

AUSTRALIAN HYDROGRAPHERS ASSOCIATION

Australasian Hydrographer



Hydrographic Alpine Survival Training, Snowy Mountains.

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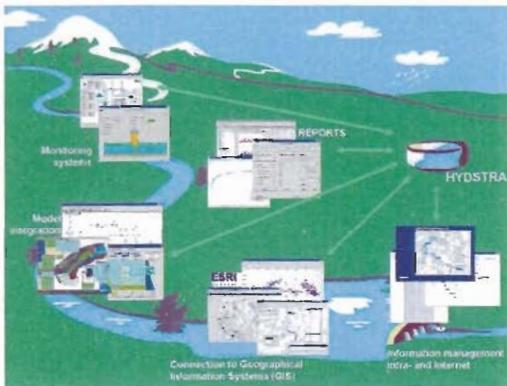


November, 2006

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RESOURCE MANAGEMENT SYSTEMS

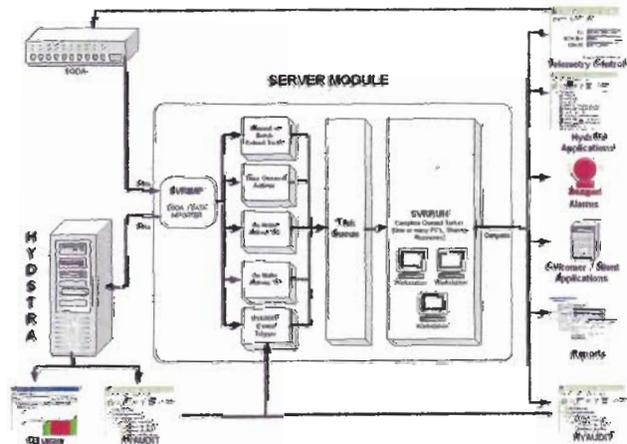


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THIS ISSUE

Editorial	1
From The Chairman	2
AHA 26 th AGM	4
Representative Reports from the Association	5
Darwin - The Scrapbook!	10
Water Industry Package Review	13
The National Water Initiative	14
AHA Educational Grant	15
Membership Renewals	17
Vandalism Problems – <i>Michael Lysaght</i>	18
AHA Office Bearers and Contacts	19

EDITORIAL

Don't waste that water that flows into the oceans!
Build more dams to harvest the floods! Seed the clouds
to produce more rain!

All are examples of answers to our current 'water crisis' from the wider public as postulated in our popular press. The wider public (and some politicians) have the answers to the crisis but hydrographers have, and understand, the knowledge, data and the information as to why these are not necessarily the answers to solve the 'crisis'.

Hydrographers also understand the full impact that one part of the water cycle may have on the next part of the water cycle.

Don't let any water be wasted into the ocean.

While at the recent conference I gained greater appreciation of incorrect perceptions that harbours are naturally flushing because of the tides. We know what happens in many cases what happens over time to estuaries that are fed by reduced flows – not necessarily good. Do you want to know something else. Hydrographers are at the front line collecting this information that will hopefully be used to make better sustainable catchment decisions.

Lets build another dam.

Many of the dams that have been built to date were built on information collected by hydrographers and are still performing to the yield capacities derived from the hydrographic data. Many still yield appropriately but are overcommitted in their use.

Good hydrographic data has also been used in decisions not to build dams when marginal economics of building a dam have relied heavily on good hydrological data

Seed the clouds to produce more rain.

Hydrographers are involved in this area collecting and analysing the data from various programs. Hydrographers understand the water cycle in that you

need moisture in the air mass to start with as a basis for cloud seeding. Cloud seeding is not an answer at present with the prevalence of dry air masses that are continually occurring over the continent at present.

From these few items you soon begin to appreciate that hydrographers are involved in every facet of the water cycle from water in the air, water in the rivers, water in the ground, water in the dams, water in the pipes, water leaving your toilet bowl, water being treated for re-use, water being harvested from stormwater, water running around the harbour and so on. Hydrographers are involved in all these aspects (and more) of water cycle data and information.

A versatile and knowledgeable lot aren't we? Well lets make sure that we get involved in the issues and make sure people understand the data and information we are providing them so that better management decision are made of our liquid resources.

Mic Clayton, Editor and Publicity Officer

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Visit our **Web Site** at: <http://www.aha.net.au> to download a Membership application and to find contact details for your state representative.

Editorial and advertising enquiries should be directed to the Association's **Publicity Officer**, Mic Clayton.

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e - mail publicist@aha.net.au , or
PO Box 843, COOMA, NSW, 2630.

The views expressed in this publication are those of its contributors and do not necessarily represent those of the Australian Hydrographers Association Inc or its office bearers.

From The AHA Chairman – Bill Steen

Firstly I would like to thank the outgoing Chairman Graham Armstrong who stood down as an office bearer of the AHA due to work commitments. Graham is a great advocate of the AHA and his contribution to the committee will be missed.

Also special thanks must go to Dave Williams for his outstanding efforts in organizing the 13th Hydrographic Conference held in Darwin. I think that everyone who attended would testify that this was a conference to remember from the Aboriginal welcoming through to the technical knowledge exchange. The papers presented were of a high quality and demonstrated the diverse nature of our industry. Thanks Dave.

And lastly I wish to thank the members of the AHA for electing me as Chairman of the Association. I am looking forward to assisting in the ongoing efforts to raise the standard of Hydrography and the profile of the AHA in Australia and abroad. I have been involved in the AHA for over 26 years and have worked in the following agencies, NSW Department of Water Resources, Department Housing & Construction Hydrology Dept. ACT, ACTEW, Ecwise Environmental, and now with Kisters [formerly Hydsys Pty Ltd]. Over the 26 years I have held various positions within the AHA from NSW Secretary, ACT Representative and more recently National AHA Committee member. I believe my background as a field Hydrographer through to my present position as General Manager of Kisters Pty Ltd has provided me with a broad knowledge of the issues facing both the Association and the water industry.

