



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

GENERIC GUIDELINE DOCUMENT FOR PREPARING INDUSTRY WASTE MANAGEMENT PLANS

**PREPARED IN LINE WITH THE REQUIREMENTS OF PART 7 OF THE NATIONAL ENVIRONMENTAL
MANAGEMENT: WASTE ACT, 2008 (ACT NO. 59 OF 2008)**

DRAFT, MARCH 2010

EXECUTIVE SUMMARY

Waste management is one of the key features of a company's environmental management system, whether the system is formalised or not. It is recognised that waste can be well managed in an environment where it is planned for, with clear objectives and targets set and implementation measures designed to achieve such objectives and targets. This planning requirement is now legislated and entrenched in the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008,)(hereinafter referred to as the Act), with the industry sector expected to prepare and implement Industry Waste Management Plans (Industry WMPs).

This document has been prepared as a guide to assist towards the preparation of such plans. The document highlights different role players, their roles and responsibilities and aspects they need to consider when involved in the preparation of Industry WMPs towards compliance with the requirements of the Act. The guideline describes process issues, whereby step by step procedures for each major role player are described. It also highlights and elaborates on those substance issues and areas as listed in section 30 of the Act that may need to be considered for inclusion in an Industry WMP.

Two types of plans (mandatory or voluntary) may be prepared. The guideline provides a description of situations where either a compulsory or a voluntary plan may be prepared. It also describes processes that need to be followed when preparing either type of plans. Since Section 30 of the Act already provides a list of possible contents of the plans, it is presented in this guideline that, the contents of plans may only differ in terms of scale at which the plans are being prepared at. Those plans being prepared at individual company level will have specific, small scale targets set within the confines of the facility, whereas those plans being prepared for a larger number of companies within a sector will have broader targets.

It is presented in this document that, whether the plans are prepared by a person, category of persons or industry or organs of state as defined in the Act, both types (mandatory and voluntary) when submitted to the authorities will ultimately be subjected to a similar approval process. The plans will need to be reviewed and updated from time to time at intervals to be determined during the authorisation. The Industry WMP holders will therefore be expected to comply with conditions as will be stipulated during the approval.

Failure to comply with the requirements to prepare the plans, amend the plans or comply with conditions of approved plans will constitute an offence and may lead to the non-compliance actions instigated against offenders.

ACKNOWLEDGEMENTS

This section will be completed following finalisation of the consultation process.

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DEFINITIONS

Cleaner production- means the continuous application of an integrated, preventive strategy to processes, products and services to increase efficiency and reduce risks to humans and the environment.

Industry- as defined in the Act means commercial activities, commercial agricultural activities, mining activities and the operation of power stations.

Industry WMPs- as defined in the Act mean industry waste management plans, and are sometimes referred to as “plans” in this guideline document.

Mandatory plans- means Industry WMPs to be prepared in terms of sections 28 (1) and (2) and 29(1) and (2) of the Act

MEC- as defined in the Act means the Member of the Executive Council of a province who is responsible for waste management in the province.

Minister- as defined in the Act means the Minister of Environmental Affairs and Tourism, the Ministry is however now called Water and Environmental Affairs.

Organ of State- has the meaning assigned to it in section 239 of the Constitution; i.e. any department of state or administration in the national, provincial or local and *any* other functionary or institutional sphere of government exercising a power or performing a function in terms of the Constitution or exercising a public power or performing a public function in terms of any provincial constitution or legislation, but does not include a court or a judicial officer.

Person- has the meaning assigned to it in the Interpretation Act, 1957 (Act No. 33 of 1957), i.e. any divisional council, municipal council, village management board, or like authority; any company incorporated or registered as such under any law and any body of persons-corporate or un-incorporate), but also includes an organ of state.

the Act- means the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008), and is sometimes referred to as NEM: Waste Act, 2008 (Act No. 59 of 2008) or the Act in this guideline document.

Voluntary plans- means Industry WMPs to be prepared in terms of section 28 (7) of the Act

Waste- as defined in the Act means any substance, whether or not that substance can be reduced, re-used, recycled and recovered— that is surplus, unwanted, rejected, discarded, abandoned or disposed of;

- which the generator has no further use of for the purposes of production;
- that must be treated or disposed of; or
- that is identified as a waste by the Minister by notice in the *Gazette*, and includes waste generated by the mining, medical or other sector, but—
 - a by-product is not considered waste; and
 - any portion of waste, once re-used, recycled and recovered, ceases to be waste;

FIGURES AND TABLES

Figure 1: Mandatory plans: a process flow for a person, category of persons or industry

Figure 2: Voluntary plans: a process flow for a person, category of persons or industry

Figure 3: Preparing an Industry WMP: A process flow diagram for an organ of state (excluding a Municipality)

Figure 4: Preparing an Industry WMP: A process flow diagram for a provincial department dealing with environmental affairs

Figure 5: A process diagram for the decision maker (Minister or MEC)

Table 1: Possible requirements as listed in Section 30 of the Act

TABLE OF CONTENTS

EXECUTIVE SUMMARY	2
ACKNOWLEDGEMENTS	3
DEFINITIONS	4
FIGURES AND TABLES	5
TABLE OF CONTENTS	6
1. INTRODUCTION	8
2. GENERAL CONSIDERATIONS	8
3. PREPARING INDUSTRY WMPs: THE PROCESS FOR A PERSON, CATEGORY OF / OR INDUSTRY	9
3.1 PREPARATION OF MANDATORY PLANS	9
3.1.1 Initial consultation	9
3.1.2 Written notification or a gazette	10
3.1.3 Determination of capacity	10
3.1.4 Consultation with other stakeholders	10
3.1.5 Minister's or MEC's Direction	11
3.1.6 Consideration of stakeholder inputs	11
3.1.7 Industry WMP submission	11
3.2 PREPARATION OF VOLUNTARY PLANS	12
3.2.1 Industry Decision to Prepare the Plans	12
3.2.2 Authority notification	13
3.2.3 Determination of capacity	13
3.2.4 Stakeholder consultation	13
3.2.5 Minister or MEC's direction	14
3.2.6 Consideration of stakeholder inputs	14
3.2.7 Industry WMP submission	14
4. PREPARING INDUSTRY WMPs: THE PROCESS FOR ORGANS OF STATE	15
4.1 PREPARATION OF MANDATORY PLANS	16
4.1.1 Written notification	16
4.1.2 Determination of capacity	16
4.1.3 Stakeholder consultation: Prescribed process and methods	16
4.1.4 Stakeholder consultation: Non-prescribing of methods	17
4.1.5 Information requirements	17
4.1.6 Consideration of stakeholder inputs	17
4.1.7 Industry WMP submission	17
4.2 PREPARATION OF VOLUNTARY PLANS	19
5. CONTENTS OF AN INDUSTRY WMP: A GUIDE TO COMPILING A PLAN	19
5.1 Amount of waste generated (status quo)	20
5.2 Setting targets on reduction, re-use, recycling and recovery	21
5.3 Developing measures / actions	23

5.3.1 Measures to prevent pollution or ecological degradation	23
5.3.2 Measures or programmes to minimise the generation and final disposal of waste	24
5.3.3 Measures or actions to be taken to manage waste	24
5.4 The period that is required for implementation of the plan	25
5.5 The phasing out of the use of specified substances	25
5.6 Requirements linked to the extended producer responsibility clause	26
5.6.1 Mechanisms for informing the public	26
5.6.2 The extent of any financial contribution to be made.....	26
5.6.3 Opportunities for the reduction of waste generation	26
5.7 Any other matter that may be necessary to give effect to the objects of this act.....	27
5.8 Methods for monitoring and reporting	27
6. DECISION MAKING ON THE INDUSTRY WMPs	28
6.1 THE PROCESS FOR CONSIDERATION OF PLANS	28
6.1.1 Acknowledge receipt of the plan/s	28
6.1.2 Review the plan/s	28
6.1.3 Approve / or reject the plan/s.....	28
6.1.4 Request additional / outstanding information or amendment of the plan	29
6.1.5 Waste management measures	29
6.1.6 Criminal measures against non-compliance	30
7. CONCLUSION.....	31
8. FREQUENTLY ASKED QUESTIONS	32
9. REFERENCES	35
APPENDIX 1: Checklist for a person, category of persons or industry.....	36
APPENDIX 2: Checklist for an organ of state	38
APPENDIX 3: Checklist for the Minister or MEC	40
APPENDIX 4: Possible structure of an Industry WMP.....	42
APPENDIX 5: Prioritisation matrix	45
APPENDIX 6: Contact details of provincial departments	49

1. INTRODUCTION

The National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) was assented to on the 10 March 2009 and came into effect on the 01 July 2009, however with the exception of other sections including section 28 (7) which allows for the preparation and submission of Industry WMPs voluntarily. This section will come into effect at a later date to be determined by the Minister. Part 7 of the Act provides details on the legislative provisions regarding the process to be followed towards the preparation of Industry WMPs as well as reviewing and approval by authorities, and includes description of the following:

- process for the preparation of Industry WMPs, including a discussion on responsibilities for the preparation of such plans;
- listing possible contents of an Industry WMP;
- a description of the consultation process that may be required during the preparation of Industry WMPs;
- approval process for the Industry WMPs;
- a review process for the Industry WMP, as well as
- possible measures that may be taken against non-compliance with provisions of Part 7.

This guideline is designed to assist towards compliance with the requirements of this part of the Act, including section 28 (7) when it comes into effect at a date to be determined by the Minister. The guideline is generic, not prescriptive, but aims to provide a guided approach towards uniformity in the preparation, processing and approval of the plans in a manner which achieves provisions of Part 7 of the Act. The document does not substitute Part 7 of the Act and **must** therefore be read / used in conjunction with it.

The document can be used by persons, category of persons or industry, any industry representative body, appointed independent service providers, organs of state and provincial departments responsible for environmental affairs as defined in the Act, for the preparation of Industry Waste Management Plans. It can also be used by officials delegated by the Minister and or MEC to review Industry WMPs submitted for approval.

The guideline is divided into 7 main sections in the following order:

- **firstly** providing a brief discussion on the general considerations that may need to be made prior to the commencement of an Industry WMP development process;
- **second**, providing the description of procedures / processes to be followed by persons, category of persons or industry preparing an Industry WMP;
- **third**, providing the description of procedures / processes to be followed by organ of state preparing Industry WMPs;
- **fourth**; providing a detailed elaboration on the possible contents of an Industry WMP as listed in section 30 of the Act;
- **Fifth**, detailing a procedure/ process to be followed by authorities when making a decision on the plans prepared and submitted;
- **Sixth**, a list of frequently asked questions with populated responses, and lastly
- Appendices that can be used as references by various participants.

The list of information sources used in the drafting of this guideline document are also included at the end of this guideline.

2. GENERAL CONSIDERATIONS

The discussion in this section is not a requirement of the Act, but is considered important to add value in the Industry WMP preparation process. As a starting point, when the initiative is taken to prepare the plans, all assumptions are gathered. In this phase the planning period is determined, and any other boundaries of the planning scope are clarified. The important issues may include the determination of regulatory requirements, who should be involved in the planning process and how,

consideration regarding capacity and whether internal expertise exists or external service providers will be required, time schedules for preparing the plans as well as the type and extent of consultation process with stakeholders.

Proper prior planning for stakeholder consultation on the part of persons, category of persons or industry is important in that, part 7 of the Act does not prescribe the type of consultation that must be followed. The requirement may be for persons, category of persons or industry to bring the contents of an Industry WMP to the attention of relevant organs of state, interested persons and the public and/ or to follow any directions given by the Minister or MEC. The Industry WMP preparer therefore needs to make decision on how stakeholder comments will be addressed and incorporated into the Industry WMP.

As for time-schedule, this may need to indicate the expected duration of the different stages and the expected finalisation date of the waste management plan. The time-planning may also include an indication of the decisions to be taken at each preparation stage and when workshops may take place. The scope of the plan may be designed taking the following issues into consideration:

- The geographical coverage of the plan- will the plan involve an individual facility, the industry or the sector?
- Which waste streams will be included in the plan, total waste, hazardous waste, packaging waste, etc?
- The time horizon of the plan? I.e. is it a 3, 5 or 10 year plan?

The considerations about waste streams to be included should determine the sources, streams and quantities of waste generated, current collection, transportation and treatment, and how these might change in the future. The plan may also need to identify the location of the site/ sites and the individuals responsible for preparing and implementing it. There may be responsibilities assigned to the client, contractors or the person who drafted the plan.

Section 3 below provides the description of a process which a person, category of persons or industry needs to consider when preparing an Industry WMP. The description elaborates on some of the provisions of Part 7 of the Act.

3. PREPARING INDUSTRY WMPs: A PROCESS FOR A PERSON, CATEGORY OF PERSONS OR INDUSTRY

The Act makes provisions for the preparation of Industry WMPs either by a person, category of persons or industry. Irrespective of who prepares the plan, the process to follow should take a similar pattern. Consultation between those who prepare the plan and the Minister or MEC is an initial step, followed by preparation of the plan, consultation with other stakeholders, submission of the plan to the Minister or MEC for evaluation and approval and finally, implementation and monitoring of the plan. Difference in processes may be due to the different types of plans being prepared. Unlike during the preparation of “mandatory” plans, situations where a plan is prepared “voluntarily” will allow a facility, company, industry or a sector to initiate the process of preparing and submitting the plans as opposed to waiting for authority’s directions to do so. This section provides a step by step process to be considered when preparing either mandatory or voluntarily plans. The processes described exclude an organ of state, as this is described separately in section 4, further below.

3.1 PREPARATION OF MANDATORY PLANS

3.1.1 Initial consultation

Prior to a notice being issued or a gazette being published requiring a person, category of persons or industry to prepare an Industry WMP, the Act calls for an initial consultation between the Minister or MEC and representatives of a facility, company, industry or sector by whom the plan is to be prepared. This consultation will be regarding the Minister’s or MEC’s intention to require such institutions to prepare the plans. The company, industry or sector may only take note of this provision as they are not expected to play any leading role. This is an activity to be initiated by relevant units within the departments the Minister or MECs are heading. The role that the company, industry or sector could play at this stage may

be that of rendering input to help facilitate information requirements likely to be stipulated in the written notice or gazette discussed below.

3.1.2 Written notification or a gazette

Following the consultation exercise described above, the company may then receive written notification or a group of companies may receive such directions through the relevant gazettes. It is therefore advised that industry representatives keep track of notices in gazettes published from time to time. While private information suppliers may be able to provide updates on subscription basis; the following South African Government Information website may be considered for use, i.e. <http://www.info.gov.za>. The link to **documents**, then **notices** may be followed to locate the relevant notice.

3.1.3 Determination of capacity

A decision can be made to either appoint an external and independent service provider, use in-house expertise or any other means to prepare the plan. This flexibility is however limited. The Minister or MEC reserves the right to exercise his or her power by giving instructions that the plan be prepared by an independent and external service provider. Should this be the case, details will be clearly spelled out in either a notification or a gazette referred to above. Where the external service provider is considered for use, it must be noted that, the Act does not prescribe the qualifications of the service provider. It will therefore be on the benefit of a facility, company, industry or a sector concerned to ensure that the best service provider is utilised. As an advice, it may assist to consider use of a service provider with a good track record and understanding of issues pertaining to industrial waste management, and perhaps the one registered with a legitimate professional body within the Republic of South Africa.

