# GENERAL NOTICE

#### **NOTICE 792 OF 2012**

## NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998)

# PUBLICATION OF NEED AND DESIRABILITY GUIDELINE IN TERMS OF THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2010

I, Bomo Edith Edna Molewa, Minister of Water and Environmental Affairs, hereby give notice of my intention, under sections 24J of the National Environmental Management Act,1998 (Act No. 107 of 1998) to publish the Guideline on Need and Desirability. The guideline, which forms part of the Integrated Environmental Management Guideline Series, provides information and guidance for applicants, authorities and interested and affected parties on requirements for the consideration of need and desirability in terms of the National Environmental Management Act, 2008 (Act No.107of 2008), the Environmental Impact Assessment Regulations, 2010, the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) and National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008).

This guideline is attached in the schedule hereto.

Members of the public are invited to submit to the Minister, within 30 (thirty) days after the publication of the notice in the *Gazette*, written comments or inputs to the following addresses:

By post to:

The Director-General:

Department of Environmental Affairs Attention: Ms Mahuma Ramashala

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By fax to: 012 320 3688

Comments received after the closing date may not be considered.

BOMO EDITH EDNA MOLEWA
MINISTER OF WATER AND ENVIRONMENTAL AFFAIRS



# **INTEGRATED ENVIRONMENTAL MANAGEMENT GUIDELINE SERIES 9**

DRAFT GUIDELINE ON NEED AND DESIRABILITY IN TERMS OF THE ENVIRONMENTAL IMPACT ASSESSMENT (EIA) REGULATIONS, 2010

Further titles in this series of guideline documents are being prepared and will be made available periodically. The sequence of release and titles are subject to change.

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Guideline Series	1	Environmental Management Co-operation Agreements
Guideline Series	2	NEMA S24G (ECA applications)
Guideline Series	3	NEMA S24G
Guideline Series	4	Strategic Environmental Assessment
Guideline Series	5	Companion to the NEMA EIA Regulations of 2010
Guideline Series	6	Environmental Management Frameworks
Guideline Series	7	Public Participation
Guideline Series	8	Handbook for authorities on handling appeals in terms of NEMA S43
Guideline Series	9	Need and Desirability

#### **ISSUED BY:**

Department of Environmental Affairs (DEA)
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These documents are available on the DEA website http://www.environment.gov.za.

**PLEASE NOTE**: These documents are guidelines and serve as reference and supportive text only and cannot take the place of legal advice in a specific situation governed by legislation. These documents will not take the place of any regulations published by DEA.

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#### **ENQUIRIES AND COMMENTS**

All enquiries and comments should be addressed to:
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#### REFERENCING

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# **PREFACE**

This document is one of the series of guideline documents on environmental impact management legislation and regulations.

The material in this document is intended to be used as an accompanying document to the NEMA EIA Regulations, 2010 and makes available the content of these EIA Regulations in laymen's terms.

# **ACKNOWLEDGEMENTS**

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#### **ACRONYMS**

DEA Department of Environmental Affairs
EAP Environmental Assessment Practitioner

ECA Environment Conservation Act, 1989 (Act No. 73 of 1989)

EIA Environmental Impact Assessment I&AP Interested and Affected Party

NEMA National Environmental Management Act, 1998 (Act No. 107 of 1998)

NEMAA National Environmental Management Amendment Act, 2008 (Act No. 62 of 2008)

NEM: AQA National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)

NEM: WA National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)

SEMA Specific Environmental Management Act

#### 1. INTRODUCTION

On 18 June 2010 the Minister responsible for Environmental Affairs promulgated Regulations in terms of Chapter 5 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA"). When these Regulations came into effect on 2 August 2010 they replaced the EIA Regulations that were promulgated in terms of the NEMA in 2006, and introduced new provisions for EIAs. Subsequently, the National Environmental Management Amendment Act, 2008 (Act 62 of 2008) (NEMAA), was promulgated on 9 January 2009 and came into effect on 1 May 2009. The NEMAA made a number of significant amendments to the general provisions applicable to EIAs.

