



Coastal & Environmental Services

BUFFALO RIVER ESTUARINE MANAGEMENT PLAN IS IN THE PROCESS OF BEING ADOPTED

Estuaries form a transition zone between river environments and marine environments where they are subject both to marine influences—such as tides, waves, and the influx of saline water—and to riverine influences—such as flows of fresh water and sediment. The inflows of both sea water and fresh water provide high levels of nutrients both in the water column and in sediment, making estuaries one of the most productive natural habitats in the world. Disturbances to an estuary can influence a wide variety of habitats and organisms in the associated freshwater or marine ecosystem. Thus, the interaction between the estuarine systems and users creates a delicate balance, the sustainability of which needs to be maintained by implementing an appropriate management plan.

The need for Estuarine Management Plans (EMPs) in South Africa is addressed in the Integrated Coastal Management Act (Act 24 of 2008; ICMA). Historically, estuaries and the management thereof have not been adequately addressed by marine, freshwater and biodiversity conservation legislation. However, the ICMA recognises the importance of estuaries and their management and outlines a National Estuarine Management Protocol (NEMP) to support this. The protocol identifies the need and minimum requirements for the development of EMPs, and also delegates responsibility to relevant authorities and agencies in an attempt to help to align and coordinate estuaries management at a local level. Due to the multiple influences on the functioning of estuaries (freshwater, terrestrial and marine), it is vital to adopt a “source-to-sea” approach that focuses around integrated management of the resource.

The EMP for the Buffalo River estuary, which was developed by EOH Coastal and Environmental Services in alignment with the NEMP, is in the process of being formally adopted by the Minister of the Department of Environmental Affairs, Ms Edna Molewa. The Buffalo River EMP is only the second EMP in the Eastern Cape to be formally adopted by the Minister with the Nahoon Estuary EMP being the first.

The Buffalo River estuary is located in the heart of East London and as a result is exposed to a number of anthropogenic impacts. The Buffalo River is also unique in that it is the only river port in South Africa. This makes the management of the estuary particularly complex in that the goods and services provided by the estuary need to fulfil the needs of both the biota that utilise the estuary for food, shelter and nursery grounds; the economic importance of its function as a world class port; and the recreational importance of the estuary as a recreational asset (primarily rowing and yachting).

The major impacts that Buffalo River estuary is exposed to include:

- Poor water quality as a result of activities occurring within the catchment (e.g. storm water discharge, sewage spillages due to broken sewerage infrastructure, solid waste, illegal industrial discharges; port maintenance activities); and
- The complete transformation of the estuary mouth due to the development of port infrastructure (breakwaters, quays, ship repair yards).

As a result, the Present Ecological State (PES) of the Buffalo River estuary has been classified as a Class D estuary where the estuary is largely modified with a large loss of natural habitat, biota and basic ecosystem functions and processes have occurred.

Taking the state of the Buffalo River estuary into consideration, a vision for the estuary was developed through extensive stakeholder consultation. The vision for the estuary is as follows:

“An ecologically resilient estuary that is clean and safe for all users, who utilise the resources in a responsible manner, where local economic development, tourism and recreation is encouraged and equitable access is facilitated. All users of the estuary acknowledge that they are custodians of and are accountable for the estuary and, through the development of partnerships and integrated management of the estuary, ensure its longevity and sustainability.”

In order to achieve the vision, ten management objectives have been identified:

1. Conserve and protect the remaining terrestrial habitat within the Estuarine Zone of Influence.
2. Maintain the ecological functioning and improve the health of the Buffalo River Estuary.
3. Update and implement water quality monitoring programmes within the Buffalo River Estuary and develop and implement estuary water quality mitigation measures.
4. Monitor and facilitate responsible commercial and infrastructure development within the Estuarine Zone of Influence.
5. Provide reasonable and safe public access to the Buffalo River Estuary.
6. Promote local economic development through commercial, tourism and recreation activities.
7. Promote education and awareness of the Buffalo River Estuary.
8. Develop partnerships for the integrated management of the Buffalo River Estuary.
9. Facilitate research opportunities within the Buffalo River Estuary.
10. Strengthen compliance monitoring and enforcement of activities within the Estuarine Zone of Influence.

For each of the ten management objectives, implementation plans have been developed that include the allocation of tasks, identification of performance indicators, assignment of responsibility for implementation and an indication of the budget required to perform each task. The DEA will oversee the implementation of the management objectives and monitor the performance of the implementation plan over the next five years. After five years, the EMP will need to be reviewed and updated and a new implementation plan developed based around the emerging challenges that the estuary may face.

