



President's Message

Thank you for your confidence in electing me as your President and a even bigger thank you to John Caldecott who has provided us with great leadership in this position for the past 2 years.

Your new committee are determined to keep the "Friends flag flying high" having successfully applied for a substantial grant from Natural Resources Management to conduct a whole of Gulf St Vincent community turbidity survey using the Secchi Disc and recording our data on our new software program that will be made available to all members .

We are also planning to hold our next Community Forum on September 26th at the Semaphore Surf Lifesaving Club on "Water Quality and Why it Matters".

In addition to all that we are working on a design for a "pull up Banner" and the production of our Gulf St Vincent Flags in pennant and small flag pole sizes.

The "Friends " have a critical role to play in meeting our objectives of the protection, awareness raising, advocating and the wise use of Gulf St Vincent and in this issue we have a report on our meeting the new Minister Hon. Paul Caica to raise with him the progress of critical issues of - The Adelaide Coastal Waters Study - Dredging licensing and guidelines - Monitoring all brine discharges from the desalination plant and the Torrens River Task Force Report. [see page xx]

Your ongoing support and views are essential in making the Friends a strong voice in the future.

Jim Douglas, President

The Friends AGM was held on March 14, 2010 Held at Henley Community Centre.

Lynette Croker, Senior Kurna woman gave the welcome to country at the AGM

Nina marni, this is Kurna for "How are you?", and welcome to this place for the AGM ladies and gentlemen.

In recognition of Kurna Yerta, People and History I would like to say:

The Kurna Nation inhabit the corridor of land along our eastern shores, Kura Yerlo {beside the sea}, from Cape Jervis in the south to Crystal Brook in the north, and across from the Mount Lofty Ranges in the east to the gulf in the west, and including this space and place here, the Old Gum tree, where our common rights were first spoken of together in proclaiming a future common destiny for us all.

In pursuit of the seven R's of Reconciliation of the Journey of Healing with the Stolen Generations as they recently were recognised and respected by the Governor up the road at the Old Gum Tree in the spirit where it all started on 28 December 1836:

Recognition, Respect, Rights, Reform, Reciprocity, Responsibility, Reparations.

These are the seven things we could all do to help one another out.

I must say to you that the Kurna People were the first to be dispossessed, were the first intervention and made up the Original Stolen Generations in South Australia.

I am Chair of the Kurna Cultural Heritage Association whose aims and objectives are to look at everything in a holistic way: lands, water and the gulf, about our heritage and culture and the sea. We are all trying to do what we can to bring change and looking for people to listen to us as we meet our aims and objectives whatever they may be. Once again welcome to Kurna Country and have an informed meeting. Thank you.



Our guest presenter at the AGM was Colin Pitman from Salisbury Council



Water Sustainability Developments **Guest speaker Colin Pitman**

Colin has had an interesting journey to his current job, originally from an apple and pear growing family from Inglewood, went to Urrbrae HS then to Roseworthy, worked at Lock as an Abalone diver and shearer, built sheds for Horwood Bagshaw and then became a civil engineer. He has worked at Salisbury Council for 21 years, where he has been actively involved in ensuring excellent lifestyle and landscape in Salisbury for residents.

World Focus

The Stormwater Recycling Program based in Salisbury started to gain wide recognition when it won a World Water Association Award in Beijing in 2006. The research is sponsored by Veolia, CSIRO, Berliner University, EEC (Unesco), Italian Water, Slovenian Water, the Republic of Syria, Barcelona Water, Phoenix Water.

Barcelona is looking at a well in the centre of a city, the water comes from a river at some distance.

Phoenix in Arizona US, which is at the same latitude as Adelaide, is selling wastewater via an aquifer.

Applied research around the world focuses on health, soil water disinfection (nanotechnology), risk management and bacterial degradation in aquifers.

