

SDFSFA Bulletin January 2007

This bulletin is provided as a service to members of the
SCUBA DIVERS FEDERATION OF SA

Working to develop the sport of Scuba diving in SA
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We are publishing this electronic bulletin as a separate publication to our normal monthly SDF News Sheet. Future issues of this “SDFSFA Bulletin” will include lengthy articles about matters of interest to recreational divers. We welcome contributions from our readers.

If you don't have the time to read through everything in this bulletin, take advantage of the following table of contents. Click on any item of interest to proceed straight to that section.

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CHRISTIE CREEK & PORT NOARLUNGA AQUATIC RESERVE

Christie creek is thought to be responsible for sedimentation problems on Horseshoe Reef and Port Noarlunga reef. High school students testing water quality in southern rivers and creeks found that Christie Creek had the worst levels of phosphates and faecal matter and the lowest level of dissolved oxygen. The pollution levels are up to 47 times above safe levels. In February 2005 we suggested that our readers visit

<http://christiecreek.fcpages.com/erd.html> for more details about sedimentary loads entering the sea from the creek. Below are some details about the Christie Creek catchment and its issues (taken from <http://www.amlrnm.sa.gov.au/>): -

“The Christie Creek catchment encompasses an approximate area of 37 square kilometres. It originates in the southern Mt Lofty Ranges with a series of five major tributaries that converge near the mid point of the catchment. A single primary channel then meanders through the coastal hills before reaching the sea at Christies Beach.

Major issues associated with the Christie Creek catchment include:

- export of high sediment loads to Gulf St Vincent from the catchment
- degradation of the near shore marine environment in particular Horseshoe Reef;
- feral plant species infestations in both the urban and rural parts of the catchment;
- existing urban design which is not sympathetic to best natural resources management practice:

- lack of community ownership of the problems, making effective management extremely difficult.

The Christie Creek Task Force expects to deliver a report to the Minister for Environment and Conservation early in 2007. The report will identify targets for natural resource management in the catchment, as well as strategies and actions for meeting those targets both within the short term (3 years) and longer term (20 years).

Community Meeting

The Task Force hosted a public meeting on the health of the catchment and adjacent marine environment on 6th December 2006. The public meeting was attended by 60 people from various interest groups as well as individuals from the local area.

The noted marine ecologist Professor Anthony Cheshire, and Mr Steven Gatti of the Adelaide and Mount Lofty Ranges Natural Resources Management Board addressed the meeting regarding the stormwater /treated effluent affecting the Port Noarlunga Aquatic Reserve. PDF versions of their presentations can be downloaded below: -

[Presentation from Professor Anthony Cheshire \(900 kb\)](#)

[Presentation from Mr Steven Gatti \(5Mg\)](#)

(Please note these files are large. If you have a slow internet connection you may prefer to receive a copy on disk in the mail - to do so, please contact the Adelaide & Mount Lofty Ranges Natural Resources Management Board on 8273 9100, their new phone No.)

Source: <http://www.amlrnrm.sa.gov.au/>

Download the files while they are still available (they may not be there for much longer!).

There is also a project called "Water proofing the south" that you may have read about in the local press. Visit http://72.14.203.104/search?q=cache:8wx4-o3urgAJ:www.lga.sa.gov.au/webdata/resources/files/Day_1_-_Session_7_-_Peter_Smith.pdf+waterproofing+the+South&hl=en&gl=au&ct=clnk&cd=4 for details.

http://72.14.203.104/search?q=cache:8wx4-o3urgAJ:www.lga.sa.gov.au/webdata/resources/files/Day_1_-_Session_7_-_Peter_Smith.pdf+waterproofing+the+South&hl=en&gl=au&ct=clnk&cd=4

[Peter_Smith.pdf+waterproofing+the+South&hl=en&gl=au&ct=clnk&cd=4](http://72.14.203.104/search?q=cache:8wx4-o3urgAJ:www.lga.sa.gov.au/webdata/resources/files/Day_1_-_Session_7_-_Peter_Smith.pdf+waterproofing+the+South&hl=en&gl=au&ct=clnk&cd=4) for details.

