90	NAP3.206	Control of exotic woody weed invasion in tropical woodlands	Grice, A, CSIRO Tropical Agriculture Ph: (07) 47538543 Fax: (07) 47538600 tony.grice@tag.csiro.au	1996-07	1999-06
91	NAP3.207	Effects of stocking rate, legume augmentation, supplements and fire on animal production and stability of native pastures	Burrows, B, Queensland Beef Industry Institute Ph: (07) 49360111 Fax: (07) 49238222 burrowb@prose.dpi.qld.gov.au	1996-07	2001-06
92	NAP3.208	Enhancing pasture stability and profitability for producers in the Aristida/Bothriochloa grasslands	Silcock, RG, QDPI Beef Industry Ph: (07) 46881263 Fax: (07) 46881199 silcocr@dpi.qld.gov.au	1996-07	2001-06
93	NAP3.209	Mechanisms of pasture change and strategies for restoring the productivity of spear grass and Aristida/Bothriochloa grasslands	Paton, C, QDPI Beef Industry Ph: (07) 41611602 Fax: (07) 41611954	1996-07	2001-06
94	NAP3.210	Woodland management and weed control for Queensland's beef pastures	Burrows, B, QDPI Beef Industry Ph: (07) 49360111 Fax: (07) 49238222 burrowb@prose.dpi.qld.gov.au	1996-07	2001-06
95	NAP3.211	Developing sustainable beef production systems for the semi-arid tropics of the Northern Territory	Dyer, R, Northern Territory Department of Primary Industries and Fisheries Ph: (08) 89739750 Fax: (08) 89739777 rodd.dyer@dpif.nt.gov.au	1996-07	2001-06
96	NAP3.212	Grazing systems and management guides for Kimberley rangelands	Novelly, P, Agriculture Western Australia Ph: (08) 91664000 Fax: (08) 91664066 pnovelly@agric.wa.gov.au	1996-07	1999-06

ITEM	CODE	PROJECT TITLE	CONTACT DETAILS	START (YR-M)	FINISH (YR-M)
97	NAP3.213	Determining productive capability of your land to develop sustainable management practices	Walsh, S, Grazier Ph: (07) 41680228 Fax: (07) 41680229 shanewalsh@onaustralia.com.au	1997-04	2000-04
98	NAP3.218	Sustainability of Stylosanthes based pastures in northern Australia: managing soil acidity	Noble, A, CSIRO Land and Water Ph: (07) 47538555 Fax: (07) 47538600 andrew.noble@tvl.clw.csiro.au	1997-07	2001-06
99	NAP3.220	Communication of new stylo management practices	Middleton, C, QDPI Beef Industry Ph: (07) 49238113 Fax: (07) 49238222 middletonc@dpi.qld.gov.au	1997-10	2001-06
100	NAP3.221	Management of native pastures oversown with stylo	Cooksley, D, QDPI Beef Industry Ph: (07) 40928555 Fax: (07) 40928555 cooksld@dpi.qld.gov.au	1997-07	2001-06
101	NAP3.222	Incorporation of practical measures to assist conservation of biodiversity within sustainable beef production	McIntyre, S, CSIRO Tropical Agriculture Ph: (07) 32142391 Fax: (07) 32142288 sue.mcintyre@tag.csiro.au	1997-11	2001-06
102	NAP3.224	Sediment and nutrient export from the Burdekin catchment	Roth, C, CSIRO Land and Water Ph: (07) 47538569 Fax: (07) 47538650 christian.roth@tvl.clw.csiro.au	1999-01	2001-06
103	NAP3.306	Sustainable beef production systems: using the LBP technique	Kernot, J, QDPI Beef Industry Ph: (07) 40928555 Fax: (07) 40923593 kernotj@dpi.qld.gov.au	1996-07	1998-06
104	NAP3.310A	BEEFPLAN site: Western Downs	Mayes, M, Grazier Ph: (07) 46274994 Fax: (07) 46274069	1998-09	2001-06
105	NAP3.310B	BEEFPLAN site: Charters Towers	Redgetz, R, Grazier Ph: (07) 47876687 Fax: (07) 47876687 robreb@bigpond.com.au	1998-10	2001-06
106	NAP3.310C	BEEFPLAN site: Sturt Plateau, NT	Stockwell, T, Grazier Ph: (08) 89759924 Fax: (08) 89759924 tomstockwell@nt-tech.com.au	1999-04	2001-06
107	NAP3.319	Evaluation of producer-driven research and development projects	Andrew, M, Dames and Moore Ph: (08) 82126955 Fax: (08) 82126061 aacmadel@ozemail.com.au	1999-01	2001-06
108	NAP3.323	Grazing management systems market development	Walker, M, Customer Driven Services Ph: (07) 38784440 Fax: (07) 38784449 mike.walker@ozemail.com.au	1999-06	1999-12

ITEM	CODE	PROJECT TITLE	CONTACT DETAILS	START (YR-M)	FINISH (YR-M)
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TOPIC: R&D FOR ENVIRONMENTAL MANAGEMENT OF MILITARY LANDS

Program: R&D for Environmental Management of Military Lands Program

The extensive areas of land used by the defence forces for training activities are subject to unusual and often extreme land use. LWRDC and the Department of Defence established this Program to identify management practices that are both suited to the Army's training activities and to protect the land from degradation. It is anticipated that the techniques developed within this Program will be applicable to many military training areas in the north of Australia. The Program is working in the Townsville Field Training Area (TFTA) to develop and contribute to the implementation of a practical and cost-effective environmental management plan and to develop a broader management framework for other training areas in the tropical rangelands.

The Program will determine if and how satellite imagery can be used to plan military training exercises, taking into account the suitability of land for different types of exercises and the current environmental conditions. An experimental management system will then be designed and implemented, with the results being used to develop systems for planning training exercises, monitoring impacts and initiating appropriate restoration work. For further information, contact John McIvor on (07) 3214 2205 or email <john.mcivor@tag.csiro.au>.

Priority Area: R&D Projects

109	CTC14	Determining how livestock grazing and military training activities affect long-term sustainability of tropical savanna ecosystems	Ash, A, CSIRO Tropical Agriculture Ph: (07) 47538540 Fax: (07) 47538600 andrew.ash@tag.csiro.au	1997-09	2000-02
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SUSTAINING VEGETATION IN THE LANDSCAPE

TOPIC: MAINTENANCE OF CONDITION, PRODUCTIVE CAPACITY AND ENVIRONMENTAL VALUES OF RANGELANDS

Program: National Rangelands R&D Program

Australian rangelands - those lands characterised by low and variable rainfall - constitute 75% of the nation and are home to an estimated 1,800 species of native flora, 605 species of vertebrates and a staggering 25,000 species of invertebrates - all of which have their place in the ecosystem. Furthermore, Australia's rangelands support an estimated 5.2 million cattle and 17.7 million sheep. This Program aims to link research to regional and property planning to achieve improved decision-making for the long-term sustainability of rangelands and the conservation of biodiversity.

Researchers involved in three major research projects (in WA, NSW and Queensland) are assessing the economic and ecological impact of different land uses so that all options at regional, landscape, property and paddock levels can be explored by resource managers. Supported by LWRDC, in partnership with the Commonwealth Department of Transport and Regional Services, state agencies and CSIRO, this Program aims to help develop ways of using and managing rangelands that will maintain their condition, productive capacity and environmental values. For further information, contact Phil Price on (02) 6257 3379 or email <phil.price@lwrddc.gov.au>.

ITEM	CODE	PROJECT TITLE	CONTACT DETAILS	START (YR-M)	FINISH (YR-M)
Priority Area: R&D Projects					
110	CTC13	Regional resource use planning in rangelands: a central Queensland pilot study	Dale, A, CSIRO Tropical Agriculture Ph: (07) 32142200 Fax: (07) 32142411 allan.dale@tag.csiro.au	1997-07	2000-06
111	CWE11	Patterns of sustainable use of rangelands for the 21st century	Abel, N, CSIRO Wildlife and Ecology Ph: (02) 62421534 Fax: (02) 62414020 n.abel@dwe.csiro.au	1997-11	2000-06
112	CWE16	Biological and economic consequences of managing water point distribution in rangelands	James, CD, CSIRO Wildlife and Ecology Ph: (08) 89500157 Fax: (08) 89529587 c.james@dwe.csiro.au	1997-05	2000-04
113	DAW21	Effective planning procedures for ecologically sustainable land use in the rangelands	Holm, A, Agriculture Western Australia Ph: (08) 93898832 Fax: (08) 93898872 aleholm@cyllene.uwa.edu.au	1995-10	2000-11
General Call					
114	#ADF2	Culture, nature and environmental management in central Australian rangelands	Anderson, K, Australian Defence Force Academy Ph: (02) 62688928 Fax: (02) 62688313 kay.anderson@adfa.edu.au Postgraduate: Mr Nicholas J Gill	1996-02	1999-12
115	#ANU8	Stakeholder perceptions on alternate land uses for the rangelands	Ross, H, Australian National University Ph: (02) 62492159 Fax: (02) 62490757 hross@cres.anu.edu.au Postgraduate: Ms Cathy Mobbs	1996-06	2000-03
116	CLN1	Participatory rural appraisal and planning: innovative methods of working with Aboriginal land managers	Walsh, FJ, Central Land Council Ph: (08) 89529384 Fax: (08) 89529429 fionajw@clc.org.au	1996-07	2000-06
117	#MQU7	Plant functional types: grazing, fire and global warming in rangelands	Westoby, M, Macquarie University Ph: (02) 98508196 Fax: (02) 98509354 m.westoby@rma.bio.mq.edu.au Postgraduate: Peter Anton Vesk	1999-02	2002-02

ITEM	CODE	PROJECT TITLE	CONTACT DETAILS	START (YR-M)	FINISH (YR-M)
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TOPIC: REHABILITATION AND MANAGEMENT OF REMNANT VEGETATION

Program: National Remnant Vegetation R&D Program

Remnant vegetation, or bushland, is valuable as a source of commercial products, such as timber, essential oils and flowers. Bushland assists in agricultural production by providing windbreaks and a home to insect predators. It can also help sustain natural resources by reducing soil erosion and groundwater recharge, and it is the key to maintaining biodiversity and ecosystem function.

However, Australia's natural vegetation has been heavily cleared in many regions for agriculture. Remnant bushland is being studied to help understand and reverse the processes leading to loss of species and to develop practical management methods for maintaining native vegetation on farms. Research is also aimed at developing effective incentives and programs to promote such management.

Managed jointly by LWRRDC and Environment Australia, this Program is helping government agencies, community groups and landholders to better manage and protect remnant vegetation throughout Australia. Projects within this Program are expected to provide a major source of information for the National Council for Sustainable Vegetation Management, and to help identify priorities for remnant vegetation and revegetation funding announced as part of the Natural Heritage Trust. For further information, contact Jann Williams on (02) 6257 3379 or email <jann.williams@lwrrdc.gov.au>.

Priority Area: Ecological Projects

118	ANU6	The role of corridors and retained vegetation in biodiversity conservation	Lindenmayer, D, Australian National University Ph: (02) 62490654 Fax: (02) 62490757 davidl@cres.anu.edu.au	1995-07	2000-06
119	DUV2	Extinction processes and fauna conservation in remnant box-ironbark woodlands	Bennett, A, Deakin University Ph: (03) 92447511 Fax: (03) 92447480 bennetta@deakin.edu.au	1996-07	1999-07
120	UTA4	Guidelines for the maintenance and improvement of remnant bush in Tasmania	Kirkpatrick, JB, University of Tasmania Ph: (03) 62262460 Fax: (03) 62262989 j.kirkpatrick@utas.edu.au	1995-07	2000-06

Priority Area: Socio-economic Sub-program

121	CSU10	Economics of remnant native vegetation conservation on private property	Lockwood, M, Charles Sturt University Ph: (02) 60519992 Fax: (02) 60519897 mlockwood@csu.edu.au	1996-06	1999-08
122	CTC9	Applying management principles in variegated landscapes: identifying production: conservation tradeoffs	MacLeod, CSIRO Tropical Agriculture Ph: (07) 32142270 Fax: (07) 32142266 neil.macleod@tag.csiro.au	1996-07	2000-06
123	CWE13	Opportunities for the use of incentive payments to conserve remnant vegetation	Young, M, CSIRO Wildlife and Ecology Ph: (08) 83038665 Fax: (08) 83038590 mike.young@adl.clw.csiro.au	1996-07	2000-01
124	UNE26	Building conservation strategies from stakeholders' intrinsic and social values	Kaine, G, University of New England Ph: (02) 67733728 Fax: (02) 67733914 gkainejo@metz.une.edu.au	1997-01	2000-04
125	UNS19	Using choice modelling to estimate non-market values	Bennett, J, University of New South Wales Ph: (02) 62688633 Fax: (02) 62688450 j.bennett@adfa.oz.au	1996-01	1999-11

ITEM	CODE	PROJECT TITLE	CONTACT DETAILS	START (YR-M)	FINISH (YR-M)
126	USA2	Factors influencing the market value of remnant native vegetation in South Australia, 1982-1994	Marano, WAJ, University of South Australia Ph: (08) 83026611 Fax: (08) 83020512 wayne.marano@unisa.edu.au	1996-08	1999-03
127	#VCA2	Socio-economic and ecological benchmarks for the evaluation of remnant vegetation	Aldous, D, Victorian College of Agriculture & Horticulture Ph: (03) 92506800 Fax: (03) 92506885 d.aldous@landfood.unimelb.edu.au Postgraduate: Mr Chris Williams	1997-01	2000-01
General Call					
128	ESA1	Ecological Management and Restoration Journal	Hobbs, R, Ecological Society of Australia Ph: (08) 93336442 Fax: (08) 93336444 richard.hobbs@per.dwe.csiro.au	1999-07	2002-06

TOPIC: USE OF AGROFORESTRY TO SUSTAIN NATURAL RESOURCES

Program: Joint Venture Agroforestry R&D Program

Agroforestry has the potential to improve agricultural productivity, diversify and increase farm income, conserve land, maintain biodiversity and contribute to the national timber supply. Given appropriate research, development and extension, agroforestry could become a widespread, profitable and sustainable system of land use.

A Joint Venture Agroforestry R&D Program was established in 1993 with three partners: the Rural Industries R&D Corporation, LWRRDC and the Forest and Wood Products R&D Corporation. Funding was also provided for some activities by the Murray-Darling Basin Commission, the Grains R&D Corporation, Agriculture, Fisheries and Forestry - Australia, and Environment Australia. The objective for the Joint Venture Agroforestry R&D Program is to integrate sustainable and productive agroforestry within Australian farming systems. For further information, contact Roslyn Prinsley at RIRDC on (02) 6272 4539 or email <roslynp@rirdc.gov.au>.

Priority Area: R&D Projects

129	AAC-4A	Farm forestry and biodiversity: reconciliation	Fargher, J, AACM International Pty Ltd Ph: (08) 82126955 Fax: (08) 82126061 aacmadel@ozemail.com.au	1997-02	1998-06
130	AGT-4A	An assessment of commercial prospects for planted tree species in the low rainfall zones of Australia	Chudleigh, P, Agtrans Research Ph: (07) 38709564 Fax: (07) 33713381 agtrans@powerup.com.au	1998-04	1998-08
131	ANU-20A	Investigating the conservation characteristics of native trees planted on agricultural land	Nix, H, Australian National University Ph: (02) 62494696 Fax: (02) 62490757 hanix@cres.anu.edu.au	1994-05	1999-08
132	ANU-32A	ANU Forestry market report	Bhati, UN, Australian National University Ph: (02) 62493220 Fax: (02) 62490443 un.bhati@anu.edu.au	1998-07	1999-06
133	ANU-33A	Plantation design and biodiversity conservation	Lindenmayer, D, Australian National University Ph: (02) 62490654 Fax: (02) 62490757 david.lindenmayer@anu.edu.au	1998-07	2001-06
134	ANU-35A	Inorganic-bonded wood-composites manufactured from mallee eucalypt and <i>Melaleuca</i> species	Evans, P, Australian National University Ph: (02) 62493628 Fax: (02) 62490746 phil.evans@anu.edu.au	1999-02	2001-11
135	BCL-1A	Landcare loan fund project development	Mortimer, D, Broken Catchment Landcare Network Inc. Ph: (03) 57672330	1998-11	2000-06

ITEM	CODE	PROJECT TITLE	CONTACT DETAILS	START (YR-M)	FINISH (YR-M)
136	CAL-2A	Development of computer software to evaluate the visual impact of farm forestry layouts	Moore, R, Western Australian Department of Conservation and Land Management Ph: (08) 97521677 Fax: (08) 97521432 richard.moore@calm.wa.gov.au	1998-07	1999-08
137	CAL-3A	Ultra-short duration agroforestry rotations for low rainfall areas	Harper, R, Western Australian Department of Conservation and Land Management Ph: (08) 93340306 Fax: (08) 93340327 richardh@calm.wa.gov.au	1998-10	1999-03
138	CAL-4A	Development of an Australian 'Farm Forestry Site Selection Manual'	Harper, R, Western Australian Department of Conservation and Land Management Ph: (08) 93340306 Fax: (08) 93340327 richardh@calm.wa.gov.au	1999-02	2000-01
139	CPF-1A	Predicting tree growth in farm forestry and following thinning	Battaglia, M, CRC for Sustainable Production Forestry Ph: (03) 62267912 Fax: (03) 62267901 michael.battaglia@ffp.csiro.au	1999-01	2001-06
140	CPF-2A	Silvicultural management of blackwood (<i>Acacia melanoxylon</i>) for growth, form and wood quality	Beadle, C, CRC for Sustainable Production Forestry Ph: (03) 62267911 Fax: (03) 62267901 chris.beadle@ffp.csiro.au	1999-01	2001-06
141	CPF-3A	Assessing the risk of genetic pollution from farm forestry using hybrids and improved species	Potts, B, CRC for Sustainable Production Forestry Ph: (03) 62262604 Fax: (03) 62262698 brad.potts@utas.edu.au	1999-06	1999-09
142	CSC-58A	Trees for wood and animal production in northern Australia	Lowry, B, CSIRO Tropical Agriculture Ph: (07) 32142840 Fax: (07) 32142881 brian.lowry@tag.csiro.au	1997-04	1998-12
143	CSE-72A	Impact of insects on eucalypt plantations in the Murray valley	Floyd, RB, CSIRO Entomology Ph: (02) 62464089 Fax: (02) 62464155 r.floyd@ento.csiro.au	1995-07	2000-06
144	CSE-78A	Identification of pest resistant eucalypts using near infrared spectroscopy	Floyd, RB, CSIRO Entomology Ph: (02) 62464089 Fax: (02) 62464155 r.floyd@ento.csiro.au	1997-01	1999-12
145	CSF-51A	Harvesting trees on Australian farms	McCormick, B, CSIRO Forestry and Forest Products Ph: (02) 62818235 Fax: (02) 62818239 bob.mccormick@effp.csiro.au	1996-01	1998-06
146	CSF-53A	Sustaining the productivity of trees crops on agricultural land in southwestern Australia	Grove, T, CSIRO Forestry and Forest Products Ph: (08) 93336000 Fax: (08) 93876046 t.grove@ccmar.csiro.au	1997-01	1999-12
147	CSF-54A	Irrigation management in young eucalypt plantations growing over high water tables	Polglase, P, CSIRO Forestry and Forest Products Ph: (02) 62818204 Fax: (02) 62818312 philip.polglase@ffp.csiro.au	1997-07	2000-06
148	CSF-56A	Seed and information support for farm forestry	Vercoe, T, CSIRO Forestry and Forest Products Ph: (02) 62818218 Fax: (02) 62818266 tim.vercoe@ffp.csiro.au	1999-01	2001-12
149	CSF-57A	Conifers for the dry country	Spencer, D, CSIRO Forestry and Forest Products Ph: (02) 62818281 Fax: (02) 62818266 david.spencer@ffp.csiro.au	1998-11	1999-11
150	CSF-58A	Tree improvement for low rainfall farm forestry in southern Australia	Harwood, C, CSIRO Forestry and Forest Products Ph: (02) 62818218 Fax: (02) 62818266 chris.harwood@ffp.csiro.au	1999-04	2001-06
151	CSF-59A	Technologies for managing native forest on farms	Keruish, B, CSIRO Forestry and Forest Products Ph: (02) 62818235 Fax: (02) 62818266 bill.keruish@ffp.csiro.au	1999-05	2002-02
152	CSL-6A	Novel nutrient management for improved tropical cabinet timber growth on farms	Webb, M, CSIRO Land and Water Ph: (07) 47538500 Fax: (07) 47538600 mike.webb@tv1.clw.csiro.au	1998-07	1999-06