Next in Salisbury

- Reticulation of non-potable water to homes on Cross Keys Road.
- Remote management of system – there is complexity now because there are 12-13 systems operating and surveillance is required

- More rainfall measuring instruments
- In line monitoring of nutrient load/ turbidity/salinity
- Measure stream flows
- Measure aquifer recharge volumes
- Measure customer consumption
- Aquifer blockage and automatic cleaning

There is currently distribution between northern councils and water could be supplied to other councils further away. A supply network is being investigated, however one issue is quality of aquifers.

Drivers for a wider distribution network are:

- Flood protection
- Recreational amenities
- Environmental management, including
 - Habitat creation and biodiversity enhancement
 - Protect Barker Inlet
- Development of alternative water resources
 - Reduce reliance on River Murray
 - Make a profit

Aquifer Storage and Recovery

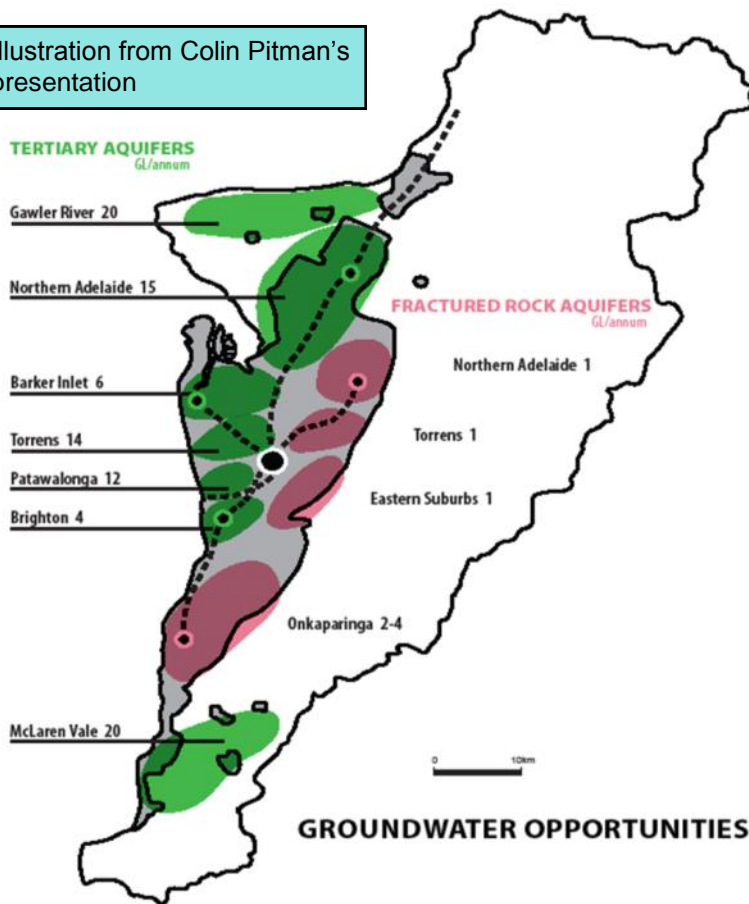
Much work has been done in the past 20 years in partnership with CSIRO. Water used by market gardeners and other growers is becoming salty.

Salisbury produces water for Mawson Lakes, Paddocks Wetlands, Kaurna Park Wetlands, Heyne's Nursery at Burton (using a small UV disinfection system).

Kaurna Park Wetlands—from Colin Pitman's presentation



Illustration from Colin Pitman's presentation



lower rate. (Could be viable if 60% of households take up) cost = \$2.30/kL

Option 2—potable distribution using on-site treatment is the more economic of the options.

Truths about stormwater

- On average 170 GL runs out to sea
- 60% could be captured
- Stormwater is of variable quality but is treatable in the same way as Hills catchment and River Murray water are
- There will be no reduction in runoff due to climate change because of growth of roof area
- 86% of the community supports the treatment of stormwater to drinking water standard
- Seagrass loss can only be halted by decreasing discharge of SW to sea to pre-European quantities and cleaning SW through biological filters, eg wetlands
- Local government is best placed to do this

Future Options

Stormwater storage, treatment and reuse – Peter Dillon (CSIRO) is looking at putting ASR water into reservoir storage. This system is used in Singapore.

