**JAEI Environmental Corner**

**A World of Wetlands**

**2nd February is a very important date in South Africa and indeed, around the World – this is World Wetlands Day.**

Why should Wetlands hold such importance? In South Africa, water is a precious resource and in many instances, the provision of this incredibly precious resource is as a result of wetlands. However, the majority of our wetland areas have been mindlessly destroyed for agriculture, afforestation and settlements and in many instances this is the reason that our country is suffering under such horrendous drought conditions in some areas and flooding in others at present.

**What do Wetlands do?**

Wetlands are able to reduce the severity of droughts and floods by regulating streamflow and also absorb large amounts of water which is released over a period of time, maintaining a constant supply to the environment. Wetlands purify water through filtration and provide habitat for many different plants and animals. Wetlands also recharge groundwater, control soil erosion and act as carbon sinks, trapping CO2 which otherwise would have been released into the atmosphere contributing to climate change.

In fact, wetlands provide a host of services or **functions** (such as water management) and goods or **values** (such as fish, fibre and wildlife) that we are normally not aware of …. All FOR FREE!!.

Internationally, wetlands are considered vital for human survival as they are among the world’s most productive environments; cradles of biological diversity that provide the water and productivity upon which countless species of plants and animals depend for survival.

The Convention on Wetlands of International Importance, called the Ramsar Convention (named after the city in Iran where the convention was signed in 1971), is an intergovernmental treaty that provides a framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. Globally, over 2040 wetland sites are considered to be of international importance and are conserved as Ramsar sites. Possibly the most important factor in the conservation of South African wetlands is South Africa’s participation as a founding member of the Ramsar Convention on Wetlands (it was the fifth contracting party in 1975). To meet its Ramsar obligations and to promote the conservation of wetlands throughout southern Africa, the country implemented the South African Wetlands Conservation Programme in order to:

* Increased public awareness;
* Increased participation by local stakeholders;
* It provides a greater support for protection of the site;
* Increased access to conservation funding; and
* Enhanced opportunities for research and ecotourism

There were 20 sites designated as Wetlands of International Importance in South Africa during the year 2012, with a total surface area of 553 178 hectares. The uMgeni Vlei Nature Reserve was designated as a Ramsar site in March 2013, this increased the total number of Ramsar sites in South Africa to 21 at present, with a total surface area of 554 136 hectares. Only one site is situated in Gauteng – the Blesbokspruit.

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| **Site** | **Province** | **Area(ha)** |
| Barberspan | North West | 3 118 |
| Blesbokspruit | Gauteng | 1 858 |
| De Hoop Vlei | Western Cape | 750 |
| De Mond | Western Cape | 918 |
| Kosi Bay | KwaZulu-Natal | 10 982 |
| Lake Sibaya | KwaZulu-Natal | 7 750 |
| Langebaan | Western Cape | 6 000 |
| Makuleke Wetlands | Limpopo | 7 757 |
| Natal Drakensberg Park | KwaZulu-Natal | 242 813 |
| Ndumo Game Reserve | KwaZulu-Natal | 10 117 |
| Ntsikeni Nature Reserve | KwaZulu-Natal | 9 200 |
| Nylsvley Nature Reserve | Northern Province | 3 970 |
| Orange River Mouth | Northern Cape | 2 000 |
| Prince Edward Islands | Western Cape | 37 500 |
| St Lucia System | KwaZulu-Natal | 155 500 |
| Seekoeivlei nature Reserve | Free State | 4 754 |
| Turtle Beaches/Coral Reefs of Tongoland | KwaZulu-Natal | 39 500 |
| Verloren Valei Nature Reserve | Mpumalanga | 5 891 |
| Verlorenvlei | Western Cape | 1 500 |
| Wilderness Lakes | Western Cape | 1 300 |
| uMgeni Vlei Nature Reserve | KwaZulu-Natal | 958 |

[*http://www.ramsar.org*](http://www.ramsar.org/profile/profiles_southafrica.htm)

South Africa has lost half of its wetlands to human development, creating a situation in which the wetland is no longer able to purify water adequately. Even more alarming is that much of the heavy-metal pollution stored in the peat of the wetland for the past century could be released back into the water, creating a dangerous situation.

**Blesbokspruit**

Blesbokspruit is situated near Springs on the East Rand. It is a permanently inundated reed-dominated wetland and permanently flooded, due to artificial inputs of water from mines and sewage treatment works. Upstream of the wetland, the Blesbokspruit has two main branches, which flow eastward through highly urbanized and mined areas. There are several small dams on these branches.

Downstream, the Blesbokspruit stream flows within the confines of a natural channel and joins the Suikerbosrand River and ultimately into the Vaal River making this an important source of potable water for the greater Gauteng area.



*Marievale Bird Sanctuary which forms part of the Blesbokspruit Wetland*

The renowned Marievale Bird Sanctuary is situated in the southern half of the Blesbokspruit Ramsar site and forms part of BirdLife SAs Important Bird Areas (IBA) and is host to thousands of water birds. More than 220 species have been recorded, including ruff, bitterns, rails, crakes cormorants, herons, lesser flamingo and shelduck to name just a few. Birders from all over South Africa and indeed internationally descend on Marievale in the Spring when the migrant birds arrive to witness this display!

However, large volumes of water discharged upstream have increased the extent and permanence of flooded ground, while reed encroachment, unplanned fires, uncontrolled grazing by cattle and invasion by alien forbs contribute to the degradation of the remaining terrestrial habitat placing this gem under severe threat.

**Do you have to travel to the Blesbokspruit to experience a wetland?**

Probably not. There are smaller wetlands that are not declared nature areas. There is probably a wetland in your area. The problem is that these wetlands, that unless they are being cared for, are polluted and degraded. This however offers a wonderful opportunity to get involved to help care for God’s awesome Creation.



*One of the Soweto wetlands undergoing rehabilitation.*

**Soweto wetlands come back to life**

The Working for Wetlands team together with members of organisations such as the Mayibuye Wetlands Programme have been very busy in Soweto in restoring the once pristine wetlands to their former glory after years of abuse and neglect.

A community-based conservation project implemented by BirdLife South Africa with support from RSPB (Royal Society for the Protection of Birds) and the UK Government's Darwin Initiative is building community support for conservation at four important biodiversity sites across South Africa - in wetlands and Montane grasslands at Wakkerstroom, the wetlands of Soweto, Ongoye Forest, Kwa-Zulu-Natal and at Cata Escarpment forest in Eastern Cape. Although the Klipspruit Wetland in Soweto is heavily polluted, there is a wide array of bird life of interest to visitors.  There is a need to help residents of potential conservation areas benefit from the tourism industry, and develop and market locally produced goods, at the same time improving support for conservation, and encouraging enhanced protection and management of these sites.

**Golden opportunities**

Check out your local area to see if there is in fact one of these hidden gems and see what can be done to restore the gem into a pristine, healthy and beautiful area that is functioning as a wetland should. This will not be an overnight restoration – it will take time and commitment, and will certainly be well worth the effort. Should you need assistance in finding out what can/should be done, contact JAEI and we can put you in touch with some help.