Where internal expertise is considered for use, especially in the case of individual facilities, care must be made in ensuring that such personnel are clued up with industrial waste management issues and possess necessary skills for the preparation of an Industry WMP. They need to have professional skills to engage in an unbiased consultation process with relevant stakeholders and be able to address stakeholder concerns, objectively.

In the case of a plan being prepared for a number of companies falling within a sector, it may make sense to utilise bodies / associations representing such companies. This is based on the belief that the representative bodies have broader understanding of issues prevalent within their member companies; but alternatively an external service provider may still be utilised under this situation.

3.1.4 Consultation with other stakeholders

The Act stipulates that appropriate steps must be taken to bring the contents of a proposed industry waste management plan to the attention of relevant organs of state, interested persons and the public. A decision can be made to bring such contents at as early as conceptualisation stage or at the stage where the first draft has already been completed. What is crucial to note is the fact that the Act does not prescribe the type of consultation method with stakeholders. It also does not rule out consultation with authorising / decision making organ of state at this stage of the process. It must however be noted that the Minister or MEC reserve the right to make such prescription, and when made, it will appear in the written notification or in the gazette, which ever applies.

What ever strategy the plan compiler decides to adopt, it is advised that all consultation process documentation be kept on record. As is described in subsection 3.1.7 below, it is only the copy of comments made and the manner such comments had been addressed that need to be attached to the final Industry WMP for submission to the authorities.

3.1.5 Minister's or MEC's Direction

Authorities may make directions on a number of issues. These may include directions on the type of consultation process with stakeholders, as well as stipulation that an independent service provider be used with the cost incurred by the company or companies for which the plan is being prepared for. In the final Industry WMP the manner with which such directions have been complied with, need to be clearly demonstrated.

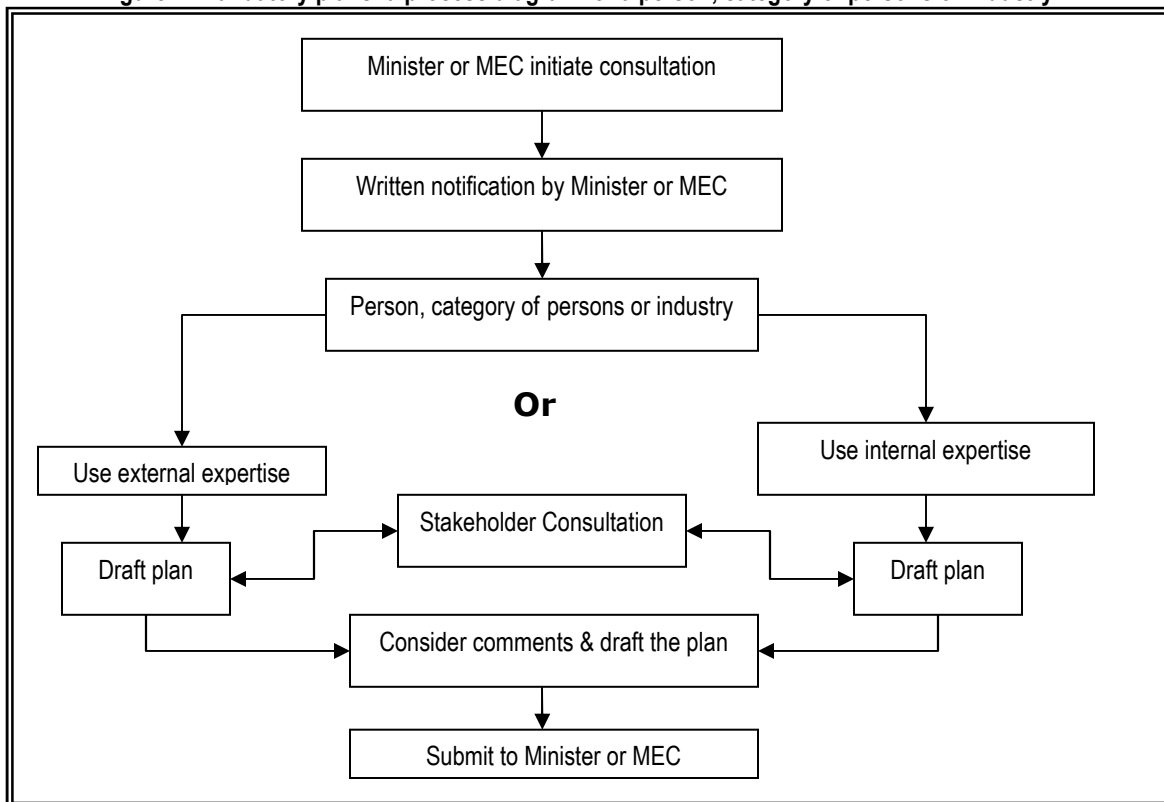
3.1.6 Consideration of stakeholder inputs

The Act stipulates that for an Industry WMP prepared, stakeholder inputs must be considered and addressed accordingly. The Act however does not prescribe the method for consideration of inputs. These inputs may be rendered in various forms from general queries, criticisms, appreciation, requests, instructions, general comments, etc. It is advised in this document that at least a register of all such inputs, as well as a response to such inputs be created and kept on file. Depending on the number, type and size of inputs, a method may be identified and used to decide on the level of significance of each input or expert knowledge can be used to arrive at such a decision.

3.1.7 Industry WMP submission

Once Industry WMP has been completed, it will have to be submitted to the Minister or to the MEC, as the case may be. A copy of comments made on the plan, will also need to be attached to the submitted plan. Depending on the type, number and size of input rendered, it may be necessary to have such inputs captured in a summarised form with the comments / response detailed document being kept as background information and only a summary of key issues or comments that have a significant bearing attached. Off importance however is indication of the manner of how inputs were addressed, as described above. Submission can be made to the offices **as will be stipulated in the written notices** or in **the relevant gazette**. Figure 1 below provides a diagram which depicts the process described in this section.

Figure 1: Mandatory plans: a process diagram for a person, category of persons or industry



3.2 PREPARATION OF VOLUNTARY PLANS

Subsection 28(7) makes provision for the preparation of voluntary plans. It is essential to note that; the plans once prepared need to be submitted to the Minister or MEC for approval. Even though the preparation process will be a voluntary one on the industry side, the Act still allows the Minister or MEC to exercise any of their powers in respect of the voluntary plans, once they have been submitted for approval. It therefore becomes crucial during the preparation stage to have considerations made on the requirements of subsection 28(4). While it is not a requirement of the Act for the Industry WMP compiler to consult with relevant sections of the Department dealing with waste management prior to the preparation and submission of a voluntary plan, this guideline foresees benefits of such an initiative and hence encourages it when deemed necessary. This initiative, it is believed, will help address any potential confusion at any early stage as possible and ensure smooth process in the administration of a submitted voluntary plan. As a general approach however, this guideline document recommends the process described below:

3.2.1 Analysis of current or potential waste generation impact

Through Section 28 (7) (b) (i), the Act requires that, when making such a decision, the following factors be taken into consideration.

➤ **The impact or potential impact of the waste on health and the environment that is generated by the applicable person, category of persons or industry.**

Information on the potential impact on health and the environment may be obtained from risk registers from previous and current risk assessments. The hazard ratings should be able to give an idea on the type of measures to be undertaken on a particular type of waste. Results from previous environmental impact assessments, aspects registers from existing environmental management systems may also give an indication of significance level of waste related environmental aspects within an individual company level.

For hazardous wastes, reference may also be made on the existing waste classification systems, e.g. the *Minimum Requirements for the Handling, Classification and Disposal of Hazardous Waste*, Pretoria, 1998, a document compiled by the former Department of Water Affairs and Forestry. Reference may also be made on the Hazardous Waste Classification System: a project currently being undertaken within the Department of Environmental Affairs. While focus of the document by the former Department of Water Affairs and Forestry was in the area of end of pipe management of waste, i.e. treatment and disposal; the latter document by the now Department of Environmental Affairs will expand to include issues pertaining to waste minimisation, reuse and recycling.

➤ **The environmentally sensitive nature of a natural resource or the amount of natural resources that is consumed in the manufacturing or production processes that result in the waste.**

Whether waste generated is from high environmentally sensitive natural resource, and the volumes of waste are large, in the Act, there is no quantification or criteria to determine the circumstances under which a plan may need to be considered. This discretion is hence left to the company or a group of companies to make. Some natural resources like fossil fuels are non-renewable. Caution therefore needs to be exercised to minimise their depletion. In the generation of power, for example, a mammoth amount of boiler ash is generated and in the absence of reuse and recycling initiatives, the ash ends up in disposal facilities.

➤ **The manner in which an industry waste management plan may contribute to the avoidance or minimisation of the generation of waste; the reduction of negative impacts on health and the environment; and the conserving of natural resources.**

While this factor talks to the two factors described above, the issue of cleaner production, embedded in the words avoidance or minimisation of the generation of waste are crucial. This is described further in subsection 5.3.2.

3.2.2 Prior consultation with authorities

Neither the Industry WMP compiler nor authorities are obliged under this Act to initiate any consultation prior to the preparation and submission of voluntary plans. This guideline however holds the view that such an initiative may be to the best advantage of both parties. Should it be considered necessary to consult prior to the preparation of plans, the industry WMP compiler may approach authorities for clarity on any issues regarding, e.g. contents of the plan, process, or anything regarding this guideline or requirements of the Act. The purpose of this communication will only be to ensure smooth progression from the preparation, submission, evaluation and decision making on the voluntary plans. It is recommended that such communication be addressed to those offices at the national department or provincial departments dealing with waste management. Contact details are included at the end of this guideline document.

3.2.3 Determination of capacity

A decision can be made to either appoint an external and independent service provider, use in-house expertise or any other means to prepare the plan. Where the external service provider is considered for use in the preparation of voluntary plans, it must be noted that, the Act does not prescribe the qualifications of such a service provider. It will however be on the benefit of a facility, company, industry or a sector concerned to ensure that the best service provider is utilised. As an advice, it may assist to consider use of a service provider with a good track record and understanding of issues pertaining to industrial waste management, and perhaps the one registered with a legitimate professional body within the Republic of South Africa.

Where internal expertise is considered for use, especially in the case of individual facilities or companies, care must be made in ensuring that such personnel are clued up with industrial waste management issues and possess necessary skills for the preparation of an Industry WMP. They need to have professional skills to engage in an unbiased process.

In the case of a plan being prepared for a number of companies falling within a sector, it may make sense to utilise bodies / associations representing such companies. This is based on the belief that the representative bodies have broader understanding of waste management issues prevailing within their member companies. Alternatively an external service provider may still be utilised under this situation.

3.2.4 Industry WMP preparation and submission

Once a decision has been made within a facility, company, industry or sector to voluntarily prepare the plans, such plans should be submitted to the Minister or MEC. They can be addressed directly to the attention of section heads of units dealing with waste management within provinces or the national department. Contact details of such section heads may be obtained via the contact numbers listed in Appendix 6 of this document. It must however be noted that, a voluntary plan may only be submitted at anytime following the Minister's decision to bring subsection 28 (7) into effect. This sub-section of the Act and other sections (as it may be remembered) were put on hold following the coming into effect of the Act in July 2009.

Once a plan has been received, and prior to making a final decision, the Minister or MEC may decide to engage other stakeholders, and hence a need for further work on the submitted plan as detailed in the subsections 3.2.5- 3.2.7 below. If not further work is called for by the Minister or MEC, then a final decision may be made as detailed in Section 6 of this guideline document.

For details on the contents of voluntary plans, reference can be made to Section 5 of this guideline document. The contents described in that section however apply mainly to mandatory plans as may be required by the Minister or MEC. Since the

Act does not prescribe the contents of plans prepared voluntarily, it is recommended that this list be also used as a guide to the contents of plans being compiled voluntarily.

3.2.5 Stakeholder consultation

The Act does not prescribe the type of consultation process on the preparation of voluntary plans. It must however be noted that, such prescription may be made following submission for approval of such a plan to the Minister or MEC as they reserve the right to exercise any of their powers set out in Part 7 of the Act.

As per the discussion in the preceding sub-section 3.2.2, this guideline recommends communication with authorities prior to the preparation and submission of voluntary plans. This may be the case in situations where the Industry WMP compiler requires clarity on certain aspects of the plan preparation and submission process. While this is not a requirement of the Act, it is however believed that it may facilitate smooth evolution from the preparation through to decision making.

If it happens that the Minister or MEC prescribe a consultation process following submission of a plan for approval, it is advised that all consultation process documentation be kept on record. As is described in subsection 3.2.7 below, the copy of comments made and the manner such comments had been addressed should be attached to the final Industry WMP for submission to the authorities.

3.2.6 Minister or MEC's direction

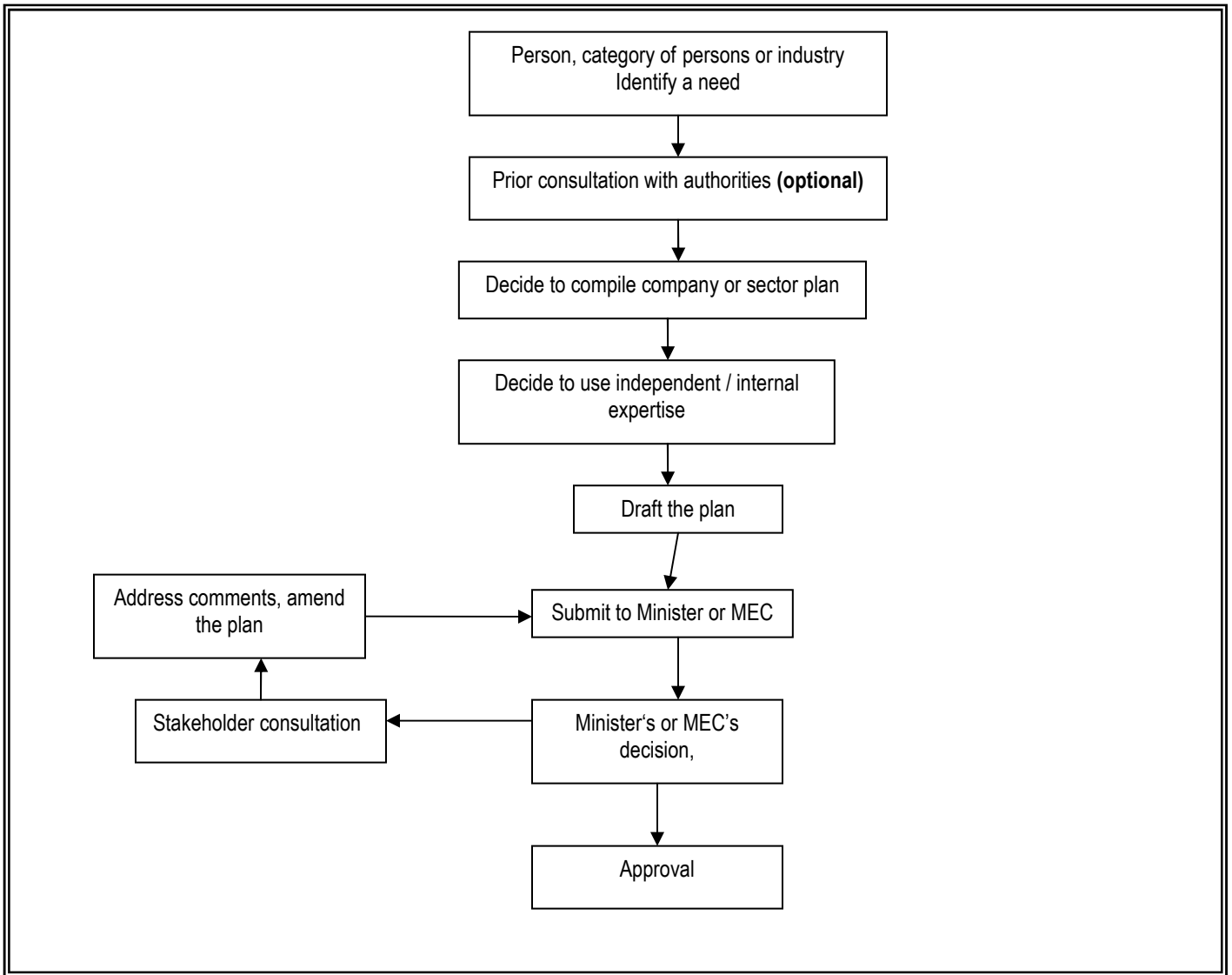
While no obligation is placed on the Minister or MEC to prescribe any process prior to the preparation and submission of voluntary plans, such prescription may be made after the plan has been submitted for approval. These may include directions on for example, the type of consultation process with stakeholders on the submitted plan, if deemed necessary. In the final Industry WMP, the manner with which such directions (if any) have been complied with, need to be clearly demonstrated.

