



WATERY SAUCES OLDIES and BOLDIES

Newsletter No 81

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NEWSLETTER OF THE WATER RESOURCES RETIREES ASSOCIATION

Uncertain Times Ahead

Not only are members of the Association uncertain about what Santa will bring, or what Christmas presents they will buy to give their loved ones who already have everything, they have other reasons to ponder what the future will bring.

Will their train run on time or actually run at all? Will the newly appointed interim CEO of Queensland Rail, Nicole Hollows, be able to sort it all out? Will this appointment leave a vacancy for co-patron of WRRRA and if so who will fill it? (Members may not be aware that, following her appointment as CEO of SunWater, Ms Hollows had graciously agreed to be our co-patron.)

And there is an even greater uncertainty. For many years – probably for all the 32 years of its existence – WRRRA has met regularly at Club Central (formerly the Public Service Club) for its Annual General Meetings, social lunches and seminars. But Club Central is no more. With the developments associated with 1 William Street, the site has been marked for redevelopment and the Club has closed its doors. Where will we meet in future?

The committee is exploring options, but it is not easy to find a central venue with meeting facilities and access to a relatively inexpensive lunch menu. But be assured. A solution will be found and we will meet again.

From the Editor's Chair

Our media have of late been filled with news of the appalling US electoral process. And we recently "celebrated" that all-American festival of Halloween. Every day we seem to have gotten (sic(k)) more americanised which I, as one fervent USophobe, resent. I recently read a book, published in Britain, and was taken aback by the spelling of Booker 'Prise'. And later on the spelling 'citizen'. An editor's note on the end pages apologised for a computer error whereby words ending in -ize e.g. size have been changed to -ise endings. My guess is that a valiant attempt with find and replace to overcome the Americanism of the ubiquitous -ize ending failed. (I have even had trouble typing this because "autocorrect" has insisted on putting in zeds (or more likely zeeks!)) None of this has made me more well-disposed to the USA. Until next time, au reservoir.

Ian Pullar, Editor

On the Go

WRRRA members – at least some of them – have had a busy time over the last few months. Back on 21 July, a sizable group of us retirees had the pleasure of visiting the hydraulics lab at Rocklea to inspect a number of models.

The Rocklea complex is so different now from its hey-day. Peter Read pointed out what was formerly his office and the level to which the 1974 flood rose. And the staff are very different too.



*Our hosts -
Left: Peyman
Bozorgmehr &
Jeff Dann
Below: Jeff
Dann, Peter Lew-
is & Andre Retief*



In these
times of
austerity
....



*"Any of you kids want to buy
some toys?"*

A MERRY CHRISTMAS TO ALL ...



Inspecting the Paradise model: Lee Rogers, Jeff Dann, Ross Walduck, Ian Pullar, Peter Reid, Brian Shannon, Jim Mienert, Hein van der Heide, Daryl Brigden



Boondooma model



Jon & Karla Henry

It was a very educational and informative visit and we are very grateful to the SunWater staff who made it possible and looked after us.

Annual Golf Day

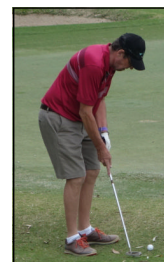
There were ten starters for the Association's annual golf day at Keperra Golf Club on 5 August. Numbers were boosted with the addition of a couple of Ken Watson's friends. We rescheduled the nine hole event from the first to the more challenging second nine because of fairway renovations. Bill Meredith was the only player to master the course with a creditable 17 stableford points. This could have been higher if the organiser had warned him of the water hazard bordering the 18th fairway. As usual, the course was in good condition and the weather was fine so there were no excuses for those of us who did not play as well as Bill. Afterwards we drowned our sorrows and enjoyed lunch at the clubhouse.



John Morse, Bill Meredith & Geoff Eades



Geoff Eades



Ken Watson

Coming Weather or Not

Once again, a group of interested retirees gathered at Club Central on 23 September to hear a fascinating address from retired meteorologist Geoff Crane.

Geoff made it very clear that climate science is not his area of expertise. He also made it abundantly clear that if there is anything he doesn't know about weather, it probably isn't worth knowing.

Fortunately, Terry Loos was in attendance to make copious notes which can be found on pages 5 and 6.

After the address, we gathered for the usual congenial lunch – presumably for the last time at Club Central.

We are very grateful to Geoff for his presentation.



Geoff Crane with (anti-clockwise) Ross Walduck, Jim Mienert, unidentified, Kev Devlin, Ross Stewart, Rolf Rose, Robert Dick, Peter Gilbey, Geoff Eades, Ian Pullar

CQ Reunion 2016

Peter Gilbey

On 20 October, Bruno (Gary Corbett) and I attended the 2016 CQ Reunion with folk who have worked with the Commission or more recently in water over the past 40 years.

Fittingly, there were about 40 or so people in attendance with current and former staff present – we met at the local sailing club to get reacquainted and talk over old times.

I was especially glad to catch up with some old friends including Mick Williams and his wife Pam as well as Mike and Jacky McKenna who don't seem to have changed over the time we have known them. It was also great to catch up with old colleagues including Peter Wheeler, Ed Donohue, Maurie Heness and Maurie Watts as well as two of our former Emerald water officers Bob Gnech and Robin Boon.

