

Chapter 3

Cooperative Links



CRCFE geomorphologist Martin Thoms and hydrologist Silva Yance from Peru gauging river flows on the Matsuko River in Lesotho.

The CRC for Freshwater Ecology is committed to achieving cooperation at all levels of its research and educational activities. It recognises that cooperation and integration is fundamental to achieving its outcomes. It has established strong links:

- Between CRC staff across sites and disciplines
- With its 16 member organisations
- Researchers outside the CRCFE.

3.1 Internal cooperation

With an emphasis on multidisciplinary research, the CRCFE works hard to ensure that appropriate internal structures are in place to enhance cooperation between its six research programs and across its nine different sites. The following activities are conducted to facilitate this internal cooperation. See Table 3.1.

Table 3.1
Activities fostering internal collaboration

| Activity | Function | Frequency |
|----------------------|--|---|
| Staff meeting | Sharing and updating of information and knowledge in both a structured and social environment | Annual |
| Board meetings | Set CRCFE policy and direction. Ensure that activities are on track to meet the Centre's stated objectives. | Three times a year |
| Executive meetings | Review progress of the CRCFE in terms of meeting outcomes and provide implementation plans on new initiatives as determined by the Board. | Monthly |
| Management Committee | Review progress and revise activities accordingly. Act on policies set by the Board. | Quarterly |
| Program meetings | Review progress and develop plans and facilitate communication across sites. Consolidate project progress for feedback to the Management Committee and to the Board. | Approx, half-yearly depending upon need |

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Table 3.1 continued

| Activity | Function | Frequency |
|---------------------------------------|--|---|
| Induction meetings | To familiarise new staff and students with the operations and administration of the CRCFE and its member organisations. | Held annually at Monash University and the University of Canberra |
| Integrated Research Portfolio | The emphasis of this new research portfolio is collaboration. Projects within this portfolio are multidisciplinary and involve researchers from a number of different CRCFE sites. Project meetings are held regularly to coordinate and implement the research strategies. | Approx bimonthly, depending on individual project |
| <i>Ripples</i> | Newsletter designed to inform staff and students of CRC activities, events and findings. Also provides information on activities in the wider scientific world, with a focus on water research. Available in both hard copy and electronic formats. | Fortnightly |
| Project management | Project manager reviews progress and facilitates feedback to both the Management Committee and the Board. | As required |
| Working groups | To advise Management and the Board on new initiatives and directions pertaining to specific disciplines and operations. To facilitate cross-site and cross-program collaboration. | Come together as required to work on specific projects |
| Research working groups | Developing future research directions for a new life of the CRCFE. Nine working groups, based on different themes, have been established with cross-site and cross-program representation. | June meetings |
| Environmental flows working group | Representatives from a number of CRCFE sites drew together the activities conducted by the Centre in this area to summarise our knowledge. | Several meetings throughout the year |
| Electronic links-Lotus Notes database | All CRCFE sites are now connected electronically and may communicate with other sites via email and the World Wide Web. Lotus Notes, a projects management system, is being implemented to facilitate reporting procedures and to keep staff and students informed of activities across all sites and programs within the CRCFE. | Ongoing |
| Seminar series | Each CRCFE site is involved in a regular seminar series, which is hosted by the parent organisation in collaboration with the CRC. These series provide staff, and students with the opportunity of presenting their work to peers, including researchers from other organisations. They also expose staff and students to new work and ideas through presentations by invited guests. Seminar presentation by CRCFE staff and students are reported in Chapter 8, <i>Publications</i> . | Weekly or fortnightly depending on site |
| Travel budget | The Centre maintains a budget to facilitate travel between sites. | Set on an annual basis |

Sharing of facilities

The development of the CRCFE's new research portfolio has emphasised cross-project and cross-site linkages. This has resulted in a number of projects sharing field sites and equipment which has not only reduced costs but will ensure researchers are kept informed of activities in other projects.

