

REPUBLIC OF SOUTH AFRICA



National Department of Housing

**ENVIRONMENTAL SERVICES FOR
HOUSING DEVELOPMENTS**

Project Linked Greenfield Subsidy Project Developments

*Generic Specification GFSH-4
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INTRODUCTION

Housing developments in South Africa are classified as a listed activity in terms of section 21, 22 and 26 of the Environment Conservation Act, 1989. Compliance with the relevant sections of this act and other relevant legal requirements is, therefore, mandatory for all housing developments. (See Annexure 1). The legally prescribed process for Environmental Impact Management should, therefore, be followed for all new housing development projects.

The Environmental Impact Management process as illustrated in (Figure 1) is designed to be transparent and informative in order to ensure ample opportunity for all interested and affected parties, stakeholders and the public in general, to provide constructive input into the final approval of the project. At the same time the process should provide the designated authority with the relevant information to be able to make an informed decisions on the final approval of the project and to provide appropriate recommendations for the minimisation and management of potential environmental impacts. (Refer to Annexure 2).

Chapter 3 of Part 3 of the National Housing Code requires that:

an environmental impact assessment will be conducted on all land offered for development in response to a land availability call from a municipality. It may be conducted in one or two stages, and the first stage report will be compiled as a minimum requirement. The two stages are:

- (i) A pre-feasibility scan of identified risks and potential flaws, commissioned by an applicant.*
- (ii) Detailed environmental studies, commissioned by a developer, which could comprise detailed scoping, including mini-risk, or comprehensive environmental impact assessment.*

The second stage will be conducted to the extent directed by the report in the first stage.

The project descriptions submitted by applicant municipalities to a MEC to secure conditional approval of subsidies against selected parcels of land is required to include an environmental pre-feasibility scan. The feasibility study report which developers are required to submit to the MEC to secure confirmation of subsidies must include any detailed environmental studies recommended in the pre-feasibility environmental scan contained in the project description.

This specification establishes a scope of work for independent consultants contracted to prepare pre-feasibility scans and detailed environmental studies and provides a means for their engagement.

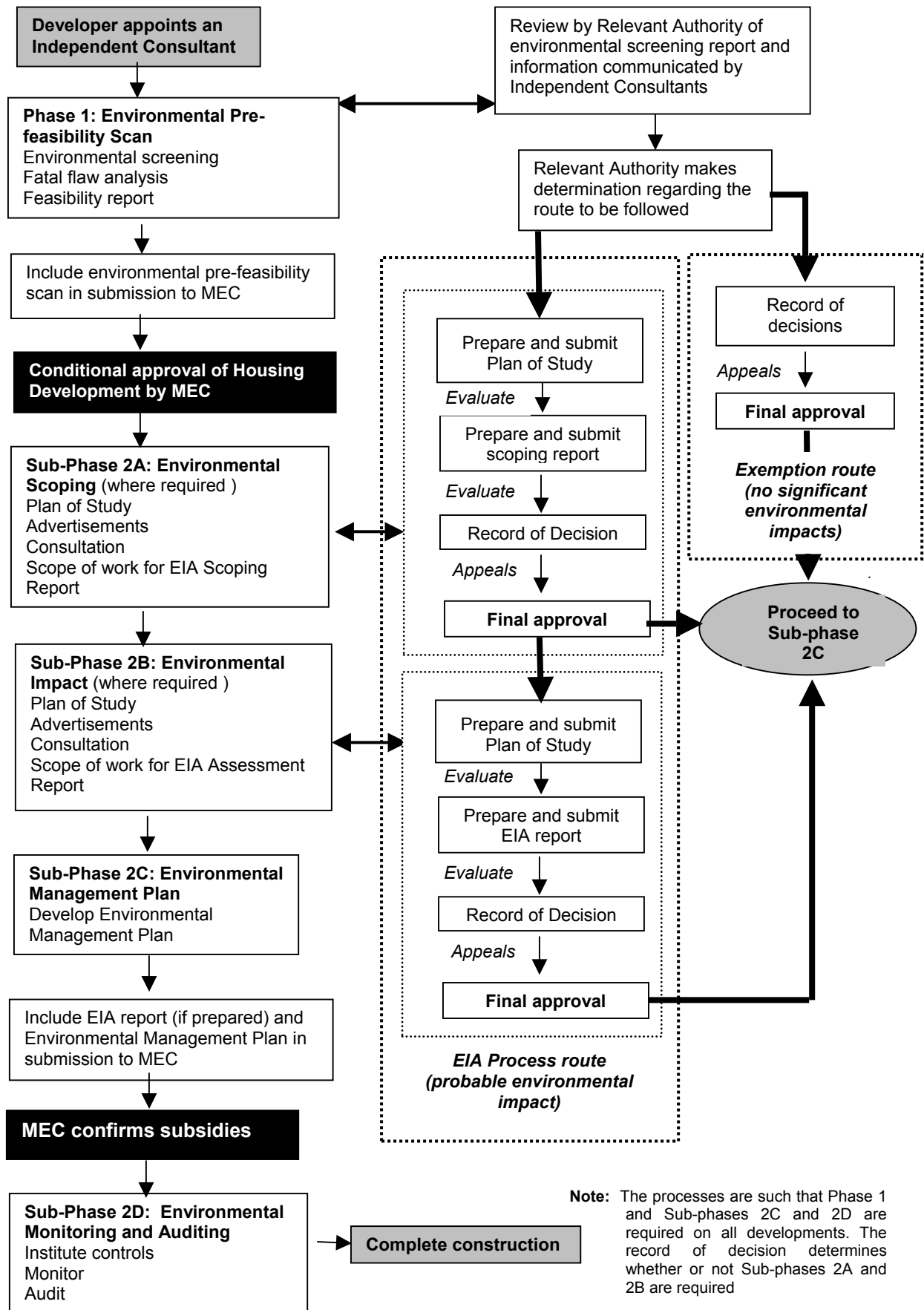


Figure 1: Typical process flow associated with environmental services in project linked green field subsidy housing projects

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1 SCOPE

This specification contains requirements that are generally applicable to the provision of environmental services on housing developments.

2 NORMATIVE REFERENCES

Department of Environmental Affairs and Tourism. Guideline Document - EIA Regulations. Implementation of Sections 21, 22 and 26 of the Environment Conservation Act. April 1998. Environmental Impact Management Unit.

3 DEFINITIONS

Alternatives: a possible course of action, in place of another, that would meet the same purpose and need.

Note: Alternatives can refer to any of the following but are not limited to:

- alternative sites for development;
- alternative site layouts;
- alternative designs;
- alternative processes and materials.