Vertical penetration wetland at Pooraka with Flinders University. If it works it will be suitable for use in urban/suburban areas and small blocks. There are incentives overseas to clean water before putting it into water bodies.

Option 1 is to capture SW and return it to reservoirs after which it is treated through existing SA Water system (filtration, chlorination). cost = \$3/kL

Option 2 is to capture SW, store it in aquifers and treat to drinking water standard using filtration and disinfection, then inject into distribution mains system. cost - \$2.20/kL

Option 3 is to supply SW via a new reticulation main to homes as non-potable – at the same flow and pressure as SA Water (large main) (not economical). cost = \$3/kL

Option 4 is to supply SW via new reticulation main to homes as non-potable (rainwater tank) in small diameter pipe – same pressure but

Key Messages

If we don't want polluted water to reach the Gulf it must be filtered/treated – wetlands are best

We should aim for pre-European quantities/quality

The State Government is going to divert water from the Torrens to Cheltenham, Port Road and the airport. Six GL are available, but must be taken at the right times and not damage the ecology of the Torrens. Need to identify the downstream effects of taking water from the stream.

What are the impediments to making the changes required?

Incentives for Salisbury are flood management, commercial (Parafield AP and Michell's) and water quality purposes. It is easy to remove rubbish such as bottles and paper etc decays. It would be good to remove nutrient load.

Awareness of ecology and degradation are not high enough.



The AGM Business was conducted following the Keynote address.

Outgoing President John Caldecott presented a comprehensive report on activities during the year. (This report was handed out to those present, and had been printed in the last Blue Swimmer newsletter).

Notably, during the year John Cugley took over the role of Treasurer from foundation Treasurer Nick Crouch.

Jim Douglas thanked the President for preparing the report.

John Cugley presented the financial report for the previous year. In summary, profit for the year was \$737 and at 31 December the Friends had \$3,886 in the bank.

Andrew Winkler handed over a cheque for \$500 from the Friends of Parks – Friends of Gulf St Vincent's share of the proceeds from the Parks open day.

Minutes of the previous AGM held in Dec 2008 were declared a true record.

Returning Officer Jim Douglas thanked outgoing Secretary Ian Kirkegaard and President John Caldecott for their wonderful contributions.

Life Membership

It was put to the audience that Life Membership should be conferred on Pat Harbison and Ian Kirkegaard.

The new President recalled his first meeting with Pat Harbison in 1998 when the West Beach boat harbour was being blockaded. Her efforts led to the establishment of the Friends of Gulf St Vincent in 2003.

Ian Kirkegaard has been an outstanding Secretary for the past 6 years.

The motion for Life Membership was carried unanimously.

The Meeting closed at 12.50pm.



**Friends of Gulf St Vincent
Office Bearers for 2010/11**

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Committee Members: Rob Bosley, John Caldecott, Nick Crouch

Members who wish to pay their subscription by direct debit—pat to:

Friends of Gulf St Vincent account

BSB: 633 000

Account: 120 815 311



Ian Kirkegaard (above) and Pat Harbison (below centre) with their life membership certificates. (Photographs by John Caldecott)



Secchi Monitoring Project

The Friends are looking for volunteers to take part in a new project – measuring water clarity at as many sites as possible around the Gulf. Volunteers will be provided with training and support and will be asked to enter data from their depth measurements into a central database. The project is being funded by the Adelaide and Mount Lofty Ranges Natural Resources Management Board.

Why is water clarity important?

One of the most serious impacts of urban development and human activity on the gulf is the increased discharge of muddy stormwaters and treated wastewater containing high levels of nitrogen.

Muddy stormwater makes the shallow coastal waters of the gulf unsafe for swimming, the standard being that you should be able to see the bottom, or your feet, in 1.2m water depth.