3.2.7 Consideration of stakeholder inputs and resubmission

If it happens that the Minister or MEC prescribe a consultation process following submission of a plan for approval, stakeholder inputs must be considered and addressed accordingly. These inputs will have been rendered in various forms, from general queries, criticisms, appreciation, requests for more information, instructions, general comments, etc. It is advised in this guideline document that at least a register of all such inputs, as well as a response to such inputs be created and kept on file. Depending on the number, type and size of inputs, a method may be identified and used to decide on the level of significance of each input. As is explained in the preceding subsection 3.2.5, the copy of comments made and the manner such comments had been addressed should be attached to the final Industry WMP for submission to the authorities.

Figure 2 below provides a diagram which depicts the process described in this section.

Figure 2: Voluntary plans: a process diagram for a person, category of persons or industry



4. PREPARING INDUSTRY WMPs: A PROCESS FOR AN ORGAN OF STATE

The process described below focuses on Industry WMP preparation activities the organ of state (excluding a municipality) may be required to perform. It is presented here that, whether the organ of state prepares the plans for a single company or for a number of companies falling within a particular sector, the process to be followed shares some similarities. The main difference from the process described in section 3 above will be in the area of consultation with stakeholders. A consultation method for the organ of state is prescribed and will need to be implemented as per the prescription in sections 72 and 73 of the Act. **In the definition of persons as provided for in the Act, organs of state are also regarded as persons.** Organs of state which generate waste that may have detrimental impacts on health and the environment include amongst others hospitals. **In line with Section 28 (7) (a) of the Act, therefore, such organs of state may also elect to prepare the plans voluntarily.** Unlike during the preparation of “mandatory” plans, situations where a plan is prepared voluntarily will allow an organ of state to initiate the preparation process as opposed to waiting for the Minister’s or MEC’s directions to do so.

This section provides a step by step process to be considered by an organ of state in the preparation of either mandatory or voluntary plans.

4.1 PREPARATION OF MANDATORY PLANS

4.1.1 Written notification

In the case of organs of state, the Minister is given powers to decide on whether or not to issue written notice requiring such an organ of state to prepare Industry WMPs. With the definition of an organ of state as provided for in the Act, this therefore means that the Minister may issue such a notice to the following:

- Any department of state or administration in the national and provincial
- Any other functionary or institution sphere of government exercising a power or performing a function in terms of the Constitution or exercising a public power or performing a public function in terms of any provincial constitution; or Legislation, but does not include a court or a judicial officer

In the case of provincial departments responsible for environmental affairs, the MEC is given powers to decide on whether or not to issue written notice requiring such a department to prepare the plans. Following receipt of such a notice, the organ of state is expected to engage on activities as described in the sections below.

4.1.2 Determination of capacity

A decision can be made to either appoint an external and independent service provider, use in-house expertise or any other means to prepare the plan. There is flexibility as the Act does not explicitly provide powers to either the Minister or MEC to give instructions in this area. Where the use of an independent service provider is deemed to be a preferred route, it must be noted that, the Act also does not prescribe the qualifications of the service provider. It will therefore be on the benefit of the organ of state, through the use of existing procurement procedures to ensure that the best service provider is procured and utilised. As an advice, it may however assist to consider use of a service provider with a good track record on issues pertaining to industrial waste management. Consideration can be made on those service providers, who amongst other things portray elements of professionalism, demonstrated by evidence of registration with a legitimate professional body within the Republic of South Africa.

Where internal expertise is considered for use, especially in the case of those organs of state whose function is already in the area of waste management, care must be made in ensuring that the officials used are clued up with industrial waste management issues and possess necessary skills for the preparation of a relevant plan for implementation by an individual or a group of companies concerned. This requires working closely with companies and where applicable, with their associations in the data collection, analysis and compilation stages.

In the case of a plan being prepared for a number of companies falling within a sector, the organ of state should consider working very closely with bodies / associations representing companies concerned. This is based on the belief that the representative bodies have broader understanding of issues prevalent within their member companies; but alternatively an external service provider may still be utilised under this situation.

4.1.3 Stakeholder consultation: Prescribed process and methods

The Act prescribes the type of consultation that the organ of state should follow (refer to sections 29 (6) and 31 (2) of the Act, respectively) and that it should be in line with the provisions of sections 72 and 73. This should involve giving a notice in the *Gazette* and in at least one newspaper distributed nationally. If only a specific area will be affected, at least one newspaper should be distributed in that area inviting members of the public to submit within no less than 30 days of publication of the notice in the gazette; written representations on objections to the proposed Industry WMP by the organ of state. The notice should contain sufficient information to enable members of the public to submit representations or objections. Interested persons or community may also be allowed to present oral representations or objections

Where the Minister had given instructions, consultation process at political level will take this form:

- **The head of an organ of state** to consult with Cabinet members whose areas of responsibility will be affected by his / her preparation of an Industry WMP, as well as with the MEC responsible for waste management in a province that will be affected.

Where the MEC had given instructions, consultation process at political level will take this form:

- **The head of a provincial department dealing with environmental affairs** to consult with all members of the Executive Council within the province, whose areas of responsibility will be affected by his / her preparation of an Industry WMP. Consultation must also extend to the Minister and all other national organs of state that will be affected.

A decision can be made to bring the contents of a plan at as early as conceptualisation stage or at the stage where the first draft has already been completed. It is advised that all consultation process documentation be kept on record, since as is described in sub-section 4.1.7 below, copies of such will be required as part of the final Industry WMP document for submission to the Minister or MEC for approval.

4.1.4 Stakeholder consultation: Non-prescribed methods

If the plan is being prepared as a result of a person who was required to prepare that plan failing to do so; the organ of state is only required to bring the contents of a proposed industry waste management plan to the attention of other relevant organs of state, interested persons and the public. In other words, the process here is not prescribed, but instead follows the route described in sub-section 3.1.4 above, i.e. a stakeholder consultation process that applies to persons, category of persons or industry in the preparation of mandatory plans.

4.1.5 Information requirements

Once a notice has been issued, the organ of state or a provincial department responsible for environmental may by written notice require information from a company or group of companies for whom the plan is prepared for.

4.1.6 Consideration of stakeholder inputs

The Act stipulates that for an Industry WMP prepared, stakeholder inputs must be considered and addressed accordingly. The Act however does not prescribe the method for consideration of inputs. These inputs may be rendered in various forms from general queries, criticisms, appreciation, requests for information, instructions, general comments, etc. It is advised in this document that at least a register of all such inputs, as well as responses to such inputs be created and kept on file. Depending on the number, type and size of inputs, a method may be identified and used to decide on the level of significance of each input.

4.1.7 Industry WMP submission

Once an Industry WMP has been completed, it will have to be submitted to the Minister or to the MEC, as the case may be. A copy of all comments made on the plan, will also need to be attached to the submitted plan. Depending on the type, number and size of input rendered, it may be necessary to have such inputs captured in a summarised form. Of importance however is indication of the manner of how inputs were addressed, as described above. Submission can be made to the offices as will be stipulated in the written notices issued. Figure 3 below is a diagrammatic representation of the discussion above.

Figure 3: Preparing an Industry WMP: A process flow diagram for an organ of state (excluding a municipality)

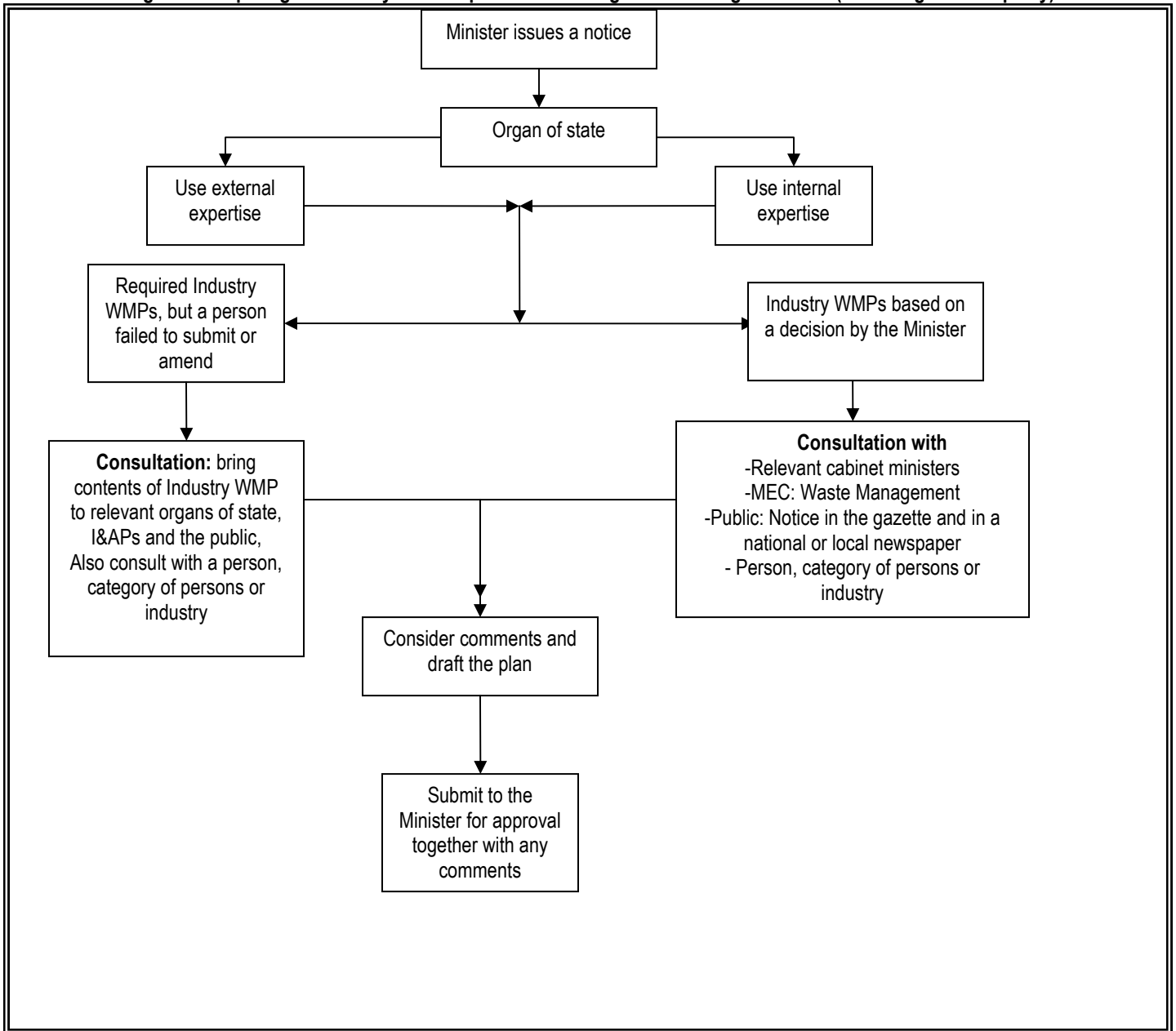
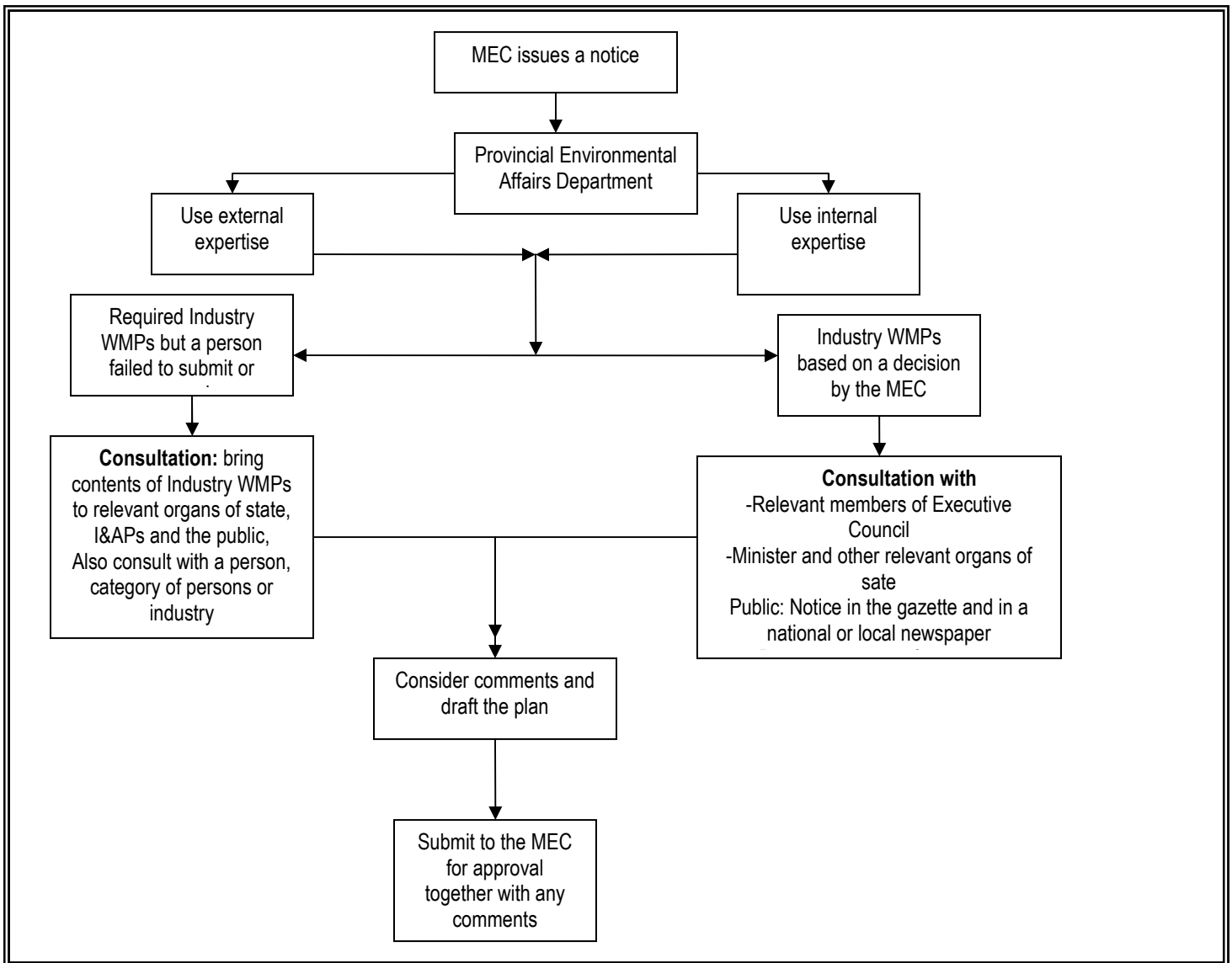


Figure 4: Preparing an Industry WMP: A process flow diagram for a provincial department dealing with environmental affairs



4.2 PREPARATION OF VOLUNTARY PLANS

By definition in the Act, the organ of state is included in the definition of a “person”. Such organs of state for example, public hospitals, do generate waste which when not managed well may pose risk to both human health and the environment. In line with Section 28 (7) (a) of the Act, this therefore implies that, an organ of state may prepare and submit the plans voluntarily without a notice issued by the Minister or MEC. When such a route is considered, a process described in subsection 3.2 and figure 2 above may be followed.

