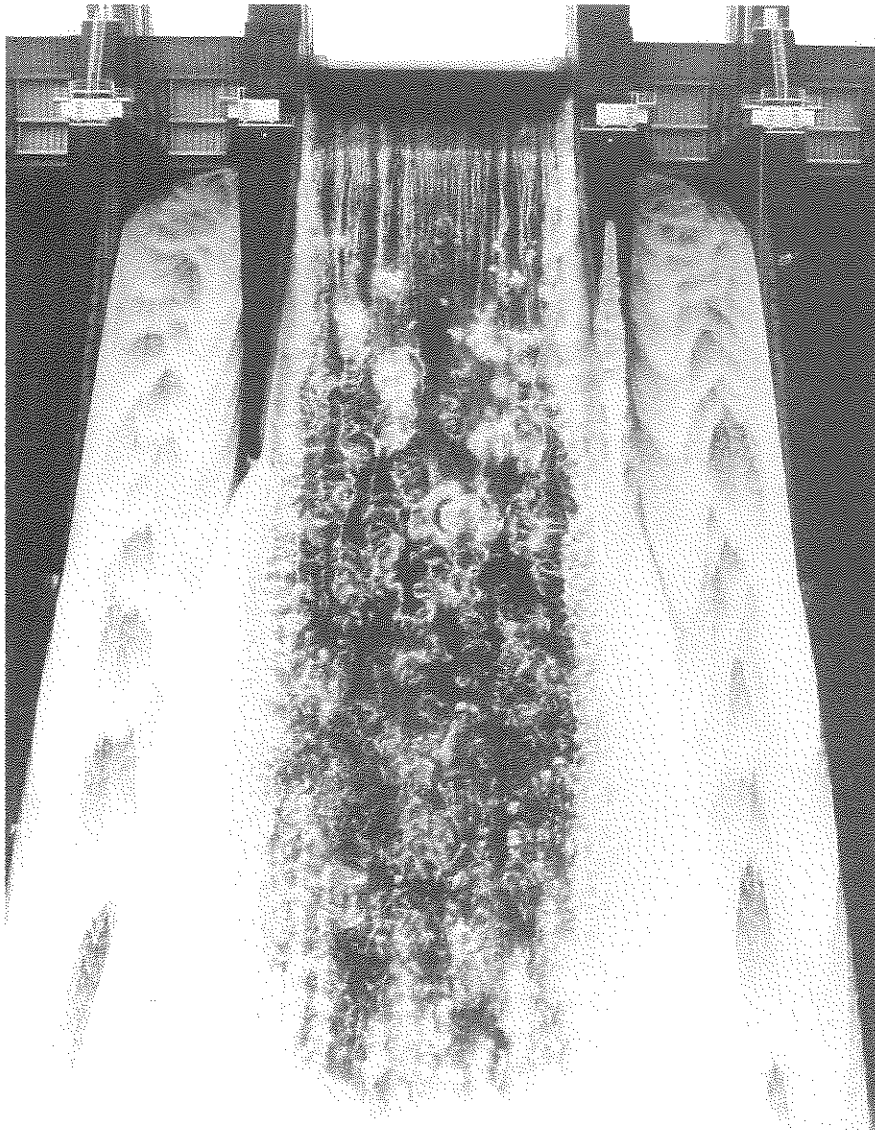


AUSTRALIAN HYDROGRAPHERS ASSOCIATION

Australian Hydrographer



Warragamba Dam Spilling 1986 Pre Auxiliary Spillway, Photo. © R. M. Clayton



August 2002
Volume 6, Number 7

EDITORIAL

Welcome to the August, 2002 edition of our quarterly newsletter.

Recently our Association held its 11th Hydrographic Conference after a period of some years rest from such forums for our profession. The Annual General meeting was also held at this conference and minutes from the meeting are contained in this edition.

The annual HUG meeting was also incorporated in the conference and participants were enlightened as to the direction the new monolith known as HYDSTRA was intending to take us.

The Conference dinner saw the inaugural presentation of the Alex Miller Award by Gloria Miller to David Williams after his enlightening presentation on monitoring technologies (for want of a better word) in the Northern Territory.

Inside the front cover is your membership standing (from our records). While the Association is fairly relaxed about delays in owed dues it does impact on the ability of the finances to deliver newsletters and information to its members. Please attend to your overdue subs by completing the Renewal form on the back page and sending it to the address indicated.

It was great to see an enthusiasm bubbling away under the surface of many participants at the conference and a willingness to share ideas and discuss 'business' issues amongst one another. Lets keep it up! (Perhaps the 'new age enthusiasm' can bubble into inputs for the newsletter and Journal, guys and girls!)

Mic Clayton

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The **Australasian Hydrographer** is the Journal of the **Australian Hydrographers' Association Incorporated**. The Journal is distributed quarterly to Members

Visit our **Web Site** at:

<http://www.austhydro.tascom.net>
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.

e - mail michaelc@tassie.net.au or PO Box 690, KINGSTON Tasmania, 7051.

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Australian Hydrographers' Association Incorporated.

