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**Rural, Environment and Agricultural Development**
North West Provincial Government
**REPUBLIC OF SOUTH AFRICA**

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# CHIEF DIRECTORATE: ENVIRONMENTAL SERVICES

## DIRECTORATE: ENVIRONMENTAL QUALITY MANAGEMENT

(For official use only)

| | |
|---|---|
| **Provincial Reference Number:** | |
| **NEAS Ref Number:** | |
| **Date Received:** | |

**Basic assessment report in terms of the Environmental Impact Assessment Regulations, 2014, promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.**

**Kindly note that:**

1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EI" Regulations, 2014 and is meant to streamline applications.
2. This report format is current as of **December 2014**. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority
3. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
4. Where applicable **tick** the boxes that are applicable in the report.
5. The use of "not applicable" in the report must be done with circumspection. " n incomplete report or that does not meet the requirements in terms of Regulation 19 of the NEM" EI" Regulations, 2014, will be rejected to be revised and be resubmitted.
6. The report must be handed in at offices of the relevant competent authority as determined by each authority.
7. No faxed or e-mailed reports will be accepted.
8. The signature of the Environmental " ssessment Practitioner (E" P) on the report must be an original.
9. The report must be compiled by an independent E" P.
10. Unless protected by law, all information in the report will become public information on receipt by the competent authority. " ny interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
11. " competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.
12. Should a specialist report or report on a specialised process be submitted at any stage for any part of this application, the terms of reference for such report must also be submitted.
13. Two (2) colour hard copies and one (1) electronic copy of the report must be submitted to the competent authority.
14. Shape files (.shp) for maps must be included on the electronic copy of the report submitted to the competent authority.

# SECTION A: ACTIVITY INFORMATION

## 1. PROJECT DESCRIPTION

**a) Describe the project in association with the listed activities applied for**

**The City of Matlosana intends to upgrade about 3.7km portion of their Adamayview Outfall Sewer Pipeline from the current 375mm to 1050mm in diameter. The Adamayview outfall sewer pipeline runs along the non-perennial Palmietspruit, a tributary of the Schoonspruit River in Klerksdorp, then to Swart Street Sewage Pump Station and the sewage is pumped to the Klerksdorp Waste Water Treatment Works for treatment.**

**The sewer upgrade will start on the northern side of the N12 highway passing through Klerksdorp adjacent to the new Matlosana Mall, and will cross under the highway, run through different land portions along the Palmietspruit and will connect to the bigger outfall along Barend Street, next to Protea Hotel in Klersksdorp. The co-ordinates along the pipeline route are as follows:**
**Start co-ordinates: 26°50'51.59"S; 26°41'50.88"E;**
**Middle co-ordinates: 26°51'46.72"S; 26°40'36.43"E; and**
**End co-ordinates: 26°51'43.94"S; 26°40'14.03"E.**

**The land portions/servitudes through which the sewer pipeline runs are the following:**

- **Townlands of Klerksdorp, 424 IP, Portions 0337, 0564, 0601 and 000; and**
- **Elandsheuvel, 402 IP, Portions 0545**

**The proposed sewer upgrade route is depicted in the google map presented as Figure 1 below:**




**Figure 1 – Locality Map Showing the Proposed Outfall Sewer Pipeline Upgrade Route (brown line with blue dots)**

**Pipeline will be of concrete material, and both trenching and directional drilling will be used as methods of construction. The pipeline will be a gravity system and as such will be dug to a maximum depth of two and half (2.5) metres at its very deepest. The development footprint for the pipeline will be approximately three (3) metres in diameter and the pipeline will be laid within that. The total length of the pipeline is anticipated to be 3.7 kms with approximately 32 manholes along the way.**

**The construction process will have a number of activities that can be summarised in the following main milestones:**

- **Site clearance;**
- **Exposing of the existing line;**
- **Setting out;**
- **Excavations;**
- **Backfilling and pipe work; and**
- **Installation of manholes.**

