



# WATERY SAUCES OLDIES AND BOLDIES

Newsletter No 86

July 2018

NEWSLETTER OF THE WATER RESOURCES RETIREES ASSOCIATION

## Steady As She Goes

The 34th Annual General Meeting of WRRRA was duly held on 26 April 2018 at the *Victory* Hotel in Brisbane. Attendance was down a little this year with only 15 members, two spouses and two guests in attendance. No elections were required this year as the only nominations received were for the sitting members of the Committee. Any readers who need their memories refreshed, will find the office bearers listed on the back page of this newsletter.

The President, Peter Gilbey, delivered his Annual Report which can be found on the Association's Website.

The meeting welcomed representatives of its Co-Patrons, Lisa Welsh, Water Pricing Manager of SunWater, and Linda Dobe, Deputy Director-General, Water Markets & Supply Division, Department of Natural Resources, Mines and Energy, who delivered entertaining addresses on current initiatives in their respective departments. We are always grateful to these officers who take the time to keep us up to date on how the world of water has changed since we left it. Summaries of their addresses can be found on page 9.

The meeting was followed by the usual congenial get-together of members in the *Victory* beer garden.

### From the Editor's Chair

*I recently accidentally heard a promo for the ABC's "Hard Quiz" in which the compere was exclaiming about the quite unusual specialist subjects contestants choose. And I got to thinking about the considerable diversity of hobbies and addictions that occupy our members. I find it utterly fascinating that we are all so different and that people pursue with great vigour areas of great interest to them but quite beyond my ken.*

*I'm sure readers would love to learn of the 'more things in heaven and earth that are ever dreamt of in their philosophy'. On page 5 of this edition there is a very interesting article on an unusual hobby which I commend to all our readers.*

*I'd love to hear of any others.*

*Until next time, au reservoir.*

**Ian Pullar, Editor**

## New Co-Patron

Following the recent reorganisation of Government Departments, the Director-General of the newly formed Department of Natural Resources, Mines and Energy, James Purtill, has graciously agreed to become our Co-Patron, along with Nicole Hollows of SunWater.

**James Purtill** was appointed as the Director-General in July 2015. Prior to his appointment, James was the Director-General, Department of Aboriginal and Torres Strait Islander Partnerships, a position held since 2013.



James has significant private and public sector experience. A scientist and business administrator by profession, he brings more than 30 years of national and international experience to the role. His career highlights include being a delegate to the United Nations Commission on Sustainable Development and the awarding of the Prime Minister's Centenary Medal.

James was formerly the Director-General of Queensland's Environmental Protection Agency and Commissioner of the Public Service. His private sector experience includes a senior role with a large multinational engineering, procurement and contract management firm, and he served as Managing Director for an environmental rehabilitation company.

He has also consulted to industry and government on a range of organisational design and environmental management issues. As General Manager Sustainability for an ASX top 20 resources company, he led the community and environmental programs for an \$18B project.

James' academic qualifications include a science degree with Honours from the University of New South Wales and an MBA from the University of Queensland. He is also a graduate of the Australian Institute of Company Directors.

We welcome James as our new Co-Patron and look forward to his support and the support of his department, to which many of us owe former allegiance.

## Trip to Tenterfield

Following an invitation from Bill Eastgate to venture to Tenterfield for golf and other indulgences, a score of us descended on that wonderful metropolis in May – and “we all had a real good time”.

Although we were warned by Bill that the dog’s water bowl had frozen, we arrived at the Tenterfield Golf Club on 22 May and enjoyed a convivial evening meal.

Next morning dawned crisp and clear – appropriate for the Crisp’s Bus that took us to Glenlyon Dam – where we were met by Storage Supervisor Brendan Swan who first showed us through the Visitors Centre. (The reproduction of the limestone bent-wing bat caves reminded us of the resignation of geologist Henry Shannon in protest at their flooding and Project Engineer Malcolm Pegg’s reaction.)

The Border Rivers are now so predominated by Murray Cod, that an embargo has been placed on further stocking of this species in the dam. The cod are predators of other species such as silver perch.

Our next stop was Zappas Winery where, as well as sampling the excellent vintages, we enjoyed the barbecue lunch cooked by President Pete.



Quite a poor photograph, I’m afraid.: Brendan Swan, Brian Cook, Rolf Rose, Sue Krebs (obscured) Maria Rose, Karla Henry, Brian Shannon, Jon Henry, Joanne Shannon, Bruce Pearce, Jennifer Pearce (obsc), Peter McMahon, Jim Mylne, Daryl Brigden, Helen Pullar, Michele Hopgood (obsc), Lyn Brigden, Lesley Gilbey, Ian Pullar, Hein van der Heide, Francoise van der Heide, Peter Gilbey

Heading back towards Tenterfield, we visited the hideout of Captain Thunderbolt (which must have been freezing in winter) and the Tank Traps, installed as part of the Brisbane Line, to save Australia from Japanese invasion during World War II. We also saw the 150 year old cork tree.

At dinner at the Golf Club, we very much enjoyed the company of Bill and Robyn Eastgate. (It is not true that Bill only went to live in Tenterfield to reduce his dues to WRRRA as a country member.) We wish Bill a very happy 75th birthday on 7 July.

We had a splendid morning tea provided by Debbie Dare who, with her husband Brian, has leased the premises for more than 30 years. (They currently have more than 20 caravans stored for occasional use by their owners).

We were particularly gratified to hear a short talk from Brian Cook, who is currently Secretary to the Dumaresq-Barwon Border Rivers Commission, on the institutional arrangements for the operation of the dam. He had come from Toowoomba for the occasion.