In Integrated Environmental Management the so-called "no action" alternative may also require investigation in certain circumstances.

Applicant: the agency that responds to subsidies reserved in the area of jurisdiction of a municipality by identifying and selecting land and preparing a project description for each selected land parcel for submission to a provincial government.

Note: The Applicant may only be a municipality or a Provincial Housing Department where a municipality does not yet have appropriate capacity.

Assessment: the process of collecting, organising, analysing, interpreting and communicating data that are relevant to some decision.

Developer: the agency that completes a feasibility study and undertakes an approved project by concluding a project agreement with the MEC responsible for housing matters.

Note: Only a Municipality or a Provincial Housing Department, where a Municipality does not have appropriate technical, financial or managerial capacity to act as a Developer, may be a Developer.

Environmental Impact: the degree of change in an environment resulting from the effect of an activity on the environment, whether desirable or undesirable.

Note: Impacts may be the direct consequence of an organisation's activities or may be indirectly caused by them.

Environmental Impact Assessment (EIA): a public process that is used to identify, predict and assess the potential Environmental Impact of a proposed housing development.

Environmental Impact Assessment Phase: the period in the project cycle which follows the Environmental Pre-feasibility Scan Phase and which takes place only if the requirement for an Environmental Impact Assessment is determined in the preceding phase.

Environmental Impact Report: a report describing the process of examining the environmental effects of a development proposal, the expected impacts and the proposed mitigating measures.

Environmental Impact Report Sub-phase: the period in the project cycle which commences only after the completion of the scope of work for an Environmental Impact Assessment and ends once an Environmental Impact assessment Report is completed.

Environmental Issue: a concern felt by one or more parties about some existing, potential or perceived Environmental Impact.

Environmental Management Plan (EMP): specifications for the management of Environmental Impacts of the Housing Development during the pre-construction, construction, operational and decommissioning phases.

Environmental Monitoring and Auditing Sub-phase: the period in the project cycle which commences only once the Housing Development proceeds and finishes when construction ceases.

Environmental Pre-feasibility Scan Phase: the period in the project cycle prior to an MEC granting conditional approval for a Housing Development in terms of which an environmental screening process is undertaken, outside a formal process established in legislation, to determine whether or not the Fatal Flaws preclude Housing Developments, and if not, whether or not an Environmental Impact Assessments is required and what the implications of identified Environmental Issues may have on the Housing Development.

Environmental Scientist: a person who is qualified by virtue of his education, training and experience to undertake specialist work associated with Environmental Assessments and who is registered in terms of one of the councils referred to in the Council for the Built Environment Act (Act 43 of 2000), Section 20 of the Town and Regional Planners Act (Act 19 of 1984) or in terms of Section 11 of the Natural Scientific Professions Act (Act No. 106 of 1993).

Environmental Scoping: the process of determining the key environmental issues to be addressed in an Environmental Impact Assessment.

Environmental Scoping Sub-phase: the period in the project cycle immediately after an MEC grants conditional approval for a Housing Development in terms of which a process is followed which results in the production of a scope of work for an Environmental Impact Assessment.

Environmental Screening: a decision-making process, initiated during the early stages of the development of a proposal, in order to determine whether or not the proposed development requires further environmental Assessment.

Fatal Flaw Analysis: the analysis of any real or perceived problem, issue or conflict that could result in a proposal being rejected or modified.

Housing Development: a project approved in terms of Chapter 3, Part 3 of the National Housing Code for the servicing of land and construction of houses for sale to beneficiaries using housing subsidy funds.

Independent consultant: a consultant that is not in the permanent service of the applicant whose payment for services rendered is not dependent upon the successful authorisation of the application and who:

- a) is not involved in any design or work on the same project;
- b) does not derive more than 50% of his or her fee income from the same client;
- c) does not, while working for any applicant, work for any relevant authority in respect of the same application.

Integrated Environmental Management (IEM): an integrated approach for Environmental Assessment, management, decision-making and the promotion of sustainable development and the equitable use of resources.

Note: The principles underlying IEM provide for a democratic, participatory, holistic, sustainable, equitable and accountable approach.

Interested and Affected Parties (I&APs): individuals, communities or groups, other than the Developer or his agents or the authorities, who are concerned with a proposed development and its consequences, and whose interests may be positively or negatively affected by the development.

Note: Interested and Affected Parties include the local communities, investors, work force, consumers, environmental interest groups and the general public. The interested parties are responsible to provide input and comments during various stages of the EIA process, specifically during the following stages:

- the Scoping stage (identify the issues and Alternatives to be considered);
- assessing and mitigating impacts;
- review of the Environmental Impact report; and
- implementation and monitoring.

Mitigation: Measures designed to avoid, reduce or remedy adverse impacts.

Monitoring: The repetitive and continued observation, measurement and evaluation of environmental data to follow changes over a period of time to assess the efficiency of control measures.

Plan of Study: a plan detailing the process to be followed for the Environmental Scoping Phase or the EIA phase of a proposed Housing Development, that is submitted to the Relevant Authorities for approval to continue with the Assessment.

Public Participation: the facilitated process of engagement between Stakeholders during the planning, Assessment, implementation and management of a housing development.

Record of Decision: a formal decision issued by the Relevant Authority, after an environmental Scoping process or an EIA process, on whether or not a proposed Housing Development may proceed.

Relevant Authority: The environmental authority on national, provincial or local level entrusted in terms of the Constitution of the Republic of South Africa (Act 108 of 1996) and in terms of the designation of powers in Notice No. R. 1184 of 5 September 1997 under the Environment Conservation Act (Act 73 of 1989) with the responsibility for granting approval to a proposal or allocating resources.

Stakeholders: a subgroup of the public, including the Developer and his agents, authorities and Interested and Affected Parties, who are concerned with a proposed development and its consequences, and whose interests may be positively or negatively affected by the development.

Scoping: The process of identifying the significant issues, Alternatives and decision points, which should be addressed by a particular EIR, and which may include a preliminary Assessment of potential impacts.