Muddy water also prevents light from reaching seagrass beds, which like all plants, need light to grow well.

Many marine organisms, including fish, depend on the seagrass beds for shelter and food, and the shells of microscopic grazing animals which live on the seagrass leaf blades are also an important component of the sand on our beaches.

Seagrass beds also stabilise the sand, preventing it from being carried away during storm events. So if we lose seagrasses, we lose some of our



beach sand, as well as losing the fish.

Water clarity can also be affected by dredging operations. When sediments are disturbed finely suspended sediment can remain in suspension for a considerable time. Wave action close to shore can re-suspend the sediment particles and the plume formed can move up and down along the coast.

How can this project help?

We need an early warning system to detect sources of muddy waters along our coast, and this is where the community of coastal residents can help.

Our plan is to recruit volunteers who can regularly use a secchi disc to measure their local turbidity, or muddiness of shallow coastal waters in Gulf St Vincent from a jetty, boat or other safe location.

The secchi disc is 8 inches in diameter, usually painted with alternate black and white quadrants, and attached to a rope long enough to lower it into the water from a jetty.

The disc is lowered into the water until the black & white quadrants can no longer be seen from the surface. In clear, still gulf waters the depth before losing sight of the Secchi disc could be more than 20 metres, but near the shore, the action of wind and waves is likely to disturb sediments and other particles, decreasing water clarity.

The "secchi depth" is measured by the distance between the water surface and the point at which the disc disappears from view. If the secchi depth is less than 1.2m, the water is considered unsafe for swimming.

How to become involved?

The Friends of Gulf St Vincent will provide secchi discs to all volunteers for this important monitoring program of Gulf St Vincent's coastal waters, and will convene several coastal forums to demonstrate the methods for collecting this information from our local jetties. The waters extending from Outer Harbour to Port Stanvac are particularly at risk from turbidity (muddy waters), but we also need to monitor coastal waters at all jetties around the gulf, so that we can identify marine areas which may be affected by turbidity now, and those which may be at risk in the future.

If you would like to assist us with this project, please contact the secretary Angela Gackle – see contact details below.

angelagackle@aapt.net.au

Mob: 0410 585 038

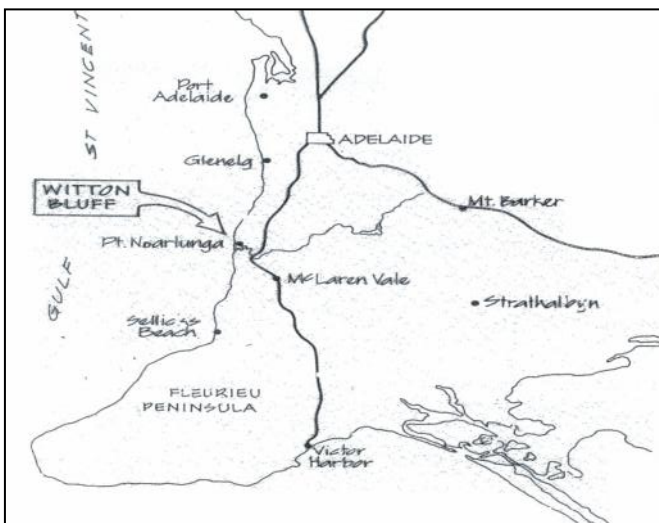


Tales from Witton Bluff

by Rob Bosley

Witton Bluff is an outcrop of low coastal shelves, cliffs and reef near Port Noarlunga, which lies about 26 kilometres south of Adelaide.

Here Tertiary marine strata, often highly fossilised from the Upper Eocene to Middle Oligocene ages, are exposed. This period was approximately 45 - 35 million years ago, at the time of the final rifting of Australia from Antarctica.

