

6. LEGISLATION AND GUIDELINES CONSIDERED IN THE EIA

The Constitution of the Republic of South Africa Act (Act 108 of 1996) as amended by the Constitution of the Republic of South Africa Amendment Act (Act 35 of 1997) is the most important piece of national legislation, since it provides a framework within which all other laws of the country, including environmental law, must be formulated and interpreted.

The Bill of Rights is fundamental to the Constitution, and in Section 24 it is stated that 'Everyone has the right (a) to an environment that is not harmful to their health or well-being; and (b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that (i) prevent pollution and ecological degradation; (ii) promote conservation; and (iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development'.

This Environmental Impact Assessment is being undertaken in compliance with the National Environmental Management Act (107 of 1998) (NEMA) (**Section 6.1**). Cognisance is also taken of other applicable legislation (**Section 6.2**) and international considerations (**Section 6.3**). The principles and guidelines emanating from the World Commission on Dams have also been noted (**Section 6.4**).

6.1 NATIONAL ENVIRONMENTAL MANAGEMENT ACT

The National Environmental Management (NEMA) Act (Act 107 of 1998) is a 'principles-based Act' that provides South Africa's overarching environmental legislation. This Act has as its primary objectives to provide for co-operative environmental governance by establishing principles for decision-making on matters affecting the environment, institutions that will promote co-operative governance, and procedures for co-ordinating environmental functions exercised by organs of state.

The Act provides for the right to an environment that is not harmful to the health and well-being of South African citizens; the equitable distribution of natural resources;

sustainable development; environmental protection; and the formulation of environmental management frameworks.

NEMA contains a set of principles that govern environmental management, and against which all environmental management plans and actions are measured. Sustainable development requires the consideration of all relevant factors including the following:

- Environmental management must place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental, cultural and social interests equitably.
- That pollution and degradation of the environment are avoided, or, where they cannot be altogether avoided, are minimised and remedied.
- That waste is avoided, or where it cannot be altogether avoided, minimised and reused or recycled where possible and otherwise disposed of in a responsible manner.
- That a risk averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions.
- Responsibility for the environmental health and safety consequences of a policy, programme, project, product, process, service or activity exists throughout its life cycle.
- The participation of interested and affected parties in environmental governance must be promoted, and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, and participation by vulnerable and disadvantaged persons must be ensured.
- Decisions must take into account the interests, needs and values of all interested and affected parties, and this includes recognising all forms of knowledge, including traditional and ordinary knowledge.

- Community well-being and empowerment must be promoted through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means.
- The right of workers to refuse work that is harmful to human health or the environment and to be informed of dangers must be respected and protected.
- Decisions must be taken in an open and transparent manner, and access to information must be provided in accordance with the law.
- The vital role of women and youth in environmental management and development must be recognised and their full participation therein must be promoted.

The requirements for environmental authorisation are regulated by Government Notices 385, 386 and 387 of 21 April 2006, published in terms of Chapter 5 of NEMA.

Under these regulations the proposed development of Nwamitwa Dam and bulk water supply infrastructure contains activities that potentially have a detrimental effect on the environment in terms of the following items in GN 386 and 387 of 21 April 2006: These activities are presented in **Table 6.1**.

Table 6.1: Activities listed in GN 386 and 387 that require authorisation from DEAT

Number and date of the relevant notice:	Activity No (s) (in terms of the relevant or notice) :	Describe each listed activity:
No. R 387 of 21 April 2006	1 (c)	The above ground storage of a dangerous good, including petrol, diesel, liquid petroleum gas or paraffin, in containers with a combined capacity of 1000 cubic metres or more at any one location or site including the storage of one or more dangerous goods, in a tank farm.
No. R 387 of 21 April 2006	1 (e)	Any process or activity which requires a permit or license in terms of legislation governing the generation or release of emissions, pollution, effluent or waste and which is not identified in Government Notice No. R. 386 of 2006.

