



International Association of Hydrogeologists

AUSTRALIAN NATIONAL CHAPTER

NEWSLETTER

Vol 7 No.1

JUNE 1990.

STATE NEWS

and Membership List

President
Mr. P. Whincup
273 Stirling Street
Perth
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(09) 328 8844

Vice President
Mr. R.F.J. Vogwill
273 Stirling Street
Perth
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(09) 328 8844

Secretary
Mr. A.C. Deeney
13 Schacht Court
Myaree
W.A. 6154.
(09) 222 3448

Treasurer
Mr. D.P. Commander
Geological Survey of W.A.
66 Adelaide Terrace
Perth.
W.A. 6000.
(09) 222 3198

State Liaison Members
NSW Dr. M. Knight
VIC Mr. R. Lakey
QLD Mr. B. Pearce
NT Mr. J. W. Hall
ACT Dr. M.A. Habermehl
SA Mr S.R. Barnett
W.A Mr R J McGowan

OBITUARY

Dr Jeffery Joseph Jenkin

Jeff Jenkin died suddenly at his home in Blackburn, Victoria in August 1989 two years into formal retirement. Jeff graduated in geology from Melbourne University in 1953. His original interest in geology has been ascribed to his Cornish forebears who came to work in the mines of Castlemaine. Jeff spent his first year in the Groundwater Section of the South Australian Geological Survey. After a year in the oil industry in Queensland, he returned to Victoria to assist in the setting up of the Groundwater Division of the Victorian Geological Survey. During his nine years there he completed his MSc on the geology and hydrogeology of the Westernport area, and his PhD thesis on the geomorphology and Upper Cainozoic Geology of South East Gippsland. Jeff then worked for seven years in industry on mineral deposits, especially related to the weathered zone. In 1973 he joined the Soil Conservation Authority to lead a team investigating the nature and mitigation of soil salinity and worked in this field until his retirement. His interest and publications on the geomorphology of Victoria, together with his experience in hydrogeology, led on to important contributions towards an understanding of processes causing soil salinization and land degradation. Four important papers he published during this period are 'Hydrogeological characteristics of soil relevant to dryland salting' with P. Dyson in 1981, 'Hydrogeological provinces in Victoria as a basis for salinity investigation' in 1983, 'The mechanics and causes of soil erosion and dryland salting' with N.P. Timofeev in 1976 and 'Physical Resources' in 'Agriculture in Victoria' with J.N. Rowan in 1987. His wife died in April 1989, and he is survived by two daughters and a son.

(from 'The Australian Geologist' No.73, December 1989)

NATIONAL COMMITTEE NEWS

Treasurer's Report

IAH Australia ends the year with a healthy surplus. This is mainly because of the favourable exchange rate with the Deutschemark for much of the year. Although the rate currently stands at DM 1.23, the bulk of the subscriptions were remitted in September 1989 at a rate of DM 1.49.

This surplus will enable copies of the proceedings of the forthcoming Perth conference to be obtained and distributed to all members.

Accounts for Subscription Year 1989

	Expenditure	Income
Opening balance at bank 1.5.89:		7641.00
Interest		1043.11
Subscriptions received		7648.00
Payments for ties		481.00
Advertising		40.00
Subs. to International Treasurer	6102.48	
Newsletter printing	263.00	
Postage	439.62	
Labels	33.55	
Swan Coastal Plain Proc.	502.75	
State Tax	2.09	
Stationery	105.65	
Ties	1752.85	
Closing balance at bank 2.5.90		7651.12

Financial Statement

Balance at bank 2.5.90	7651.12
Subscriptions received for 1990 year	1100.00
Surplus at end of 1989 year	6551.12

D P Commander

New Members

The following new members are welcomed:

Mr R.G. Aldam
(SA Dept. of Mines & Energy)
24 Martin Ave
Maslins Beach SA 5170

Mr P.J. Best
(Mt Newman Mining)
Mt Newman Mining
Newman WA 6753

Mr P. Dalhaus

Mr J. Harman
(Mackie Martin & Ass)
34 Alton Tce
The Gap Qld 4061

Mr A. Kuchakpour
6A Bosworth Place
Leeming WA 6155

Mr J. McAvan
(Water Authority of WA)
24 Colgrave Way
Duncraig WA 6023

Dr A.J. McNulty
(Mackie Martin & Ass)
PO Box 654
Nedlands WA 6009

Mr C.D. Mackie
(Mackie Martin & Ass)
4 Ross Place
Wahroonga NSW 2076

Mr D.P. Maltby
(Dames & Moore)
69A St Helens Rd
Hawthorne East Vic 3123

Mr A. Olshina
(Geological Survey of Vic)
1 Dermot St
South Oakleigh Vic 3167

Mr S.S. Phillips
4 Poplar Place
Kirrawee NSW 2232

Mr P. Roberts
(Western Mining Corp.)
21 Grevillea Cres.
Kambalda West WA 6444

Membership now totals 196 (this includes only members paying their subscriptions to the Australian National Committee). The state distribution is WA (72), Victoria (38), NSW (37), Queensland (20), SA (13), NT (8), ACT (3), Tasmania (1) and overseas (4).

Subscriptions

The membership subscription for 1990 remains at \$55. Subscriptions to be paid in the 1989-90 financial year should reach the current treasurer by 2nd July.