**b) Provide a detailed description of the listed activities associated with the project as applied for**

| Listed activity as described in GN R.983, 984 and 985 | Description of project activity |
|---|---|
| ***Example:***<br>***GN R.983 Activity 12(iii): The development of a bridge exceeding 100 square metres where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such*** | ***A bridge measuring 10m in length, 12 metres wide will be built over the Crocodile river*** |

| | |
|---|---|
| ***development will occur within existing roads or roads reserve.*** | |
| **GN R.983 Activity 19 A: The infilling or depositing of any material or more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from –**<br>**i) a watercourse;**<br>**ii) the seashore; or**<br>**iii) the littoral active zone, and estuary or a distance of 100 metres inland of the high-water mark of the sea or an estuary, whichever distance is greater –**<br>**but excluding where such infilling, depositing, dredging, excavation, removal or moving …** | **Construction of a 1050mm diameter outfall sewer pipeline along the non-perennial Palmietspruit in Klerksdorp in the North West Province. The outfall sewer line will be constructed along the banks or within the floodplain of the Palmietspruit. The outfall sewer pipeline to be constructed will be made up of concrete, and will replace the existing narrow 375mm in diameter pipeline.** |

**c) Property description/physical address**

| | |
|---|---|
| **Province** | North West Province |
| **District Municipality** | Dr Kenneth Kaunda District Municipality |
| **Local Municipality** | City of Matlosana Municipality |
| **Ward Number(s)** | 18 and 39 |
| **Farm name and number** | **Please see the attached list of properties** |
| **Portion number** | |
| **21 digit Surveyor General Code** | |

Where a large number of properties are involved (e.g. linear activities) please attach a full list to this application including the same information as indicated above

**2. FEASIBLE AND REASONABLE ALTERNATIVES**

*"alternatives"*, **in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to—**

**(a) the property on which or location where it is proposed to undertake the activity;**

**(b) the type of activity to be undertaken;**

**(c) the design or layout of the activity;**

**(d) the technology to be used in the activity;**

**(e) the operational aspects of the activity; and**

**(f) the option of not implementing the activity.**

Describe alternatives that are considered in this application as required by EI" Regulation, 2014 " ppendix 1(h) . " lternatives should include a consideration of all possible means by which the purpose and need of the proposed activity (NOT PROJECT) could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed.

The determination of whether site or activity (including different processes, etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. " fter receipt of this report the, competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

Should the alternatives include different locations and lay-outs, the co-ordinates of the different alternatives must be provided. The co-ordinates should be in degrees, minutes and seconds using the Hartebeeshoek94 WGS84 co-ordinate system.

**a) Site alternatives**

List alternative sites, if applicable.

| **Site Alternatives** | **Description** |
|---|---|
| **Alternative Site 1 (preferred or only site alternative)** | **While conceptualising the proposed project, a number of considerations w explored, and the proposed outfall sewer pipeline alignment was considered only possible viable option due to the following reasons:**<br>• **The outfall sewer pipeline upgrade is proposed to be laid adjacent to existing sewer line;**<br>• **The outfall sewer needs to be laid at the lowest drainage point to facilit gravitation,**<br>• **The alignment for the existing pipeline route marks that lowest draina point,**<br>• **Since the proposed outfall sewer pipeline will be laid adjacent to existing outfall sewer line, impacts of the proposed sewer pipel upgrade will be significantly lower as the receiving environment already impacted upon by the existing sewer pipeline and also that so portions of the pipeline alignment are in an already developed area, terms of the establishment of service roads and the existing pipel infrastructure;**<br>• **The City of Matlosana Municipality has registered servitude against properties along the existing sewer pipeline, and the proposed alignm for the proposed sewer upgrade will also be within the registe servitude, and thereby resulting in minimal impacts relating to la rights.**<br><br>**The above reasons were considered compelling towards selection of proposed outfall sewer pipeline upgrade, and therefore no other locati alternatives were considered.** |
| | |

| | |
|---|---|
| ~~Alternative Site 2~~ | |
| ~~Alternative Site 3~~ | |

**Site Co-ordinates**

| | Latitude (S): | | | Longitude (E): | | |
|---|---|---|---|---|---|---|
| ~~Alternative S1 (preferred or only site alternative)~~ | o | ' | " | o | ' | " |
| ~~Alternative S2 (if any)~~ | o | ' | " | o | ' | " |
| ~~Alternative S3 (if any)~~ | o | ' | " | o | ' | " |