4 OBJECTIVES

4.1 Objectives of the Environmental Pre-feasibility Scan Phase

The objectives of the Environmental Pre-feasibility Scan Phase are to:

- a) anticipate, by means of Environmental Screening, the key Environmental Issues associated with a proposed Housing Development using techniques including a technical Fatal Flaw Analysis to reveal potential fatal technical flaws in the project, a financial and economic Fatal Flaw Analysis to indicate the viability of the project in broader economic terms and over the long term and an ecological Fatal Flaw Analysis to identify and predict the potential impact of the development on the functional integrity of the ecosystem extending beyond the immediate area in which a proposal would be implemented;
- b) establish the suitability of the project for a Housing Development;

- c) determine the key issues and reasonable Alternatives for the proposed Housing Development from an environmental perspective;
- c) consult with and provide information to enable the Relevant Authority to determine whether or not further environmental Assessment is required for the proposed development; and
- d) document the key environmental issues associated with a proposed Housing Development, identified risks and potential flaws, the findings of the scan and the outcomes of the consultations with Relevant Authorities.

Note: 1) Environmental Screening (see Annexure 3) is a decision-making process initiated during the early stages of the development of a proposal, in order to determine what level of Environmental Assessment, if any, is required and the suitability of the site for a Housing Development.

2) Consultation between the applicant and the Relevant Authority at an early stage is important to avoid delays caused by requests for additional information and also to provide an opportunity for exchange of views at a stage when there is still flexibility in the design of the proposed Housing Development. Pre-application consultation between the relevant environmental authority and the applicant is regarded as essential to:

- determine whether the proposed activity needs to comply with the regulations, based on the information provided by the screening process;
- determine the specific contact person within the relevant environmental authority level;
- obtain general guidance on the procedures, information and reports required; and
- determine whether other authorities are involved and who they are.

3) The results from the Environmental Screening may indicate that the Relevant Authority can grant exemption from authorisation. In this case, no further environmental investigations may be necessary and the development may proceed according to specific conditions that may be attached to the exemption granted by the Relevant Authority.

4.2 Objectives of Environmental Impact Assessment phase

4.2.1 Objectives of the Environmental Scoping Sub-phase

The objectives of the Environmental Scoping Sub-phase are to:

- a) prepare a Plan of Study which:
 - i) identifies and defines the roles and responsibilities of the authorities, Interested and Affected Parties and other Stakeholders;
 - ii) establishes the process to be undertaken for the Assessment; and
 - iii) establishes the contents of the report and the methods to be followed for the environmental Scoping;
- b) make known the proposed Housing Development so that interested and affected parties are afforded an opportunity to comment on the proposed development and the Environmental Scoping process;
- c) identify, prioritise and develop, in consultation with Stakeholders, a strategy for addressing and resolving key issues raised during the Scoping process;
- e) prepare a report which provides the scope of work for the Environmental Impact Assessment (EIA) of the proposed Housing Development and establishes an issues trail from the Public Participation Process and draft the scope of work for specialist studies; and
- f) obtain a Record of Decisions from the Relevant Authority which establishes the environmental requirements for the Housing Development.

4.2.2 Objectives of the Environmental Impact Report Sub-phase

The objectives of the Environmental Impact Report Sub-phase are, with respect to the scope of work developed in the Environmental Scoping Sub-phase, to:

- a) prepare a Plan of Study that:
 - i) describes the identified Environmental Issues and feasible Alternatives for the proposed Housing Development;
 - ii) proposes methods for identifying the impacts of these on the environment; and

- iii) provides timeframes for the different aspects of the Assessment during the pre-construction, construction, operational and decommissioning phases of the project.
- b) make known the proposed housing development so that interested and affected parties are afforded an opportunity to comment on the proposed Housing Development;
- c) obtain feedback from Stakeholders on issues raised during the Environmental Scoping Sub-phase;
- d) identify, prioritise, address and resolve key issues raised by, and in consultation with, Stakeholders during the EIA process.
- e) prepare an Environmental Impact Assessment Report which documents the extent and significance of the identified Environmental Impacts of the proposed Housing Development, the proposed Mitigation measures and the issues trail arising from the Public Participation process to enable the Relevant Authorities to make a decision regarding the environmental acceptability of the Housing Development; and
- g) obtain a Record of Decisions from the Relevant Authority which informs Stakeholders of the decisions taken regarding the Housing Development and the conditions imposed on such a development.

4.2.3 Objectives of the Environmental Management Plan Sub-phase

The objective of the Environmental Plan Sub-phase is to establish an Environmental Management Plan to support the contents of the Environmental Scoping report or Environmental Impact Assessment Report and the Records of Decisions provided by the Relevant Authority.

4.2.4 Objectives of the Environmental Monitoring and Auditing Sub-phase

The objectives of the Environmental Monitoring and Auditing sub-phase is to implement a holistic approach to the management of Environmental Impacts of a Housing Development, and to institute controls to ensure that the Environmental Impacts are managed in accordance with the Environmental Management Plan.

5 REQUIREMENTS

5.1 General

5.1.1 The environmental services shall be carried out by an Independent Consultant who has:

- a) the requisite expertise in the area of environmental concern being dealt with in the specific application;
- b) the ability to manage the public participation process required;
- c) the ability to produce thorough, readable and informative reports;
- d) access to adequate systems to preserve all data gathered; and
- e) a good working knowledge of relevant Environmental Impact management, policies, legislation, guidelines and norms and standards.

5.1.2 The environmental services shall satisfy the objectives associated with the phase or sub-phase under consideration as stated in section 4 and all the requirements of national and provincial legislation and related regulations.

5.1.3 The environmental services rendered by the Independent Consultant shall satisfy the requirements of the Relevant Authority and comply with the requirements of the Department of Environment and Tourism's publication *Guideline Document - EIA Regulations*.

5.1.4 The Independent Consultant shall engage, as necessary, suitably qualified Environmental Scientists to provide specialist inputs.

5.1.5 All reports and related documents must be available in an electronic format.

5.2 Minimum requirements for the Environmental Pre-feasibility Scan Phase

The Independent Consultant shall as a minimum, in order to satisfy the objectives of the Environmental Pre-feasibility Scan Phase stated in 4.1:

- a) obtain from the Developer and become familiar with the following:
 - i) the background to the Housing Development;
 - ii) the exact location and boundaries of the proposed Housing Development;
 - iii) the nature of the Housing Development;
 - iv) a motivation for the choice of site and possible alternative localities;
 - v) the preliminary geotechnical report; and
 - vi) information relating to bulk services.
- b) undertake a site visit, accompanied by the Developer, in order to become familiar with the actual conditions on the development site and surrounding area;
- c) perform an Environmental Screening according to the minimum requirements required by the Relevant Authority, or where no such requirements exist, in accordance with the checklist presented in Annexure 3;
- d) perform a technical, financial and economic, and ecological Fatal Flaw Analysis; and
- e) document and report all findings and opinions in a written report.