Many of the former CQ Staff now reside in Yeppoon and it is great to see them get together on a regular basis together with people from as far afield as Ayr and Mackay as well as Rockhampton, Emerald, Biloela and Theodore. Bob Gray, Kel Roberts, Mick Keane, Maurie Clewley, Billy Robertson, Jim Barry and Merv Leslie were there amongst others from the good old days and we shared many stories of our days with the IWSC when life seemed to be a lot simpler and everyone was motivated to deliver service.

Ross Wheeler and Gary Luck came down from Mackay and they and others expressed an interest in joining our association as country members, as did many of the others, and this can only be good for keeping the water family in touch across the state.

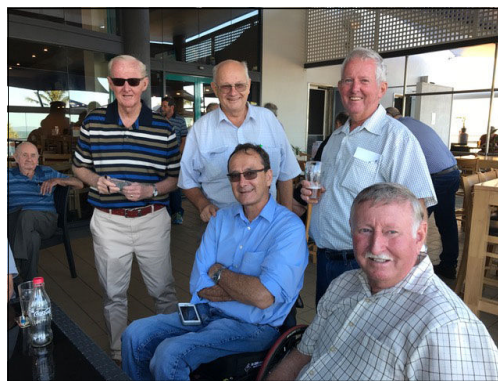
The complete attendance roll is: Mick & Pam Williams, Maurie & Lyn Clewley, Mike & Jacky McKenna, Jim & Dorry Barrie, Bob & Lorrelle Gnech, Kel & Shirley Roberts, Kerrod & Karen Marler, Maurie & Joyce Watts, Bob & Pam Gray, Phil & Briona McKone, Bev Pratt, Bill Robertson, Ed Donohue, Jim Mylne, Ian Wallace, Merv Leslie, Ross Wheeler, Peter Wheeler, Con Toonen, Shane Warner, Bill Steen, Mike Keane, Maurie Henness, Robin Boon, Glenda Patterson, Mick Neubecker, Peter Gilbey and Gary Corbett.

There were lots of photos taken, but room here for only a few.

Coincidence?

Astute readers will be aware that Peta Credlin, former Chief of Staff for Tony Abbott, now writes for the *Sunday Mail*. Did they notice that recently she mentioned that she was born and raised in Wyche-proof, Victoria?

Our former esteemed colleague Bernie Credlin was also from the same town. Without delving into genealogy, I reckon it would be a fair bet that these Credlins are related.



Bob Gray (at back), Mick Williams, Mick Neubecker, Mike McKenna, Ian Wallace & Jim Barry



Gary Corbett, Merv Leslie, Maurie Clewley, Kel Roberts, Mike Keane, Kerry Marler & Bill Steen



Peter Gilbey, Jim Mylne & Ed Donohue

Woongarra Camp Sold

Trevor Tuesley reports that the old IWS Woongarra Camp has been sold. The sale price was \$315,000, which is quite reasonable for its position. The land is zoned rural. There would be quite a few surprises under the ground but it got the clearance, after a while, for asbestos contamination. One drawback is about a third of the property has easements for high voltage power lines and SunWater.

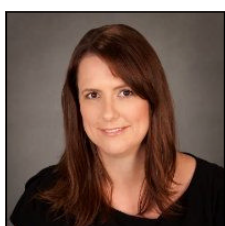
There were six registered bidders.

End of Year Luncheon

As a long-standing tradition, members gathered at COTAH for the usual end of year luncheon. The well-attended function was the normal convivial gathering, affording the opportunity to reminisce, catch up on news and developments and to dine on good food specially prepared by the students.

Terry Loos once again tantalised us with his set of trivia questions, with the competition being won by Peter Gilbey's table.

We were very privileged to have as our guest, our recently acquired co-patron Nicole Hollows who is the relatively



Nicole Hollows

new CEO of SunWater. She gave us an entertaining address, opening with the statement that she was different from her predecessors, in that her name is not Peter and she is female!

While she is new to dams and the controversy and opposition to them, it comes as no surprise because of her background in mining. (See also the article on page 10.)

Times have certainly changed at SunWater. A quick look at their website reveals many unfamiliar names and precious few 'old' ones. And the business has fundamentally changed from one of providing cheap irrigation water to one of meeting commercial needs of enterprises with a greater capacity to pay. Even on the agricultural side, higher value crops and higher costs of production have relegated (much higher) water costs to relatively minor inputs.

Nicole gave us an update on activities which were more fully reported in the last newsletter, before she had to hasten away to deal with issues in her other role – as interim CEO of Railways.

Our other co-patron, Paul Simshauser, was represented on this occasion by Peter Allen who also provided an entertaining address about the activities of DEWS. The week before, the Department had moved, along with numerous other public servants, to 1 William Street. The new residents were having to adapt to very different working conditions with almost no offices and having to log in and out on computers.

My understanding is that Mineral House which became the "home" of the newly-badged Queensland Water Resources Commission in 1979 no longer houses any "watery" personnel!

We are very grateful to Nicole and Peter for taking the trouble to join us and to bring us up to date with activities. My feeling is that, apart from Lee Rogers who is still working part-time, most retirees are happy to be "out of commission"!



Some of the happy gatherers. See how many you can name. As someone noted, all but one of the men wore a check shirt!



