

# NEWSLETTER

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[www.seadragonfoundation.org](http://www.seadragonfoundation.org)

Experience the sustainable management of the Leafy Seadragon through the Seadragon Foundation Inc. tailored for the conservation challenges of the 21<sup>st</sup> century.



**The above image of a Leafy Seadragon and fairy is from the website “An Artist's Journal, Nea Wiseman.” [www.pheemcfaddell.com/PageArtistsPage.html](http://www.pheemcfaddell.com/PageArtistsPage.html). Also see the dragon and the phoenix article this newsletter.**

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The contents of this newsletter do not necessarily represent the attitudes of the Seadragon Foundation Inc. or any individual members of the SFI. Articles concerning the sustainable management of the Leafy Seadragon are welcome for publication in this newsletter as long as they do not contain material that is defamatory, offensive, or personal in nature. Please submit to [seadragonfoundation@gmail.com](mailto:seadragonfoundation@gmail.com).

## SEADRAGON FOUNDATION INC. REPORT

Hi SFI members

The SFI has shown its ability to act as an independent and important organization for the conservation of seadragons, other syngnathids and the marine environment.

The current membership of the SFI is 46 just four short of what is needed to register as a tax exempt not for profit organization. The final four members have already applied for acceptance. However, a deeper necessity is to establish a dynamic management board capable of managing a not for profit foundation.

Currently I perform the role of public officer. However, I have accepted the position of "Research Officer" for the global initiative by 440 world zoos to prevent the imminent extinction of up to 30% of the world's amphibians, frogs, salamanders and newts, and caecilians. This position requires that I work from the Royal Zoological Society of Antwerp, Antwerp Zoo, in Belgium. Consequently, although I would like to remain as President of the SFI I cannot perform as public officer.

"The *Associations Incorporation Act, 1985* requires an incorporated association to have a Public Officer. The Public Officer must be a natural person of or above the age of 18 years who is resident in South Australia."

Previously I organized the Inshore Fish Group – the precursor to the SFI while doing a similar job in Memphis, USA. My work in Antwerp with the amphibian conservation crisis should benefit marine conservation in South Australia, as similar problems as has occurred with amphibians are anticipated with the species specific conservation of marine organisms.

*SFI Public Officer*

We are happy to accept Jasmine Stewart as the Public Officer of the Seadragon Foundation Inc.

The responsibilities of public officer as listed at <http://www.ocba.sa.gov.au/Associations/responsibilities/>

Cheers Robert

## THE SEADRAGON AND THE PHOENIX

The seadragon is the symbol of the Seadragon Foundation Inc. Dragons originated China and the image below shows a Chinese Seadragon. In the dragons that evolved in Europe and dwelt in caves on land the fin at the tails end become as sting.

The Seadragon Foundation Inc. embodies the spirit of both the seadragon and the phoenix. As we reach the realization that to sustainably manage the globe's environment we must consider both the land and sea the Seadragon Foundation adopts the symbol of the seadragon – as a symbol of marine conservation – and the Phoenix – as a symbol of the conservation of terrestrial conservation.



In South Australia – the home of the seadragons and their relatives – the welfare of seadragons is completely linked to the management of freshwater ecosystems and their fish and frogs. The native freshwater fish of the region are suffering from a terrible drought and need captive breeding programs and gene banking. We must prepare for all eventualities with our inshore marine species and support sustainable management of the environment both in the sea and in freshwater systems.

In China, the dragon and the phoenix are traditional animals symbolic of auspiciousness. Along with the lin (unicorn) and the tortoise, the dragon and phoenix were known as the "Four Supernatural Spirits." According to ancient records, the dragon appeared in a magical variety of forms. It could be long or short, small or gigantic. It could be both secretive yet active, and it also inhabited everywhere from the heights to the depths.

The phoenix was commonly referred to as the "King of Birds." A supernatural bird, it embodied the five virtues of benevolence, righteousness, propriety, wisdom, and sincerity. As such, it harmed neither a single insect nor blade of grass.