5. CONTENTS OF AN INDUSTRY WMP: A GUIDE TO COMPILING THE PLANS

In issuing a notice or a gazette in terms of sections 28 and 29 of the Act, the Minister or MEC may provide specifications regarding the actual information that must be included in an Industry WMP. In this case, the preparation and submission of plans will become a mandatory process. The contents as listed in Section 30 of the Act, and/ or even more information requirements may therefore be stipulated. As for those plans prepared and submitted voluntarily, however the Act does not prescribe the contents of such plans. It is therefore recommended in this guideline that, the list in Section 30 of the Act (as

Generic guidelines for the preparation of Industry Waste Management Plans

elaborated in this section) be used as a framework to guide the contents of such voluntary plans. Voluntary Industry WMP compilers may however go beyond the list in Section 30 of the Act.

Before elaborating on Section 30 of the Act, it is recommended that the following general information be considered for inclusion in an Industry WMP document submitted to the authorities for approval. This information is however only needed to assist in the decision making process and is not a requirement of the Act. It will only facilitate effective communication between the parties involved.

Details of a person, category of persons or industry for whom the Industry WMP was compiled

- Name and surname of a representative personnel
- Contact telephone, fax and cellular phone numbers as well as postal and email addresses
- Designation of such a personnel
- If more than 1 company, a number of companies represented and their geographical locations

Contact details of a person who compiled the Industry WMP for a person, category of persons or Industry

- Name and surname of a representative personnel
- Contact telephone, fax and cellular phone numbers as well as postal and email addresses
- Designation of such a personnel and relationship with a person, category of persons or industry for who the plan is prepared for.

The Act does not prescribe the structure of the Industry WMP document prepared and submitted to the Minister or MEC. This guideline however proposes a structure as detailed in Appendix 5. This is only a model structure and is not compulsory. Its use may however be beneficial to both the authorities and the person, category of persons or industry whom the Industry WMP is prepared for. Table 1 below expands on how the list of contents in Section 30 of the Act may be incorporated into the plans prepared by different role players (persons, category of persons or industry and organs of state). The contents of this may form part of the contents of an Industry WMP document, but the entire plan should consider capturing / including other information proposed and presented in the model at Appendix 5.

Table 1: Requirements as listed in Section 30 of the Act

(a) the amount of waste that is generated;
(b) measures to prevent pollution or ecological degradation;
(c) targets for waste minimisation through waste reduction, re-use, recycling and recovery;
(d) measures or programmes to minimise the generation of waste and the final disposal of waste;
(e) measures or actions to be taken to manage waste;
(f) the phasing out of the use of specified substances;
(g) opportunities for the reduction of waste generation through changes to packaging, product design or production processes;
(h) mechanisms for informing the public of the impact of the waste-generating products or packaging on the environment;
(i) the extent of any financial contribution to be made to support consumer-based waste reduction programmes;
(j) the period that is required for implementation of the plan;
(k) methods for monitoring and reporting; and
(l) any other matter that may be necessary to give effect to the objects of this Act.

5.1 AMOUNT OF WASTE GENERATED (STATUS QUO)

While the Minister or MEC as the case may be, may specify that the amount of waste generated be included in an Industry WMP, this however may not be limited to only the total volumes generated. The call may extend to a requirement to include an inventory of all waste streams, including a brief description of sources; type and current waste management practices on storage, collection, recycling, reuse, recovery, treatment and disposal within or outside the parameters of the generator/s.

In other words, a detailed status quo analysis may be required, where the overall review of the current waste management system is undertaken. This may also require an exercise of analysing waste management strengths, weaknesses, opportunities, and threats through the application of **SWOT analysis** techniques.

For the Industry WMPs prepared voluntarily, it is encouraged that this route of doing the entire waste status quo and SWOT analysis be followed. The analysis of the entire waste management system is considered to be an important exercise as it will help during the prioritisation of interventions and setting of targets discussed below. The exercise is also considered important as the Industry WMP is in no way an authority's document. It is a generator/s document, which will be implemented, revisited, reviewed and amended from time to time by the generator/ s.

The manner with which information on the status quo analysis is gathered and recorded in an Industry WMP may vary, depending on whether the plan is being prepared for an individual facility, industry or for a sector respectively. In other words, the plans may differ depending on the scale at which the plan is being prepared at.

Where the plan is being prepared for single generating facility, the following factors may be considered when recording in an Industry WMP the amount of waste generated:

- The different sources contributing to the waste stream within the company setting;
- The type and amount of waste generated within the company setting (with a breakdown in a table format, of waste streams per source);
- Brief discussion on reasons for the selection of certain waste streams (in case where focus is only on specific streams)

Where a plan is being prepared for a number of facilities falling within a particular sector, the following may be considered:

- The number of persons / individual facilities for which the plan is being prepared for;
- The type and aggregate volume of waste generated within the sector, or by a select number of companies the plans are drafted based on.
- Brief discussion on reasons for the selection of certain waste streams and specific companies falling within that industry (in case where focus is only on specific streams)

For some generators, the waste data may be readily available or recorded in an existing inventory, but only requiring updating. The collection of such data for other generators may however require extensive work. For such participants in the Industry WMP preparation process, it is therefore advisable to consider starting the development of data collection systems as soon as possible in the planning process, e.g.

- Conducting of waste audits to determine and record existing waste management practices;
- Collation of manifest reports, where such exist;
- Where contractors are used to collect and dispose of waste, data can be extracted from invoices to determine volumes removed and paid for, hence leading to the development of databases on waste removed from sites;
- Information reported to the industry representative bodies
- Information from the South African Waste Information Centre website
- Information reported (through provisions of bylaws) to the relevant municipal departments
- Weighbridge data from municipal operated and privately operated landfill sites.

At the start of the process, it may be difficult to get reliable figures. In this case, estimates can be made, but at least a method used for estimation should be clearly described in the Industry WMP.

5.2 SETTING TARGETS ON REDUCTION, RE-USE, RECYCLING AND RECOVERY

The status quo analysis exercise discussed above, will have achieved preliminary identification of waste management gaps that exist within the facility, the industry or the sector. During the process, possible interventions will also have been identified. Setting of targets should therefore be seen as a way towards addressing such gaps. It is the determination of the

desired amount of change over a given time interval and is a critical step towards the development of an Industry WMP. The Minister or MEC may require that such targets be set, but targets may also be set as part of an Industry WMP prepared voluntarily. What ever the case, the important things is setting of targets or objectives which are SMART (i.e. simple, measurable, attainable, realistic and can be implemented over a certain period of time). The focus may be placed on the reduction, re-use, recycling or recovery of either general or hazardous waste.

Targets will differ depending on scale at which the Industry WMP is being prepared at, i.e. whether it is prepared for a person/ individual company, or it is prepared for a category of persons or industry. Where the plan is being prepared for a person / individual company, targets will be set taking into consideration issues at different operations within the individual company level. Where the plan is being prepared for a sector, targets will be broader than individual company targets. They will be set at a higher level scale, taking into consideration issues across the entire industry sector. Depending on the number of individual companies forming a sector as well as existing capacity within such industries to have records of waste generated, and how organised the sector is, tangible targets based on the analysis of such data, are possible. Where the sector is not well organised, a method used to arrive at aggregated targets for the entire sectors should be described in the Industry WMP document. Where applicable, targets may be set and benchmarked against international best practice. As part of status quo analysis discussed in subsection 5.1 above, information would have been collected to give a broader picture on how the industry is performing in terms of waste management. Evaluation of such data will have given the Industry WMP developer general understanding of waste management issues the industry is faced with.

The following may need to be elaborated on and considered for inclusion in a plan

- Description of a procedure/ method used to the setting of targets for waste minimisation through reduction, re-use, recycling and recovery;
- How much of reduction, re-use, recycling or recovery is planned for a specific period of time; and
- Of the waste streams listed in as part of the exercise described in sub section 6.1, which waste streams are targeted for reduction, re-use, re-cycling and or recovery and over what period of time are targets set.

The results of the status part will be a significant basis for defining such targets. Overall, the objective should be identifying initiatives that contribute to the minimisation of waste generated, increasing recycling, re-use and recovery. Objectives and quantitative targets may be set for priority waste streams and for waste management options. If previous waste management objectives or targets exist, the determination of new targets should take account of whether or not the previous ones have been achieved, or whether there are indications that targets can be achieved in the period in question. It may therefore make sense in some cases to adjust or maintain previous objectives / targets. Measures may need to be considered for implementation to make the achievement of such objectives realistic.

Following the setting of targets/ objectives, it may be difficult or impossible to implement all of them simultaneously. It is discussed in 5.4 below that a decision may be made to split the Industry WMP into various implementation stages, short term and long-term. A rational and systematic approach to prioritisation therefore may help to distinguish between those targets which need to be implemented in the short term and those that need to be implemented in the long term. This will also ensure that not only the legislative requirements, the facility's or industry's or sector's goals are met, but also that the available resources (including finance and personnel) are used as effectively as possible.

Questions may be asked, does it really make sense to continue with the current practice of, e.g. external recycling, in the form of giving waste to other users who use it as raw materials? What if we focus on efforts to minimize the generation during the production processes? There are many different criteria that can, in principle be used to select and prioritize the most acceptable initiative. In any prioritisation exercise however, only a few most relevant criteria may be used, with other criteria being relevant only on certain circumstances. Some of the criteria may include the following:

- **Environmental Criteria**, what environmental costs and benefits will the preferred project / initiative address? Will it lead to improved compliance with environmental regulatory requirements?

- **Economic and financial criteria**, how much expenditure will be required and what income will the initiative bring and what will be the payback time. Will the generator/ s afford the initiative?
- **Technical Criteria**, is there a technical know how? This must also address the what, how, when and by who type of questions about the activity.
- **Social & Political Criteria**, particularly in relation to support for or opposition to a proposed activity;
- **Commercial & Institutional Criteria** that may impact on the timing or success of a proposed activity.

A number of prioritisation techniques exist and include amongst others the following:

- multi-criteria techniques,
- Relations Diagram
- Affinity Diagram
- Tree Diagram
- Matrix Diagram
- Prioritisation matrix (Matrix Data Analysis Chart)
- Process Decision Program Chart
- Activity Network, etc

Examples of a prioritisation matrix appear in appendix 5 of this document. For details on other techniques listed above, reference can be made to the web site address <http://syque.com>, with full reference given at the reference section of this document.

5.3 DEVELOPING MEASURES / ACTIONS

To achieve the targets set, management actions for each prioritized waste stream need to be clearly defined. These may involve actions on waste minimisation, re-use, recycling, recovery and disposal. Of importance to note is the fact that one can start with waste reduction measures that are inexpensive and easy to implement. The measures may be initiated and implemented in a specific order to ensure that the best results are achieved. Key personnel or other resources and scheduling issues may be resolved such that management is aware of the timing and scope of the actions. The actions may have short, medium to long-term target dates that have to be met in line with the set goals and objectives. Section 30 of the Act identifies the following as measures that may be required in an Industry WMP.

5.3.1 MEASURES TO PREVENT POLLUTION OR ECOLOGICAL DEGRADATION

The measures to be required here are based on the prevention and precautionary principles which stipulate that:

- To secure the preservation of nature and resources, waste production must be minimised and avoided where possible;
- To secure a reduction of impacts from waste on human health and the environment especially to reduce the hazardous substances in waste,

In this case, the Industry WMP needs to state exactly what preventative measures will be employed. A variety of tools can be considered to assist towards decisions on possible preventative measures. These may include the use of results of previous environmental risk assessments, environmental audits conducted as part of environmental management systems, with ratings focusing on waste related aspects, etc. The levels of rating of such waste related environmental aspects may range from low, medium to high significance. A decision may therefore be made to first embark in designing measures where the level of significance is considered to be high. Depending on the level of significance of a waste related aspect, the following are some of the possible measures to minimise or prevent pollution or ecological degradation:

- Regular awareness raising campaigns within the company or across the sector targeting not only staff members at floor level, but also management at senior levels. These may include inductions on new employees, scheduled environmental trainings, speeches, conducting of emergency mock drills, etc.
- Allocation of capital expenditure on e.g. treatment methods for hazardous waste. Disposal of such waste to be in line with permit requirements, including disposal at landfills with proper lining, leachate collection systems, etc.
- Development of emergency response procedures, for example, on chemical spillages
- Development of standard practice instructions (SPIs) for the operation of specific activities within an individual plant, e.g. offloading chemicals from tankers to the storage tanks,
- Employment and continued capacity building of professional environmental scientists,
- Implementation of relevant environmental management systems, which will allow significance rating of waste related aspects, setting of objectives and targets and development of environmental management plans.
- Economic incentives, e.g. performance bonuses linked to environmental cleanliness within different sections of the company

5.3.2 MEASURES OR PROGRAMMES TO MINIMISE THE GENERATION AND FINAL DISPOSAL OF WASTE

The requirement calls for initiatives aimed at generating lesser amounts of waste, and of such waste generated, to further reduce the amount taken for disposal to the landfills. This therefore means that some innovative efforts may be required to improve efficiency on such activities as production processes, product designs and raw material consumption to minimize the amount of waste generated. For those companies that already have some kind of environmental management systems in place, waste minimisation (including some sort of cleaner production) programmes may be in existence already to help achieve this requirement. It is recognized that, some waste minimisation activities do not necessarily require large amounts of financial investments, as companies can start embarking on small initiatives to achieve this. This calls for persons, category of persons or industry to come up with pro-active and innovative measures as opposed to only embarking on measures to manage large quantities of waste once generated.