The benefit of "Water proofing the South" is that it lowers a sediment and nutrient level on an existing State Government marine protected area/ aquatic reserve. The movement of sediment/ nutrients is **South** over Horseshoe Reef towards the Port Noarlunga reefs, whereas in metro Adelaide there is a northern movement.

Many thanks to Rex Manson for these details.

MORE ABOUT ANTHONY CHESHIRE

According to the "Southern Times Messenger", the Christie Creek Task Force's public meeting held on 6th December 2006 was attended by 60 people. Professor Anthony Cheshire was one of the speakers at the meeting. Anthony is a marine ecologist and a member of the Natural Resource Management Board. He is a former head of botany at the University of Adelaide. He told the meeting that the task of saving southern reefs and seagrass populations posed a huge challenge for the NRM board. He suggested that: - Urgent action is needed to save the reefs at Christies Beach, Port Noarlunga, Moana and Aldinga;

Effluent should stop being pumped in to Gulf St Vincent by 2015 in a desperate bid to save the dying southern reefs;

We have seen a progressive degradation of reefs along our southern coasts, particularly Horseshoe Reef, over the last 10 years;

Seawater quality, fish and seaweed species all relied on healthy reefs and, without action, they would resemble the the severely damaged reefs between Glenelg and Semaphore by 2020;

Sediment-rich stormwater being flushed into the gulf is the key problem;

The reefs would make strong recoveries if conditions improved but dying seagrasses were unlikely to regenerate;

Population growth in the south would result in increases in stormwater and wastewater and lead to even more devastating impacts on reefs and seagrasses.

He said that key strategies should include: -
Zero treated effluent going into the gulf by 2015;
Zero industrial wastewater going into the gulf;
Improving the health of silt-free stormwater being flushed into the ocean;
Introducing innovative urban planning rules for coastal areas;and
Developing projects to re-use stormwater rather than flush it straight out to sea.
Source: Andrew Spence (“We’re Killing Our Reefs”).

HALLETT COVE SEWAGE SPILLS

By 31st October 2004 there had been four sewage spills in 12 months at Hallett Cove. 1.5m litres of untreated sewage had spilled in to the Field River and flowed in to the sea at Hallett Cove on 8th October 2004. This particular spill was apparently caused by an electrical fault. The fourth spill occurred just three weeks later on 31st October. 35,000 litres of sewage spilled in the area when a power failure affected three pumping stations. SA Water announced at the time that back-up generators would be installed to prevent any recurrence of the incidents. All that happened though was that only temporary back-up generators were installed for the three pumping stations affected by the power failure on 31st October. The pumping station affected by an electrical fault in 8th October did not receive a back-up generator because it had not been affected by a power failure. A Marion councilor called for “emergency back-up to protect our environment, to stop this effluent going into rivers, reservoirs and into the sea” at the time. On 28th December (Proclamation Day) 2006 a sewerage main overflowed, spilling an estimated 100 KL of raw sewage in to the Field River once more. The incident was said to have been caused by tree roots blocking a sewerage main this time. The sewerage main apparently overflowed through a manhole and the sewage flowed down the bank of the Field River into the water. The area of the river affected by the spill was between Young St and Cormorant Rd. It was closed to the public for some time whilst waiting for harmful organisms to die back and for the river to return to normal. There was concern about the possibility of the sewage reaching the beach at Hallett Cove. One week after the spill, water quality at Young St had returned to normal but the area downstream was still affected. The Health Department continued to conduct tests and started to believe that there is another source of contamination in the river. One of the local residents believes that the sewage spills are good for the fishing in the area. He said that the bay thrives after a spill and fishing improves. He thought that there had been a number of sewage spills and that a large spill 3-4 years earlier had created the “best fishing there was for a year” (the best fishing in 12 months or the best 12 months of fishing?). He thought that fish attracted by a sewage spill might bring dolphins around. His only concern was that the spill could spoil his walks in the area and ruin his family’s life in some way.