It must also be noted that the definition of "environmental authorisation" in terms of NEMA has been amended and now reads "when used in Chapter 5 means the authorisation by a competent authority of a listed activity or specified activity in terms of this Act, and includes a similar authorisation contemplated in a specific environmental management Act". In other words, the following are all considered to be an "environmental authorisation":

- an environmental authorisation issued for an activity listed in Listing Notice 1, 2 or 3 or any decision taken for an application for exemption or amendment process;
- an atmospheric emissions licence in terms of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) (NEM: AQA); and
- a waste management licence in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) (NEM: WA).

As such the general provisions of NEMA that applies to an application for and consideration of an application for environmental authorisation applies to all of these applications.

It must further be noted that, as part of an application for a waste management licence, the application must also be subjected to the EIA process as stipulated in the EIA Regulations promulgated in terms of NEMA. While a number of different authorisations might therefore be required (an environmental authorisation and/or a waste management licence), one integrated EIA process must be followed in accordance with the requirements as stipulated in the EIA Regulations, with the specific requirements of the relevant specific environmental management Act (SEMA(s)) to also be adhered to over and above the requirements of the EIA Regulations. The process is slightly different in terms of applications for atmospheric emissions licence (AEL) in terms of NEM: AQA. Although the application for AEL may be submitted simultaneously with the applications for waste management licence and/or environmental authorisation, the decision on the AEL is preceded by the decision on waste management licence and/or environmental authorisation.

In light of the above, this guideline, which forms part of the Integrated Environmental Management Guideline Series, provides information and guidance for applicants, authorities and interested and affected parties (I&APs) on requirements for the consideration of need and desirability in terms of NEMA, the EIA Regulations, the NEM: AQA, and NEM: WA.

This guideline must be read together with the NEMA, the EIA Regulations, 2010, the relevant SEMA(s) and its regulations, and is not intended to be a substitute for the provisions of any of this legislation in any way. Adherence to the requirements of NEMA and the EIA Regulations, the SEMAs and its regulations does also not absolve the applicant from also adhering to the requirements of any other legislation applicable to the undertaking of the activity. Any other applicable legislation must therefore also be scrutinised.

### 2. STRATEGIC CONTEXT FOR THE CONSIDERATION OF NEED AND DESIRABILITY

Whilst it is essential that growth in the economy gives effect to national policies and strategies (e.g. Accelerated and Shared Growth Initiative for South Africa, Growth, and Employment and Reconstruction strategy), it is essential that the implementation of these social and economic policies takes cognisance of strategic concerns such as climate change,

food security, as well as the sustainability in supply of natural resources and the status of our ecosystem services. In other words, to achieve our Constitutional goal of a better quality of life for all now and in future, through equitable access to resources and shared prosperity, it is essential that society improves on the efficiency and responsibility with which we use resources, and improve on the level of integration of social, economic, ecological and governance systems.

In the National Framework for Sustainable Development (NFSD) it is stated that "[T]he achievement of sustainable development is not a once-off occurrence and its objectives cannot be achieved by a single action or decision. It is an ongoing process that requires a particular set of values and attitudes in which economic, social and environmental assets that society has at its disposal, are managed in a manner that sustains human well-being without compromising the ability of future generations to meet their own need." The NFSD further continues to emphasise that South Africa's current development path in certain instances reflects signs of being unsustainable in the long-term. It highlights that a large percentage of growth in economic activity (measured in terms of its contribution to the GDP) is achieved by "consuming natural resources and degrading our habitat at accelerating rates with the inevitable consequence that future economic growth and development objectives will be prejudiced."

Consistent with national priorities, environmental authorities must support "increased economic growth and promote social inclusion", whilst ensuring that such growth is "ecologically sustainable". In the National Spatial Development Perspective (NSDP) it is highlighted that, to achieve the goal of stimulating sustainable economic activities and to create long-term employment opportunities, it is required that spending on economic infrastructure is focused in priority areas with potential for economic development, with development to serve the broader societies' needs equitably.