ITEM	CODE	PROJECT TITLE	CONTACT DETAILS	START (YR-M)	FINISH (YR-M)
153	CSL-7A	Trees for shelter: a guide to using windbreaks on Australian farms	Cleugh, H, CSIRO Land and Water Ph: (02) 62465574 Fax: (02) 62465560 cleugh@enmech.csiro.au	1999-03	2000-06
154	CSL-9A	A manual for irrigated eucalypts, incorporating salinity impacts	Walker, G, CSIRO Land and Water Ph: (08) 83038400 Fax: (08) 83038750 glen.walker@adl.clw.csiro.au	1999-03	2001-12
155	CSM-4A	Agroforestry design guidelines to balance catchment health with primary production	Vertessy, R, CSIRO Land and Water Ph: (02) 62465790 Fax: (02) 62465845 rob.vertessy@cbr.clw.csiro.au	1996-07	2000-02
156	CST-6A	Quantifying the trade-offs between tree and crop productivity on farms	Carberry, P, CSIRO Tropical Agriculture Ph: (07) 46881377 Fax: (07) 46882678 peter.carberry@tag.csiro.au	1999-01	2001-06
157	CSW-32A	Farm forestry: quantifying conservation and environmental service benefits	Hobbs, R, CSIRO Wildlife and Ecology Ph: (08) 93336442 Fax: (08) 93336444 richard.hobbs@per.dwe.csiro.au	1999-02	2002-04
158	DAN-126A	Establishment of trees on non-arable land to replace weeds	Campbell, M, NSW Agriculture Ph: (02) 63913828 Fax: (02) 63913899 malcolm.campbell@agric.nsw.gov.au	1995-07	1999-03
159	DAQ-222A	The silvicultural basis for farm forestry in Australia: a national, collaborative review of past and present silvicultural research and proposals for a national network of strategic experiments	Lott, R, Queensland Department of Primary Industries Ph: (07) 54820869 Fax: (07) 54828755 hottr@afri1.se2.dpi.qld.gov.au	1997-04	2001-06
160	DAQ-240A	Silviculture of rainforest cabinetwoods	Lott, R, Queensland Department of Primary Industries Ph: (07) 54820869 Fax: (07) 54828755 hottr@afri1.se2.dpi.qld.gov.au	1998-07	2000-06
161	DAV-69A	Assessment of the effects of shelterbelts on pasture and crop production in Victoria	Crawford, M, Victorian Department of Natural Resources and Environment Ph: (02) 60304500 Fax: (02) 60304600 michael.crawford@nre.vic.gov.au	1993-07	1998-06
162	DAV-129A	Forecasting tree growth and yield and financial returns of key agroforestry species across southern Australia	Baker, T, Victorian Department of Natural Resources and Environment Ph: (03) 94508687 Fax: (03) 94508644 tom.baker@nre.vic.gov.au	1997-04	1999-09
163	DAV-131A	Demonstration and development of fast growing irrigated eucalypt plantations in northern Victoria	Baker, T, Victorian Department of Natural Resources and Environment Ph: (03) 94508687 Fax: (03) 94508644 tom.baker@nre.vic.gov.au	1997-03	2000-06
164	DAW-70A	Optimising the distribution of commercial timber and pulpwood species in alley farming	Albertson, T, Agriculture Western Australia Ph: (08) 93683111 Fax: (08) 97806136 talbertsen@agric.wa.gov.au	1996-01	1999-03
165	DAW-84A	Decision support for adoption of agroforestry	Eckersley, P, Agriculture Western Australia Ph: (08) 97806100 Fax: (08) 97806136 peckersley@agric.wa.gov.au	1997-04	1998-04
166	DAW-86A	Farm forestry market information service	Eckersley, P, Agriculture Western Australia Ph: (08) 97806100 Fax: (08) 97806136 peckersley@agric.wa.gov.au	1997-07	1998-08
167	DAW-93A	Characterisation of tree root morphology in alley systems	Sudmeyer, R, Agriculture Western Australia Ph: (08) 90831111 Fax: (08) 90831100 rsudmeyer@agric.wa.gov.au	1999-01	2001-06
168	DCL-3A	Potential production of tannin and fuel wood from plantation bipinnate acacias	Barbour, E, Western Australian Department of Conservation and Land Management Ph: (08) 93340302 Fax: (08) 93340327 lizb@com.wa.gov.au	1997-10	1998-09

ITEM	CODE	PROJECT TITLE	CONTACT DETAILS	START (YR-M)	FINISH (YR-M)
169	ECU-2A	Developing effective and efficient extension and advisory strategies for agroforestry	Black, A, Edith Cowan University Ph: (08) 94005844 Fax: (08) 94005866 a.black@cowan.edu.au	1997-09	1998-08
170	ECU-3A	Practical farm forestry economics: whole farm case studies and research report	Black, A, Edith Cowan University Ph: (08) 94005844 Fax: (08) 94005866 a.black@cowan.edu.au	1998-11	1999-08
171	GAN-1A	Thinning native regrowth for timber production and improved biodiversity	Curtis, D, Greening Australia NSW Inc. Ph: (02) 67723248 Fax: (02) 67714094 greenau@northnet.com.au	1997-09	1998-07
172	HAC-4A	Farm trees for the 1990s and beyond	Barlow, EW, Bureau of Resource Sciences Ph: (02) 62724951 Fax: (02) 62724734 snowbarlow@brs.gov.au	1990-07	1998-01
173	MS989-55	Farm forestry data sheet	Fargher, J, AACM International Pty Ltd Ph: (08) 82126955 Fax: (08) 82126955 adljdf@dames.com	1999-06	1999-07
174	OIL-1A	Evaporation cell techniques to replace steam for the extraction of eucalyptus oil	Clafin, J, Oil Mallee Company of Western Australia Ph: (08) 92664075 Fax: (08) 92662826 chemengirnd@che.curtin.edu.au	1998-06	2000-07
175	OIL-3A	Integrated mallee processing for carbon products, eucalyptus oil and electricity	Stucley, C, Oil Mallee Company of Western Australia Ph: (03) 98886711 Fax: (03) 98886744 enecon@ozemail.com.au	1999-03	2000-02
176	QDN-3A	Estimating the productivity of forestry systems in south-east Queensland	Williams, K, Queensland Department of Natural Resources Ph: (07) 38969604 Fax: (07) 38969858 kristen.williams@dnr.qld.gov.au	1999-01	2001-06
177	QDN-4A	A whole-farm and regional agroforestry decision making system	Norman, P, Queensland Department of Natural Resources Ph: (07) 38969830 Fax: (07) 38969858 philip.norman@dnr.qld.gov.au	1999-01	2001-06
178	QDN-6A	Measurement and integration of fauna biodiversity values in Queensland agroforestry systems	Borsboom, A, Queensland Department of Natural Resources Ph: (07) 38969300 Fax: (07) 38969628 borsboa@dnr.qld.gov.au	1999-02	2001-06
179	SAR-19A	Integrating agroforestry into low rainfall farming systems	Bulman, P, South Australian Research and Development Institute Ph: (08) 85311420 Fax: (08) 85325646 bulman.peter@saugov.sa.gov.au	1999-01	2001-12
180	SSC-1A	Biomass Taskforce Manager	Schuck, S, Stephen Schuck and Associates Ph: (02) 94169246 Fax: (02) 94169246 steve.schuck@bigpond.com	1998-06	1999-06
181	SSC-2A	Australian participation in the International Energy Agency's Bioenergy Program	Schuck, S, Stephen Schuck and Associates Ph: (02) 94169246 Fax: (02) 94169246 steve.schuck@bigpond.com	1998-11	2001-04
182	TA989-60	Travel funding: Justine Edwards: 1999 Ecological Society of America Meeting	Edwards, J, University of Western Australia Ph: (08) 93807924 Fax: (08) 93801001 jgedwards@cyllene.uwa.edu.au	1999-08	1999-08
183	UCA-3A	The effects of trees on native pastures on the tablelands	Williams, D, University of Canberra Ph: (02) 62015111 Fax: (02) 62015305 williams@aerg.canberra.edu.au	1995-07	1998-03
184	UJC-6A	Optimising nutrition for productivity and sustainability of farm forestry systems	Congdon, B, James Cook University of North Queensland Ph: (07) 47814731 Fax: (07) 47251570 robert.congdon@jcu.edu.au	1999-01	2001-12
185	UM-44A	Continuation and expansion of the Australian Master Treegrower Research and Development Program	Reid, R, The University of Melbourne Ph: (03) 93445011 Fax: (03) 58312140 reid.rowan@a2.abc.net.au	1999-02	2001-01

ITEM	CODE	PROJECT TITLE	CONTACT DETAILS	START (YR-M)	FINISH (YR-M)
186	UMU-19A	Salt tolerant trees with high pulp quality	McComb, J, Murdoch University Ph: (08) 93602336 Fax: (08) 93606303 jmccomb@central.murdoch.edu.au	1996-07	2001-06
187	UNT-6A	Feasibility of local, small scale native plant harvests for indigenous communities	Whitehead, P, Northern Territory University Ph: (08) 89466703 Fax: (08) 89466712 peter.whitehead@ntu.edu.au	1999-02	2001-06
188	URT-1A	Black wattle (<i>Acacia mearnsii</i>): an example of the potential for agroforestry in the Mount Lofty Ranges, South Australia	Butler, G, Upper River Torrens Landcare Group Ph: (08) 85685339 Fax: (08) 85685339 gbutler@dove.net.au	1995-07	1998-05
189	UWA-36A	Alley farming for improved water management and nutrient cycling in sandplain cropping	Lefroy, EVC, University of Western Australia Ph: (08) 93802505 Fax: (08) 93801140 elefroy@cyllene.uwa.edu.au	1996-07	2000-07
General Call					
190	UTA5	Managing vegetation competition to reduce herbicide use in commercial tree plantations	Mendham, NJ, University of Tasmania Ph: (03) 62262598 Fax: (03) 62262642 n.mendham@utas.edu.au	1995-01	1999-08

SUSTAINABLE MANAGEMENT OF RIVER AND WATER RESOURCES

TOPIC: RIVER PROCESSES AND MANAGEMENT

Program: National River Health Program

The National River Health Program (NRHP) has developed Australia's first nationally consistent and standardised method of assessing river health. The Australian River Assessment Scheme (AUSRIVAS) is a rapid bioassessment method which utilises macroinvertebrates as sensitive indicators of in-stream health. The approach is now being used by all States and Territories in Australia's First National Assessment of River Health. NRHP is also researching techniques to estimate and manage environmental flow to rivers and floodplains, how to manage water storages, the relationship between flow and river biota, and the water requirements of wetlands. This work is essential for the successful implementation of the COAG water reforms. The Program is developing decision support tools for environmental flow.

With the support of LWRRDC, Environment Australia, the Murray-Darling Basin Commission, and the Water Services Association of Australia, this Program's researchers are achieving an improved understanding of how to determine and manage the environmental flow requirements of rivers and floodplains. The second phase of R&D investment in river health and environmental flows will be managed directly by Environment Australia through the NHT. For further information, contact Peter Davies on (03) 6225 4660 or email <p.e.davies@utas.edu.au>.

Priority Area: Environmental Flows: Techniques

191	UOC8	In-stream processes and environmental flow requirements for the Barwon-Darling River	Thoms, MC, University of Canberra Ph: (02) 62012933 Fax: (02) 62012328 thoms@science.canberra.edu.au	1995-11	1999-09
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ITEM	CODE	PROJECT TITLE	CONTACT DETAILS	START (YR-M)	FINISH (YR-M)
Priority Area: Environmental Flows: Storage Management					
192	VCB1	Time share flooding of aquatic ecosystems: strategy assessment	Ward, K, Victorian Department of Natural Resources and Environment (North-East Area) Ph: (03) 58335947 Fax: (03) 58335971 k.ward@nre.vic.gov.au	1994-09	1999-11
Priority Area: Environmental Flows: Flow Impacts on Biota					
193	UMO27	Impact of flow manipulation on the biota of a lowland river	Humphries, P, Monash University Ph: (02) 60582300 Fax: (02) 60431626 hump@mdfrc.canberra.edu.au	1996-07	2001-11
Priority Area: Environmental Flows: Wetlands					
194	CWN11	Water requirements for plants of floodplain wetlands	Roberts, J, CSIRO Land and Water - Griffith Ph: (02) 69601571 Fax: (02) 69601600 jane@griffith.clw.csiro.au	1994-07	1999-07
195	UNE22	Water requirements for plants of floodplain wetlands: Gwydir test case	Duggin, JA, University of New England Ph: (02) 67732180 Fax: (02) 67732769 jduggin@metz.une.edu.au	1994-11	1999-06
Priority Area: River Health Monitoring: RIVPACS Techniques					
196	NDW26	SIGNAL scoring system for river bioassessment by community groups	Chessman, B, New South Wales Department of Land and Water Conservation Ph: (02) 98957154 Fax: (02) 98957867 bchessman@dlwc.nsw.gov.au	1999-04	1999-07
197	UOC14	AUSRIVAS mapping and reference site screening module	Norris, R, University of Canberra Ph: (02) 62012543 Fax: (02) 62015038 norris@lake.canberra.edu.au	1999-02	2000-02
Priority Area: River Health Monitoring: Relating Changes to Impacts					
198	UOC5	In situ testing of water quality	Norris, RH, University of Canberra Ph: (02) 62012543 Fax: (02) 62015038 norris@lake.canberra.edu.au	1995-07	2000-03
Priority Area: River Health Monitoring: Alternative/Novel Methods					
199	MQL2	Measurement of river health using rapid microbial biodiversity assessment	Veal, D, Macquarie Research Limited Ph: (02) 98508185 Fax: (02) 98509180 dveal@rna.bio.mq.edu.au	1998-04	2000-03
200	UAD15	An iconograph of common stream diatoms from temperate Australia	Gell, P, University of Adelaide Ph: (08) 83034774 Fax: (08) 83033772 pgell@arts.adelaide.edu.au	1999-01	2000-05
201	UQL11	Bacterial diversity in tropical and sub-tropical lowland, regulated rivers	Sly, LI, University of Queensland Ph: (07) 33652396 Fax: (07) 33651566 sly@biosci.uq.oz.au	1998-03	2001-06
202	#UQL14	Bacterial diversity in tropical and sub-tropical lowland, regulated rivers	Sly, LI, University of Queensland Ph: (07) 33652396 Fax: (07) 33651566 sly@biosci.uq.oz.au Postgraduate: Ms Tracy Cox	1996-12	1999-12

ITEM	CODE	PROJECT TITLE	CONTACT DETAILS	START (YR-M)	FINISH (YR-M)
Priority Area: River Health Monitoring: Taxonomic Support					
203	CEN5	Aquatic macroinvertebrate identification CD-ROM	Cranston, P, CSIRO Entomology Ph: (02) 62464282 Fax: (02) 62464000 peter.cranston@ento.csiro.au	1998-10	1999-06
204	EPV3	Taxonomy of immatures of selected families of Ephemeroptera and Trichoptera	Dean, J, Victorian Environment Protection Authority Ph: (03) 96285157 Fax: (03) 96143575 john.dean@epa.vic.gov.au	1994-09	1999-06
205	#JCU12	Taxonomy of the Leptophlebiidae (Ephemeroptera) of north-eastern Queensland	Pearson, RG, James Cook University of North Queensland Ph: (07) 47814262 Fax: (07) 47815589 richard.pearson@jcu.edu.au Postgraduate: Ms Faye Christidis	1996-08	2000-02
206	#UMO28	Taxonomy of two stonefly genera Leptoperla and Riekoperla	Pearson, R, Monash University Ph: (03) 95655600 Fax: (03) 95655613 ian.campbell@sci.monash.edu.au Postgraduate: Edward Tsyrlin	1995-07	1999-12
207	#UMO29	Taxonomy and phylogeny of selected Australian Leptophlebiid mayflies (Ephemeroptera)	Campbell, I, Monash University Ph: (03) 95655600 Fax: (03) 95655613 ian.campbell@sci.monash.edu.au Postgraduate: Ms Kyla Finlay	1996-08	2000-02
Priority Area: Ecological Processes					
208	MDR13	Riverine and floodplain interactions during high flow	Hillman, TJ, Murray Darling Freshwater Research Centre Ph: (02) 60582300 Fax: (02) 60431626 terryh@mdfrc.canberra.edu.au	1996-09	2000-09
209	UME31	Protocols for rigorous monitoring, survey and experimentation in streams	Downes, B, University of Melbourne Ph: (03) 93446781 Fax: (03) 93444972 barbara_downes.geography@muwaye.unimelb.edu.au	1996-11	1999-12
210	#UMU6	Modelling biological responses to environmental variables in wetlands	McComb, AJ, Murdoch University Ph: (08) 93602191 Fax: (08) 93104997 mccomb@essunl.murdoch.edu.au Postgraduate: Ms J Nowell	1994-02	1999-10
Priority Area: Delivery Systems					
211	R6066A	Ecology-Flows Handbook	Young, WJ, CSIRO Land and Water Ph: (02) 62465729 Fax: (02) 62465853 wjy@styx.cbr.clw.csiro.au	1996-06	1998-12
212	R6066B	Environmental flows decision support system (EFDSS)	Young, WJ, CSIRO Land and Water Ph: (02) 62465729 Fax: (02) 62465853 wjy@styx.cbr.clw.csiro.au	1997-05	1999-03
213	R6066C	River classification system	Calvert, S, PPK Environment and Infrastructure Pty Ltd Ph: (02) 97430333 Fax: (02) 97361568 ppk@ozemail.com.au	1998-06	1998-11

ITEM	CODE	PROJECT TITLE	CONTACT DETAILS	START (YR-M)	FINISH (YR-M)
Priority Area: Urban Component (Managed by Water Services Association of Australia (03) 9606 0678)					
214	E3	Estuarine health assessment using benthic macrofauna	Poore, G, Museum of Victoria Ph: (03) 92840215 Fax: (03) 94160475 gpoore@mov.vic.gov.au	1996-05	1999-04
215	S1	Basic decision support system for management of urban streams	Anderson, J, Southern Cross University Ph: (02) 66203009 Fax: (02) 66612669 janders3@scu.edu.au	1996-04	1999-05
216	S2	RIVPACS for urban streams	Breen, P, Monash University Ph: (03) 99054061 Fax: (03) 95713646 peter.breen@sci.monash.edu.au	1996-07	1999-05
217	S3	Diatom prediction and classification systems for urban streams	John, J, Curtin University of Technology Ph: (08) 92667327 Fax: (08) 92662495 rjacobjoe@cc.curtin.edu.au	1996-07	1999-09
General Call					
218	DAN13	Hydrologic effects of floodgate management on coastal floodplain agriculture	Slavich, P, NSW Agriculture Ph: (02) 66261200 Fax: (02) 66281744 peter.slavich@agric.nsw.gov.au	1999-07	2004-06
219	HRD2	Minimising impact of pesticides on soil and water quality under a range of vegetable production systems in Australia	Naidu, R, CSIRO Land and Water Ph: (08) 83038436 Fax: (08) 83038565 ravi.naidu@adl.clw.csiro.au	1999-01	2002-04
220	MQU1	Development of a generic geomorphic framework to assess catchment character	Brierley, G, Macquarie University Ph: (02) 98508427 Fax: (02) 98508428 gbrierli@laurel.ocs.mq.edu.au	1995-08	1999-07
221	MQU6	River styles as a tool for water resources management	Brierley, G, Macquarie University Ph: (02) 98508427 Fax: (02) 98508428 gbrierli@laurel.ocs.mq.edu.au	1999-07	2000-06
222	#QIM2	Prevalence/characterisation of highly pathogenic waterborne <i>Giardia</i> in Australian wildlife	Upcroft, P, Queensland Institute of Medical Research Ph: (07) 33620375 Fax: (07) 33620105 peteru@qimr.edu.au Postgraduate: Ms Ann McDonnell	1996-01	1999-06
223	#UMO35	Distribution of fish larvae and identification of nursery habitats in floodplain rivers	Humphries, P, Monash University Ph: (02) 60582300 Fax: (02) 60431626 hump@mdfrc.canberra.edu.au Postgraduate: Ms Alison King	1998-03	2001-06
224	UNS25	National framework for the management of Australian estuaries	Erskine, W, University of New South Wales Ph: (02) 93854603 Fax: (02) 93137878 w.erskine@unsw.edu.au	1998-07	2000-06
225	USA3	Sustainability with profitability: rural adjustment via water markets	McKay, J, University of South Australia Ph: (08) 83020887 Fax: (08) 83020888 jennifer.mckay@unisa.edu.au	1998-07	2001-03
226	#UTA2	The impact of willow management practices on in-stream biota	Barmuta, LA, University of Tasmania Ph: (03) 62262785 Fax: (03) 62262745 leon.barmuta@utas.edu.au Postgraduate: Mr Martin Read	1994-01	1999-07

ITEM	CODE	PROJECT TITLE	CONTACT DETAILS	START (YR-M)	FINISH (YR-M)
227	#UTA9	The impact of introduced trout on aquatic ecosystems in Australia	Davies, PE, University of Tasmania Ph: (03) 62254660 Fax: (03) 62254660 p.e.davies@utas.edu.au Postgraduate: Mr William Elvey	1997-03	2000-09
228	#UTS5	The effect of the pesticide endosulfan on macroinvertebrate communities in stream ecosystems	Lim, RP, University of Technology, Sydney Ph: (02) 95144037 Fax: (02) 95144003 r.lim@uts.edu.au Postgraduate: Mr Grant Hose	1996-03	2000-02

TOPIC: MANAGEMENT OF NUTRIENTS AND EUTROPHICATION, AND OTHER POLLUTANTS

Program: National Eutrophication Management Program

Nutrients derived from a variety of sources such as soils, fertiliser application, sewage outlets and runoff from livestock enter Australian waterways and provide opportunities for algae to multiply. Resultant algal blooms, occurring in both fresh and estuarine waters, can cause oxygen depletion and in some cases produce toxins lethal to stock and humans. Algal blooms are occurring more frequently in Australia's waterways. The National Eutrophication Management Program (NEMP) is researching ways to reduce the frequency and intensity of harmful or undesirable algal blooms in Australian waterways.