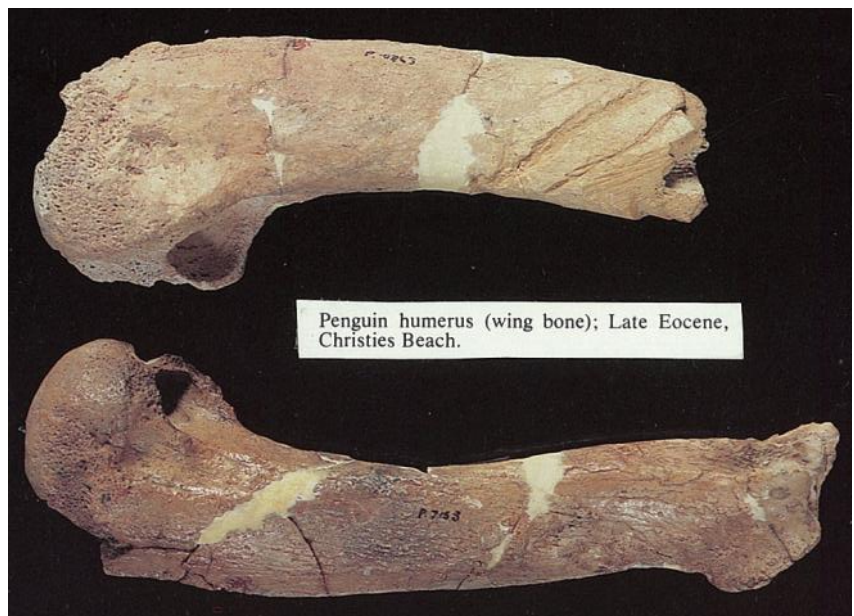


The Giant Penguin is one of the oldest species of penguins ever discovered. This huge bird stood about 1.5 metres tall and weighed about ninety kilograms. Fossilised remains have also been found on Seymour Island, Antarctica. This discovery supports the hypothesis that Australia was connected with Antarctica at the time of the Giant Penguin's existence on the super continent of Gondwana. The scientific name for the Giant Penguin is *Anthropornis ('man bird') nordenskjold* (for the Swedish Discoverer of the fossils).

The Giant Penguin, while similar in many ways to its modern relatives, had a longer neck and much longer bill. It probably hunted fish and squid, and in turn fell prey to Giant White Sharks, evidenced by teeth marks on the fossilised bone remains found at Christies Beach.

The new continent's water courses began flowing to the sea through the low depression of St. Vincent's Basin.

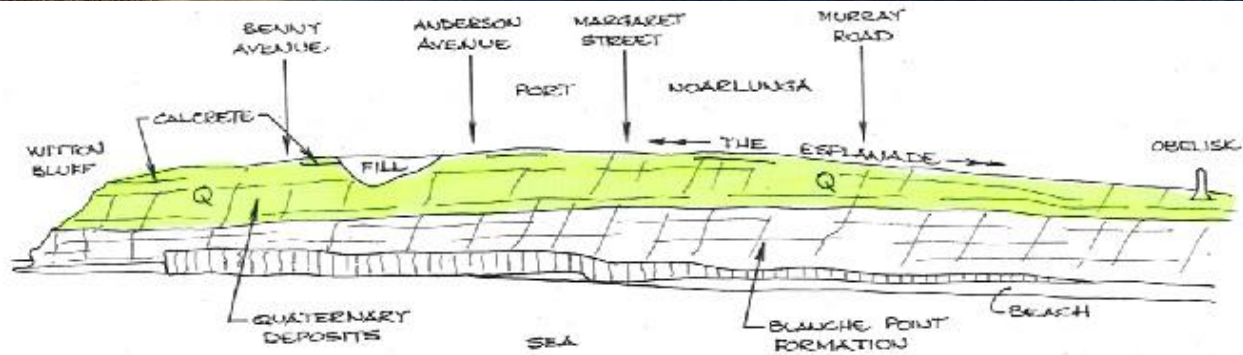
Over the next 35 million years together with an ice age, the sea rose and fell in the basin, and a variety of marine life was deposited on the lower sections of the Bluff. The Bluff, when viewed from the sea, reveals a distinctive white base of these deposits known as Point Blanc Marls ('Blanche Point Formation'). The varied fauna of fossils includes molluscs, nautiloidea, corals, echinoids and in the Marls, rare bones of Giant Penguins. These fossils not only allow the sequence to be dated, but also provide important clues to the environments of the depositions.