What is needed and desired for a specific area must, however, be strategically and democratically determined. With time being required for prolonged and active engagement it, however, becomes clear that the *ad hoc* nature of project-level EIA decision-making, with limited opportunities for public engagement, and the reality of time and resource constraints, do not allow for prolonged participative processes, and can therefore never substitute or replace the participative processes that should frame and inform all democratic decision-making. The strategic context for informing need and desirability is therefore best addressed and determined during the formulation of the sustainable development vision, goals and objectives of Integrated Development Plans (IDPs) and Spatial Development Frameworks (SDFs) during which collaborative and participative processes play an integral part, and are given effect to, in the democratic processes at local government level.

In this regard the SDF, which forms an integral part of each Municipality's IDP, must, in terms of the Municipal Planning and Performance Management Regulations, specifically "set out objectives that reflect the desired spatial form of the municipality (...) contain strategies and policies regarding the manner in which to achieve the objectives (...) which strategies and policies must (...) indicate desired patterns of land use within the municipality (...) provide strategic guidance in respect of the location and nature of development within the municipality (...) provide a visual representation of the desired spatial form of the municipality, which representation (...) must indicate desired or undesired utilisation of space in a particular area".

Cognisant of the need to consider the strategic context of a decision and the broader societal needs and the public interest, and in an effort to better address cumulative impacts, the NEMA also provides for the compilation of information and maps that specify the attributes of the environment in particular geographical areas, including the sensitivity, extent, interrelationship and significance of such attributes which must be taken into account. The Environmental Management Framework (EMF) Regulations of 2010 state that EMFs must, inter alia, "specify the attributes of the environment in the area, including the sensitivity, extent, interrelationship and significance of those attributes (...) state the environmental management priorities of the area (...) indicate the kind of developments or land uses that would have a significant impact on those attributes and those that would not (...)and indicate the kind of developments or land uses that would be undesirable in the area or in specific parts of the area".

The need and desirability of development must therefore be measured against the abovementioned contents of the IDP, SDF and EMF for the area, and the sustainable development vision, goals and objectives formulated in, and the desired spatial form and pattern of land use reflected in, the area's IDP and SDF. While project-level EIA decision-making therefore must help us stay on course by finding the alternative that will take us closer to our desired aim/goal, it is through Integrated Development Planning (and the SDF process) that the desired destination is to be decided and the map drawn of how to get there. In the absence of a credible IDP and SDF, the burden of having to address the broader need and desirability considerations is, however, shifted to the EIA which must then grapple with these issues within the vacuum left by inadequate planning.

Financial viability must be considered within the context of justifiable economic development, measured against the broader societal short-term and long-term needs. While the financial viability considerations of the private developer might therefore indicate if a development is "do-able", the "need and desirability" will be determined by considering the broader community's needs and interests as reflected in a IDP, SDF and EMF for the area, and as determined by the EIA. While the importance of job creation and economic growth for South Africa cannot be denied, the Constitution calls for *justifiable* economic development. The specific needs of the broader community must therefore be considered together with the opportunity costs and distributional consequences in order to determine whether or not the development is "justified", will contribute to environmental justice and social justice, and will result in the "best practicable environmental option" – in other words to ensure that the development will be socially, economically and environmentally sustainable.

In South African context, developmental needs (community needs) are often determined through the above planning measures (IDP, SDF and EMF). The need may be at the local, regional or national level. For example, at the local level, graveyards site may be a key need for the local community. As such the particular local municipality may, in its IDP, identify an alternative site for the location of graveyards. For the construction of such graveyards, the municipality (developer) will have to submit an application with the relevant competent authority (EIA authority) as a listed activity, meeting the set threshold, is triggered. In this case the competent authority becomes the legal entity which determines, through the EIA process, the desirability for the graveyards in identified sites.

#### 3. THE STATUTORY CONTEXT FOR THE CONSIDERATION OF NEED AND DESIRABILITY

In terms of the NEMA EIA Regulations, when considering an application, the relevant competent authority must have regard to a number of specific considerations, including specifically having to consider "the need for and desirability of the activity". The NEMA EIA Regulations specify that the basic assessment report, scoping report and environmental impact report must provide a description of the need and desirability of the proposed activity and identified potential alternatives to the proposed activity. It requires that both "need" and "desirability" must be considered by the developer, his/her independent environmental assessment practitioner (EAP), the specialists, and the competent authority. Interested and affected parties should participate in the identification of the need through local planning systems such as IDP, SDF and EMF, and also in determination of desirability through the public participation process under taken in terms of the EIA Regulations.