Laurel & John Connolly, Peter Gilbey, Peter Reid & Peter Allen



Three old planners reminiscing about investigations for Boondooma Dam – Bruce Edwards, Ian Pullar & John Morse

The End of an Era

Members will be interested to know that Ben Russo, who celebrated his 91st birthday on 8 October, has retired from his long-term part time employment with SunWater. What an amazing achievement. Ben's quiet, effective contribution is nothing short of incredible. On behalf of all who have served with you, Ben, congratulations and thanks.

Many will remember the great logo competition when we became QWRC. The winner morphed into the WRRR logo on page 1. Adjacent is the entry submitted by Reginald Archibald De Vere O'Reilly (RIP). (See also page 7)



ENSO, SOI, IOD, BoM and other abbreviations

Terry Loos

The WRRRA's annual Technical Forum has done it again. We received a wonderful warm and friendly presentation from renowned (now retired) meteorologist Geoff Crane de-mystifying all that weather report terminology that can confuse the best of us. Here's what I heard:

The Humboldt Current is a cold, low-salinity ocean current that flows north along the west coast of South America from the southern tip of Chile to northern Peru. It can extend 1,000 kilometres offshore.

Driven by quasi-permanent winds the Humboldt Current Large Marine Ecosystem (HCLME), (named after the Prussian naturalist Alexander von Humboldt) is also one of the major upwelling systems of the world (cold, nutrient-rich water) supporting an abundance of marine life.

Approximately 20% of the world's fish catch comes from the HCLME, mostly pelagic species: sardines, anchovies and jack mackerel. The Peruvian fishing industry, primarily based on the export of fish meal, used in poultry feed, is among the largest in the world. The LME's high productivity supports other important fishery resources as well as marine mammals.

Historically, every now and then, around late December, fish stocks were found to fall – for some unexplained reason. This became known in Peru as the 'Christ-child' effect (El Niño).

Meteorologists later discovered that this was due to a seasonal meteorological variation that occurs across the Pacific. This then became known as the El Niño effect.

Under the El Niño effect the HC upwelling is disrupted. This leads to fish stock crashes and consequent social and economic impacts. Also, periodically, sardines and anchovies have replaced each other as the dominant species.

The ENSO – El Niño Southern Oscillation has now become the phenomenon that underpins the understanding of most of our weather. Under an El Niño the SW Pacific (SE Australia) is drier and the SE Pacific (Peru etc) is wetter. (However, El Niño results in more rain in SW Australia).

The Humboldt Current and its associated wind shear prevents the formation of tropical cyclones in the area. (The same effect occurs in the South Atlantic with the Benguela Current)

The Humboldt also has a considerable cooling influence on the climate of Chile, Peru and Ecuador and is largely responsible for the aridity of Atacama Desert in northern Chile and coastal areas to the north. Marine air is cooled by the current but this is not conducive to generating precipitation (although clouds and fog are produced).

There is no similar La Niña story, the term La

Niña is just a journalistic creation to describe meteorological conditions that are not El Niño.

About 75 years after the ENSO was developed it was discovered that the Indian Ocean experiences similar sea temperature differences, but this has no known associated socio-economic effect. That effect is known as the Indian Ocean Dipole (IOD).

The Southern Oscillation Index (SOI) is a measure of the ENSO. This is measured in terms of broad-scale atmospheric pressure differences caused by measurable mean sea level sea temperature differences.

The SOI measuring points are at Tahiti (long French influence) and Darwin. These were chosen because they are in the same hemisphere, in mid-Pacific and at the edge, and they have long-standing reliable records.

To eliminate day-to-day variations Met Bureaus use a 30 day average.

However, different Met Bureaus use different bases to calculate the SOI. The Australian BoM uses the period monthly 1933 to 1992 as the base. Slightly different SOIs are published by the various Met Agencies – normally there's a difference of about one unit. The SOI range is generally from -20 to +20.

The SOI for any one month = Pressure at Tahiti – Pressure at Darwin / s.d. of the difference for that month. The calculated number is usually a fraction and so it is multiplied by 10 for convenience.

Most Agencies use a three-month running mean. An individual SOI calculation can go to an extreme of up to 40, but an extreme peak month does not affect the weather if it is surrounded by moderate monthly numbers.

The readings are taken at the same diurnal time at each place e.g. 9 am, to avoid temperature variations.

Notwithstanding that the SOI may be trending one way or another in December, it would be wrong to extend this over the next Q1 because (in Australia) the season ALWAYS changes in mid-April. The correlation between the SOI and our weather forecasts is best in NQ, reducing as you move south.

There are several other major meteorological effects that govern our weather.

The Siberian High (also Siberian Anticyclone) is a massive collection of cold dry air that accumulates in the northeastern part of Eurasia from September until April. It is usually centred on Lake Baikal. It reaches its greatest size and strength in the winter, when the air temperature near the centre of the high-pressure cell is often lower than -40°C. The atmospheric pressure is often above 1,040 millibars.

(By the way, Celsius and Fahrenheit are the same at -400).

The Siberian High is the strongest semi-permanent high in the northern hemisphere and it affects the weather patterns in most parts of the Northern Hemisphere: its influence extends as far west as the Po Valley in Italy and as far southeast as Malaysia where it is a critical component of the northeast monsoon.