Where waste has been generated, the waste may still have value within the company / industry context, and can be reused or recycled internally. Where waste involves packaging material, such material can be given back to the product supplier. The waste can also be given to other users who may use it as raw material / resource in their production processes. The ultimate goal here should be the minimisation of waste going out for land filling.

Whether the company plans to engage on measures to reduce waste prior to its generation or plans to engage on minimisation programmes within and outside its perimeters through waste reuse and recycling; these programmes / measures need to be clearly defined in an Industry WMP. The programme needs to clearly demonstrate the following:

- Clear description of objectives and targets;
- Breakdown of activities to be undertaken;
- Time frame for the completion of activities;
- A measure to be used to check progress towards the achievement of targets.

5.3.3 MEASURES OR ACTIONS TO BE TAKEN TO MANAGE WASTE

It is recognized that, even after vigorous waste minimisation efforts, there might still be quantities of wastes that will require the adoption of “end of pipe” practices. In addition, proper waste management prevents pollution or ecological degradation, improves aesthetics and brings about reduction in environmental liabilities. No matter what the quantities of waste generated are, the waste needs to be managed in one way or the other. This requirement calls for measures to manage the waste within the boundaries as well as outside the boundaries of a company/ companies involved.

The waste hierarchy prioritises waste management options by how environmentally friendly they are, giving preferred methods at the top. The best option, both for the business and the environment, may be to produce as little waste as possible. For waste that can not be avoided, there are a range of options (with what is generally the least desirable at the bottom) as follows:

- Re-use the waste internally or giving it to somebody else to use as a resource;
- Recycling and composting internally or giving it to somebody else;
- Waste recovery through energy generation;
- Waste treatment;
- Waste disposal.

For each waste stream prioritized, the Industry WMP should describe measures that will be undertaken for internal collection, separation, storage, re-use, recycling, recovery, treatment and disposal. The choice that is made will depend on a number of factors including the type of facilities available close to the business and the type of waste streams involved. For example, the only option for some hazardous wastes is to incinerate them. What ever measure is selected, this must be clearly described in an Industry WMP. The action plan needs to clearly demonstrate the following:

- Clear description of objectives and targets;
- Breakdown of activities to be undertaken;
- Time frame for the completion of activities;
- A measure to be used to check progress towards the achievement of targets.

A breakdown of any financial requirements for the achievement of targets may also be included.

5.4 THE PERIOD THAT IS REQUIRED FOR IMPLEMENTATION OF THE PLAN

The plan once approved can be implemented according to a schedule to be designed and attached as part of the Industry WMP for submission to the authorities for approval. The Act does not prescribe the period for the implementation of the plan. The Minister or MEC however reserve the right to do this prescription, during the authorisation of a plan submitted for approval.

This guideline acknowledges the fact that the time requirement for implementation will depend on a number of factors. The plan may consist of more than one part with some parts capable of being implemented within a short period of time and the other parts needed for implementation over a long period of time. Depending on a situation at hand, one reason for a long term implementation of a plan may be due to some possible difficulties with the identification of suitable sites for waste treatment facilities or landfills within, or close to the area of generation. Furthermore, it may be necessary to put considerable effort into site selection, environmental impact assessments, and public consultation in order to obtain permission for new sites, where needed. Finally, waste treatment facilities may also represent large investments that need to be recovered over a longer period. From a practical point of view, the time horizon of a plan should also be long enough to make it possible to evaluate whether targets in the plan are reached or not.

A time schedule for the implementation of all the activities necessary for achieving the objectives set should be considered as an important part of the waste management plan. Milestone indicators may be useful, as they allow for deviations from the time schedule to be identified in time to introduce corrective measures.

5.5 THE PHASING OUT OF THE USE OF SPECIFIED SUBSTANCES

Should the waste being generated or used by a person, category of persons or industry be declared as priority waste as detailed in Part 1 of the Act, measures as they may be required by the Minister or MEC must be complied with. As part of

the Industry WMP preparation process, measures for the phasing out of such waste may need to be considered and presented in the Industry WMP document submitted to the authorities for approval.

5.6 REQUIREMENTS LINKED TO THE EXTENDED PRODUCER RESPONSIBILITY CLAUSE

The following possible requirements of an Industry WMP relate to the extended producer responsibility clause as detailed in Part 3, Section 18 of the Act. While section 18 provides details of measures to be followed, the following three measures may be required in an Industry WMP independent of the process described in section 18 of the Act. For those plans prepared and submitted voluntarily, it is however still recommended in this guideline that, these three requirements be considered for inclusion in an Industry WMP.

5.6.1 MECHANISMS FOR INFORMING THE PUBLIC OF THE IMPACT OF THE WASTE-GENERATING PRODUCTS OR PACKAGING ON THE ENVIRONMENT

This is an extended producer responsibility requirement which can also be linked to section 18 of the Act. Despite section 18 of the Act, the Minister or MEC may however still require the person, category of persons or industry as part of Industry WMP preparation (in terms of section 28) to devise mechanisms for informing the public on this matter. This can be done or promoted as part of sustainability reporting or explored as part of any existing social responsibility programme of a company or industry concerned. Where this requirement has been specified in a notice or in a gazette issued in terms of section 28, such mechanisms will have to be described and provided as part of the final Industry WMP to be submitted to authorities for review and approval.

5.6.2 THE EXTENT OF ANY FINANCIAL CONTRIBUTION TO BE MADE TO SUPPORT CONSUMER-BASED WASTE REDUCTION PROGRAMMES

There may be social responsibility programmes already in place around this issue hence making it easy to provide details on progress, challenges and any plans to improve / spread and sustain the initiative. Where none of such initiatives exist, but in a notice or in a gazette, the Minister or MEC stipulate that they be explored, any steps taken to initiate such programmes will have to be described in an Industry WMP.

5.6.3 OPPORTUNITIES FOR THE REDUCTION OF WASTE GENERATION THROUGH CHANGES TO PACKAGING, PRODUCT DESIGN OR PRODUCTION PROCESSES.

Despite the extended producer responsibility process that may be required in terms of section 18 of the Act, the Minister or MEC may still require the person, category of persons or industry as part of Industry WMP preparation (in terms of section 28) to explore these waste reduction opportunities.

This requirement also links with sub-sections 5.3.2 and 5.3.3 above. As part of arriving at a waste minimisation programme described in sub-section 5.3.2, investigations may need to be initiated to come up with conclusions on the operations/ behaviours that lead to waste generation in the first place. Such causes may be due to excessive packaging, in efficient use of raw materials during the production processes, product designs that consume more raw materials than they are needed.

This requirement calls for the investigation of cleaner production opportunities as opposed to only the “end of pipe” or management of waste once it has been generated. In an Industry WMP, steps taken to conduct investigations and measures taken on such opportunities will need to be described, should the Minister or MEC include this requirement in a written notice or gazette.

On consultation with the Minister or MEC regarding voluntary plans, any directions by the Minister or MEC will need to be complied with regarding this requirement.

5.7 ANY OTHER MATTER THAT MAY BE NECESSARY TO GIVE EFFECT TO THE OBJECTS OF THIS ACT

On issuing a written notice to the person or a gazette to a category of persons or industry in terms of section 28 (1) and (2) of the Act, the Minister or the MEC will stipulate other matters (where applicable) that the person, category of persons or industry need to consider. On preparing the plans, such matters will have to be taken into consideration and addressed in the Industry WMP accordingly. Since no requirements will have been stipulated on the preparation of voluntary plans, this guideline still advises that, voluntary plan compilers also consider going beyond the list in section 30 of the Act.

5.8 METHODS FOR MONITORING AND REPORTING

Once the plan has been adopted and implemented, activities must be monitored to check progress against set objectives and targets. While the Minister or MEC may require monitoring and reporting to form part of contents of an industry WMP, the Act does not prescribe any monitoring and reporting methods. It also does not specify to whom this reporting should be made. The Act however does require that a mandatory plan be reviewed, and the review period will be specified in the approval or at intervals specified by notice in writing or in the relevant Gazette. While this does not apply to the plans prepared and submitted voluntarily, this should be considered as a good practice and practiced wherever possible. In other words, irrespective of whether the plan is mandatory or voluntary, the recommendation is that some form of monitoring and reviewing of the plans should be considered and conducted.

With regards to monitoring and reporting, it is proposed in this guideline that existing internal monitoring and reporting mechanisms be utilised and where they do not exist, be established. For best monitoring to take place, any objectives which are qualitative in nature, may need to be transformed into quantitative targets to make them operational and measurable. In order to monitor the achievement of such objectives, preconditions may be identified and these can be used as a control system against which progress can be measured. The idea is to use the measurable indicator(s) to monitor if the objectives are met.

Records and / or reports should be kept for submission to the authorities, when the need arises or on request by the authorities. These records will also assist during the compulsory review of an Industry WMP, to be done within the period to be determined by the Minister or MEC during approval of the Industry WMP. Possible monitoring and reporting methods may include amongst others the following.

- Regular internal environmental audits, with Industry WMP compliance included in the audit schedule;
- External surveillance audits (with Industry WMP compliance included in the schedule) especially in those industries with accredited environmental management systems are in place;
- Group reporting of key performance indicators where the company is a member of a larger group of companies;
- Reporting in sustainability reports;
- Conforming to the reporting requirements as may be detailed in waste permits. Industry WMP compliance, may be included in the legal register.

As for the review of an Industry WMP, progress in the implementation of the current plan may need to be assessed against objectives and targets initially set. Special questions of interest may include: which objectives or targets have been met? Which activities were not implemented or did not have the desired effect? And, did any of the initiatives have an unexpected impact? Against this background, new status or other requirements, if any, the next generation waste management plan will be prepared. Gaps in the current plan will therefore need to be recorded and addressed during the preparation of the next generation plan. It is also advisable to keep records of what was not achieved, for reporting to the authorities, when the need arises.

Monitoring and reporting for a plan prepared at sector level may be undertaken through the internal reporting systems established between the member companies and their associations.

6. DECISION MAKING ON THE INDUSTRY WMPs: A PROCEDURE FOR THE DECISION MAKER

6.1 THE PROCESS FOR CONSIDERATION OF / DECISION MAKING ON THE PLANS

This applies to both mandatory and voluntary plans submitted either by a person, category of persons or industry or by the organ of state. On receipt of an industry waste management plan, the Minister or the MEC may take the following steps as discussed below.

6.1.1 Acknowledge receipt of the plan/s

While the Act does not prescribe that this activity be done, and does not stipulate timeframes, this guideline advises that receipt of such plans by Minister's or MEC's offices should be acknowledged. This should be regarded as a best practice approach, which also adheres to the *Batho Pele* principles. A template is provided in a separate document: Criteria for the Evaluation of Industry WMPs, where an acknowledgment period of 1 day is recommended, following receipt of the plan.

6.1.2 Review the plan/s

The review process on submitted plans will differ depending on whether the plan was submitted voluntarily or it was a mandatory plan. In reviewing mandatory plans, utmost care should be exercised to ensure that the review does not go beyond the requirements of the Act. Additional requirements stipulated in written notices issued to a person; category of persons or industry or to an organ of state should however be checked as well. A checklist to assist the Minister or MEC with such a review is attached in Appendix 3. This checklist only serves as a guiding tool. Specific sections of the Act should therefore be referred to from time to time, where confusion arises regarding areas to focus on during the review process.

While the list on section 30 of the Act is not compulsory in the preparation of voluntary plans, it is however recommended that such list be used as a guide when reviewing voluntary plans. Also, the presence of any other additional information which the Minister or MEC would have required following initial submission of a voluntary plan, should be checked. Any other waste management related information provided beyond the list in section 30 of the Act should be regarded as good demonstration of commitment towards a better waste management programme within the facility, company or sector.

For both plans (mandatory and voluntary), the review should look at both process and contents issues of the plans, i.e. has the relevant process been followed? Has the contents been adhered to? Reference is again made to a checklist in Appendix 3 of this guideline document.

6.1.3 Approve / or reject the plan/s

Depending on the outcome of the review process, a decision may be made to approve/ reject the plan. When this is done, the decision should be in writing issued to a company representative in the case of an individual company. The representative referred to here is not an independent external service provider who compiled the plan for the company, but either a Manager, CEO, or who ever has been identified by the company as its representative.

As for the plans issued to a category of persons or industry or sector, written approval should also be issued to a representative chosen/ elected by a category of persons or industry to represent them. Where a plan has been prepared by an organ of state or a person, category of persons or industry or sector, the decision may be issued to the head of the organ of state. Written decision described above, should clearly spell out conditions and directions on how the plan must be implemented. Timeframes for monitoring, reporting, reviewing and amendment of the plan should be spelled out clearly, including the period for which approval is issued, e.g. 3 years, 5 years, etc. It is believed that a general consensus exists in that, once a plan has been submitted and approved, it can not be reviewed and amended within a period of less than 5 years.

Furthermore, on approval of a plan, the Minister or MEC, as the case may be is expected to give notice in the relevant *Gazette* that an industry waste management plan has been prepared in terms of section 28 and that the plan has been approved. This applies to both voluntary and mandatory plans submitted and approved.

Regarding rejection of the plans, this can not happen immediately following first time submission to the Minister or MEC. It is advised that, such rejection should only be considered following consultation with the plan compiler, if the plan was not complying with the requirements of the Act (in the case of mandatory plans). This means that prior to the rejection; additional information or amendment of the plan may be required first as described in sub-section 6.1.4 below. Where the weaknesses of the original plan can not be addressed, then the plan may be considered for rejection. The Act allows a maximum of not more than two times to reject the plan, after which a waste management measure may be required. Where rejection is deemed necessary, this should be done in writing to the Industry WMP compiler. Again, the Act does not prescribe timeframes, but reference can be made to the **document: Criteria for the review of Industry WMPs**, which recommends some time timeframes. The rejection letter should provide clarity on reasons for rejection and the process to be followed thereafter.

For plans submitted voluntarily, the Act does not stipulate that such plans may be subjected to rejection. It is however advised in this guideline that, such route may still need to be undertaken if the plans are deemed to be inadequate in terms of addressing key waste management issues.

6.1.4 Request additional information or amendment of a plan

The plan may contain information still considered inadequate to allow the Minister or MEC to make a decision on it. To help determine adequacy of information in a plan, checklists in appendices 2 and 3 of this document may be used. Also, reference can be made to the model Industry WMP structure attached in appendix 4 of this document. In a letter to the Industry WMP compiler, all additional information required should be clearly listed to avoid confusion. Such information may be requested separately to assist towards completion of the Industry WMP review process, or the entire plan may need to be amended. Which ever is deemed relevant, this should be communicated in writing to the person, category of persons or industry or the organ of state. Where a revised plan is required, timeframes should be specified within which the plan needs to be amended and resubmitted. The Act however does not specify such timeframes, hence this should be to the discretion of the office of the Minister or MEC delegated to review and make a decision on the Industry WMPs submitted. The template included in a **separate document: Criteria for the review of Industry WMPs** can only assist to request either more information or amendment of the plan. For plans submitted voluntarily, the Act does not stipulate that such plans may be subjected to either requests for additional information or requests for amendments. It is however advised in this guideline that, such routes may still need to be undertaken if the plans are deemed to be inadequate in terms of addressing key waste management issues.