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Number and date of the relevant notice:	Activity No (s) (in terms of the relevant or notice) :	Describe each listed activity:
No. R 387 of 21 April 2006	1 (p)	The treatment of effluent, wastewater or sewage with an annual throughput capacity of 15000 cubic metres or more.
No. 387 of April 2006	2	Any development activity, including associated structures and infrastructure, where the total area of the developed area is, or is intended to be, 20 hectares or more.
No. 387 of April 2006	5	<p>The route determination of roads and design of associated physical infrastructure, including roads that have not yet been built for which routes have been determined before the publication of this notice and which has not been authorised by a competent authority in terms of the Environmental Impact Assessment Regulations, 2006 made under section 24(5) of the Act and published in Government Notice No. R.385 of 2006, where –</p> <p>it is a national road as defined in section 40 of the South African National Roads Agency Limited and National Roads Act, 1998 (Act No. 7 of 1998);</p> <p>it is a road administered by a provincial authority;</p> <p>the road reserve is wider than 30 metres; or</p> <p>the road will cater for more than one lane of traffic in both directions.</p>
No. 387 of April 2006	6	The construction of a dam where the highest part of the dam wall, as measured from the outside toe of the wall to the highest part of the wall, is 5 metres or higher or where the high-water mark of the dam covers an area of 10 hectares or more.
No. 387 of April 2006	7	Reconnaissance, exploration, production and mining as provided for in the Mineral and Petroleum Resources Development Act 2002 (Act No. 28 of 2002), as amended in respect of such permits and rights.
No. 387 of April 2006	8	In relation to permits and rights granted in terms of 7 above, or any other right granted in terms of previous mineral legislation, the undertaking of any reconnaissance, exploration, production or mining related activity or operation within a exploration, production or mining area, as defined in terms of section 1 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002).
No. 386 of April 2006	1 (k)	The bulk transportation of sewage and water, including storm water, in pipeline with –

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Number and date of the relevant notice:	Activity No (s) (in terms of the relevant or notice) :	Describe each listed activity:
		an internal diameter of 0.36 metres or more; or a peak throughput of 120 litres per second or more.
No. 386 of April 2006	1 (m)	Any purpose in the one in ten year flood line of a river or stream, or within 32 metres from the bank of a river or stream where the flood line is unknown, excluding purposes associated with existing residential use, but including – canals; channels; bridges; dams; and weirs
No. 386 of April 2006	1 (n)	The off-stream storage of water, including dams and reservoirs, with a capacity of 50 000 cubic metres or more, unless such storage falls within the ambit of the activity listed in item 6 of Government Notice No. R 387 of 2006.
No. 386 of April 2006	1 (o)	The recycling, reuse, handling, temporary storage or treatment of general waste with a throughput capacity of 20 cubic metres or more daily average measured over a period of 30 days, but less than 50 tons daily average measured over a period of 30 days.
No. 386 of April 2006	4	The dredging, excavation, infilling, removal or moving of soil, sand or rock exceeding 5 cubic metres from a river, tidal lagoon, tidal river, lake, in-stream dam, floodplain or wetland.
No. 386 of April 2006	7	The above ground storage of a dangerous good, including petrol, diesel, liquid petroleum gas or paraffin, in containers with a combined capacity of more than 30 cubic metres but less than 1000 cubic metres at any one location or site.
No. 386 of April 2006	8	Reconnaissance, prospecting, mining or retention operations as provided for in the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), in respect of such permissions, rights, permits and renewals thereof.
No. 386 of April 2006	15	The construction of a road that is wider than 4 metres or that has a reserve wider than 6 metres, excluding roads that fall within the ambit

Number and date of the relevant notice:	Activity No (s) (in terms of the relevant or notice) :	Describe each listed activity:
		of another listed activity or which are access roads of less than 30 metres long.

Section 24(C) of NEMA, as amended, indicates that the Minister of the national Department of Environmental Affairs and Tourism (DEAT), or an organ of state with delegated powers, is the Competent Authority (CA) when, amongst others, the applicant is a national department. As the Department of Water Affairs and Forestry is a national department, this application was submitted to the DEAT, and not the Provincial department.

6.2 OTHER APPLICABLE LEGISLATION

6.2.1 Overview

A limited scoping of relevant legislation was undertaken in order to identify the key legal issues related to the proposed project. Applicable key environmental legislation, which must be considered by the DWAF during the implementation of the proposed project is summarised in **Table 6.2**.