5.3 Minimum requirements of the Environmental Scoping Sub-phase

The Independent Consultant shall as a minimum, in order to satisfy the objectives of the Environmental Scoping Sub-Phase stated in 4.2.1:

- a) obtain from the Developer and his agents and become familiar with the following:
 - i) a proposed layout plan of the Housing Development indicating the placement of the various elements of the development i.e. public open spaces, schools, churches, business sites, roads, reservoirs etc; and
 - ii) all relevant technical information including the anticipated density of the Housing Development, anticipated levels of service and the availability and level of existing bulk services; and
- b) produce a report in accordance with the requirements of the Department of Environment and Tourism's publication *Guideline Document - EIA Regulations*.

5.4 Minimum requirements of the Environmental Impact Report Sub-phase

The Independent Consultant shall as a minimum, in order to satisfy the objectives of the Environmental Impact Report Sub-phase stated in 4.2.2, produce a report in accordance with the requirements of the Department of Environment and Tourism's publication *Guideline Document - EIA Regulations*.

5.5 Minimum requirements of the Environmental Management Plan Sub-phase

The Independent Consultant shall as a minimum, in order to satisfy the objectives of the Environmental Impact Report Sub-phase stated in 4.2.3, develop an Environmental Management Plan in which:

- a) all significant Environmental Impacts that were identified in the environmental Impact Assessment Report as well as prescriptions contained in the Record of Decision are included in an environmental control register that indicates:
 - i) the nature and significance of the impact;
 - ii) the Mitigation measures to be implemented to minimise/control the impact;
 - iii) the responsible party to manage and oversee the various Mitigation measures; and
 - iv) the sequencing of Mitigation measure during the construction stage of the Housing Development.
- b) all the elements of the Environmental Impacts and recommendations are condensed in an Environmental Monitoring checklist for Monitoring purposes; and

- c) minimum requirements associated with Monitoring, incident registers, external communication registers to record complaints received from the general public, Stakeholders and Interested and Affected Parties are specified.

5.5 Minimum requirements of the Environmental Monitoring phase

The Independent Consultant shall as a minimum, in order to satisfy the objectives of the Environmental Impact Report Sub-phase stated in 4.2.4:

- a) ensure that the Developer has assigned responsibilities to specific persons in accordance with the requirements of the Environmental Management Plan and maintain a list of the contact details of such persons;
- b) Monitor compliance with the requirements of the Environmental Management Plan and that the Developer and his agents are responding appropriately to complaints received;
- c) provide the necessary feed back to the Relevant Authority regarding the environmental matters in relation to the Housing Development; and
- d) certify compliance with the requirements of the Environmental Management Plan upon completion of the Housing Development.

Annexure 1: An overview of the South African environmental legislative regime.

1 Introduction

This overview constitutes an identification and brief summary of the important pieces of national legislation that are generally applicable to new housing developments, and which constitute the minimum legislative requirements to which a project linked greenfield subsidy housing project must comply. Provincial legislation and local by-laws which may cover issues such as water supply and sanitation services, drainage, flammable liquids and substances and solid waste have not been included and should be investigated before embarking on a housing development in a particular municipal area. Health and safety, land restitution and land tenure legal requirements have also been excluded from this overview.

2 General pieces of legislation which have a bearing on environmental matters

Generally applicable legislation such as the Constitution of the Republic of South Africa (Act 108 of 1996), the Promotion of Access to Information Act (Act 2 of 2000), the Promotion of Administrative Justice Act (Act 3 of 2000) and the Protected Disclosures Act (Act 26 of 2000) apply to all developments. Common law principles also apply. These are particularly important to project developers as they provide civil society with significant enforcement mechanisms to ensure that government departments and developers pay careful attention to their responsibilities with regard to sustainable development and environmental management. One of the first considerations on the establishment of a housing development is to recognise which authorities, and what levels of government are authorised to control the various environmental aspects related to the proposed project. For this purpose, it is necessary to refer to Schedules 4 and 5 of the Constitution of the Republic of South Africa (Act 108 of 1996) which deal with areas of legislative competence.

- **Schedule 4: Functional Areas of Concurrent National and Provincial Legislative Competence**

Part A

Cultural matters
Environment
Nature conservation
Pollution Control
Public transport
Regional planning and development
Soil conservation
Urban and rural development

Part B

Air pollution
Municipal planning
Municipal public transport
Storm water management: built areas

- **Schedule 5: Functional Areas of Exclusive Provincial Legislative Competence**

Part A

Provincial planning
Provincial cultural matters

Part B

Control of public nuisances
Noise pollution
Refuse removal, refuse dumps
and solid waste disposal

It is important to note that, although the legislative competencies for both national and provincial departments are set out in Schedule 4 and Schedule 5 of the Constitution of the Republic of South Africa (Act 108 of 2000) the administration of national and provincial legislation may occur on different levels of government depending on whether the legislation makes provision for the assignment or delegation of administrative powers. Assignment implies the conclusive transfer of authority, while with delegation the transferring authority retains responsibility and may revoke the delegation.

It is also important to note that in terms of Section 146(2)(c)(vi) of the Constitution of the Republic of South Africa (Act 108 of 2000), environmental legal provisions pertaining to the

environment, which have been promulgated by the national government, prevail over those promulgated by lower levels of government.

Section 41 of the Constitution of the Republic of South Africa (Act 108 of 2000) states that the principles of co-operative government and intergovernmental relations include the requirement that all spheres of government and all organs of state within each sphere must co-operate with one another and must provide effective, transparent, accountable and coherent government. Section 2(l) of the National Environmental Management Act (Act 107 of 1998) requires intergovernmental co-ordination and harmonisation of policies, legislation and actions relating to the environment and Section 2(m) states that actual or potential conflicts of interest between organs of state should be resolved through conflict resolution procedures.

The National Environmental Management Act (Act 107 of 1998) aims to give effect to the environmental right contained in the Constitution by providing framework legislation for environmental management in South Africa. It sets out the principles for environmental management in South Africa, and is administered by the national Department of Environmental Affairs and Tourism (DEAT). The principles contained in Chapter 1 of this Act apply to all organs of state that may significantly affect the environment and shall *inter alia* serve as guidelines by reference to which organs of state shall exercise their functions. Government is specifically required to comply with the principles. The principles will furthermore guide the interpretation, administration and implementation of this Act. An overarching principle in Chapter 1 emphasises that development must be environmentally, socially and economically sustainable.

Chapter 5 of National Environmental Management Act (Act 107 of 1998) deals with integrated environmental management and section 24 provides for the formulation of new Environmental Impact Assessment requirements for identified activities. The Act introduces a new benchmark in that it provides for the "best practicable environmental option" i.e. the option that provides for the most benefit and causes the least damage to the environment as a whole" as one of the benchmarks for integrated environmental management.