6.1.5 Waste management measures

Where there has been failure to prepare a plan in terms of section 28 of the Act, revise or amend such a plan, provide additional information and / or resubmit a plan rejected more than twice, the Act makes provision for the Minister or MEC to

issue written notice without any criminal proceedings being effected, giving specific measures to be undertaken. The Act however does not stipulate the type of written notice that may be issued, i.e. whether it should be a written notice in the form of just a letter, or it should be a compliance notice in terms of section 31L of the National Environmental Management Act, 1998. The critical thing to note however is that the measures discussed here are not at this stage expected to follow any formal legal route but just to promote compliance. It may only be after failure to comply with the waste management measures required that a more formal “stick” approach may be considered and adopted through the use of compliance enforcement units within the Minister’s or MEC’s departments. It is therefore suggested that at this stage, personnel within waste management units in these departments be utilised in a way that promotes compliance in a “non-stick” manner. The Act requires that any measures pursued in terms of the above be considered and aligned with any measures stipulated on any existing approved similar Industry WMP. This therefore calls for the Minister or MEC to keep records of all Industry WMPs submitted and approved in order to achieve this consistency.

It is also important to note that, the notice referred to above may only be issued where mandatory plans had been required. It does not apply to the plans prepared voluntarily. There is no provision for measures to be taken against any failure to amend the plans or provide additional information where the plans had been prepared and submitted voluntarily. It is however advised that, where voluntary plans submitted do not contain sufficient information to allow informed decisions, such plans may still be referred back and the compiler requested to amend, provide additional information and resubmit, as would normally be done with those plans prepared and submitted obligatory.

6.1.6 Criminal measures against non-compliance

When comparing the past and present institutional arrangements within the Minister’s and MEC’s departments, it makes sense to argue that such departments are now better off in terms of compliance enforcement capacity. While the Act makes provision for the process described in sub-section 6.1.5 above, circumstances may arise where stricter measures will be more suitable. The stricter measures referred to here may involve criminal proceedings against transgressors. This action may be considered following failure to comply with the measures stipulated in a written notice discussed in 6.1.5 above. While the Act does not draw a line between the application of lenient measures discussed in sub-section 6.1.5 and the stricter actions which are discussed here, what is clear in the Act however is provision for penalties on failing to comply with the following:

- To submit or to prepare an industry waste management plan when required to do so in terms of section 28;
- Contravening or failing to comply with an industry waste management plan; or
- Contravening or failing to comply with a waste management measure specified in terms of section 14(4) or 33(1); discussed in the section above.

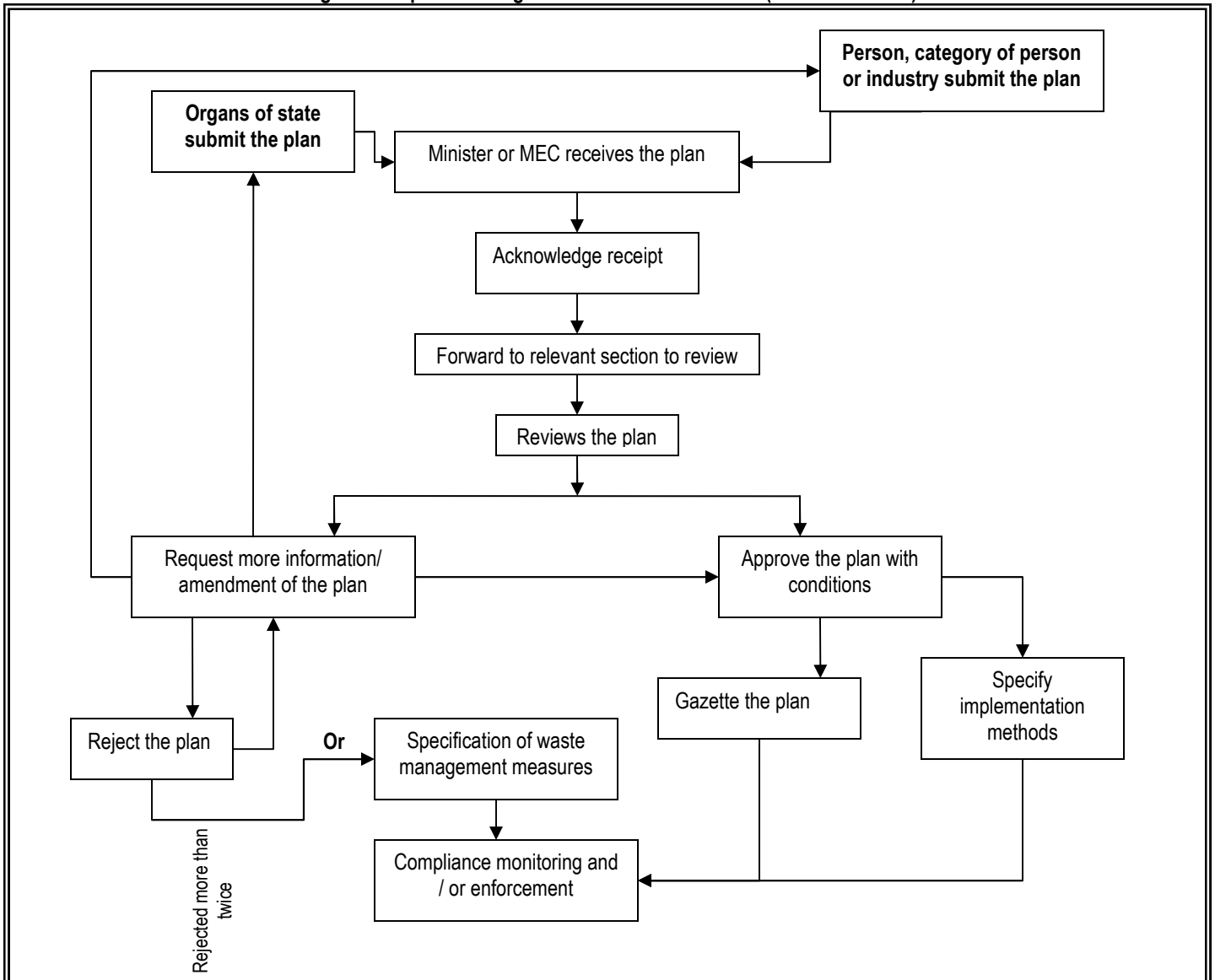
These are regarded as offences and the details of possible penalties are provided in section 68 (2) of the Act. **Note bullet point number 2 above, as it may still be applied to those voluntary plans prepared, submitted and approved by the Minister or MEC. This means that failing to comply with the approved plan, whether prepared discretionally or obligatory (including conditions of authorisation), constitute an offence.** As detailed in the Act, fines may be up to R5 000 000 or imprisonment for a period not exceeding five years or to both a fine and such imprisonment. These may be in addition to any other penalty/ies or awards that may be imposed or made in terms of the National Environmental Management Act.

It is therefore recommended in this guideline that once the plans have been prepared, submitted and approved in terms of section 28 of the Act, the plans should be considered for inclusion in the compliance monitoring schedules of the Minister’s or MEC’s departments. Plans prepared by an organ of state for a person, category of persons or industry that had failed to prepare such plans, should also be considered for inclusion in the compliance monitoring schedules.

The entire decision making process discussed in the preceding section, is highlighted in figure 5 below. While this applies mainly to the Industry WMPs prepared and submitted following a notice or a gazette issued in terms of sections 28 and 29 of the Act, it is recommended in this guideline that the same decision making process be followed for those plans prepared voluntarily. One of the considerations is that, the Act does not dictate that such plans be referred back to the compiler for reviewing, amending or provision of additional information. The requirement for the undertaking of waste management measures is also specific to the mandatory plans.

For the purposes of better administration of voluntary plans, and informed decisions on the plans, circumstances may arise where more repeated liaison may be needed between the approving authority and the plan compiler. The goal is to have plans which (whether prepared voluntary or mandatory), will ultimately be able to be easily implemented, monitored and that are capable of achieving intended results.

Figure 5: A process diagram for the decision maker (Minister or MEC)



7. CONCLUSION

This guideline document highlights issues that need to be considered during the preparation of industry waste management plans in compliance with the requirements of the NEM: Waste Act, 2008 (Act No. 59 of 2008). As a guiding document, it

must therefore be read together with the Act. Any confusion arising from the reading of this document, relevant clauses of the Act must be consulted and the contact person for this Department may be consulted. The contact details are provided in the acknowledgement page of this guideline document.

8. FREQUENTLY ASKED QUESTIONS

8.1. When may the Industry WMP be required?

The need for a plan will be determined by the impact or potential impact certain waste stream or activities that generate waste will have on health or environment. Reference can be made to section 28 (4) of the Act.

8.2 What will be the status of voluntary plans be in terms of legal enforceability?

Whether the plans are prepared and submitted voluntary or are required in terms of section 28 (1) and (2), they will all be approved. Failure to comply with stipulated conditions, may lead to non-compliance actions (as stipulated in the Act) to be pursued against transgressors.

8.3. Will industry associations be allowed to develop strategic Industry WMPs?

Section 28 of the Act specifies who should develop the Industry WMPs. It can either be the persons, category of persons or an industry, etc, and the plans can be compiled either internally or by use of external service providers. Industry associations may develop Industry WMPs for their member companies.

8.4. The National Department of Environmental Affairs might not have capacity to deal with all Industry WMPs. Can site based Industry WMPs be approved by an industry representative body?

Section 32 of the Waste Act states that approval is either by the Minister and / or by the MEC, and hence no provision for approval of **Industry** WMPs by an industry representative body

8. 5. If the company is operating 20 sites in SA, how many plans will be required?

Those sites may be regarded as a category of persons or industry, hence one Industry WMP may be required. For additional requirements (if any), reference will however need to be made to the contents of a notice or a gazette issued to a company falling in this category.

8.6. Review of the plans: will it be done internally or externally?

Internal or external expertise may be used in the review of the plans. In the record of authorisation, the Minister or MEC will determine timeframes / intervals at which the plans may be reviewed and progress reported.

8.7. Why are we having Industry WMPs and how does this link with the EIA process?

Industry WMPs will be required in line with section 28 or 29 of the Waste Act, 2008. The waste plans already compiled in line with conditions in an environmental impact assessment (EIA) authorisation, may need to be revised (where applicable) in order to align with the requirements of the Act.

8.8. What are the possibilities of a company submitting voluntary plans and later on be required to submit mandatory plans?

Once a voluntary plan has been submitted to the department, there will be no need for that company to be required to submit a plan again. Whether voluntary or non-voluntary, submitted plans will have to be subjected to the authority's decision making processes.

8.9. Can the Industry WMP be aligned with other authorizations, e.g. EIA records of decisions, e.g. as part of conditions to say that the company must compile an Industry WMP?

The Industry WMPs can now only be prepared in line with provisions of the Act.

8.10. Already the Department of Water Affairs requires industries to submit integrated waste water management plans, how will this duplication/ over regulation be avoided managed?

The Department of Water Affairs' plans are water specific and are required in line with the National Water Act, whereas these plans are waste specific (i.e. all forms of waste, not just waste to water resources) and are in line with the requirements of the Waste Act, 2008.

8.11. Legal standing, will the plans be enforceable at national and provincial sphere?

The plans will be enforceable at all levels irrespective of whether it was the Minister or MEC who made a requirement for the preparation of the plans.

8.12. Legal standing of the plans- what happens if the plans are not prepared and no compliance with the conditions of authorization.

Failure to prepare the plans following a notice or gazette in terms of section 28 of the Act, as well as failure to comply with conditions of authorisation will constitute a non-compliance / crime which may be dealt with in accordance with relevant non-compliance procedures as prescribed in this Act. Reference can be made to sub-sections 6.1.5 and 6.1.6 of this guideline document

8.13. Can the voluntary plans be used against companies?

The voluntary plans will undergo the same approval process as mandatory plans and will be as binding as mandatory plans once submitted and approved by the Minister or MEC. Reference can also be made to sub-sections 6.1.5 and 6.1.6 of this guideline document which details implications for not complying with conditions of approved voluntary plans.

8.14. Can the Industry WMP be drafted in-house without the use of consultants? The Waste Act states in S28 (6) that the Minister / MEC may give directions that the plan be prepared by an independent person

Yes, but only if the Minister or MEC has not given directions that the plans must be compiled by an external service provider.

8.15. Will mining residue deposits and waste rock dumps have to be included in this plan?

Residue stockpile and deposits as well as all other mining wastes are included in the definition of waste in the Waste Act, 2008; however they are only regulated under the Mineral and Petroleum Resources Development Act of 2002.

8.16. What would be the timing for submissions, once this part of the Act is enacted and the Minister / MEC direct industry to submit an Industry WMP?

Section 28 (7) on the preparation of voluntary plans is currently withheld until further notice in the gazette. After that, voluntary plans can be submitted at anytime.

8.17. While still waiting for approval of an Industry WMP, will this prevent the industry from following through with certain projects? (What is the recourse should industry continue without approval)

Section 28 of the Act is with regards to the existing operations that generate waste, it is not anticipated that the Industry WMP approval process may delay other projects within the firm/ industry. Once the Industry WMP approval process is complete, compliance with any conditions of approval will be mandatory

8.18. It is envisaged that the new waste classification system will only be finalized by the end of 2010. Would it be expected of an industry that had done an Industry WMP, to redo waste classifications for the following round of review?

Once submitted, an Industry WMP will become a living document, which will need to be revisited, reviewed and updated from time to time, including waste reclassification where needed. The time frame for the review of submitted Industry WMPs will be stipulated during the authorisation and the manner with which the new classification system will be incorporated, may then need to be taken into consideration during the preparation of the next generation of an Industry WMP.

8.19. What is the type and extent of public participation process to follow?

For a person, category of persons or industry preparing the plans, there is no prescription on the type of public participation process to follow, except that the contents of a proposed Industry WMP must be brought to the attention of relevant organs of state, interested persons and the public. The Minister or MEC may however make this prescription in the notice or in the gazette. For an organ of state preparing the plans for a person, category of persons or industry, the public participation process to follow must be aligned with that prescribed in section 72 and 73 of the Act, If the plan is prepared for a person, category of persons or industry who had failed to prepare the plan following a requirement by the Minister or MEC, the consultation will follow that described in the preceding paragraph.

8.20 The Act requires industry specific plans, but the Minister might declare waste streams as priority wastes? What then?

Where a waste stream has been declared a priority waste in terms of Part 1 of the Act, the Minister or MEC may make a requirement for an identified person falling within a category of persons to take specific waste measures which may include the requirement to prepare an industry waste management plan

8.21. Will the requirements / qualifications for the independent person to perform the Industry WMP be defined?

Currently, the Act does not provide any prescriptions on this issue.

8.22. The review process will be too much if the plans are site specific, will there be specific sector based guidelines?

The current guideline only serves as a starter document to assist towards compliance with the overall requirements of part 7 of the Act. The discussions in the guideline attempt to cater for site, industry and sector specific procedures towards the preparation of Industry WMPs.

8.23. Will only one plan that includes all the operations as part of a company be required if submitted to national department?

Yes, in such a situation, the company may fall under the description of “category of persons” and as such one plan may be required for submission at the national level. Reference can again be made to section 28 (1) of the Act.