ANNUAL GENERAL MEETING

WEDNESDAY 3RD OF JULY 2002

BENTLEY FORUM, NOVOTEL HOMEBUSH BAY SYDNEY

17:30 Annual General Meeting convened

Item 1. Attendees and Apologies

Present: Mic Clayton, Andy Cumming, John Skinner, Cameron Hall, Gary Newton, Graham Armstrong, Sean Murphy, Kieren Bennetts, Mick Travers, Peter Stephens, Col Farrawell, Paul Martin, Scott May, Simon Cowan, Stephen Buckland, Peter Mora, Andrew Kaar, Paul Langshaw, Mike Lysaght, Colin Rudd, Tracy Rudd, Nathan Rugless, Scott Walker, Simon Cruickshank, David Williams, Paul Corbett, Keith McFadden, Andrew Pearce, Adam Wiggins, Graham Elley, John Fenwick, Brian Chester, Brian Keech, Mark Harvey, Les Marshall, Jim Tilley, Brad Jarrett, Barry Morrison, Max Hayes, Michael Whiting, Robin Leaney, Bill Barratt, Bill Steen, Paul Sheahan, Steve Bird, Fay Edden, Andrew Maughan, Jeff Watson.

Apologies: Tony Polchleb, Don Alexander,

Item 2: Minutes from the last meeting

Read by Les Marshall Acting / Acting / Chairperson for Don Alexander Acting / Chairperson
The minutes were accepted.

Item 3. Treasurers Report

Max Hayes presented the treasurers report.

This was accepted.

Item 4. Dissolution of the AHA committee and positions declared vacant

Item 5:L Election of AHA Committee members

Nominations for Chairperson:

One nomination only Les Marshall
Les Marshall elected

Nominations for Treasurer:

One nomination only Max Hayes
Max Hayes elected

Nominations for Secretary:

One nomination only Scott Walker
Scott Walker elected

Nominations for Publicity Officer:

One nomination only Mic Clayton
Mic Clayton elected

Nominations for Public Officer

One Nomination only John Skinner
John Skinner elected

Nominations for Committee Members

Jim Tilley
Michael Lysaght
Michael Whiting
All elected to committee

Item 6: State Representatives.

Status Quo of majority of state reps maintained with the exception of Fay Edden representing New South Wales and Singapore.

Item 7: Institutionalisation Sub-Committee

Disbanded.

Item 8: Training Sub-Committee dissolved and vacant positions refilled by election.

Members are; John Skinner, Paul Langshaw, Paul Corbett, Don Alexander, Dave Williams, Alex Springall, Nathan Rugless and Greg May.

Members of this sub committee are expected to convene themselves.

New Business

Item 9: Corporate Membership

Mike Whiting Addressed concerns that corporations needed to be convinced of the benefits of corporate membership. No hard copy of the AHA policy on this could be found.

Scott Walker indicated he would address this with an article in the next AHA newsletter. (Seconded by Les Marshal)

Item 10: Possible Association Name Change.

Paul Martin raised the identity / exclusionist problem that the word Hydrographer's in AHA may be having on potential members. Several alternatives were discussed.

Mic Clayton put forward the motion that a discussion on possible alternatives or keeping the same would be in the next AHA newsletter with a possible ballot in a following issue. (Seconded by Jim Tilly.)

Motion carried. (one against Paul Corbett on the grounds of identity loss)

Item 11: Station Numbering

Mike Matheson raised the issue with duplicate site numbers being issued to different sites amongst Hydrographic bodies around Australia.

After discussion no outcome resulted. Problem ongoing. However this will need to be addressed as it is perceived that the Internet and other data transferring arrangements will only highlight this problem more in the future

Item 12: Newsletter Input.

Mic Clayton asked for input from all members to the newsletter

Les Marshall indicated that State reps had extra responsibility to provide input.

Item 13: Next AHA Conference / AGM

Conference:

Mike Lysaght informed the meeting that Don Alexander indicated that Natural Resources and Mines (QLD) would look into the possibility of hosting the next conference. Mike asked if the AHA conferences should be annually or biennially.

Les Marshall put it to a vote to the members.

Biennial was the overwhelming result.

Mark Harvey also indicated that South Australia may be interested in hosting the next conference if the Queensland option fell through.

A theme for the next conference would be sought from membership via the newsletter.

Holding the conference in conjunction with a Hydrology symposium was raised from the floor.

The conference organisation sub-committee would look into this.

Once the venue was determined then a conference organisation sub-committee would be convened through the auspices of the AHA committee, with input and help from past convenors.

Next Annual General Meeting

The next AGM would be held in conjunction with the next HUG/Time studio conference.

Bill Steen indicated that this would probably be held in Canberra or Hobart. This was yet to be determined and HYDSTRA would inform members through their own newsletter and hence so too would the AHA.

18:50 Meeting Closed

20 Questions with Justin Stockley

Justin Stockley who works for Greenspan in Singapore as the Projects Manager. He's been working as a Hydrographer for over 6 years and is best described as a 'great bloke'.

What was your first job?

First paying job was dishwasher at Kamagowa's Japanese Restaurant Sydney.....chefs used to make me bootloads of chicken terriyaki

Why did you pick it?

Was at uni and needed extra cash to buy.....uhm text books!

What drew you to your present position?

An ad promising abseiling down manholes.....sucker hey!

What is the favourite part of your current job?

Seeing sweet data

What is the strangest thing you have been asked to do for/at work?

Surreptiously ate an ice cream in the walk in freezer when I was working in Perishables Section at Woolies.....well my boss never did ask me to do that! Actually, I have a cracker.....to ring the Singapore police because a python was curled up on a sewer flow logger in a manhole!! He escaped from the hole only to climb the tripod!!