The consideration of need and desirability during an application process (basic assessment or S&EIR), must consist of a preliminary description of the relevant considerations, as highlighted below, in relation to the feasible and reasonable alternatives. During the basic assessment report or S&EIR phase, the final assessment of need and desirability must be undertaken, including specialist input/studies as required.

In order to give effect to the general objectives of integrated environment management, the potential consequences for, or impacts on the environment of listed activities or specified activities must be considered, investigated, assessed and reported on to the competent authority, except in respect of those activities that may commence without having to obtain an environmental authorisation in terms of NEMA.

With regard to having to consider need and desirability, the definition of "evaluation" must also be noted. NEMA defines "evaluation" as "the process of ascertaining the relative importance or significance of information, in the light of people's values, preferences and judgements, in order to make a decision." When receiving an application for identified developmental need, the competent authority should evaluate such an application in order to determine the desirability of the receiving environment considering its sensitivity. It is, therefore, extremely important that the applicant's motivation covers all aspects, especially those which may be queried by other departments, relevant to the application type. In order to ensure that non-biased motivation is provided, an applicant is required to appoint an independent EAP.

In order to properly interpret the NEMA EIA Regulations' requirement to consider "need and desirability", it is necessary to turn to the principles contained in NEMA, which serve as a guide for the interpretation, administration and implementation of NEMA and the NEMA EIA Regulations. With regard to the issue of "need", it is important to note that this "need" is not the same as the "general purpose and requirements" of the activity. While the "general purpose and requirements" of the activity might to some extent relate to the specific requirements, intentions and reasons that the applicant has for proposing the specific activity, the "need" relates to the interests and needs of the broader public. In this regard the NEMA principles specifically *inter alia* require that environmental management must:

- "place people and their needs at the forefront of its concern" and equitably serve their interests;
- "be integrated, acknowledging that all elements of the environment are linked and interrelated, and it must take into account the effects of decisions on all aspects of the environment and all people in the environment by pursuing the selection of the best practicable environmental option;
- pursue environmental justice "so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person";
- ensure that decisions take "into account the interests, needs and values of all interested and affected parties"; and
- ensure that the environment is "held in public trust for the people, the beneficial use of environmental resources must serve the public interest and the environment must be protected as the people's common heritage".

The consideration of "need and desirability" in EIA decision-making therefore requires the consideration of the strategic context of the development proposal along with the broader societal needs and the public interest. The government decision-makers, together with the environmental assessment practitioners and planners, are therefore accountable to the public and must serve their social, economic and ecological needs equitably. This requires a long-term approach to decision-making in order to ensure that environmental limits are not exceeded and that the proposed actions of individuals are measured against the long-term public interest. Sustainable development therefore calls for the simultaneous achievement of the *triple bottom-line*.

#### 4. WHAT IS "NEED AND DESIRABILITY"?

While the concept of need and desirability relates to the *type* of development being proposed, essentially, the concept of need and desirability can be explained in terms of the general meaning of its two components in which *need* refers to *time* and *desirability* to *place*, i.e. is this the right time and is it the right place for locating the type of land-use/activity being proposed? Need and desirability can be equated to *wise use of land*, i.e. the question of what is the most sustainable use of land.

### 5. GUIDELINES FOR NEED AND DESIRABILITY

The following points are listed as a guide for identifying the need for development

## 5.1 Need

Is there a <u>need</u> for such a development and why? Though the need for development is not disputable, the applicant has to convince the competent authority that the proposed development is a necessity.

The applicant has to explain how the development would benefit the local/regional/national community. By emphasizing how the surrounding communities would benefit from the development, the applicant will automatically emphasize the need of the development.

#### 5.2 Desirability

Is the development desirable and why? Especially in relation to:

- its location on the property and in the area, and
- service to the area. Will it provide an improved convenience to those for whom it is intended, without prejudicing the general public?