This was followed by a most entertaining account by Brian Dare of fish of the border streams following research conducted by government agencies and volunteers, including fabulous under water footage of Murray Cod spawning. The males assiduously prepare an annual nesting site which may be rejected by a female before she consents to release her 8000 eggs to be fertilised by the male (about 5% survive to adulthood).

*Tenterfield takes its name from the property established in the area by Sir Stuart Donaldson - who became the first Premier of NSW - who named it after his family's property in Scotland. But the name has a much longer historical provenance, as part of the pre-industrial woolen industry. Then, after wool was produced by the shearers, it was spun into threads in cottages by spinners (and spinsters), then woven by weavers. The woven cloth was passed on to fullers who washed it to remove lanolin and grease (often using Fullers Earth) before handing it on to the tenters who stretched it on tenterhooks and spread it to sun dry in tenter fields.*

## Trip to Tenterfield *continued*

The following day, although some participants had to leave, the remaining attendees had plenty that they could do. A foursome – Peter Gilbey, Peter McMahon, Bill and Robyn Eastgate – played around at golf. The others enjoyed various pursuits, as described below by Jon Henry.

First up was the Sir Henry Parkes Memorial School of Arts, which contains the banquet hall in which Sir Henry Parkes delivered his famous Tenterfield Oration, a significant step in the path to the federation of the Australian colonies.

The group was treated to a presentation on the history of the School of Arts building in the theatre that has been established there. The National Trust gained title to the building in 1957 and restored it over the following few years, but it gradually became run down again. Major renovations took place in 2001 with a government grant. The presentation included films on Indigenous oral history, European recorded history, and a re-enactment of Parkes's Tenterfield Oration.

The museum includes displays related to Sir Henry Parkes and federation. There are photographs of his three successive wives, paintings of himself and his family home in England, a sculpture of his head, samples of the *Empire* newspaper of which he was editor, a book of his speeches, and some ivory carvings. (His first employment was as an apprentice ivory carver.) The banquet hall is open to the public. A self service multimedia display is available.

Part of Parkes' oration was a plea for a uniform gauge for Australian railways. On the occasion of his oration, Parkes was staying overnight during a train trip from Brisbane to Sydney. He had changed trains at Wallangarra because of different gauges.

After morning tea in the Courtyard Cafeteria at the School of Arts, most of the group visited the Tenterfield Railway Museum at the old Tenterfield Station. The railway reached Tenterfield in 1886 but trains no longer go there. The station is still as it was when the railway closed in 1988 and has been decked out with historical displays.

Outside the station, various items of rolling stock can be inspected. Of particular interest to your reporter was a saddle tank locomotive built by the Vulcan Iron Works in Pennsylvania in 1912. This locomotive has a special watery sauces flavour because it was imported by the Sydney Water Board to work on a reservoir construction project.



The photograph shows that it is possible to inspect all parts of the locomotive at close quarters

Watery Sauces No 86

There is also an old turntable used for turning locomotives around ready for a return journey. It is 60 feet long and was made in the US in 1886. It was installed at Tenterfield in 1899 to replace an earlier 50 feet model. The photograph shows the turntable with one of the museum buildings in the background at far right.



Both museums are well worth a visit and further information can easily be found on the web.

*Stuart Alexander Donaldson (see p 2) was the respondent in the last duel recorded in Australia. The challenge came from Sir Thomas Mitchell who was the Surveyor General and a great explorer. In the duel, each fired three shots and the only casualty was Donaldson's hat. The Governor decided to overlook the offence.*

The Tenterfield Saddler was not open.

That afternoon, the group were privileged to experience a very enjoyable visit to Tenterfield Creek Dam. This visit will be described in the next Newsletter so, gentle reader, just wait with bated breath!

*Many thanks to Bill Eastgate for suggesting the tour, to Peter Gilbey and Rolf Rose for organising it, to Jon Henry for his notes and to all the participants for their company and contributions - Ed.*

## Upcoming Events

The "new" committee is giving consideration to the program for the next year. This will include the regular events – end-of-year luncheon (21 November), February Social and AGM (first Thursday in May) – as well as one or two technical talks and, following the success of the Tenterfield trip, possibly another similar venture.

More news to come.

## Ford Madox Brown The Last of England



*"I told you Mediterranean cruises were overrated!"*

## Out and About

The mid-year luncheon at COTAH on 21 June was attended by 27 members and partners and as usual was very enjoyable. We were entertained by an address by Colin Bendall of SunWater and were again bamboozled by Terry Loos's trivia. It was great to catch up with former colleagues including Greg Claydon (and his wife Andrea) who has now completed his contract in WA.

Our end-of-year function will be a full-scale Christmas dinner at COTAH, so to make sure you are able to participate, preserve the date – 21 November.

Speaking of Terry Loos, his two granddaughters, aged 4 and 2, have a favourite rhyme which they chant at every available opportunity. Terry is of the view that, with only a very slight adaptation, it can be applied to the members of the long-running Water Resources Tennis Group. -

Hips and shoulders,  
Knees and toes,  
Knees and toes,  
Knees and toes,  
Hips and shoulders,  
Knees and toes,  
All clapped out together!



### St Barnabas Bulletin Board

At the evening service on Sunday, the sermon topic will be "What is Hell?" Come early and listen to our choir practice.

### Congratulations!

Members, particularly those who attended her talk on flooding in the Brisbane River in February 2017, will be delighted to learn that Margaret Cook has been awarded a PhD for her thesis.

Her father is thrilled and proud!

### Answers to Terry's Trivia (page 11)

1. (iv) All of the above. 2. (iv) Willandra. 3. (ii) Norway. 4. (iii) Tasmania. 5. (iv) 8Mt. 6. (iv) 21st. 8. (i) Victoria Square, Adelaide. 9. (vi) Lithgow. 10. (i) Norway. 11. (ii) USA (He married an American).