**In the case of linear activities:**

| **Alternative:** | **Latitude (S):** | | | **Longitude (E):** | | |
|---|---|---|---|---|---|---|
| " lternative S1 (preferred or only route alternative) | | | | | | |
| • Starting point of the activity | 26o | 50' | 51.59" | 26o | 41' | 50.88" |
| • Middle/" dditional point of the activity | 26o | 51' | 46.72" | 26o | 40' | 36.43" |
| • End point of the activity | 26o | 51' | 43.94" | 26o | 40' | 14.03" |
| " lternative S2 (if any) | | | | | | |
| ~~• Starting point of the activity~~ | o | ' | " | o | ' | " |
| ~~• Middle/" dditional point of the activity~~ | o | ' | " | o | ' | " |
| ~~• End point of the activity~~ | o | ' | " | o | ' | " |
| " lternative S3 (if any) | | | | | ' | " |
| ~~• Starting point of the activity~~ | o | ' | " | o | ' | " |
| ~~• Middle/" dditional point of the activity~~ | o | ' | " | o | ' | " |
| ~~• End point of the activity~~ | o | ' | " | o | ' | " |

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 250 metres along the route for each alternative alignment.

In the case of an area being under application, please provide the co-ordinates of the corners of the site as indicated on the lay-out map provided in " ppendix " .

**b) Lay-out alternatives**

| ~~Alternatives~~ | ~~Description~~ |
|---|---|
| ~~Alternative 1 (preferred or only alternative)~~ | NO LAYOUT ALTERNATIVES WERE CONSIDERED |
| ~~Alternative 2~~ | |
| ~~Alternative 3~~ | |

**c) Technology alternatives**

| ~~Alternatives~~ | ~~Description~~ |
|---|---|
| ~~Alternative 1 (preferred or only alternative)~~ | NO TECHNOLOGY LATERNATIVES WERE CONSIDERED |
| ~~Alternative 2~~ | |
| ~~Alternative 3~~ | |

**d) Design alternatives**

**Design alternatives considered are those that had to do with various outfall sewer pipeline diameter, and these considered were 600mm and 1050mm diameters.**

| Alternatives | Description |
|---|---|
| Alternative 1 (preferred or only alternative) | 600mm diameter pipeline was considered. The peak flow simulations were do by Rendeals Four Consulting civil engineers, and it was established that t outfall sewer capacity would be sufficient for the municipal sewer reticulati for some years to come, but would require further upgrading in the next t years or so. Obviously the cost estimates associated with upgrading the out sewer pipeline from 375mm to 600mm was obviously significantly lower th those for upgrading the outfall sewer pipeline to wider diameter. |
| Alternative 2 | Rendeals Four Consulting Engineers also did the peak flow simulations fo 1050mm in diameter pipeline. Obviously the 1050mm diameter was observed will provide a lot more excess sewer reticulation capacity and this was the mo favourable alternative. This outfall sewer pipeline with a diameter of 1050m would require that a wider strip of land be disturbed for laying this pipeli compared to the 600mm pipeline, and it is likely that more vegetation wo have to be cleared to allow for the construction of this pipeline. The financ requirements for construction of 1050mm pipeline are way higher than those the 600mm sewer pipeline. |

| | |
|---|---|
| | However, there will not be a need to upgrade the outfall sewer pipeline again i very long time, and therefore there will not be further environmental disturbar associated with further pipeline upgrade. The excess sewer reticulation capac that will be provided by the 1050mm pipeline will enable to municipality to all new developments to proceed, and subsequently there would be increas revenues to the municipality through rates and taxes from the n developments to be introduced in the municipal area. |

**e) No-go alternative**

**The Adamayview outfall sewer pipeline runs along the non-perennial Palmietspruit in Klerksdorp, and discharges sewerage into the Klerksdorp Waste Water Treatment Works for treatment. The existing Adamayview outfall sewer pipeline has differential diameter ranging from 375 mm to 600 mm to 1000 mm.**

**The section of the sewer line with a diameter of 375 mm has over the time been characterized by blockages and overflows. As a consequent, the City of Matlosana had a moratorium on approval of new developments, including new Housing projects, and various types of new businesses due to shortage of sewer reticulation capacity.**

**In order to address the overflows/blockages of the sewer pipeline at the 375 mm section, the City of Matlosana requires to upgrade that section of the sewer pipeline from 375 mm to 1050mm in diameter.**

**NO-GO option means that the status quo would remain, and no additional sewer reticulation capacity would be added. This is detrimental in that the blockages and overflows of the existing Adamayview outfall sewer pipeline would persist, with negative impacts of polluting the surface and groundwater resources. This could have ripple effects of causing water pollution related diseases such as cholera in the Municipal area.**