Members in arrears

Members are reminded that memberships in arrears for more than two years will lapse. All members who have not paid since 1987 are being written to and informed that their membership will lapse at the end of this year if subscriptions are not received.

Publications

The National Committee still holds 45 copies of 'International Contributions to Hydrogeology' vols 2,5,7. These will be distributed to members on application to the Secretary.

General Meeting

A General Meeting of the Australian chapter will be held at 5.15 pm on Monday 9th July during the Perth Conference. Nominations are invited for officers of the National Committee. Proposed and seconded nominations should reach the secretary by 20th June.

In accordance with the practice of rotating the National Committee around the states, the NSW State committee was approached to nominate a new National Committee. The following nominations, approved by ballot of the NSW membership have been submitted for endorsement by the membership at the General Meeting.

President	M. Knight
Vice President	D. Woolley
Secretary	R. Carr
Treasurer	J. Ross
State Lias. Mbr.	G.Gates

Nominations for State Liaison Members have been sought from the State committees of WA, Victoria and Queensland.

The following nominations have been received from states and territories without local committees:

South Australia	S.R. Barnett
Australian Capital Territory	M.A. Habermehl

STATE NEWS

Queensland

A new State Committee was elected on 20th March 1990 with the following officers

Chairman	John Hillier
Secretary/Treas	Robert Ellis
Members	Magdalena Reisser-Steffens
	Bruce Pearce

The meeting was attended by 10 members and 12 non-members, and was addressed by John Hillier on the new Groundwater Protection Guidelines. It was decided that the Branch should write to the Minister of the Department of Environment and Heritage emphasising the need for upgrading of groundwater protection guidelines.

Regional Hydrologists also spoke briefly on activities in their respective areas.

Future meetings are to be held at two monthly intervals on the third Tuesday of the month.

Western Australia

Meetings have been held regularly each month:

July: The role of geological structures and palaeochannels in the development of salinity in the Wheatbelt - Ramsis Salama

August: Pilot scale hydrocarbon recovery and groundwater monitoring program - Toby Walters and Wallace Hise

September: Groundwater resources of palaeochannel aquifers in the Kalgoorlie area - Philip Commander

October: Observations from a visit to groundwater management agencies in the United States - Harry Ventriss

November: Mine dewatering - Phil Wharton

February: Groundwater sampling - Mirko Riha

April: What hydrogeologists should expect from a competent chemistry laboratory - Doug Ingraham



1990 MEMBERSHIP LIST

AUSTRALIAN CAPITAL TERRITORY

HAGERMEHL	DR M A	BUREAU OF MINERAL RESOURCES	GPO BOX 378	CANBERRA	ACT 2601
JACOBSON	MR G	BUREAU OF MINERAL RESOURCES	GPO BOX 378	CANBERRA	ACT 2601
LAU	MRS JE	GC & JE LAU & ASSOCIATES	51 INVESTIGATOR ST	RED HILL	ACT 2603