Staff and students also have access to the following facilities across research sites:

- Experimental billabongs - Albury
- Chemistry laboratories - Albury, Canberra, Melbourne
- Instrumented water pollution control ponds - Canberra
- Ponds - Narrandera
- Curated flora and fauna collections - Canberra, Albury
- The CRCFE electrofishing boat has been used for monitoring work on the Environmental Flows project being conducted from the MDFRC, Albury.
- The CRCFE in Canberra is using the MDFRC's chemical facilities for the analysis of samples gathered for monitoring work being conducted in the Snowy Mountains. It also shares chemical laboratory facilities with the Faculty of Applied Science at the University of Canberra.



Sharing of facilities The artificial billabongs at Ryan's Field Laboratory are facilities available to all CRCFE researchers and students. *Photo: Daryl Nielsen*



Sharing of facilities CRCFE students and researchers are using CRCFE electrofishing equipment. *Photo: Karen Markwort*

Secondments

Terry Hillman from the MDFRC spent a four-week sabbatical at Monash University-Clayton campus preparing papers for publication.

3 Cooperation with partners

ACT Government and ACTEW Corporation

Brian Button- was involved with the design of and completed writing the code for a new software package to simulate the volumes of runoff, likely patterns of water usage and fill and spill performance of domestic water tanks, based on rainfall history and roof area. This software will be released to the public and used to provide an advisory service, following the initiative of the ACT government to provide a cash subsidy of \$500 to all households in Canberra who install a rainwater tank.

Peter Cullen- advised on ACT membership of Murray-Darling Basin Commission and the ACT attitude towards the cap with Minister Garry Humphries and senior officers.

- chaired the State assessment panel for the National Heritage Trust and ACT Environment Grants.
- through his role as Chair of the ACT Environment Advisory Committee, Peter Cullen completed a report recommending against opening up the Cotter Reservoir for recreational fishing for Minister Humphries.
- developed ideas as to the improved management of water affairs for ACT administration.
- The CRC provided a venue for Minister Humphries to launch an education pack on stormwater drainage and its management. Peter Cullen spoke at the launch which was attended by more than 60 community and local government representatives.
- gave a presentation to Officers of ACT Environment on Moving the ACT Towards Sustainability.

Peter Cullen, Ian Lawrence and Rod Oliver- presented a Water Research Seminar to representatives from ACT Government and ACTEW Corporation on CRCFE activities.

Peter Cullen, Richard Norris, Ian Lawrence, Bill Maher and Martin Thoms-participated in a series of ACT State of Environment 1997 meetings as members of the ACT State of Environment Report Water Reference Panel. They provided advice on the interpretation of the water data.

Arthur Georges- member of the ACT Environment Advisory Committee.

Ian Lawrence -assessed the performance and upgrading of Dunlop Pond, Belconnen, ACT.

Ian Lawrence and Richard Norris provided advice on the development of the ACT Water database, and on the drafting of the ACT Water Quality Report for 1996/97.

Mark Lintermans -drafted Action Plans for four threatened fish species in the ACT-trout cod, Macquarie perch, two-spined blackfish and Murray River crayfish.

Richard Norris and Will Osborne- members of the Environment ACT Flora and Fauna Committee.

CSIRO

Darren Baldwin, John Pengally and Terry Hillman provided input to report on the analytical capabilities within CSIRO Land and Water.

Peter Cullen - participated in a workshop with CSIRO Wildlife and Ecology and Land and Water to review planning for the land and water audit.

John Harris attended a meeting to discuss a study on NSW Water Reforms, December 5.

Terry Hillman- hosted a visit by Dr Graham Harris (Chief, Land and Water) and Dr Richard Davis (Program Leader of Urban and Rural Water Management) at the MDFRC on March 4. A staff meeting was convened to discuss the Draft Strategic Plan.

- attended the CSIRO Project Leaders workshop in Canberra on November 17–18, and February 5–6. Terry is the Project Leader of Riverine Ecology, within Richard Davis's Program Urban and Rural Water Management.

Judy Frankenberg provided information on wetland plants to Jane Roberts (CSIRO Land and Water, Griffith).