**Furthermore, the NO-GO option would result in depriving the City of Matlosana of possible revenue that would be realized if new businesses and housing development were to be allowed following the lifting of the above moratorium, which can only happen when there is enhanced sewer reticulation capacity.**

f) **Please motivate for preferred site, activity and technology alternative**

**Paragraphs 3 – 13 below should be completed for each alternative.**

**3. PHYSICAL SIZE OF THE ACTIVITY**

**a) Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints):**

| **Alternative:** | **Size of the activity:** |
|---|---|
| " Iternative " 1[1] (preferred activity alternative) | **N/A** m² |

.

| | |
|---|---|
| ~~" Iternative " 2 (if any)~~ | $m^2$ |
| ~~" Iternative " 3 (if any)~~ | $m^2$ |

**or, for linear activities:**

| **Alternative:** | **Length of the activity:** |
|---|---|
| " Iternative " 1 (preferred activity alternative) | 3,700 m |
| ~~" Iternative " 2 (if any)~~ | M |
| ~~" Iternative " 3 (if any)~~ | M |

**b) Indicate the size of the alternative sites or servitudes (within which the above footprints will occur):**

| **Alternative:** | **Size of the site/servitude:** |
|---|---|
| ~~" Iternative " 1 (preferred activity alternative)~~ | $m^2$ |
| ~~" Iternative " 2 (if any)~~ | $m^2$ |
| ~~" Iternative " 3 (if any)~~ | $m^2$ |

## 4. SITE ACCESS

| | |
|---|---|
| **Does ready access to the site exist?** | **YES** [redacted] |
| **If NO, what is the distance over which a new access road will be built** | **M** |

**Describe the type of access road planned:**

| |
|---|
| **No access road has been planned for the proposed development.** |

**Include the position of the access road on the site plan and required map, as well as an indication of the road in relation to the site.**

## 5. LOCALITY MAP

**An A3 locality map must be attached to the back of this document, as Appendix A. The scale of the locality map must be relevant to the size of the development (at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map.). The map must indicate the following:**

- an accurate indication of the project site position as well as the positions of the alternative sites, if any;
- indication of all the alternatives identified;
- closest town(s;)
- the accurate indication of the site in relation to closest protected environments or national parks (i.e. within 2.5 km)
- road access from all major roads in the area;
- road names or numbers of all major roads as well as the roads that provide access to the site(s);
- all roads within a 1km radius of the site or alternative sites; and
- a north arrow;
- a legend; and
- locality GPS co-ordinates (Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees, minutes and seconds using the Hartebeeshoek94 WGS84 co-ordinate system

## 6. LAYOUT/ROUTE PLAN

" detailed site or route plan(s) must be prepared for each alternative site or alternative activity. It must be attached as " ppendix B to this document.

The site or route plans must indicate the following:

- the property boundaries and numbers of all the properties within 50 metres of the site;
- the current land use as well as the land use zoning of the site;
- the current land use as well as the land use zoning each of the properties adjoining the site or sites;
- the exact position of each listed activity applied for (including alternatives);
- servitude(s) indicating the purpose of the servitude;
- a legend; and
- a north arrow.

## 7. SENSITIVITY MAP

The layout/route plan as indicated above must be overlain with a sensitivity map that indicates all the sensitive areas associated with the site, including, but not limited to:

- watercourses;

- the 1:100 year flood line (where available or where it is required by Department of Water and Sanitation);
- ridges;
- for gentle slopes the 1 metre contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and
- cultural and historical features;
- areas with indigenous vegetation (even if it is degraded or infested with alien species); and
- critical biodiversity areas and ecological support area.
- protected areas (e.g Magaliesberg Protected Environment, Pilanesberg National Park etc.)

The sensitivity map must also cover areas within 100m of the site and must be part of " ppendix B.

## 8. SITE PHOTOGRAPHS

Colour photographs from the centre of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under " ppendix C to this report. It must be supplemented with additional photographs of relevant features on the site, if applicable.

## 9. FACILITY ILLUSTRATION

" detailed illustration of the activity must be provided at a scale of at least 1:200 as " ppendix D for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity.

