



DEPARTMENT: WATER AFFAIRS

INTEGRATED ENVIRONMENTAL MANAGEMENT (IEM)
SERIES

IEM SERIES: SUB SERIES No 1.5

ENVIRONMENTAL DECISION SUPPORT
SYSTEM (E-DSS)

Prepared by
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BACKGROUND

Purpose of the E-DSS

The purpose of the Environmental Decision Support System (EDSS) is to provide tools to assist environmental decision-making pertaining to DWA's functions, activities and responsibilities.

The EDSS was developed to assist DWA (in environmental decision making) with regard to:

- Consistency in application and evaluation of environmental assessment and management tools;
- Provide IEM tools to assist activities in terms of Water Resource Management (WRM) and Water Services (WS);
- Assessing and reviewing environmental reports through decision-making criteria, standard conditions and applicable legislation; and
- Defining DWA's role in environmental decision-making.

Assistance available to aid DWA in decision-making

The EDSS consists of seven checklists, and each checklist is aimed at the review of specific documents. The EDSS checklists have been separated into two categories, namely:

- **Environmental Planning and Assessment Tools** – where DWA acts as the Implementor or Commentory Authority; and
- **Environmental Management Tools** – where DWA acts as the Regulator.

Additional environmental checklists available include **Environmental Monitoring and Auditing Tools** (IEM Sub-series 1.6 and 1.7) and **Environmental Reporting Tools** (IEM Sub-series 1.8).

GUIDELINE TO USE THE CHECKLISTS OF THE ENVIRONMENTAL DECISION SUPPORT SYSTEM (E-DSS)

1. Purpose of the Checklists

The environmental checklists are designed to assist DWA officials in incorporating environmental issues throughout the phases of a project life-cycle (planning, construction, operation and decommissioning) and to ensure that environmental issues are addressed when reviewing reports produced by external parties.

The checklist will ensure:

- The consideration of environmentally sound alternatives for proposed developments/projects;
- In-house screening of development options prior to appointing an independent environmental consultant to undertake the study;
- Assist in identifying fatal flaws that may prevent the project from proceeding. This will have a significant impact on the feasibility of the project;
- Allow for better financial planning in that, development constraints will be identified hence there will be no need for expensive mitigation measures at a later stage, and
- That the environmental impacts to water resources and water services are considered by proponents (internal and/or external).

2. DWA fulfils the following roles in environmental decision-making:

REGULATOR:

As the custodian of our nation's water resources, DWA fulfils the following functions with regard to **WATER RESOURCE MANAGEMENT** in accordance with the National Water Act (No. 36 of 1998) (NWA):

- Policy and Strategy Development;
- Water Resource Protection;
- Regulating Water Use;
- National Planning; and
- Working for Water.

For **WATER SERVICES**, the Department's role is ensure the effective, efficient and sustainable use and supply of water services by institutions that are accountable and responsive to the community that they serve. Under the Water Services Act, 1997 (No. 108 of 1997) DWA performs the following regulatory functions:

- Water Services Planning;
- Developing and Maintaining Policy and Strategy;
- Regulation and Intervention; and
- Monitoring and Auditing.

NOTE: Regulatory role pertains to DWA management function in terms of the environment.

IMPLEMENTOR:

This refers to those instances where DWA applies for authorisation of listed activities under NEMA EIA Regulations, as a project proponent. Implementing functions that are associated with DWA's role as developer or operator include:

- Water resource infrastructure development and operations;
- Monitoring systems for gauging weirs and fish ways;
- Remediation measures to protect water resources; and
- Working for Water Programme.

NOTE: Implementor role pertains to DWA impacting function

COMMENTARY AUTHORITY:

Consultants/applicant/other Government Department forwards EI&M reports to DWA to comment on as part of EIA process. Internal DWA review process is undertaken, particular emphasis is placed on the management of water resources and water services during the review.

NOTE: Commentary Authority role pertains to DWA's mandate as the custodian for water resources and its lead primary role in the water sector.

Separate checklists were developed to cater for DWAs legal responsibilities in each of its roles.

3. *Environmental Requirements Applicable to DWA*

The checklists were designed in compliance with the relevant legislation mostly the National Environmental Management Act (Act No. 107 of 1998)(NEMA). The table below contains a brief summary of the environmental requirements applicable to DWA in each of its roles.

Function	Legal Requirement**	Output
Implementor (developer) – listed Activities	NWA, EIA Regulations and other relevant legislation e.g. MPRDA	Depending on the impact on the environment one of the following outputs may be required. <ul style="list-style-type: none"> • Basic Assessment Report • Scoping/EIA Report • Environmental Monitoring • EMP • EMPr
Implementor (developer) – non listed Activities	NWA, NEMA and other relevant legislation	<ul style="list-style-type: none"> • BAR • EMP • Environmental Monitoring
Regulator (Lead Authority)	NWA, NEMA and other relevant legislation	<ul style="list-style-type: none"> • Water use authorisation • DWA requirements and recommendations environmental authorisation/permit

Commentary Authority	NWA, NEMA and other relevant legislation	Recommendation to Lead Authority on the potential impacts on the water resource.
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** It is accepted that all applicable legislation must be complied with and that this document presents only the requirements of the ECA, NWA and NEMA—this selection of applicable legislation does not override compliance with any other legislation.

