UMGENI WATER · AMANZI

02 February

WORLD WETLANDS DAY

WETLANDS AND WATER–INSEPARABLE AND VITAL FOR LIFE

Wetlands day is celebrated annually on 02 February with the purpose of educating communities about the importance of wetlands in the ecosystem. In 2021, the focus is on the relationship between wetlands and water so that communities appreciate the role wetlands play in replenishing and purifying of freshwater resources. The growing water crisis threatens communities and the planet because human beings consume more water than nature can replenish and are destroying the ecosystem that water and all life depend on most - Wetlands. Wise usage of wetlands is an essential component of the delivery of sustainable water management.

- Wetlands ensure fresh water for all
- Fresh water required for basic human needs is provided by wetlands.
- Wetlands replenish ground water aquifers.
- Wetlands purify and filter harmful waste from water
- Wetlands plants help absorb harmful fertilisers and pesticides as well as heavy metals and toxins from industries and agricultural practices.
- Wetlands are bursting with biodiversity
- Wetlands are homes to unique species of birds, fish and plants.
- Wetlands act as nature's shock absorbers
- Wetlands in river basins act as natural sponges and absorb rainfall. This storage capacity can also safeguard against drought.
- Wetlands provide sustainable livelihoods and products
- Fishing, timber for building, medicinal plants, animal fodder and stems and leaves for weaving all originate from sustainably managed wetlands.

Rivers and dams rely on healthy wetlands in order to have clean water as well as continuous water supply- hence healthy wetlands result in healthy water quality and sustained water quantity. Identifying and understanding the value of 22 strategic water sources is fundamental to South Africa's water and economic needs.

This has led to nearly 50 integrated water interventions aiming to increase water quantity, improve water quality and expand economic development. These interventions include integrating wetlands and built infrastructure into water management to serve Durban and Pietermaritzburg supply areas, as well as conserving the Umzimvubu River system from source to sea.

This could also be achieved through restoration and management of local wetlands while supporting economic development and improving water quality of the Berg River supplying water-stressed Cape Town and surrounding agricultural areas.

Constructed wetlands have been widely used and recommended as the more efficient and successful means of phytoremediation in wastewater. Umgeni Water and Durban University of Technology partnered in a project that looks at three plants species in the removal of metals, nutrients, and dyes at Mpofana WWTW. Two of the plant species occur in Umgeni Water Wastewater Treatment Works. The project is set out to run from Jan 2021 to Feb 2022 where the efficiency of the plants will be determined together with the appropriate design for the floating pontoons.

The impact of Mpophomeni township and wastewater works on the water quality of the Mthinzima stream has been poor due to aging and undersized sewer infrastructure. The result is sewerage being discharge into the stream. This stream discharges into Midmar dam and has an unfavourable impact on the water quality of the dam. This dam supplies water to the most populated regions of KwaZulu Natal, including the major cities of Pietermaritzburg and Durban and is considered to be of prime importance to Umgeni Water's value chain.

To protect and improve water security in the uMngeni River catchment, a multi-stakeholder partnership was formed. The stakeholders include government, business, academia and civil society dedicated to discovering ways to integrating ecological infrastructure solutions into water resource management in the uMngeni River catchment, referred to as the uMngeni Ecological Infrastructure Partnership (UEIP). Through this partnership a wetland rehabilitation project was commissioned, referred to as the Mpophomeni Wetland Rehabilitation Project.

The Department of Environment, Forestry and Fisheries leads this project in conjunction with Umgeni Water, wetland experts Ground Truth and other UEIP partners. Umgeni Water is one of the main role players in this partnership advising and financially assisting, as well as implementing water quality monitoring for the duration of the project.

It is expected once the project is completed the wetland will cover 14 hectares and will be utilised by local stockowners to feed their livestock especially during winter period when fodder is scarce.

Water quality data from Mthinzima stream inflow to the dam indicates an improvement in water quality, which shows that the wetland is operating effectively. Once these projects are completed the expectation is that this resource will be protected and remain one of the best water resources in this region.

Mthinzima stream, showing the construction of a weir in the foreground and the water flowing into the wetland. Note the cattle grazing in the background.

Get involved by:

- Restoring and rehabilitating wetlands instead of destroying them
- Adopting a wetland near you
- Organising wetland clean-ups, addressing pollution and removing alien plants
- Educating others about the importance of wetlands
- Increasing water efficiency by ensuring wise and sustainable use of wetlands products
- Integrating water and wetlands into development plans and resource management

Source:
https://www.worldwetlandsday.org