## 10. ACTIVITY MOTIVATION

**Motivate and explain the need and desirability of the activity (including demand for the activity):**

| | | | |
|---|---|---|---|
| 1. Is the activity permitted in terms of the property's existing land use rights? | **YES** | [redacted] | **Please explain** |
| **The proposed project entails upgrading an existing outfall sewer pipeline. The proposed sewer pipeline to be upgraded will be located about 3 metres away from the existing pipeline where the City of Matlosana already have a servitude.** | | | |
| 2. Will the activity be in line with the following? | | | |
| (a) Provincial Spatial Development Framework (PSDF) | **YES** | [redacted] | **Please explain** |
| **The proposed development is an upgrade of the existing outfall sewer pipeline, which in all likelihood should be in line with all the municipal and provincial provisions and requirements, including the Provincial Spatial Development Framework (PSDF).** | | | |

| | | | |
|---|---|---|---|
| (b) Urban edge / Edge of Built environment for the area | | **NO** | **Please explain** |
| **Although some portions of the proposed outfall sewer pipeline upgrade fall outside the urban edge, there are also portions of the pipeline alignment that are located within the urban edge.** | | | |
| (c) Integrated Development Plan (IDP) and Spatial Development Framework (SDF) of the Local Municipality (e.g. would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?). | | **NO** | **Please explain** |
| **The approval of the proposed project will not compromise the integrity of the existing IDP and SDF. The upgrading of the Adamayview outfall sewer pipeline has been reported as one of the key projects to be undertaken in the 2008/2009 IDP, and was also reflected in the City of Matlosana's Spatial Development Framework (SDF) of 2009.** | | | |
| (d) " pproved Structure Plan of the Municipality | | **NO** | **Please explain** |
| **There is no approved Structure Plan for the City of Matlosana Municipality that the proposed upgrading of the Adamayview outfall sewer pipeline will affect.** | | | |
| (e) " n Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?) | **YES** | **NO** | **Please explain** |
| **Environmental Management Framework for the City of Matlosana Municipality could not be found. However, this proposed development is subjected to the Basic Assessment process in order to identify impacts that might arise from the development and ensure that measures are put into place to mitigate and manage these impacts with an aim to ensure that the environment is not significantly compromised.** | | | |
| (f) " ny other Plans (e.g. Guide Plan) | | **NO** | **Please explain** |
| **There are no other plans in the City of Matlosana Municipality that the proposed upgrading of the Adamayview outfall sewer pipeline will affect.** | | | |

| | | | |
|---|---|---|---|
| 3. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)? | **YES** | [redacted] | **Please explain** |
| **The upgrading of the Adamayview outfall sewer pipeline had been listed as one of the key Integrated Development Planning (IDP) projects of the City of Matlosana for 2008/2009 in the City of Matlosana's Spatial Development Framework, 2009 and this had been awaiting implementation thus far.** | | | |
| 4. Does the community/area need the activity and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate.) | **YES** | [redacted] | **Please explain** |
| **Although the proposed development has been outlined as part of the National Programme as SIP 4 project, the proposed Adamayview outfall sewer pipeline upgrade is of particular significance to the local communities as it will bring about the much needed increased sewer reticulation capacity, that will ensures continued provisioning of reliable sanitation services to the people of the City of Matlosana.** | | | |
| 5. " re the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development? (Confirmation by the relevant Municipality in this regard must be attached to the final Basic " ssessment Report as " ppendix E.) | **YES** | **NO** | **Please explain** |
| **The proposed development is in itself infrastructure that is required to ensure efficient and effective provisioning of sanitation services to the community. There are no services that are required to cater for the proposed outfall sewer pipeline upgrade.** | | | |
| 6. Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant Municipality in this regard must be attached to the final Basic " ssessment Report as " ppendix I.) | **YES** | [redacted] | **Please explain** |
| **The upgrading of the Adamayview outfall sewer pipeline had been provided for in the Integrated Development Planning (IDP) of the City of Matlosana from as way back as 2008, and had been awaiting implementation for a long time.** | | | |