LWRRDC is administering this Program which is jointly supported by the Murray-Darling Basin Commission. For further information, contact Richard Davis on (02) 6246 5706 or email <richardd@cbr.dwr.csiro.au>.

Priority Area: Generic R&D

229	CLW2	Whole-lake biomanipulation for the reduction of nuisance micro-algae	Matveev, V, CSIRO Land and Water Ph: (07) 38485710 Fax: (07) 38485191 vladimir.matveev@bne.clw.csiro.au	1998-02	2002-07
230	CSF1	The interaction of physics, biology and nutrient regimes on the initiation and development of algal blooms	Blackburn, S, CSIRO Marine Research Ph: (03) 62325307 Fax: (03) 62325000 blackburn@ml.csiro.au	1996-07	2000-03
231	MDR18	Validation of the nutrient induced fluorescence transient assay for identifying N and P limitation of phytoplankton growth	Oliver, RL, Murray Darling Freshwater Research Centre Ph: (02) 60431002 Fax: (02) 60431626 oliverr@mdfrc.canberra.edu.au	1998-01	1999-09
232	UAD10	Measurement and treatment of phosphorus and carbon subsoil movement	Chittleborough, D, University of Adelaide Ph: (08) 83037351 Fax: (08) 83036511 dchittle@waite.adel.edu.au	1995-07	1999-08
233	UMO36	Nutrient release from river sediments: Phase II validation and application of sediment-release model	Hart, B, Monash University Ph: (03) 99055532 Fax: (03) 95713646 barry.t.hart@sci.monash.edu.au	1998-07	2000-10

Priority Area: Focus Catchment R&D

234	AGS2	Nutrients in Wilson Inlet: are sediments a major source of nutrients for biomass production?	Heggie, D, Australian Geological Survey Organisation Ph: (02) 62499589 Fax: (02) 62499986 dheggie@agso.gov.au	1997-01	1999-12
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ITEM	CODE	PROJECT TITLE	CONTACT DETAILS	START (YR-M)	FINISH (YR-M)
235	ANU9	Sources and delivery of suspended sediment and phosphorus to four Australian Rivers, Part B: Nd and Sr isotopes and trace elements	Martin, C, Australian National University Ph: (02) 62495472 Fax: (02) 62490738 candace.martin@anu.edu.au	1997-01	2000-06
236	ANU16	Modelling the effects of land use and climate on erosion, phosphorus and sediment movement in the Namoi River	Jakeman, A, Australian National University Ph: (02) 62494742 Fax: (02) 62490757 tony@cres.anu.edu.au	1998-12	1999-06
237	CEM7	Management strategies for control of cyanobacterial blooms in the Fitzroy River barrage	Bormans, M, CSIRO Land and Water Ph: (02) 62465610 Fax: (02) 62465560 myriam@enmech.csiro.au	1996-11	2000-06
238	CLW16	A quantitative basis for setting flows to control algal blooms in the Fitzroy Basin	Bormans, M, CSIRO Land and Water Ph: (02) 62465610 Fax: (02) 62465560 myriam@enmech.csiro.au	1999-10	2001-12
239	CWA21	Sources and delivery of suspended sediment and phosphorus to Australian rivers: Part A, radionuclides and geomorphology	Wallbrink, P, CSIRO Land and Water - Canberra Ph: (02) 62465823 Fax: (02) 62465800 peter.wallbrink@lwrrdc.gov.au	1997-04	2000-06
240	GMW2	Eutrophication related coordination in the Goulburn-Broken catchment	Feehan, P, Goulburn-Murray Water Ph: (03) 58335687 Fax: (03) 58335509 patf@g-mwater.com.au	1996-12	2000-06
241	MDR17	Algal availability of phosphorus discharged from different catchment sources	Oliver, RL, Murray Darling Freshwater Research Centre Ph: (02) 60431002 Fax: (02) 60431626 oliverr@mdfrc.canberra.edu.au	1997-03	2000-10
242	NDW15	Eutrophication related coordination in the Namoi catchment	Glennon, C, New South Wales Department of Land and Water Conservation Ph: (02) 67645900 Fax: (02) 67645982 cglennon@dlwc.nsw.gov.au	1996-12	2000-06
243	QNR5	Eutrophication related coordination in the Fitzroy catchment	Thompson, PG, Queensland Department of Natural Resources Ph: (07) 32247386 Fax: (07) 32248359 peterg.thompson@dnr.qld.gov.au	1996-12	2000-06
244	UOC12	Physical and nutrient factors controlling algal succession and biomass in Burrinjuck reservoir	Lawrence, I, University of Canberra Ph: (02) 62015371 Fax: (02) 62015038 lawrence@lake.canberra.edu.au	1997-03	1999-09
245	UTA8	The phytoplankton ecology of Wilson Inlet	Thompson, P, University of Tasmania Ph: (08) 92468248 Fax: (08) 92468233 peter.thompson@per.ml.csiro.au	1997-01	1999-12
246	UWA17	Nutrient cycling by <i>Ruppia megacarpa</i> and epiphytes in Wilson Inlet	Walker, D, University of Western Australia Ph: (08) 93802089 Fax: (08) 93801001 diwalker@uniwa.uwa.edu.au	1997-02	2000-02
247	WRC2	Eutrophication related coordination in the Wilson Inlet catchment	Robb, MS, Water and Rivers Commission Ph: (08) 92780526 Fax: (08) 92780301 malcolm.robb@wrc.wa.gov.au	1996-12	2000-06
Priority Area: Communication					
248	INT2	National Eutrophication Management Program (NEMP) Communications Coordinator	McWaters, V, Integra Pty Ltd Ph: (03) 94999300 Fax: (03) 94999300 viv@thereef.com.au	1998-01	2001-06

ITEM	CODE	PROJECT TITLE	CONTACT DETAILS	START (YR-M)	FINISH (YR-M)
General Call					
249	CDF9	Wagga Wagga Effluent Plantation Project: determining long-term sustainability	Myers, BJ, CSIRO Forestry and Forest Products Ph: (02) 62818222 Fax: (02) 62818239 brianm@cbr.for.csiro.au	1997-07	2000-06
250	#UAD13	<i>Triglochin procerum</i> : an indigenous macrophyte for wastewater purification	Ganf, GG, University of Adelaide Ph: (08) 83035292 Fax: (08) 82323297 gganf@botany.adelaide.edu.au Postgraduate: Ms Michelle Bald	1995-01	2000-01
251	#UNE29	Nutrient removal and fertiliser value of sewage biosolids	Blair, G, University of New England Ph: (02) 67732687 Fax: (02) 67733465 gblair@metz.une.edu.au Postgraduate: Ms Jean Davis	1997-02	2000-02

TOPIC: MANAGEMENT FOR SUSTAINABLE USE OF GROUNDWATER AND PREVENTION OF POLLUTION

Program: National Groundwater R&D Program

This Program is providing management and policy information, and tools to assist in the sustainable use of groundwater and the protection of its quality. It has compiled a national review of R&D needs and priorities. One new priority area of research is the interaction between groundwater and surface ecosystems. The Program is researching cost-effective ways to identify aquifers at risk of contamination and to assess land and water management systems, which may have a potentially adverse impact on groundwater quality.

LWRRDC, the National Groundwater Management Committee under SCARM and State Government departments support the Program. For further information, contact Graham Allison on (08) 8553 5320 or email <gja@bigpond.com>.

Priority Area: Aquifer Contamination

252	CWW23	Multi-level groundwater vulnerability assessment to contamination of pesticides and nutrients	Otto, C, CSIRO Land and Water - Perth Ph: (08) 93336200 Fax: (08) 93878211 claus@per.clw.csiro.au	1996-08	1999-09
253	QPI30	Water quality deterioration in alluvial aquifers	Ellis, R, Queensland Department of Primary Industries Ph: (07) 38969845 Fax: (07) 38969858 ellisr@dpi.qld.gov.au	1995-07	1999-06
254	WRC7	Underground water pollution control: introduction of market rights for water extraction and contamination control in Western Australia	King, R, Water and Rivers Commission Ph: (08) 92780378 Fax: (08) 92780585 russell.king@wrc.wa.gov.au	1998-07	2000-01

Priority Area: Groundwater Ecosystems

255	CLW7	Biogeochemical processes induced by groundwater- surface water interactions	Herczeg, A, CSIRO Land and Water Ph: (08) 83038722 Fax: (08) 83038750 alh@mo.adl.clw.csiro.au	1999-01	2001-12
256	CLW8	Guidelines for managing groundwater for vegetation health in saline areas	Walker, GR, CSIRO Land and Water Ph: (08) 83038743 Fax: (08) 83038750 glen.walker@adl.clw.csiro.au	1998-11	2001-01

ITEM	CODE	PROJECT TITLE	CONTACT DETAILS	START (YR-M)	FINISH (YR-M)
257	JCU14	Riparian and instream vegetation requirements of baseflows from basalt aquifers	Lukacs, G, James Cook University of North Queensland Ph: (07) 47815203 Fax: (07) 47815589 george.lukacs@jcu.edu.au	1998-09	2001-10
258	NDW23	Optimising groundwater usage to mitigate native vegetation decline in the Namoi valley	Kalaitzis, P, New South Wales Department of Land and Water Conservation Ph: (02) 67645927 Fax: (02) 67645982 pkalaitzis@dlwc.nsw.gov.au	1998-10	2000-06
259	WRC1	Phreatophytic vegetation water requirements and effectiveness of environmental water provisions	Froend, R, Water and Rivers Commission Ph: (08) 94005563 Fax: (08) 94005717 r.froend@cowan.edu.au	1996-07	1999-06
260	WRC5	Investigation of groundwater nutrient load and its impacts on the Wilson Inlet ecosystem	Appleyard, SJ, Water and Rivers Commission Ph: (08) 92780517 Fax: (08) 92780586 steve.appleyard@wrc.wa.gov.au	1998-09	2000-06
Priority Area: Groundwater Allocation					
261	MAE1	Groundwater recharge and flow velocities in fractured rock aquifers	Love, A, South Australian Primary Industries and Resources Ph: (08) 84633161 Fax: (08) 84633146 alove@msgate.mesa.sa.gov.au	1997-09	2000-08
262	NDW28	Influence of fractures on groundwater flow in an urban saline catchment (Wagga Wagga)	Williams, M, New South Wales Department of Land and Water Conservation Ph: (02) 98957562 Fax: (02) 98915884 mwilliams@dwc.nsw.gov.au	1999-07	2001-06
263	QNR13	Investigation, assessment and management of groundwater supplies: Atherton Tableland basalts	Pearce, BR, Queensland Department of Natural Resources Ph: (07) 38969824 Fax: (07) 38969782 pearcebb@dnr.qld.gov.au	1998-02	2001-02
General Call					
264	CWS5	Monitoring and modelling of leachate beneath a piggery wastewater irrigation area	Dillon, PJ, CSIRO Land and Water - Adelaide Ph: (08) 83038714 Fax: (08) 83038750 peter.dillon@adl.clw.csiro.au	1995-01	1999-06
265	CWW28	Equity and other social implications in the allocation of groundwater for sustainable management	Nancarrow, B, CSIRO Land and Water - Perth Ph: (08) 93336290 Fax: (08) 93837193 blair.nancarrow@per.clw.csiro.au	1998-07	2000-02
266	SRC4	Develop a water resource management strategy for the Mackay coastal aquifer system	Wallis, E, Sugar Research and Development Corporation Ph: (07) 32100495 Fax: (07) 32100506 srcd@srcd.gov.au	1996-12	2000-06
267	UAD12	Liquid beam methodologies for groundwater environmental analysis	Buntine, M, University of Adelaide Ph: (08) 83035580 Fax: (08) 83034358 mbuntine@chemistry.adelaide.edu.au	1995-08	1999-06

TOPIC: REHABILITATION AND MANAGEMENT OF WETLANDS

Program: National Wetlands R&D Program

Wetlands are renowned for their high conservation and ecological values, providing a major biodiversity resource including habitat for migrating birds. The Program examines the causes and impacts of, and solutions to, all forms of significant wetland habitat modification. Emphasis will be placed on clearing, draining and filling, altered water regimes, contaminants, and exotic weeds and pests. Issues relating to the valuation and monitoring of wetlands will also receive attention.

Environment Australia administers this jointly-funded Program on behalf of LWRRDC. The Program complements the activities of the Wetlands Policy of the Australian Government and the Murray-Darling Basin Commission Wetlands Management Strategy. For further information, contact Bill Williams on (08) 8303 5847 or email <bwilliam@camtech.net.au>.

ITEM	CODE	PROJECT TITLE	CONTACT DETAILS	START (YR-M)	FINISH (YR-M)
Priority Area: R&D Projects					
268	EA18	Changing water regimes and wetland habitats in the Lowbidgee floodplain	Kingsford, R, New South Wales National Parks and Wildlife Service Ph: (02) 95856488 Fax: (02) 95856606 rkingsfo@nsw.erin.gov.au	1997-06	1999-08
269	EA31	The effect of flow on nutrients in wetland habitats	Thoms, MC, University of Canberra Ph: (02) 62012933 Fax: (02) 62012328 thoms@science.canberra.edu.au	1997-06	2000-04
270	EA42	How do water regime and grazing alter the reproductive capacity of aquatic plants?	Brock, MA, University of New England Ph: (02) 67732578 Fax: (02) 67733283 mbrock@metz.une.edu.au	1997-06	2000-06
271	EA45	Implication of nutrient enrichment for management of primary productivity in wetlands	Bailey, P, Monash University Ph: (03) 99051422 Fax: (03) 99055613 p.bailey@sci.monash.edu.au	1998-02	2000-09
272	EA94	The availability of wetland habitat for waterbirds in arid Australia	Robertson, A, Charles Sturt University Ph: (02) 69332927 Fax: (02) 67332737 arobertson@csu.edu.au	1997-06	1999-07
273	EA98	The private and social values of wetlands	Bennett, J, University of New South Wales Ph: (02) 62368228 Fax: (02) 62368228 j.bennett@adfa.oz.au	1997-07	2000-09
274	EA109	Weed management and the biodiversity and ecological process of tropical wetlands	Douglas, M, Northern Territory University Ph: (08) 89467261 Fax: (08) 89410460 m_douglas@bligh.ntu.edu.au	1997-10	2000-10
275	EA131	Identifying and monitoring change in wetland inundation patterns, Kakadu NT	Milne, A, University of New South Wales Ph: (02) 93852731 Fax: (02) 93853733 t.milne@unsw.edu.au	1997-06	2000-04

TOPIC: SUSTAINABLE IRRIGATION SYSTEMS

Program: National Program for Irrigation R&D

Irrigation is a necessity in the world's driest continent - Australia. The challenges addressed by this Program are to enhance the productivity and sustainability of irrigation; to improve water management and water-use efficiency; to fund cost-effective solutions to infrastructure refurbishment; to minimise the impacts of salts, nutrients and other pollutants; and to increase the adoption of appropriate technology by irrigators throughout Australia.

LWRRDC is administering this Program which is jointly supported by private irrigators, the Queensland Department of Natural Resources, the NSW Department of Land and Water Conservation, CSIRO, Western Australian Water and Rivers Commission, Goulburn-Murray Water, Southern Rural Water, Sunraysia Rural Water Authority and Wimmera Mallee Water. For further information, contact Brett Tucker on (02) 6964 1873 or email <mcs@webfront.net.au>.