### Vale - Kelvin Neville (Kel) Roberts

Kel Roberts joined the Irrigation and Water Supply Commission in about 1963 and was the first cadet in the area of Groundwater Advisory. He stayed for a two year period but was tempted to "Go West" and in 1965 took on the role of a ringer on a number of properties in Central and Western Queensland and the Northern Territory. He returned to Rockhampton in 1969 and joined Southern Cross and later Dunlop IBC [ Intercolonial Boring Company ] which assisted him in maintaining his rural connection.

In 1975 he returned to the Commission, joined the staff of the Farm Advisory Group and worked on many water development projects throughout the Central Region. Attendance at his funeral by property owners whom Kel had assisted was testimony to the high regard they had for him.

When the information technology age came along, Kel was keen to get involved. In a very short time he became the focus in the Central Region for computer systems use and development and worked tirelessly outside normal hours to keep everything going.

Kel retired in 2013 but unfortunately suffered deteriorating health until finally succumbing to those problems in March 2018. He will be remembered by his work colleagues as a dedicated & committed bloke who was always there to assist.

**Footnote:** According to Col Hazel, Kel "finished his first year of the (groundwater) course but was unable to complete second through no fault of his own; Jack O'Shea had not written Groundwater Hydrology 2. By the time that Jack got around to asking me to write it, Kelvin had left frustrated."

### Vale - Michael Thomas (Mick) Williams

Mick Williams started his career in the Public Service in 1963, following in his father's footsteps in the Department of Forestry where his Dad had served in places like Kalpower, Tully, Clermont, Atherton, Fraser Island and Rockhampton. Mick joined up straight from school and served in Mackay before moving to Rockhampton in 1964 and joining the then Irrigation and Water Supply Commission.

In 1967 Mick had a brief sojourn in the Townsville office before returning to Rockhampton. In 1974 Mick spent ten months in the Gooburrum Construction Camp at Bundaberg, returning again to Rockhampton

Mick was the well recognised Regional Administration Officer in the Central Region and worked in that capacity through the absorption of the Commission into the DPI in 1989. In 1995 he transferred to the Environmental Protection Agency and worked there until his retirement in 2004.

Mick was everybody's mate. Nothing was ever too hard for him and nor was anyone more obliging. He loved his family, sport, company and a cold beer. Everyone knew him and his reputation had spread far and wide.

Life after retiring was, however, very difficult. Mick contracted lymphoma cancer and other complications which led to a long period of sickness culminating in Mick's passing in early April 2018. He leaves wife Pam, son Steve and a host of memories for many, many people to recall.

## Robert Ellis - Shell Collector

Retired Senior Hydrologist (Groundwater)

I have been interested in collecting shells (molluscs) since I was a youngster holidaying at the coast. Since then, I have been involved with all sorts of shelling activities such as diving, snorkelling, dredging, and trudging through mud, and walking reefs and beaches in search of shells. *Conchology* is the study of the solid part of a mollusc, the shell, and *Malacology* is the study of the animal within.

I have been a long-time member of the several shell clubs in Australia and New Zealand.

Since 1990 I have organised field trips to offshore locations at least once a year, in large charter boats. These trips left from Gladstone and were between one and two weeks duration. Destinations have been the Swain Reefs (150 - 300 km off Central Queensland), the Capricorn-Bunker Group (off Gladstone), East Diamond Isle (600 km east of Cairns), Saumarez Reef (350 km north-east of Gladstone), Frederick Reef (450 km north-east of Gladstone), Gould Reef (off Bowen), and the Shoalwater Bay area. There are usually between 10 and 20 participants, from all over the world, on these trips.



Haul from a shell dredge, Swain Reefs

There are restrictions on areas where shells can be collected and these are supervised by the environmental departments. In support of my hobby, I consider that it is environmental changes which are a threat to species, not individual collectors. Anyone who enjoys seafood, and has the occasional oyster, scallop or calamari would eat a lot more shellfish in a year than shell collectors would collect in live shells. Shells are rarely found in the beautiful corals, preferring to live buried in sand and mud, or under broken dead coral or rock.

The environments are subject to fishing, dredging, and coastal developments, but by many orders of magnitude, the weather causes the greatest damage. Damage from cyclones Hamish and Yasi can be seen many years after the damage was caused.

I have been involved with the research into cone shell venoms. One of the shells I have collected, *Conus geographus*, is capable of killing up to 800 people with the venom it contains, and is one of the deadliest animals alive. Cone shell venoms have been used in medicine since the 1950s, mainly for heart related treatments. They are big business in the pharmaceutical world!

Until plastics became common, shells were used for items such as buttons, combs, jewellery, and ornaments. Seafood is sourced from oysters, scallops, abalone, mussels, squid and many other molluscs. Many specimen shells are obtained from the Philippines, Indonesia, China, India and others countries. These shells are usually bycatch, and the animal has been eaten before ending up in a souvenir shop or in someone's collection.

The worldwide trade in shells is extensive, and some exceptional shells command phenomenal prices. Many of these are not seen by the general public, much as private art collections are kept under wraps. The prices relate to beauty, demand and rarity. Some very expensive shells are not particularly pretty, but are of great scientific value.

The main opportunity to see and buy shells is at a shell show. These days most dealers also operate on the internet. At these show very expensive shells from all over the world can be seen. At shell shows, there is usually a session set aside for collectors and the public to *Sell, Swap & Buy* shells from the registrants, rather than from the dealers.