| | | | |
|---|---|---|---|
| 7. Is this project part of a national programme to address an issue of national concern or importance? | **YES** | **NO** | **Please explain** |
| **The proposed project forms part of the national programme and SIP 4 which emphasises unlocking economic activities in the North West Province. Central to unlocking these economic activities, *is* *the acceleration of investments in road, rail, bulk water, water treatment and transmission infrastructure*, as well as *enabling reliable supply and basic service delivery*. The proposed project is aimed at enabling reliable supply of basic sanitation service delivery to the people of the City of Matlosana.** | | | |
| 8. Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context.) | **YES** | **NO** | **Please explain** |
| **The proposed outfall sewer pipeline upgrade will the constructed adjacent to the existing narrower (375mm) pipeline, within the municipal servitude. The site for the proposed pipeline upgrade construction would not be utilised for any other purpose as it is a registered servitude for the existing outfall sewer pipeline, and therefore this does not in any way change the land use of the pipeline route alignment.**<br><br>**Furthermore, only a small portion of the land beyond the servitude may be needed to accommodate the proposed outfall sewer pipeline upgrade and this will not cause significant changes on the current land uses.** | | | |
| 9. Is the development the best practicable environmental option for this land/site? | **YES** | | **Please explain** |
| **The proposed outfall sewer pipeline upgrade will the constructed adjacent to the existing narrower (375mm) pipeline, within the municipal servitude. The site for the proposed pipeline upgrade construction would not be utilised for any other purpose as it is a registered servitude for the existing outfall sewer pipeline, and therefore this does not in any way change the land use of the pipeline route alignment.**<br><br>**Furthermore, only a small portion of the land beyond the servitude may be needed to accommodate the proposed outfall sewer pipeline upgrade and this will not cause significant changes on the current land uses.** | | | |

| | | | |
|---|---|---|---|
| 10. Will the benefits of the proposed land use/development outweigh the negative impacts of it? | **YES** | | **Please explain** |
| **The existing Adamayview outfall sewer does not provide sufficient sewer reticulation capacity, and this existing pipeline has been recorded to overflow and spill raw sewerage at times as a consequence of its narrow diameter. Upgrading the sewer pipeline from 375mm to 1050mm will bring about the much needed increased sewer reticulation capacity that will consequently remedy the overflows and spillage challenges reported over the years.**<br>**It is also important to emphasise that the City of Matlosana had embargoed all new developments owing to lack of sufficient sewer reticulation capacity. The proposed project will increase the sewer reticulation capacity that would result in new developments brought back into the municipal area.** | | | |
| 11. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)? | | **NO** | **Please explain** |
| **The proposed development entails upgrading the existing outfall sewer pipeline, and therefore no precedent will be set.** | | | |
| 12. Will any person's rights be negatively affected by the proposed activity/ies? | | **NO** | **Please explain** |
| **The possible people who could be affected by the proposed development are the land owners of the properties that lie along the proposed pipeline route alignment. However, the City of Matlosana has registered a servitude against the said properties, and the proposed outfall sewer upgrade will be restricted to the registered servitude. Should there be a need to deviate outside the registered servitude, the City of Matlosana will engage and reach agreements with affected landowners.** | | | |
| 13. Will the proposed activity/ies compromise the "urban edge" as defined by the local municipality? | | **NO** | **Please explain** |
| **Portions of the pipeline route occur inside the urban urge, and the proposed project will not compromise the urban edge.** | | | |
| 14. Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPS)? | **YES** | | **Please explain** |
| **The proposed development will contribute to SIP 4, which is summarised below**<br><br>**SIP4: Unlocking the economic opportunities in North West**<br>• **Acceleration of investments in road, rail, bulk water, water treatment and transmission infrastructure;**<br>• **Enabling reliable supply and basic service delivery;**<br>• **Facilitate development of mining, agricultural activities and tourism opportunities;**<br>• **Open up beneficiation opportunities in North West province.** | | | |

| 15. What will the benefits be to society in general and to the local communities? | **Please explain** |
|---|---|
| **Ultimately the increased outfall sewer reticulation capacity will boost the local, district and provincial economies through increased rates and taxes to the municipality due to new developments that would come in the area. The general society will benefit from the boosting of the provincial economy.**<br><br>**Local community members are likely to benefit from employment opportunities that could be created during the construction process of the proposed outfall sewer pipeline upgrade project. Local vendors could also derive benefits from opportunities to sell food items to the construction workers.** | |
| 16. " ny other need and desirability considerations related to the proposed activity? | **Please explain** |
| **The short-term job opportunities that will be created for the local community members residing closer to the project sites and the business opportunities that will be created for the local SMMEs will alleviate poverty in the local communities. The skills training that will be provided to the local community members who will be employed by the project will put them in a better stead to market themselves into the future.**<br><br>**Most importantly the need and desirability of this project is at a national level where the country will 'unlock the economic opportunities in the North West' through enabling reliable delivery of basic services to all the people of the North West Province.** | |
| 17. How does the project fit into the National Development Plan for 2030? | **Please explain** |
| **The NDP for 2030 defines the elements of a decent standard of living and further makes a firm commitment to achieving a minimum standard of living which can be progressively realised through a multi-pronged strategy.**<br><br>**This minimum living standards takes a holistic approach, and include a wide range of elements. The approach focuses on the key capabilities that individuals need to live the life that they desire. The key elements for minimum living standard are, Clean environment; Nutrition; Housing, water, sanitation and electricity; Transport; Education and Skills; Safety and Security; Health Care; Employment; Recreation and Leisure.**<br><br>**The proposed project is an element of sanitation and therefore supports the commitment to decent standard of living as provided for in the NDP for 2030.** | |