Pastimes and hobbies?

Currently fish keeping & orchid tending.....hey in tropical climates the things just grow!!!

What are you reading?

Just reread Great Stink of London.....guy called Bazalgette who designed the intercepting sewers in London which cleaned up the Thames. Next book lined up is Lemony Snicket children's book, "Series of Unfortunate Events", followed by Rugby's Strangest Tales. While we are on this topic.....Philip Pulman's "His Dark Materials" is due for a reread, absolute classic.

Favourite Music?

Music from "The Piano" at home, Linkin Park on the way to site

Favourite Website?

internet banking site.....tres boring I know but what can I say, I haven't been inside a bank for two years now and that I like!

Where do you see our industry in say 5 years from now?

Very busy!! Weren't we supposed to be getting around on hover cars by now ala the Jetsons?

How can participation of younger members be encouraged in our Association?

Print up glossy brochures of "abseiling" down manholes, brown water rafting & helicopter runs in the catchment.....send to schools and have a defined training/higher education programme set out.

If you could achieve one thing in your lifetime what would it be?

For there never to be a sewer overflow again.....uhm, lets go with world peace hey

Name three people you would like to invite to dinner?

Toulouse Lautrec, Joseph Bazalgette and Rodney Rude

Your favourite beverage?

Apple mixed with carrot juice by day, 3in1 coffee mix by night

Your ideal weekend consists of....

hangovers.....plenty of hangovers

How do you balance your work and private life?

With extreme ease since I enjoy my job.....hmm, does not make too much sense but my only experience with difficulty getting 'balance' is when I was not happy at a job. Still don't make sense.....

Your greatest asset?

I am actually very interested in sewers! Hmmm, certifiable yes!

Your greatest liability?

Breaking bones whilst playing rugby on overseas assignment.....

What is the best thing about your job?

At the moment it is complete freedom to perform

What is the worst thing about your job?

At the moment it is nowhere to point the finger when things go pear shaped.

15 minutes of Fame?

It doesn't take long to get a bit of fame. Just submit some answers to '20 Questions with.....' to get yours. Send your submissions to the editor for inclusion in future editions of the Journal.

Member List, State by State, Country by Country

(Financial status of your membership is marked inside the front cover of this edition. Due subscriptions are also indicated on this label. Could those members who are labelled as overdue please consider renewing their membership as soon as possible. As for those marked 2002, the end is nigh so prompt renewal of membership would be appreciated. Ed)

ACT

Kieren
Andy
Bryan
Cameron
Sean
Garry
John
Bill

BENNETTS
CUMMING
HALL
HALL
MURPHY
NEWTON
SKINNER
STEEN

Hong Kong

Anna

LEE

NSW

Juanita
Graham
Bill
Phil
Richard
Dennis
Paul
John
Alan
Daniel
Lloyd
John
Bob
Peter
HYDROLOGICAL SERVICES P/L
Barry
Paul
Kevin
Micheal
Keith
Reg
Kris
Adam
Alex
Deborah

AMORA
ARMSTRONG
BARRATT
BOREHAM
BROWN
BURT
CORBETT
DAWSON
GARDNER
HALSE
HARRIS
HAYES
HENDERSON
HYDE
LAING
LANGSHAW
LEWIS
LYSAGHT
McFADDEN
McGUFFICKE
McLEAN
Merhab
MILLER
O'BRIEN

NSW Cont

Brian
Anthony
Tracy
Jim
David
Alex
Jim
Jason
Scott
Robert
Debra
Leon
Adam
Alfred
Mark

PEARSON
POLCHLEB
RUDD
SEAMAN
SMITH
SPRINGALL
TILLEY
VENABLES
WALKER
WATSON
WATSON
WHITTINGSTALL
WIGGINS
WOJCIK
WOLF

NT

Colin J
Robert
Rob
Department of Land Environment & Planning

BEARD
MASTERS
ROOS

NZ

Martin
Dave
Scott Technical Instruments Ltd
John

DOYLE
JOHNSTONE
YOUNG

QLD

Don
Ray
David
Arran
Philip

ALEXANDER
ALFORD
AMOS
CORBETT
FRAYNE

**QLD
Cont**

Brian
Paul
Ray
Jim
Orm
Con
Geoff
Jeffrey
Tony
Ian
Paul

KEECH
MARTIN
MAYNARD
MOBBS
O'REILLY
PESHKOFF
POCOCK
SMITH
SPANDLER
WALLACE
WEBB

SA

Andrew
Phil
Pat
Mike
Timothy
Chris
Chris
Greg
Bruce
Bruce
Simon
Peter

SKINNER
ASHWORTH
BETHAM
BLACKWOOD
BURGE
DALGLEISH
IWANICKI
JONES
MURDOCH
NICHOLSON
REYNOLDS
STACE

Singapore

Faye

EDDEN

TAS

Stephen
Mic
Peter
Mark
Les

BUCKLAND
CLAYTON
HARDING
JOHNSTON
MARSHALL

Victoria

Brent
Ernie
Max

BELL
GEREDY
HAYES

VIC Cont

Micheal
Shane
Mike
Gavin
Noel
Geoff
David
WATER ECOSCIENCE PTY LTD
Kevin
Michael
Jacquie
Russell

MANN
McKENZIE
PAPWORTH
RYAN
SCAMBLER
SMITH
VILE
DAVIDSON
MATHESON
BELLHOUSE
MARKS

WA

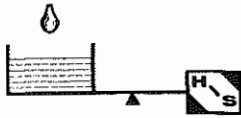
Brian
Frank
Allan J
Bill
C.J.
Alison
Andrew
Greg
Ken
Stephen
Paul
Ian
Michael

Water and Rivers
Commission
CHESTER
DAVIES
DEANE
FOWLIE
GILBERT
MARTIN
MAUGHAN
MAY
McINTOSH
ORR
ROSAIR
TITE
WHITING

Membership Issues

The above list is the most current I have in my hands. Please forward renewals with a Renewal of Membership form to the address listed on the form - along with your fees of course.