NEW SOUTH WALES

ACWORTH	DR RJ	CTR FOR GROUNDWATER MANAGEMENT	KING ST	MANLY VALE	NSW 2093
BELL	MR M	AUST. HYDROGEOLOGISTS INT.	REYNELLA	VIA DALGETY	NSW 2630
CAROSOME	DR F	AUSTRALIAN GROUNDWATER CONS.	11/19 GOODCHAP RD	CHATSWOOD	NSW 2067
CARR	DR RS	LAWSON & TRELQAR PTY LTD	PO BOX 799	NORTH SYDNEY	NSW 2060
COLLIN	MR D	DEPT. OF WATER RESOURCES (NSW)	1 WATTLE CRESCENT	MOREE	NSW 2400
CORFUZ	MRS MA	CTR FOR GROUNDWATER MANAGEMENT	UNIV. OF NSW PO BOX 1	KENSINGTON	NSW 2033
DALE	MR MJ	GROUNDWATER TECHNOLOGY INC.	35 BELMORE ST	ROZELLE	NSW 2039
ELLIOTT	MR JM	CLMEC PTY LTD	66 GIPPS ST	BIRCHGROVE	NSW 2041
GATES	MR G	DEPT. OF WATER RESOURCES (NSW)	14 MELALEUCA AVE	LEETON	NSW 2705
GIBSON	DR DK	AUST NUCLEAR SCI & TECHNOL ORG	PRIVATE BAG 1	MENAI	NSW 2234
HAMILTON	MS ST	DEPT. OF WATER RESOURCES (NSW)	58 BEETHOVEN ST	SEVEN HILLS	NSW 2147
HARWOOD	MR RC	GROUNDWATER TECHNOLOGY INC	6 BIAMI CLOSE	BANGOR	NSW 2234
HATLEY	MR RK	AUSTRALIAN GROUNDWATER CONS.	74/5-13 HUTCHINSON ST	SURREY HILLS	NSW 2010
JEFFRIES	MR RD	DAMES AND MOORE	84 ALEXANDER ST	CROWS NEST	NSW 2065
JEWELL	MR CM	COFFEY & PTNRS. PTY. LTD.	2/2 LIBYA PLACE	MARSFIELD	NSW 2122
JOHNSON	DR M	NSW DEPT. MIN. RES.	12/6 TARANTO RD	MARSFIELD	NSW 2122
KIDD	MR C	AUSTRALIAN GROUNDWATER CONS.	SUITE 16,273 ALFRED ST	NORTH SYDNEY	NSW 2060
KNIGHT	DR MJ	CTR FOR GROUNDWATER MANAGEMENT	UNIV. OF NSW PO BOX 1	KENSINGTON	NSW 2033
LAWSON	MR SJ	DEPT. OF WATER RESOURCES (NSW)	235 COORJENGANG HEIGHTS RD	ENGADINE	NSW 2233
LE	MR VT		34 WORLAND ST	YAGOONA	NSW 2199
MACKIE	MR CD	MACKIE MARTIN & ASSOCIATES	4 ROSS PLACE	WAHROONGA	NSW 2076
MERRICK	MR M	DEPT. OF APPLIED GEOLOGY	UNIVERSITY OF NSW	KENSINGTON	NSW 2033
MORTON	DR W	AUSTRALIAN GROUNDWATER CONS.	2/9 ILUKA AVE	MANLY	NSW 2096
McLAUGHLIN	MR R	CTR FOR GROUNDWATER MANAGEMENT	UNIV. OF NSW PO BOX 1	KENSINGTON	NSW 2033
PHILLIPS	MR SS		4 POPLAR PLACE	KIRRAWEE	NSW 2232
PLEASE	MS PH	CTR FOR GROUNDWATER MANAGEMENT	UNIV. OF NSW PO BOX 1	KENSINGTON	NSW 2033
PUNTHAKEY	MR JF	DEPT. OF WATER RESOURCES (NSW)	PO BOX 3880	PARRAMATTA	NSW 2124
RITCHIE	DR AIM	AUSTRALIAN ATOMIC ENERGY COMM.	22 BORONIA PDE	LUGARNO	NSW 2210
ROSS	MR J	DEPT. OF WATER RESOURCES (NSW)	17A ROPER CRES	SYLVANIA WATERS	NSW 2224
SALAS	MR G	DEPT. OF WATER RESOURCES (NSW)	22 SAPPA BULGA RD	DUBBO	NSW 2830
SAUNDERS	MS BJ	GROUNDWATER TECHNOLOGY INC	16/9 BORTFIELD DRIVE	CHISWICK	NSW 2046
SULLIVAN	MR HK	GOLDER ASSOCIATES PTY LTD	161A COPELAND RD	EAST BEECROFT	NSW 2119
TUCKSON	DR M	SELF EMPLOYED	108 LUCINDA AVENUE	WAHROONGA	NSW 2076
WILLIAMS	MR RM	DEPT. OF WATER RESOURCES (NSW)	PO BOX 3720	PARRAMATTA	NSW 2150
WILLIAMSON	MR WH		6 HUGHES AVE	ERMINGTON	NSW 2115
WOOLDRIDGE	MR DJ	DEPT. OF WATER RESOURCES (NSW)	75 TYMESIDE AVENUE	WILLOUGHBY	NSW 2068
WOOLLEY	MR D		3 BARWON AVE	TURRAMURRA	NSW 2074

NORTHERN TERRITORY

HALL	MR JW	AUSTRALIAN GROUNDWATER CONS.	7 EMPIRE COURT	ANULA	NT 5793
KARP	MS D		PO BOX 4729	DARWIN	NT 5794
McDONALD	MR P	POWER AND WATER AUTHORITY	PO BOX 1521	ALICE SPRINGS	NT 0871
PIDSLLEY	MR D		GPO BOX 3865	DARWIN	NT 5794
QURESHI	MR H		25 WULAGI CRES	SANDERSON	NT 5793
VERMA	MR M		14 WANDIE CRES	SANDERSON	NT 5793
WISCHUSEN	MR JO	POWER AND WATER AUTHORITY	PD BOX B240	ALICE SPRINGS	NT 0871
YIN FOO	MR D		PO BOX 3231	DARWIN	NT 5794