*Left. A cloisonné plate showing a dragon and phoenix in contrast and harmony.*

The dragon became a symbol of the ruler, while the phoenix became an embodiment of his mate. The forms of the dragon and phoenix were transformed gradually into images associated with the court, representing imperial nobility and authority. Almost everything related to the court, from the decoration of palace architecture down to the insignia on everyday objects and clothing--even covers and cases for books--were adorned with images and patterns bearing imperial dragons and phoenixes.

The Chinese Dragon, or Lung, symbolizes power and excellence, valiancy and boldness, heroism and perseverance, nobility and divinity. A dragon overcomes obstacles until success is his. He is energetic, decisive, optimistic, intelligent and ambitious.



*Left: a dragon and a lin (unicorn).*

Unlike the the negative energies associated with Western Dragons, most Eastern Dragons are beautiful, friendly, and wise. They are the angels of the Orient. Instead of being hated, they are loved and worshipped. Temples and shrines have been built to honor them, for they control the rain, rivers, lakes, and seas. Many Chinese cities have pagodas where people used to burn incense and pray to dragons. The Black Dragon Pool Chapel, near Peking, was reserved for the Empress and her court.

### **The years of the dragon past and future:**

**2000 METAL DRAGON:** The Metal Dragon is the most strong-willed Dragon. He is inflexible, unbending, and combative. He gives little regard to the feelings of others. This ruthlessness can result in a rapid rise to a position of authority, but often at the cost of destroying important relationships. It is futile to attempt to convince him that certain things

are simply undoable. He will go it alone if he can't gain support. He succeeds because he refuses to accept failure.

**2012 WATER DRAGON:** The Water Dragon is less selfish and opinionated than the other Dragons. He is more inhibited and less power-hungry. He can accept defeat without recriminations. He makes a good negotiator as he knows when, where, and how to apply pressure. He has a tendency to be over-optimistic and needs to learn how to relinquish what is unfeasible so that he can concentrate his energies on the most rewarding endeavors.

The contrast and harmony between the dragon and the phoenix symbolizes to the Seadragon Foundation the need for harmonisation between all political, cultural, economic and social forces between and within countries to achieve sustainable management of the environment.

*A thought for the love the SFI has for the Leafy Seadragon*

*From: The Rime of the Ancient mariner  
Samuel Taylor Coleridge, 1797-1799*

He prayeth best  
Who loveth both man, and bird and beast

He prayeth best who loveth best  
All beasts both great and small  
For the god that made and loveth us  
He made and loveth all

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FROM THE SECRETARY

Hi members,

At the last Friends of St Vincent Gulf meeting, I took some lovely photos of Henley Beach and some of the wonderful mosaics that have been put on the foreshore rocks along Henley Beach.

The Seadragon Foundation encourages arts groups to produce more marine environmental art to increase public awareness of species in the local environment.



*Above: Henley Beach view looking north toward the mosaics along the shore walk.*



*Left: Seadragon Mosaic*



*Above: Dolphin Mosaic*

## New Years Resolution

I hope you all had a very Happy Christmas and New Year 2008. This year is a year of new beginnings. The opportunities and challenges of 2007 are behind us. Now you may be wondering what 2008 will hold. You probably agree it is high time, if you haven't done so already, to plan the year ahead.

The tradition of making New Year's resolutions dates back to the Babylonians, who believed that one's behavior on the first day of the year would have an effect for the following 12 months. Eventually, making resolutions turned into a reflection on past mistakes and a vow to do better in the future. Whatever the origins, people have been breaking them ever since!

The new years resolutions of the Seadragon Foundation are: 1) to increase our international scope as an independent, transparent and accountable conservation organisation; 2) to adopt a more integrated approach to the sustainable management of the Leafy Seadragon; 3) recognising that approaches to the sustainable management of species such as the Leafy Seadragon have many factors in common with other small vertebrates including freshwater fish and amphibians.

### Year 2008, the Year of the Rat



I have put a link down below for the Chinese Year of the Rat, 2008, and I hope that you can incorporate the conservation of seadragons, other syngnathids and the marine environment, into your horoscope daily.

It is a year of great change and a year to plan for your future. If you wish to read more into your Chinese horoscope for 2008 click on the link below. I am born in the Year of the Dragon.