Table 6.2: Summary of applicable legislation

Legislation	Sections	Relates to
The Constitution Act (No 108 of 1996)	Chapter 2	Bill of Rights
	Section 24	Environmental rights
	Section 25	Rights in property
	Section 32	Administrative justice
	Section 33	Access to information

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Legislation	Sections	Relates to
National Environmental Management Act (No 107 of 1998) as amended	Section 2	Defines the strategic environmental management goals, principles and objectives of the government. Applies through-out the Republic to the actions of all organs of state that may significantly affect the environment
	Section 24	Provides for the prohibition, restriction and control of activities which are likely to have a detrimental effect on the environment.
	Section 28	The developer has a general duty to care for the environment and to institute such measures as may be needed to demonstrate such care
NEM: Protected Areas Act (No 57 of 2003)		The Act came into operation on 01 November 2004. The aim of the Act is to provide for the protection and conservation of ecologically viable areas representative of South Africa's biological diversity, natural landscapes and seascapes. In 2004, the National Environmental Management: Protected Areas Amendment Act 31 of 2004 was promulgated to amend Act 57 of 2003 with regard to the application of that Act to national parks and marine protected areas. The NEM: Protected Areas Amendment Act was published for public information on 11 February 2005 and came into operation on 01 November 2005. The NEM: Protected Areas Act, as amended by the NEM: Protected Areas Act 31 of 2004 repeals sections 16, 17 & 18 of the ECA as well as the National Parks Act with the exception of section 2(1) and Schedule 1.
The Conservation of Agricultural Resources Act (No 43 of 1983) and regulations	Section 6	Implementation of control measures for alien and invasive plant species
Atmospheric Pollution Prevention Act (No 45 of 1964) and regulations	Sections 27 – 35	Dust control
	Section 36 - 40	Air pollution by fumes emitted by vehicles

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Legislation	Sections	Relates to
National Environmental Management: Air Quality Act (No 39 of 2004)	Section 32	Control of dust
	Section 34	Control of Noise
	Section 35	Control of offensive odours
Occupational Health and Safety Act (No 85 of 1993) and regulations	Section 8	General duties of employers to their employees
	Section 9	General duties of employers and self employed persons to persons other than their employees
National Environmental Management: Biodiversity Act, 2004 (Act 10 of 2004) (NEMBA),		Strategy for achieving the objectives of the United Nation's Convention on Biological Diversity, to which South Africa is a signatory
	Sections 65-69	These sections deal with restricted activities involving alien species; restricted activities involving certain alien species totally prohibited; and duty of care relating to alien species
	Sections 71 and 73	These sections deal with restricted activities involving listed invasive species and duty of care relating to listed invasive species.
National Forests Act (No 84 of 1998) and regulations	Section 7	No person may cut, disturb, damage or destroy any indigenous, living tree in a natural forest, except in terms of a licence issued under section 7(4) or section 23; or an exemption from the provisions of this subsection published by the Minister in the Gazette.
	Sections 12-16	These sections deal with protected trees,

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Legislation	Sections	Relates to
		with the Minister having the power to declare a particular tree, a particular group of trees, a particular woodland; or trees belonging to a particular species, to be a protected tree, group of trees, woodland or species. In terms of section 15, no person may cut, disturb, damage, destroy or remove any protected tree; or collect, remove, transport, export, purchase, sell, donate or in any other manner acquire or dispose of any protected tree, except under a licence granted by the Minister.
Fencing Act (No 31 of 1963)	Section 17	Any person erecting a boundary fence may clean any bush along the line of the fence up to 1.5 metres on each side thereof and remove any tree standing in the immediate line of the fence. However, this provision must be read in conjunction with the environmental legal provisions relevant to protection of flora.
National Water Act (No 36 of 1998) and regulations	Section 19	Prevention and remedying the effects of pollution.
	Section 20	Control of emergency incidents
All relevant Provincial Legislation and Municipal bylaws		
Water Services Act (Act 108 of 1997)		
Development Facilitation Act (Act 67 of 1995)	Section 42	relates to investigation and authorisation of non-statutory land development processes
	Section 44	relates to Land development on behalf of the State or local government body
National Heritage Resources Act (Act 25 of 1999)	Section 32	Relates to objects of cultural and historical significance
	Part 2	Relates to general protections of archaeological structures and burial grounds.