With Australian's facing possibly the worst drought on record this summer plus the Federal Government looking for immediate answers indicates the industry is in turmoil. The Prime Minister called a snap water summit in Canberra on the 7th November where State Premier's, Politicians, and leading water experts spelt out a bleak future if no significant rain falls between now and April 2007. With a \$10 Billion agricultural industry barely hanging on by the tips of their finger nails through to rural townships and cities running out of potable water the crisis hit home to everyone how vulnerable water is as a resource.

Many argue that it's not just the issue of low rainfall figures but the issue of over utilization of the resource. There are many and varied reasons as to why the allocation of water appears to have become unmanageable. At the 13th Hydrographic Conference Dr. Stuart Minchin discussed one aspect of changes in

water use that resulted in an adverse effect on irrigation regions. Changes in domestic and rural water use, increases in "hobby farms", improved agricultural management practices, inadequate metering of water are only a few topics that contribute to our current day water shortage.

So where is the industry headed?

Over the past decade we have all been involved and witnessed the desecration of the water industry with major cut backs in data collection budgets, restructuring of water agencies, and retrenchment of technical staff. All water agencies are now critically under staffed and there doesn't appear to be a light at the end of the tunnel.

With water being a hot topic it will be interesting to see if the Government will inject much needed funds to get the national water resources monitoring programs back on track including increasing the numbers of qualified technical field staff to implement and monitor the changes? Time will tell.

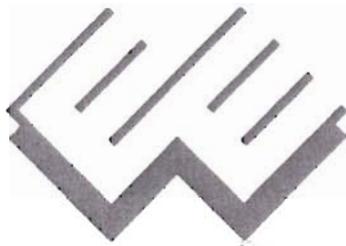
Personally I feel it is an exciting time for the AHA and its members. There definitely is an upsurge in the industry and I dare say funding will filter down to where it's needed. In 1992 Alex Miller, a past Chairman and personal friend too many of us, opened the AHA conference with the Bob Dylan song "The times they are a changing", followed by the quote "**You can't manage what you don't measure**". These same themes are as relevant today as they were in 1992. The times they are definitely changing

Let's hope these messages will not fall on deaf ears and it's our job to ensure the decision makers understand the issues facing the industry from a Hydrographers point of view.

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AHA Annual General Meeting

26th Annual General Meeting – 29th August 2006

Sky City Casino, Darwin, Northern Territory

(Provisional Minutes of Annual General Meeting)

Attendees:

Members:

Paul Jensen, Jason Venables, Stephen Buckland, Con Peshkoff, Andrew Heard, Matt Saunders (Unidata), Steve Pearson, Gran Vuk (Scott Technical), John Hayes, Tracy Rudd, Bill Barratt, Mike Lysaght, Bill Steen, Alison Martin, Don Alexander, Nathan Rugless, Scott Walker, Andrew Karr, Gary Newton, Barry Morrison, Martin Doyle, Nigel Mules, C Dagliesh, Chad Harder, Andrew Howith, Brian Chester, , Tony Polchleb, Alistair Brooks, Chris Misson, Graham Armstrong, Max Hayes, Mic Clayton, Michael Whiting, Ryan Bacich, Dave Amos, Simon Cruickshank, Lloyd Smith.

Visitors:

Graham Parsons, Graham Elly, Doug Stewart, Peter Gordon, Ian White, Lucas Salkeld, Glen Kimberg, Vince Manley, Colin Rudd, David Williams, Michael Wheaton, Ian Orr.

Meeting Opened at 17:38

1. **Welcome address** by incumbent Chairman Graham Armstrong.

2. **Minutes of previous AGM Tabled** - moved by Scott Walker, Seconded by Bill Barratt.

3. **Apologies** – John Skinner, Andrew Smith.

4. Reports tabled at Meeting –

- Secretarial Report – Michael Whiting.
- Treasurers Report – Max Hayes.
- Publicity Officer's Report – Mic Clayton.

Reports moved by Mic Clayton, seconded by Bill Steen.

5. Resignation of Graham Armstrong and Mike Lysaght tabled.

6. Election of Chairman and Committee Member.

Chairman - Only nomination received was for Bill Steen.

Committee Member- Only nomination received for was for Bill Barratt.

No further nominations were received for the above positions therefore both declared elected to nominated positions unopposed.

General Business

7. AHS Relationship.

Graham Armstrong met with East Coast AHS at a Regional meeting as an observer. Circumstances beyond our control have limited opportunities to undertake a more formal process of discussions.

Propose to develop a relationship with the AHS, possibly through State Workshops, need to foster the sharing of ideas, technology etc. Committee to formulate letter of understanding between the two organisations. Reiterated that the development of this relationship doesn't affect the existing AWA arrangements.

Proposed by Mic Clayton, seconded by Scott Walker. Considerable show of hands (Motion carried as unanimous).

8. AGM Agenda and timing

Election item raised by Simon Cruickshank to carry out election of new office holders prior to AGM. Unfortunately this is unable to be carried out as the Association is bound by Corporation Law.

9. Training Package Review.

Mic Clayton is involved in the Panel for Competency Based Vocational Training.

At the end of next year the OTEN Hydrography Certificate IV closes with a three year grace period.

Currently reviewing the documentation associated with the Training Package Review. providing input into this process are Mic Clayton, Neil Harper, Greg May, and Paul Webb.

Members are encouraged to provide input into process, as it is the Industry will provide the competency framework.

Question from Paul Jensen – "...Who will be providing the training under new framework..."

Response from Mic Clayton – "...Trainers that are accredited under the Certificate IV Training and Assessment..."

Question from Scott Walker – "...Do you see this as a move towards 'accreditation' for Hydrographers?..."

Response by Mic Clayton – "...Not as yet due to the state of flux in the competencies. The Association needs to wait until the competency framework has been established as part of the AQF (Australian Qualification Framework – www.aqf.edu.au)..."

Question from Michael ? (Lysaght) – "...How do you become a trainer?..." Response by Mic Clayton –

“...State by State qualification. Training support from within the AHA. Response by Mic Clayton - All trainers must be qualified....”