<http://chinese.astrology.com/year/index.html>

I have enjoyed acting as Secretary through the last few months and building up the website to its existence today. If anyone can help it would be greatly appreciated with the offers of management duties as above. Similarly to many other generic sites because of increasing blogs saturating search engines our stats are down for this month, so all members, friends and colleagues, please direct this site to as many people as possible so they can be aware of all the hard work Seadragon Foundation will be doing in 2008.

Secretary Karen Whitford

## WATER RECLAMATION, SUSTAINABLE MANAGEMENT AND THE ADELAIDE DESALINATION PLANT

*The desalination plant as outlined on December 5 by the South Australian Government is a part of the problem, not a solution to the sustainable management of the environment. As the main solution to the water shortage crisis the desalination plant represents a poor alternative to the environmental crisis.*

*The actual notice from the Government was for the summary report of the Desalination Working Group, and a pricing structure to fund a reverse osmosis plant at Port Stanvac, 'dependent on environmental considerations'. A later item in 'The Advertiser' for December 20 quoted Minister Maywald as saying the plant was likely to be built at Port Stanvac, 'regardless of environmental issues'.*

*The SFI pleads for the government to reconsider water reclamation, home storage of rainwater, and alternative horticulture and agriculture, as the first option to address that water shortage in Adelaide.*

At a recent meeting of Friends of Gulf St Vincent the issue of the proposed desalination plant for Adelaide was canvassed. This plant concerns the welfare and sustainable management of the seadragons and

other syngnathids not so much in respect to direct threats to the marine environment of the desalination plant – even though these must be considered - but through the responsibility and attitude of the government to the total sustainable management of Leafy Seadragons environment, both through decisions that affect both the land and sea.

As presented by the South Australian Government, the proposed desalination plant *per se* in Adelaide DOES NOT support the sustainable management of Leafy Seadragons and other syngnathids or their environment. Citizens that want to see the sustainable management of South Australia's marine environment should ask the government to consider desalination as a last industrial resort when other more parsimonious and sustainable water conservation and management measures have been exhausted.

The government should also respect the vast reservoirs of knowledge within the various conservation groups before making announcements concerning decisions of environmental importance. Would the current environmental crisis even have occurred if this had been previous policy? No!

As a long term, representative and credible supporter of sustainable management of the environment, the Conservation Council of South Australia, and other credible and dedicated conservation groups such as the Seadragon Foundation, should have mandate to scrutinise documents and measures in respect to major developments considered by the South Australian Government before these are publicly presented as *fait accompli*.

The current practice of the government of presenting water management technologies and projects as *fait accompli* – especially when supported by media campaigns blindly supporting the government's position - is a destructive and divisive use of public funds for propaganda to support a particular political policy. This practice particularly when applied to issues of sustainable management is inappropriate and should be discouraged. If the government cannot control this practice at the least equal funding should be provided to present alternative views.

*The real question presented by the desalination plant issue is whether South Australia should spend a vast amount of money on a huge industrial development with little benefit to the development of South Australian local industries – particularly small businesses – and with clear environmental costs.*

*Or is South Australia going to adopt an environmentally and economically beneficial multi-faceted approach that uses available water resources and develops new technologies and industries.*

Recently the government gave long overdue recognition of the effects of global warming on rainfall in South Australia, and particularly the immediate effects of drought, by proposing the construction of a desalination plant for Adelaide and increasing the capacity of the Mt Bold Reservoir.

Environmentalists have been presenting problems of global warming through atmospheric changes for over 10 years, and scientists the possibility for much longer. In both Australia and the USA this concept was actively suppressed by government. Now the world is reaping the terrible costs of the resulting destruction to the environment.

Threats to the marine environment through poor management of the freshwater resources of South Australia have also been repeatedly presented to the government for over 20 years. These have attracted little real response from the government, with continued damage to in-shore ecosystems particularly reef and seagrass systems. In Gulf St Vincent this has resulted in increasing and continuing costs to protect foreshore areas. In contrast we should be rehabilitating the metropolitan marine environment to support the habitat of the Leafy Seadragon, marine recreation, tourism and fishing.