Although my hobby is not seen to be competitive, I have been successful in many of the competitions I have entered in shell shows in Australia and New Zealand. I won the *MSA President's Perpetual Trophy for Cone Shells of the World* in Sydney in 1998 and *Shell of the Show* in Brisbane in 2002. This year I travelled to Fremantle to attend the Western Australia Shell Show, where I won several awards. The best of these was the *Shell of the Show Bivalve*, for an oyster dredged in deep water off Noosa.



Shell of the Show – Bivalve

For further information on the world of shells, contact Robert on [robert.i.ellis@bigpond.com](mailto:robert.i.ellis@bigpond.com) - Ed.

## Around the World in 104 Days

### Part 5

**Bruce Pearce**

It took two days to get there, but early on Day 57 we entered the narrow Strait of Gibraltar that connects the Atlantic Ocean to the Mediterranean Sea and separates Spain from Morocco. Although it is less than three square miles in area, the Rock of Gibraltar has become a symbol of durability and permanence. With its strategic location at the western entrance to the Mediterranean, the "Rock" offers great value as a military strong point. There is little wonder why it has been such a great source of contention over the centuries. Europe is only eight miles from Africa at this point and the Straits are 36 miles long. Whoever controls Gibraltar and the harbour at its base is in a good position to control the passage between Atlantic and Mediterranean waters. The Rock itself is a natural fortress 1,396 feet high, with a sheer vertical face to the east. The town has a population of about 30,000, with an ethnic mix that reflects the history of this strategic crossroad: Spaniards, Moors, Arabs and British.



Gibraltar is also the site of the Apes Den, home of the famous Barbary Apes. Actually tailless monkeys, the Apes are native

to this prong of land, but not to the rest of the Spanish mainland. Legend has it that Britain will retain the Rock as long as the Apes live here. At one point during the war, they seemed to be dying out. Fearful of poor morale at a critical time, Winston Churchill gave the legend a bit of help by bringing in ape-reinforcements from North Africa in 1944. Today they number about 60.

Our tour for the day included a narrated drive around the Rock, a visit to St Michael's Cave with its illuminated stalactites, vast amphitheatre and subterranean breeze and a visit to the Apes Den to see the monkeys. We stood at Europa Point, Europe's southernmost tip, but it was too hazy to see Africa across the straits. Late that evening we set sail around Europa Point heading to our next port of call – Barcelona.

Another day's cruising took us to Barcelona, on Day 59. Although it is one of Spain's most lively and dynamic cities, Barcelona is really not Spanish at all. As the capital hub of the autonomous region of Catalonia, the city has a long and glorious history all its own. The Catalan language is similar to Spanish but also has much in common with southern French dialects. Barcelona is one of the world's greatest treasures being

vibrant and earthy, commercial and cultural with a population of about 4 million. The highlight of our visit to Barcelona was the work of Antoni Gaudi (1852-1926) who combined art nouveau and modernismo. Examples of his work are found all over town, but the towering La Sagrada Familia is certainly the most striking. Gaudi believed in natural and organic lines, with no trace of anything angular or mechanical. He began construction of his unique church in 1883 and completed a great part of it before he was killed by a tram in 1926. Over recent years, work has resumed in spite of the fact that he left no plans or notes to help his successors. The multi spired church stands out as a major feature on the Barcelona skyline.



Our tour for the day included a visit to La Sagrada Familia and its Gaudi museum on a narrated city drive which also included climbing the hill of Montjuic, home to the 1992 Olympic Ring with a spectacular view of the city, picturesque parks, fountains and museums.

In the evening we set a north-easterly course towards our next port of call Monte Carlo. Although it is less than a square mile in area, Monaco is a sovereign state with a population of about 33,000. French is the official language, though English, Italian and Monegasque are also spoken. Monte Carlo is the playground of the rich and famous. Sleek yachts grace the harbour. Boutiques offer the latest fashions and jewellery from the most prestigious couturiers in Europe. Cafés, cabarets and the elegant Casino throb with nightlife. Monte Carlo is also the modern district of the principality of Monaco. Monte Carlo sprang to life in 1886 and hit full stride with the opening of the Casino, designed by Charles Garnier, whose credits include the Paris Opera. Today, Monte Carlo is one of the most vibrant and fascinating ports of call in the world.



*To be continued in next edition...*

# Great Rail Journeys

## Part 2

### Peter Gilbey

After Lugarno we travelled back to the eastern end of Switzerland on the Bernina Express via Tirano which is above Lake Como to catch the Glacier Express which takes you from Davos to Zermatt where we caught up with the famous Matterhorn.

While near Davos we caught a local cableway to a little village on the way up to the ski fields and mountain trails. The locals were a bit surprised to find out we were Aussies as they said many Swiss did not even know to come there.

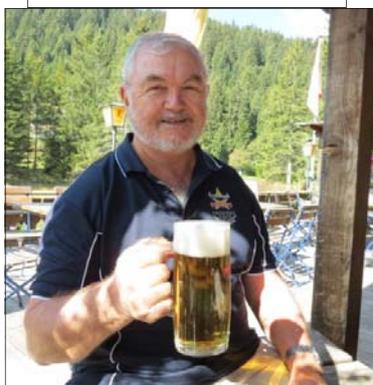
### Meeting the locals:

One of the locals was a lovely old gent who had lived for some 41 years in Melbourne, had raised

his kids there, but yearned to go back to Switzerland after his wife passed away. In just 13 years he had almost forgotten how to speak English but after chatting to him a while it started coming back and we had a good old natter while he cooked his lunch. The Glacier express runs east west between mountains on either side and you follow the course of the Rhine to the top of the catchment and then cross over into the valley of the Rhone which feeds down



Lunch!



to Lake Geneva which has a capacity 40 times that of Burdekin Falls Dam before it discharges into the Mediterranean in southern France.