Priority Area: Application on Farm

276	CDH1	Improving the water use efficiency of horticultural crops	Loveys, B, CSIRO Plant Industry - Horticulture Unit Ph: (08) 83038615 Fax: (08) 83038601 info@pi.csiro.au	1997-07	1999-06
277	CLW11	A new method for benchmarking salt and nitrate leaching	Stirzaker, R, CSIRO Land and Water Ph: (02) 62465570 Fax: (02) 62465560 richard.stirzaker@cbr.clw.csiro.au	1998-12	1999-09
278	CTC10	Guidelines for efficient and sustainable trickle irrigation systems	Thorburn, P, CSIRO Tropical Agriculture Ph: (07) 32142316 Fax: (07) 32142325 peter.thorburn@tag.csiro.au	1997-12	2000-11

ITEM	CODE	PROJECT TITLE	CONTACT DETAILS	START (YR-M)	FINISH (YR-M)
279	CWN13	Determination of optimal irrigation intensity for irrigation areas	Madden, J, CSIRO Land and Water - Griffith Ph: (02) 69601500 Fax: (02) 69601600 john.madden@grf.clw.csiro.au	1997-07	2000-12
280	DAN11	Improving water use efficiency by reducing groundwater recharge under irrigated pastures	Kingston, H, NSW Agriculture Ph: (03) 58831644 Fax: (03) 58831570 haydenk@ozemail.com.au	1997-05	2000-09
281	DAV23	Alternative irrigation technologies in field cropping to increase water use efficiency	Schulz, M, Victorian Department of Natural Resources and Environment Ph: (03) 58335250 Fax: (03) 58335299 mike.schulz@nre.vic.gov.au	1997-04	2000-06
282	MDB6	Salinity control with sustainable farm salt balance through integrated management	Heuperman, A, Murray-Darling Basin Commission Ph: (03) 58335222 Fax: (02) 58225299 alfred.heuperman@nre.vic.gov.au	1996-01	2000-01
283	MIL1	Improving hydraulic efficiency of irrigation and drainage systems through benchmarking	Watts, DK, Murray Irrigation Limited Ph: (03) 58819321 Fax: (03) 58819317 milcorp@deni.net.au	1998-03	2000-06
284	RMI5	Conservation of water from open storages by minimising evaporation	Akbarzadeh, A, Royal Melbourne Institute of Technology Ph: (03) 96602164 Fax: (03) 96603844 akbar@bandicoot.me.rmit.edu.au	1997-04	1999-06
285	UME58	Improving the efficiency and flexibility of contour irrigation design	Malano, H, University of Melbourne Ph: (03) 93446645 Fax: (03) 93446868 h.malano@devtech.unimelb.edu.au	1998-07	2000-06
Priority Area: Water Supply Systems					
286	AIT5	Development of improved flow measurement in irrigation water supply	Cape, J, National Irrigation Science & Technology Network Ph: (08) 83038552 Fax: (08) 83038550 nism@shrike.adl.clw.csiro.au	1997-12	1999-05
287	GMW1	Construction and refurbishment of earthen irrigation channel banks	Moorehouse, I, Goulburn-Murray Water Ph: (03) 58335610 Fax: (03) 58335506 ianm@g-mwater.com.au	1995-03	1999-06
288	QNR2	Replacement options for concrete lined channels	Stevenson, B, Queensland Department of Natural Resources Ph: (07) 40922555 Fax: (07) 40923939 brett.stevenson@dnr.qld.gov.au	1996-10	1999-08
289	UAD14	An evaluation of the applicability of genetic algorithm technology to flow management of open-channel gravity systems	Dandy, GC, University of Adelaide Ph: (08) 83035472 Fax: (08) 83034349 gdandy@civeng.adelaide.edu.au	1996-09	1999-06
Priority Area: Drainage Systems					
290	GMW6	Nutrient removal from rural drainage systems using wetlands	Plunkett, R, Goulburn-Murray Water Ph: (03) 58335620 Fax: (03) 58335506 rossp@g-mwater.com.au	1999-01	2002-10
291	QPI26	Nutrient control in irrigation drainage systems using artificial wetlands	Hunter, H, Queensland Department of Primary Industries Ph: (07) 38969637 Fax: (07) 38969591 hunterh@dnr.qld.gov.au	1994-01	1999-06
Priority Area: Integrated Farm/Supply Systems					
292	GMW3	Benchmarking the distribution efficiency of an irrigation supply system	Preece, KJ, Goulburn-Murray Water Ph: (03) 58335694 Fax: (03) 58335479 kevinp@g-mwater.com.au	1998-05	2000-06

ITEM	CODE	PROJECT TITLE	CONTACT DETAILS	START (YR-M)	FINISH (YR-M)
Priority Area: Adoption & Education					
293	#CSU14	An evaluation of subsurface irrigation configurations	Meyer, WS, Charles Sturt University Ph: (08) 83038683 Fax: (08) 83038590 wayne.meyer@adl.clw.csiro.au Postgraduate: Mr Philip Charlesworth	1997-01	1999-12
294	IAA2	National Irrigation Science Conferences	Connellan, G, Irrigation Association of Australia Ph: (03) 92506813 Fax: (03) 92506885 g.connellan@landfood.unimelb.edu.au	1998-02	2000-06
295	#UNS26	Water quality sustainability in groundwater abstraction for irrigation	Acworth, I, University of New South Wales Ph: (02) 99494488 Fax: (02) 99494188 acworth@manly.civeng.unsw.edu.au Postgraduate: Ms Wendy Timms	1998-03	2001-08
296	UQL16	Development of participatory action management (PAM) for research and development	Chamala, S, University of Queensland Ph: (07) 33652159 Fax: (07) 33651177 s.chamala@mailbox.uq.edu.au	1998-01	1999-12
Priority Area: Other Projects					
297	ABA9	Economic benefits of improved irrigation efficiency	Hafi, A, Australian Bureau of Agricultural and Resource Economics Ph: (02) 62722081 Fax: (02) 62722318 ahafi@abare.gov.au	1999-05	2000-09
298	GRD3	Irrigated cropping advance 2000: industry development and implementation of best practice	Ugalde, TD, Victorian Department of Natural Resources and Environment Ph: (03) 58335222 Fax: (03) 58335299 david.ugalde@nre.vic.gov.au	1997-07	2001-06
299	JCU13	Best practice for new irrigation development in Australia	Lukacs, G, James Cook University of North Queensland Ph: (07) 47815203 Fax: (07) 47815589 george.lukacs@jcu.edu.au	1997-08	1999-03

ITEM	CODE	PROJECT TITLE	CONTACT DETAILS	START (YR-M)	FINISH (YR-M)
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TOPIC: RIVER RESTORATION AND MANAGEMENT (INCLUDING RIPARIAN LANDS)

Program: River Restoration and Management Research Program

Very few Australian waterways remain unaffected by human activity. Stream flow, sediments and biodiversity are altered by urban and industrial encroachment, and by primary production and forestry activities. Pollutants are discharged both deliberately and accidentally by a range of land users. Watercourses may be diverted or even obliterated by some land uses.

This Program is aiming to tackle these issues and support the community's desire for healthy, sustainable rivers for future generations to use and enjoy. Incorporated in the program are the National Rivers Consortium (NRC) initiative and the Riparian Lands R&D Program. Collaborating organisations in the NRC are LWRRDC as managing agency, Agriculture Fisheries and Forestry - Australia, the CRCs for Catchment Hydrology and Freshwater Ecology, CSIRO Land and Water and the Murray-Darling Basin Commission.

The Riparian Lands R&D Program has been highly successful in developing scientifically-based guidelines for riparian management. It operates through a series of demonstration/evaluation sites around Australia established through collaboration with State agencies, catchment management committees, local government and landcare/rivercare groups. Collaborating organisations are LWRRDC, CRC for Catchment Hydrology, the Centre for Catchment and In-Stream Research at Griffith University, Queensland Department of Natural Resources, NSW Department of Land and Water Conservation, SA Department of Environment Heritage and Aboriginal Affairs, Hydroelectric Commission (Tasmania) and Agriculture Western Australia.

For further information on the program and NRC, contact Nick Schofield on (02) 6257 3379 or email <nick.schofield@lwrrdc.gov.au>; on the Riparian Lands R&D Program contact Siwan Lovett on (02) 6257 9821 or email <siwan.lovett@lwrrdc.gov.au>.

Priority Area: Sub-Program A

300	CWA15	Rehabilitation and management of riparian lands: aspects of physical and chemical processes (Program A)	Prosser, I, CSIRO Land and Water - Canberra Ph: (02) 62465830 Fax: (02) 62465845 ian.prosser@cbr.clw.csiro.au	1994-10	2000-03
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Priority Area: Sub-Program B

301	GRU17	Rehabilitation and management of riparian lands: ecological issues (Program B)	Bunn, SE, Griffith University Ph: (07) 38757402 Fax: (07) 38757615 s.bunn@mailbox.gu.edu.au	1994-07	1999-12
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Priority Area: Sub-Program C

302	BCW1	Demonstration/evaluation of riparian restoration in the Blackwood catchment	Ecker, S, Blackwood Catchment Coordinating Group Ph: (08) 97582313 Fax: (08) 97582315 saane@mns.net.au	1995-01	1999-06
303	BVS1	Demonstration/evaluation of riparian restoration in the Far South Coast of New South Wales catchments	McPhee, D, Bega Valley Shire Council Ph: (02) 64921622 Fax: (02) 64923019 dmcphree@dlwc.nsw.gov.au	1996-01	1999-12
304	CCP1	Demonstration/evaluation of riparian management: Cooper's Creek, Queensland	Morrish, B, Cooper's Creek Protection Group Ph: (07) 46564759 Fax: (07) 46564759 bronmorrish@hotmail.com	1997-11	2000-04
305	CLA1	Demonstration/evaluation of riparian management in the Clarence catchment of New South Wales	Foley, M, Clarence Catchment Management Committee Ph: (02) 66402072 Fax: (02) 66402088 mfoley@dlwc.nsw.gov.au	1997-05	2000-01

ITEM	CODE	PROJECT TITLE	CONTACT DETAILS	START (YR-M)	FINISH (YR-M)
306	DEP5	Demonstration/evaluation of riparian management: South Australian mid north region and Mount Lofty Ranges	Rixon, S, South Australian Department of Environment, Heritage and Aboriginal Affairs Ph: (08) 82003826 Fax: (08) 83397112 srixon@dehaa.sa.gov.au	1999-03	2001-12
307	GBC1	Demonstration/evaluation of riparian management: Goulburn-Broken region, Victoria	O'Kane, B, Goulburn-Broken Catchment Management Authority Ph: (03) 58222288 Fax: (03) 58316254 billok@gbcma.vic.gov.au	1998-05	2000-10
308	JRC1	Demonstration/evaluation of riparian restoration in the Johnstone River catchment	Gleeson, P, Johnstone River Catchment Management Association Ph: (07) 40616477 Fax: (07) 40616590 pgleeson@znet.net.au	1996-01	1999-12
309	MAR1	Demonstration/evaluation of riparian management in the Mary River catchment	Kelly, S, Mary River Catchment Coordinating Committee Ph: (07) 54821522 Fax: (07) 54821529 kellys@dnr.qld.gov.au	1996-01	1999-06
310	OHW1	Demonstrate/evaluate practical methods of riparian rehabilitation on salinised lands	Radys, B, Oyster Harbour Catchment Group Ph: (08) 98928444 Fax: (08) 98412707 bradys@agric.wa.gov.au	1995-01	1999-06
Priority Area: River Restoration Projects					
311	MQU4	Applications of GIS to derive catchment scale geomorphic attributes	Brierley, G, Macquarie University Ph: (02) 98508427 Fax: (02) 98508428 gbrierli@laurel.ocs.mq.edu.au	1998-10	1999-06
General Call					
312	#MQU2	Riparian vegetation as a control on channel morphology in humid south-east Australia: implications for channel and floodplain evolution and river management	Brierley, G, Macquarie University Ph: (02) 98508427 Fax: (02) 98508428 gbrierley@laurel.ocs.mq.edu.au Postgraduate: Mr A Brooks	1995-02	1998-08
313	#UWO3	Process variability in river systems, south-east Australia: implications for river rehabilitation	Nanson, G, University of Wollongong Ph: (02) 42213631 Fax: (02) 42214250 gerald_nanson@uow.edu.au Postgraduate: Mr Timothy Cohen	1998-07	2001-06

Final Reports

June 1999

ITEM	CODE	PROJECT TITLE
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PRODUCTIVE AND SUSTAINABLE LAND USE SYSTEMS

TOPIC: PREVENTION AND REVERSAL OF SOIL DEGRADATION BY EROSION, ACIDIFICATION OR STRUCTURAL DECLINE

Priority Area: R&D Projects

314 DAV18 A decision support system to identify soil acidity and acidification

Priority Area: Program Support

315 BPA1 Structure LWRDC's future portfolio of soil health/acidification research and development

Priority Area: Other Projects

- 316 2/91 Prediction of catchment scale water erosion, deposition and sedimentation
- 317 36/91 Utilisation of sewage sludge on agricultural land: cropping trial
- 318 37/91 Utilisation of sewage sludge on agricultural land: animal trial
- 319 85/58 Catchment redistribution of eroded sediment
- 320 85/99 Land use and catchment process modelling
- 321 ANS3 Field testing of models which estimate the effect of erosion on agricultural productivity
- 322 CDM1 Detecting and monitoring changes in land condition through time using remotely sensed data
- 323 CDS2 Improving soil survey field measurement and interpretation
- 324 CDS4 Management practices and soil structural decline
- 325 CDS7 Chemistry and physics of soil acidification and its amelioration
- 326 CDS8 Rapid and reliable methods for mapping soils
- 327 CPI1 Breeding a phalaris cultivar for acid infertile soils
- 328 CPI2 Soil organic carbon restoration utilising crop residues: microbiological determinants
- 329 DAN1 Minimising acidification by maximising soil use
- 330 DAN4 Management of semi-arid hard-setting red soils
- 331 DAS3 Amelioration of water repellence in sandy soil
- 332 DAT1 Minimum tillage and controlled trafficking practices on Krasnozem soils under intensive vegetable cropping
- 333 DAV1 Subsoil acidification under long-term pastures in Victoria
- 334 DAV2 Perennial grasses: salinity and acidification
- 335 DAV3 Soil micro-organisms and organic vegetable growing
- 336 DAV4 Cropping systems for erosion prevention (NE Victoria)
- 337 DAW5 Remote sensing for mapping land degradation
- 338 DAW6 Effects of tillage and cropping on runoff and soil loss
- 339 DAW9 Conservation seeder evaluation and extension

ITEM	CODE	PROJECT TITLE
340	QPI6	Conservation tillage: soil fertility management
341	QPI7	Cadmium bioavailability in Queensland's vegetable soils
342	QPI10	Conservation tillage: soil microbial effects
343	SCS2	Evaluation of Vetiver grass for soil conservation
344	SCS9	Role of biological crusts in sustainable land use in the semi-arid rangelands
345	UAD4	Amelioration of water repellence in sands
346	UAD5	Biological farming for sustainable agricultural production
347	#UBC1	Ecology and conservation status of remnant native grasslands and grassy woodlands in southeast Australia and implications of management regimes
348	UNE2	Pneumatic application of lime to agricultural subsoils
349	UNE9	Erosion control in minimal/zero tillage systems for legume crop production (lupins and soybeans)
350	USY1	Reduced tillage and root development in wheat
351	#UWA10	Role of VA mycorrhizal hyphae in soil aggregate stability
352	VCE1	Cereal cropping management: effects on salinity and erosion
General Call		
353	ANU3	Scale effects in land, water and vegetation assessment
354	CCN1	Land management strategies for semi-arid tropics
355	CDF6	Biological control of the plant pathogen, <i>Phytophthora cinnamomi</i>
356	CDM4	Mapping and monitoring land condition in the Blackwood and Frankland-Gordon catchments using remotely sensed and related spatial data
357	CDS11	Quantifying soil structure and its decline
358	CDS13	Soil profile acidification in pasture and cereal systems in South Australia and western Victoria
359	CEN2	The role of earthworms in controlling soil acidity
360	CPI5	Modelling ecosystems to achieve sustainable resource use
361	CWE4	The determinants of land degradation in wet/dry tropical savannas
362	DAS2	Demonstration and improvement of reduced tillage equipment for soils prone to Rhizoctonia barepatch disease
363	DAS6	Tillage and stubble systems, soil loss, and sustainable crop production on red-brown earths
364	DAS8	Best soil conservation management practices for intensive row crop production
365	DAV5	Soil acidification in Victoria: the extent, process and consequences
366	DAW13	Improving soil survey in the Western Australian Mediterranean zone
367	GRD1	Management of Rhizoctonia barepatch in minimum tillage systems
368	GRU7	Wind erosion of grazing lands
369	HRD1	Benchmarking the quality of krasnozems under horticulture
370	QPI2	Speargrass management to maintain soil stability
371	QPI4	Assessing soil acidification in wet tropics pastures
372	QPI12	Interaction between grazing management and erosion in the Upper Burdekin River catchment of Queensland
373	QPI13	Land management options for minimising soil acidification in the tropics

ITEM	CODE	PROJECT TITLE
374	RDC2	Improved handling of chaffy grass seeds
375	SCS1	Soil plant nutrient losses from wind erosion
376	SCS3	Soil erosion and disturbance in managed forests
377	SCS4	Agricultural opportunity costs of land degradation
378	SCS6	Assessment of soil degradation of the cropping lands of northwestern New South Wales and the scope for their stabilisation with grasses
379	SLM1	Economic evaluation of conservation farming techniques practised in five South Australian long-term trials
380	ULA3	Acid soil tolerance in lucerne
381	UMU5	Measuring wind erosion

TOPIC: DEVELOPMENT OF SUSTAINABLE PRODUCTION SYSTEMS

Program: Sustainable Grazing Systems R&D Program

Priority Area: R&D Projects

382	MRC2	Collaborative sustainability studies: northern site, sub-program 3.3
383	MRC3	Collaborative sustainability studies: southern site

Meat and Livestock Australia was not able to update details on finalised projects under this program

Priority Area: Other Projects

384	CSO167	Soil indicators of changing land quality and capital value
385	DAN5	Grass weed management for sustainable farming systems
386	DAN295	Review of long-term agronomic experiments in Australia
387	DAW470	Development of practical indicators of sustainable agricultural production systems
388	GRD2	Management of the Indicators of Sustainable Cropping Systems Program
389	KDI23	Landcare: by successful farmers (booklet)
390	QPI1	Herbicide management and herbicide residues in conservation cropping
391	QPI5	Conservation tillage: soil animal effects
392	SCS7	Development of land condition criteria for use in drought declaration decisions
393	UQL3	Developing alternative procedures for land evaluation

TOPIC: DRYLAND SALINITY

Program: National Dryland Salinity Program

ITEM	CODE	PROJECT TITLE
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Priority Area: Phase I Projects

394	ABA2	Quantification of the full range of costs of dryland salinity
395	ABA3	Development of approaches for assessing non-market values related to salinity
396	ABA4	Impediments to adoption of dryland salinity policies and programs
397	AGS1	Improving dryland salinity management through integrated catchment scale modelling
398	CDM2	Mapping dryland salinity: national coordination
399	CDM3	Predicting areas at risk from salinity
400	DAN9	Mapping dryland salinity: Liverpool Plains focus catchment
401	DAS13	National Dryland Salinity Research, Development and Extension Program establishment phase: Upper South East catchment
402	DAW16	National Dryland Salinity Research, Development and Extension Program establishment phase: Kent River catchment
403	DAW19	National Dryland Salinity Program: Kent focus catchment activities
404	LPM3	Research coordination in the Liverpool Plains
405	M86/24	Electromagnetic survey using the Barringer INPUT system of the Ardmona area
406	MDB4	Improving awareness of best management practice in investigating, planning and managing dryland salinity
407	QPI28	National Dryland Salinity Research, Development and Extension Program establishment phase: Upper Burdekin catchment
408	QPI37	Groundwater resources of the Balfes Creek catchment
409	RDC6	National Catchment Groundwater Classification Workshop
410	SCS10	Native perennial grasses for productive sustainable pastures in southern Australia
411	SCS11	National Dryland Salinity Research, Development and Extension Program establishment phase: Liverpool Plains catchment
412	UNS15	Determination of recharge/discharge areas and water/salt distribution in aquifers of the Liverpool Plains
413	VCE3	National Dryland Salinity Research, Development and Extension Program establishment phase: Loddon-Campaspe catchment

Priority Area: Communication

414	BCC1	National Dryland Salinity Program Stakeholders Conference: Balfes Creek catchment
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Priority Area: Other Projects

415	ANS2	Solute concentration and flow processes in dryland salinised regions of New South Wales
416	CDS5	Warren Reservoir integrated catchment study: soil degradation and water quality
417	CDS6	Dryland salinity processes and remedies: Mt Lofty sub-catchments
418	CWA8	Identification of recharge/discharge/salinity hazard at the farm scale
419	CWW3	Sustainable agriculture in an undulating area of regional groundwater discharge
420	CWW11	Quantitative prediction of effects of land use management to reduce salinisation
421	CWW18	Management of a regional groundwater discharge zone in an area of dryland agriculture
422	DAS4	Dryland salinity catchment investigation
423	DAV6	Lucerne studies for intake zones in selected catchments

ITEM	CODE	PROJECT TITLE
424	#ULA2	Economic evaluation of dry land salinity control options on water resources in the Murray-Darling Basin
425	UNS4	Assessment of airborne radar for recharge and salinity mapping in the Murray-Darling Basin
426	#UNS10	Dryland salinity processes in the Yass water supply catchment and other locations in New South Wales
427	UWA5	Dynamic model of dryland salinity abatement
General Call		
428	DAS5	Identification and management of recharge and discharge areas for saltland management
429	DAW2	High water use agricultural systems
430	DAW3	Forage plants for recharge control
431	DAW10	Salinity and waterlogging control, Esperance sandplain in Western Australia
432	SWF1	Broombush: a potentially viable high water use crop
TOPIC: DEVELOPMENT OF PRODUCTION SYSTEMS BASED ON INTEGRATED CATCHMENT MANAGEMENT		
Program: Integration and Adoption of R&D at the Catchment Scale Program		
<i>Priority Area: R&D Projects</i>		
433	CWW22	Developing methods for assessing the effectiveness of whole catchment management
<i>Priority Area: Other Projects</i>		
434	DAW15	Economic and financial analysis for catchment planning and land management
435	QPI9	Quantitative land suitability for cropping in the Maranoa
436	#UNE14	Assessment of the economic benefits of land management programs on a national, regional and catchment basis
437	UQT1	Re-arrangement of property boundaries to facilitate optimum rural land use
438	UWA1	Integrated land and water planning and management
General Call		
439	CWE2	Paddock planning to minimise land degradation
440	DAN3	Environmental impact of alternative horticultural production systems in the Hawkesbury-Nepean catchment
441	DAS7	Applying an erosion prediction model to total catchment planning
442	FRD1	Improving the land and water management of coastal plains of New South Wales
443	ULA1	Developing computer models for integrated catchment planning and conservation of soil and water resources
444	USH1	Innovative approaches to environmental valuation in integrated catchment management