ENSO etc (continued)

Siberian air is generally colder than Arctic air, because unlike Arctic air which forms over the sea ice around the North Pole, Siberian air forms over the cold tundra of Siberia, which does not radiate heat the same way the ice of the Arctic does.

The Siberian High causes the NE Tradewinds across the South China Sea. These are the world's strongest tradewinds and a week or so later they affect NW Australia.

The NW Cloud Event (also associated with the IOD) then eventually brings rain to SE Australia from the Kimberleys.

El Niño does not mean no rain in SE Australia – just less rain. However, as has happened recently, the El Niño effect can be overwhelmed by the NW Cloud effect. We may in fact have just experienced the strongest El Niño effect on record – and yet we've still had heaps of rain. The Charleville floods occurred in wintertime and were due to the NW cloud effect, not Pacific cyclonic effects.

The sea temperature off Northern Australia doesn't really change much. So concerns about coral bleaching due to warmer waters are greatly exaggerated.

In March 2015 there were four simultaneous cyclonic storms spread out across the Pacific during an El Niño. Five times in the last thirty years there have been 4 simultaneous storms – during La Niña.

The Pacific has been divided into 4 zones west to east. Zone 3-4 gives the best data.

Cyclones need SIX factors to occur simultaneously – if any one factor misses, there's no cyclone. For instance, the sea temperature has to be above 26°C – this is why cyclones do not form south of about Gladstone. Warmer seas don't necessarily drive cyclone *strength*. The typhoons that hit Hong Kong etc come over colder seas. Hurricanes move up the US east coast over colder waters – Miami is at approx the same latitude as Bundaberg.

Cyclones need warmer air at high levels to enable them to 'stand up straight'.

One of the emerging certainties from climate change modelling is warming at the poles. This will affect the major currents. It could strengthen the Humboldt Current to the extent that it never stops and a permanent La Niña could result. This would mean more wets for Australia.

Also the warming of the North Pole could cause the Gulf Stream in the Atlantic to slow down. This would cause the UK and some of Europe to freeze over.

Of all the global climate models the EC model – located in England – is the best.

Geoff answered several questions in his calm clear easy-going style. You could tell the audience was engaged.

Out-of-session it was pointed out that the WRRRA old boys tennis group has been playing tennis for over fifty years, always on Thursday nights but the group has wondered why recently it always seems to rain on Thursdays. Geoff took this question on notice.

More Adventures of Young Ian

Back in the 1990s, we in Infrastructure Planning (as it was then known) were called upon to investigate possible dam sites on the Comet River to provide irrigation supplies. Preliminary studies suggested that the most promising site was adjacent to the township of Rolleston and its development would have required the relocation of the town.

Quite a number of public meetings were held in Rolleston and in Springsure, the Shire capital. These meetings explained our process and our progress. Our message was not universally accepted and there was a degree of hostility towards the "men from the Government". Paul Bell, who was then Mayor of Emerald (he later went on to head the Association of Local Governments) informed me that he had won a bet against one opponent of a dam who told him young Ian had been sacked!

Another opponent told me that irrigated agriculture was not acceptable – "This is cattle country. If God hadn't meant it to be cattle country, he wouldn't have put cattle on it."

One farmer whose property would have been flooded thought the lake created by a dam should, in fairness, be named after him. He wasn't so sure when I told him that there was a prerequisite – lakes cannot, under the *Place Names Act*, be named after living people. (When we were planning a dam on Barambah Creek, I drafted letters to the four shires affected seeking suggestions for the lake name, and pointing out this condition. All suggested Lake Bjelke-Petersen, which may have expressed a desire for a particular outcome!)

Because the town would have had to be relocated, we organised local workshops using an external facilitator. This was a wonderful example of multiple-objective planning, because he got the participants to identify criteria (eg proximity to passing trade from the highway, avoidance of highway traffic, lake views, avoidance of black soil) before they were allowed to check each possible site for the attributes and then evaluate and weigh them. It was great to have the willing participation of so many locals.

Another outcome of our work was that the locals were funded to have a history of the town prepared under their management. The successful applicant was Margaret Cook who compiled *The Town on the Brown* – an interesting read.

We also employed a liaison officer who took up residence in the town for a period of time to act as an information interface between the locals and the Department. David Frith went on to join the Department proper when his tour of duty finished.

Footnote: The dam never came to fruition: and neither, to date, has Nathan Dam which we were investigating at the same time.

Vale Donald Walter Beattie 12-03-1926 – 23-07-2016

Don was born in Sydney, studied engineering at Sydney University and then made the move to Queensland working as a regional engineer for the Irrigation and Water Supply Commission. This was to become the focus of Dad's life when he rose to become the Commissioner.

Big responsibilities and a firm mind saw some major projects come to life during this period for Dad. One of things I always remember in this period was answering the phone at home one day and then hearing Dad say "Yes, Mr Premier"; it was Joh Bjelke-Petersen on the phone. As a young bloke I also got the chance to visit plenty of dam sites and irrigation projects with Dad and from an early age got to know all about grouting dam abutments, coffer dams and the like.

As a family if we went anywhere we'd always have to check out the local dam or storage.

This entire period must have been immensely satisfying for Dad and in my mind has left an enduring legacy for the state of Queensland.