Today St. Vincent's Gulf remains the habitat of Fairy Penguins and Great White Sharks; let us hope future significant environmental changes will not lead to a similar demise to their ancestors.

To view the cliff formation, go to the junction of Beach road and The Esplanade at Christies Beach and take the path under the cliffs to the left of the 'SurfBoard' toilet. Walk as far as you can to the far southern end of this path. Here you will come to a natural amphitheatre where the stratified layers of these time periods can be clearly seen.

The upper layers show a distinctive red ochre colour, which is a feature of the coast south of this point. These are Quaternary deposits laid over the last one million years, which were formed by the alluvial flood plain washed down from the Mount Lofty Ranges. Under a calcrete line the Point Blanc Formation is beautifully displayed.



Meeting with the new Minister

On the 15th July, Friends President Jim Douglas, Treasurer John Cugley and Secretary Angela Gackle met with Paul Caica, Minister for the Environment and Conservation, Minister for the River Murray and Minister for Water. The meeting was arranged in response to a letter sent by the Friends to Minister Caica following his appointment as Minister for the portfolio. The Friends delegation sought the meeting with the aim of bringing a number of our chief concerns to the Minister's attention.

The four primary matters discussed were the government's commitment to action on the Adelaide Coastal Waters Study[ACWS] and Torrens Task Force[TTF] recommendations, the review of dredging regulations and monitoring of discharges and impact on the marine environment from the Pt Stanvac desalination plant.

The delegation received encouraging assurance that the Minister's office would seek an updated report on the status of the ACWS, recommend bi annual meetings of the TTF, uphold the commitment from the previous Minister to investigate dredging regulations and licensing and would be watching closely the monitoring procedures of discharges from the desalination plant – and acknowledged our request for all monitoring to be available for public knowledge.

The Friends will be following up on all these issues in the very near future.



The following news from Yorke Peninsula is distilled from recent articles provided by **Jenny Oldland**, from the YP Country Times.

Walk the Yorke update

The District Council of Yorke Peninsula has a plan to link 60kms of existing trails into a 500km leisure trail that would circumnavigate the Peninsula. A grant from Planning SA enabled DCYP to engage the services of an Environmental Consultant to draw up the initial concept plan, which was presented at a community meeting in August 2009.

The concept plan utilised unmade road reserves, established sheep tracks and trails, with other newly constructed sections, while also incorporating ideas to allow wheelchair access. No sections would be in environmentally sensitive areas, with the majority of the trail either on crown or council-controlled land.

With the emphasis on coastal experience and focussing on areas of world class natural beauty a 500 km walking trail would attract both local, national and overseas visitors to the region.

Unfortunately a recent submission to gain funding for the trail project was unsuccessful, however Engineering Services Director at the Council, Trevor Graham, says they will continue to explore external funding opportunities to enable to project to proceed.

Marine park advisory groups meet

The Yorke Peninsula region's three Marine Park Local Advisory Groups (MPLAGs) have met for the second time.

For members of the Lower Yorke Peninsula (park 13), Western Yorke (parks 11 and 12) and Upper Spencer Gulf St Vincent (park 14) MPLAG's it was a chance discuss, for the first time, information submitted through the online South Australian Marine Parks Internet Tool (SAMPIT).

Over 1,800 SAMPIT forms from across the state have been received to date, including 534 for the proposed parks in this region - 120 (park 11 Eastern Spencer Gulf); 182 (park 12 Southern Spencer Gulf); 67 (park 13 Lower YP) and 165 (Upper Gulf St. Vincent).