The existing EIA regulations published in Government Gazette No. 18261 of 5 September 1997 made under the Environment Conservation Act (Act 73 of 1989) remain in force until the regulations or notices have been made under section 24 of the National Environmental Management Act. However, all procedures under these regulations must comply with the procedures for the investigation, Assessment and communication of the potential impacts of activities as set out in section 24 (7) of National Environmental Management Act (Act 107 of 1998). New EIA regulations under National Environmental Management Act (Act 107 of 1998) are expected to be published for public comment shortly. When these regulations are finalised they will repeal the existing EIA regulations under the Environment Conservation Act (Act 73 of 1989).

3 Principal approvals required for new housing developments

3.1 Impact Assessment Regulations

Sections 21 and 22 of the Environment Conservation Act (Act 73 of 1989) provide that no person may undertake an identified activity (an activity which is likely to have a detrimental effect on the environment) without written authorisation to do so. Regulations were published on 5 September 1997 in terms of sections 21 and 22, which identify activities that may have a substantial detrimental effect on the environment and setting out the procedures and requirements to be followed in regard to such activities (Regulations R1182, R1183 and R1184 as contained in Government Gazette No 18261 of 5 September 1997).

These regulations apply to any activity that may have a detrimental effect on the environment, including a change of land use, sewage treatment plants and associated infrastructure, waste disposal sites and scheduled processes. Most housing developments will require an EIA as they usually require a change of land use, which is a listed activity in terms of the EIA regulations. Each particular development will however need to be investigated in order to assess whether an EIA is required. Impact Assessments may also be required under the

National Water Act (Act 36 of 1998) and/or the National Heritage Resources Act (Act 25 of 1999).

The provincial environmental authorities have been designated as the relevant authorisation bodies for EIA's and all applications have to be submitted for their consideration. Provision has been made in the Regulations for municipalities to be designated as competent authorities. Furthermore, the provincial environmental authorities must refer an EIA application to the Department of Environmental Affairs and Tourism in the following circumstances listed in regulation 4(3):

- i) Where the activity concerned has direct implications for national environmental policy or international environmental commitments and relations;
- ii) Where the environment under threat is demarcated as an area of national or international importance;
- iii) Where the Minister of Environmental Affairs and Tourism and the provincial authority jointly decide that an application in respect of a specific activity should be considered by the Minister;
- iv) Where a national government department, the relevant provincial authority or a statutory body is the applicant; or
- v) Where the activity has the potential to affect the environment across borders of two or more provinces.

3.2 Development and Planning Requirements

The legislative framework governing land development and planning in South Africa has changed significantly over the 10 years. The Green Paper on Development and Planning was published in 1999 and established government's policy on land development and planning. The Green Paper underpins the notion of integrated development planning and the need for adequate environmental consideration in decision making within the planning and development process. A new Draft Land Use Management Bill and a White Paper on Spatial Planning and Land Use Management were published for comment in July 2001. The main aim of the Draft Land Use Management Bill and the White Paper is to ensure that land use management is regulated uniformly in South Africa.

Development and planning legislation is of great significance to planned housing developments. First of all, the proposed developments must be consistent with the Integrated Development Plans (IDP's) and Land Development Objectives (LDO's) set for the area of jurisdiction, and secondly, development applications may follow the processes and procedures under either the Development Facilitation Act (Act 67 of 1995) or the Local Government Ordinances. Town planners should be appointed to direct the development application process and to lodge development applications. Rezoning applications may also be required. Building plan approvals in terms of section 4 of the National Building Regulations and Building Standards Act 103 of 1977 and Regulations R2378 there under will be required.

Regulations and Rules in terms of the Development Facilitation Act (Act 67 of 1995) were published in the Government Gazette G20775 on the 7th of January 2000. Section 31 of Regulation 1 requires that an environmental evaluation be conducted before a land development application may be approved. The EIA requirements, included in regulations to this Act have been brought in line with those required under the Environment Conservation Act (Environment Conservation Act (Act 73 of 1989) and a similar process would thus be required.

4 Specific requirements

Table 1 contains a summary of the more specific national environmental legal requirements, which may be applicable to project linked green field housing projects.

Table 1: Summary of specific environmental legal requirements

ACT	Section	SUMMARY OF REQUIREMENT
1 WATER ISSUES		
Water Licences		
National Water Act (Act 36 of 1998) and regulations	s21, 32, 41	“Water use” in terms of the Act includes “impeding or diverting the flow of water in a watercourse” and “altering the bed, banks, course or characteristics of a watercourse”. Department of Water Affairs and Forestry will require water licences for all water uses unless the water use is an “existing lawful water use”, or it is a permissible water use in terms of Schedule 1 to the Act or can be generally authorised. It is advised that the Department of Water Affairs and Forestry be consulted as to their licensing requirements for each development. Licences are not required where water is obtained from the local council or another bulk water supplier.
	s144	A person is prohibited from establishing a township unless the layout plan shows, in a form acceptable to the local authority, the 1/100 year flood level, for the purposes of ensuring that all persons who might be affected have access to information regarding potential flood hazards.
Water / Sewage Services		
Water Services Act (Act 108 of 1997)	s6	Access to water services must be through a nominated water services provider, failing which approval should be obtained from the water services authority.
Water Services Act (Act 108 of 1997)	s7	Water for industrial use must be obtained through a nominated water services provider and no person may dispose of industrial effluent in any manner other than that approved by the water services provider nominated by the water services authority having jurisdiction in the area in question.
Water Services Act (Act 108 of 1997)	s9	A water services authority may only accept the quality and quantity of industrial effluent into a sewerage system that the sewage treatment plant is capable of treating to ensure that any discharge to a water resource complies with the National water Act (Act 36 of 1998) standards
National Building Regulations and Building Standards Act (Act 103 of 1977) and Regulations R2378	<i>Part W</i>	Water installations are generally required to be connected to a water supply system, although there are exceptions to this requirement. Before any water from a water supply system may be used in any water installation, an application to the local authority has to be made and granted, and conditions attached to such authorisation must be complied with.
	<i>Part R</i>	These provisions require certain measures for the control and disposal of accumulated storm water which may run-off from any earthworks, buildings, paving and establish minimum requirements for storm water facilities.
	<i>Reg P4 of Part P</i>	The local authority may approve the discharge of industrial effluent into any drain, conditional upon any additional drainage and other installations including storage, pre-treatment and metering installations. Plans and other details of such installations must be submitted to the local authority.
2 WASTE		
Environment Conservation Act (Act 73 of 1989)	s20	Waste must be disposed of at a waste disposal facility licensed in terms of the provisions of the Act. Any hazardous waste such as paints, varnishes, waste oils etc accumulated at the construction sites must be disposed of at hazardous waste sites. If waste dumps are established for housing developments, a waste disposal licence will be required from the Department of Water Affairs and Forestry.
3 NOISE		
National Building Regulations and Building Standards Act (Act 103 of 1977) and Regulations	<i>Reg F6 of Part F</i>	No person may on specified days and during specified times generate noise from a construction site which may unreasonably disturb or interfere with the amenity of the neighbourhood, unless authorised to do so by the local authority.
Environment Conservation Act (Act 73 of 1989) and Regulations		The Minister has made regulations under the Environment Conservation Act with regard to the control of noise, vibration and shock. These regulations define noise, vibration and shock and make provision for the prevention, reduction or elimination of them. In terms of the National Noise Regulations to the Environment Conservation Act (Act 73 of 1989). A "noise nuisance" is a noise that disturbs or impairs the peace or convenience of any person. A "disturbing noise" is a noise level of 7dBAs above the ambient sound level. These regulations apply only once a local authority has adopted them.