Question from John Hayes – “...Does previously attained qualifications get recognition?..” Response by Mic Clayton – “...Neil Harper is working on reviewing package with this in mind...”

Comment by Dave Garforth – “.... ‘We’ both the AHA and AHS need to have a stronger voice on this subject as it is important to the survival of the industry...”

10. National Water Initiative.

Tender the option to submit a basic proposal to develop National Quality and Parameter codes for all States. This may be a qualitative code rather than a quantitative code given the difficulties in arriving at a common standard.

Does the AHA set the National Standard? Is it applied at Data Collection or is it applied during a data transformation step between organisations?

Drivers for this proposal include:

- Bureau of Rural Science.
- National Salinity Database.
- CSIRO – Data channelling.
- eWater.
- National Water Data Summit (NWC) National Water Database.

Response from attending members is this is a good idea. Possibly the same as the original AWRC working committee. Potential to create working committees on this subject – John Hayes to provide information of previous working committees.

Permission needed from members to garner support from the State Authorities to move towards standardisation i.e. rating curve confidence.

Comment from John Hayes – “...Needs to apply to new/ongoing data rather than a backlog process....”

Comment from Scott Walker – “...Where are standards adopted, if the details (numbers) are established momentum will carry it forward...”

Comment from Peter Heweston (Kisters) – “...Issue of biological data needs to be considered...not limited to Australia....codes vary across the world...”

Comment from John Hayes – “...WMO standards exist for data transfer ie xml...need to seek funding to establish committee to resolve Data Transfer standards...”

Comment from Martin Doyle – “... Note of caution that lack of agreement stalled the process in New Zealand when presented with the opportunity for change...”

Comment from Paul Sheahan – “.. This issue is bigger than the software currently being used by the industry...keen to be involved in process...”

Steps towards a solution is to investigate what the current situation across the industry is, and detail who does what. Develop a solution rather than a suggestion.

Proposed to members that the Association attempt to submit a proposal to the National Water Initiative to develop a national framework for water data standardisation of data types and coding in the short time available to the closing date. Motion proposed by Mic Clayton, seconded by Garry Newton and Mike Lysaght. Passed by the meeting.

Meeting officially closed at 18:48

Addendum Reports for 2006 AHA AGM.

Secretary Report – Australian Hydrographers Association, 2006

I have been Secretary of the Australian Hydrographers Association since August of last year.

Since taking on this position I have been working on streamlining the existing membership database, to the agreed strategy of renewals due at the end of each Financial Year. This has improved the notification to members eliminating any confusion that may have been present due to flexible renewal dates. In the process I have been able to adapt the membership database so that any information held in the system is printed at renewal ensuring that members are not overly inconvenienced each year and only make changes if required. It also ensures that our member information up to date.

Further improvements in membership we have adopted a Corporate grading system (Bronze, Silver, Gold and Platinum) developed following our committee meeting in December. This allows Corporate Members to be more proactive in providing support for its employees by allowing sponsorship of up to 20 members each year.

Membership Summary2005/06

State / Country	Financial Members
Australian Capital Territory	9
International	4
Life	2
New South Wales	29
Northern Territory	5
Queensland	7
South Australia	12
Tasmania	5
Victoria	11
Western Australia	24
	108

Corporate Members (10)

- Bruttour International Pty Ltd.
- Bureau of Meteorology (Victoria).
- Department of Water.
- EnviroEquip Pty Ltd.
- Environmental Systems & Services Pty Ltd.
- Kisters Pty Ltd.
- Science Reality.
- Theiss Services (Hydrographic Services).
- Unidata Pty Ltd.
- Water Data Services.

Current 2006/07 (July – August)

State / Country	Financial Members
Australian Capital Territory	6
International	6
Life	2
New South Wales	31
Northern Territory	7
Queensland	8
South Australia	12
Tasmania	3
Victoria	5
Western Australia	16
	96

Total membership after two months is only eight lower than the whole of last year. Thirty eight members from 05/06 are still financial until the 30th September. Therefore expected membership for 2006/07 approximately 136. From historical information 05/06 and 06/07 has seen the largest membership base of the Association for some time, and appears to be increasing.

Corporate Members (9):

- Bruttour International Pty Ltd (Bronze).
- Bureau of Meteorology (Bronze).

- Department of Water (Bronze).
- EnviroEquip Pty Ltd (Bronze).
- Hydrological Services Pty Ltd (Silver).
- Kisters Pty Ltd (Gold).
- Scott Technical Instruments Ltd (Bronze).
- Unidata Pty Ltd (Bronze).
- Water Data Services (Bronze).

Committee Meetings:

Two committee meetings have been held, one south of Sydney at Bawley Point, and the second in Sydney a few months ago. Both meetings have been very productive and have seen the adoption of series of new initiatives including:

- Graded Corporate Membership.
- Educational Travel / Project Grants.
- Continued discussions related to AHS.

Membership Cards:

Another system endorsed at the last Committee meeting was the provision of Membership cards. Cards for 2006/07 members will be handed out at the AGM, but also will be available in the next Journal.

Australian Water Association:

Some issues have arisen with the provision of the Water magazine to members over the last three to four months, due to some confusion regarding subscription payments to the AWA.

This has now been resolved and Members will be receiving the August Water magazine. This magazine is published eight times a year in February, March, May, June, August, September, November, and December.

The last WATER journal received by Members was March, unfortunately due to lack of back issues the May and June magazines are not available.

Correspondence:

Most if not all of the correspondence received was by email. There have been a number of emails regarding membership renewals, and other general information.

Over the last six to eight months we have received a considerable amount of spam email that has taking up considerable amount of time removing from email inboxes and processing through the Mailman system.

Michael Whiting
Secretary
Australian Hydrographers Association

Publicity Officers Report For Australian Hydrographers Association Annual General Meeting, August 29, 2006 (Mic Clayton):

Journals were published:

- August, 2005
- Combined December/February 05/06
- May 2006
- August, 2006

Complimentary copies of the Journal were forwarded to the New Zealand Hydrological Society and the Australasian Hydrographic Society. The Journal is also being forwarded to the State Library of NSW for archiving. The ISSN number for the Journal is 0812-5090 and the Library catalogue indicates Australian Hydrographer Newsletters/Journals extending back to the late 1970's!