The applicant has to motivate how the location of the development on the property and in that particular area, would be more desirable than, for example in an urban area. For example, the development of a guest house on a farm surrounded by mountains, adjacent to hiking trails and dams, would be a great tourist attraction. The motivation must indicate why the location of this development in this particular area would be more desirable than establishing it in another area.

It is logical that any development proposal will have some sort of effect/impact on the land. This could either be a positive impact (e.g. by the creation of jobs) or a negative impact (e.g. the establishment of an herbicide plant that could have a negative impact on the environment). These positive and negative impacts will be weighed up against each other when the application is considered by other departments. It is, therefore, expected that the applicant will emphasize, in as many ways as possible, how the development will have a positive impact on the land.

The applicant can emphasize the desirability of the development by explaining how that particular development could provide a service to the area, e.g. the establishment of a sugar mill on a farm, in an area where predominantly sugar farming takes place, would provide a service to the area in that:

- Farmers could have than raw product processed locally instead of having to travel kilometres to have this done, which will also decrease the risk of traffic problems.
- Benefit the general public in that the costs of transporting the cane would be reduced and therefore the cost of sugar stabilized.
- Job opportunities are created.

#### 5.3 Key issues to be addressed when identifying Need and Desirability

When considering the impacts of any development in an area, the following should be considered:

#### • The scale of the proposed development.

A large herbicide plant will have a bigger (and environmentally more negative) impact on the land than in the case of a small cottage industry on the Midlands Meander.

## The numbers of the population implicated in the proposed development.

The more people to be accommodated on the land the larger the impact will be on the land. However, should the development benefit the local community, the impact will be considered to be less. On the other hand, should the proposed development be aimed at bringing people in from outside, the impact could either be negative (e.g. when people from outside are employed at the herbicide plant, this could have a

negative impact on the community as friction often occurs in these instances) or the impact could be positive (e.g. a guest house in a scenic location could attract tourists to the area).

#### Present use/s of the property.

If the property is prime agricultural land, the need to change this use will have to be motivated very strongly (e.g. in the case of the herbicide plant) as an undesirable impact could be envisaged. On the other hand, if an abattoir on a cattle farm is proposed, the closely related agricultural nature of the proposal would imply that it is better aligned to the surrounding land use.

Also, sometimes subdivisions are approved for small holdings which are not viable as individual agricultural units and therefore, some sort of non-agricultural activity should be allowed as well. Development applications are often approached with this argument. The applicant is therefore to prove the economic non-viability of the property.

### The impact on the existing character of the neighbourhood.

Any non-agricultural development would change the existing character of the neighbourhood. The greater the impact on the existing character of the neighbourhood, the more likely objections will be raised. Noise, hours of operation, labour intensiveness, etc. should be carefully addressed in the motivation, e.g. the applicant can propose to have screening for noise, restrict the hours of intrusive operations to reasonable times, upgrading of dust roads to decrease dust, etc.

# Impact on a protected or conserved area.

This aspect is especially relevant to properties in close proximity to conservation areas such as St Lucia and Kruger National Park. If a development proposal could possibly have an adverse effect on protected species, the applicant will have to motivate how he intends to mitigate the matter. On the other hand, should the applicant propose a game lodge/environmental conservation centre, a management plan may well be called for. However, if this aspect is well motivated, such an application may be considered more favourably.

### Traffic implications

The applicant has to explain whether the proposal would:

- generate more traffic (a high increase in traffic could endanger frequent and other road- users or could necessitate the upgrading of the road);
- have adequate on-site parking (parking in the road reserve boundary will not be permitted); and
- a safe ingress and egress (any development needs an access thereto).

#### Past site history if possible

This could be a very important aspect, e.g.:

If the site has a historical connection and could attract tourists, this may add to its economic value. Furthermore, if the applicant can show that the proposed development will be in keeping with the historical nature of the site and will enhance this aspect, the application stands a greater chance of success, e.g. if an applicant wishes to build chalets on/near a historical battle site, that he is willing to build the chalets in such a manner that they will compliment the period of the battle.

#### Future proposals

Here the applicant must indicate whether the development will remain much the same size as presently proposed or if expansions are envisaged. This would give those considering the application and idea of the scale that the development could reach. Future expansions may trigger a listed activity and require a new environmental authorization.