When Dad was working in western Queensland he met our mum, Joy at her sister Barbara's wedding. Mum and Dad were married in 1956. I was born in 58, Belinda in 59. Mum travelled with Dad during his term as Commissioner and visited countless dams and other irrigation projects. The 'Watery Sources' book quotes Mum saying she loved visiting dams but didn't share Dad's passion for pump stations.

Dad retired from the Water Resources Commission* in 1986 and Mum and Dad headed to the UK for a year. This was a great period for them both and I think after a busy professional life was just the tonic to get him away to clear the head for retirement.

A long time together wasn't to be when Mum passed away in 1993.

Dad married Shirley Humphries in 1995 and they both made a new life for themselves with an extended family. A marriage of 18 years ensued until Shirley passed away in 2013. This was a challenging period in both their lives with health issues meaning a move to aged care.

Dad made the best of it from 2013 to the end, but it was a difficult period. He walked constantly, got lost a few times but it kept him going. Conversations were difficult but the spark was still there inside. He greeted me with "G'day Sport" early last week when he was quite sick so both Belinda and I think the sharp mind was still there somewhere.

He had a full life and slipped into a better place aged 90 years – a good innings in anyone's terms.

For those that knew him well I'm sure you'll agree he was a great dad, step dad, grandfather and work colleague.

- Eulogy written and delivered by Don's son Richard.

** Richard isn't quite right. Don retired from the Queensland Water Resources Commission, which organisation was gazetted on 12 March 1979 – by coincidence Don's 53rd birthday.*

Not only did Don make a huge contribution to the development of water resources in Queensland, he contributed greatly to the Water Resources Retirees Association, being instrumental (along with Bernie Credlin) in its formation, serving as an Office-bearer and for his revision to the constitution which changed its name from the Water Resources Retired Officers Association. - Ed.

Reginald Archibald De Vere O'Reilly died on 19 August. Reg was a classic draftsman in the old style with the Commission in the late 60s early 70s era in Roy Macarthur's team in Designs Branch. He was a master at producing drawings of complex reinforced concrete structures.

He was also a very talented artist and cartoonist who was often called upon to produce classic cartoons for staff celebrating special occasions or those leaving the branch or Commission. These usually comprised exceptional caricatures of the person in question in the context of some funny or embarrassing situation with other colleagues in the workplace, with the appropriate wording to effectively convey the situation. An example is the adjacent cartoon from *Aquarius*. Another is on page 4.

He left the Commission in the 1970s and moved to Marcoola Beach where he died.

Reg was the older brother of Orm O'Reilly.

He is survived by his wife, Gaye and children, Robert and Kirsten and grandchildren.



Vale William Arthur Leonard Webber 01-06-1927 – 29-07-2016

Bill Webber graduated with first class Honours in Civil Engineering in 1951 and joined the Department of Local Government. He continued his studies, completing his Master of Engineering degree in 1956.

Within the Department, he worked in Town Water Supply and Sewerage Division, Design Branch, rising to the position of Chief Design Engineer. Projects for which he was responsible included (in rough order);

- Investigation and design of North Pine Dam
- Future Brisbane water supply, specifically that leading to Wolffdene Dam recommendation
- Copperlode Falls Dam and associated works, behind Cairns
- Investigation and design of works to supply the urban and industrial water demand of Gladstone supply. These included the initial concrete gravity dam completed around 1967, the subsequent raising of this dam around 1971, the Awoonga High Dam (a concrete faced rockfill dam completed in the early 1980s, pipeline to Gladstone, pumps etc
- He also had overall responsibility for Fitzroy River Barrage, Hinze (Advancetown) Dam.

In 1980, the Government of the day transferred the functions of DLG to QWRC. According to Norm Whyte, “He was most offside with the whole idea. It was quite something to experience our Chief circling around and around his office table, with thumping fist, venting his displeasure with the system, ruddy faced and raging his opposition that his beloved design office was in peril of annihilation.”

The function was briefly returned to DLG before being again, and finally, placed back in QWRC. Bill’s designation changed from Chief Engineer (Engineering and Technical Services) Department of Local Government to Assistant Commissioner, Water Resources Commission. This brought a wider scope of activities.

Bill had extensive involvement with the burgeoning, mainly industrial, water needs of Gladstone, initially for Gladstone Town/City Council and then for the Gladstone Area Water Board. He was appointed a member of the Gladstone and Area Water Board in 1978 and served on it until his resignation in 1990. He was Chairman from 1986.

On a personal level, Norm Whyte “found Bill to be a very caring individual and a leader who will be remembered by many of us for his personal support and being someone willing to go into bat for the team and the cause. I found him to be very professional and approachable on most occasions (we all have our moments) and I suppose one of my fondest memories of Bill was during the WITA days when he filled in as Chairman. We shared many a lunch time when attending meetings. He was a man of amazing insight and had quite an astounding general knowledge. He was also a great music lover including a classical collection. (Now I would never have thought him a lover of Wagner’s classics, a discussion we had on one occasion, sitting on the concrete steps in a park on Bribie Island eating fish and chips from paper wrappers.)”

- Compiled from information supplied by Ken Wright, Norm Whyte, Mark McCarthy and Denis Cook

Alan “CHUCKER” Bugeja, passed away on 12 September.

Alan was a clerk in Water Resources for more than 40 years. He retired to the Gold Coast about 8 years ago, where he was a member of the Burleigh Heads Surf Life-saving Club for more than 50 years.