8.24. What criteria will the Minister and MEC use to request an Industry WMP?

Reference can be made to 8.1 above, as well as Section 28 (4) (a)–(c) of the Act.

8.25 Am I correct in saying that one needs a SECTOR plan, an INDUSTRY plan, a COMPANY plan and a SITE plan? Does one HAVE TO follow that sequence; and can one start working on an Industry plan without the Sector plan?

For voluntary plans, the Act does not dictate / prescribe which one to start with. Whether Sector, Industry, Company or Site plan/s; as long the plan/ s meet provisions of the Act as detailed in Part 7, that should be adequate. For mandatory plans, the Minister or MEC will publish a notice in the gazette.

9. REFERENCES

1. Department of Environmental Affairs and Tourism, White Paper on Integrated Pollution & Waste Management (2000)
2. Department of Environmental Affairs and Tourism, National Waste Management Strategies & Action Plans (1999)
3. Department of Environmental Affairs and Tourism, Starter Document for Guidelines for the Compilation of Integrated Waste Management Plans (2000)
4. Department of Environmental Affairs and Tourism, National Framework Guidelines for Integrated Waste Management Plans (2006)
5. Quality tools: Tools and Techniques for Quality Improvement and Problem Solving, Syque: 2002-2007- available at <http://syque.com/qualitytools/toolbook/Priority/priority.htm>
6. Republic of South Africa, the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)
7. Towards zero waste: A Solid Industrial Waste Management Plan for Victoria, March 2003- available <http://www.lga.sa.gov.au/webdata/resources/>
8. The Exploration and Production (E &P) Forum Waste Management Guideline, September 1993, London- available at <http://www.deq.louisiana.gov/>
9. UNIDO Cleaner Production Toolkit: A comprehensive Train the Trainer Toolkit in 10 Volumes
10. Western Cape Department of Environmental Affairs and Development Planning, Generic Integrated Waste Management Planning Guideline for the Consumer-formulated Chemical Sector (2007)

APPENDIX 1

CHECKLIST FOR A PERSON, CATEGORY OF PERSONS OR INDUSTRY)

REQUIREMENT / POSSIBLE REQUIREMENT	YES	NO
<u>A. THE PROCESS FOR MANDATORY INDUSTRY WMPs</u>		
1. Have you carefully read and understood the contents of a written notice or a gazette by the Minister or MEC to prepare the plans		
2. Where it is not specified in the notice, or gazette, have you considered the type of public participation you will follow to bring the contents of a proposed Industry WMP to the attention of relevant organs of state, interested persons and the public?		
3. Alternatively, have you followed directions (if any) given by the Minister or MEC, as the case may be, regarding the consultation process that you must follow?		
4. Have you followed directions (if any) given by the Minister or MEC, as the case may be, regarding whether to use internal expertise or an independent external service provider?		
5. Have you recorded and considered all comments submitted on the plan?		
6. Have you attached such comments together with the final submission of a plan to the Minister or MEC for approval?		
7. In your plan, have you recorded the name and surname, telephone number, postal and or physical addresses, or any other contact information of a representative person, to whom an approved plan should be addressed to?		
8. In the plan, have you recorded the name and surname, telephone number, postal and or physical addresses, or any other contact information of a person who compiled the plan on behalf of the facility, company, industry or sector?		
<u>B. THE PROCESS FOR VOLUNTARY INDUSTRY WMPs</u>		
1. In making own decision to prepare the plans for submission to the Minister or MEC, have you considered		
<ul style="list-style-type: none"> • the impact or potential impact of the waste on health and the environment that is generated by the applicable person, category of persons or industry? 		
<ul style="list-style-type: none"> • the environmentally sensitive nature of a natural resource or the amount of natural resources that is consumed in the manufacturing or production processes that result in the waste? and 		
<ul style="list-style-type: none"> • the manner in which an industry waste management plan may contribute to the avoidance or minimisation of the generation of waste; the reduction of negative impacts on health and the environment; and the conserving of natural resources? 		
2. Following initial submission of a completed plan to the Minister or MEC, have you noted and attended to their instructions, if any?		
3. Where stakeholders, including authorities had commented on the plans following initial submission to the Minister or MEC, have you recorded and considered their comments?		

4. Have you attached such comments together with the final submission of a plan to the Minister or MEC for approval?		
5. In the plan, have you recorded the name and surname, telephone number, postal and or physical addresses, or any other contact information of a representative person, to whom an approved plan should be addressed to?		
6. In the plan, have you recorded the name and surname, telephone number, postal and or physical addresses, or any other contact information of a person who compiled the plan on behalf of the facility, company, industry or sector?		

C. THE CONTENTS OF INDUSTRY WMPs (WHETHER MANDATORY OR VOLUNTARY)

	Yes	No
1. Have you done your status quo analysis in terms of amount of waste that is generated and recorded this in the Industry WMP?		
2. Have you set targets for waste minimisation through waste reduction, re-use, recycling and recovery and recorded these in the plan?		
3. Have you devised and recorded in the plan measures or programmes to minimise the generation of waste and the final disposal of waste?		
4. Have you devised and recorded in measures or actions to be taken to manage waste?		
5. Have you checked whether you are engaged in the use or generation of any specified/ priority wastes and devised measures for the phasing out of the use of such waste / substances?		
6. Have you devised and recorded measures to prevent pollution or ecological degradation?		
7. Have you specified the period that you require for implementation of the plan?		
8. Have you devised and recorded methods for monitoring and reporting?		
9. Have you considered and discussed opportunities for the reduction of waste generation through changes to packaging, product design or production processes?		
10. Have you considered and discussed mechanisms for informing the public of the impact of the waste-generating products or packaging on the environment?		
11. Have you considered and discussed the extent of any financial contribution to be made to support consumer-based waste reduction programmes?		
12. Have you considered and discussed any other matter additional to the above, that the Minister or MEC may require in order to give effect to the objects of this Act?		

APPENDIX 2

CHECKLIST FOR AN ORGAN OF STATE

REQUIREMENT / POSSIBLE REQUIREMENT	Yes	No
<u>THE INDUSTRY WMP PREPARATION PROCESS FOR MANDATORY PLANS</u>		
Note: The process for the preparation of voluntary plans by an organ of state (where applicable), will follow that described in appendix 1 (b) above		
1. where the Minister or MEC have issued a notice in the gazette to prepare the plans, have you carefully read and understood the contents of such a notice?		
2. Have you followed directions (if any) given by the Minister or MEC, as the case may be, regarding whether to use internal expertise or an independent external service provider?		
3. If you are an organ of state, either than a municipality, have you followed the following stakeholder consultation process?		
A. Consulted all Cabinet members whose areas of responsibility will be affected by the exercise of the powers?		
B. Consulted the MEC responsible for waste management in a each province that will be affected?		
C. Given a notice in the <i>Gazette</i> and in at least one newspaper distributed nationally or, if the exercise of power will only affect a specific area, in at least one newspaper distributed in that area?		
D. In the notice, have you invited members of the public to submit comments within no less than 30 days of publication?		
E. Have you specified in the notice that the public must submit written representations on any objections to the proposed exercise?		
F. Have you allowed, where applicable any interested person or community to present oral representations or objections?		
G. Have you consulted directly with the person, category of persons or industry for which the Industry WMP is being prepared for, requesting any information?		
4. If you are a provincial department responsible for environmental affairs, have you followed the following stakeholder consultation process?		
A. Consulted all members of the Executive Council whose areas of responsibility will be affected by the exercise of the powers?		
B. Consulted the Minister and all other national organs of state that will be affected by the exercise of the power?		

C. Have you followed the public participation process as described in C-G above?		
5. Have you recorded and considered all comments submitted on the Industry WMP?		
6. Have you attached such comments together with the final submission of the Industry WMP to the Minister or MEC for approval?		
<u>THE CONTENTS OF INDUSTRY WMPs</u>		
7. Have you done your status quo analysis in terms of amount of waste that is generated and recorded this in the Industry WMP?		
8. Have you set targets for waste minimisation through waste reduction, re-use, recycling and recovery and recorded these in the Industry WMP?		
9. Have you devised and recorded in the Industry WMP measures or programmes to minimise the generation of waste and the final disposal of waste?		
10. Have you devised and recorded in the Industry WMP measures or actions to be taken to manage waste?		
11. Have you checked whether you are engaged in the use or generation of any specified/ priority wastes and devised measures for the phasing out of the use of such waste / substances?		
12. Have you devised and recorded in the Industry WMP measures to prevent pollution or ecological degradation?		
13. Have you specified in the Industry WMP the period that you require for implementation of the Industry WMP?		
14. Have you devised and recorded in the Industry WMP methods for monitoring and reporting?		
15. Have you considered and discussed in your Industry WMP opportunities for the reduction of waste generation through changes to packaging, product design or production processes?		
16. Have you considered and discussed in your Industry WMP mechanisms for informing the public of the impact of the waste-generating products or packaging on the environment?		
17. Have you considered and discussed in your Industry WMP the extent of any financial contribution to be made to support consumer-based waste reduction programmes?		
18. Have you considered and discussed in the Industry WMP any other matter additional to the above, that the Minister or MEC may require in order to give effect to the objects of this Act?		

APPENDIX 3

CHECKLIST FOR THE MINISTER OR MEC: DECISION MAKING PROCESS

REQUIREMENT / POSSIBLE REQUIREMENT	Yes	No
<u>THE INDUSTRY WMP PREPARATION PROCESS</u>		
1. In making a decision on activities that must be subjected to the preparation of Industry WMPs, have the following factors been taken into consideration		
○ the impact or potential impact of the waste on health and the environment that is generated by the applicable person, category of persons or industry?		
○ the environmentally sensitive nature of a natural resource or the amount of natural resources that is consumed in the manufacturing or production processes that result in the waste?		
○ the manner in which an industry waste management plan may contribute to: <ul style="list-style-type: none"> ▪ the avoidance or minimisation of the generation of waste; ▪ the reduction of negative impacts on health and the environment; and ▪ the conserving of natural resources? 		
2. Consulted with the person, category of persons or industry required to prepare Industry WMPs?		
3. Issued a written notice requiring a person involved in such activities to prepare and submit an industry waste management plan for approval?		
4. Issued a notice in the Gazette requiring a category of persons or an industry that generates such waste to prepare and submit an industry waste management plan for approval?		
5. Issued a written notice (where applicable) requiring an industry waste management plan to be prepared by an organ of state, excluding a municipality, within a stipulated timeframe. This includes a need to identify those persons, category of persons or industries, who by reasons listed in Section 29 (3) of the Act, are deemed to be unable to prepare Industry WMPs on their own?		
6. Made a decision on the type of stakeholder consultation process required from persons, category of persons or industries during the preparation of Industry WMPs?		
7. Made a decision and given directions whether the Industry WMPs should be prepared internally by a person, a category of persons or an industry or by independent person/ s?		
8. In making a decision on the submitted Industry WMPs, have you checked if the person, category of persons or industry or an organ of state have compiled the plan taking into consideration all issues listed in the checklists 1 and 2 above?		
9. Where the Industry WMP is approved, have you communicated that in writing to the person, category of persons or industry and stipulated clear conditions, including the period for which the approval is issued?		
10. Where additional information is required, have you communicated in writing the specific information required from a person, category of persons or industry?		

11. Where amendments to the Industry WMP are required, have you communicated in writing to the person, category of persons or industry the type of amendment required?		
12. Where the plan is rejected, have you communicated in writing reasons for rejecting the Industry WMP and any further steps the person, category of persons or industry may take should they wish to resubmit the plans?		
13. Have you given notice in a relevant gazette of any Industry WMP that has been prepared and approved?		
14. Have you considered and given a written notice without any criminal proceedings being affected, specifying the waste management measures that must be taken by the person, category of persons or industry who after being required failed to prepare, revise or amend the plan?		
15. Further to 13 above have you considered to proceed with regulatory/ legal measures in the case of non-compliances with the requirements as will be detailed in notices or a gazette issued in terms of section 28 (1) and (2) of this Act or any failure to amend the Industry WMP as may be required.		

APPENDIX 4

POSSIBLE STRUCTURE OF AN INDUSTRY WMP

Note: This model structure summarises the discussion in this guideline, as it captures the different sub-sections of the guideline, specifically those of Section 5, to the titles which can be used to structure the Industry WMP document. It is a simple structure recommended for use, but may be used only for reference purposes where the adoption of other alternative structures may be deemed necessary.

CONTENTS

- A. General information
- B. Executive summary
- C. Contents page
- D. Introduction
- E. Background
- F. Status quo
- G. Planning
- H. Implementation
- I. Monitoring, review and reporting
- J. Conclusions
- K. References
- L. Appendices or annexures

A. GENERAL INFORMATION

- Where the plan was prepared by an independent external service provider, details of the compiler (Name and Surname, telephone, fax, email address, postal address)
- Where in-house expertise was used, details (Name and Surname, designation, telephone, fax, email address, postal address) of the Industry WMP compiler should be provided and most importantly,
- Details of a company or a sector representative (Name and Surname, designation, telephone, fax, email address, postal address) to whom authorisation should be issued/ addressed to.

B. EXECUTIVE SUMMARY

A short summary, not exceeding two pages

C. CONTENTS PAGE

With the list of contents of the Industry WMP, including the main titles listed below as well as accompanying sub-titles (if any).

D. INTRODUCTION

A very brief introductory paragraph or two giving rationale for Industry WMP prepared.

E. BACKGROUND

- Legislative requirements, e.g. whether the plan was prepared voluntarily or through the Minister's or MEC's instructions as would have been spelled out in a notice or in a gazette. Extracts from the gazette or a notice may be captured and attached as Appendix.
- Scope of the plan, i.e., whether it covers one facility / site, industry or it covers a particular sector

- Stakeholder consultation, i.e. type followed and the manner concerns raised were incorporated. Stakeholder inputs may be captured and attached as Appendixes.
- Whether in-house, external consultants or representative associations were used to prepare the plan.

In drafting this part of the Industry WMP, reference can be made to **sections 3 and 4** of this guideline document

F. STATUS QUO

Discussion in the Industry WMP document should indicate that this was a data collection and analysis stage on the current situation within the **facility, the industry or the sector**. Current waste management practices, including the amount of waste generated were therefore gathered and analysed. The evaluation of the current waste management may include identification of challenges relating to the system as well as possible solutions.

Questions being answered in this phase are: does the current system comply with legislative requirements- e.g. a notice or gazette issued in terms of Sections 28 and 29 of the Act. What practices already going on are required by the Act and which ones are not? How can the current system be improved? These questions and answers are captured as part of status quo analysis. Reference can be made to **sub-section 5.1** of the guideline as it gives suggestions on how this part of the Industry WMP document can be arrived at. Once all needed information has been gathered and analysed, then the planning process commences.

G. PLANNING

Planning is conducted on the basis of requirements of the Act. Where a mandatory plan is prepared, the notice issued to the individual waste generating facility, or a gazette published for the attention of a number of waste generating facilities (category of persons or industry), may have specified other requirements in addition to the list in Section 30 of the Act. In the case of plans prepared voluntarily, only the requirements listed in Section 30 of the Act may apply. Gaps identified during the status quo analysis should allow the determination of what needs to be done. The planning process should therefore take into considerations information from the status quo analysis described above.