# Non-agricultural uses in the area

The applicant must indicate whether there are other non-agricultural uses in the immediate area. This indicates the character of the area and whether the proposed development will fit in with the surroundings (e.g. Midlands Meander).

## New/existing buildings

It is important to know whether the proposed development involves erecting new building/s, or whether it is to be established in an existing building as the conversion of existing buildings for the new development, may have a less adverse affect on the environment.

#### COMMON QUESTIONS TO BE ASKED WHEN ASSESSING NEED AND DESIRABILITY

In light of the above, the need and desirability of an application (in Basic Assessment Reports as well as in Scoping Reports and Environmental Impact Assessment Reports) must be addressed separately and in detail answering *inter alia* the following questions:

## 6.1 NEED ('timing'):

#### Question 1:

Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved spatial development framework (SDF) agreed to by the relevant environmental authority? (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP).

#### Question 2:

Should development, or if applicable, expansion of the town/area concerned in terms of this land use (associated with the activity being applied for) occurs here at this point in time?

**Explanation: Questions 1 and 2** seeks to find clarity as to whether the proposed land use is catered for in the current planning framework of the SDF and is intended for at that specific point in time. In this context the term land use should not only be broadly defined as agriculture, residential or industrial use, etcetera., but where relevant, it must be further qualified, for example, stating specifically whether a housing development is for social or high income purposes, or whether the industrial use is for service industries, or heavy industry, or whether the development is a high-rise as opposed to low-rise development, etcetera. Furthermore, if the land use is to occur in the proximity of an urban area, clarity must also be provided regarding its location in relation to the urban area.

#### Question 3:

Does the community/area need the activity and the associated land use concerned (is it a societal priority)? This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate).

**Explanation:** Question 3 relates to the type of development and land use and not just its associated benefits or costs (i.e. the specific needs of the community at that specific time, e.g. small business rather than shopping centres, low-cost housing rather than luxury housing, etcetera, must be considered).

**Question 4**: Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development?

Question 5: Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)?

Explanation: Question 4 and 5: According to the NEMA EIA Regulations an EIA must contain a description and assessment of the significance of any environmental impacts, including cumulative impacts, that may occur as a result of the undertaking of the activity or identified alternatives or as a result of any construction, erection or decommissioning associated with the undertaking of the activity. An associated activity/component essential for the undertaking of a proposed development (i.e. any associated component of the development which cannot be separated from the development itself; e.g. residential development that cannot exist without the essential municipal infrastructure to serve it in terms of water and electricity provision, waste removal, treatment of sewage and management of stormwater) must be considered together with the proposed development, before the environmental authority decides on the development application. The environmental authority must (be able to) apply its mind to all the impacts (of the development and all its associated activities/components) prior to decision-making. Deferring decision-making on associated components to a future date constitutes conditional and piecemeal (incremental) decision-making, which result in the environmental authority not applying its mind to all the impacts and the pre-empting of decisions on the associated components – resulting in unsustainable development and legally impermissible administrative action.

**Question 6**: Is this project part of a national programme to address an issue of national concern or importance?

**Explanation: Question 6:** While the legislative frameworks require that national, provincial and municipal plans should be aligned, it is acknowledged that there might be certain strategically important developments (e.g. the construction of a nuclear power station) that are part of strategic programmes that are not always catered for in current planning frameworks of the SDFs. In these instances, the strategic need and desirability considerations must be measured against the needs and desires of the area in question when determining the need and desirability of the development under consideration.

#### 6.2 DESIRABILITY ('placing'):

**Question 1**: Is the development the best practicable environmental option for this land/site?

**Explanation:** Question 1: According to NEMA, the "best practicable environmental option" means the option that provides the most benefit and causes the least damage to the environment as a whole, at a cost acceptable to society, in the long term as well as in the short term. In determining the best practicable environmental option, adequate consideration must also be given to opportunity costs.

- **Question 2**: Would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF as agreed to by the relevant authorities?
- Question 3: Would the approval of this application compromise the integrity of the existing environmental management priorities for the area (e.g. as defined in EMFs), and if so, can it be justified in terms of sustainability considerations?