Terry Hillman, Rod Oliver, John Whittington, John Hawking and

Darren Baldwin attended a meeting convened by Dr Richard Davis in Canberra on October 22, to set research priorities for the Program.

Helen King is the CSIRO Divisional Industrial Participation representative for the Albury site.

Rhonda Sinclair is a correspondent for the CSIRO Land and Water internal monthly newsletter *interActions* (<http://www.clw.csiro.au>).

- commented on the Draft Communication Plan and Draft Communication Strategy for the CSIRO Land and Water and participates in regular phone link-ups with the Communication Group.
- Member of the Land and Water Communications group.



The Senquyane River and the small village Marrakabrei, Lesotho. The Lesotho Highlands are rich in a sought-after natural resource—water. South Africa, which completely surrounds this small developing country, is one of the beneficiaries of the dams being installed in Lesotho. *Photo: Martin Thoms*

EPA Victoria

Peter Breen and **Ian Lawrence** advised on the drafting of the Environmental Management Guidelines for Urban Stormwater.

Peter Cullen attended a Future Environmental Science Needs Forum organised by Chairman, Dr Brian Robinson, on Melbourne, February 21. He also was involved with developing Knowledge Strategies.

Barry Hart undertook discussions with Dr Harry Blutstein regarding the CRCFE, attended an Environmental Research Workshop in Melbourne, October 20.

MDFRC – the science managers within the EPA (Victoria) and EPA (NSW) met at the site on November 12–13 to identify work being undertaken and potential collaborative links.

Goulburn-Murray Water

The CRCFE presented a half-day workshop at Tatura to the staff of Goulburn-Murray Water, local Catchment Management Authorities and other interested community and professional groups. An audience of 60 people heard **Peter Cullen** talk about the CRC and its development, **Paul Humphries** on the Campaspe work, **Rod Oliver** on algal growth and nutrients and **Terry Hillman** on floodplains.

Rod Oliver -Participated as an independent contributor in Mokoan Workshop where Goulburn-Murray Water was assessing the status of the current research effort and identifying future research directions, April.

La Trobe University

Terry Hillman attended Regional Board meetings on August 7, September 18, November 27 and February 26.

- presented a lecture on billabongs to students undertaking the Graduate Diploma in Environmental Management, October 23.

Russ Shiel provided video, publications, advice to teaching staff on use of *Daphnia* as an experimental animal in laboratory classes.

Melbourne Water

Peter Cottingham - joined the CRCFE in March to assist with technology transfer from the Urban Water Management Program, specifically to the urban water industry. He is based at Melbourne Water and has been effective in strengthening the collaborative links between the CRCFE and this organisation. He has assisted Melbourne Water with the implementation of its technology transfer strategy. See *Technology Transfer, Chapter 6*.

Peter Cullen, Barry Hart, Terry Hillman and Rod Oliver -CRCFE Seminar to Melbourne Water, February.

Monash University

Judy Frankenberg has identified plants for Rhonda Butcher's CRC funded PhD.

Terry Hillman delivered lecture on floodplain-billabongs to the Aquatic Ecology students, April 7.

Murray-Darling Basin Commission

Mike Copland and **Rhonda Sinclair** attended the Hume Dam Open Day on 5 July and manned the CRC static display. Over 10,000 people attended and Mike and Rhonda were kept busy talking to people about the work of the CRC and demonstrating CRC products, including identification guides, CD-Roms and information sheets. Mike, one of the day's official speakers, spoke about *Getting the Message Out*.

Peter Cullen attended a meeting of the Community Advisory Committee at Horsham and gave a talk on Cost-Effective Monitoring, September 2–3.

- attended a meeting of the Murray- Darling Basin Commission Community Advisory Council in Canberra, February 10–11.

Peter Cullen, Craig Schiller, John Harris, Terry Hillman and **Dianne Flett** have been working on the Ecology Flows handbook, which will be jointly produced with CSIRO for the MDBC.

John Harris attended a meeting between MDBC and Goulburn-Murray Water to discuss the Yarrowonga Fishway, August 20.

John Hawking is a member of the Biological Monitoring Working Group.

- Upgraded the invertebrate database, December
- Provided a progress report on biological monitoring.