Below are some considerations in respect to the proposed SA Government 'drought proofing' measures – particularly the desalination plant - presented to the Friends of Gulf St Vincent. This document refers to

the proposed desalination plant in Gulf St. Vincent (GSV). The proposed plant in Spencer Gulf to supply water to the Roxby Downs Mine located in central South Australia on the rim of the Lake Eyre Basin is subject to completely different considerations to the Adelaide Plant. This document assumes a 50 GL per year plant or an intake of 410 ML daily intake = 136 ML fresh water. Energy use would be about 25 megawatts. However, this is not intended to be a technical document but a plea for the better management of resources for protection of the beautiful and unique Leafy Seadragon, South Australia's marine emblem.

The benefits of the proposed desalination plant should be balanced against what could be achieved with similar expenditure on numerous other means to reclaim water or reduce water usage and the corresponding increase in environmental benefits. It is certainly going to be better to build a smaller less costly, desalination plant and put a proportion of the expenditure into other projects and policies. Where this balance lies is the question.

This could be 10%, 30% or even the total expenditure.

*It could be better simply to put much of the \$1.4 billion (the cost seems to escalate every time the project is reconsidered) proposed for the desalination plant into water reclamation and saving schemes.*

*The South Australian community – and consequently the government - should support local industrial and technological development to harvest storm water, coupled with increased environmental, cultural and cost benefits.*

The cost of the plant should be balanced against other investments in water provision, biodiversity conservation, and environmental quality in the Gulf St Vincent.

The issue is really whether you just keep pouring more and more resources and use energy to support massive industrial developments, or use smart technologies with positive environmental and social consequences. South Australia could provide global leadership in this area and simultaneously develop associated industries and small businesses.

*One good example is the Cheltenham Race Course redevelopment. This could provide a model for many other projects across Adelaide. How much water could be harvested from large scale industrial parks with their huge roof areas and carparks?*

In respect to water provision the proposed plant is predicted to cost \$1.4 billion and provide 50 GL a year. That is a capital cost of \$28 million a giga-liter. One instance of water reclamation – using the Cheltenham Race Course redevelopment could provide 2.4 GL of water or the equivalent of \$56 million of capital cost or 4% of the desalination plant, and the side benefit of increased recreational area.

The Cheltenham Race Course development if done responsibly the proposal would enable the State Government, developers, local business and technological innovators to work together on a realistic and achievable goal.

This wonderful opportunity for the use of state of the art environmental technologies, architecture for medium density housing, and associated resource usage, could make this site a model development to showcase the support of South Australia for fiscally responsible application of global standards for sustainability in urban development.

The benefits to the marine environment from reduced siltation and pollution from the reclaimed storm water include:

- 1) improved water quality for Adelaide metropolitan beaches - translating to recreational, health, and tourism benefits.
- 2) increased ecological health for inshore seagrass and reef communities - translating to improved commercial and recreational fishing and boating.
- 3) increased ecological health for inshore seagrass - translating to long term remediation of the sand drift and erosion problems and costs along the metropolitan coastline.

There are many other similar sites across Adelaide, ways to reclaim water from private and industrial properties, and ways to reduce water use.

Why can't large car park areas have sumps of sand or gravel constructed beneath them to capture the water? Some industries – such as large supermarket chains - may even do this as a public relations exercise. Why can't private residences build sumps under garage floors to capture water? Why not make similar technologies mandatory on all new developments?

This approach and the sourcing of water through bores into the aquifer also reduces increased piping costs associated with one central water new source.

A major environmental issue is the ecological damage to seagrass in GSV and degradation of public use areas of Adelaide's foreshores by siltation and pollution from storm water runoff. Why not reclaim this water which much more than the amount to be supplied by the proposed desalination plant, make our beaches clean, and eventually enable seagrass recolonisation and reduce beachfront erosion and the associated costs?

## **Summary**

The proposal for a desalination plant in Adelaide as presented by the South Australian Government is ill considered and does not *per se* support sustainable management of the environment. All water conserving measures, including storm water reclamation and dry climate landscaping, should be considered before allocating resources to expensive and energy demanding large scale industrial processes. The desalination plant as presented is a part of the problem, not a solution to the sustainable management of the environment. Without adequate biodiversity surveys by independent organisations, particularly for conservation dependent groups including synnathids, how can environmental assessments be properly performed.