Could you also please advise the secretary and/or publicity officer of any change of address, change of email address, employee and so on, so that we can get newsletters and the like to the right locations!



HYDROLOGICAL SERVICES PTY LTD
SYDNEY, AUSTRALIA

ISO
9001

HYDROMATE
FIELD COMPUTER

Software:

- Direct Reading Velocity
- Discharge Measurement & Storage
- RRDL3-Storage Set Up, Download and Store 10 Logger Memories.
- Tipping Bucket Rainguage Calibration
- Surveying
- Custom Packages

Hardware:

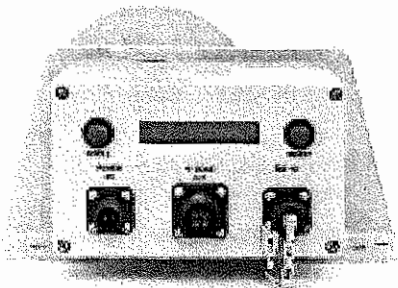
- Touch Screen Control
- Replaces Laptop Computers In The Field
- RS232 Interface
- High Temperature LCD Touch Screen
 -20°C To +70°C
- Rechargeable Batteries



(SHAFT ENCODER)
MODEL AD375A

OUTPUT SIGNALS

- 4-20mA, SDI-12, RS232
- Programable LCD
 Time, Date, Level Reading,
 Resolution, Range
- Takes standard float kits
- Digitises water level readings
- Robust Construction
- Lithium battery backup



(PRESSURE TRANSDUCER)
MODEL WL3100



- High Accuracy +/- 0.02% F.S
- Output Signal
 4-20 mA, SDI-12, RS232
- Programable LCD
 Time, Date, Level Reading,
 Resolution, Range
- Back light Powered Via SDI-12
 Connection
- Digitally Compensated for non-
 linearity and Temperature
- Pre-Calibrated Sensor
- Digitises output signal

Visit our website: www.hydrologicalservices.com

Corporate Membership

Corporate Membership of AHA includes the following "benefits"

- Free full page ad in the quarterly Journal
- Free quarter page ad in the monthly newsletter (mainly due to space requirements)
- Free page and links on our web site.
- Use of our name in a manner of the form "All of our hydrographers are members of the AHA" when advertising/tendering etc.

The committee is currently looking at other aspects of improving the 'benefits' of corporate membership and this shall be publicised and discussed once the committee has discussed the merits and ramifications of a number of issues and after input from members.

Movers and Shakers

Career changes in our industry that have recently occurred (not necessarily current members Ed), just so you can keep up with your mates or not so mates!

John Dawson - Currumbene into Ecowise.

Sean Murphy - SMEAH to Ecowise

Anthony Skinner - ADS to Ecowise

Mic Clayton - DPIWE to SnowyHydro

Glen Murphy - Consultant to Ecowise

Steve Swanbury - Consultant to Ecowise

Les Marshall - LKM to DWLBC

If anyone knows of personnel movements, or the whereabouts of old colleagues please drop me a line so they can be included in Movers and Shakers. (Of course some of our old colleagues may not want to be found!)

HUG Gossip

The annual HYDSYS (or is it now HYDSTRA) Users Group meeting was held in conjunction with the AHA Conference.

A number of presentations were made at the meeting including items on HYDSYS and Time Studio Telemetry, as well as an informative presentation by Stephen Buckland on the PSION based applications HYDRO Tas are developing for stream gauging programs and equipment tracking programs.

Presentations were based on Power Point so are unavailable for inclusion in the Journal format but they can be accessed and downloaded from the HYDSTRA website at:

www.hydstra.com.au

Publicising Your Data on the Web.

Have a look at how some of our members and their employers are getting data onto the web.

Time Studio Based:

Tassie: www.wired.dpiwe.tas.gov.au

HYDSYS Based

WA

www.wrc.wa.gov.au/waterinf/telem/contents.html

Who Knows What Based

Australia Wide: www.bom.gov.au

(Any one else want to brag about their data on the web - let me know, Ed)

Book Review

The Waterbug Book

Authors: Gooderham & Tsyrlin

CSIRO Publishing, 2002. RRP \$39.95

While most of us spend a lot of time literally working in the aquatic environment, one must remember that while we are in the water, we are also intruding in the home environment of many animals. It may surprise some of our profession that there is more than trout or carp in the water that we measure!

This recently released book describes freshwater Macroinvertebrates of Temperate Australia, in a more friendly manner than normally boffin oriented books on similar subjects.

While we might think that water quality parameters such as conductivity and turbidity are indicators of river health it is important to realise that the monitoring of these creatures is also an important tool in the overall determination of the health of our waterways.

With plenty of excellent quality photographs and clear, easy to understand narrative for each group described, the book discusses many aspects of the smaller minions of the freshwater aquatic environment.