We stayed at Zermatt for two days taking the cog wheel train to Gornergrat which has excellent views of the Matterhorn – I must say we were blessed by the weather which gave us crystal clear days for viewing most of the time especially when we travelled to the high places. We walked part of the way back down but you need to be pretty fit as it really puts a strain on the muscles especially at the front of the old legs traversing the steeper slopes. The next day we took the cable way to a vantage point closer to the Matterhorn but as luck would have it the mountain was shrouded in cloud for our last day in the Alps.

Two things really impressed us about Europe – the clean cut youth and their passion for outside sports, whether it be mountain bike riding down near

vertical slopes or skiing and snowboarding through crevasse filled snowfields, they were extremely polite and were just there to enjoy being alive. Nowhere did we see youths under the influence or behaving badly.

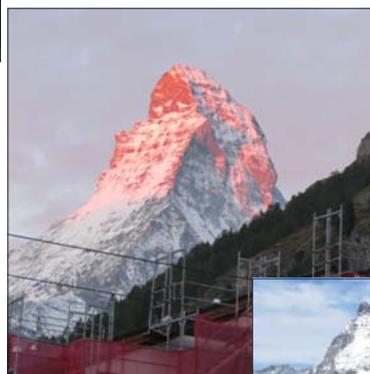
One story told to us during our visit to Gornergrat was of a local guide who made the last of many ascents of the Matterhorn when he was in his nineties: a mountain which had stopped many attempts during the 1850s and 60s before finally being conquered.

### The Matterhorn

Zermatt was certainly a highlight of our trip and we were sad to leave for our return journey via Lake Geneva. We again stopped at a smaller town in France on the way back this time at a place called Dole which was similar in some ways to Colmar and is best known as being the birthplace of Louis Pasteur. Dole was at one point a very strategic centre and was a bulwark for the Catholic Church against the revisionism happening elsewhere in France and Europe. A mighty church was built on a scale which would rival many of the more famous churches in Europe and it has always amazed us how the craftsmen of the day managed to build such magnificent buildings with the tools at their disposal. I guess the same can be said of the Romans who travelled through Dole on their way to conquer the west parts and Great Britain.

We concluded our journey via Paris with another visit to Notre Dame before heading back to London and home via Dubai.

I trust this has given you some insights into travel by train and we would be happy to pass on some tips to those wishing to do a similar type trip. We packed relatively light for the time of year September/October which is starting to cool down over there then – but if you can keep the baggage weight down it certainly helps as not all places have elevators and finding space on some trains and even just boarding them due to lower than usual platforms can be a bit of a nuisance.



The Matterhorn - and the Gilbeys



Many thanks, Peter, for this lively account of your travels -Ed

## Unfinished Business: The Urannah story continues...

### Peter Gilbey

The Queensland Government recently approved funding under the Commonwealth's Water Infrastructure Development Fund for Bowen Collinsville Enterprise Association to prepare a Preliminary Business Case (PBC) for the construction of Urannah Dam north west of Mackay which is upstream of potential coal mines and the Collinsville area which has some 12,000 hectares of potentially irrigable soils.



### History

Previous studies dating back to the 1960s included detailed site investigations principally for a large earth and rock or concrete faced rockfill dam to supply additional water to that provided from Eungella Dam for further mining and agriculture development in the lower reaches of the Bowen and Burdekin Rivers. The PBC will use this knowledge and examine options for construction of the dam using modern construction technology to help reduce costs. Previous assessments including the 2001 Burdekin Basin Catchment Study recognised the viability of the dam and found that the environmental, social and cultural heritage impacts were manageable.

In 2007 the Burdekin Water Resource Plan allocated 150,000 megalitres of medium priority water for development in the Bowen/Broken Catchment which approximates the yield of the proposed dam. In 2014 the Federal Parliamentary Committee inquiry into the development of Northern Australia recommended the Australian Government give priority to the development of sustainable dam projects with strong cost/benefit cases including the Urannah Project.

### Scope

The scope of work for the PBC includes the preparation of a Strategic Business Case which will identify potential stakeholders and establish potential benefits.

Technical studies will cover potential markets, hydrologic modelling, dam siting and geotechnical, engineering, cost estimates, environment and risk assessment

The PBC will provide a Financial and Economic analysis, delivery model and work plan to reach financial close. The project is to provide sufficient information at a level of confidence to allow a prudent investor to progress the project and is to be completed within the next twelve months.

The focus will be on completing an engineering solution that supports the financial case. Sufficient resources will be available to undertake the elements of building the business case including demand for water for mining, power, industry, tourism and the urban sector as well as the availability and suitability of land for crops with a capacity to pay for the required water.

### Organisation

Governance arrangements provide for the devolution of funding under a State Funding Deed to the project proponent – Bowen Collinsville Enterprise Association – who have appointed an independent Project Manager who will be responsible to the Project Control Group (PCG) formed of BCE members, technical and consultation representatives for the delivery of the project including the appointment and management of consultants.

### Challenges

So just how does one get a new dam up in the modern era? Obviously there are legal, financial, environmental and other complex hurdles which need to be faced – finding a proponent with the necessary financial backing is difficult as SunWater found with the Connors River Dam Project. To convince anyone to invest and take on the responsibility of dam ownership in the current climate is certainly difficult, but provided Governments of all persuasions are willing to assist then it may be possible to address the difficulty of building projects with long lead times and even longer pay back periods.

Other factors including the potential for Regional Growth are also at play with the future dam pivotal in the further development of Central Queensland. For example the construction of an access road to the damsite could open up the Mackay Hinterland and if used as part of a link road back to Bowen/Townsville provide an alternative to the Bruce Highway for travellers and tourists.