QUEENSLAND

BEDFORD	MR KA	QLD WATER RESOURCES COMMISSION	4 WOORAMA RD	THE GAP	QLD 4061
BINCH	MR I	COFFEY & PINRS PTY LTD	PO BOX 4011	EIGHT MILE PLAINS	QLD 4113
ERIESE	MR E	COFFEY & PINRS PTY LTD	PO BOX 118	EAST BRISBANE	QLD 4169
ELLIS	MR RI	QLD WATER RESOURCES COMMISSION	PO BOX 316	MOOROOKA	QLD 4105
FORTH	MR JR	GROUNDWATER RESOURCE CONSULTANTS	93 GRACEVILLE AVE	GRACEVILLE	QLD 4075
FREE	MR QL	QLD WATER RESOURCES COMMISSION	11 KATOOMBA CRESCENT	TOOWOOMBA	QLD 4350
GROUNDS	MR JA	AUSTRALIAN GROUNDWATER CONS.	6/6 QUALTROUGH ST	BURANDA	QLD 4102
HAIR	MR ID	AUSTRALIAN GROUNDWATER CONS.	6/6 QUALTROUGH ST	BURANDA	QLD 4102
HARMAN	MR J	MACKIE MARTIN & ASSOCIATES	34 ALTON TCE	THE GAP	QLD 4061
HILLIER	MR JR	QLD WATER RESOURCES COMMISSION	38 LYTHAM ST	INDOOROOPIILY	QLD 4068
JOHNSON	MR CL	GEOLSEARCH AUSTRALIA	BEAUARABA	VIA SOUTHBROOK	QLD 4352
LAITT	MR RW	QLD WATER RESOURCES COMMISSION	6 PETERS ST	MAREEBA	QLD 4880
LEACH	MR L	QLD WATER RESOURCES COMMISSION	7 TWELFTH A AVE	HOME HILL	QLD 4806
LLOYD	MR J	QLD WATER RESOURCES COMMISSION	36 EDWARD ST	NTH. ROCKHAMPTON	QLD 4701
LLOYD	MR T	AUSTRALIAN GROUNDWATER CONS.	6 QUALTROUGH ST	BURANDA	QLD 4102
PEARCE	MR B	QLD WATER RESOURCES COMMISSION	168 FLOCKTON ST	EVERTON PARK	QLD 4053
R-STEFFENS	MS H	GEOPHYS. GROUNDWATER PROSP. Co.	TAHITI ROAD	TIARO	QLD 4650
SMITH	MR PE		12 KINNAIRD ST	ASHGROVE	QLD 4060
SMOLSKI	MR B	HOLLINGSWORTH CONSULTANTS	33 PICASSO ST	CARINA	QLD 4152
WEEKS	MR WD	QLD TRANSPORT DEPT.	7 CARAWATHA ST	EVERTON PARK	QLD 4053

SOUTH AUSTRALIA

ALDAM	MR RG	SA DEPT. OF MINES & ENERGY	24 MARTIN AVE	MASLINS BEACH	SA 5170
ARMSTRONG	MR D	SA DEPT. OF MINES & ENERGY	77 HAWTHORNEDENE DR	GENALTA	SA 5052
BARNETT	MR SR	SA DEPT. OF MINES & ENERGY	PO BOX 151	EASTWOOD	SA 5063
BLEYS	MR C	CHRIS BLEYS & ASSOCIATES	24 KYRE AVE	KINGSWOOD	SA 5062
BOWYER	MR DG	SANTOS LTD	1/104 EAST AVE	CLARENCE PARK	SA 5034
COBB	MR M	WATER SEARCH	PO BOX 191	ANGASTON	SA 5353
DILLON	DR P	CSIRO	PRIVATE BAG 2	GLEN OSMOND	SA 5064
HARRIS	MR B	ENG. AND WATER SUPPLY DEPT.	38 ROYAL AVE	BURNSIDE	SA 5066
LOVE	MR AJ	SA DEPT. OF MINES & ENERGY	6/78 WATTLE ST	FULLERTON	SA 5063
READ	MR R	SA DEPT. OF MINES & ENERGY	PO BOX 151	EASTWOOD	SA 5063
ROWAN	MR IS	AUSTRALIAN GROUNDWATER CONS.	RIVERVIEWDELI LIVERPOOL ST	GOOLWA	SA 5214
SMITH	MR PC	SA DEPT. OF MINES & ENERGY	PO BOX 151	EASTWOOD	SA 5063
STADTER	MR MH	SA DEPT. OF MINES & ENERGY	PO BOX 93	MARACOORTE	SA 5271

TASMANIA

ROBERTS	MR G		427 STRICKLAND AVE	SOUTH HOBART	TAS 7000
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VICTORIA

BARTLEY	MR JG	DEPT. OF WATER RESOURCES	17 DALLY ST	CLIFTON HILL	VIC 3068
BLAKE	MR R	R BLAKE AND ASSOCIATES	671 STATION ST	NORTH CARLTON	VIC 3054
BRINKLEY	MR AJ	RURAL WATER COMMISSION	590 ORRONG RD	ARMADALE	VIC 3143
BRUWLEY	MR J		49 UMWIN ST	TEMPLESTOWE	VIC 3106
CARNEY	MR P		132 ARVON RD	STRATHMORE	VIC 3041
OYSON	MR P	SOIL CONSERVATION AUTHORITY	PO BOX 401	BENDIGO	VIC 3550
EVANS	DR R	RURAL WATER COMMISSION	16 MYRTLE AVE	KEW	VIC 3101
GLOE	MR C		23 KIRKWOOD ST	BEALMARIS	VIC 3193
HANCOCK	MR S	AUSTRALIAN GROUNDWATER CONS.	90 CLAREMONT AVE	MALVERN	VIC 3144
HOLLAND	MR GF	RURAL WATER COMMISSION	44 NABILLA CRES	BENDIGO	VIC 3550
HOXLEY	MR GP	RURAL WATER COMMISSION	23 LAUGHLIN AVE	NUNAWADING	VIC 3131
IFE	MR D	RURAL WATER COMMISSION	590 ORRONG RD	ARMADALE	VIC 3143
INGRAM	MR T	RURAL WATER COMMISSION	11 GREEN ST	EAST RINGWOOD	VIC 3135
JASMER	MR R	AUSTRALIAN GROUNDWATER CONS.	SUITE 6, 456 HIGH ST	PRAHAN	VIC 3181
JOYCE	MR EB	DEPT. OF GEOLOGY	UNIV. MELBOURNE, PO BOX 952	PARKVILLE	VIC 3052
LAKY	MR RC	MACKIE MARTIN & ASSOCIATES	20 QUEENS PDE	CLIFTON HILL	VIC 3068

