

Wetlands

Wetlands management framework

A completed Water Research Commission (WRC) study developed a framework for the management of wetlands within catchments where Eskom operates

Background

Since the revision of environmental policy and legislation that began after 1994 the legislative requirements for wetland management have become much more demanding – in particular the National Water Act (1998), the various parts of the National Environmental Management Act (1998), National Environmental Management Protected Areas Act (2003) and the National Environmental Management: Biodiversity Act (2004).

There are also other acts that affect wetland management. The legal requirements are evolving so it is necessary to keep abreast of the requirements and adapt to changes as they occur.

This can be challenging for environmental managers at large industries, such as Eskom. The Wetland Management Framework (WMF) has been developed to give guidance in the decision-making and management of wetlands on Eskom property.

The WMF, as developed, is suitable for broader application anywhere in South Africa and beyond. The legal aspects, however, are specifically South African.

The intention of this document is that it should provide an industry standard that will get embedded in Eskom's modus operandi. To this end the structure has followed that of the Eskom Project Life Cycle Model (PLCM).

Importance of wetlands

Wetlands are recognised as important providers of ecosystem services. Inland wetlands have been shown to be the

most valuable providers of ecosystem services of all the inland biomes.

Industries such as Eskom benefit from these services, but with the coal-fired power stations of Mpumalanga and the Ingula Pumped Storage Scheme (PSS) being in the upper catchments of major river systems, the activities of Eskom have the potential to influence the quality of the benefits provided by the ecological infrastructure to others downstream.

The Wetland Management Framework

The final report comprises seven chapters that cover the following aspects of wetland management on Eskom properties:

1. Introduction
2. Literature review
3. The WMF
4. Selected case studies to test the framework
5. The catchment perspective
6. Future research needs
7. Conclusions

There is also a series of six Powerpoint presentations covering relevant topics related to wetland management. Each of these has hyperlinks into relevant documents so that the reader may get more detail on each of the topics addressed.

The WMF itself is based on a number of sub-frameworks covering the range of topics needed to address the diverse aspects of wetland management. The following aspects are addressed for each of the 78 steps of the WMF:

- The relevance of the step to the category of focus on impact of the step (legal, environmental, social

responsibility and the role of Eskom in wider catchment management)

- One or more core questions to guide the process to address each step
- The various corporate organisational elements which would be involved, for instance, skills development systems, human resources, or data and information systems.

Case study sites for the testing of the WMF were selected on the criteria of the constructional (Kusile), operational (Matla and Kriel) and return-to-service (Grootvlei) phases of the PLCM.

For each of these the level at which the steps of the WMF had been addressed was assessed. In each case, it was found that the legal issues were prioritised, but Kusile was the only power stations that had addressed wetland management on the property

Following this, the steps of a wetland management plan for Matla Power Station were drawn up to guide the power station through the steps necessary to conform to the legal, environmental and corporate responsibility of Eskom on the site.

Recognising that Eskom has a national footprint geographically and is a major user of water, the final report also addresses the responsibilities of the power generator concerning the management of environmental, social and institutional issues.

Conclusion

From the industry perspective the WMF represents best practice. It is recommended that a phased approach be taken when implementing the framework on properties that were developed before the current legislation was promulgated, beginning with issues of legal compliance.

The WMF should be regarded as a living document. As such, once it is in use it should be reviewed to assess how it may be refined to fulfil Eskom's needs in a more focused way. The legal landscape is still evolving. Changes in the policies, legislation and regulations affecting wetlands and water management should be anticipated and incorporated into the WMF as appropriate.

Further reading:

To order the report, *Framework for the management of wetlands within catchments where Eskom operates* (**Report No. 2222/1/15**) contact Publications at Tel: (012) 330-0340, Email: orders@wrc.org.za or Visit: www.wrc.org.za to download a free copy.