Terry Hillman is a member of the Water Quality and River Health Working Group, which met in Canberra, July 31.

- The Riverine Environment Forum was held in Canberra on November 18 and Terry Hillman presented an overview of the river-floodplain NRMS project.

Terry Hillman and **Martin Thoms** participated in a meeting of the Interstate Working Group on River Murray Flows, February 27, where they spoke on the Murray Scientific Expert Panel.

- Members of the of River Murray Scientific Panel.

MDFRC hosted a seminar presented by Drylands Region Program leader, John Powell, which was attended by more than 40 representatives of catchment management authorities, landcare groups and State government departments.

NSW Fisheries

Peter Cullen attended a Planning Meeting for the Office of Conservation on February 23–24.

Sydney Water

Peter Cullen attended several meetings of the Plans of Management Advisory Group for the Sydney catchments and took part in a round table discussion with health authorities about the risks involved in allowing recreation of various types in the Sydney storages and catchments.

- Is working with Sydney Water to develop knowledge strategies for the catchments.

University of Canberra

Peter Cullen and **Karen Markwort** assisted with the development of a marketing grant proposal for the University of Canberra.

Karen Markwort has worked with the Faculty of Applied Science in conducting interactive displays for the University's Open Day and the National Science Festival.

Richard Norris ran talks and laboratory sessions on biological assessment of water quality for two groups of approximately 20 students from the National Science Summer School on January 13 and 27.



Cooperation with partners. The CRCFE participates in the University of Canberra's Open Day with displays that give prospective students an insight into the water resource courses that are available to them.
Photo: Karen Markwort

Wimmera-Mallee Rural Water Board

Barry Hart made a presentation to a Wimmera-Mallee Water Board Meeting on July 2–3.

3 External collaboration

National

The CRCFE actively collaborates with more than 70 external organisations, including:

Three research funding bodies - Land and Water Resources Research and Development Corporation, Australian Research Council, MDBC's Natural Resources Management Strategy, National Eutrophication Program.

Fifteen non-partner universities-Adelaide University; Australian National University; Charles Sturt University; Deakin University; Griffith University; Warrnambool; Southern Cross University; Swinburne University of Technology's Centre for Applied Colloid and BioColloid Science; University of Melbourne; University of New England; University of NSW; University of Queensland; University of South Australia; University of Sydney; University of Tasmania; University of Western Sydney.

Federal departments and agencies include - Australian Heritage Commission, the Department of Environment Sports and Territories, the Department of Industry, Science and Tourism, Healthy Rivers Commission, Department of Primary Industries and Energy, Lake Eyre Basin Steering Committee, Department of Education, Employment and Training.

State Government Departments and agencies - NSW: Department of Land and Water Conservation, EPA, National Parks and Wildlife Service, Department of Agriculture. Victoria: Department of Natural Resources and Environment, VIC Roads, EPA, Victorian Catchment and Land Protection Council, Museum of Victoria, Lower Murray Water, Sunraysia Rural Water Authority. Tasmania: Tasmania Inland Fisheries Commission. Queensland: Department of Environment. ACT: Department of Environment, Land and Planning.

Professional organisations include - Australian Society for Limnology (ASL), Australian Water and Wastewater Association (AWWA); Federation of Australian Science and Technological Associations (FASTS); Australian Science Communicators (ASC), the Australian Society for Fish Biology, the Royal Australian Chemical Institute, Australian Academy of Science, Academy of Technological Sciences, Australian Biological Resources Study.

Community organisations include - Murray-Darling Association; Landcare, the Australian Conservation Foundation; Streamwatch; Water Watch; Albury Rotary Club, Lake Eyre Catchment Advisory Group, Murray-Darling Basin Community Advisory Committee, National Parks Association; Total Catchment Management groups; other Rotary and Apex clubs; angling clubs, University of the Third Age, Renmark Irrigation Trust, Salt Action groups, Probus clubs.

Affiliates of the CRCFE

The CRCFE Affiliate Scheme was established to formalise links with researchers who are working with CRC Staff either in CRC projects or in other associated ways. There are now 10 CRCFE affiliate members.