Advice for this AGM was prepared and sent to members in August, 2006 as well as posted on the website.

Our Website continues at www.aha.net.au. Web statistics are attached to this report for general information for the year to August.

Many organisations and companies have utilised our website to disseminate employment opportunities in the last 12 months. It is interesting to note that over the last twelve months the website has featured 45 employment opportunities within Australia and New Zealand (though I do remember redistributing a South American job but I couldn't find it in my records!) The previous year saw only a dozen or so advertised so I am not sure if this is more people now utilising the facility, more employment opportunities or a combination of both.

I have also worked with this years conference company, Best Events Company, to assist then with the promotion of the conference, placing information on our website as well as using our email distribution list to get items out.

We also continued running our Mailman email service. All financial members are listed into the Mailman member database. The Mailman service is used by the committee to disseminate information about employment opportunities, short courses and other events or happenings around the place. At the beginning of August the Mailman member list had over 170 members.

Unfortunately the list was being spammed into oblivion in the middle of the year so settings were activated to refuse postings from other than list members to ease the load on moderators. You may have also noticed that we altered the way committee email addresses were being displayed on the web pages to reduce the addresses to spammers. These settings will be reviewed in coming months to see if we have moved out of the spammer lists.

Please keep your mailing addresses (and email contacts) up to date with the Secretary please. This stops those postings getting to you. I do know from my records that some of you have changed jobs 3 times in the last 1-2 years, it doesn't help us if we aren't aware of it!

Above all I love to see those articles! I continue to enjoy the role of Publicity Officer for our Association but don't forget it's your Association and your input to the Journal is valued.

M. Clayton.



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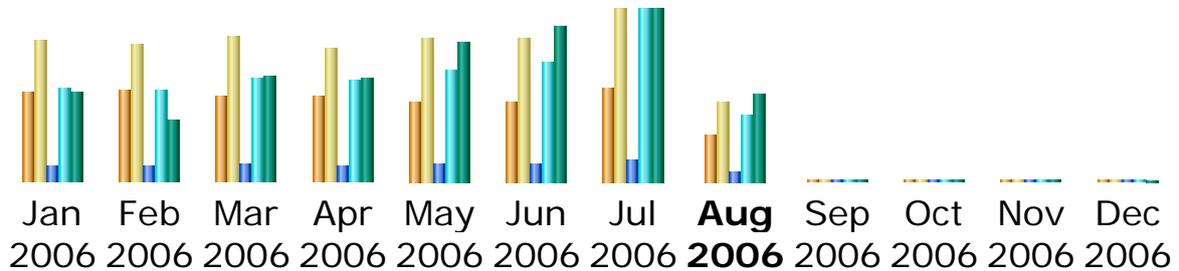
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Web Statistics for www.aha.net.au for 2006 year to date.

(This seemed to be the most realistic webaliser product through our ISP!)

Monthly history



Month	Unique visitors	Number of visits	Pages	Hits	Bandwidth
Jan 2006	357	561	1871	11537	170.88 MB
Feb 2006	361	548	1778	11296	116.73 MB
Mar 2006	339	579	2182	12889	199.58 MB
Apr 2006	338	535	1984	12555	197.51 MB
May 2006	316	572	1993	13808	265.88 MB
Jun 2006	320	573	2016	14922	295.12 MB
Jul 2006	373	721	2601	22419	344.23 MB
Aug 2006	192	315	1008	8285	166.31 MB
Sep 2006	0	0	0	0	0
Oct 2006	0	0	0	0	0
Nov 2006	0	0	0	0	0
Dec 2006	0	0	0	0	0
Total	2596	4404	15433	107711	1.72 GB

AUSTRALIAN HYDROGRAPHERS ASSOCIATION INCORPORATED
STATEMENT OF RECEIPTS AND EXPENDITURE
01/01/05 TO 31/12/05

RECEIPTS

Subscriptions	\$11 400.00
Interest	\$ 255.00
Refund Kisters	\$ 200.00

Total Income	\$11 855.00

Expenditure

Newsletter Expences	\$3,160.00
State Govt. Tax BAD	\$ 12.00
Bank Charges	\$ 896.00
Air Fares Accom	\$1,071.00
Web Site	\$ 549.00
AWA Fees	\$1,750.00
Trans Workshop Comm	\$5,000.00
Refund Fuel Exp	\$ 140.00
Catering at Meetings	\$ 310.00
Trans. To Max-Direct	\$40,000.00

Total Expenditure	\$52,888.00

Bank of Melbourne Account No. 033-259 13-0104

Opening Balance: 1 January 2005	\$61,959.19
Income:	\$11,855.43

	\$73,814.07

Expenditure	\$52,888.55

Closing Balance December 31, 2005	\$20,926.07

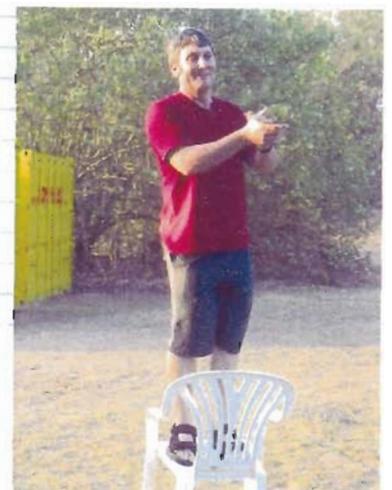




Australian Hydrographers' Association 13th Hydrographic Conference 2006 Darwin, Australia



Interactive Hydrography - Future Directions



Western Australia – State Representative's report

Reports were received from three of the principal agencies/companies involved in hydrographic monitoring in Western Australia.

Department of Water (DoW)

(Report by Greg May)

After years of decline, the importance of hydrography to the DoW's business of managing the State's water resources is now well entrenched as a priority issue, with the effect that demands for hydrographic services is outstripping DoW's ability to respond.