While there is still some reluctance to divulge favourite fishing stops, and some in the community wary about the reasons behind marine parks concept, DEH Coast and Marine Conservation Project Coordinator (Northern and Yorke) David Pearce told the Edithburgh MPLAG he was quite happy with the results and number of forms received so far.

"I think the most important piece of information to come out of the meeting was that there is still ample opportunity for people to have their say. The information gathering process is ongoing, with the online SAMPIT tool and maps still being accepted," Lower YP chairman Peter Stockings said.

"This information gathering will continue right the way through the planning process. We have four more MPLAG meetings scheduled before the end of the year, with another round of public consultation on the draft management plans due to start early next year.

"And indications are that the Government is listening to what the community is saying and I am heartened by that," he said.

Other items on the agenda included discussions on identifying local management issues relevant to each marine park, and the design principles that will guide the development of marine park boundaries.

Zoning scenarios, and management issues and strategies identified by MPLAG members, will be discussed at the next round of meetings at the end of July.

For more information go to www.marineparks.sa.gov.au



The Friends are also delighted to hear the following news—officially!

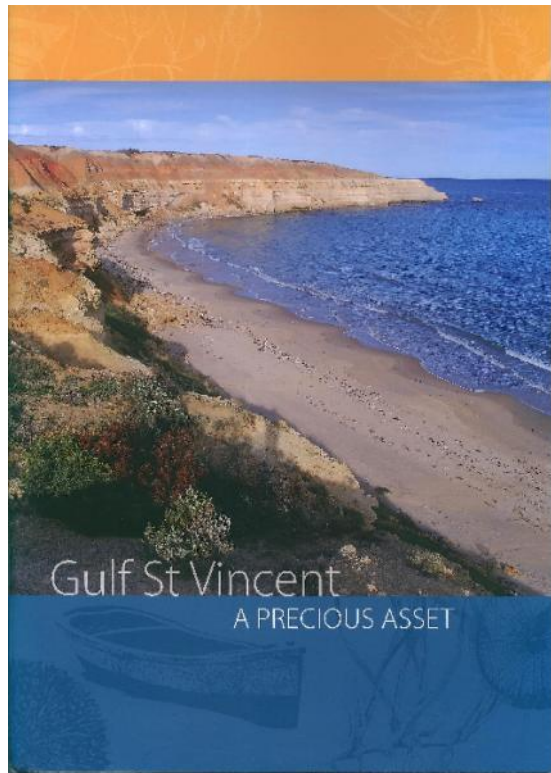
Formal Revoke for Stansbury Marina

After a decision last November to give the Stansbury marina project an "early no", Minister for Urban Development and Planning, Paul Holloway, formally revoked its major development status on Thursday (May 13).

Mr. Holloway says he decided last September against putting out the project's Environmental Impact Statement for public consultation due to the unsatisfactory quality of the document received from the proponents, the Stansbury Marina Development Company.

The proposal was for the construction of a multi-component commercial/recreational marine facility and associated waterfront residential development on land located north of the Stansbury jetty.

For members of the Oyster Bay Preservation Committee, who waged an unrelenting campaign against the proposal for almost three years, the decision by Minister Holloway to formally revoke the marina's development status finally means the projects is indeed 'dead in the water'.



A reminder that the Friends' booklet is still available. Contact one of the committee to request copies.

Next Friends Forum—Save the date Water Quality and Why it Matters

The next Friends of Gulf St Vincent Forum will be held on **Sunday 26th of September** at the Semaphore Surf Lifesaving Club at Point Malcolm Reserve, Semaphore Park beginning at 11 am.

The Friends Committee is in the process of organising speakers, but in the meantime, please put this date in your diaries and pass on the news.

At the forum you will also hear about the Friends' new Secchi Monitoring project—How Clear are our Waters?

There are many challenges facing our Gulf, so come to the Forum and find out more about what is happening out there and what we can do to help our precious Gulf.