| 18. Please describe how the general objectives of Integrated Environmental Management as set out in Section 23 of NEM" as amended have been taken into account. |
| --- |
| **In the Basic Assessment Report, the bio-physical, the social and economic impacts that are likely to arise from the listed activities have been identified, predicted and evaluated and given a significance rating (high, medium or low). An Environmental Management Programme (EMPr) has been developed to ensure that the identified impacts are avoided or minimized by implementing the recommended mitigation measures. The public participation process which included advertising and notifications was embarked on and included general public meeting and focus group meetings with the interested and affected parties, where inputs of interested and effected parties were solicited and recorded in order for them to be considered in the decision-making of this EA application.** |

19. Please describe how the principles of environmental management as set out in Section 2 of NEM" as amended have been taken into account.

**In this application for Environmental Authorisation, some of the principles set out in section 2 of NEMA were taken into account. The NEMA principles relevant to this application are the following:**

- **"The social, economic and environmental impacts of activities, including disadvantages and benefits, must be considered, assessed and evaluated and decisions must be appropriate in the light of such considerations and assessment" –** *In this Basic Assessment report the negative and positive impacts that are likely to arise from this proposed activity are identified and assessed and the Basic Assessment Report will be submitted to the competent authority for reviewing and decision-making.*
- **"Sustainable development requires the consideration of all relevant factors, including the following:**

**(i) That the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied;**
**(ii) that pollution and degradation of the environment are avoided, or, where they cannot be altogether avoided, are minimised and remedied;**
**(iii) that the disturbance of landscapes and sites that constitute the nation's cultural heritage is avoided, or where it cannot be altogether avoided, is minimised and remedied;**
**(iv) that waste is avoided. or where it cannot be altogether avoided, minimised and re-used or recycled where possible and otherwise disposed of in a responsible manner;**
**(v) that negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied."**

**An Environmental Management Programme was developed to ensure that the various impacts likely to arise from this activity are either avoided or minimized by implementing various mitigation measures. This include the avoiding or minimization of impacts such as:**

- **Disturbance of ecosystems and loss of biological diversity;**
- **Pollution and degradation of the environment; and**
- **Generation of waste.**

- **"Decisions must take into account the interests, needs and values of all interested and affected parties, and this includes recognizing all forms of knowledge. Including traditional and ordinary knowledge"**

- **"Community wellbeing and empowerment must be promoted through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means"**

**A public participation process was conducted, and is still continuing. This public participation process included public meeting with the affected local communities which enabled them to share any information related to the proposed project. In this public participation meeting an explanation on the proposed project and the need of why the EIA process needs to be conducted was done and some of the key identified impacts and the mitigation measures were explained. This public participation meeting which was conducted in English as the preferred language of instruction in local community meetings, not only served the purpose of informing the affected communities about the proposed project but also raised the awareness of the local communities on the EIA process and environmental issues.**

## 11. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EI" regulations, if applicable:

| Title of legislation, policy or guideline | Applicability to the project | Administering authority | Date |
|---|---|---|---|
| The Constitution of the Republic of South Africa Act No. 108 of 1996 | The Constitution is the supreme law of the land and includes the Bill of rights which is the cornerstone of democracy in South Africa and enshrines the rights of people in the country. It includes the right to an environment which is not harmful to human health or well-being and to have the environment protected for the benefit of present and future generations through reasonable legislative and other measures. | Constitutional Court of South Africa | 1996 |
| National Environmental Management Act 107 of 1998 | It provides a legislative ground on which the regulations to ensure that adverse impacts on the environment can be investigated and mitigation measures to keep the adverse impacts of activities can be minimized and that arrangement for monitoring and managing impacts can be formulated. | Department of Environmental Affairs (DEA) | 1998 |
| National Environmental Management Act (Act 107 of 1998): Environmental Impact Assessment Regulations (Listing Notices 1, 2 and 3), as amended. | The application for Environmental Authorization for this activity is done in line with these regulations | DEA and Provincial Environmental Departments | 2014 |
| National Environmental Management: Biodiversity Act (Act 10 of 2004) | It is applicable in terms of protected fauna and flora species which might occur on site of development. The Biodiversity Act also provides for listing of threatened or protected ecosystems, in one of four categories: Critically Endangered (CR), Endangered (EN), Vulnerable (VU) or Protected (Government Gazette, 2011). The main | DEA | 2004 |