A chronic shortage of trained hydrographers in WA (and it appears across Australia), has meant that there are several senior positions that can't be filled.

DoW is in the middle of a trainee hydrographer recruitment and training program (18 trainees).

DoW strongly supports the Australian Hydrographers Association, the Certificate IV in Hydrography and the Water Industry Training Package that is being developed.

Substantial capital funding is now being received to upgrade DoW's surface water and groundwater monitoring assets. Current replacement value \$150M.

WA has only recently signed up for the NWI. Preparing a request for NWI funding of the development of a low cost, low voltage IP satellite modem to improve our (and everyone else) ability to collect environmental data in remote areas.

Submissions will be made to government to expand the State's reference network (includes flood warning) by up to 180 new sites.

Trading in water will increasingly become an issue in WA.

DoW has installed meters on groundwater users of the Gnamptara Mound to improve source management. This is the State's first trial to investigate the benefits to WRM by metering self suppliers.

Proposals are being considered to proclaim more surface water catchments so that they can be managed by water licences, this will have significant implications for hydrography.

The State intends charging an administration fee for water licences to raise revenue for improved water resources management, with

the expectation that some revenue will be used to further boost hydrographic activities.

Water Corporation

(Report by Alison Martin)

The Water Corporation's major hydrographic group and the smaller group in the South West have now been incorporated into the newly formed Asset Management Division, cementing the focus of its outcomes on collecting good quality long term data to support the management of our Infrastructure assets as well as for compliance purposes. The strength of our systems and robustness of our records has seen us amalgamate with several other data collection groups within the Water Corporation.

As with any technical area in the Western Australian economy, we have difficulties with recruitment. Creation and increased resourcing of the DoW and recognition of the broad skills of our hydrographic staff, has seen a turnover of staff to the DoW and elsewhere in the Water Corporation.

We have been working on two fronts in recruiting:

- **Short term strategy** – employ similarly trained people in allied area (Surveying) and provide them with a combination of on-the-job experience and augmentation of their qualifications (current Cert IV)
- **Long term strategy** – employ school leavers, and support their study of Cert IV and provide on-the-job experience to end up with qualified and experienced hydrographer. Continued employment is dependent upon steady progress and eventual completion of qualification.

These strategies have seen us consolidate to about 15-18 hydrographic positions. While organisational change is always unsettling, there is no suggestion that there is no future for hydrography in the Water Corporation. In fact, as the reliance of making decisions with data increases, the role of our hydrographers is set to increase.

Hydro Smart

(Report from Kelvin Baldock)

Hydro-Smart is a small, but specialist hydrologic monitoring and advisory business, which over the past 5 years has been heavily involved in support services to natural resource management groups.

During 2005/06, the focus of the business has swung back to hydrologic monitoring services, a trend we hope to continue in 2006/07 and beyond. Some of the relevant hydrologic monitoring projects undertaken by Hydro-Smart in recent times include:

- Discharge measurements and water quality sampling programs for other consultancy clients.
- Gauging station and sampling equipment operation, data verification and information provision to mining companies, Government utilities and agencies.
- Soil moisture and groundwater level / quality monitoring for partnerships of academic institutions / Govt utilities / Govt agencies and mining companies for project impact assessment.
- Advice, training and services to a range of clients on surface water and shallow groundwater monitoring requirements.

The company has, at present, two directors, three project based employees and one part-time support position.

Water Industry Training Package Review

The development Stage for the review of the Water Industry Training Package is now completed.

Final draft material is available for viewing at the Government Skills Australia website

<http://www.governmentskills.com.au/>

With the assistance of the Water Industry stakeholders nationally, much has been achieved. Including:

- Re-development of all existing units of competency.
- Development of 45 new units of competency in the following areas:
 - Dams
 - Trade Waste
 - Treatment
 - Hydrography
 - Confined Spaces

- Extensive review and re-development of the Qualification Framework.
- Incorporation of Employability Skills into the Training Package.
- Development of a new Certificate I Pathways program.
- Development of a new Vocational Graduate Certificate.

The Water Industry responded generously to our call for technical input. This industry feedback assisted our technical writing team greatly in the development of the end product - an enhanced/updated Water Industry Training Package.

Throughout the project, three versions of Draft units of competency have been posted onto the dedicated Water Industry Training Package review website seeking industry comment and validation. Over 25,000 hits were recorded on this website.

At their October 3rd meeting, the Project Steering Committee validated the findings of the project team and signed off on the project. Some minor amendments were made to the Final Draft Qualification Framework at this meeting. The changes made to the Final Draft Qualification Framework can be viewed at the Government Skills Australia website (see link above).

It is acknowledged that with all Training Package reviews there is always a need for further future enhancements. Government Skills Australia (GSA) - the Industry Skills Council for the Water Industry, has undertaken to address these identified areas for future research and development through their 'Continuous Improvement' of Training Packages process.

ALGT, the contracted Project Developers recently handed over the Final Draft reviewed Water Industry Training Package to Government Skills Australia. These documents are now being prepared for submission to the National Training Quality Council (NTQC) for final endorsement.

Final Draft Water Industry Training Package documents can now be viewed by visiting the Government Skills Australia website: <http://www.governmentskills.com.au/>

All future updates on the endorsement and implementation of the reviewed Water Industry Training Package will be communicated directly to Water Industry stakeholders by Government Skills Australia.

GSA have requested that ALGT forward the contact details of all Water Industry stakeholders involved in the review of the Water Industry Training Package in order to keep the industry updated on future Training Package developments. Should you wish to be removed from this mailing list to receive future updates from GSA, please email joan@algt.com.au

ALGT would like to take this opportunity to thank the Water Industry for their support and assistance over the past twelve months.

For further details contact:

Prue Madsen

Government Skills Australia

Email:

prue.madsen@governmentskills.com.au

Ph: 08 8410 3455

THE NATIONAL WATER INITIATIVE

At the time of printing the AHA has submitted a proposal under the National Water Initiative to develop national standards for water data qualities and definitions.