Links with other CRCs

The CRCFE is an active member of the CRC Program community. Four staff members attended and participated in the CRC Association's annual conference held in Adelaide during March.

Its formal links are listed in the table below.

Table 3.2
Links with other CRCs

| CRCs | Activity |
|---|--|
| CRC Water Quality and Treatment CRC Catchment Hydrology CRC Waste Management and Pollution Control CRC Soil and Land Management CRC for Catchment Hydrology | CRC Water Forum - meets quarterly to identify and implement joint program and promotional activities. Joint research conducted within the CRCFE's Urban Water Management program. Participation in research agenda workshop. Dr John Langford is the independent chair for both the CRCFE and CRCCH. Collaborative work on the Campaspe environmental flows project. |
| CRC for Water Quality and Treatment | Collaboration on projects associated with the Water Quality and Ecological Assessment program. |
| CRC for Sustainable Development of Tropical Savannahs | Collaboration on turtle research being conducted in the Northern Territory. |
| Vertebrate Biocontrol CRC | Developing joint carp research. |

Collaborative links with other universities

In addition to its member universities, CRCFE staff and students are collaborating widely with staff and students from universities throughout Australia and the rest of the world. These collaborations, often wholly or part funded by the CRCFE, facilitate the exchange of ideas and ensure that staff and students are contributing to and participating in the international science and water industries. These universities include:

New Zealand

Otago University
University of Waikato, Hamilton

United Kingdom

Department of Environmental Science,
University of Lancaster

North America

Dept of Zoology, University of Maryland,
College Park, Maryland, USA
University of California Berkeley, USA
Utah State University, USA
University of Quebec, Canada

Europe

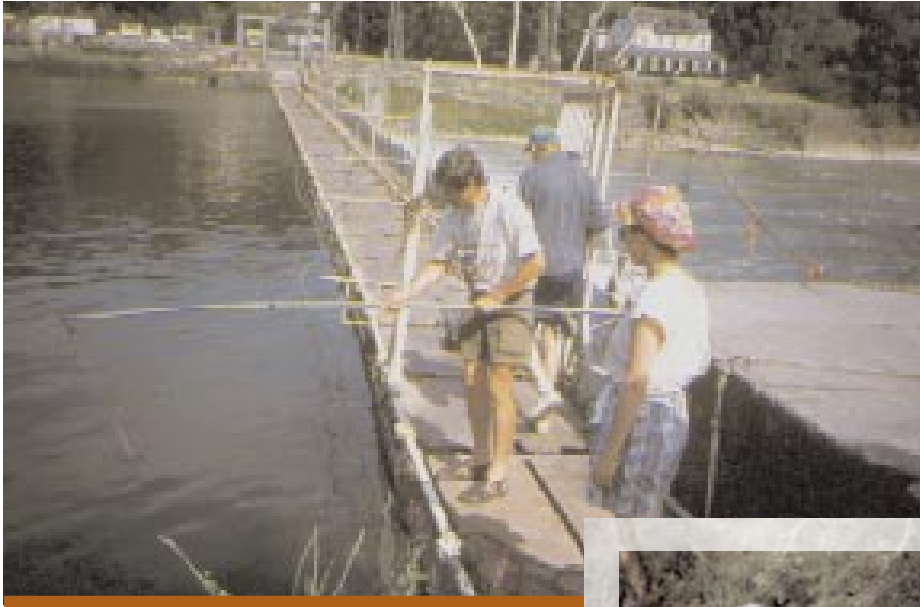
Departament de Biologia Ambiental,
Universitat de les Illes Balears, Palma,
Mallorca, Spain
University of Ghent, Belgium
University of Gottenberg, Sweden,
University of Hamburg-Harbourg, Germany
Research Institute of Fish Culture and
Hydrobiology, University of South Bohemia,
Czec Republic
University of Valencia, Spain

Asia

Univeristy of Nanjing, China
Peking University, China
Institute of Technology Bandung, Indonesia
Jember University, Indonesia.
Mataram University, Lombok, Indonesia
Institute of Ecology, Padjadjaran University,
Bandung.