ITEM	CODE	PROJECT TITLE
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TOPIC: UNDERSTANDING AND OVERCOMING BARRIERS TO ADOPTION OF SUSTAINABLE PRODUCTION SYSTEMS

Program: Adoption of Sustainable Resource Management Practices

Priority Area: R&D Projects

445	CTC1	Decision support for sustainable management of grazing lands
446	CTC3	Market research for decision support for dryland crop production

Priority Area: Other Projects

447	#ANU4	Valuation of non-marketed environmental attributes and resources
448	CSU3	Barriers and constraints to the adoption of sustainable farming techniques in the sheep/wheat industry: the sociological context
449	M86/35	Stepwise adoption of a complex agricultural technology
450	RIA1	Improving communication practices
451	UME2	Development of a monitoring system of the land care ethic
452	UNE8	Low wheat yield: adoption of conservation farming practices
453	UNE17	Analysing drought strategies to enhance farm financial viability
454	UWA6	Beliefs, attitudes and conservation behaviour
455	XAC1	Community participation in improving land use and management

General Call

456	DAN10	Sustainability in a commercial context: potential for innovative market based approaches
457	UME10	Modelling the adoption of soil conservation practices

TOPIC: CLIMATE VARIABILITY IN AGRICULTURE

Program: Climate Variability in Agriculture R&D Program

Priority Area: Climate Forecasting

458	BOM1	Development of improved seasonal climate forecast systems
459	CEX1	Drought monitoring of the Australian continent by satellite
460	COR2	Development and testing of climate models for seasonal prediction for Australia
461	QPI20	Development of a national drought alert strategic information system

Priority Area: Adaptive Production Systems

462	RDC4	Australian farm families' experience of the drought in the 1990s: a sociological investigation
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ITEM	CODE	PROJECT TITLE
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Priority Area: Marketing

463	ABA1	Drought and the economic performance of Australian agriculture
464	ARM1	Insurance based risk management for drought
465	CAR3	Atlas of near-global ENSO and climatic variability since 1871

Priority Area: Industry & Extension

466	CWE8	Grazier-based profitable and sustainable strategies for managing climatic variability
467	DAN6	Optimum replacement of farm machinery under conditions of capital rationing
468	DAS12	Decision support for climatic risk management in dryland crop production
469	DRD3	Dairy El Nino risk management study
470	MRC1	Strategies for maximising the persistence of perennial grasses through drought
471	SRD2	Seasonal rainfall and winter crop yield forecasting for southern Australia
472	UNE16	Economic monitoring/forecasting of rural business
473	WRD1	Exploiting drought opportunities: control of total grazing pressure in rangelands
474	WRD2	Extension of the results of fertiliser research to graziers by development of a pasture nutrition submodule for GrassGro

TOPIC: REDESIGNING AGRICULTURE FOR AUSTRALIAN LANDSCAPES

Program: Redesigning Agriculture for Australian Landscapes R&D Program

Priority Area: R&D Projects

475	CDS21	Water and nitrogen balances in the Australian wet tropics: a search for sustainable design principles
476	SME1	Redesign of plant production systems
477	UWA19	Workshop to identify research and development priorities for the topic 'Agriculture as a Mimic of Natural Ecosystems'

TOPIC: NORTH AUSTRALIA PROGRAM

Program: North Australia Program of R&D

Priority Area: R&D Projects

478	DAQ93	Phosphorus management for breeding cattle in northern Australia
479	NAP3.202	Measuring and monitoring vegetation on pasture lands in northern Australia for sustainable use
480	NAP3.203	Review of the stability and productivity of native pastures oversown with tropical legumes
481	NAP3.204	Development and adoption of sustainable grazing management systems
482	NAP3.219	Grazier guides for Queensland pastures

ITEM	CODE	PROJECT TITLE
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483	NAP3.223	Scoping study to identify appropriate catchments for NAP3 funded research
484	NAP3.317	Roma Symposium: whole property management

TOPIC: PRODUCTIVE AND SUSTAINABLE LAND USE SYSTEMS - GENERAL

Priority Area: Databases

485	AFS1	Support for an environmental science textbook
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General Call

486	ASS1	Seminar: advances in soil structure
487	DAN2	Advanced farming systems for groundwater control
488	DRD2	Productivity and ecological sustainability of the Australian dairy industry
489	INF1	Consultancy for the management of the Streamline bibliographic database
490	QPI11	Structural degradation of dryland and irrigated soils
491	RMI1	Changing hydrologic equilibrium in the Mallee and implications for River Murray salinity
492	SRC2	Business system analysis to identify research and development priorities for environmental and natural resource management by the sugar industry

SUSTAINING VEGETATION IN THE LANDSCAPE

TOPIC: MAINTENANCE OF CONDITION, PRODUCTIVE CAPACITY AND ENVIRONMENTAL VALUES OF RANGELANDS

Program: National Rangelands R&D Program

Priority Area: R&D Projects

493	CTC8	Research and development for sustainable use and management of Queensland rangelands: scoping study
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Priority Area: Other Projects

494	#ADF1	Landscape heterogeneity and potential plant production in semi-arid rangelands
495	CCN3	Assessment of plant species suitable for rangeland reclamation in the Alice Springs and Barkly Tablelands
496	CWE1	Recovery processes in degraded rangelands
497	DAW4	Regeneration strategies for Western Australian pastoral shrublands
498	QPI3	Producing native pasture seed for Mulga lands

General Call

499	DAW7	An evaluation of rangeland management extension in Western Australia
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ITEM	CODE	PROJECT TITLE
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TOPIC: REHABILITATION AND MANAGEMENT OF REMNANT VEGETATION

Program: National Remnant Vegetation R&D Program

Priority Area: Ecological Projects

500	CSU6	Further development of a socio-ecology extension program as an Australian model
501	CWE10	Practical solutions for the rehabilitation of degraded remnant woodland
502	KPB1	Bushland restoration using smoke stimulated germination technology
503	UNE21	Native plant regeneration processes in remnant woodland vegetation

Priority Area: Socio-economic Sub-Program

504	CSO2	Grassy white box woodlands: incentives and barriers to rural conservation
505	FAS1	Model native vegetation legislation and policies
506	UME25	Improving market outcomes: the case of native grasslands
507	UME28	Perceptual attributes contributing to maintaining native vegetation: a marketing study
508	VCA1	Landholder perceptions of remnant vegetation in the box-ironbark region of northern Victoria

Priority Area: Other Projects

509	ANU7	Maximisation of bird biodiversity in yellow box woodland remnants
510	SCS5	Vegetation for gully stabilisation
511	#USH3	Ecosystem resilience and the restoration of damaged plant communities
512	#UWA13	Decline of riparian eucalyptus communities near Yellingbo Victoria

General Call

513	UNE12	The ecosystem function of trees in managed temperate pastures
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TOPIC: USE OF AGROFORESTRY TO SUSTAIN NATURAL RESOURCES

Program: Joint Venture Agroforestry R&D Program

Priority Area: R&D Projects

514	ABA1A	Survey of the costs and benefits of planting trees on Australian farms
515	PIF1A	Species selection database

ITEM	CODE	PROJECT TITLE
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SUSTAINABLE MANAGEMENT OF RIVER AND WATER RESOURCES

TOPIC: RIVER PROCESSES AND MANAGEMENT

Program: National River Health Program

Priority Area: Environmental Flows: Techniques

516	AWT3	Application of IFIM to environmental flow requirements of stream macroinvertebrates
517	GRU10	Ecological basis for river habitat and in-stream flow management
518	GRU18	Rapid procedure for practical in-stream flow assessments
519	GRU22	Comparative evaluation of environmental flow assessment techniques
520	UNE19	Integrating environmental and irrigation water allocation under uncertainty

Priority Area: Environmental Flows: Flow Impacts on Biota

521	HEC1	Impact of critical flow events on biota in regulated streams
522	UMO23	Impacts of hydrological disturbance on stream communities

Priority Area: Environmental Flows: Flows & Nuisance Algae

523	ACW1	Critical flow and population development of the cyanobacteria <i>Anabaena</i> and <i>Microcystis</i> in the Murray-Darling River system
524	CEM2	Modelling the dynamics of blue-green algae in relation to river flow
525	CWN10	Setting target river flows for the prevention of cyanobacterial blooms

Priority Area: Environmental Flows: Integrating Methodologies

526	CWW21	Interactive justice and community management of environmental stream flows
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Priority Area: River Health Monitoring: RIVPACS Techniques

527	ARR1	Temporal variability of macroinvertebrate communities in Australian streams
528	AWT5	Evaluation of rapid biological assessment for RIVPACS modelling
529	EPV2	Evaluation of rapid biological assessment for RIVPACS modelling
530	KIS1	Testing alternative approaches for linking habitat variables with site classifications in a RIVPACS model
531	UOC9	National River Health Program predictive modelling (RIVPACS)
532	UTA3	Interpreting the output of the national river bioassessment protocol to support management decisions

Priority Area: River Health Monitoring: Relating Changes to Impacts

533	AWT1	Relating river macroinvertebrate communities to specific changes in water quality
534	JCU11	Macroinvertebrates as monitors of river health in the tropics

ITEM	CODE	PROJECT TITLE
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535	SWL1	Relating lowland river macroinvertebrate community composition to water quality: a mesocosm approach
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Priority Area: River Health Monitoring: Alternative/Novel Methods

536	AWT2	Evaluation of attached diatoms for assessment of river health
537	CWN8	Macrophytes as indicators of ecosystem health
538	GRU19	River bioassessment using fish community structure
539	UCW3	Evaluation of attached diatoms as a tool in riverine bioassessment of water quality, using artificial substrates
540	ULN1	Development of a phytoplankton bioassessment protocol for Australian rivers
541	UWA14	Assessment of river health by the measurement of community metabolism

Priority Area: River Health Monitoring: Technology

542	NDW8	Development and evaluation of automatic water quality monitoring in Australian rivers
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Priority Area: River Health Monitoring: Taxonomic Support

543	CEN3	Development of interactive key to families of Australian aquatic macroinvertebrates
544	MEW1	Rationalisation of voucher collections and keys for selected families of Trichoptera
545	ULA5	Illustrated key to the nymphs of the Australian ephemeropteran families: Caenidae and Baetidae
546	UTA7	Rationalisation of collections and keys for larvae of three Trichoptera families

Priority Area: River Health Monitoring: RIVPACS Support

547	ARR2	Development and implementation of QA/QC protocols for sampling and sorting components of the MRHI agency bioassessment program
548	MDR16	Quality assurance and control for the MRHI state/territory bioassessment program
549	UOC15	AUSRIVAS model development and refinement

Priority Area: State/Territory Agreements

550	CCM2	Monitoring River Health Initiative: Western Australian Program
551	DAT2	Monitoring River Health Initiative: Tasmania
552	ELP1	Monitoring River Health Initiative: ACT Program
553	EPN1	Monitoring River Health Initiative: New South Wales Program
554	EPO1	Monitoring River Health Initiative: South Australian Program
555	EPV1	Monitoring River Health Initiative: Victorian Program
556	PWA1	Monitoring River Health Initiative: Northern Territory Program
557	QPI31	Monitoring River Health Initiative: Queensland Program

Priority Area: Ecological Processes

558	UMU10	The role of turbulence in stream ecology
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Priority Area: Human and Physical Resources

559	GRU6	Centre for Catchment and In-Stream Research
560	JCU5	Australian Centre for Tropical Freshwater Research
561	MDR7	Murray Darling Freshwater Research Centre

Priority Area: Urban Component (Managed by Water Services Association of Australia (03) 9606 0678)

562	E1	Classification of estuaries
563	E2	Literature review of ecological health assessment in estuaries
564	E6	Estuarine eutrophication models
565	S5	Sediment chemistry of macroinvertebrate fauna relationships in urban streams

Priority Area: Other Projects

566	4/91	Accession and processing of coarse particulate organic material in forest and pasture reaches of two southeastern Australian streams
567	5/91	Ecology of arid zone streams
568	7/91	Environmental significance of snags in the River Murray
569	8/91	The importance of autotrophy and heterotrophy to stream community function
570	9/91	Ecology of the Burdekin River
571	16/91	Dam operation and stream invertebrates
572	17/91	Environmental effects of weirs on the lower River Murray
573	20/91	Managing water and land use in interstate river basins
574	21/91	Alligator weed control project
575	38/91	A compilation of data summarizing limnological characteristics of selected New South Wales reservoirs, II: east flowing rivers in the Sydney region
576	43/91	Sampling procedures for sediment load calculation
577	53/91	Research into manganese speciation in impounded waters
578	55/91	Laboratory evaluation of an acoustic Doppler current meter
579	61/91	Ecological processes in saline ecosystems
580	62/91	Field measurement of near-bed flows in Australian streams
581	85/03	Effect of physical disturbance on stream macroinvertebrate communities
582	85/96	Micro-zooplankton grazing and planktonic community structure
583	85/136	Application of multielement analysis to the study of sediment transport
584	86/77	Mechanisms affecting stream flow and stream water quality: an approach via stable isotope, hydrogeochemical and time series analysis
585	CSU1	Interactions between riparian vegetation and macrobenthic animals of the Murrumbidgee river
586	CWA2	Predicting soilwater distribution and runoff from terrain attributes and weather
587	GRU3	The regulation and habitat requirements of eastern Australian lotic fish communities: appropriate use of IFIM
588	GRU5	Clearing House Program

ITEM	CODE	PROJECT TITLE
589	IFC2	Effects of land use on hydrology and on survival of trout.
590	MUV1	Identification of indicators of physical and environmental condition of streams
591	P86/13	Dynamic model of stream flows in the La Trobe River catchment
592	P87/17	Evaluation of multisite models for flow forecasting
593	UME3	Instream needs and the hydrology of the River Murray
594	UME6	Management, transpiration loss and water yield in mountain ash
595	UME7	The hydraulic basis of snag management in rivers
596	UME20	The potential for non-intrusive, non-destructive instrument for monitoring fish behaviour
597	UMO6	Grazer-periphyton interactions and disturbance in an upland stream: a field and laboratory experimental study
598	UMO9	Classification and prediction of macroinvertebrate communities in Victorian streams
599	UMO10	Flow estimates for small-ungauged catchments in Victoria
600	#UMO12	Australian manual of practice for open channel flow measurement structures
601	UMO19	Measurements of community structure and activity of stream bacteria: potential indicators of river health
602	#UNE15	Development of support models deriving and implementing opportunity costs of environmental uses of water
603	UTA1	Effects of near-bed flow regimes on benthic colonization and distribution

General Call

604	DAV21	Economic assessment of water market reform using the water policy model (WPM)
605	JCU8	Stream ecosystems as monitors of tropical forest catchments
606	UME5	Economic benefits of hydrologic data and monitoring networks
607	UME21	A chemical method to discriminate nitrate pollution of groundwater
608	UMO8	Design and guidelines for stable channels and waterways
609	UMO16	Tropical savanna woodland streams and their catchments: the burning question
610	UMO18	Effects of increased salinity on riverine and wetland biota
611	UNS12	The relationship between the products of oxidation of pyritic coastal soils, predisposition of fish to red spot disease and reduction of fish habitat area
612	USA1	Do water trade policies achieve environmental and socio-economic goals?

TOPIC: MANAGEMENT OF NUTRIENTS AND EUTROPHICATION, AND OTHER POLLUTANTS

Program: National Eutrophication Management Program

Priority Area: Generic R&D

613	CEM4	Modelling nutrient release from sediments in lowland rivers and storages
614	CWS7	Retrospective study of nutrient variations in some riverine systems
615	MDB1	Darling River: algal growth, cycling and source of nutrients
616	ULN2	Extending the 'Rivers Phytoplankton Monitoring' manual to Australian standing waters

ITEM	CODE	PROJECT TITLE
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Priority Area: Focus Catchment R&D

617 DAV20 Identifying sources of phosphorus in agriculture runoff: Phase 1

Priority Area: Adoption/Extension

618 CSU4 National Workshop on Phosphorus in Australian Freshwaters

Priority Area: Other Projects

619 6/91 Nutrient spiralling in Australian streams

620 19/91 Organic carbon in water: its sources and role in nutrient transport

621 54/91 Effect of phosphate fertiliser on the movement of clay through soils and its effect on water quality

622 58/91 Removal of nitrates by ion exchange resins

623 84/264 Solute transport in heavy clay soils

624 85/75 Ecology of filamentous algae

625 86/52 Nutrient limitation of periphyton growth: an in situ assessment for eight streams in Victoria, Australia

626 CCE1 Removal of phenols and organic pollutants from industrial wastewaters

627 CDF1 Wood production plantations for land re-use of effluent

628 CDF2 Management of trees irrigated with nutritionally imbalanced effluent

629 CPO2 Recent advances in biological nutrient removal: prefermentation and its effect on removal

630 CWA1 Design and operation principles for systems of effluent disposal using absorption trenches

631 CWA13 An expert system to help catchment managers estimate nutrient exports

632 CWN1 Factors affecting the toxicity of cyanobacterial (blue-green algal) blooms

633 #JCU4 Comparison of two reservoirs in northwest Queensland

634 MDR3 Bioavailability of nutrients in turbid waters

635 NDW2 Biomanipulation as a potential control of algal blooms: 'whole-lake' manipulation of fish, zooplankton and phytoplankton

636 R86/03 The biological removal of phosphate from sludge

637 UCN1 Microbiological studies of a full scale treatment plant removing phosphorus biologically

638 UME8 Mitigation of sediment and nutrient movement from sources in the La Trobe River catchment into the Gippsland Lakes

639 UMO4 Microbial interactions in phosphate removal from wastewaters

640 UMO5 Nutrient spiralling in Australian streams: Phase II

641 UMO15 The biological removal of phosphate from conventional sewage treatment systems using aggregated cells of acinetobacter

642 #UNC6 Newcastle Harbour sediment sources

643 UNE13 Biomanipulation as a potential control of algal blooms: 'whole-lake' manipulation of water regime to promote or reduce macrophytes

644 UNS9 Use of treated sewage plant effluent in cooling towers

645 UOC4 Validity of OECD: Vollenweider models for prediction of eutrophication in Australia

646 UWA3 Process based water quality models

ITEM	CODE	PROJECT TITLE
647	UWA9	Modelling primary production in the upper mixed layer of lakes
General Call		
648	ACW2	Life history and ecology of bloom-forming cyanobacteria in the Lower Murray River
649	CDF7	Wood production plantations for land re-use of effluent
650	CTC6	Development of sustainable intensive crop production systems
651	CWA9	Developing a generic catchment management support system for assessing nutrient loading implications of government policies
652	MDR1	The effect of turbulent mixing on the growth and distribution of phytoplankton in turbid waters
653	MDR4	Sustained phosphorus removal from sewage by artificial wetlands
654	MDR8	Nutrient limitation of algal growth: physiological assays and chemical analyses
655	MDR9	Pelagic food web structure of Lakes Hume and Dartmouth
656	SRC1	Nutrient balances and transport from agricultural and rainforest lands
657	UAD7	Movement of phosphorus through soils
658	UMO1	Microbiological aspects of the removal of phosphate from sewage
659	UMO13	Relationships between river turbidity and catchment condition
660	UMO20	Enhanced biological removal of phosphate by Acinetobacter
661	UNE1	Effects of oral administration of toxic microcystis on the pig as an animal model
662	UQL1	Groves suppressing heavy metal/arsenic residues as well as leaching, Burdekin River
663	UWA12	Improvements to a water quality model to include mixing effects

TOPIC: MANAGEMENT FOR SUSTAINABLE USE OF GROUNDWATER AND PREVENTION OF POLLUTION

Program: National Groundwater R&D Program

Priority Area: Human and Physical Resources

664	CWW13	Centre for Groundwater Studies
665	UTS1	National Centre for Groundwater Management

Priority Area: Other Projects

666	42/91	Development of design theory for artificial recharge works
667	47/91	Development of procedures for more efficient monitoring and assessment of groundwater contamination from point sources of pollution
668	85/135	Diffuse groundwater recharge in the western Murray Basin
669	86/32	High-nitrate groundwaters in the Australian arid zone
670	87/23	Fouling and corrosion of groundwater wells
671	88/04	Chlorine-36 tracing in Australian groundwater basins
672	CWE12	Potential of rights markets for management of groundwater quality