The concept of submitting a proposal was supported at the 26th AGM of the Association.

Within the short time frame following the AGM and Darwin conference, the Committee prepared a submission for the NWI which included some of the points outlined as follows:

Aims and Objectives:

- To develop a national standard for data parameter and data quality definition standards for the storage of the major water database information parameters of stream/water level, flow ratings, precipitation, water conductivity and water temperature.
- Identify and conceptually develop the tools/methods required to migrate data from state based water information systems into national and cross regional water management databases so that data used from within these final data sets is comparable in terms of data quality.

The proposal aligns itself strongly with the need for national standards for water data parameters and data quality required for consistent and comparative national water accounting and reporting requirements. This issue has been identified in other phases of the National Water Initiative

Water information database parameters and data quality application are not consistent among the lead agencies responsible for water management/water information database systems in Australia and this proposal aims to develop standards for primary water resource parameters and associated data qualities that will improve the ability to compare different modelling and analysis processes used for water resource management as the quality of the input data for these processes will be consistent.

If the proposal is successful it is expected that a nationally representative Working Committee will be established comprising technical representatives of consortium partners who manage and undertake hydrometric data collection, auditing, analysis, preparation and dissemination of hydrometric data collected by the representative agencies.

At this stage it is expected that the AHA will be advised of success or otherwise of the proposal in the New Year



Australian Hydrographers' Association Educational Grant

The Committee of the Australian Hydrographers' Association has instituted a number of awards/grants to encourage younger (and not so young) cadets and hydrographers to undertake studies in the Hydrography Certificate IV. This has been implemented in 2006 and the following information is provided to AHA members. AHA members are also encouraged to make their employers and others aware of this grant and that the Association wishes to support the development of cadetships and traineeships within the industry, this grant being one aspect of the Associations support.

Along with this Grant the committee has also instituted an Educational Travel Grant (closed end of April 2006) and the Committee is currently considering applicants for this Grant

The following describes the requirements and conditions for the Educational Grant.

PURPOSE

The purpose of the Educational Grant is to:

- promote the principle objective of the Association to further the development of the science of hydrography/field hydrology and its application to the understanding monitoring and management of Australia's water resources, and
- assist students undertaking the Hydrography Certificate IV (accredited under the Australian Qualifications Framework to undertake the final year Project (Subject 8004AA) as required in the course

THE GRANT

The Grant will be of a value of up to \$1000 to assist the students undertaking studies in the Hydrography Certificate IV to purchase material/equipment and services necessary to undertake the Project in the final year of the course.

CONDITIONS

- The recipient will supply an initial abstract paper and a final project paper for publication in the

Association's Journal "Australasian Hydrographer", and win advanced consideration for the right to present the Project paper (describing the work undertaken) at the Australian Hydrographers' Association Conference (at a future date) upon applying for the Conference Educational Travel Grant. (See previous section)

- The recipient will be a financial member of the Australian Hydrographers' Association.
- The recipient will normally be enrolled in the Hydrography Certificate IV (AQF).
- The recipient's project will have been approved by OTEN and/or the recipients employer as an appropriate project activity meeting the requirements of the Project (Subject 8004AA) in the Hydrography Certificate IV.
- Applications will include the approved Project proposal, a budget detailing other sources of financial/material support (for example from the employer/supervisor).
- Applications will be assessed by the Association's Committee who may invite advice from appropriately qualified people. The Committee may liaise with the employer where necessary. More than one grant may be awarded annually, at the Committee's discretion.
- The grant will take the form of a reimbursement to the awarded value, paid to the individual, or as a rebate to the employer that has initially covered the recipients costs incurred, after presentation of proof of purchase of items/services.
- Items purchased with the Grant will become the property of the recipient's institution/employer or in the case of a stand alone student, the student.
- Proof of purchase of the items/services must be supplied to the Treasurer prior to reimbursement if this grant is awarded.

Further information and application forms can be found on the Associations website at

www.aha.net.au

BUREAU OF METEOROLOGY RESOURCES ON THE WEB

www.bom.gov.au/hydro/wrsc

Home | About Us | Contacts | Help | Feedback

Australian Government
Bureau of Meteorology

SEARCH [input] [GO]

Global | Australia | NSW | Vic. | Qld | WA | SA | Tas. | ACT | NT | Ant.

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download catalogue (~1Mb) | database update log | provide station updates | agency contacts data on the web | drainage divisions & river basins | rainfall districts | place name search

Water Resources Station Catalogue - search

help | new search

select an area of interest

drainage division and/or river basin
rainfall district
closest stations to a point
user defined area

drainage division - (see map) and/or river basin

All divisions: No division assigned, 1 North-East Coast, 2 South-East Coast, 3 Tasmanian, 4 Murrey-Darling, 5 South Australian Gulf

All basins: No basin assigned, 101 Jacky Jack, 102 Olive-Pearce, 103 Lockhart Pools, 104 Stewart River, 105 Normanby

enter search criteria

station type: river, rain, evaporation

station name or id (use wildcards: ? *) [input]

river¹ (use wildcards: ? *) [input]

enter additional search criteria as required

elevation² (metres): minimum [input] maximum [input]

years of record: minimum [input] maximum [input]

station status: [dropdown]

observation interval²: [dropdown]

catchment area¹ (km²): minimum [input] maximum [input]

water quality data¹ available: [dropdown]

owner (entity responsible): [input]

¹ applies to river stations only
² applies to rain and evaporation stations only

display [20] stations per page

Users are deemed to have read and accepted the conditions of use.