LANE	MR AP	AUST HYDROGEOLOGISTS INT.	2 RUSHMEAD ST	MALVERN	VIC 3144
LAWRENCE	DR CR	DEPT. OF WATER RESOURCES	35 SPRING ST	MELBOURNE	VIC 3000
MACUMBER	DR P	DEPT. OF WATER RESOURCES	20 RANGEVIEW RD	MITCHAM	VIC 3132
MALTYB	MR DP	DAMES AND MOORE	69A ST HELENS RD	HANTHORNE EAST	VIC 3123
MURPHY	MR L	SHELL AUSTRALIA	23 VALENTINE ST	IVANHOE	VIC 3079
NOLAN	MR JG	DEPT. OF WATER RESOURCES	9 BEDFORD RD	EAST KEW	VIC 3102
NOTT	MR RB	DEPT. OF WATER RESOURCES	150 GREVILLE ST	PRAHAN	VIC 3181
OAKES	MR A	RURAL WATER COMMISSION	23 HIGHGATE GROVE	ASHBURTON	VIC 3147
OLSHINA	MR A	GEOLOGICAL SURVEY OF VICTORIA	1 DERMOT ST	SOUTH OAKLEIGH	VIC 3167
PETTIFER	MR G	DEPT. OF IND. TECH. & RES.	PO BOX 173	EAST MELBOURNE	VIC 3002
POTTS	MR IW	RURAL WATER COMMISSION	7 JACOBSON ST	MOOROOPOHA	VIC 3629
PRATT	MR M	DEPT. OF WATER RESOURCES	20 VICKI ST	BLACKBURN SOUTH	VIC 3130
REID	MR M	DEPT. OF WATER RESOURCES	PO BOX 1404	SHEPPARTON	VIC 3630
ROBINSON	MR KJ	DEPT. GEOL. & GEOL. ENG.- RMIT	PO BOX 150	CARLTON SOUTH	VIC 3053
SHUGG	MR A	DEPT. OF WATER RESOURCES	15 PARK RD	MIDDLE PARK	VIC 3206
STEWART	MR G	DEPT. OF WATER RESOURCES	22 MADDEN ST	BALWYN NORTH	VIC 3104
STILLWATER	DR R	DEPT. OF CIVIL AND AGRIC. ENG.	UNIVERSITY OF MELBOURNE	PARKVILLE	VIC 3052
THORNE	MR R	RURAL WATER COMMISSION	34 SIMS ST	SANDRINGHAM	VIC 3191
TICKELL	MR S	VICTORIAN GEOLOGICAL SURVEY	107 PATTERSON RD	MOORABBIN	VIC 3189
WALKER	MR G	RURAL WATER COMMISSION	PO BOX 56 ROSSITER RD	KOO WEE RUP	VIC 3981
WILLIAMSON	DR RJ	SHEDDON PACIFIC PTY LTD	15 PENDER ST	THORNBURY	VIC 3071
YOUNG	MR N	ENVIRONMENTAL PROTECTION AUTH.	7/9 CROMWELL RD	SOUTH YARRA	VIC 3141