Points discussed include how the design of fishing lures has been based on these small animals through to the edibility of various freshwater crustaceans over and above yabbies

and the like - how about water beetles trussed with grass roasted on slow coals or live freshwater shrimp in clear soup? The authors have even conducted blind taste testing of different families of caddis fly adults to see if they could be identified by taste but found that antenna and long wings were a choking hazard!!

Then there are sections on animals more relevant to humans and what they do - leeches, that love hydrographers blood, and aquatic snails that, without their consent, act as a vectors for fluke worms. Liver fluke worms use species of aquatic snails as hosts to enable proliferation of their species which in turn infect sheep and native animals growing in internal organs of these animals.

While not a strictly hydrographic book, many of our profession are either involved in sampling programs or becoming increasingly involved in project based teams defining stream health and condition. Having an understanding of what the ecologists, even your common everyday Water Watch group, are looking at in their specimen trays and understanding that different stream conditions define the type and variety of the 'waterbugs' might improve the delivery of monitoring programs undertaken.

To have just a bit more understanding and knowledge of this environment in relation to the work we do can only be beneficial to the individual and to the profession of hydrography.

Bureau of Meteorology



ACCESS THE BUREAU WEB SITE AT: www.bom.gov.au

A wide range of climate related data, information and products are available.

Of Particular interest to people in the water industry are:

- **Real time rainfall and river height data**
- **Climate averages in map and graph form**
- **National catalogues of river stations**
- **Drainage divisions and river basin boundaries**

Features currently under development include:

- **National catalogue of rainfall station**
- **National evapotranspiration maps**

The Bureau of Meteorology's Hydrology Program would like to thank the Hydrographic and data management groups in all States and Territory water agencies for their support over the years. Data and information have been provided for many projects, including:

- **Gobal Runoff Data Centre sponsored by WMO**
- **UNESCO Asian Pacific Friend Project**
- **Stream Gauging Information, Australia**
- **Flood warning system development and operation**
- **Rainman Streamflow Project**

To Be or Not To Be

Publicity Officer, Mic Clayton

At the Annual General Meeting the issue was raised as to the name of the Association being exclusionist and might be deterring potential membership (Paul Martin).

A number of different views and opinions were expressed discussing arguments for and against the name change including the fear of loss of identity if an attempt was made to go for a name that was too general. (Paul Corbett).

All sides of the discussion raised valid points and some of the alternatives that were raised included terms that were the position descriptions from many organisations in the industry. Another side was that the word Hydrographic tended to infer maritime activities. (As I sit here typing this I am looking at an oceanographic chart compiled 'under the superintendence of Captain J.H.S Osborn, Hydrographer, R.A.N.'!)

One alternative title for our profession the editor has seen recently was Hydrologicalmagicians!

It was decided to raise the issue via the newsletter for discussion and consideration amongst our members. It is requested that possible suggestions, if any, for a name change, with supporting reasoning can be made to the AHA committee, with intention to publicise alternative views or maintain the status quo through this newsletter and our web site as to what options are being mooted. Once submissions had been received the committee would then decide on the merits of a ballot if required.

On perusing the Constitution (available on our web site) it should be noted that the constitution does not restrict membership to

hydrographers (unlike many other professional organisations who restrict membership based on qualifications and fields of work), but rather it states:

4. Membership

4.1 Eligibility

a. *Any person working either full time in the water resources industry may apply for admittance as a Member of the Association*

In sections 2 and 3 of the Constitution there is an emphasis on Hydrographers and Hydrometric aspects of the work members are generally employed in, but the sections also refer to 'support staff' which infers that you don't have to be a hydrographer to be a member!

Maybe it is up to existing members to also encourage new members to join, pointing out that membership is not restrictive and diversity is welcome.

In the meantime, could you please forward your suggestions and supporting discussions to the Secretary, Scott or myself for compilation and publication in future newsletters and on the web prior to a decision being made on whether to conduct a ballot on a name change.

Office Bearers and Contacts

Chairman, Les Marshall

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Secretary, Scott Walker

Scott.Walker@sydneywater.com.au

Treasurer, Max Hayes

gipps-hydro@i-o.net.au

Publicity Officer, Mic Clayton

michaelc@tassie.net.au

Web Site: <http://www.austhydro.tascom.net>

Time Studio + HYDSYS = HYDSTRA

At the conference a number of people asked me for a copy of a comparison I did of the Time Studio and HYDSYS systems for my major project for my Uni degree at Deakin in 1999. Participants in the user survey that formed part of this project would have received a copy of the survey results. Others have not seen this, so it is presented in the following pages. The extract presented is a summary of the survey results as presented in the final paper. Appendix C referred to in this extract contains a large volume of detailed graphical presentation of survey results so is not presented here.

While the results pertain to Hydrol 3.6 and Hydsys V7, many of the products features still exist or don't exist as discussed in the survey. The survey also gives the our profession a good idea of user profiles and how some of our members are utilising features of the softwares. Perhaps the new HYDSTRA can address these issues ass they merge their products!

4.2 Survey Results

A summary of the majority of survey results is presented here. A more detailed presentation of survey responses appears in Appendix C.

4.2.1 Population and sample size

Table 4.5 Survey distribution and return.

Estimated population size	400 - 500
Surveys Distributed (Known)	180
Surveys returned	51
Return Rate	28.3%

Table 4.6 Breakdown of survey distribution and return by user category.