South Africa

University of the Western Cape



International links Gertraud Hötzel took part in phytoplankton and zooplankton sampling on the Upper Naas River in Belgium. *Photo: Gertraud Hötzel*



International links Visitors from North America, Trefor Reynoldson (centre) and Vince Rush (right), inspect CRCFE sites with Mathew Allanson on South Coast River. *Photo: Richard Norris*



Martin Thoms and Barry Hart were members of an international team that was assembled by the World Bank to look at environmental flow requirements in the Lesotho Highlands near South Africa. At 190m high Katse Dam, on the Malibatso River in Lesotho, dwarfs even Sydney Harbour. *Photo: Martin Thoms*

3.4 International activities

| Visitor | Institution | Activity | CRC Centre visited |
|--|---|---|--|
| Professor Jan Pokorny | Institute of Botany, Academy of Science, Czech Republic | Seminar on restoration of lakes | Canberra - Ian Lawrence MDFRC, Albury |
| Prof James Gore | University of Columbus | Review Campaspe River environmental flows project Present workshops on river restoration | MDFRC, Albury Dept of Biological Science, Monash University |
| Prof James Karr | University of Washington, USA | Keynote address at River Health Conference | University of Canberra, November 5-6 |
| Prof Kevin Rogers | University of Witswatersand, South Africa | | |
| Prof Colin Townsend | University of Otago, New Zealand | | |
| Dr Ian Maddock | Worcester College, UK | | |
| Water scientists | China | Information exchange | CSIRO Land and Water, June 3 |
| Dr Stuart Findlay | Institute Ecosystem Studies in New York | Information exchange | MDFRC |
| Prof Jj Gilbert | Dartmouth College, New Hampshire, USA | Grazing interactions in billabong microfauna | Sabbatical working with Russ Shiel, MDFRC, April-May |
| Eduardo Aparici | University of Valencia, Spain | Postgraduate research grant - Reproductive cues in billabong rotifera | Working with Russ Shiel, MDRC, Oct-Dec |
| Water managers | South Africa | Tour of laboratory and talks | MDFRC |
| 20 environmental professionals | Taiwan | Attended symposium on Environmental Water Quality Protection | CRCFE, University of Canberra |
| Water industry delegation | France | Interest in CRC Program and activities in CRCFE | CRCFE, University of Canberra |
| Professor Peter Campbell | University of Quebec in Canada | Seminar presentation | WSC, Monash University |
| Prof Chen Jingsheng and Prof Ni Jinren | Peking University | Interest in collaborative research - joint project submitted under the Australia-China Targeted Institutional Links program | WSC, Monash University |
| | Indonesian delegates | Reviewing education and training opportunities | WSC, Monash University, March 4 |

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Table 3.3 continued

| Visitor | Institution | Activity | CRC Centre visited |
|---|--|--|--|
| Dr Ed Ongley | National Water Research Laboratory, Canada | Discussions | WSC, Monash University, March 7-8 |
| Frank Van der Kammer | University of Hamburg-Harbour, Germany | sedimentation FFF | WSC, Monash University. Collaborative work with Ron Beckett |
| Martin Hasselov and Benny Lyven | University of Gottenberg, Sweden | Characterisation of sediment colloids using sedimentation FF-ICP-MS | WSC, Monash University, March |
| Professor Bill Davison and Dr Hao Zhang | Department of Environmental Science, University of Lancaster, UK | Visit | WSC, Monash University, Sept 5-8 |
| Dr Colin Reynolds | Freshwater Biological Association, UK | Workshops on algal growth and its determinates Reviewed the Chaffey project | WSC, Monash University MDFRC, Albury CRCFE, University of Canberra, Sept |
| 16 delegates water quality group | Mekong River Commission, Indonesia | Discussions and tour of laboratories | WSC, Monash University, Dec 12 |
| Dr Zdenek Adamak | Research Institute of Fish Culture and Hydrobiology, University of South Bohemia, Cze Republic | Discussions with staff Seminar presentation on Carp in the MIA: Spawning and recruitment | MDFRC, Albury Dec 9-10, Feb 25 |