The studies will also need to find solutions to the cost of construction e.g. could RCC be used to avoid the need for a stand alone spillway? And what about the environmental challenges – is a fishway really necessary and can the habitat between Eungella and Urannah be augmented to assure the survival of Irwin's turtle – these and other key environmental questions will need to be addressed sufficiently for the project to take the next step.

The project is also an opportunity to engage with the Traditional Owners and the UPA who hold the background lease on behalf of the Indigenous Land Corporation. At this stage the Traditional Owners are supportive of the dam as it offers an opportunity for financial independence which they see as a way forward for their people and BCE is committed to exploring with them how they might participate in the build and stewardship of the dam.

### Acknowledgement

Thanks go to Bowen Collinsville Enterprise for the opportunity to provide this update to the Water Resources Retirees Association.

## **The World of SunWater.**

*A summary of Lisa Welsh's presentation to the AGM*

SunWater's core strategic goals are;

- Commercially focused operations
- A sustainable business.
- Supportive stakeholders
- A high performance culture.

### *Supportive Stakeholders*

The move towards Local Management Arrangements (LMA) was promoted by COAG in 1994 and the issues are still current today. It is recognised that customers want more influence over the management of distribution schemes. LMA has demonstrated benefits based on the experiences in other jurisdictions but also some challenges including regulatory complexity, conflicts between community expectations and commercial decisions, collecting sufficient revenues to maintain infrastructure and changes in water policy.

Following the 2012 QCA irrigation price review, Government began considering local management of SunWater's eight distribution schemes.

Stage 1 involved a report to Government indicating a high level of interest and support.

Stage 2 comprised an independent review of the feasibility on costs and benefits of LMA for the eight interim boards. The report found it was in the long term interest of Queensland and customers to move to LMA due to productivity improvements, reduced subsidies and the opportunity to expand and modernise.

In Stage 3 the current status is:

**St George** – customers representing 97% of the water entitlement voted "yes" to transition to irrigator-owned Mallowa Irrigation Ltd to commence on 30 June 2018

**Dawson** – a proposal currently out to vote with customers

**Emerald** – SunWater is currently assisting finalisation of a proposed transfer agreement

**Eton, Burdekin and Mareeba** – awaiting feedback on a proposal from Government

**Lower Mary and Bundaberg Boards** have formally withdrawn from LMA.

For smaller schemes there is an issue with small revenue and customer base. There are efficiencies but these are not huge and customers are now considering that systems are not so inefficient. The LMA process has brought about positive communications with customers. For schemes not progressing to LMA, SunWater has to consider how they capture the knowledge and understanding of customers to promote better outcomes for all.

The current Irrigation Advisory Committee structure is unsuited to new customer expectations and SunWater is currently working on a Customer Advisory Board pilot in the Lower Mary.

With the QCA Irrigation Price Review customers have expectations, with some good but others unrealistic and it is difficult to have price discussions when prices are already set by the referral notice.

### *Urban Customer Price Review*

There are legacy contracts with a range of pricing outcomes and no consistency. In the past SunWater has tried to significantly increase prices with limited consultation. The new approach is to leverage as much as possible from the QCA price review, standardise terms and conditions and a transition path towards higher cost recovery. So far customer feedback has been positive.

### *Customer-Centric Strategy*

Feedback from customers shows that they want more consultation, transparency and better value for money. The Strategy includes:

- Reference Groups for each of SunWater's customer groups, ie, irrigation, urban and industrial
- Customer Service Commitment to drive cultural change and shared accountability
- Improved complaints handling
- Regular surveys to track "customer advocacy" scores.

## **Department of Natural Resources Mines & Energy**

*A summary of Linda Dobe's presentation to the AGM.*

The former Water Division of DEWS has been amalgamated within DNRME.

The Water Markets & Supply Group is involved with water security for urban, SEQ and new bulk water infrastructure and also GOC oversight and pricing.

A new project to respond to an external audit of metering and to revamp trading and the market will be conducted by Water Markets and Supply Division.

The Queensland Bulk Water Opportunity Statement which identified that large volumes of water are unsold and underutilised was published in July.

The National Water Infrastructure Development Fund included 15 feasibility studies in Queensland. The first is Rookwood Weir with the State proposing funding \$176M to be matched by the Commonwealth and with the inclusion of some ongoing operational costs.

Since some of the feasibility study proponents are local governments and operate on a not for profit basis the Queensland Government is providing up-front funds that the Commonwealth will reimburse. DNRME will review the studies and the Government can put an addendum into consultants' reports.

A detailed business case is being developed for Nullinga Dam.

The Regional Water Supply Security Assessments look at future demands and what councils are doing for security of supply. Many have the opportunity to purchase more water.

\$225M in funding is to be provided to ensure security of supply for Townsville including a duplication of the Burdekin Pipeline. The DG was on the Task Force. The modelling shows that Ross River Dam does not have sufficient capacity and additional water needs to be sourced from the Burdekin and also to optimise the use of existing sources. The final report is to be provided to the Federal Government in September 2018.

QCA will commence investigating the pricing for bulk irrigation water and has just finished a review of bulk water pricing in SEQ.

# HEALTH *and beauty*

## Good News

I can't remember when last I heard such good news. The press reports that an effective Alzheimer's treatment could be available in three years and a vaccine that prevents the disease within a decade. Dr David Reynold's, chief scientific officer at Alzheimer's Research UK said 12 drugs – all of which could be potentially life-saving – are set to complete clinical trials by 2021.

It is now a matter of when, not if, a cure will be found for this disease which causes dementia.

A drug that could reverse the aging process and make space travel possible will be trialled on humans this year and could be for sale in 2020.

Australian scientists have found a vitamin, nicotinamide mononucleotide (NMN) that helps repair DNA damage and it's so good they are taking the pill themselves.