**Explanation:** Question 2 and 3: If the development is to occur in the proximity of an urban area, clarity must be provided whether or not it will be situated within or outside of the urban area, with the impacts associated with its location in relation to the urban area to be specifically considered and reported on.

Question 4: Do location factors favour this land use (associated with the activity applied for) at this place? (this relates to the contextualisation of the proposed land use on this site within its broader context).

**Question 5**: How will the activity or the land use associated with the activity applied for, impact on sensitive natural and cultural areas (built and rural/natural environment)?

**Question 6**: How will the development impact on people's health and wellbeing (e.g. in terms of noise, odours, visual character and sense of place, etc)?

**Question 7**: Will the proposed activity or the land use associated with the activity applied for, result in unacceptable opportunity costs?

Explanation: Question 7: Opportunity costs can be defined as the net benefit that would have been yielded by the next best alternative after considering several alternatives. For example, if farming is the next best alternative for a piece of land, then the foregone benefit of losing the farming option will be the opportunity cost of a choice of alternative land uses. If you decide not to proceed with the activity, then the foregone benefits of the proposed activity is the opportunity cost of not proceeding. Opportunity costs also relate to the use of limited resources, for example water. If a limited volume of water is available in an area the most desirable use of the water considering the needs in the area must be determined in order to consider the opportunity costs associated with the different uses of the water. The concept of opportunity costs is applicable to project alternatives as well as policy selection. It is vital information if decision makers are to understand the implications associated with specific development proposals. A key part of considering opportunity costs is commonly to assess the different alternatives in terms of the benefits and/or disadvantages associated with each alternative. Opportunity cost is a concept that often need not involve monetary values, though where these values can be given, they allow for a more detailed comparison than would otherwise be possible.

**Question 8**: Will the proposed land use result in unacceptable cumulative impacts?

**Explanation: Question 8:** Cumulative impacts can be defined as:

Additive: the simple sum of all the impacts (e.g. the accumulation of ground water pollution from various developments over time leading to a decrease in the economic potential of the resource).

Synergistic effects occur where impacts interact with each other to produce a total effect greater than the sum of individual effects. These effects often happen as habitats or resources approach capacity (e.g. the accumulation of water, air and land degradation over time leading to a decrease in the economic potential of an area).

Time crowding effects occur when frequent, repetitive impacts occur on a particular resource at the same time (e.g. boreholes decreasing the value of water resources).

Neutralizing effects occur where impacts may counteract each other to reduce the overall effect (e.g. infilling of a wetland for road construction, and creation of new wetlands for water treatment).

Space crowding effects occur where we have a high spatial density of impacts on a particular ecosystem (e.g. rapid informal settlement).

Externalisation of disadvantages occurs when there is no or insufficient consideration given to the associated social costs that will be borne by the public.

The answers to the questions above will provide key information regarding the identification and consideration of alternatives, including the option not to proceed with the development.

It is believed that the incorporation of the above-mentioned questions into the basic assessment, scoping and environmental impact reports of EIA applications will result in the adequate consideration of need and desirability, in order to ensure that the "best practicable environmental option" is pursued and that development more equitably serves broader societal needs now and in the future. The requirement to consider need and desirability as part of an EIA does, however, also highlight the urgent need for credible IDPs and SDFs, in order for planning to provide an adequately framework for the consideration of need and desirability.

#### 7. CONCLUSION

The Need and Desirability guideline provides information and guidance for applicants, authorities and interested and affected parties on the requirements for the consideration of need and desirability in terms of NEMA, the EIA Regulations, the NEM: AQA, and NEM: WA. It also provides clarity on and differentiation between the need and desirability, and differing role players involved in decision making on an environmental application.

The guideline also clarifies that it is in the applicant's best interest to prepare a well structured and complete application to expedite decision making. Not only does a well prepared application give quality information, but it will facilitate the review thereof by the competent authority. It is also in the competent authorities' best interest to assist applicants and to ensure that the above aspects are covered in their applications.

This guideline will be a living document, with regular updates when necessary. The user is, however, reminded that the guideline is not intended to be a substitute for the relevant legislation. If any conflict should arise between this guideline and the legislation, the provisions of the legislation will prevail.