ACT	Section	SUMMARY OF REQUIREMENT
4 GRAVES, ARCHAEOLOGICAL AND PALAEOLOGICAL SITES		
National Heritage Resources Act (Act 25 of 1999)	s34	No person may alter or demolish any structure or part of a structure that is older than 60 years without a permit issued by the relevant provincial heritage resources authority.
	s35	No person may, without a permit issued by the responsible heritage resources authority destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site.
	s36	No person may, without a permit issued by South African Heritage Resources Association or a provincial heritage resources authority, destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority. "Grave" is widely defined in the Act to include the contents, headstone or other marker of such a place, and any other structure on or associated with such place.
Removal of Graves and Dead Bodies (Ordinance 7 of 1925)		Authorisation for exhumation and re-internment of human remains must be obtained from the relevant local and regional council where the grave is situated, as well as the relevant local or regional council where the grave is being relocated.
5 FAUNA AND FLORA		
National Forest Act (Act 84 of 1998)	CH 3 Part 1	There is a prohibition against damaging or cutting protected indigenous trees unless a licence has been obtained or an exemption has been published in the Government Gazette.
National Veld and Forest Fire Act (Act 101 of 1998)	s16	The right or duty of an owner to prepare and maintain a firebreak in terms of the National Veld and Forest fire Act prevails over any prohibition in any other law on the cutting, disturbance, damage, destruction or removal of any plant or tree. The Act allows for the formation of fire protection associations for the prevention of veld fires and contains duties in regard to readiness for fires and actions to fight fires.
Transvaal Nature Conservation (Ordinance No 12 of 1983)	Sch 2 Sch 4 Sch 7	Protected Game Protected Wild Animals Invertebrates The above species as listed in the schedules to the Ordinance have protected status under the Ordinance and may not be removed, captured or transported without a permit from the Director General: Nature Conservation. Permitting requirements are generally not applicable to landowners. Similar ordinances or Acts, which govern the protection of fauna and flora, are in place for most provinces and must be considered in the establishment of housing developments in the different provinces.
	Sch 11 Sch 12	The plants listed in schedule 11 and 12 have protected status under the ordinance. Permitting requirements relevant to picking, removing, importing exporting etc. protected plants are generally not applicable to landowners. Gauteng Department of Agriculture, Conservation, Environment and Land Affairs has published the Red Data Plant Policy for Environmental Impact Evaluations (September 2001) and has updated the Red Data List of threatened Plants in Gauteng (September 2001). This department should be notified of any Red Data species found during the scoping or EIA process and they must be dealt with in accordance with the Policy requirements.
Conservation of Agricultural Resources Act (Act 43 of 1983) and GN R1048		This regulation requires the control of weeds and invader plants, which occur on any land or inland water surface in SA. Category 1 plants are declared weeds and may only occur in biological control reserves. Category 2 plants are declared invader plants and may only occur in demarcated areas and biological control reserves. Category 3 plants are declared invader plants and may occur in biological control reserves. All weeds and invader plants not within the demarcated areas or biological control reserves must be eradicated and control methods are stipulated.
6 ATMOSPHERIC ISSUES		
National Building Regulations and Building Standards Act (Act 103 of 1977) and Regulations R2378	Reg F6 of Part F	The owner of any land on which excavation work is in progress must take precautions in the working area and on surrounding roads and footways to limit to a reasonable level the amount of dust arising from these areas.
Atmospheric Pollution	Part II	A scheduled process certificate is required in order to conduct a scheduled process listed in the second schedule to the Act.