Alan had been diagnosed with a form of cancer over 12 months ago and with the help of Val and family, he had been fighting all the way and heroically with little or no complaining.

He will be sadly missed.



Roy Hattersley on Cricket at Lords

Article supplied by cricket aficionado Terry Loos

At half-past two on a summer's afternoon I can become a vagabond who need not return to middle-class respectability until stumps are drawn at the close of play. I rest my caravan in the Free Seats at Lords.

They are only free inasmuch as spectators who have already paid entrance money are allowed to park their posteriors upon them without extra charge. But the view which they afford the enthusiast is beyond price. For high above the boundary at the Nursery End the bowler's line and length and the batsman's ability to get his foot to the pitch of the ball can be judged without interference from either umpire or wicketkeeper.

Certainly balding fielders have the signs of age more cruelly exposed to the occupants of the Free Stand than to the MCC members in the pavilion or the weather-conscious troglodytes who huddle in the subterranean depths of the barrack block called the Lord's Grandstand. But the Free Stand is the perfect vantage point for the expert witness and the casual caller who means to pass the afternoon with only one eye on the ball.

For it is flanked by horse-chestnut trees which, though still to blossom at the start of the season, are in full conker before the championship is decided. And the native fauna are as interesting at the indigenous flora.

The Free Seats are the proper place for the aficionados who want no diversion from rigorous concentration on the game, the absolute antithesis of the private box hired by the limited liability company or public corporation. Official hospitality is an organized conspiracy to prevent the uninterrupted watching of

cricket, based on a constant invitation to 'have a drink' or 'meet our sales manager from Slough'. Just as the true devotee turns his back on the pitch to have his glass replenished or to shake hands, a wicket always falls.

During my impatient boyhood I used to hate the tea interval. It was simply twenty minutes with nothing to do except count the seconds to the pavilion bell and the reappearance of the umpires. Now I think of it as an essential opportunity for meditation. For cricket is a contemplative game and these days unless there is a pause during which I can take stock I miss part of the pleasure. Cricket's true beauty lies in the way it interleaves a moment's frenzied action with a minute for reflection. Now, after 30 years of concentrated watching I need time to pull my memories together.

The Free Stand at the Nursery end at Lords is the perfect place for controlled nostalgia, with Father Time pointing in whichever way the wind blows. The regulars here are the ideal cricket companions, always willing to jog the memory about such matters as how many runs Denis Compton scored in 1947. Indeed the regulars in the Free Seats are the ideal cricket companions. Ask any of them if a catch carried or if byes were signalled and the reply will be brief and courteous. There is neither rambling about weather or traffic nor the beginnings of a fleeting conversational friendship. The true cricket enthusiast needs to pass freely in and out of solitude with concentration only occasionally broken by comment and reverie, rarely disturbed by raconteur. That bliss is allowed in the Free Stand, and sometimes there is quite a good cricket match going on at ground level.

* Apparently the Free Stand has since been replaced by the large Press facility

An Event to Look Forward To

Margaret Cook, co-author of *Watery Sauces: A People's History of the Water Resources Commission (Queensland)*, is currently undertaking a PhD project on flooding in the Brisbane River and is two thirds through the process. Her research covers the period from at least European settlement and includes the major flood events of 1893, 1974 and 2011 – the impacts and the measures undertaken to mitigate them.

In October, she delivered the Keynote Address to the Queensland Water Symposium of the Institution of Engineers on this topic. The address was extremely well received by all who attended.

Margaret has agreed to deliver an address on the same topic to members and friends of WRRRA early in the new year at a time and venue to be announced. It is likely to be part of the normal February informal lunch meeting.

I have had the privilege of reading progressive chapters of Margaret's work and a number of papers she has presented in Australia and overseas and am absolutely captivated by it. I would thoroughly recommend attendance at this event. -Ed.

Nathan Dam

Readers may have noticed advertisements in the press inviting submissions to the EIS process for the dam which was first proposed almost 100 years ago. The dam is expected to provide water via releases and pipelines for industrial and commercial purposes and for **existing** agricultural users.

The closing date for submissions was 10 November.

Nicole Hollows (and before her, Peter Boettcher) was very sanguine about the prospect of the development actually taking place – good news for many of us who have worked on the project over many years.

Answers to Terry's Trivia on page 11

1. (v) Carolina Reaper
2. (iii) Switzerland
3. (v) Charleston
4. (iv) Prince of Penzance
5. Get stuffed
6. (iv) Naples
7. (iii) Djokovic
8. TUMUT
9. (iii) green ink
10. (ii) 42

HEALTH *and beauty* This edition is devoted to Environmental Health and Beauty -Ed.

Horse Sense

The motor car has been blamed for its contribution to environmental damage by its production greenhouse gases. But spare a thought for the consequences for the world without this form of transport. - Ed.

In the 1970s, the historian F.M.L. Thompson imagined what 20th century life would have been like without the internal combustion engine. A railway station was 'like a stranded whale' if there was no road transport to take passengers and goods to their various destinations. Railway companies themselves all kept huge numbers of horses, as did the bus and tram companies. These animals all had to be fed and stabled and they took up an enormous amount of space, both on the roads and when they were rested.