Planning issues to focus on in the Industry WMP document may include:

- Identification of and indication of waste streams, the plan is focusing on.
- Setting of objectives and targets, which will involve identification and decisions on waste management options, e.g. waste minimisation, recycling, treatment methods, etc.
- Indication of the period required to implement selected options, i.e. whether the plan will be implemented over a short term or over a long term period.
- Ideas on how the plan will be implemented. This calls for decisions to identify and ensure availability of adequate capital (financial and human resources) to implement the plan.
- Indication of how compliance with authority's conditions will be monitored. This calls for the development of some sort of indicators.
- How will the plan be reviewed and reported on (when need be)

Each of the above may be discussed in details as sub-titles under the main title: **planning**. **Sub-sections 5.2 to 5.8 of this guideline document can** be referred to as they provide general guidance on how to undertake the planning activities as listed in here.

H. IMPLEMENTATION

Planning for implementation forms part of the planning exercise described above. It is however an actual activity to bring the plan into effect. Due to the high level of its importance, it is further discussed here. Following approval of the Industry WMP by either the Minister or MEC, the plan needs to be implemented. Note that as part of the decision on the submitted plan, authorities may specify how the plan should be implemented. To guide the authority's decision however,

it is recommended that an implementation programme be designed and attached as part of the plan submitted to the authorities for approval. This will be a programme to guide actions through out the tenure of the plan. This programme may contain perhaps in a table format, amongst others the following:

- a. List of all objectives, targets and activities
- b. Setting of timeframes
- c. Allocation of responsibilities for the implementation of activities
- d. Resource allocation, etc

I. MONITORING, REVIEW AND REPORTING

A programme for monitoring implementation of the programme discussed above should be designed. The programme may include amongst others the following:

- Schedule for monitoring (monthly, quarterly, biannually, annually, etc)
- Methods for monitoring and reporting (e.g. internal audits, surveillance audits, compilation of reports, log sheets, newsletters, etc)
- Who to report to (could be reporting to the group manager, industry associations, monitoring committees, public reporting through sustainability reports, reporting to the Minister or MEC where specified in the authorisation, etc)

Note, while requirements for monitoring and reporting are not stipulated in the Act, the Minister or MEC may however specify the period within which the Industry WMP may be reviewed.

J. CONCLUSIONS

Short conclusion summing up the Industry WMP

K. REFERENCES (IF ANY)

Any references used during the compilation of the Industry WMP

L. ANNEXURES/ APPENDICES (IF ANY)

Any appendices, e.g. copies of proof of consultation process, stakeholder comments, etc

APPENDIX 5

PRIORITISATION MATRIX

Gap / Need prioritization

Having identified gaps, a number of possible waste management areas of attention will have been identified. It may not be possible to focus on all such areas as simultaneous focus and implementation may prove difficult if not impossible. As such, a rational, systematic approach to prioritisation will help to ensure that not only the company requirements are met, but also that the available resources (including finance and personnel) are used as effectively as possible.

Prioritization needs to be carried out for all areas where potential intervention is deemed necessary. It may involve focusing on some or all activities of different sections of the company, and may target a wide range of practices related to waste generation, collection, processing, storage, transportation, treatment and disposal. The final priority lists can be compiled in order of importance, with those highly ranked needs being targeted first during the plan development phase. This categorization requires use of criteria, hence the importance of having sufficient information about each listed gap / need before including it in the priority list.

Prioritisation Criteria

There are many different criteria that can, in principle be used to select and prioritize the most acceptable initiative. In any one prioritisation exercise however, only a few most relevant criteria may be used. Different criteria will be relevant, depending on circumstances. The criteria listed in table 1 are grouped into five separate headings below. The headings may themselves help to prompt the inclusion of other criteria that may be important in specific circumstances.

- **Environmental Criteria**, what environmental costs and benefits will the project / initiative address? Will it lead to improved compliance with environmental regulatory requirements?
- **Economic and financial criteria**, how much expenditure will be required and what income will the initiative bring and what will be the payback time. Will the company be able to afford the initiative?
- **Technical Criteria**, is there a technical know how? This must also address the what, how, when and by who type of questions about the activity.
- **Social & Political Criteria**, particularly in relation to support for or opposition to a proposed activity;
- **Commercial & Institutional Criteria** that may impact on the timing or success of a proposed activity.

Table 1: Example of potential criteria

Criteria	Description
Environmental Criteria	
Environmental Costs and benefits	The direct pros and cons of a project/ activity in the bio-physical environment.
Health Benefits	The health benefits, generally at the operation, entire firm / company level that will be derived from the environmental improvements
Environmental commitment	The priority of the project in the context of company environmental policy, EMS, Group strategy, etc
Environmental regulatory requirements	Will the initiative be implemented in line with existing environmental regulatory requirements, e.g. EIAs, Records of decisions, landfill permits, effluent disposal permits, cross boarder requirements, international conventions, etc.
Financial and Economic Criteria	
Capital Cost	What will the total capital investment needed to implement the project be and is it available?
Operating Costs	What will the annual operating and maintenance costs, including staff costs, equipment, materials,

	taxes, indemnities be etc
Income Generated	Is the project going to generate any income, and what will it be?
Timing of Finance	The impact of existing sources of finance on the likely timing of the proposed project
Market demand for waste	Are there companies or individuals willing to engage in waste trade? These are projects for trading different types of waste, as part of a waste recycling and reuse program.
Impact on waste handling costs	Is the project going to yield more or less costs on waste handling, treatment, transportation and disposal?
Economic spin-offs	Will the project lead to more or reduced productivity? The economic benefits on a short/medium and long term basis
Technical Criteria	
Project scale	Scale of project, for example personnel requirements, neighboring community I, authority, NGO and other civil society involvement.
Project type	Whether the project involves an entirely new facility or the replacement, extension or upgrading of an existing one (for example)
Complexity of the Project	Complexity of proposed project and technologies used, in so far as these are likely to introduce uncertainty or delays
Human resource availability	Availability of experienced staff for project development and preparation, including securing finance.
Social/Political Criteria	
Socio-cultural pros and cons	The projects impacts on local economic development including employment opportunities- will it result in retrenchments and deskilling or increased skills and more employment opportunities
Public support/ opposition	Extent of (local) public support for or opposition to (e.g. NIMBY = Not In My Back Yard) the proposed project
Profile of project	Public and media profile of the proposed project, primarily at a local level
Commercial/Institutional Criteria and description	
Responsibilities	The extent to which all responsibilities for project development and implementation are clearly defined and understood
Legal/commercial framework	The extent to which the legal and commercial framework needed to implement the project is already in place

Approach to prioritisation

The proposed approach to project / initiative prioritization comprises separate, sequential steps, each of which is listed in table 4 and described further below.

Prioritisation process

Identify the leader	Existing environmental manager, risk control manager or any person appointed to oversee waste management issues in the company/ firm
Team selection	The leader selects the team to carry out the prioritization exercise.
Criteria selection, weighting and application	The team selects the criteria that will be used, agree on weightings for each of the selected criteria and agree how each criterion will be applied;
Project information	Project data relating to each of the selected criteria are obtained;
Apply criteria	The team apply the criteria to each project;
Score calculation	The leader calculates the 'raw' score for each criterion for each project;
Apply weightings	The leader then applies the agreed weightings for each criterion to obtain a single score which may be used for ranking.

The prioritization team can involve a few individuals, e.g. 5 to 10. Of importance is that these individuals should represent a range of different ‘stakeholder’ groups with respect to the projects being evaluated. They may include representatives from various sections and / or operational areas that directly generate waste such as the workshops, production floors, power generation, water works, material storage, finishing, as well as support units such as finance, human resources, health and safety, etc. They must all be familiar with the projects to be evaluated. The prioritization process may thus proceed as detailed below

Team selection

Assuming the leader already exists, the leader will identify a team which will participate in the prioritisation process.

Criteria selection, weighting and application

The team leader will first provide a ‘long-list’ of criteria. These may include (for example) all those identified in Table 1. The leader may however decide to provide criteria more relevant to the project at hand and present it to the members of the team. It must be noted that the prioritisation process may become more difficult as the number of criteria increases, so it is important to focus on those criteria which have more relevance to the project at hand.

The team to vote individually for the criteria that will be used, for example, if ten criteria are to be selected, each member of the team will be asked to vote for ten different criteria and the ten criteria with the most votes will be selected. The weighting can then focus on the ten (10) selected criteria only.

Each member of the team is given 100 points which must be allocated between the selected criteria. In theory the points can be spread equally across all criteria, or indeed all 100 points may be allocated to just one criterion. All participants will score each criterion; hence different criteria will receive different ‘scores’.

The sum of the scores allocated to each of the ten criteria by each member gives the weighting for that criterion, which may be expressed as a percentage of the total scores allocated (e.g. 10 members with 100 points each = 1000). Thus if a particular criterion attracts a total score of 250, its weighting will be 25%. It is then essential to identify a common protocol for applying each of the selected criteria.

It is important to have the same basic scoring system for each of the criteria. This might, for example, be on a scale from 0 (worst) to 5 (best). But all members of the team must share a common understanding of what the scale actually means for each of the selected criteria. As such, a description of the scale must be made. Some criteria are (or can be) quantified, while others will be purely qualitative. The team itself must decide how the scale is to be interpreted. The leader must then ensure that a common understanding and perspective exists. Table 2 below provides an example of the protocol that can be followed to score criteria by individual member of the project prioritising team.

Table 2: Protocol for scoring criteria

Criterion	Score allocation					
	0	1	2	3	4	5
Reduced landfill costs					x	
Improved public health			x			
Improved public image				x		
Company Commitment		x				

The information on the individual projects to be prioritised must be matched as closely as possible to the requirements of the scoring system. As already noted, a degree of pragmatism is required in setting up the scoring system to ensure that information demands are not unrealistic. The information also needs to be presented in as consistent a manner as possible, although the allocation of score will inevitably remain subjective in many cases. As already noted, the complexity of the prioritisation exercise depends not only on the number of criteria used but also on the number of projects to be prioritised. Each member of the team will then be asked to complete a ‘score sheet’ for each project that is to be prioritised. The

important issue is that there must be a complete return (i.e. covering all projects) by each member of the team, although the score sheets themselves will be anonymous.

For each project, a single score for each of the criteria is then calculated. This is obtained simply by adding the scores given by each of the team members. In this case, with a maximum individual score of 5, the maximum total score is 50 (for a team of ten participants). The actual score may again be presented as a percentage of this total. Thus a total score of 30 becomes 75 percent and that of 15 becomes 37.5 percent, etc.

Finally, it is necessary to apply the weightings determined for each of the criteria to the raw scores for each project to obtain the final score. This final score is obtained simply by multiplying the raw score for each criterion for a project by the appropriate weighting (Table 3). The final scores for all criteria are then added together to obtain a total score, which allows the project to be ranked. Note that the ranking obtained using the final scores will not be the same as that obtained using the raw scores, without allowing for the weighting given to the different criteria.

Table 3: Example of criterion weighting

Criterion	Weight	Project 1		Project 2		Project 3		Project 4	
		Raw	Final	Raw	Final	Raw	Final	Raw	Final
1	25%	30	7.5	10	2.5	15	3.75	30	7.5
2	20%	40	8	60	12	50	10	20	4
3	10%	15	1.5	50	5	35	3.5	20	2
4	10%	20	2	50	5	10	1	30	3
5	10%	10	1	20	2	25	2.5	40	4
6	5%	10	0.5	30	1.5	70	3.5	40	2
7	5%	5	0.25	50	2.5	40	2	10	0.5
8	5%	20	1	10	0.5	30	1.5	10	0.5
9	5%	10	0.5	10	0.5	20	1	10	0.5
10	5%	25	1.25	10	0.5	10	0.5	60	3
Total	100%	185	23.5	300	32	305	29.25	270	27
Rank			4		1		2		3

Using the example in table 6, it can be noted that the four projects are ranked from 1 to 4, with 1 being the most preferred project to start with. This must therefore be reflected during the development of an implementation plan. This guideline document can not prescribe, either about the prioritisation criteria that are to be used or about the way in which such criteria should be applied. Whatever criteria and approach is adopted, the following points should be borne in mind:

- The approach must be matched to the purpose for which the prioritisation is to be carried out;
- Although there are many different criteria that might in principle be used, in practice there may only be a small number that are highly relevant for a particular case;
- These key criteria need to reflect the real benefits of and constraints on the project, and not just the requirements of a particular funding scheme (unless, of course, the prioritisation is being carried out in the specific context of such a scheme);
- Issues that will be determined following prioritisation (e.g. sources of funding, dates of implementation) should not also be used as prioritisation criteria;
- Relevant information relating to the selected criteria must be available for all the projects to be prioritised, and this may influence the selection of criteria;
- The approach should be based as far as possible on objective criteria that can be quantified by those carrying out the prioritisation.

APPENDIX 6

CONTACT DETAILS OF PROVINCIAL DEPARTMENTS RESPONSIBLE FOR ENVIRONMENTAL AFFAIRS: OFFICES OF HEADS OF DEPARTMENTS

Kwa-Zulu Natal Province

Mail: Private Bag X9059, PIETERMARITZBURG, 3200
Street: Executive Building, 1 Cedara College, Old Howick Road, PIETERMARITZBURG
Tel: (033) 355 9690 / 3
Fax: (033) 355 9293 Or 033-3438255

Western Cape Province

Mail: Private Bag X9086, CAPE TOWN, 8000
Street: Utilitas Building, 8th Floor, 1 Dorp Street, CAPE TOWN
Tel: (021) 483 4091
Fax: (021) 483 3016

Gauteng Province

Mail: PO Box 8769, JOHANNESBURG, 2000
Street: Diamond Corner Building, 11th Floor, Eloff and Market Streets, Marshalltown, JOHANNESBURG
Tel: (011) 355 1920
Fax: (011) 333 0667 / 0620

Mpumalanga Province

Mail: Private Bag X11219, NELSPRUIT, 1200
Street: 7 Government Boulevard, Building 6, 2nd floor, Riverside Park, Extension 2, NELSPRUIT
Tel: (013) 766 6020
Fax: (013) 766 8429

Limpopo Province

Mail: Private Bag X9484, POLOKWANE, 0700
Street: Evridiki Towers, 20 Hans van Rensburg Street, POLOKWANE
Tel: (015) 293 8564 / 8300
Fax: (015) 293 8319

North West Province

Mail: Private Bag X2039, MMABATHO, 2735
Street: Agricentre Building, cnr Dr James Moroka Drive and Stadium Street, MMABATHO
Tel: (018) 389 5146
Fax: (018) 384 2679

Free State Province

Mail: Private Bag X20801, BLOEMFONTEIN, 9300
Street: Bojanala Building, 2nd Floor, 34 Markgraaf Street, BLOEMFONTEIN
Tel: (051) 400 4910 Fax: (051) 400 4732

Northern Cape Province

Mail: Private Bag X6102, KIMBERLEY, 8300

Street: Metlife Towers, T Floor, cnr Knight and Stead Streets, KIMBERLEY

Tel: (053) 807 7303

Fax: (053) 807 7367

Eastern Cape Province

Mail: Private Bag X0054, BISHO, 5605

Street: Indwe House, 2nd and 3rd Floors, BISHO

Tel: (040) 609 3235

Fax: (040) 609 3219