Other international activities

Table 3.4
International links

| CRCFE member | Activity | Links |
|----------------------------------|---|---|
| Richard Norris | Conduct session on classifying landscapes with respect to aquatic environments at the 1998 North America Benthological Society Annual conference, Prince Edward Island (Canada) | Collaboration with Dr Chuck Hawkins, Utah State University |
| Richard Norris | Transfer of AUSRIVAS methods | New Zealand Ministry for the Environment, Mar 26–27 |
| Richard Norris Justen Simpson | Presentation on AUSRIVAS development | Oxford international meeting |
| Barry Hart | Eutrophication project, Saguling Reservoir | Institute of Ecology, Padjadjaran Univ, Bandung, Indonesia |
| | Australia Indonesia Targeted Institutional Links project symposium | Jember, Indonesia, June Management committee meetings at Monash University, Oct 16 and at Mataram Univ, Lombok, Feb 19 |

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Table 3.4 continued

| CRCFE member | Activity | Links |
|---|---|--|
| | Proposal to research Surface Water Quality Assessment in China. | Peking University, China |
| Barry Hart Richard Norris | PCI project East Java River Bioassessment Project funded by AusAID. Transfer of AUSRIVAS methods, including training, to Brantas River, Indonesia | Jakarta, Surabaya and Malang, Feb 23–27 |
| Mike Grace, Chris Walsh | Conduct workshops on Water Quality and Ecological Assessment | Jember University, Indonesia, Feb and June |
| Ron Beckett Niem Tri | Collaborative project on the development of Electrical FFF separations | Prof Karin Caldwell, Department of Bioengineering, University of Utah |
| Ron Beckett Sohey Takjiki | Collaboration on FFF instruments | Dr James Ranville, Colorado School of Mines |
| Russ Shiel | Provision of collections of microcrustacea and Copepoda for genetic analysis and systematic revisions | Prof HJ Dumont, University of Ghent, Belgium, Oct 13, Apr 17 Guo Xiaoming, University of Nanjing, Sept 20 Dr D Defaye, Muséum national d'Histoire Naturelle Laboratoire de Zoologie-Arthropodes, Paris, France, Apr 21 |
| | Contributing a chapter on South Atlantic rotifera to a two-volume work on South Atlantic | Dr D Boltovskoy, University of Buenos Aires, Argentina |
| | Co-supervisor of a PhD candidate (IC Duggan) | University of Waikato, Hamilton, New Zealand |
| | Collaborated on a South African survey of marine invertebrates, to be published as a multi-authored peer-reviewed paper. | Dr M Gibbons, University of the Western Cape, South Africa |
| | Invited to produce volumes of the series "Guides to the Identification of the Microinvertebrates of the Continental Waters of the World" (Backhuys, Publishers Netherlands). Appointed to the editorial committee for the series. | The Netherlands |
| Ron Beckett Ian McKelvie Barry Hart | Leader of the Analytical Chemistry Subprogram of the TASEAP -training workshops on environmental analytical chemistry | Thailand |
| WSC, Monash University | Proposed collaborative project on Remobilisation of nutrients and heavy metals from sediments | Research Centre Karlsruhe through the Berman-Australian Collaboration program of DIST. |
| Terry Hillman | Contributing a chapter on "The ecological and environmental effects of floods" for a book on Flood Hazards and Disasters | Prof Dennis Parker, Middlesex University, UK |
| | Provided comment to the Conference of the Parties to the Convention on Biological Diversity (COP4), May 4-15. | Slovakia, May 4–15 |
| | Regional coordinator of Australia for the International Hydrological Program (IHP) | UNESCO, Project 2.4 Comprehensive assessment of surficial eco-hydrological processes. |



Crump gauging weir on the Malibatso River, Lesotho. An international team, including two CRCFE staff, is investigating the environmental effects of the Katse Dam, which regulates this river, and the possible effects of installing another three large dams. *Photo: Martin Thoms*