ITEM	CODE	PROJECT TITLE
673	CWW2	Vulnerability assessment for management and control of pollution of groundwater in urban and agricultural catchments
674	CWW4	Salt and water balance of the River Murray and its floodplain
675	CWW5	Interaction between lakes, wetlands and unconfined aquifers
676	CWW6	Airborne remote sensing techniques for estimation of groundwater recharge on regional scale
677	#CWW9	Impact of pastoral land use on groundwater quality
678	CWW12	Development methods for estimating regional recharge in karstic terrain
679	CWW14	Point recharge and diffuse discharge in the Murray Basin
680	M86/23	Dynamic models for prediction of groundwater discharge and solute transport in a stream-aquifer system of the River Murray
681	M86/32	Time and space scale effects in groundwater recharge systems
682	MDR6	Quantity and quality of catchment water yield in response to drainage of non-irrigated land
683	NTU1	Examination of ecologically sustainable groundwater pumping rate
684	P87/10	Estimation of diffuse recharge in the Naracoorte Ranges region, South Australia: an evaluation of chlorine-36 for recharge studies
685	UMO3	Properties of colloids and significance in pollutant transport in soils and groundwater
686	UNC1	Accuracy of catchment model estimates of regional recharge
687	UNS7	Performance forecasting and rehabilitation of deteriorating bores
688	UNS11	Conjunctive use modelling and management of groundwater pipe and surface waters in the Botany Basin, Sydney
689	UNS14	Centre for Groundwater Management and Hydrology
690	UWA2	Mobility of pesticides in soil and groundwater contamination
691	UWA8	Evaluation of groundwater pollution potential of pesticides

General Call

692	CWS3	Potential for groundwater salinisation: Mallee region, Murray Basin
693	CWS4	Using chlorofluorocarbons for dating and tracing shallow groundwaters
694	CWW16	Spatial modelling of land systems at regional scale for assessment of aquifer vulnerability to pollution
695	CWW17	Australian design method for sustainable land treatment of rural industry and sewage effluent
696	DAS14	Implementation of farm management options for groundwater quality protection

TOPIC: UNDERSTANDING AND MINIMISING THE ENVIRONMENTAL EFFECTS OF PESTICIDES

Program: Minimising the Riverine Environment Impact of Pesticides R&D Program

Priority Area: Transport of Pesticides

697	NDW13	Measurement of dust and endosulfan transport and deposition in riverine environments
698	NDW19	Investigation of the persistence of endosulfan in the riverine environment
699	NDW20	Assessment of the implications of storm events in the transportation of agrochemicals in surface waters
700	QPI21	Rainulator studies of pesticide movement from cotton production systems

ITEM	CODE	PROJECT TITLE
701	QPI23	Pesticide transport from cotton production systems: Queensland site
702	UQL5	The aerial application of pesticides: aerial transport in the riverine environment
703	USY3	Transport and fate of pesticides in cotton production systems: New South Wales field site and degradation studies
704	USY7	Transport of Helix (chlorfluazuron) by water, sediment and volatilisation/contaminated dust
<i>Priority Area: River Bio-Monitoring & Ecotoxicological Impacts</i>		
705	NDW6	The impact of pesticides on riverine environments: sub-catchment biomonitoring study
706	NDW10	Effects of endosulfan on macroinvertebrates: mesocosm study using irrigation channels
707	USY8	Fate of endosulfan in water
708	UTS3	Ecotoxicology of endosulfan on suspended and bottom sediments
709	UTS4	Ecotoxicology of pyrethroids and profenofos to Australian riverine biota
710	UTS6	Ecotoxicology of endosulfan isomers and endosulfan sulphate on macroinvertebrates in a stream mesocosm
<i>Priority Area: Management Options</i>		
711	CEM5	Integrative modelling of the transport and fate of endosulfan in the riverine environment
712	NDW16	Assessment of the relationship between riverine endosulfan levels and the degree of cotton development in river valleys of northwest New South Wales
713	QNR8	Improved pesticide management: pilot study
714	UQL13	The aerial application of pesticides: development of guidelines for best management practice in the riverine environment
<i>Priority Area: Planning & Evaluation</i>		
715	GRU16	Controlled environment behaviour relationships in the degradation of endosulfan in cotton farms
<i>Priority Area: Program Support</i>		
716	USY4	Quality assurance in chemical sampling and analysis
<i>Priority Area: Other Industries</i>		
717	CDS19	Development and application of the Pesticide Impact Ranking Index (PIRI) to selected industries/catchments
718	CIC2	Development of a cotton model and technology transfer package
719	QNR6	Pesticide input and environmental fate information system (PIEFIS)
<i>Priority Area: Other Projects</i>		
720	12/91	Sublethal effects of pesticides on selected species of freshwater fish and crustaceans from southern Australia
721	14/91	Development and testing a model of sorbed chemical runoff
722	27/91	Experimental study of pesticide and sediment effects on streams
723	#ANU2	Modelling the fate of chemicals in the environment
724	CEM3	Aerial transport of endosulfans to rivers

ITEM	CODE	PROJECT TITLE
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725	GRU1	Indicator system to monitor chronic pesticide contamination in streams
726	NDW17	River contamination risk of cotton farms
727	QPI22	Application of models to estimate transport of pesticides from cotton production systems
728	UAD1	Phosphate and pesticide movement through soils into ground and stream movement
729	#UAD3	The use of morphological deformities in chironomid larvae (Insecta: Diptera: <i>Nematocera</i>) as an indicator of pesticide and heavy metal pollution in water catchment areas of South Australia
730	UQL6	The off-target transport of Helix (chlorfluazuron) by air (droplet drift)

General Call

731	GRU2	Characteristics and field-to-stream transport of pesticides and other agricultural chemicals
732	IFC1	Effects of pesticides on freshwater invertebrate fauna

TOPIC: REHABILITATION AND MANAGEMENT OF WETLANDS

Program: National Wetlands R&D Program

Priority Area: R&D Projects

733	EA62	Modelling ecological responses to water regimes in arid zone wetlands
734	EA67	Monitoring wetlands health: are National River Health Program protocols applicable?
735	UNE18	Plant establishment: the cornerstone of wetland restoration

Priority Area: Other Projects

736	CCM1	Assessment of the value of different types of wetland for waterbirds using the Swan Coastal Plain as a case study
737	CCN2	The ecology of sub-tropical ephemeral wetlands
738	CWN4	Influence of water level on plant growth and nutrient cycling in wetlands
739	CWS2	Ecological processes for management of wetlands and floodplains: floodplain vegetation health
740	MDR10	Ecological processes for management of wetlands and floodplains: decomposition
741	QIM1	Management of Northern Australian dams in relation to recreation and health
742	UMU2	Wetland classification on the basis of water quality and invertebrate community data
743	UMU3	Effects of altered water levels on wetland plants
744	#UMU4	Managing wetlands to conserve the aquatic invertebrates
745	UNE7	The role of seedbanks in maintaining or rehabilitating vegetation in temporary and permanent wetlands
746	UNE11	The integration of wetlands water supply and demand management in a market environment using capacity sharing

General Call

747	DEP1	Ecological processes for management of wetlands and floodplains: practical management systems
748	JCU1	Limnology and classification of tropical floodplain wetlands, with particular reference to the effects of irrigation drainage

ITEM	CODE	PROJECT TITLE
749	MDR11	Water level fluctuation in experimental billabongs, permanent and ephemeral
750	UAD6	Ecological processes for management of wetlands and floodplains: water level effects

TOPIC: SUSTAINABLE IRRIGATION SYSTEMS

Program: National Program for Irrigation R&D

Priority Area: Application on Farm

751	AIT1	Performance testing of automatic irrigation equipment for flood irrigation
752	BSE3	Effective irrigation of suitable soils on uneven surfaces
753	DAN8	Use of saline water in rice based farming systems
754	DAV19	Prediction of sixty year trends in rootzone salinity
755	RWC3	Crop Check 500: irrigation scheduling component
756	UME12	Real-time monitoring and control of on-farm surface irrigation systems

Priority Area: Water Supply Systems

757	SKP1	Review of irrigation flow control and measurement to farms
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Priority Area: Drainage Systems

758	CWN5	River pollution with agricultural chemicals used in irrigation agriculture
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Priority Area: Integrated Farm/Supply Systems

759	QPI27	Economic and environmentally sustainable use of various water supply sources for irrigation
760	SAS1	Research and development of best practice for horticulture irrigation rehabilitation
761	UNE23	Viability of irrigation infrastructure refurbishment and implications for private ownership

Priority Area: Adoption & Education

762	BSE2	Increasing irrigation efficiency in the Australian sugar industry
763	CWN9	Adopting improved use of current water monitoring technology to manage recharge
764	DAV15	Towards excellence in dried vine fruit production
765	DAV16	Establishing a process to improve irrigation automation
766	UCQ1	Local best practice (LBP) among cotton producers in central Queensland
767	UQL12	Review of existing participative Action Management Model (PAM) projects and socio-economic issues affecting adoption of irrigation technology

Priority Area: Planning & Evaluation

768	AGT1	Application for foresighting to develop options for the future management of, and research and development into, sustainable irrigation and river health
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ITEM	CODE	PROJECT TITLE
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Priority Area: Communication

769 SBC1 NPIRD Communication Consultant

Priority Area: Other Projects

770	25/91	Effects of irrigation discharge on the Barrattas wetlands
771	29/91	Noora seepage basin: saline water disposal
772	32/91	The effect of applied 'high magnesium' bitterns upon the physical and chemical properties of soils from Wakool -Tullakool Irrigation District, New South Wales, Australia
773	35/91	An innovative approach to technology transfer for irrigated horticulture
774	49/91	Banana irrigation using treated sewage effluent
775	50/91	Dynamic programming for capacity sharing for surface water resources in Victoria
776	51/91	A quantitative assessment of water management policies for the Border Rivers region
777	84/162	Development of management strategies for minimising salinization due to irrigation: quantifying components of the water balance under irrigated crops
778	85/11	Water reliability policies in Australian irrigated agriculture
779	85/89	Water balance modelling of irrigation areas
780	AIT2	Development of a value selection method for choosing between alternative soil moisture sensors
781	CPI4	On-site monitoring of agrochemical residues: a valuable tool for irrigation water management
782	CWN3	Optimising water management in an irrigation area which grows rice
783	CWW7	Effect of microbiota, salinity and turbidity on leakage from irrigation channels
784	DAS1	Salinity management strategies for grapevines
785	DAV7	Development of improved fertilization techniques for irrigated horticulture
786	DAV11	Control of irrigation salinity through conjunctive use of groundwaters and surface waters
787	DAV12	Environmentally sustainable fertiliser use through improved flood irrigation management techniques
788	IAA1	National irrigation accreditation system
789	RWC4	Evaluation of enroute wetland systems for nutrient removal from irrigation drainage
790	SRW1	Best practice identification in irrigation providers through benchmarking
791	UOC2	Improving irrigation efficiency through remote sensing
792	W88/03	Implementation theory and the privatisation of irrigation systems in New South Wales

General Call

793	CWN2	Reducing ground water accessions under rice
794	QNR1	A generic hydrological design model for the irrigation management of effluent disposal
795	QPI16	A generic hydrological design model for the irrigation management of effluent disposal

ITEM	CODE	PROJECT TITLE
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TOPIC: RIVER RESTORATION AND MANAGEMENT (INCLUDING RIPARIAN LANDS)

Program: River Restoration and Management Program

Priority Area: Sub-Program C

796	DAT3	Management of stock access to riparian zones
797	PWT2	Factors affecting the recruitment and regeneration of natural riparian vegetation on Tasmanian rural land

Priority Area: Other Activities

798	30/91	The eco-physiology of riparian river red gum
799	JCU9	Improved river bank stabilisation practices in the wet tropics

Priority Area: Other Projects

800	NDW1	Use and management of native vegetation for river bank stabilisation and ecological sustainability
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General Call

801	MDR5	The role of vegetation in stabilising river banks
802	SCS8	Development of strategies for the management of river red gum in the Murray-Darling Basin

TOPIC: WATER RESOURCES (GENERAL)

Priority Area: Human and Physical Resources

803	AEW1	Australian Centre for Water Treatment and Quality Research
804	CWA10	Australian Centre for Catchment Hydrology
805	UME9	Centre for Environmental Applied Hydrology
806	UMO14	Centre for Stream Ecology
807	UNE10	Centre for Water Policy Research
808	UNS13	Centre for Wastewater Treatment
809	UWA7	Centre for Limnological Modelling
810	UWR1	Urban Water Research Association of Australia

Priority Area: Other Projects

811	1/91	Iron and manganese removal from water supplies
812	3/91	Electrochemical coagulation-filtration process
813	10/91	Rock filters as a low cost water treatment process
814	15/91	Regional catchment management and receiving water quality

ITEM	CODE	PROJECT TITLE
815	22/91	Commercialisation of new technology for urban water supply and sewerage systems
816	24/91	The efficiency of treatment of paper and pulp mill effluents
817	28/91	Basic studies in research for water resource management
818	31/91	Origins of chloride variation in the Murray Basin using environmental chlorine-36
819	39/91	Cost effective treatment of piggery wastes and disposal of residues
820	40/91	The effects of land use on the water resource: an annotated bibliography
821	45/91	Investigation of water needs and appropriate method of supply in small aboriginal outstations or homeland settlements
822	46/91	Environmental assessment of a coral core to record phosphorus and trace element pollution in Cleveland Bay: preliminary investigations
823	52/91	Evaluation of UV systems for small water supplies
824	60/91	Polymerized monolayers for water conservation
825	63/91	Wetland pondage systems for treatment of urban runoff
826	85/02	Iron removal by in situ groundwater treatment
827	85/17	A study of the factors which affect residential water consumption in Adelaide
828	85/105	The estimation of low flow characteristics and yield from small ungauged rural catchments
829	85/122	The introduction of user pays domestic water pricing in Newcastle: public reaction government response
830	86/61	Prediction of hydrologic parameters from taxonomic classifications of landscape attributes
831	86/75	Consumer attitudes to drinking water quality and water restriction policies
832	AEW2	Occurrence and removal study of the highly mutagenic chlorinated furanone 'MX' in disinfected drinking water
833	ANS1	Sub-micron particles in natural waters: implications to water quality and treatment
834	CAR1	Prediction of large-scale droughts in Australia
835	CAR2	Quantitative precipitation forecasting using numerical models
836	CPO1	Recovery of mercury from industrial wastewaters
837	CWA4	Development of a distributed catchment hydrological model to predict the effects of land use changes
838	CWA6	Remote sensing of change in components of the Murray-Darling Basin using satellite imaged spatially registered environmental data
839	CWW10	Distributive justice and the allocation of water between irrigation, industry, the community and the environment
840	JCU2	Investigation of runoff sources in tropical rainforest using environmental tracers
841	P86/15	Optimal operating policies for multiple reservoir systems
842	P86/32	Research into manganese (and iron) speciation in impounded waters
843	P86/33	Probability of occurrence of extreme rainfalls and floods
844	P87/04	Disinfection efficiency of sludge pasteurisation processes
845	P87/21	Commissioning procedures and their effect on lead levels in water from new uPVC reticulation mains
846	P87/22	Impact of capital works on rating for smaller country local councils
847	P88/45	Application of expert systems to country town water supply and sewerage operations
848	QPI8	Validation of a computer model (ROSL)
849	UAD2	Reliability cost trade-offs for multiple reservoir systems
850	UME1	Evaluating the effect on water quality of timber harvesting in water supply catchments

ITEM	CODE	PROJECT TITLE
851	UMO2	Improving the management of incised streams by predicting future changes of channel form
852	UMO7	Probability of occurrence of extreme rainfalls and floods
853	UMO11	Oxygen treatment of La Trobe Valley outfall sewer
854	UMU1	Water purification by wind and solar powered reverse osmosis
855	UNE3	An evaluation of transferability of water entitlements in Australia
856	UNE4	Evaluating policy options for improving water resource use efficiency and economic viability in the Murrumbidgee region of New South Wales
857	UNE6	Water pricing and allocation in random environments
858	UNS6	Objective determination of catchment loss models
859	#UOC3	Impact of sewage effluent on the Upper Thredbo River
860	UWA4	Extreme flood estimation in southwestern Western Australia

General Call

861	ANU5	Solution of inverse problems for hydrological systems
862	BRR2	Remote sensing of wetland water regimes and vegetation characteristics
863	CCE2	Fate and transport of endosulfan and diuron in aquatic ecosystems
864	CWA3	A decision support system for catchment planners
865	CWA5	Radionuclides to determine sources, residence times and transit times of sediments in water supply catchments
866	CWW8	Assessment of the impact of pollutants on groundwater beneath urban areas
867	DAW8	Soil factors affecting runoff in southwest of Western Australia
868	GRU4	Solution of inverse problems for hydrological systems
869	GRU8	Ecological impacts of introduced Tilapia in Australia
870	JCU3	Insect-borne viruses and impounded water in north Queensland
871	KON2	A publication on water management in dryland agricultural areas
872	MDR2	Chironomid pupal exuviae as biological water quality monitors
873	MFR1	Simple test to detect contamination of drinking water
874	UNC2	Understanding catchment processes through the use of a catchment evolution model
875	UNC3	The effect of uncertainty in key demand assumptions in the performance of urban water supply systems
876	UNS8	Loss data for relating design rainfall and flood frequencies
877	UOC1	Analysis of water quality monitoring data collected on selected New South Wales reservoirs
878	UQL2	The biological removal of manganese from drinking water by immobilised manganese-oxidising bacteria
879	UQL4	Nature of the alum-manganese interaction in the sedimentation process
880	UWR2	The re-use of wastewater: an economic analysis of community benefit

Consultants Reports

June 1999

ITEM	CODE	PROJECT TITLE
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TOPIC: NATIONAL LAND AND WATER RESOURCES AUDIT

Priority Area: Needs Analysis

881 HAS3 Needs analysis: National Land and Water Resources Audit

Priority Area: Scope of Methods

882	ABS1	Sustainable management practices - their costs and benefits together with the levels of adoption of sustainable practices and impediments to adoption
883	AGS3	Dryland salinity 2 (as an integrator between soil and water and land use practice)
884	AGS4	Soil quality 2
885	AHA1	Options to quantify the quality and range of soil, water and vegetation management practices by resource managers throughout Australia
886	ANC1	Vegetation, concentrating on ecological linkages values and linkages from the Audit to biodiversity initiatives
887	BRR4	Carbon sinks and carbon balance in both soil and vegetation resources
888	CDM6	Vegetation monitoring using Landsat TM data
889	CLW4	Methodological options to estimate status and roles of change in soil, sodicity, soil biology and nutrient balance
890	CMR1	Estuary health and value
891	CSU20	The inclusion of social data in the National Land and Water Resources Audit
892	CWA22	Soil and water integration - modelling the links between surface and groundwater and soil issues for both regulated and unregulated catchments
893	CWA23	Assessment of rangeland condition and value for the National Land and Water Resources Audit
894	CWA24	Material budgets
895	CWA25	Soil quality
896	CWA26	River health and value
897	CWE19	National Land and Water Resources Audit: program development
898	CWE20	Spatial Data Integration in the National Land and Water Resources Audit
899	CWE21	Understanding the influence of primary ecological drivers and the response of key ecosystem processes on Australia's land, vegetation and water resources
900	CWE22	Data needs and methods to investigate impacts of animal and insect pests on the Australian landscape and primary production
901	CWN16	Irrigation salinity (as an integrator between soil and water and land use practice)
902	DAW25	Dryland salinity 1 (as an integrator between soil and water and land use practice)
903	DGD1	A review of policies of the three tiers of government as they impact on resource management
904	DNR4	Productivity and land and water resource use, establishing the links between resource condition and productive outputs
905	DUM1	Policy analysis for land and water resources
906	ERE2	Economic valuation (all above physical attributes from both an on-site and from an off-site perspective)
907	FLU1	Groundwater sustainability
908	IRM1	Action Statement for the inclusion of social data into the National Land and Water Resources Audit
909	NDW22	Surface water quality, sustainability of use and potential
910	REU1	Valuing the costs and benefits of water use

ITEM	CODE	PROJECT TITLE
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911	UME33	Catchment health and value, integrating land and water concerns
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Priority Area: Scientific Feasibility

912	CLW5	Development of the National Land and Water Resources Audit
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Priority Area: Data System Structure and Management

913	BRR3	National Land and Water Resources Audit: development of data system structure and management
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Priority Area: Framework Database