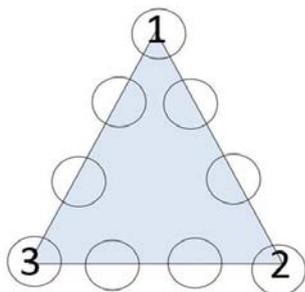
Professor David Sinclair of UNSW School of Medical Sciences and Harvard Medical School, Boston said, "This is the closest we are to a safe and effective anti-ageing (sic) drug that's perhaps only three to five years away from being on the market if trials go well."

The drug has potential use in NASA's planned 2025 mission to Mars. Accelerated aging caused by cosmic radiation, mental impairment and increased risk of cancer are pitfalls of space travel. On a trip to Mars, 5% of the Astronauts' cells will die, affecting mental and physical capacity. It's hoped that this vitamin might be able to reverse that damage.

Back on earth, the medicine promises to help humans defy the aging process and stay healthy. It has the potential to overcome the side effects of radiotherapy and chemotherapy.

In the meantime, just relax and have a cup of tea. Researchers at the University of California found that people who drank at least one cup of tea per day had a 74% reduced risk of blindness. Tea appears to be beneficial because of its high flavonoid content which is protective of the tissues and nerves around the eye.

## Exercise those Brain Cells



Q. Place two numbers from 4 to 9 in a circle on each side of the triangle so that the sum of each side is 17. Each number can be used only once.



## Apostrophe's

Robert Ellis sent me this photograph which he took at the Myer Centre. Obviously he hates misplaced apostrophes as much as I do.



The BBC reports that there is a man in Bristol who goes out at night removing apostrophes and commas that are in the wrong place or adding them where they should be. He has been doing this for thirty years and describes himself as a "grammar vigilante". Some of the owners of the offending signs have accused him of vandalism, but he says they are the ones vandalising the language. "Keep up the good work," I say.

There are those who would have us abandon the apostrophe altogether on the grounds that people find them too hard. But without apostrophes, how could we see the clear distinction between "The visitors book was stolen", "The visitor's book was stolen" and "The visitors' book was stolen?"

A few years ago I wrote to the Board of Trustees of the Ipswich Girls' Grammar school asking them to remove the apostrophe. My (correct) argument is that the girls do not own the school (possessive case) but it is a school **for** girls (dative case). The Board declined to make the change on the grounds that the title was in legislation.

I almost despair. - Ed.

In a recent survey, 82% of respondents claimed they were above-average drivers!



"I looked at my naked body in the mirror and commented that I hated aging that leads to wrinkles and sagging. And he said, 'There's nothing wrong with your eyesight.'"

## Answer to last Issue's Teaser

A.  $5 \times (5 - 1 \div 5) = 24$

Step by step

$$1 \div 5 = 0.2$$

$$5 - 0.2 = 4.8$$

$$4.8 \times 5 = 24$$

Who said the numbers had to remain whole?

## Many a Crossword ...

My name is Ian and I am a cryptic crossword addict. I have been since my mother taught me to do the simple *Womens Weekly* ones at the age of thirteen. Crosswords are my buffer against Alzheimers.

The crossword puzzle was invented by Arthur Winn when he published his first word-cross in the *New York World* on 21 December 1913. This contribution was so enthusiastically welcomed it was retained as a weekly feature. The fad took off and crosswords began to appear throughout the world. But it took to 1930 before the name was included in dictionaries – ironic, considering that the crossword was the reason for a massive spike in sales of dictionaries.

Cryptic crosswords are different from simple synonym based puzzles for things are seldom as they would appear. For example, the answer to the clue The capital in Czechoslovakia (4 letters) is not Prague with 6 letters but Oslo – CzechOSLOVakia. The clue He wrote the ancient mariner (6) does not result in Coleridge but POPE (a writer) plus YE (ancient form of ‘the’) to produce POPEYE (a mariner). In the clue Alcoholic drink is truly an evil (5,4) the word ‘evil’ suggests the answer might be an anagram of ‘is truly an’, and indeed that is the case: these letters when rearranged produce RUSTY NAIL which is an alcoholic drink.

I never cease to marvel at the ingenuity of cryptic crossword compilers.

One of my most treasured clues (because it is redolent of all those quips about bishops and actresses) is Actress fast to sin in a bishopric (5,5). If you take ‘lent’ (meaning fast) and ‘err’ (sin) and place them inside ‘Ely’ (an English bishopric) you get ELLEN TERRY – one of the most famous actresses of all time.

## A Home out in the Country

In the late 1890s, the famous English actors Ellen Terry and Henry Irving were driving through country Kent near Tenterden when they came to a small bridge spanning a narrow stream at Smallhythe, the site of an ancient port. To the right was an old Tudor farmhouse. Ellen immediately declared that this was where she would like to live and die. Irving told her to buy it. They went inside and found an old shepherd. Ellen asked him if he lived there. “No-a.” “Is this a nice house?” “No-a.”

Despite this, she asked him if he would remember to tell her if it ever was for sale. In 1899 Ellen received a postcard with the unsigned message, “House for sale” postmarked Tenterden.

That year she bought Smallhythe Place. She loved it and returned there from her hectic theatre career whenever she had any spare time. She died there in 1928.

...In 2010, we visited what is now a National Trust Museum of her life.