At the end of the 19th century, there were about 3.5 million horses in Britain, one for every ten people, and in the United States there were around thirty million, one horse for each four people. In the last decades of the century the prices of horses began to rise dramatically. Keeping a horse in a big city like London became more and more expensive; as well as the cost of the horse there were the stabling, the wages of the groom and the feed. And there was the fuel. Britain's road transport required 15 million acres of farmland to supply an annual demand for hay and oats. In the United States it is thought that about a third of all cultivated farm land – 88 million acres – was needed to provide horse feed.

And then there are the less pleasant aspects of the four-legged motor. Each horse produced about seven tons of manure each year. In London in the 1850s a Board of Health report reckoned that in the Westminster and City districts alone the horses deposited 200,000 tons of manure. There was also the knacker's yard where worn-out horses were thrown into huge vats; every part of them would be recycled one way or another. In the last part of the century up to 40,000 horses were recycled each year. The bulk of the flesh was sold as food for cats and dogs, the meat put on wooden skewers and toyed round the streets. Charles Dickens imagined that if you had saved all the wooden skewers, you could build a naval vessel the *Royal Skewer*, to frighten Britain's enemies. As well as the meat, there were hoofs to be sent to the glue-makers, bones for fertiliser and hides for the leather trade.

The colourful and pungent world of horse transport employed thousands of blacksmiths and farriers as well as stallion-walkers and carters, yet it must surely have been reaching its limits by 1900.

- from *The Industrial Revolutionaries* by Gavin Weightman

Exercise those Brain Cells

Three men are standing at a counter in a shop. The first points to the commodity in front of him and says, "I'll have 1 please." He is charged \$1. The second man points to the same commodity and asks for 10. He is charged \$2. The third asks for 100 and is charged \$3. What were they buying?



The Elements of a Smartphone

Perhaps those activists who protest about mining – often using their smartphones to rally the troops – are not aware of just how many elements (all the products of mining) are contained within that device; 29 in all. - Ed.

The Screen: This alone contains 13 elements; Indium (In), Tin (Sn), Oxygen (O), Aluminium (Al), Silicon (Si), Potassium (K), Yttrium (Y), Lanthanum (La), Terbium (Tb), Praseodymium (Pr), Europium (Eu), Dysprosium (Dy) and Gadolinium (Gd).

The Electronics: Copper (Cu) is used for wiring while Silver (Ag), Gold (Au) are used for micro-electrical components. Tantalum (Ta) is the major component of micro-capacitors. Nickel (Ni), Praseodymium (Pr), Gadolinium (Gd), and Neodymium (Nd) are in the magnets in speaker and microphone. Ne, Tb and Dy are in the vibration unit. Pure silicon (Si) is used for the chip but Oxygen (O), Antimony (Sb), Arsenic (As), Phosphorus (P) and Gallium (Ga) are added to conduct electricity. Tin (Sn) and Lead (Pb) are used for solder.

The battery: Most batteries comprise Lithium (Li), Cobalt (Co), Oxygen (O), and Carbon (C). The casing is Aluminium (Al).

The casing: Some cases are made of Aluminium (Al). Plastic ones usually contain Bromine (Br) for flame resistance and Nickel (Ni) to reduce electromagnetic interference.

All these elements have to be mined and then processed using other products of mining: coal, uranium, iron etc. Mines can only be sited where there are minerals – as dams must have sites!



"We could agree to differ, but you'd still be wrong."

Answer to last Issue's Teaser

If the answer was "yes", the pilgrim would know nothing because both a knight or knave would answer that way. Therefore the answer must have been "no". As a knight would have had to say "yes" the respondent must be been a knave. His answer must be a lie, so the other must be a knight.

continuing the environmental theme ...

A Travellers Tale

Towards the end of World War I, the entire *Hochseeflotte* was held in Scapa Flow with a skeleton crew under the command of Rear Admiral von Reuter. A rumour went round that the *Hochseeflotte* would be mobilised against the Fatherland. Von Reuter sent out the order to scuttle the entire fleet and within five hours every vessel had been sunk.

The rusting German hulks in Scapa Flow now provide an invaluable source of uncontaminated metal for space satellites. Only steel forged before the first nuclear detonation in 1945 is completely free of radioactive isotopes (background radiation affects the highly sensitive sensors used in space communications) and so many of the tiny specks orbiting over our heads contain recycled bits of the German *Hochseeflotte*.

How Come – ?

Back in ancient times, water was drawn from wells in buckets and hand delivered. Chamber pots, outhouses or merely holes in the ground were used for waste disposal. And then the water engineers got to work and invented reticulated water supplies and (eventually) sewerage systems. It became necessary to invent pipes.

Because it was available, malleable and corrosion resistant, lead was the material of choice. 'Lead' in Latin is *plumbum* (hence the symbol Pb) so, adopting the classical nomenclature, all piping in a home became 'plumbing'. Inevitably, the craftsmen installing or maintaining the pipes became known as 'plumbers'. And even long after the use of lead had been discontinued (for good environmental health reasons) the name 'plumber' was retained, the etymological connection being virtually lost.

Plumb, meaning exactly vertical, is also derived from the 'plumb-bob', which was a lump of heavy lead on a line which adopted true verticality through the influence of gravity. And 'plumbing the depths' is obviously derived (in a literal sense) from dangling the plumb-bob attached to a measurable line progressively downwards.