914	ALG1	Commonwealth: specify framework database
915	DEP6	South Australia: specify framework database
916	DLA1	Western Australia: specify framework database
917	DNR5	Queensland: specify framework database
918	ELP2	ACT: specify framework database
919	NDW24	New South Wales: specify framework database

Priority Area: Natural Resources Atlas

920	DET2	Online Natural Resources Atlas of Australia
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Priority Area: Land Use Mapping

921	BRR5	Land use mapping for continent using AVHRR data
922	BRR6	Coordination of land use mapping of KIAs
923	DAV30	Land use mapping: East and West Gippsland catchment management authority areas
924	DAW27	Land use and vegetation mapping: Western Australia
925	QNR17	Land use mapping: Fitzroy catchment

Priority Area: Australian Soil Resource Information System

926	BRR9	Australian soil resource information system
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Priority Area: Water Quantity

927	BOM2	Establishment of a project plan for the theme: surface and groundwater management: availability, allocation, use and efficiency of use
928	DAV29	Implementation of the surface and groundwater management: availability, allocation, use, and efficiency of use theme work plan
929	DEP7	Implementation of the surface and groundwater management: availability, allocation, use and efficiency of use theme work plan
930	ELP3	Implementation of the surface and groundwater management: availability, allocation, use, and efficiency of use theme work plan
931	NDW27	Implementation of the surface and groundwater management: availability, allocation, use, and efficiency of use theme work plan
932	PWA2	Implementation of the surface and groundwater management: availability, allocation, use, and efficiency of use theme work plan
933	QNR16	Implementation of the surface and groundwater management: availability, allocation, use, and efficiency of use theme work plan

ITEM	CODE	PROJECT TITLE
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934	SKP4	Establishment of a work plan for the theme: surface and groundwater management: availability, allocation, use and efficiency of use
935	SKP6	Coordinator: water availability
936	UME61	Extension of unimpaired monthly stream flow data and regionalisation of parameter values to estimate stream flow in ungauged catchments
937	WRC8	Implementation of the surface and groundwater management: availability, allocation, use, and efficiency of use theme work plan

Priority Area: Dryland Salinity

938	BRR10	Catchment water balance and land use impacts
939	BRR11	Catchment classification for salinity management
940	DAS19	Extent and impacts of dryland salinity
941	DAT6	Extent and impacts of dryland salinity
942	DAW29	Extent and impacts of dryland salinity
943	QNR21	Extent and impacts of dryland salinity
944	SKP7	Extent and impacts of dryland salinity
945	WEB2	Establishment of a work plan for the theme dryland salinity
946	WEB3	Development of a National Dryland Salinity Statement
947	WEB4	Audit Dryland Salinity Project Coordinator

Priority Area: Vegetation Management

948	BRR13	Access, audit and compilation of digital vegetation extent and condition data
949	DET5	Develop core attributes and database for national vegetation information system

Priority Area: Rangelands Monitoring

950	AMH1	Developing a work plan for the rangelands monitoring theme
951	CIE5	Indicators within a decision framework
952	CWE24	Ecosystem function analysis of rangeland monitoring site data
953	DAW28	Rangelands Monitoring Coordinator
954	DEP9	Indices of change in ecosystem function (cover) for northern South Australia using Landsat MSS/TMM
955	DET3	Indices of change in ecosystem function at the national scale using AVHRR NDVI data
956	DET4	Incidence of extreme climatic events
957	QNR18	Intensity of land use
958	QNR20	Change in land tenure/land use

Priority Area: Productivity and Sustainability

959	BRR12	Land use change, productivity and enterprise diversification
960	CLW6	Work plan: productivity and sustainability theme
961	CLW12	Water-borne soil erosion and sediment transport 2: regional nutrient and water balance

ITEM	CODE	PROJECT TITLE
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962	CLW13	Nutrient balance in regional farming systems and soil nutrient status
963	DAW30	Soil acidity and acidification
964	HRD3	Horticulture environment audit
965	SKT1	Benchmarking current rural industry practices, productivity, environmental impact and assessing the capacity to implement change

Priority Area: Capacity for Change

966	ABA10	Estimating the cost of degradation to Australian agriculture: a survey approach
967	BRR14	Framework and review of capacity and motivation for change to sustainable management practices
968	CIE3	Establishment of a work plan for the theme: Capacity of and opportunity for farmers and other natural resource managers to implement change
969	CIE6	Capacity for change: coordination and reporting
970	CLW14	Valuing the resource base and costs of degradation
971	DAV32	Structural adjustment in agriculture and the capacity to implement catchment plans

Priority Area: Ecosystem Health

972	CLW15	Estuarine health assessment
973	CLY1	Preparation of Part 1 of the Theme 7 work plan: Waterway, catchment and landscape health
974	UQL19	Preparation of Part 2 of the Theme 7 work plan: Estuarine and coastal floodplain health

Priority Area: Products

975	EAR1	Development, improvement, updating and maintenance of National Land and Water Resources Audit WebSite
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Priority Area: Implementation Projects

976	CDM7	Using natural resource inventory data to improve the management of dryland salinity in the Great Southern (Western Australia)
977	DAS18	Supporting and managing land use impacts and change, Mt Lofty Ranges, SA
978	DAT5	Sustainable use and environmental health of Tasmania's water resources
979	DAV28	Regional data compilation and assessment techniques for natural resource management
980	NDW25	Assessing the status, conditions and trends of native vegetation communities to support vegetation management in low-rainfall cropping lands
981	NTU2	Trend analysis for regional land condition assessment
982	QNR15	Developing farming systems and improving catchment health in the Fitzroy

Priority Area: Water Infrastructure Project

983	UNE33	Assessment process for water resource development
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ITEM	CODE	PROJECT TITLE
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LAND AND WATER RESOURCES RESEARCH AND DEVELOPMENT CORPORATION

PRODUCTIVE AND SUSTAINABLE LAND USE SYSTEMS

TOPIC: PREVENTION AND REVERSAL OF SOIL DEGRADATION BY EROSION, ACIDIFICATION OR STRUCTURAL DECLINE

Program: National Soil Acidification R&D Program

Priority Area: R&D Projects

984 ACM1 Social and economical feasibility of ameliorating soil acidification

Priority Area: Program Support

985 CIE2 A national review of soil health issues

Priority Area: Communication

986 ACT2 1998 National Soil Acidification Conference

987 DAW22 Developing a national strategy for soil acidification management

Priority Area: Other Projects

988 UBC2 International Symposium on Advances in Soil Quality for Land Managers: science, practice and policy

General Call

989 HAS4 Greenhouse, carbon trading and land management

990 QNR7 Determining sustainable soil management for the 21st century

TOPIC: DEVELOPMENT OF SUSTAINABLE PRODUCTION SYSTEMS

Program: Sustainable Grazing Systems R&D Program

Priority Area: Planning & Evaluation

991 QNR11 Design of a regional environmental audit and monitoring process for the grains industry using Central Queensland as a pilot

992 VIR4 Review of the Sustainable Grazing Systems Program

Priority Area: R&D Projects

993 PFA1 Stage 2 of the indicators of sustainable crop production systems

994 PWY1 Stage 2 of the indicators of sustainable crop production systems

ITEM	CODE	PROJECT TITLE
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995	RMI2	Environmental accounting for the agricultural industry
996	RPA1	Stage 2 of the indicators of sustainable crop production systems

General Call

997	ASP1	Production of a soil test interpretation manual
998	CTC15	Sustainable development of tropical Australia: research and development for management of land, water and marine resources

TOPIC: DRYLAND SALINITY

Program: National Dryland Salinity Program

Priority Area: Phase I Projects

999	ACM5	Design of a second phase of the National Dryland Salinity Program
1000	ALT1	Foresighting: consultancy to explore the future research and development requirements for managing Australia's natural resources, dryland salinity
1001	CWW19	Integrated catchment planning
1002	DAS15	Mapping dryland salinity: Upper South-East focus catchment
1003	DAT4	Review of future directions and practices for the development of management and rehabilitation options for salt-affected land in Tasmania
1004	DAW24	National Dryland Salinity Program Stakeholders Conference: Kent catchment
1005	LPM1	National Workshop on Integrated Catchment Management
1006	QPI32	GIS: Hydrologic Modelling Workshop
1007	QPI35	Catchment action plan for Balfes Creek, Upper Burdekin
1008	SDS1	Development of Web page for the National Dryland Salinity Program
1009	UNS16	Hydrogeochemical and isotopic analysis of the Liverpool Plains
1010	VCE7	Mapping dryland salinity: Loddon-Campaspe focus catchment
1011	VCE10	Organisation of the NDSP focus catchment workshop 'Harnessing the National Dryland Salinity Program'
1012	VCE11	Review of the mapping and monitoring sub-program of the National Dryland Salinity Program
1013	VIR1	Assessment of the National Dryland Salinity Research, Development and Extension Program
1014	VIR2	Review of the socio-economic sub-programs of the National Dryland Salinity Program
1015	WEB5	Review of soil-water-plant interactions sub-program

Priority Area: Institutional R&D

1016	RPD1	Local government capacity to manage dryland salinity
1017	SKP8	Assessment of the efficacy of engineering solutions for management of dryland salinity
1018	VIR6	Enhancing institutional support for the management of dryland salinity

ITEM	CODE	PROJECT TITLE
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Priority Area: Managing Saline Land R&D

1019 PPK1 Assessment of options for the productive use of saline lands

Priority Area: Geophysics Sub-Program

1020 VCE12 Coordination of the National Aerial Geophysics Mapping Project

Priority Area: Program Support

1021 DEP8 Program Coordinator: National Dryland Salinity Program

1022 WEB1 Coordinating the Development of a National Dryland Salinity Research, Development and Extension Program

TOPIC: DEVELOPMENT OF PRODUCTION SYSTEMS BASED ON INTEGRATED CATCHMENT MANAGEMENT

Program: Social and Institutional Research Program

Priority Area: Scoping Reviews

1023 ACM2 Integration and delivery of research and development results at the catchment scale

Priority Area: Communication

1024 CCQ2 Multiple Objective Decision Support Systems Conference (MODSS 99)

1025 RBV1 Second National Workshop on Integrated Catchment Management

TOPIC: CLIMATE VARIABILITY IN AGRICULTURE

Program: Climate Variability in Agriculture R&D Program

Priority Area: Climate Forecasting

1026 CWE14 Planning and preparation for Phase II of drought alert (QPI20)

Priority Area: Adaptive Production Systems

1027 CIC3 Search for innovative adaptations to climate variability

Priority Area: Marketing

1028 ABA6 Integrating climate forecasting into yield predictions for the agricultural sector

1029 BOM3 A century's perspective on climate variability and impacts on agriculture

1030 CPA1 Climate Variability in Agriculture R&D Program: communication package

1031 INF2 Drought research in progress

ITEM	CODE	PROJECT TITLE
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| 1032 | KON4 | Climate risk and yield information service |
| 1033 | MAC1 | Farmers training needs for managing climate risk |

Priority Area: Industry & Extension

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| 1034 | UME24 | Research and development opportunities for using seasonal climate forecasts in the Australian water industry |
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Priority Area: Planning & Evaluation

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| 1035 | HAS2 | Review of National Climate Variability Research and Development Program |
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Priority Area: Communication

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| 1036 | COS1 | Coordination of Managing with Climate Variability Conference 'Of droughts and flooding rains' |
| 1037 | UQL9 | Second Australian Conference on Agricultural Meteorology |

Priority Area: Program Support

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| 1038 | AGE1 | Program management for the Climate Variability Research and Development Program |
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TOPIC: REDESIGNING AGRICULTURE FOR AUSTRALIAN LANDSCAPES

Program: Redesigning Agriculture for Australian Landscapes R&D Program

Priority Area: R&D Projects

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| 1039 | CDS22 | Water and nitrogen balance in natural and agricultural systems in the wet tropics of north Queensland |
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Priority Area: Program Support

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| 1040 | SPV1 | RAPPS Program Coordinator David Clarke: sustainable productions |
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TOPIC: SOCIAL AND INSTITUTIONAL RESEARCH PROGRAM

Program: Social and Institutional R&D Program

Priority Area: Planning & Evaluation

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| 1041 | ANU15 | Establishment of a portfolio of research and development into improving the social, economic, policy and institutional environment relating to the management of Australia's natural resources |
| 1042 | ANU19 | Development of a prospectus for a research and development program on social and institutional arrangements in natural resource management |

ITEM	CODE	PROJECT TITLE
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TOPIC: R&D FOR ENVIRONMENTAL MANAGEMENT OF MILITARY LANDS

Program: R&D for Environmental Management of Military Lands Program

Priority Area: R&D Projects

1043	CDM5	Monitoring changes in land cover and vegetation condition in the Townsville field training area using remotely sensed and related spatial data
1044	CLW1	Land unit/soil survey of the Army's Townsville field training area
1045	CTC19	Constructing decision support tools to evaluate management alternatives

Priority Area: Program Support

1046	CTC12	Environmental management of military training areas
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SUSTAINING VEGETATION IN THE LANDSCAPE

TOPIC: MAINTENANCE OF CONDITION, PRODUCTIVE CAPACITY AND ENVIRONMENTAL VALUES OF RANGELANDS

Program: National Rangelands R&D Program

Priority Area: Other Activities

1047	ADV2	A review of land management legislation relevant to Australia's rangelands
1048	CWE9	Arranging a National Workshop on Research and Development for Sustainable Use and Management of Australia's Rangelands
1049	DAW18	Initial development of a research and development proposal on regional planning and sustainable land use and management in Western Australia's southern pastoral region
1050	DAW20	The assessment of resource capability in rangelands
1051	GCC2	The economic and ecological sustainability of current land use in Australia's rangelands
1052	WHE2	The economic and ecological sustainability of current land use in Australia's rangelands

TOPIC: REHABILITATION AND MANAGEMENT OF REMNANT VEGETATION

Program: National Remnant Vegetation R&D Program

Priority Area: Ecological Projects

1053	CSU7	Research and development program on remnant vegetation: remnant woodland ecology
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ITEM	CODE	PROJECT TITLE
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Priority Area: Socio-economic Sub-Program

1054	CLO1	Conference management services for a ANCA/LWRRDC Workshop on Management of Remnant Vegetation
1055	UOC7	Identifying alternatives to using remnant eucalypt vegetation for firewood in the ACT region through consultation with residents and farmers

Priority Area: Other Activities

1056	CCM4	Remnant native vegetation management in Dongolocking, WA
1057	CSO1	LWRRDC involvement in national research and development on the rehabilitation and management of remnant vegetation
1058	CWE15	Temperate Woodlands in Australia: Biology, Conservation, Management and Restoration Workshop
1059	DEP4	Remnant native vegetation management in regions of South Australia
1060	NDW18	Remnant native vegetation management in the Lachlan region of New South Wales
1061	PWT3	Remnant native vegetation management in the Northern Midlands of Tasmania
1062	RTA1	National Local Government Bushcare Facilitator
1063	VCE13	Remnant native vegetation management in the Goulburn-Broken catchment of Victoria

Priority Area: Planning & Evaluation

1064	AGT3	Exploring the future research and development requirements for managing Australia's natural resources: remnant native vegetation
1065	AGT4	Evaluation of the EA/LWRRDC Remnant Vegetation Research and Development Program

Priority Area: Communication

1066	TUB1	Publication on design principles for large-scale vegetation projects
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Priority Area: Program Support

1067	SES1	Remnant Vegetation Research and Development Program Coordinator
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Priority Area: Other Projects

1068	CCM3	Effectiveness of incentives in changing landholder attitudes towards remnant vegetation
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TOPIC: USE OF AGROFORESTRY TO SUSTAIN NATURAL RESOURCES

Program: Joint Venture Agroforestry R&D Program

Priority Area: R&D Projects

1069	AAC-1A	National farm forestry strategy
1070	AAC-2A	Productive farm forestry through sustainable management of native forests on farms
1071	AAC-3A	Design principles: editing and production of a manual
1072	AAC-5A	Priority setting for the Joint Venture Agroforestry R&D Program

ITEM	CODE	PROJECT TITLE
1073	ABA-1A	Survey of the costs and benefits of planting trees on Australian farms
1074	AGS-1A	National Catchment Groundwater Classification Workshop
1075	AHM-1A	Policy reforms for agroforestry post NPAC: an investigation of reforms to overcome impediments to agroforestry
1076	ANU-27A	Identification of agriculturally non-competitive or synergistic agroforestry systems
1077	CAL-1A	A farmer interface for TREEDAT
1078	CAR-1A	Agroforestry from existing timber resources on the Northern Tablelands
1079	CSC-52A	Modelling crop growth and yield under the environmental changes induced by windbreaks
1080	CSE-52A	Identification, life-cycle and control of insects attacking trees planted on farmlands in south-east Australia
1081	CSE-53A	Production of eucalypts resistant to insect attack
1082	CSF-38A	Plantation production of Australian hardwood timber for use in scrimber and assessment of the quality of this for scrimber production
1083	CSF-41A	Evaluating the effect of soils and climate on productivity of <i>Eucalyptus globulus</i> plantations on contrasting sites in the southwest of Western Australia
1084	CSF-44A	Collection of tree performance data
1085	CSF-45A	Seed production areas for direct seeding programs
1086	CSF-46A	Fast growing eucalypts with moderate salt tolerance for agroforestry
1087	CSF-47A	Sawing, drying, preserving the wood from tree species planted for land and water care
1088	CSF-48A	Tree performance database meeting
1089	CSF-49A	Trees for salt-affected land
1090	CSF-52A	Preparation of an English version of 'Black wattle and its utilisation'
1091	CSI-3A	Sustainable hardwood production in shallow water table areas
1092	CSL-3A	Review the effects of agroforestry on soil amelioration
1093	CSM-1A	The impact of trees on winds, temperature and evaporation rates in farmlands
1094	CSM-2A	Alley farming in Australia: current research and future directions
1095	CSM-3A	Organisation of Agroforestry and Hydrology Workshop
1096	CSP-4A	The use of trees and fodder shrubs in reducing the rate of soil acidification
1097	CSZ-1A	Assessment of the potential for an agroforestry system for the wet-dry tropics based on trees that support both wood and animal production
1098	DAN-68A	Biological control of scarabs causing eucalyptus dieback
1099	DAQ-147A	The effect of windbreaks on crop growth in the Atherton Tablelands of north Queensland
1100	DAQ-187A	Queensland windbreaks group travel for research officers
1101	DAV-68A	An ecological approach to integrating trees with livestock to reduce the need for expensive fencing
1102	DAV-74A	Trees for profit integrated economic model: farm-level and regional study
1103	DAV-80A	An ecological approach to integrating trees with livestock enterprises to reduce the need for expensive, conventional fencing
1104	DAW-35A	Strategic agroforestry options to control and prevent land degradation
1105	DAW-42A	Cineole production from acid sandplain soils
1106	DAW-49A	The impact of trees on the physical environment and productivity of farmlands
1107	DCL-1A	Field testing clonal propagation methods of <i>Eucalyptus globulus</i>
1108	GAL-1A	Trees on Farms Conference

ITEM	CODE	PROJECT TITLE
1109	GAL-2A	Farm forestry in Australia: integrating commercial and conservation benefits: reprint of report
1110	KDI-4A	A guide to tree planting
1111	MS978-32	Publication of 'Farm Forestry Success Stories'
1112	MS978-43	Support for Research Working Group 11 meeting
1113	PIF-1A	Species selection database
1114	QDF-1A	Establishment of tropical rainforest cabinet wood species using artificial tree shelters
1115	QDN-1A	Production of a book titled 'Commercial timber species for sub-tropical Australia'
1116	QDN-2A	Joint CRDC/Joint Venture Agroforestry R&D Program: trees on cotton farms
1117	RMI-4A	Investigating the microwave properties of Eucalyptus oil and leaves
1118	RST-1A	Aleppo pine dryland forestry
1119	SAR-17A	National farm tree improvement program
1120	TA967-15	Travel to New Zealand forestry
1121	TA967-31	Travel to Agroforestry for Sustainable Land Use: fundamental research and modelling, temperate and Mediterranean applications
1122	TA978-02	Study tour for Erica Shedley
1123	TA978-48	Travel for Craig Macfarlane to British Columbia, Canada
1124	UA-25A	Effect of windbreaks on crop and pasture productivity in South Australia
1125	UB-1A	Molecular biology of <i>Pinus radiata</i>
1126	UCA-2A	The effects of trees on native pastures on the Southern Tablelands
1127	UCQ-1A	Management of trees on farms in central Queensland
1128	UCS-9A	Development of strategies to optimise farm forestry in regional Australia
1129	UCS-10A	Strategies to optimise farm forestry in regional Australia
1130	UCS-14A	Market, economic and social assessment of low rainfall carob agroforestry in the Murray valley
1131	ULA-5A	Regeneration of arid zone trees in the Belah-Rosewood country of western New South Wales
1132	UM-15A	Teaching and research in agroforestry
1133	UM-18A	The effect of salt on wood and fibre formation in eucalypts
1134	UM-22A	Utilisation practices for the farm forester
1135	UM-34A	The Australian Master Treegrower Program
1136	UNE-34A	Growth of high value trees on farms
1137	UQ-18A	Agroforestry with high value trees
1138	UQ-41A	Agroforestry with high value trees
1139	UWA-12A	The role of mycorrhizal fungi in sustainable land use
1140	UWA-38A	Workshop on Agriculture as a Mimic of Natural Ecosystems
1141	UWS-3A	Direct seeding technologies for farm tree establishment
1142	WS967-2	Growing Australian blackwood (<i>Acacia melanoxylon</i>) for timber: a national strategic workshop
1143	WS967-7	Workshop on groundwater uptake and salt accumulation by trees over shallow watertables