WESTERN AUSTRALIA

ALLEN	DR AD	GEOLOGICAL SURVEY OF WA	100 PLAIN ST	PERTH	WA 6004
APPLEYARD	DR SJ	GEOLOGICAL SURVEY OF WA	18 CARLTON ST	LEEDERVILLE	WA 6007
BADDOCK	MR L	GEOLOGICAL SURVEY OF WA	100 PLAIN ST	PERTH	WA 6004
BARBER	DR C	CSIRO	17 ALLPIKE RD	DARLINGTON	WA 6070
BARNETT	MR JC	GROUNDWATER RESOURCE CONSULTANTS	4 BIRD RD	KALAMUNDA	WA 6076
BARDEN	MR J	GROUNDWATER RESOURCE CONSULTANTS	64 STATON RD	E FREMANTLE	WA 6158
BEST	MR PJ	MT NEWMAN MINING	MT NEWMAN MINING	NEWMAN	WA 6753
BOLTON	MR G	ROCKWATER PTY LTD	18 THORBURN AVE	BEECHBORO	WA 6063
BOYD	MR DW	WATER AUTHORITY OF WA	57 RIPLEY WAY	DUNCRAIG	WA 6023
BOYES	MR B	AUSTRALIAN GROUNDWATER CONS.	8/300 ALBANY HIGHWAY	VICTORIA PARK	WA 6100
BRUNNER	MR J	GROUNDWATER RESOURCE CONSULTANTS	11 EMPEN CRT	LEEMING	WA 6155
BULMAN	MS T	CAMPBELL ENVIRONMENTAL LTD	22 CORBETT WAY	BOORAGOON	WA 6154
CHANDLER	MR M	GROUNDWATER RESOURCE CONSULTANTS	273 STIRLING ST	PERTH	WA 6000
CLARK	MR G	HEWMONT AUSTRALIA	38 TALBOT DVE	KINGSLEY	WA 6026
CLOTHIER	MR JV	GROUNDWATER RESOURCE CONSULTANTS	46 MANDORA WAY	RIVERTON	WA 6155
COCK	MR PL		79 MARY ST	COMO	WA 6152
COLMAN	MR R	AUSTRALIAN GROUNDWATER CONS.	209 CRAWFORD RD	INGLEWOOD	WA 6052
COMMANDER	MR DP	GEOLOGICAL SURVEY OF WA	100 PLAIN ST	PERTH	WA 6004
COX	MR J	WATER AUTHORITY OF WA	629 NEWCASTLE ST	LEEDERVILLE	WA 6007
DAVIDSON	MR WA	GEOLOGICAL SURVEY OF WA	100 PLAIN ST	PERTH	WA 6004
DAVIS	DR GB	CSIRO	PRIVATE BAG	GPO WEMBLEY	WA 6014
DEENEY	MR AC	GROUNDWATER RESOURCE CONSULTANTS	13 SCHACHT COURT	MYAREE	WA 6154
DEROSARIO	MR PC	RESOURCE INVESTIGATIONS	73 FRASER RD	CANNING VALE	WA 6155
DOBIE	MR PL	K H MORGAN & ASSOCIATES	30 WAVERLEY ST	SOUTH PERTH	WA 6151
DOMAHIDY	MR GC	ROCKWATER PTY LTD	64 TATE ST	W LEEDERVILLE	WA 6007
DUNDON	MR P	AUSTRALIAN GROUNDWATER CONS.	8/300 ALBANY, HIGHWAY	VICTORIA PARK	WA 6100
GEORGE	MR R	WA DEPT. OF AGRICULTURE	PO BOX 1231	BUNBURY	WA 6230
HALLU	MR G		C/O 4 BIRD RD	KALAMUNDA	WA 6076
HARRIS	PROF P	DEPT. GEOLOGY UNIV. OF WA	MOUNTS BAY RD	CRAWLEY	WA 6009
HASEL GROVE	MR K	ALCOA OF AUSTRALIA PTY LTD	17 CLEMENTS RD	BOORAGOON	WA 6154
HEARNE	MR CJH	WA DEPT. OF AGRICULTURE	DRYLAND RESEARCH INST.	MERRIEDIN	WA 6415
HIRSCHBERG	DR KJ	GEOLOGICAL SURVEY OF WA	100 PLAIN ST	PERTH	WA 6004
HURLE	MR DH	AUSTRALIAN GROUNDWATER CONS.	300 ALBANY HWAY	VICTORIA PARK	WA 6100
KERN	MR AM	GEOLOGICAL SURVEY OF WA	74 FINNERTY ST	KARRINYUP	WA 6018
KUCHAKPOUR	MR A		6A BOSWORTH PLACE	LEEMING	WA 6155
LAWS	MR AT	GEOLOGICAL SURVEY OF WA	8 ILLAWONG WAY	KINGSLEY	WA 6026

LEE	MR IR	SINCLAIR KNIGHT & PINRS	52 BRUCE ST	NEDLANDS	WA 6009
LEECH	MR SJ	MACKIE MARTIN AND ASSOCIATES	3/420 BARKER RD	SUBIACO	WA 6008
LEWIS	MS M	WA DEPT. OF AGRICULTURE	YORK RD	NORTHAM	WA 6401
MARTIN	MR MW	GEOLOGICAL SURVEY OF WA	48 SASSE AVE	MOUNT HAWTHORN	WA 6016
MARTIN	DR RE	MACKIE MARTIN AND ASSOCIATES	PO BOX 654	NEDLANDS	WA 6009
MEYER	MR GM	WESTERN MINING CORPORATION LTD	PO BOX 91	BELMONT	WA 6104
MONCRIEFF	MR JS	GEOLOGICAL SURVEY OF WA	36 SAMSON ST	WHITE GUM VALLEY	WA 6162
MOORE	MR RR	SELF-EMPLOYED	43 WESTVIEW ST	KARRINYUP	WA 6018
MORGAN	MR KH	K H MORGAN & ASSOCIATES	34 GEDDES ST	VICTORIA PARK	WA 6100
McAVAN	MR J	WATER AUTHORITY OF WA	24 COLGRAVE WAY	DUNCRAIG	WA 6023
McGOWAN	MR RJ	GROUNDWATER RESOURCE CONSULTANTS	190 SOUTH TCE	COMO	WA 6152
McINTOSH	MR K	ALCOA OF AUSTRALIA LTD	PO BOX 252	APPLECROSS	WA 6153
McNULTY	DR AJ	MACKIE MARTIN & ASSOCIATES	PO BOX 654	NEDLANDS	WA 6009
MIDAGAL	MR V	GEOLOGICAL SURVEY OF WA	33 TODD AVENUE	COMO	WA 6152
O'BOY	MR CA	AUSTRALIAN GROUNDWATER CONS.	300 ALBANY HIGHWAY	VICTORIA PARK	WA 6100
PAGE	MR SJ	K H MORGAN & ASSOCIATES	4/8 YORK ST	SOUTH PERTH	WA 6151
PASSMORE	DR JR	ROCKWATER PTY LTD	94 ROKEBY RD	SUBIACO	WA 6008
PAUL	MR RJ	GROUNDWATER RESOURCE CONSULTANTS	4 RALEIGH RD	BAYSWATER	WA 6053
PECK	DR A	ROCKWATER	94 ROKEBY RD	SUBIACO	WA 6008
RIHA	MR M	SOLARVAN PTY LTD	25 PURDON RD	WEMBLEY DOWNS	WA 6019
RIVERA	MR WC	SELF-EMPLOYED	23/22 KING GEORGE ST	VICTORIA PARK	WA 6100
ROBERTS	MR P	WESTERN MINING CORPORATION	21 GREVILLEA CRES	KAMBALDA WEST	WA 6444
SALAMA	DR R	CSIRO	PRIVATE BAG	GPO WEMBLEY	WA 6014
SMITH	MR RA	GEOLOGICAL SURVEY OF WA	193 KITCHENER RD	BOORAGOON	WA 6154
THORPE	DR PM	GEOLOGICAL SURVEY OF WA	17 HUMMERSTON RD	KALAMUNDA	WA 6076
THROSSEL	MR JS	AUSTRALIAN GROUNDWATER CONS.	37 PHILLIP RD	DALKEITH	WA 6009
TOWNLEY	DR LR	CSIRO	PRIVATE BAG	GPO WEMBLEY	WA 6014
VENTRISS	MR HB	WATER AUTHORITY OF WA	21 COLGRAVE WAY	DUNCRAIG	WA 6023
VOGWILL	MR RI	HYDROEARTH CONSULTANTS	273 STIRLING ST	PERTH	WA 6000
WAINWRIGHT	MR M	M WAINWRIGHT & ASSOCIATES	PO BOX 125	SUBIACO	WA 6008
WATERHOUSE	MR J	AUSTRALIAN GROUNDWATER CONS.	8/300 ALBANY HIGHWAY	VICTORIA PARK	WA 6100
WHARTON	MR PH	ROCKWATER PTY LTD	94 ROKEBY RD	SUBIACO	WA 6008
WHINCUP	MR P	GROUNDWATER RESOURCE CONSULTANTS	PO BOX 1120	KALAMUNDA	WA 6076
WILLIAMSON	MR DR	CSIRO	PRIVATE BAG	GPO WEMBLEY	WA 6014
WILSON	MR VC	DEPT. PHYSICS & GEOSC., C.U.T.	45 PORTCULLIS DR	WILLETTON	WA 6155
YOUNGMAN	MR NR	K H MORGAN & ASSOCIATES	27 GALWAY ST	LEEDERVILLE	WA 6007