Inevitably, the meaning of *exactly* took over so that something can be 'plumb level' or even 'plumb crazy'!

The influence of water engineers is everywhere!

The Idiosyncrasies of English

Q: What do the poets Keats and Yeats do and not do?

A: rhyme

A Sign of the Times

Outside a veterinary practice at Karalee
**Having your pets neutered
makes them less nuts**

Terry's Trivia

Questions from the 2016 mid-year luncheon. Answers on page 9.

1. The hottest chili in the world at 1.5M – 2.2M SHU is the: (i) Habanero; (ii) Jalapeno; (iii) Capsicum; (iv) Trinidad Moruga Scorpion; (v) Carolina Reaper.
2. The highest consumption of chocolate per capita (10.1 kg/a) is in: (i) the USA; (ii) Belgium; (iii) Switzerland; (iv) Austria; (v) China.
3. Which southern US city featured in 'Gone with the Wind': (i) New Orleans; (ii) Houston; (iii) Memphis; (iv) Atlanta; (v) Charleston.
4. The 2015 Melbourne Cup was won by: (i) Dunaden; (ii) Black Caviar; (iii) Red Cadeaux; (iv) Prince of Penzance; (v) Protectionist.
5. Which of these phrases is not from Shakespeare?: High Time; Foul Play; Tongue-tied; Fools paradise; By Jove; Cold comfort; Hoodwinked; Short shrift; Game is up; In a pickle; Bloody minded; Dead as a doornail; Tut tut; Foregone conclusion; Long and short of it; Lie low; Salad days; Budge an inch; Good riddance; Its Greek to me; Its early days; What the dickens; Blinking idiot; Eyesore; Slept not a wink; Seen better days; Get stuffed.
6. The world record for the longest pizza (margherita) at exactly 1,853.88 metres, was recently claimed by: (i) New York; (ii) Rome; (iii) Venice; (iv) Naples; (v) Shanghai.
7. The 2016 French mens tennis open was won by: (i) Nadal; (ii) Federer; (iii) Djokovic; (iv) Murray; (v) Hewitt; (vi) Wawrinka.
8. Find an Australian town name that is identical in its mirror image (in capitals).
9. The Head of M16 ("C") signs letters in: (i) pencil; (ii) invisible ink; (iii) green ink; (iv) guava juice; (v) black ink.
10. Muhammed Ali was diagnosed with Parkinson's at age: (i) 37; (ii) 42; (iii) 47; (iv) 52; (v) 57.



"I'm sometimes away for weeks. My wife deserves more than that."

"So you're going to be away even longer?"

Book Club

The One Hundred Year Old Man Who Climbed Out the Window and Disappeared by Jonas Jonasson is quite an amazing book.

Allan Karlsson, in the old people's home he never wanted to be in, is threatened with a party to celebrate his one hundredth birthday. He climbs out the window to a picaresque and unlikely journey involving a suitcase full of cash, a few thugs, a friendly hot-dog stand operator, a few deaths, an elephant and incompetent police. Along the way, Allan's earlier life is revealed; a life in which he remarkably played a key role in some of the momentous events of the twentieth century. Despite the fact that Allan has absolutely no interest in politics, his entire life has been embroiled in politics from extreme right to extreme left and everything in between.

The book is hilariously funny as well as warm and charming. And the constant reminders of the history of the century are an intellectual delight.

Thoroughly recommended.

Ian Pullar

The background to *The Comfort of Figs* by Simon Cleary is of particular interest to engineers and other technologists. In 1939 O'Hara was working with two companions on the Story Bridge which would transform the sleepy country town of Brisbane. High above the river, one slip could – and does – alter their lives for ever.

A generation later, Robbie is a young landscape gardener, grappling with a difficult relationship with his father and struggling to maintain his relationship with his girlfriend Freya after a violent assault by a stranger.

"It saddens him that the Moreton Bay fig is not respected in Brisbane, not celebrated. That it is just one of the fig species populating the city's parks. That free, nineteenth-century Brisbane-town should have uprooted its figs, the colony's flogging trees." So he is hell-bent on a private crusade to repopulate the city with fig trees, lauding those who make an effort that they will never personally see come to fruition.

The Comfort of Figs, published by University of Queensland Press, is an engrossing story of the birth of a city and the burden of a family secret, wrapped around two monuments – one of nature and one of engineering.

Ian Pullar

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LEXOPHILIA -

Who on earth dreams these up?

A lexophile of course!

How does Moses make tea? Hebrews it.

Venison for dinner again? Oh deer!

A cartoonist was found dead in his home. Details are sketchy.

I used to be a banker, but then I lost interest.

Haunted French pancakes give me the crêpes.

England has no kidney bank, but it does have a Liverpool.

I tried to catch some fog, but I mist.

They told me I had type-A blood, but it was a Typo.

I changed my iPod's name to Titanic. It's syncing now.

Jokes about German sausage are the wurst.

I know a guy who's addicted to brake fluid, but he says he can stop any time.

I stayed up all night to see where the sun went, and then it dawned on me.

This girl said she recognized me from the vegetarian club, but I'd never met herbivore.

When chemists die, they barium.

I'm reading a book about anti-gravity. I just can't put it down.

I did a theatrical performance about puns. It was a play on words.

Why were the Indians here first? They had reservations.

Submitted by Ian Ferrier