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IFD Table | IFD Chart | Coefficients

www.bom.gov.au/hydro/flood

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National Flood Warning

Rainfall and River Information

[National Warnings Summary](#)

24 Hour - Rainfalls to 9PM 17/05/06 Local Time

- 100+ mm
- 50 to 99 mm
- 25 to 49 mm
- 10 to 24 mm
- 0 to 9 mm

(Updated 12:35PM AEST)

Display on Map:
[River Conditions](#)
[24 Hr Rainfalls](#)
[Last 1 Hr Rainfalls](#)

Zoom in to:
[Western Australia](#)
[Northern Territory](#)
[Queensland](#)
[South Australia](#)
[New South Wales](#)
[Victoria](#)
[Tasmania](#)

Map displays data from Bureau stations, and data made available to the Bureau by other agencies. This includes unchecked data from automatic equipment. Local time differences between States can mean data may not be plotted at exactly the time indicated. Refer to State maps for more precise information and further data links. ([Additional Notes](#))

Create an IFD

Enter coordinates using one method below, and then click submit.
Press Reset to try another.

1. Decimal degrees: Latitude, Longitude

OR

2. Easting, Northing, Zone

OR

3. Degrees, Minutes, Seconds
Latitude: S
Longitude: E

UNDER DEVELOPMENT

Membership Renewals

Membership renewal reminders were recently distributed to members, as well as to lapsed members, encouraging your continued participation in the activities of the Association.

Those who will have received them will notice that the hard work has been done for you and the information you last provided to the Association is already filled in!

Its as simple as correcting the information (if needed) and returning the form with your payment to:

The Treasurer
 Australian Hydrographers' Association
 14 Kosciusko St,
 Traralgon, Victoria 3844

Payment Options

The Association accepts payment of subscriptions by cheque, credit card and Electronic Funds Transfer. If you wish to debit from your account direct to the AHA account please email the treasurer to get our bank account details for EFT. (treasurer@aha.net.au)

Corporate Memberships

4 levels of Corporate Membership are offered as follows:

Corporate Membership Grade	Annual Cost	Included Membership
Bronze	\$500	1
Silver	\$1,000	6
Gold	\$1,500	12
Platinum	\$2,000	20

Main features of Australian Hydrographers' Association Membership (for both Individual and Corporate) include:

- Knowledge and information sharing amongst peers.
- Promotion and sponsorship opportunities at a biennial conference.
- Four journals, *Australasian Hydrographer*, per year.
- Association Website and peer group mailing list with discussion threads.
- Commitment to supporting continuing education of Hydrographers (Certificate IV Hydrography).

- Travel grant assistance scheme for student/cadet members to attend conferences.
- Educational grants.
- Job advertisement network to industry.
- Investing funds for educational support for hydrographic industry (Member of Industry Advisory Group).
- Supporting State based industry workshops.
- Access to and information about activities from other similar scientific and industry groups

Other Workshops/Conferences From Around the Region

New Zealand Hydrological Society, "Resource Management Under Stormy Skies: Water Allocation at the Crossroads. November 20-23, 2006. Christchurch, New Zealand. www.conference.canterbury.ac.nz/muss

30th Hydrology & Water Resources Symposium
 Hotel Grand Chancellor, Launceston, Tasmania, 4 - 7 December 2006. www.cdesign.com.au/hydrology2006

VANDALISM PROBLEMS!

(From Michael Lysaght)

The problem the hydrographic fraternity encounters from time to time with vandalism to gauging stations is truly a universal one.

This was the sight that one of our Thai hydrographic colleagues found when arriving recently at a rainfall station in the remote areas of Northern Thailand.



Picture is the remains of a Hydrological Services TB3 gauge in the enclosure. Two other locally manufactured Tipping Buckets were completely destroyed in the incident.

The following photo shows the damage inflicted by the 'vandals' to the TB3 components. The other TBRG's were completely destroyed.



Although the offenders were never caught, the prime suspect for this destruction can be seen below.

Please be on the lookout for this fellow and any of his colleagues!



Apparently, the sound of the continuous 'klunking' sound of tipping buckets sensing rainfall events, sends wild elephants into a destructive frenzy.

The only good news arising from the incident was that the TB3 base and bucket remained relatively unscathed with an 'as from field' bench calibration resulting in only a -5% error.

NEWS FROM HYDROLOGICAL SERVICES PTY LTD

Hydrological Services is pleased to announce the appointment of their new Business Development Manager, Mr Mike Lysaght.



Mike commenced with HS in early September 2006, following a 32 year career in the Hydrographic and Scientific Services groups of Sydney Water Corporation.

He brings a wealth of knowledge and experience to HS in the hydrographic measurement and monitoring areas and has

already renewed contacts with many of HS's clients in the Australasian Region.

If there is any matter Mike can help you with, please don't hesitate to make contact with him. His contact details are as follows:

Office: + 61 2 9601 2022
Mobile: 0418 163311
Email: mikel@hydrologicalservices.com

AHA Office Bearers and Contacts

Chairman, Bill Steen,
chairman@aha.net.au

Secretary, Michael Whiting
secretary@aha.net.au

Treasurer, Max Hayes
treasurer@aha.net.au

Publicity Officer, Mic Clayton
publicist@aha.net.au

Public Officer, John Skinner

State Reps:

Queensland: Ray Alford
e-mail ray.alford@dnr.qld.gov.au
Phone: (07) 5530 8693

New South Wales: Anthony Skinner
e-mail askinner@ecowise.com.au

Western Australia: Michael Whiting
e-mail secretary@aha.net.au
Phone: 0412 184 946

Victoria: Max Hayes
e-mail gippshydro@netspace.net.au
Phone: (03) 5174 2964

Tasmania: Stephen Buckland
e-mail stephen.buckland@hydro.com.au
Phone (03) 6230 5283

A.C.T.: Bill Steen
e-mail William.Steen@kisters.com.au
Phone: (02) 6292 1926

New Zealand: Martin Doyle
email martn@tdc.govt.nz
Phone 0064 3 544 3414

Articles, Items and comments for Australasian Hydrographer

The editor always welcomes papers and submissions for the Associations Journal, *Australasian Hydrographer*.

Many of you out there undoubtedly have projects that would be of interest to your colleagues so why not share a bit of information about them. You might also be able to instill feedback on aspects of your work that might help to improve it is what you are doing! Text submission are preferred in Word for easier import into the Journal.

Images of member activities are always of interest to others so forward them as well. Images are attributed to the submitter unless otherwise stated. A small description of what the image is showing would also be welcome. Better quality images make for better reproduction in the Journal.