Legislative Framework

On 18 June 2010 the Minister of Environmental Affairs promulgated regulations in terms of Chapter 5 of the National Environmental Management Act, 1998 (No. 107 of 1998) (NEMA) (Government Notice No. R. 544, R. 545, R546 and R. 547 in Government Gazette No. 33306 of 18 June 2010 refer). These regulations replaced the NEMA Environmental Impact Assessment (EIA) regulations (Government Notice No. R385, R386 and R. 387 in Government Gazette No. 28753) that were promulgated in 21 April 2006 of NEMA which were replacing the first regulations promulgated in terms of the Environment Conservation Act, 1989 (No. 73 of 1989) in 1997.

The lists of activities identified in terms of Sections 24 NEMA, which require environmental authorisation from the Department of Environmental Affairs (DEA) or its provincial counterparts, are as follows:

- ☞ **Government Notice No. R. 544 (Listing Notice 1)**
– Basic Assessment process;
- ☞ **Government Notice No. R. 545 (Listing Notice 2)**
– Scoping and EIA process;
- ☞ **Government Notice No. R. 546 (Listing Notice 3)**
– Basic Assessment process in specific areas
- ☞ **Government Notice No. R. 547**
– Environmental Management Frameworks

4. When to use the environmental checklists

A series of seven checklists were designed to assist DWA officials in their various functions. The table below presents a brief explanation on when and how to use the checklists

Checklist	DWA Function	Purpose of Checklist	Possible DWA Applications
Request for Information	Implementor	Assist with identification and understanding of potential impacts, determine scope of activities and identify authorisation requirements.	<ul style="list-style-type: none"> • Construction and Upgrade of bulk services • Construction and upgrade of dams, weirs, canals, roads, etc • Construction and upgrade to sewer infrastructure • Storage of waste or water containing waste • Discharge of waste or water containing waste
	Implementor		<ul style="list-style-type: none"> • Upgrade of a spillway • Construction or upgrade of reticulation pipelines • Construction of on-site sanitation • Clearing activities

<p>Environmental Screening</p>	<p>Implementor</p>	<p>Incorporate environmental issues during planning / feasibility phase. In-house environmental screening of development options. Identify environmental fatal flaws.</p>	<ul style="list-style-type: none"> • Appraisal of potential site for a new dam • Construction and Upgrade of bulk services • Construction and upgrade of dams, weirs, canals, roads, etc • Construction and upgrade to sewer infrastructure • Storage of waste or water containing waste • Discharge of waste or water containing waste
<p>Environmental Impact and Aspect Register</p>	<p>Implementor</p>	<p>WS projects - consider environment before Business Plan approval. Identify best environmental option & fatal flaws. Identify & mitigate potential impacts.</p>	<ul style="list-style-type: none"> • Building a transfer scheme • Upgrade of a spillway • Construction or upgrade of reticulation pipelines • Construction of on-site sanitation • Clearing activities
<p>Environmental Impact and Aspect Close Out Register</p>	<p>Implementor</p>	<p>Ensure that all negative impacts have been</p>	<ul style="list-style-type: none"> • Applicable to all projects

		addressed during the project and that there are no long term impacts that remain un-addressed.	<ul style="list-style-type: none"> • Building of abstraction works
Basic Assessment Checklist	Implementor / Regulator / Commentary Authority	<ul style="list-style-type: none"> • To assist DWA officials in evaluating EIA reports submitted by other Lead Authorities such as DEA. • To assist DWA officials in evaluating EIA reports submitted as part of a licence application. • To assist DWA officials in evaluating EIA reports submitted by independent consultants appointed by DWA to satisfy the requirements of the EIA Regulations of the NEMA. 	<p>Commentary Authority: reviewing a Basic Assessment report for a small-scale industrial development.</p> <p>(refer to Appendix B of training manual or GN R544/6 for full list of BAR listed activities)</p>
EIA Checklist			<p>Implementor: construction of facilities or infrastructure for the transfer of 50 000 cubic metres or more water per day, from and to or between water catchments.</p> <p>(refer to Appendix C of training manual or GN R545 for full list of scoping/EIA listed activities)</p>
EMP Checklist			<p>See above examples of scenarios under Basic Assessment and EIA checklists.</p>

EMPR Checklist		Same as BAR, EIA, EMP including requirements from the MPRDA/DMR	Regulator: reviewing an EMPR for a prospective mining activity, this includes water uses.
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