User Type	Surveys Sent	% Total Users Survey Sent	Surveys Returned	% Total Users Survey Return
HYDSYS Users	128	71%	36	71%
HYDROL Users	52	29%	15	29%

A greater proportion of surveys were received from HYDSYS users by virtue of a greater user base. The proportion of responses returned from the two groups was parallel with the proportion of surveys sent.

4.2.2 User Profile (Survey Question 1d and 1e)

The greatest proportion of respondents came from water industry occupations with about 65% of users being hydrographers or hydrologists.

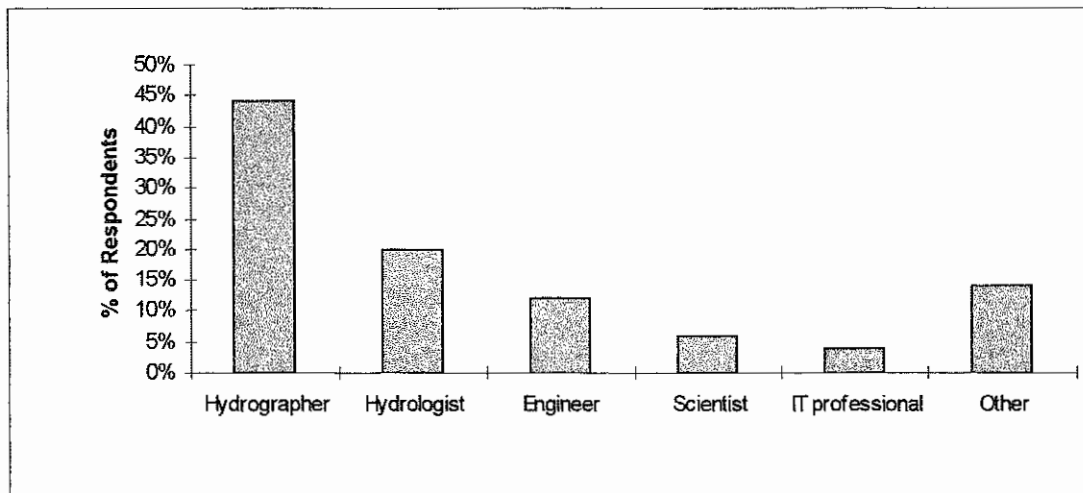


Figure 4.9 Overall proportion of respondents by occupation

The greatest proportion of HYDROL users were hydrologists (approx 35%) while the greatest proportion of HYDSYS users tended to be hydrographers (approx 50%). (See Appendix C)

HYDSYS respondents tended to have a longer 'acquaintance' with their software, 60% having greater than five years experience with that software. On the other hand their HYDROL counterparts had the greater proportion, 80%, of respondents having less than five years experience with their software. (See Appendix C)

4.2.3 Software Usage (Survey Question 1c and 1g)

Module Usage indicated that a greater proportion of HYDSYS users utilised the Time Series Data Management modules of the software than HYDROL users (100% versus 80%) but in the other modules (particularly Telemetry, Water Quality and Modelling modules) HYDROL users utilised the modules in a greater proportion than HYDSYS users.

Groundwater module usage was relatively low compared to the other modules (less than 20% of respondents). (Groundwater specific module a feature of HYDSYS)

The main type of use of the softwares was for routine data collection and management, simple data extraction and reporting and complex data extraction and analysis (70% to 80% of respondents).

Data modelling and Real time data activities had relatively low usage (15% to 30% of respondents).

Refer to Appendix C for detailed data.

4.2.4 Software Functionality (Survey Question 1h)

Distribution analysis of the rating of functionality of the softwares showed that most respondents tended to rate functionality of many aspects of the softwares in the good to average range.

It must be noted that in the real time data collection (ie telemetry) functions there was a particularly high No Response rate (approximately 40%). This high figure is attributable to the a high No Response from HYDSYS users (almost %50 amongst HYDSYS respondents).

Refer to Appendix C for detailed response data.

4.2.5 User comments on features lacking or improvements to the software (Survey Question 1I and 2h)

Full details of responses are listed in Appendix C and have been divided into HYDSYS and HYDROL user groups.

Repetitive themes in the responses were:

- HYDROL - strong dissatisfaction with water quality data input and output development
- HYDROL - lack of electronic outputs, standard outputs could only be hardcopied out of the system
- HYDROL - poor design of form fields
- HYDROL - reliance on MS Access to retrieve the required results where it was felt that HYDROL should have been better designed to obviate the need to use a secondary package
- HYDROL - improvements in mass data inputs desired to replace manual data entry
- HYDSYS - Integration with Oracle, SQL etc
- HYDSYS - Inconsistent screen presentation, mix of DOS and Windows
- HYDSYS - Crude report formatting (one user wanted formatting similar to HYDROL!)

4.2.6 Data and Information Access and Dissemination (Survey Questions 2a and 2d)

The majority of both HYDROL and HYDSYS users distributed data by hard copy or computer files (>80% of respondents). The use of other media was substantially lower (CD ROM and World Wide Web - approximately 30% each)

4.2.7 Standard Export Facilities (Survey Question 2c)

HYDROL received criticism for lack of computer text file outputs for its analysis routines. Respondents indicated that they had to export data sets from the time series data set to Excel or similar where they then undertook the analysis that HYDROL could do but couldn't export electronically.