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Legislation	Sections	Relates to
Promotion of Access to Information Act (Act 2 of 2000) as amended by the Promotion of Administrative Amendment Justice Act (Act 53 of 2002)		relates to creation of a culture of transparency and accountability
Promotion of Administrative Justice Act (Act 3 of 2000).	Section 5	Relate to the time period allowed for administrative action whose right are materially or adversely affected by the administrative action
	Section 9	Relates to the variations of the time periods for judicial review.
	Section 10	Relates to procedures for public enquiries
Expropriation Act (Act 63 of 1975)	Section 2	Relates to the power of the relevant minister to expropriate property for public and certain other purposes.
	Section 7	Relates to the relevant ministers' decision to expropriate land and appropriate notice being given to landowners.
Mineral and Petroleum Resources Development Act (Act 28 of 2002)	Sections 39 & 106	Relates to sourcing material for construction."
Limpopo Environmental Management Act (Act no 7 of 2003)		The Act refers to the management and protection of the environment in the Limpopo Province, to secure ecologically sustainable development and responsible use of natural resources in the province is applied and interpreted in accordance with NEMA and relates to the listing of protected species and management thereof..

6.2.2 Authorisation of borrow areas

Compliance with the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) (MPRDA) is fulfilled by taking such material from the property of

government water works wherever possible, and using it on the same government water works for improving the safety of that government water works. (Section 106 (3) of the MPRDA states "any land owner or lawful occupier of land who lawfully takes sand, stone, rock, gravel or clay for farming or for effecting improvements in connection with such land or community development purposes, is exempt from the provisions of the subsection (1) as long as the sand, stone, rock, gravel or clay is not sold or disposed of'.)

In the event of fill or similar material having to be acquired from outside the bounds of the government water works for improvement of those works, then the contents of Regulation Gazette no. 792 of 25 July 2004 which addresses the exemption of organs of State from certain provisions of the MPRDA are noted, which state that the Minister of Minerals and Energy, acting in terms of Section 106 (1) of that act "hereby exempt the Department of Water Affairs and Forestry, from the provisions of Section 16, 20, 22 and 27 of the said act in respect of any activity to remove any mineral for the construction and maintenance of dams, harbours, road and railway lines and for purposes incidental thereto." However, in such cases the department although exempted from such provisions must submit an Environmental Management Programme (EMProgramme) for approval in terms of Section 39 (4) of the Act, and in so doing should make it clear that the EMProgramme, is submitted for approval and that DWAF is not an applicant.

To further assist the programme the contents of a Memorandum of Understanding between the Department of Water Affairs and Forestry and the Department of Minerals and Energy concerning the financial provision associated with rehabilitation of quarries and borrow areas used for the construction or maintenance of dams or any other water resource infrastructure, is appended. Where approval is sought for an environmental management programme for quarries or borrow area outside the footprint of a government water works, a copy of this Memorandum of Understanding should be included in the submission with confirmation that the cost of rehabilitating such quarry or borrow area is included in the approved budget for the construction works associated with the dam safety rehabilitation programme activities of the dam in question.

6.2.3 The Reserve

In accordance with the National Water Act, the Reserve is that portion of water required to meet basic human needs, and the needs of the aquatic ecosystem. The Department of Water Affairs and Forestry undertook a preliminary Reserve determination for the Groot Letaba River in 2006, and the resulting requirements will be taken into account in both the yield analysis and technical design of the project.

6.3 INTERNATIONAL CONSIDERATIONS

The DWAF is required to continuously liaise with the country's neighbours, specifically Mozambique, during the planning and implementation of the GLeWaP in line with international protocols and agreements. Under consideration is the potential impact on Mozambique of the GLeWaP.

The EIA needs to take note of the associated responsibilities linked to the Revised SADC Protocol on Shared Watercourse Systems and the new SADC Water Policy that will shortly be signed and ratified by SADC countries.

6.4 WORLD COMMISSION ON DAMS

The final report of the World Commission on Dams (WCD) was published in November 2000. The objectives of this Commission were to review the effectiveness of large dams and develop internationally acceptable principles, strategic priorities and criteria and guidelines for application in projects aimed at providing water supplies to meet the needs of society. The Commission, now disbanded, held no legal authority and each nation is responsible for implementing the recommendations on its own accord.

Key findings of the WCD are as follows:

- Dams have made an important and significant contribution to human development and the benefits derived from them have been considerable.
- However, in many cases, an unacceptable and often unnecessary price has been paid to secure those benefits, especially in social and environmental terms,

by people displaced, by communities located downstream from a new dam, by taxpayers, and by the natural environment.