OVERSEAS

FURNESS	MR LJ	MINISTRY OF LANDS AND NAT RES	PO BOX 5	NUKU'ALOFA	TONGA
HELM	DR DC	NEVADA BUR OF MINES AND GEOLOGY	DEPT GEOSCIENCE UNIV.NEV.	LAS VEGAS	USA
LAING	MR C	GEOLOGICAL SURVEY OF PNG	PO BOX 778	PORT MORESBY	PNG
MILNE	MR FJ	JOHN MILNE & ASSOCIATES	PO BOX 70	KHON KAEN	THAILAND

CONFERENCES

Dryland Salinity in South Australia, Technical Forum.

The State's technical strategy on dryland salinity was outlined to an audience of about 150 persons on 14th February 1990. The Director General of Agriculture introduced the proceedings with the sobering thought that salinisation affects an estimated 220 000 ha in SA at a cost of about \$27 million in lost agricultural production. The goal is to:

Develop and implement programs to minimise the physical and economic impact of dryland salinity on the State's soil, water and vegetation resources.

Five components to the strategy have been identified and include:

- Monitoring
- Hydrogeological Investigations
- Off-site Treatment Options
- On-site Treatment Options
- Education and Extension

The Monitoring component identifies the need to complete a land inventory of the state to determine areas affected by or at risk of salinisation. It also indicates the need to establish a network of observation wells, to provide predictions of salinisation trends and establish a system of stream gauging and salinity observation stations and relate the data to changes in land use.

The second component identifies the need to develop a broad hydrogeological understanding of all major areas of the State affected by dryland salinity. More intensive investigations (including modelling) are then required to detail causal mechanisms and provide direction for the formulation of appropriate management options.

The Off-site and On-site Treatment Option components recognise the need to increase plant water use and minimise groundwater recharge. On-site treatments are also required to enable landholders to improve production from areas already affected by salt.

The final component recognises the need for ongoing education and extension programs to improve landholder understanding of the processes leading to dryland salinisation and methods to control the spread or rehabilitate affected areas.

The strategy also recognises the need for community action, for without community involvement government agencies cannot address the problem of dryland salinity.

Groundwater in Large Sedimentary Basins, Perth 9-13 July

The Scientific program has now been finalised with 50 papers to be presented, and by mid-May registrations had reached 123. Day registration will also be available for a fee of \$100.

The next in the AWRC sponsored conference series is proposed to be held in Adelaide in 1993 or 1994. The proposed theme is 'Seeking solutions for Groundwater Management'.

REPORTS

Stable Isotopes in the River Murray - Indicators of Irrigation Return Water

A major cause of the large downstream increase in salinity of the Murray River is related to irrigation practices. A large fraction of the drainage system in areas within 20 km of the River Murray and adjacent to major tributaries now has a runoff and groundwater recharge cycle fundamentally different from the natural system prevailing prior to irrigated agriculture. The soil and water conditions established by this new balance of water and salt will govern the future of irrigated agriculture during the next century which will have important ramifications for the water quality of the River Murray.