Generally data exports were considered adequate in both packages.

4.2.8 Non Professional User Access (Survey Questions 2e, 2f and 2g)

There was a strong negative response to the user friendliness of either of the systems with 80% of respondents indicating that the systems were not user friendly enough for non-professional/occasional users.

A desire to improve the user friendliness of the systems to cater for these users was generally positive though not as strong as for the previous negative response with only 60% of respondents indicating improvements would be welcome in this field.

Some of the negative respondents indicated that it was not the public's right to have access to the data bases.

Improvements that were highlighted were:

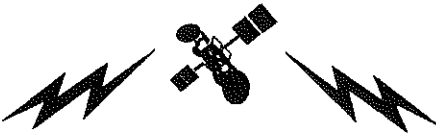
- More intuitive 'point and shoot' mapping facilities and data forms
- A need for improved world wide web tools for easier export of information to the web.

The following extract from the paper details individual responses from Appendix C.

ii) What features of the software you use do you feel are lacking or could be improved? (These comments are generally direct transcripts from electronic responses and written responses. Where necessary they have been edited to preserve anonymity.)

HYDROL Users

- Graphical presentation of results and exporting these for use in Word documents.
- Ability to edit graphical outputs is poor
- Saving of data analyses and reports in electronic format outside of HYDROL is non-existent
- Multiple rating reviews and editing is poor
- The size of form fields be increased to see all details. There are some small improvements which will improve on the version we are running but these are due out in the next version soon. An example would be the Time match function outputting both variables. We e-mail HEC when we find things to improve and they usually make changes for us.
- Help prompts. Currently use MS Access to interrogate water quality sample data from HYDROL as trying to extract multiple parameter/multiple site data is impossible using HYDROL forms
- Better way of inputting and extracting water quality data, especially for more than one site/time.
- Bigger screens so you could see more than six or seven parameters at a time.
- Feel that Hydrol is a time series management package and water quality is just another add on so needs major work. Need to be able to input depth profiles.
- Manual data entry mechanisms for samples is poor. Require a much better interface for entry and editing (currently can only see the first 5 results of a sample. Would like a bulk load facility for samples.
- Want better reporting of results from the TSM and relational database when a time match function is used to match time series data with samples data. Want to match on the date and time of a sample. Presently the match is on the parameter (which is fine, but potentially not all samples of interest measure the same parameters making it difficult to form the match. The reporting of matched results needs to include results from both archives (i.e. the samples result with the matched time series result). Presently, although the match is formed correctly, only the result from the time series archive is reported.
- Can't retrieve results based on dataset. – I presently use MS Access to do this, and probably will continue to do so irrespective of future developments because I often want to apply different treatments to results depending on whether they are preceded by the following symbols (<, >, ?) MS access produces a great crosstab report which lays out in tabular format results for multiple locations and parameters. I should point out that this is only possible because of the way we have



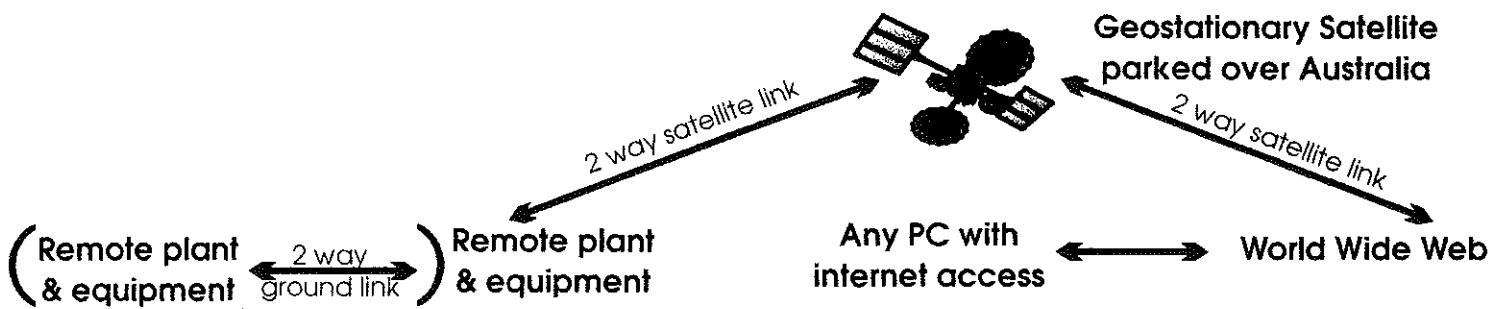
Satelemetry

Satelemetry is affordable satellite telemetry with starting prices from \$9,000 & \$60/month operating costs.

The Satelemetry terminal is tiny, about half the size of a VHS video cassette, and has an inbuilt GPS receiver. The terminal is fully sealed including the internal antennas.

Satelemetry is a low data rate, low cost scada (supervisory control & data acquisition) system for tracking, monitoring & controlling remote plant & equipment.

In fixed plant applications the Satelemetry system can be interfaced to short haul terrestrial radio. These ground links can expand the reach of a single satellite terminal to anything within a 100 km radius.



Suitable applications for satelemetry are;

- River, pipeline & bore pump monitoring. Combined with 2 proximal, radio licence ground links, satellite terminals at 10 km intervals provide a cost effective wireless alternative to cabling.
- Vehicle tracking, control & monitoring. Satelemetry is third generation mass produced technology that costs a fraction of traditional satellite based systems. The Satelemetry terminal can monitor refrigerated truck temperatures, check aircraft cabin pressurisation or vital engine parameters & can even provide limited messaging from an internet PC.
- Satelemetry is ideal for isolated environmental monitoring where cell phone or trunked radio services are unavailable.