ACT	Section	SUMMARY OF REQUIREMENT
Prevention Act (Act 45 of 1965)	Part III	Smoke control provisions set out in Part III of the Act only become applicable in areas in which the Minister has by notice in the Gazette declared them to be applicable.
	Part IV	The requirement to take the 'best practicable means' to prevent dust from becoming dispersed or causing a nuisance only applies to areas the Minister has declared a 'dust control area' by notice in the Government Gazette.
	Part V	The control of noxious or offensive gases emitted by diesel-driven vehicles, is also only applicable to the areas of jurisdiction of the local councils where they have been declared to be applicable.
7 HAZARDOUS SUBSTANCES		
Hazardous Substances Act (Act 15 of 1973) and regulations		The Act divides hazardous substances into 4 groups and sets out licensing requirements for certain of the groups. All hazardous substances to be used at a development need to be classified according to the 4 groups and a review of licensing requirements needs to be conducted. In those cases where the project developer is planning or intending to use weed killers (herbicides), pesticides or registered fertilisers during any phase of the project, sections 3 - 10 of the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act (Act 36 of 1947) should be considered.
Occupational Health and Safety Act (Act 85 of 1993), Regulations for Hazardous Chemical Substances, GN R.1179	r3	Employers must ensure that their employees are adequately informed and trained with regard to the safe working procedures regarding the use, handling, storage and labeling of the hazardous chemical substances at the workplace and the procedures to be followed in the event of spillages, leakages or any similar emergency situations.
	r14	In order to avoid the spread of contamination of a hazardous chemical substance, the employer must ensure that such substances are in storage or distributed are properly identified, classified and handled in accordance with SANS 10072 and SANS 10228. The container or vehicle in which hazardous chemical substances is transported must also be clearly identified, classified and packed in accordance with SANS 10228 and SANS 10229.
Regulations for Hazardous Chemical substances GN. R1179	r15(a)	All hazardous chemical waste must as far as possible be recycled
	r15(b)	All collected hazardous waste must be placed in containers that will prevent the likelihood of exposure during handling.
	r15(c)	An employer must ensure that all vehicles, re-usable containers and covers which have been in contact with hazardous chemical substances waste are cleaned and decontaminated after use in such a way that the vehicles, containers or covers do not cause a hazard inside or outside the premises concerned.
	r15(d)	An employer must ensure that all hazardous chemical substances waste, which can cause exposure, is disposed of only on sites specifically designated for this purpose in terms of the Environment Conservation Act, 1989 (Act No. 73 of 1989), in such a manner that it does not cause a hazard inside or outside the site concerned.
Regulations for Hazardous chemical substances GN. R1179	r15(e)	The employer must ensure that all employees occupied in the collection, transport and disposal of hazardous chemical substances waste, who may be exposed to that waste, are provided with suitable personal protective equipment.
	r15(f)	The hazardous chemical substances must ensure that if the services of a waste disposal contractor are used, a provision is incorporated into the contract stating that the contractor shall also comply with the provisions of these regulations.
8 GENERAL MANAGEMENT ISSUES		
Borrow Pits		
Minerals Act (Act 50 of 1991)	s5 & 9	No person may prospect or mine for any mineral without the necessary authorisation granted to him in accordance with the provisions of the Minerals Act (Act 50 of 1991). Should construction material be excavated from borrow pits, the provisions of the Minerals Act, are applicable and the Department of Minerals and Energy needs to be contacted in order to determine their requirements in this regard.
	s39	A developer may, on written application to the regional director of the Department of Minerals and Energy, request exemption from the requirement to submit an environmental management programme. This section requires an environmental management programme to be submitted to the regional director for his approval and no "mining" may commence before obtaining such approval.

ACT	Section	SUMMARY OF REQUIREMENT
Mineral and Petroleum Resources Development Act (Act 28 of 2002)		A Mining Permit is required in terms of section 27 of the Act, which will only be granted by the Department of Energy and Mineral Affairs after the consideration of an Environmental Management Plan. The content of such Environmental Management Plan will be prescribed but must fulfill the criteria as set out in section 39(3) of the Act.
Fencing		
Fencing Act (Act 31 of 1963)	s17	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. This provision must be read in conjunction with the environmental legal provisions relevant to protection of flora.
	s18	Access to land for the purposes of erecting, converting, altering or repairing any boundary fence.
Nuisance		
Health Act (Act 63 of 1977)	s1 and 27	Nuisances as defined in the Act are prohibited and abatement notices may be issued by the local authority to control nuisances.

Annexure 2: An overview of the Integrated Environmental Management as prescribed in the Guideline Document – EIA Regulations published by the Department of Environmental affairs and Tourism

General

Integrated environmental management, as prescribed in the Department of Environmental Affairs and Tourism publication *Guideline Document - EIA Regulations. Implementation of sections 21, 22 and 26 of the Environment Conservation Act* (April, 1998), involves co-ordinated input from several role players within a prescribed framework. The specific roles, responsibilities and minimum requirements of the role players, with respect to this publication, is summarised below:

The Relevant Environmental Authority

The provincial environmental authorities (Addendum 1: Appendix 5 of the guidelines) have been designated as the Relevant Authority and will receive all applications for consideration. Where a local authority has been designated as the relevant authority, the application must be submitted to that authority. In the following instances the relevant provincial authority will refer the application to the national Department of Environmental Affairs and Tourism, although applications must still be lodged with the relevant provincial authorities:

- a) where the activity concerned has direct implications for national environmental policy or international commitments or relations (Addendum 1: Appendix 3 of the guidelines);
- b) where the environment under threat is demarcated as an area of national or international importance (Addendum 1: Appendix 4 of the guidelines);
- c) where the Minister of Environmental Affairs and Tourism and the relevant authority jointly decide that an application should be considered by the Minister;
- d) where a national government department, the relevant provincial authority or a statutory body is the applicant; or
- e) where the proposed activity has the potential to affect the environment across the borders of two or more provinces.

Responsibilities of the Relevant Environmental Authority

The responsibilities of the relevant environmental authority include:

- a) **Compliance with regulatory requirements:** The relevant authority is responsible to ensure that the applicant/consultant complies with the requirements of the regulations. This includes authority and applicant compliance with all responsibilities at various stages of the application procedure.
- b) **Inter-departmental co-operation and consultation:** The implementation of these regulations requires close co-operation and consultation with other relevant government departments at various levels. Inter-departmental consultation and harmonisation of administrative and decision-making processes are essential for the effective implementation of the regulations. It is the responsibility of the national Department of Environmental Affairs and Tourism as well as each provincial government to establish their own mechanisms for consultation and co-operation with other government departments.
- c) **Consultation with applicant and consultant:** Consultation with the applicant/ consultant throughout the application procedure is essential in order to provide general guidance on procedures, information and reports required. In this regard, it is also the responsibility of the relevant authority to provide the applicant with any guidelines, as well as access to any other information in possession of the relevant authority, that may assist the applicant in fulfilling its obligations in terms of these regulations.
- d) **Evaluation/review and decision-making:** It is the responsibility of the relevant environmental authority to:
 - ensure that the evaluation/review and decisions required in terms of these regulations are done efficiently and within a reasonable time, and that the applicant is informed

- immediately of any delay and is provided with a written explanation for any delay that may occur;
- make recommendations during authority review stages of the application procedure to improve or rectify procedures followed, information provided and environmental reports submitted;
 - ensure that authorities, peers or consultants reviewing any procedures followed, information provided and environmental reports submitted by the applicant/consultant have:
 - * expertise in the area of environmental concern being dealt with in the specific application;
 - * the ability to perform the evaluation tasks contemplated in these regulations efficiently;
 - * the ability to timeously produce thorough, readable, and informative documents; and
 - * good working knowledge of all relevant policies, legislation, guidelines, norms and standards;
- e) **Requiring only adequate information to make informed decisions:** It is the responsibility of the relevant authority to try to keep the inputs required from the applicant to the minimum that are necessary to make an informed decision on the application, without putting any limitation on the rights that interested parties may have in terms of these regulations.