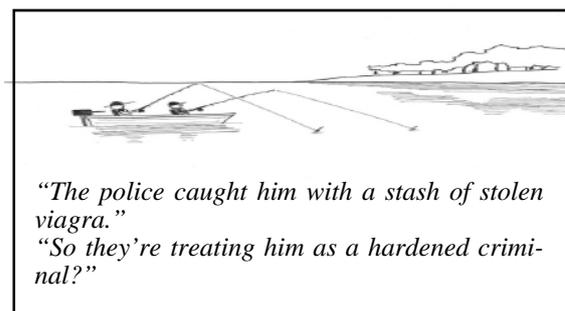


## A Sign of the Times

At Paddington Station, London  
**Passengers must stay with their luggage or they will be taken away and destroyed**

**Terry’s Trivia**— from the 2018 mid-year lunch.  
Answers on page 4.

1. Which of these rare astronomical events occurred earlier this year? (i) Supermoon; (ii) Blood moon (iii) Eclipse; (iv) All of the above.
2. Mungo Man is the oldest skeleton ever found in Australia. It was found at: (i) Lake Eyre; (ii) Cradle Mountain; (iii) the Julius Dam foundations; (iv) Willandra Lakes Region; (v) Kakadu; (vi) Simpson Desert; (vi) Menindee Lakes
3. The Doomsday seed vault is in?: (i) Sweden; (ii) Norway; (iii) Denmark; (iv) Iceland.
4. Dingoes are found in every State and Territory except: (i) SA; (ii) Victoria; (iii) Tasmania; (iv) WA.
5. About how much plastic ends up in the oceans every year? (i) 1Mt; (ii) 3Mt; (iii) 6Mt; (iv) 8 Mt.
6. The 2018 Football World Cup is the: (i) 10<sup>th</sup>; (ii) 15<sup>th</sup>; (iii) 18<sup>th</sup>; (iv) 21<sup>st</sup>; (v) 25<sup>th</sup>.
7. The 2014 World Cup was hosted by: (i) England; (ii) Argentina; (iii) South Korea; (iv) Brazil; (v) Germany.
8. Where was the Aboriginal Flag first flown?: (i) Victoria Square, Adelaide; (ii) Wave Hill, NT; (iii) Parliament House, Canberra; (iv) Federation Square, Melbourne.
9. Which urban centre has the lowest average annual temperature: (i) Hobart; (ii) Launceston; (iii) Canberra; (iii) Ballarat; (v) Bathurst; (vi) Lithgow.
10. Israel, North Korea and Bolivia are three of four countries that have military conscription for women, which is the fourth: (i) Norway; (ii) Switzerland; (iii) Bangla Desh; (iv) South Africa; (v) Canada.
11. Where did Rudyard Kipling write the Jungle Books?: (i) England; (ii) United States of America; (iii) India; (iv) South Africa.



# Book Club

Graeme Simsion is the author of the wonderful *The Rosie Project*. His wife Anne Buist is the author of the Natalie King thrillers (which I haven't read). Together they have written a compelling story, *Two Steps Forward*.

This couple have walked the Chemin/Camino from Cluny to Santiago de Compostela twice, and have used their experiences as the background to their fictional story, writing alternate chapters.

Zoe is a recently widowed woman from California who is looking for answers on the Pilgrims Way. Martin is an engineer from Yorkshire who, in the aftermath of a messy divorce and retrenchment, is road testing a cart for its suitability as an accessory for walkers. Each sets out alone to walk two thousand kilometres in the path of the pilgrims who have walked the Camino – the Way – for centuries.

At the outset they are warned that the Camino changes you and it is a chance to find a new version of yourself as you walk the route marked by the shell symbols.

In the course of their travels, they encounter hardships as their paths cross those of other 'pilgrims', not the least of which is extremely straitened budgets. This, coupled with the ease of losing the route (or indeed choosing the least best of several routes), the blisters and sheer physical demands of walking 25 miles a day, day after day, produce a compelling story of endurance and adjustment.

We have come across the Chemin in our travels but have no desire to emulate these modern pilgrims.

**Ian Pullar**



*"It's terrible how many Australians can neither read nor count."*

*"There can't be all that many, surely."*

*"Have you ever seen the express lanes in the supermarket?"*

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Ben Elton is prolific author with a prodigious output of novels, television scripts and plays across a wide range of genres. We have revelled recently in his fabulous *Upstart Crow* series on television and his *Blackadder* series must rate very highly in the pantheon of British TV comedy

But he also writes serious novels. His *Two Brothers* is about as serious as it gets.

In 1920, Frieda Stengel, a Jewish mother in Berlin gives birth to twin boys. One however is still-born. But in the next ward a Christian woman has died in childbirth and her baby boy is unwanted by her family. Would Frieda and her husband Wolfgang consider adopting him? Thus Paulus and Otto become inseparable brothers.

Wolfgang is a musician who has plenty of gigs during the madness of German hyperinflation, but once austerity comes into force, he falls on hard times. He decides to offer piano lessons and Dagmar, the daughter of the owner of Berlin's premier department store, becomes his pupil. She, the boys and Silke, the daughter of the Stengel's maid, are all aged seven. They become the inseparable members of the *Saturday Club*. Both boys fall in love with Dagmar.

But Germany is on the brink of descending into the madness of Hitler and the Nazis. All the woes of Germany are blamed on the Jews. Anti-Semitism is not only encouraged but gradually becomes mandatory. The Jews by stages lose their privileges, their livelihoods and their property and face brutal attacks. More and more are sent to concentration camps. Frieda, who had become a doctor, is first forbidden to treat Aryan patients, then is no longer allowed to use the title doctor and is provided with virtually no equipment or medication to treat the patients she nurses.

The story continues through World War II and beyond, while the relationships between the members of the Saturday Club are stretched to the limit. Dagmar realises that she will have to choose one of the brothers – but which one?

The picture Elton paints is horrifying but realistic. An absolutely engrossing book.

**Ian Pullar**



*"I've never made a mistake in my life. I thought I had once, but I was wrong."*