Publication dates of the Journal are February, May, August and November of each year.

Submissions for the Journal can be forwarded to the Editor by email to publicist@aha.net.au



Department of Water
Government of Western Australia

Natural Resource Management Officer (Hydrography)

Recruitment Pool

- Water Resource Business Operations Division
- Level 1, 2, 3, 4 or 5 — \$16 052 - \$64 439 pa (PSGA 2006)
- Higher salaries, allowances and accommodation subsidies apply to positions in Karratha and Kununurra.
- Permanent or Fixed Term Contract Opportunities

LOCATION: Albany, Bunbury, Mandurah, Perth, Geraldton, Carnarvon, Karratha, Kununurra

JOB DESCRIPTION: We are seeking self-motivated people interested in working as Hydrographers with the Department of Water. Suitable applicants will be placed in a pool from which they will be considered for appointment as opportunities arise. **Currently there are vacancies in Albany, Bunbury, Mandurah, Perth, Karratha and Kununurra.** This appointment pool will operate for a period of 12 months. Please Note: acceptance into the pool does not guarantee a placement.

Hydrography provides an exciting opportunity for the outdoor minded to help measure and manage Western Australia's surface and groundwater resources. Experienced and career start positions are available in the Department of Water in most regions across the State.

Successful applicants will be required to focus on hydrographic and water resource monitoring functions to understand the behaviour of water catchments during the seasons and their reaction to land use activities.

SELECTION CRITERIA: Please refer to job application kit. The selection criteria for each level varies, hence applicants applying for more than one level, **must address the criteria for each level separately**, but still only submit **one** application. You must also **indicate the locations** you are prepared to work.

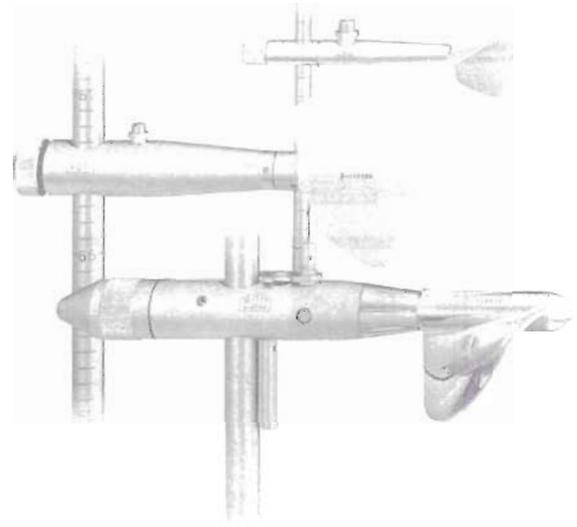
Contact: FOR JOB RELATED INFORMATION: Please contact Mr Greg May on (08) 6364 7486. (Not to be contacted for Application Kits).

JOB APPLICATION PACKAGES: Full details of this position and requirements for application may be obtained from the Department of Water's Recruitment Website. That site is currently administered by our recruitment provider, Ross (formerly Verossity) at [here](http://www.ross.com.au). NB Jobs advertised by Ross, on behalf of the Department of Water, are only listed on this site, and not on Ross' Home Web Site. Alternatively you can request an application kit via email using water@rosshumandirections.com email address, and placing 'NRMO Pool Request' in the subject heading for an outline of the position (NB. Email responses are automated) or by telephoning Ross (08) 9215 7212 (24 hour answering service) quoting the above Position Number. Please refer any queries regarding the application process to Vicki Sekulovski at Ross on (08) 9215 7245 (Not to be contacted for Application Kits).

CLOSING DATE: 5pm, Monday 8 January 2007.



Instruments you know and trust.



For more than 130 years, OTT has been the world leader in hydrological instruments and systems. OTT offers a broad line of instruments for surface water and groundwater level measurement.



For more than 35 years, Hydrolab has designed and manufactured multi-parameter sondes for water quality monitoring in the environment. At the heart of Hydrolab instruments is our superior sensor technology, which ensures that the important data you collect is solid, reliable, and dependable. In addition, our sensors are built to last, so your total cost of ownership is ultimately the lowest in the industry.



For the last 10 years, Diver Data Loggers have become an industry standard in the measurement of water level and salinity in groundwater and surface water applications. The pressure transducer, temperature sensor, salinity sensor, data logger and battery are integrated into a single robust device.



Sigma are a worldwide leader in the design and manufacture of innovative automatic water samplers, flow meters, and rain quality instruments, communication products and data management software. Providing the most convenient, comprehensive water monitoring solutions in the market. With more than 75 years of combined experience and cutting-edge technology, Sigma products are known for consistently delivering accurate data with a minimum of operator field time.

Aqualab Scientific Pty Ltd
ABN 44 060 445 829

t 02 9894 4511
f 02 9894 4522
e sales@aqualab.com.au
w www.aqualab.com.au



FLOOD GAUGING MADE SAFER & EASIER USING THE HORNET PLUS

HS is proud to introduce the latest and most advanced technology for cableway flood flow measurement.

What is the Hornet Plus?

The Hornet Plus has been developed to perform high flow stream discharge measurements from fixed cableways using either conventional Columbus Type Gauging Weights/Mechanical Type Current Meters OR Acoustic Doppler Current Profiler (ADCP). The Hornet Plus is an ideal solution for retro fitting to existing manned or unmanned cableway systems, thus minimising OH&S risk associated with flood gauging.



VERSATILE



EASY TO USE



SPEED CONTROL



WIRELESS UP TO (1) KM



PORTABLE

Why the Hornet Plus?

- Minimise OH&S risk
- Minimal Maintenance
- User Friendly
- Wireless
- Portable
- Auto correction of horizontal distance
- Auto correction of air/wet line
- Lifting Capacity up to 135 kg
- Depth Measurement resolution 0.01m or 0.01ft
- Built in signal processor for mechanical Current Meters



Senses air line angle and auto-corrects measured depth



Senses cableway sag angle and auto-corrects horizontal chainage