ITEM	CODE	PROJECT TITLE
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TOPIC: TROPICAL SAVANNAH WOODLANDS

Priority Area: R&D Scoping Reviews

1144 INF3 Infoscan consultancy to: a) Prepare a bibliographic listing of research and development b) Assess whether a specific research and development database is needed for the tropical savanna region

Priority Area: Aboriginal Land Management Sub-Program

1145 CYQ1 Establishment of research and development priorities
 1146 KLC1 North Kimberley land, water and resource planning and management: Balangarra and Wunumbal-Gaambre Native Title land and waters
 1147 NLC1 Issues/needs analysis for management of the Arafura catchment

SUSTAINABLE MANAGEMENT OF RIVER AND WATER RESOURCES

TOPIC: RIVER PROCESSES AND MANAGEMENT

Program: National River Health Program

Priority Area: Environmental Flows: Integrating Methodologies

1148 ACT1 NRHP Environmental Flows Workshop in Cooma

Priority Area: River Health Monitoring: Relating Changes to Impacts

1149 UMO24 Review of responses of stream macroinvertebrate community composition to changes in water quality

Priority Area: River Health Monitoring: Alternative/Novel Methods

1150 MQL1 Microbial Ecology Workshop
 1151 RMI4 Review of research and development requirements in 'Biomarkers' for assessing key river impacts and aspects of river health
 1152 UMO25 Review of microbial indicators

Priority Area: River Health Monitoring: Taxonomic Support

1153 UOC10 Training video for rapid biological assessment using RIVPACS protocols

Priority Area: River Health Monitoring: RIVPACS Support

1154 AQU1 AUSRIVAS implementation analysis
 1155 EVA1 RIVPACS International Workshop

ITEM	CODE	PROJECT TITLE
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Priority Area: Ecological Processes

1156	GRU14	Review of research and development requirements in exotic aquatic biota for the improved management and monitoring of Australia's rivers
1157	UMO21	Review of research and development requirements in ecological processes for the improved management and monitoring of Australia's rivers
1158	UMO33	Riverine and wetland salinity impacts: research and development needs assessment

Priority Area: Delivery Systems

1159	NHL2	Assisting with the planning and delivery of two training workshops in practical methods of river restoration (Thomson River, Victoria and Mary River, Queensland)
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Priority Area: Planning & Evaluation

1160	ACM4	Environmental flows: research and development priorities assessment
1161	UMO34	Research and development needs in river restoration
1162	UOC13	Assistance to environmental flows research and development needs assessment

Priority Area: Communication

1163	BIO1	Communication consultant: water resources
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Priority Area: Program Support

1164	FWS1	Program Coordinator
1165	FWS2	Consultant Program Coordinator: assessment of river health
1166	PPM1	National River Health Program Phase 2: strategic plan and national groundwater program strategic plan

TOPIC: MANAGEMENT OF NUTRIENTS AND EUTROPHICATION, AND OTHER POLLUTANTS

Program: National Eutrophication Management Program

Priority Area: Generic R&D

1167	AQU3	Cost of algal blooms to selected water user groups in Australia
1168	CNR2	Effects of episodic events on aquatic ecology in tropical and sub-tropical areas: project scoping
1169	UNS24	The role of sulphur in nutrient release

Priority Area: Focus Catchment R&D

1170	QNR10	Fitzroy catchment eutrophication compendium
1171	WRC3	Compendium for Wilson Inlet

ITEM	CODE	PROJECT TITLE
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Priority Area: Planning & Evaluation

1172	CNR1	The relationship between nutrient (phosphorus) loading and algal growth in aquatic ecosystems
1173	EMM1	Assisting the NEMP Management Committee identify the major research needs within priority topic B: sources and transport of nutrients in catchments
1174	WQT1	Toxic Algae Workshop

Priority Area: Communication

1175	CSU19	Limiting Nutrients Workshop
1176	RMM1	National Eutrophication Management Program (NEMP) conceptual model: Web page

Priority Area: Program Support

1177	CWA18	NEMP Program Coordinator: Richard Davis
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Priority Area: Other Projects

1178	CDS15	A workshop on measurement and management of nitrogen losses for groundwater protection in agricultural production systems
1179	CSU11	Nutrient determination in freshwaters

General Call

1180	ASL1	National Biomanipulation Workshop 1996
1181	CDF8	Economic assessment of effluent irrigated plantations for wood production

TOPIC: MANAGEMENT FOR SUSTAINABLE USE OF GROUNDWATER AND PREVENTION OF POLLUTION

Program: National Groundwater R&D Program

Priority Area: Diffuse Pollution

1182	SKP3	Contamination of groundwater systems by nitrate
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Priority Area: Communication

1183	SKP5	Ecosystem Dependence on Groundwater Workshops
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Priority Area: Program Support

1184	ALL1	Allison Partners Pty Limited: Groundwater Program Coordinator
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Priority Area: Other Projects

1185	CWS6	National Groundwater Quality Program: analysis for investment decision
1186	ORG1	Groundwater program investment decision analysis

ITEM	CODE	PROJECT TITLE
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1187 SKP2 Significance of ecosystem dependence on groundwater

TOPIC: UNDERSTANDING AND MINIMISING THE ENVIRONMENTAL EFFECTS OF PESTICIDES

Program: Minimising the Riverine Environment Impact of Pesticides R&D Program

Priority Area: Transport of Pesticides

1188 WRO1 Hydrological services to USY3: transport and fate of pesticides in cotton production systems: New South Wales field site and degradation studies

Priority Area: River Bio-monitoring & Ecotoxicological Impacts

1189 CWN12 Review of data on biological impact of cotton pesticides and development of critical hypotheses

1190 GRU13 Fluctuating asymmetry of chironomid larvae as indicators of pesticide contamination in freshwater environments

Priority Area: Management Options

1191 AAW1 Pesticides Program: best practice manual

1192 CQS2 Review of best practices manual for cotton growers

1193 EIM1 Delivering research and development outcomes to the cotton industry

Priority Area: Tailwater Audit

1194 NDW7 Investigation into the benefits of cooperative management of tailwater systems within the Macquarie-Western region

1195 NDW11 Land use mapping: northwestern New South Wales

Priority Area: Communication

1196 COS2 Pesticides Program Completion Conference

Priority Area: Program Support

1197 CRH1 Independent program review: Pesticides Program

1198 EIM2 LWRRDC Pesticides Program: new industries

TOPIC: REHABILITATION AND MANAGEMENT OF WETLANDS

Program: National Wetlands R&D Program

Priority Area: R&D Projects

1199 ERE1 Socio-economic issues relating to National Wetlands Research and Development Program scoping review

1200 GRU20 National Wetlands Research and Development Program scoping review

ITEM	CODE	PROJECT TITLE
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Priority Area: Communication

1201 MDB3 Funding support for overseas speakers at the Intecol Symposium on Linking Hydrology and Ecology for Wetland Management

Priority Area: Other Projects

1202 JCU10 Tropical Floodplain Workshop

General Call

1203 UMU8 Fifth INTECOL International Wetlands Conference

TOPIC: SUSTAINABLE IRRIGATION SYSTEMS

Program: National Program for Irrigation R&D

Priority Area: Water Supply Systems

1204 GMW5 ANCID Workshop on Earthen Irrigation Channel Seepage 'Are Your Channels Leaking'

1205 QPI36 Think Tank Irrigation Workshop

Priority Area: Drainage Systems

1206 GMW7 National Workshop: Management of Nutrients and Sediment in Irrigation Return Water

Priority Area: Integrated Farm/Supply Systems

1207 BAR1 To develop an agreed focus and scope for benchmarking

1208 DAS17 Irrigation efficiency in Australia

1209 ETT1 Framework, terms and definitions for water use efficiency in irrigation

Priority Area: Adoption & Education

1210 ANU13 Science Communication Workshop

1211 CSU15 Irrigation education and skills development

1212 CSU16 Irrigation education modules

1213 IAA3 Education database for the irrigation industry

Priority Area: Planning & Evaluation

1214 AGT5 Review of the National Program for Irrigation Research and Development

1215 AIT3 Preparation of a discussion paper for the National Program for Irrigation Research and Development

1216 AIT4 Position paper on standards and codes for the irrigation industry

1217 EIM3 National Program for Irrigation Research and Development: strategic plan

ITEM	CODE	PROJECT TITLE
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| 1218 | QPI41 | Northern Australia Irrigation Research, Development and Extension Workshop |
| 1219 | UNE20 | A workshop on policies to revitalise irrigation in the Lower Murray-Darling Basin |

Priority Area: Communication

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| 1220 | ECO1 | Preparation of a communication strategy for the National Program for Irrigation Research and Development |
| 1221 | ISA1 | Communication market survey for the irrigation industry |
| 1222 | NRE1 | Irrigation Program Communications Coordinator: naturally resourceful |

Priority Area: Program Support

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| 1223 | MCS1 | NPIRD Program Coordinator |
| 1224 | NDC1 | Irrigation Program Coordinator |

Priority Area: Other Projects

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| 1225 | CIE4 | Future strategic directions for Australia's irrigation industries in a global context |
| 1226 | RMG1 | Irrigation risk management in the current and future water policy environment |
| 1227 | UME60 | Client needs in relation to irrigation and natural resource management |

TOPIC: RIVER RESTORATION AND MANAGEMENT (INCLUDING RIPARIAN LANDS)

Program: River Restoration and Management Program

Priority Area: Sub-Program C

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| 1228 | CWA16 | Riparian Zone Modelling Workshop |
| 1229 | DAW23 | Using electronics to deny animal access to fragile vegetation |
| 1230 | DAW26 | Feasibility of developing alternative grazing cattle control devices |
| 1231 | ESC1 | Streambank revegetation: Tranters Creek |
| 1232 | NHL1 | Rehabilitation and management of riparian lands: seminar tour of Australia |
| 1233 | PWT1 | Program Coordinator: Rehabilitation and Management of Riparian Lands |
| 1234 | TUB2 | Technical guidelines for the management of riparian lands |
| 1235 | TUB3 | Publish the results of LWRRDC research and development project JCU9: Improved riverbank stabilisation practices in the wet tropics |
| 1236 | UMO32 | To prepare an Australian manual of river restoration |
| 1237 | WRC4 | The importance of large wood debris in sandy river systems |

Priority Area: River Restoration Projects

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| 1238 | MMA1 | River restoration and management legislative frameworks: an analysis of Australian and international experience |
| 1239 | NHT1 | Production of a CD-ROM on river restoration and management |

ITEM	CODE	PROJECT TITLE
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1240	UTC1	Identifying and protecting high ecological value rivers
1241	VCE15	Development of a framework for river restoration

Priority Area: Planning & Evaluation

1242	CIE7	Preparation of a strategic and action plan for the National Rivers Consortium
1243	CLW17	Research Officer for the National Rivers Consortium
1244	MOR1	Feasibility and planning study for the National Rivers Consortium

Priority Area: Communication

1245	RMM2	River restoration and management: Web design and site establishment
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Priority Area: Program Support

1246	FWS3	Consultant Program Coordinator (scientific): river restoration and management
1247	GRU12	Planing and conducting a workshop on 'Ecology and Management of Riparian Zones'
1248	SIW1	Riparian Lands Research and Development Program Coordinator

Priority Area: Other Activities

1249	CUL1	Investigating legislation re riparian management
1250	CWA14	Identification of priorities and methods for research and development on physical and chemical processes in Australian riparian zones
1251	GRU11	National Riparian Zone Research and Development Program: in-stream aquatic ecosystem research priorities

Priority Area: Other Projects

1252	KON3	Practical methods for off-river watering of stock
1253	VCE9	River restoration in Victoria: practical training in planning and application
1254	WAW1	River restoration in Western Australia: practical training and demonstration

TOPIC: WATER RESOURCES (GENERAL)

Priority Area: Planning & Evaluation

1255	UNE32	LWRRDC investment in water policy research and development
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ITEM	CODE	PROJECT TITLE
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MANAGEMENT AND COMMUNICATION

TOPIC: MANAGEMENT AND COMMUNICATION

Priority Area: Consultation Process

1256	CAI1	LWRRDC Communications Strategy Review
1257	ISA3	Second stakeholders survey

Priority Area: Administration

1258	DEX2	Supply of IT support to LWRRDC and NLWRA for 1998-99
1259	ERN1	The development of a staff policy document and associated employment contracts
1260	SNL1	Job evaluation and employment contracts for LWRRDC staff

Priority Area: Adoption/Extension

1261	AIB2	Editing to produce a report on riverbank stabilisation practices ready for publication
1262	CDS14	Management of soil biota in sustainable farming systems
1263	CIC1	Scoping review of alternative processes for communicating natural resources research and development information to farmers and agricultural consultants
1264	CWN7	The Future of Irrigation in the Murray-Darling Basin Workshop
1265	GAU3	Underwriting of Landcare Participatory Evaluation Manual
1266	JHA1	Production of the 1993-94 LWRRDC Annual Report to Parliament
1267	QPI25	Review of information delivery mechanisms and strategies for future investment
1268	UME23	Adaptive environmental assessment and management
1269	VAR8	International Symposium on Forest Hydrology: 'Water issues in forests today'
1270	WRF1	Water modelling short courses

Priority Area: Databases

1271	INF5	Producing a website for the Streamline Database
1272	INF6	Streamline database 1998-2001
1273	RDC3	Study on the use of electronic information systems in the rural sector
1274	SOF1	Design/development/maintenance/evaluation of the LWRRDC WWW home page

Priority Area: LWRRDC Profiles and Publications

1275	THA1	Production of 1998 edition of the LWRRDC Stakeholders Report
1276	TUB4	Production of 1997 Stakeholders Report

ITEM	CODE	PROJECT TITLE
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Priority Area: Communication Management

1277 ISA2 Baseline survey of LWRRDC stakeholders

Priority Area: Life of Project Evaluations

1278 ACI4 Update of the Life-of-Project impact assessment series of studies: 1995-96 group
 1279 AIB1 Editing and pre-press production of the report 'Assessing the impact of research project related to Australia's natural resources'
 1280 AQU2 Assessing the impact of research projects related to Australia's natural resources: 1998 series
 1281 SCK2 Research project ex-ante evaluations
 1282 TEM1 Assessing the impact of research projects related to Australia's natural resources
 1283 TEM2 Assessing the impact of research projects related to Australia's natural resources 2nd update

Priority Area: Strategic Planning

1284 ACI1 Study to assist strategic planning by LWRRDC
 1285 AEC1 Preparation of data sheets on natural resource management issues
 1286 AGT2 Review of priority setting processes
 1287 AIA2 Sustaining agro-industry: valuing the environment
 1288 BRR8 Fenner Conference: Visions of Future Landscapes
 1289 CEQ1 Research and development on environmental management of military training areas
 1290 CIE1 Application of foresighting to help identify research and development priorities for LWRRDC
 1291 COM1 Review of LWRRDC's information technology system
 1292 DEX1 Review of LWRRDC's project management system requirements
 1293 DEX3 Development and implementation of LWRRDC's new project management system
 1294 EAR2 Consultancy services to support the experts reference system scoping study
 1295 EIM4 Benchmarking study: stage 1
 1296 GAU1 Development of a participatory evaluation model for Landcare and catchment management
 1297 INT1 Scientific editing of data sheets on natural resource issues
 1298 JHO1 Joint research and development corporations benchmarking study
 1299 NFF1 Millennium 3
 1300 UNE24 Research and Development Priorities for Ecological Economics Workshop
 1301 UNS23 Linking environment and economy through indicators and accounting systems
 1302 VIR3 Implementation of logical framework matrix into LWRRDC's research management processes

Priority Area: Total Quality Management

1303 CQS1 Advice and direction for the implementation of a quality management system into the Corporation
 1304 CQS3 Internal quality auditing

ITEM	CODE	PROJECT TITLE
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1305	DEN1	Development of procedures for LWRRDC
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Priority Area: Other Projects

1306	ACI3	Assessing the impact of research projects related to Australia's natural resources (Mark II)
1307	ACM3	Preparation of guidelines for program assessment
1308	CTC4	Communication strategies for promoting new natural resource management techniques
1309	DEX4	Development of a new project management system for LWRRDC
1310	HAR1	Update of LWRRDC Life-of-Project evaluations
1311	KON1	Pasture establishment and management: sustainability issues
1312	SCK1	Assessing the impact of completed research projects related to Australia's natural resources
1313	UTS2	Performance forecasting and rehabilitation of deteriorating bores

Fellowships

June 1999

ITEM	CODE	PROJECT TITLE
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PRODUCTIVE AND SUSTAINABLE LAND USE SYSTEMS

TOPIC: PREVENTION AND REVERSAL OF SOIL DEGRADATION BY EROSION, ACIDIFICATION OR STRUCTURAL DECLINE

1314	CLW3	Management of soil water balance in agricultural systems: Travelling Fellowship
1315	DUV3	Modelling preferential transport of soil micro-organisms: implications for land disposal of sewerage: Travel Fellowship

TOPIC: DEVELOPMENT OF PRODUCTION SYSTEMS BASED ON INTEGRATED CATCHMENT MANAGEMENT

1316	CSU18	Social issues in environmental management in agriculture: Travel Fellowship
1317	CWW30	Visiting Fellow
1318	RMI6	Institutional responses to resource conflicts: a comparative analysis
1319	UMO37	Monitoring protocols for assessing impacts and restoration in highly mobile terrestrial animals
1320	UQL15	ICM Travel Fellowship

TOPIC: CLIMATE VARIABILITY IN AGRICULTURE

1321	COR4	Climate Variability Visiting Fellowship
1322	CWS11	Assessing probabilities of natural inflows to large catchments

TOPIC: R&D FOR ENVIRONMENTAL MANAGEMENT OF MILITARY LANDS

1323	CTC20	Travelling Fellowship: Dr Robert Shaw
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SUSTAINING VEGETATION IN THE LANDSCAPE

TOPIC: MAINTENANCE OF CONDITION, PRODUCTIVE CAPACITY AND ENVIRONMENTAL VALUES OF RANGELANDS

1324	DAV26	Remnant Vegetation Travel Fellowship
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ITEM	CODE	PROJECT TITLE
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SUSTAINABLE MANAGEMENT OF RIVER AND WATER RESOURCES

TOPIC: RIVER PROCESSES AND MANAGEMENT

1325	CAN1	Ecotoxicological techniques for detecting stress in an ecosystem: Travel Fellowship
1326	CWS10	Characterising flow systems in fractured rock aquifers

TOPIC: MANAGEMENT OF NUTRIENTS AND EUTROPHICATION, AND OTHER POLLUTANTS

1327	AGS5	Denitrification of sediments
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TOPIC: SUSTAINABLE IRRIGATION SYSTEMS

1328	CSU17	Irrigation Travel Fellowship
1329	USQ2	Irrigation Travel Fellowship

TOPIC: RIVER RESTORATION AND MANAGEMENT (INCLUDING RIPARIAN LANDS)

1330	JCU15	Stream stabilisation and restoration
1331	MQU5	Applying lessons from the Watershed Restoration Program (British Colombia) to Australian context

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