What can't Satelemetry do? The system is unsuitable to any high data rate application making it inappropriate for web camera situations or any long term, real time demanding scada task (access plans vary from 40 to 720 messages per month)

McClean Automation

Ph 0245796365 Fax 0245796942 Web www.acav.com.au/~kmclean

set up our parameters table. With respect to this, we code our parameters table in such a way that we can identify the methods of data analysis. However, on reporting through access we can either report at the method level or aggregate results for each parameter and report by parameter. The key to this is ensuring each method for a given parameter has the same short name. In the crosstab query of MS Access the query uses the parameter short name to aggregate and report results stored at the method level. If other users were to be able to use this approach it would be better if the database schema was extended to allow for storage of method information.

Basically Hydrol is a great data storage and management facility (and this is its strength). I would rather see effort going into developments that improved the data in, out and management mechanisms so that I can do what I want with the data in other packages (I'm speaking here mainly as a user of the relational database). I don't believe that HEC should try and develop a wide range of analysis functionality as we store a wide variety of data including water quality, air quality, aquifer performance info, cross sectional profiles (capability coming with the next release), ecological and biological measurements and taxa counts which have specialist analysis requirements. We extract the appropriate data and use the specialist software relevant to each field to analyse the raw data (again I reiterate, that I'm speaking here as a user of the relational database – I can't speak for the time series component)

- Telemetry Alarming and associated notification options
- Friendliness and horizontal referencing across forms. Occasional users get lost/confused.
- Very happy as it is, however also like continuing improvement.
- Periodic Statistics and Duration Percentiles features could be much more useful if they allowed specified periods to be analysed e.g. allowing provision of seasonal bounds as with the Duration Analysis.
- Text output, better interaction with Excel (especially for data entry, improved editing facilities, altering favourites is too clumsy-not intuitive).

HYDSYS Users

- Integration with DBMS such as Oracle, SQL server ...
- Improve search features
- Excel - used to be simple to write macros but seems more difficult now
- MS Access - need some shell databases that you can simply edit rather than build from scratch. Better range of file formats for exporting instead of needing to go through a text file
- Presentation of extracted data printouts
- Improve links between data bases
- Help system hard to use, improve to find programs and carry out tasks
- Inconsistent interfaces on some modules
- Not totally Windows, still some DOS
- Integration with ALERT systems
- Workbench has a tendency to stuff up regularly
- Prefer to extract data and use other softwares for manipulation
- Manual Data entry routines
- Dislike spending half a day trying to find the data I need from a zillion possible places.
- Inconsistent quality codes - need a system to make data transfer between organisations more seamless.

-
- Irregular users not catered for due to inconsistent menus screens
 - Correlation program need more parameters e.g. seasons, flow ranges
 - Software interface fore reporting is primitive - need to edit *.ini files
 - Graphics and plots are not accurate enough for accurate analysis of data.
 - Computer file outputs needs better choice, should not have to go through more than one process to obtain the desired output format
 - Report Formatting still a bit crude
 - Water quality package needs extensive improvement
 - Export/Import routines is version critical and difficult to manage when dealing with other organisations
 - Improve on-line tuition

(Source: *The Comparison of the HYDROL and HYDSYS Water Data Base Management and Modelling Software packages*, R.M. Clayton, November 1999.)

Contributions to the Journal and Newsletter

Member contributions to the Journal and newsletters are most welcome. You are the Association and hence it is helpful if you provide input into it.

At present the Editor is limited to steam driven Word 6.0 while he migrates north over the next few months so if you have a contribution could you please submit in that format.

Advertisers could also assist by providing TIF images or similar of their ads - while PDF format is handy it means cut and paste has to be done - literally!

I look forward to getting summaries of papers from the conference from those who have indicated that they are willing to provide them. Summaries of the summaries are also welcome as I can use them as a precursor in the newsletters for items appearing in the next Quarterly Journal.

Photographs are also welcome for the cover of the newsletter - final use of a submitted photo will depend on how well the image transposes onto the cover of the Journal, so the clearer the better.



Application For-Renewal of Membership

The Secretary,
Australian Hydrographers' Association,
C/- 14 Kosciusko Street,
TRARALGON,
VICTORIA 3844

Dear Sir

I wish to Become a Member/Renew my Membership of the Australian Hydrographers Association.

Name: _____

Address: _____

Phone: _____

e-mail: _____

Employer: _____

Title: _____

Address: _____

Membership Grade: **Member (\$100 to end of Year 2003)**
 Retired/Student/Cadet (\$50 to end of Year 2003)
 Corporate (\$500 to end of Year 2003)

I enclose \$.

I wish to receive my monthly Newsletters by e-mail/post/I will down-load from the web site.
I wish to receive my Quarterly Newsletter at my Home/Work Address.

Signed: _____

Date Received _____ **Member Number** _____

TECHNOLOGY SHOT



Wireless stream gauging using winch board mounted on Zodiac inflatable.

Traverse distance measured using split prism range finder on shore and radio contact between on bank personnel and the boat operator assists boat operator maintain position of boat in the stream.

Watch out for the fin on that sounding weight when you bring it up!