- A lack of equity in the distribution of benefits has called into question the value of many dams in meeting water and energy development needs, when compared to alternatives.
- By bringing to the table all those whose rights are involved and who bear the risks associated with different options for water and energy resources development, the conditions for a positive resolution of competing interests and conflicts are created.
- Negotiating outcomes will greatly improve the development effectiveness of water and energy projects by eliminating unfavourable projects at an early stage, and by offering, as a choice, only those options that key stakeholders agree represent the best ones to meet the needs in question.

The WCD identified seven strategic priorities, supported by policy principles, to provide a principled and practical way forward for decision-making. These strategic priorities have been included within the assessment framework for this proposed project and are summarized as follows:

- Gaining public acceptance.

Public acceptance of key decisions is essential for equitable and sustainable water and energy resources development. This requires the use of decision-making processes and mechanisms that enable informed participation by all groups of people, and result in the demonstrable acceptance of key decisions. With regard to the GLWaP, various parallel means of communication and participation have been implemented.

- Comprehensive options assessment.

Alternatives to dams often exist. To explore these alternatives, the needs for water, food and energy must be assessed and objectives clearly defined. The appropriate development response must be identified from a range of options. These options are based on comprehensive and participatory assessment of the

full range of policy, institutional and technical aspects. In the assessment process, social and environmental aspects must have the same significance as economic and financial factors. The options assessment process should continue through all stages of planning, project development and operations.

- Addressing existing dams.

Opportunities exist to optimise the benefits from many existing dams and these must be considered. Dams and the context in which they operate are not static over time. Changes in water use priorities, physical and land use changes in the river basin, technological developments, and changes in public policy expressed in environmental, safety, economic, and technical regulations may transform benefits and impacts.

- Sustaining rivers and livelihoods.

Rivers, watersheds and aquatic ecosystems are the biological 'engines' of the planet. They are the basis for life and the livelihoods of local communities. Dams transform landscapes and create risks of irreversible impacts. Understanding, protecting and restoring ecosystems at river basin level are essential to foster equitable human development and the welfare of all species. Options assessment and decision-making around river development must prioritise the avoidance of impacts, followed by the minimisation and mitigation of harm to the health and integrity of the river system. These aspects are well-known and form part of the issues raised during Scoping. The manner in which they will be addressed, and negative impacts mitigated, form part of the Impact Assessment, inclusive of Specialist Studies, that will follow Scoping.

- Recognising entitlements and sharing benefits.

Joint negotiations with adversely affected people result in mutually agreed and legally enforceable mitigation and development provisions. Affected people are beneficiaries of the project. Successful mitigation, resettlement and development are fundamental commitments and responsibilities of the State and the developer. They bear the onus to satisfy all affected people moving from their current context and resources.

- Ensuring compliance.

Ensuring public trust and confidence requires that the governments, developers, regulators and operators meet all commitments made for the planning, implementation and operation of dams. Regulatory and compliance frameworks need to use incentives and sanctions to ensure effectiveness where flexibility is needed to accommodate changing circumstances.

- Sharing rivers for peace, development and security.

Storage and diversion of water on transboundary rivers has been a source of considerable tension between countries and even within countries. The use and management of such shared resources must increasingly become the subject of mutual self-interest for regional co-operation and peaceful collaboration. This leads to a shift in focus from the narrow approach of allocating a finite resource, to the sharing of rivers and their associated benefits in which States can become innovative in defining the scope of issues for discussion.

6.5 NON-REGULATORY ACTIVITIES

Within the configuration of the GLeWaP, there are a number of activities that are being undertaken but which do not require environmental authorisation by the Department of Environmental Affairs and Tourism. These activities are being addressed by the Department of Water Affairs and Forestry to demonstrate best practice and to align the GLeWaP with the strategic priorities arising from the WCD. Non-regulatory activities that are currently being undertaken include:

- Water conservation and demand management assessments.
- A Regional economic/macro-economic assessment.
- International protocols and agreements.
- Provision of the Reserve for the Groot Letaba River.

These studies will be undertaken as part of the wider GLeWaP and their results and findings will be fed back into the EIA, notably, the Environmental Impact Report that

will be drafted following the completion of Specialist Studies that form part of the Impact Assessment Phase of the EIA.