

Importance of wetlands**Day by Day pg. 98-99**

Nature has special methods of cleaning polluted water. In nature, water is purified in natural environments called **wetlands**. Wetlands are very efficient natural 'water treatment' facilities.

V – **Wetland** – a **flat** piece of land **covered in shallow pools of water** for most of the year.

Examples: Swamps, vleis, marsh, and shallow lakes.

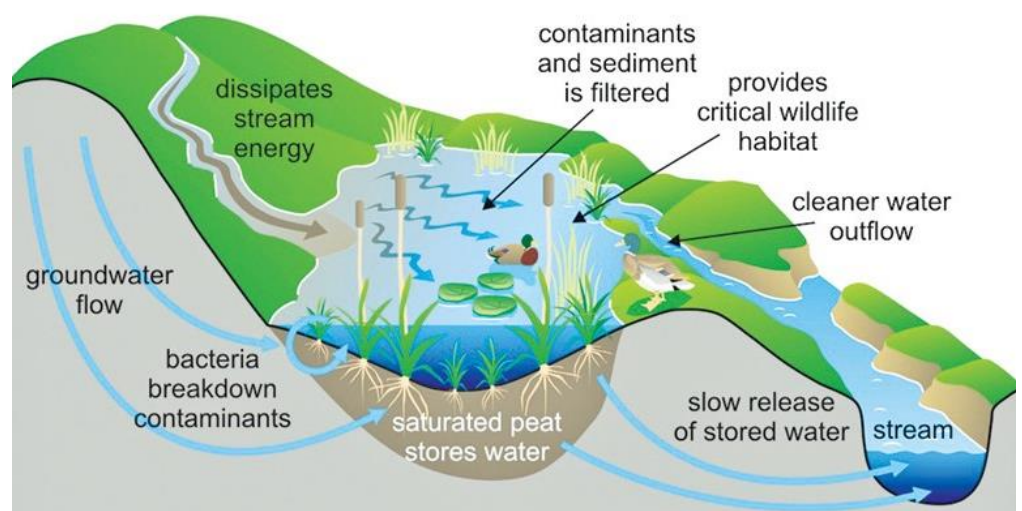
Types of Wetlands:

- A *temporary wetland* is wet between 1 and 4 months of the year.
- A *seasonal wetland* is wet during the rainy season. This means it will be wet between 5 and 11 months of the year, depending on the length of the rainy season.
- A *permanent wetland* is wet throughout the year.

South Africa has a wide range of Wetlands you can get to see this list at <http://wetland.org.za/>. In South Africa, the most well-known wetlands are the St. Lucia wetlands in KwaZulu-Natal.

Functions of a Wetland:

- Act like a giant sponge
Wetlands **soak up water and store it**. During a drought, when there is not much rain, this stored water can help to keep rivers and streams flowing so that animals and plants can stay alive.
- Control floods
Flood **water slows down** when it flows into a wetland, because the wetland is a large area that can hold a large amount of water and are filled with plants that slow down the flow of water.
- Cleans polluted water
As water flows through the wetland, it is **filtered**. Plants in the wetland trap soil particles and sediments, nutrients, as well as pollutants and disease-causing organisms which make the water unsafe. When water passes over a wetland, it slows down then some of the substances and **particles in the water settle on the soil**. The **plants in the wetland act as a filter** by trapping the larger dirt particles.
In wetlands, substances are separated from water by **settling** and **filtering**.
- Feed the groundwater
The vegetation in a wetland stores water and prevents it being lost to the sea. This **stored water then sinks into the ground** to form part of groundwater. This water can be reached when a person drills a borehole.

How Wetlands work

Activity 3**Case Study: Edith Stephens Wetland Park – Cape Flats**

In the middle of an area of Cape Town called Philippi there is a seasonal wetland. It is called the Edith Stephens Wetland Park which came into being in 1955. Ms Edith Stephens was a botanist. She cared about the wetlands on the Cape Flats. She bought a piece of land so that it could be preserved as a wetland. She was not a wealthy woman, but she cared a lot about the environment. The wetland is the home of a plant that has existed for 200 million years. The plant is a small fern called Isoetes (pronounces: i-so-eat-tease). Today many people in Philippi benefit from the wetland and use it as a place to relax and watch birds. We need to think about the future and act more like Edith Stephens.



Bird watchers and nature lovers can enjoy sights of ibises, egrets, cormorants white-backed ducks, and snipes among more, most prominently found during the winter rains between July and September. The park consists of a large seasonal wetland, with surrounding stretches of Cape Flats Sand Fynbos and Cape Flats Dune Strandveld vegetation. Seven Red Data plant species have been recorded here as well as nearly a hundred species of bird, several amphibians (including a population of endangered Western Leopard Toad), reptiles and mammals.

Sources: https://en.wikipedia.org/wiki/Edith_Stephens_Wetland_Park and <https://www.capetown.travel/member/edith-stephens-wetland-park/>

1. What is a wetland? (1)
2. Explain why wetlands are important (3)
3. List 2 of the plants and animals that make the Edith Stephens Wetland Park their habitat. (4)
4. What is the quality of the water in the Park? (1)
5. What is a botanist? (1)
6. What year was the wetland park established? (1)
7. Name 3 things people can do to protect wetlands. (3)

TOTAL: 14**Threats to Wetlands**

- About half of South Africa's wetlands have been lost so far.
- They are often cleared for farmland.
- Buildings are built on the flat piece of land in cities and towns.

Effects to biodiversity

- The animals move away, and the plants normally die.
- This will affect the quality of water in the river. The water will not be as clean, and the flow of water will not be steady.

Activities: (Day-by-day, pg. 102-103)

Language Revision – Do the language revision on pg. 102

Revision: Mixtures and water resources – Do the revision activity pg. 103