MARINE SCIENCE PORTAL

“Marine Science Web Portal Provides Young Audience A Live Look (*by Gene Gentrup*)
A marine science portal that offers live video and other content to educate people about the ocean, including national marine sanctuaries, has been launched by the federal government and Immersion Presents, an after-school science education program founded by ocean explorer Robert Ballard. Oceanslive.org allows viewers to watch live video from research expeditions, and learn more about oceanography, marine life, conservation

and preservation, marine research technologies, and the nation's maritime heritage. To complement the video broadcasts, the portal offers lesson plans, videos, puzzles and games based on the marine environment. A recent broadcast on July 17 (2006) focused on a research expedition to the wreck of the Civil War ironclad the USS *Monitor*, located off the North Carolina coast. The expedition is a collaborative effort between the Institute for Exploration and the NOAA Monitor National Marine Sanctuary to generate a digital photographic mosaic of the ship's hull and surrounding wreckage. Live programming was fed via Internet 2 to sites across the country, and also was converted for broadcast through the oceanslive.org portal. The NOAA National Marine Sanctuary Program is trying to increase the public awareness of America's marine resources and maritime heritage by conducting scientific research, monitoring, exploration and educational programs. The sanctuary program manages 13 national marine sanctuaries and one marine national monument that encompass more than 150,000 square miles of America's ocean and Great Lakes natural and cultural resources.

For more information, visit www.oceanslive.org/portal .

Source: <http://www.dtmag.com/09-06-Dive%20Observer.shtml>

SOLAR SALTFIELD FOR EXMOUTH GULF IN WESTERN AUSTRALIA

Below is an extract from a recent report (please excuse the highlights): -

“The Northwest Coast of Western Australia is the location for a number of large solar saltfields. More than 10 million tonnes of high grade solar salt is exported annually from these saltfields; predominantly servicing the chloralkali industries of Northern and Southeast Asia. Straits Resources Limited is a mining company with operations in Australia and Indonesia. It has identified the solar salt industry as an opportunity to diversify its resource portfolio and build a longer term position within the resource sector. Access has been approved by the Government of Western Australia to a large area in the eastern Exmouth Gulf region of Western Australia suitable for a solar saltfield with an ultimate capacity as high as 10 million tonnes per annum. All new resources projects in Australia must proceed through a rigorous environmental approval process at both the Federal (Commonwealth) and State Government levels. Straits commissioned a team of saltfield design, environmental and engineering consultants to design an economically viable saltfield which minimises impacts to the environment. There has been a series of iterative changes in its design based on feedback from environmental and cultural heritage studies. This has enabled the saltfield to be specifically located within a defined footprint to avoid sensitive areas such as mangroves, tidal creeks and algal mats. Comprehensive studies have been undertaken on the local marine and terrestrial flora and fauna (including migratory bird and marine fauna), together with surveys for cultural heritage, soils, hydrology and a sweep of other parameters including hydrodynamic modelling of the marine environment. A commercial trawling fishing industry operates in the waters of Exmouth Gulf that is also the permanent home or on the migratory path of a number of significant marine fauna, including whales, turtles, and dugongs.”

Source:

http://72.14.253.104/search?q=cache:6Si8mC3hV4gJ:www.ath.aegean.gr/srcosmos/show_pub.aspx%3Faa%3D7863+%22Exmouth+Gulf%22%2B%22saltfields%22%2B%22Straits+Resources%22&hl=en&gl=au&ct=clnk&cd=2 . Visit

http://www.ath.aegean.gr/srcosmos/generic_pagelet.aspx?pagelet=Article%20summary&pub_id=7863 for more information.

The Scuba Divers Federation of SA is a member of the following: -

Rapid Bay Jetty Design Group

SARFAC (SA Recreational Fishing Advisory Council)

Fleurieu Reef Management Committee (Ex-HMAS *Hobart*)

TRAIL COMMITTEES - SA Trails Coordinating Committee (Office of Recreation & Sport) and Port Noarlunga Reef Underwater Trail South Australian Trails

Contact the Federation's Secretary on info@sdfsfa.net to be included on the mailing list for this electronic bulletin.

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