The Applicant

The applicant is responsible for complying with all the requirements of the regulations, which include:

- a) the appointment of an independent consultant who will on behalf of the applicant, comply with these regulations;
- b) the applicant can appoint an individual independent consultant or a multi disciplinary group of consultants from one consulting firm or from various firms.
- c) the expertise and knowledge of "in-house" consultants may be utilised by the independent consultant to comply with the regulations;
- d) the applicant shall ensure that the independent consultant comply with the minimum requirements as described underneath;
- e) the applicant shall be responsible for all costs incurred in complying with the regulations; and
- f) the applicant shall indemnify the government from any liability arising out of the content of any report, procedure or action for which the applicant or the consultant(s) is responsible for in terms of the regulations.

The Environmental Consultant

The independent consultant acts on behalf of the applicant in complying to the regulations and shall comply with the following minimum requirements:

- a) proof of expertise in Environmental Assessment in the area of housing development according to the specific application.
- b) proof of the ability to manage the public participation process required;
- c) proof of the ability to produce thorough, readable and informative reports;
- d) proof of access to adequate systems to preserve all data gathered;
- e) proof of a good working knowledge of relevant environmental impact management, policies, legislation, guidelines, norms and standards for all processes, information, plans and reports to be produced in complying with the regulations; and
- f) declaration of interest/independence: The environmental consultant must comply in all respects to the definition of an independent consultant described previously and must provide a sworn declaration of independence to the relevant environmental authority. An example of a declaration is provided in Addendum 1: Appendix 1 (see guidelines)

The Interested and Affected Parties

It is the responsibility of the environmental consultant to inform the Interested and Affected Parties of their roles and responsibilities in the EIA process. Although these responsibilities are not mandatory, voluntary acceptance thereof is crucial to the effectiveness and eventual acceptability of the EIA process:

The interested parties are responsible to:

- a) provide input and comments during various stages of the EIA process. It is suggested that input and comments of the interested parties be obtained during the following stages:
 - the scoping stage (identify the issues and Alternatives to be considered);
 - assessing and mitigating impacts;
 - review of the environmental impact report; and
 - implementation and Monitoring.
- b) provide their inputs and comments within the specific time-frames as specified by the applicant/consultant.

Annexure 3: Checklist for the Environmental Screening

In September 1997 regulations requiring that environmental studies be completed for various listed activities were published by national government. The listed activities were published as Regulations under GN 1182 in Government Gazette No 18261 of 5 September 1997. The activities requiring Environmental Impact Assessments are further described in the EIA Regulations Guideline Manual produced by the national Department of Environmental Affairs and Tourism.

In order to supplement these sources, this checklist has been produced to assist proponents in establishing whether or not they need to apply for authorisation in terms of the EIA regulations.

It must be remembered that:

- the EIA regulations are applicable for the changes in land use, the construction of new activities or for the upgrading of operations; and
- the checklist is not exhaustive and may vary from region to region.

Checklist

1 PROJECT DETAILS

- 1.1 Were alternative sites for the proposed housing project identified and investigated?
- 1.2 Why the proposed site was chosen as the best alternative?
- 1.3 Is the proposed site compatible with the Land Use Planning Policies for the area? (e.g. LDOs, Development Frameworks, Town Planning Schemes etc.).

Note: Consider (in terms of the farms which will be included in the site) the existing land use (on a broader scale) of the properties. In cases where there are specific infrastructure (i.e. a water pipeline, power line servitude, telecommunication mast) or features (i.e. a historical building, grave) within the boundaries of the proposed project, the relevant information (on a site specific scale) regarding the infrastructure/features should be considered.
Consider also (in detail) the residential character (formal/informal) around the proposed site.

- 1.4 Has the proposed site been approved as part of the above-mentioned documents?

2 ENVIRONMENTAL FRAMEWORK

- 2.1 What is the geology of the study area and its surroundings?

Note: Consider only general information and any specific problems which may relate to the development (e.g. Dolomitic rock or undermining).

- 2.2 What is the topography of the study area?
- 2.3 What is the ground water pollution potential of the study area?
- 2.4 Has any section of the study area and its surrounding been previously/currently mined (sub-surface/ surface mining)?
- 2.5 What is the existing vegetation on the study area and its surroundings?
- 2.6 Are any of the following located within the boundaries of the proposed route?
- (i) a river, stream dam or wetland (including pans and seasonal vleis)
 - (ii) A conservation or open space area
 - (iii) A ridge or other prominent landscape feature

- (iv) An area that is of cultural importance, e.g. a historical site, graveyard, place of worship
 - (v) An area of archaeological or palaeontological value
 - (vi) Any Red Data or other protected plant or animal species
 - (vii) Power lines, water pipes or other servitudes
- 2.7 How far (approximately) is the proposed site from a sensitive environment such as:
- (i) A river, stream, dam or wetland (including pans and seasonal vleis)?
 - (ii) A conservation or open space area?
 - (iii) A ridge or other prominent landscape feature?
 - (iv) An area that is of cultural importance e.g., historical site, graveyard, place of worship?
 - (v) A hospital or school
 - (vi) Any area of archaeological or palaeontological value?
 - (vii) Any Red Data or other protected plant or animal species?
 - (viii) Power lines, water pipes or other servitude's
- 2.8 Will the proposed roads have an impact on an area with outstanding characteristics (the sense of place of an area)? Will it have an impact on the whole area/on a specific area?
- 2.9 Will the proposed route/sections of the route be considered as noisy or an intrusion by the neighbouring properties?
- 2.10 Will the proposed site/structures on the site be considered a visual intrusion e.g., on a ridge or creating light pollution in a dark area?
- 2.11 Where agricultural land and/ or natural areas are found on site, please answer the following questions in connection with the involved agricultural and/or natural areas:
- (i) What is the soil potential for agricultural purposes in the area?
 - (ii) What is the climatology in the area?
 - (iii) What is the vegetation cover in the area?
 - (iv) Is the land currently cultivated?
 - (v) When was the land last cultivated if it is currently not cultivated?
 - (vi) Is the area contoured?
 - (vii) Do any soil conservation works exist?
 - (viii) Does the area have irrigation rights or has the area in the past had irrigation rights

3. LEGAL FRAMEWORK

- 3.1 Does the project require a new permit, or amendment to a permit in terms of the Atmospheric Pollution Prevention Act (Act No. 45 of 1965)?
- 3.2 Does the project require a new permit, or amendment to a permit in terms of the National Water Act (Act No.36 of 1998)?
- 3.3 Does the project require a new or amendment to a waste disposal permit in terms of the Environment Conservation Act (Act No. 73 of 1989)?
- 3.4 Does the project require authorisation in terms of Hazardous Installation Regulations?
- 3.5 Does the project require authorisation in terms of conservation legislation?