The aim of this project is to quantify the amount and location of input of saline irrigation return water to the River Murray and assess its relative importance to the increasing salinity of the river, and to apply the results of this study to help reduce return of saline irrigation water to surface waters of the Murray - Darling Basin.

When water evaporates, it preferentially leaves behind the heavier isotopes of the water molecule (deuterium and oxygen-18). Because irrigation drainage waters are always evaporated to some degree, this process leaves an isotopic signature or tracer that is much more sensitive than chloride concentration. The stable isotope composition of water from irrigation areas is typically enriched in stable isotopes of water in the order of 20 parts per thousand in deuterium relative to input water. This represents about a 30-40 percent loss of water by evaporation alone.

In co-operation with EWS, RWC, DWR NSW and MDFRC, we now have about 14 months of samples from 27 stations along the River Murray and major tributaries. Samples from December 1988 to June 1989 have already been analysed as a reconnaissance exercise to test the feasibility of our approach. The results from the months of March and June 1989 show a large difference between the late summer

flows and onset of high runoff flows. When combined with chloride data from the same sampling periods, important information regarding the location and amount of significant groundwater and irrigation return flows can be gained.

It is critical to note that although groundwater input causes substantial increases in river salinity, it does not perturb the stable isotopic composition of the river water. The amounts of water are too small, and the isotopic composition is in the opposite direction to the observed changes.

The research is being carried out by Jim Simpson and Andrew Herczog of the CSIRO Division of Water Resources.

AUSTRALIAN ACADEMY OF SCIENCE

Various grants are available for scientific visits:

Destination	Applications close
France (Rhone-Poulenc Fellow):	1.8.90
UK (exchange)	1.7.90
UK (post-doctoral)	1.10.90
Japan (exchange)	1.9.90
Japan (post-doctoral)	1.11.90
China (exchange)	1.12.90
contact Bonnie Bauld (06) 247 3966	
into Australia (Selby Fellowship)	30.6.90
contact Faye Nicholas (06) 247 5777	

AWRC GROUNDWATER PROTECTION WORKSHOP

In September 1989 the Australian Water Resources Council (AWRC) Water Resources Management Committee commissioned a study to develop a set of guidelines for groundwater pollution protection to assist the states in the formulation of their groundwater management policies. The international firm of consultants Dames & Moore were engaged to undertake the work.

The study resulted in two main outputs, the first a status report which contains a discussion of the nature and occurrence of groundwater contamination in Australia and the regulatory framework for protection here and overseas. The second output was a document presenting a discussion of groundwater protection issues and a recommended set of guidelines for policy development.

An integral part of the study was a workshop held in March to discuss a draft status report and the draft guidelines. The workshop was convened by Jim Keary of DWR (Victoria) and was held at the Rural Water Commission training rooms. It was attended by 40 representatives from the water sector and industry, including state water departments, EPAs, chemical and manufacturing industry, the rural sector and a lawyer. The ACF were also invited but could not attend.

The workshop was opened by the Victorian Minister for Water Resources Mr "Bunna" Walsh and was presented with the findings of the study by the consultants (Anthony Lane, Alan Deeney and John Forth). The state representatives then made comments and other invited speakers from industry also made brief comments on their view of the guidelines. This set the scene for the workshop sessions by defining the key issues for discussion.

The workshop sessions discussed topics including Beneficial Use concepts, Vulnerability and Risk Assessment, Water Quality Criteria, Policy Implementation, Supplementary Guidelines, Public Awareness and other relevant technical issues. The sessions were reported to plenary sessions and a summary of the workshop was presented by Harry Ventriss of WAWA. The outcome of the workshop was that the guidelines were accepted, with variations, to satisfy the policy implementation needs of the states. The guidelines will be published by AWRC in due course.

1ST NOTICE

**N.Z. HYDROLOGICAL SOCIETY
ANNUAL SYMPOSIUM**

D.S.I.R. CAMPUS - WAIRAKEI

WEDNESDAY 21 - FRIDAY 23 NOVEMBER

**GET A NEW HEAD OF HYDROLOGICAL STEAM
AT WAIRAKEI THIS YEAR!**

- THEME:** HYDROLOGY IN CURRENT ENVIRONMENTAL PROBLEMS.
- SPECIALIST WORKSHOP:** GROUND WATER MODELLING IN NEW ZEALAND. WHAT ARE WE ACTUALLY ACHIEVING?
- CALL FOR PAPERS:** AS USUAL, ONLY EXTENDED ABSTRACTS WILL BE REQUIRED. THESE WILL BE REPRODUCED IN A SYMPOSIUM PROCEEDINGS BUT WILL NOT BE CONSIDERED TO BE PUBLISHED. PAPERS MAY DESCRIBE WORK IN PROGRESS AS WELL AS WORK COMPLETED. A FORMAL CALL FOR PAPERS SPECIFYING FORMAT AND DEADLINES WILL BE MADE WITH THE SECOND CIRCULAR AROUND MID-YEAR.
- ENQUIRIES:** PLEASE CONTACT - HUGH THORPE
D.S.I.R. ILAM CAMPUS
P O BOX 29-181
CHRISTCHURCH

Ph. (03)516-019. Fax. (03)519-923

International Association of
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Australian NC Newsletter

If undelivered return to:
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100 Plain St, Perth WA 6004