| | | | |
|---|---|---|---|
| | purpose of listing threatened ecosystems is to reduce the rate of ecosystem and species extinction and includes the prevention of further degradation and loss of structure, function and composition of threatened ecosystems. | | |
| National Environmental Management: Waste Act (Act 59 of 2008) | The Act regulates the handling of various types of waste that will be generated during the different phases of the activity. Where listed waste activities are triggered, a waste management licence require to be applied for. | DEA | 2008 |
| National Environment Management: Air Quality Act (Act No. 39 of 2004) | Potential impact of air quality through dust generation from construction activity. Responsibility for regulatory control is divided between the Chief Air Pollution Control Officer (CAPCO) in the Directorate of Air Pollution within DEA and local authority inspectors.<br>The local authorities are currently responsible for smoke, dust and vehicle emissions. | DEA | 2004 |
| National Forest Act (Act No. 84 of 1998) | Several protected tree species may occur within the project area. Should the project requires the removal, relocation or pruning of any of these trees plants as a result of construction activities, a permit will be required. | Department of Agriculture, Forestry and Fisheries | 1998 |
| National Heritage Resources Act (Act No. 25 of 1999) | Potential impact on cultural heritage, paleontological or archaeological resources through excavation activities or disturbance. A permit is required per the National Heritage Resources Act (Act No. 25 of 1999). | South African Heritage Resources Agency and the Provincial Heritage Resources Agencies | 1999 |
| National Water Act (Act 36 of 1998) | This Act regulates uses of water in the water resources that might be available within the project site. Water Use Authorizations must be | Department of Water and Sanitation | 1998 |

| | | | |
|---|---|---|---|
| | **obtained for relevant water use** | | |
| **Conservation of Agricultural Resources Act (Act No. 43 of 1983)** | **In terms of the amendments to the regulations under CARA, landowners are legally responsible for the control of alien species on their properties. This has relevance to the project as City of Matlosana will have to ensure that weeds and alien invasive species are removed from the pipeline reserve during construction and that the spread of these species is controlled and managed during construction and operations.** | **Department of Agriculture, Forestry and Fisheries** | **1983** |
| **Mineral and Petroleum Resources Development Act (Act No. 28 of 2002)** | **Where borrow pits will be required, authorisation will be applied for.** | **Department of Mineral Resources** | **2002** |
| **DEAT Integrated Environmental Management Information Series** | **These information series documents provide general information on techniques, tools and processes for environmental assessment and management and therefore have been use as a source of information on the most suitable approach to the environmental assessment process for the proposed development.** | **DEA** | **1996** |
| **DEAT EIA Guideline Documents, 2006** | **The guidelines relate to the EIA process in general, the public participation process, the assessment of alternatives and environmental management frameworks.** | **DEA** | **1996** |

## 12. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

### a) Solid waste management

| | |
|---|---|
| Will the activity produce solid construction waste during the construction/initiation phase?<br>If YES, what estimated quantity will be produced per month? | YES<br>**Unquantified amount of domestic and construction waste will be generated.** $m^3$ |

How will the construction solid waste be disposed of (describe)?

| |
|---|
| **The bulk of the excavated waste material from the construction of the pipeline will be re-used for filling the excavations. The excess material will be disposed at an appropriately registered municipal disposal site, in consultation with the relevant Department within the municipality.** |

Where will the construction solid waste be disposed of (describe)?

| |
|---|
| **Construction solid waste will be disposed of through the municipal waste disposal system.** |

| | |
|---|---|
| Will the activity produce solid waste during its operational phase? | NO |
| If YES, what estimated quantity will be produced per month? | $m^3$ |

How will the solid waste be disposed of (describe)?

| |
|---|
| **The proposed activity is a sewer pipeline and this will not generate any solid waste during the operational phase.** |

If the solid waste will be disposed of into a municipal waste stream, indicate which registered landfill site will be used.

| |
|---|
| **NOT APPLICABLE** |

Where will the solid waste be disposed of if it does not feed into a municipal waste stream (describe)?

| |
|---|
| **NOT APPLICABLE** |

*If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.*

| | |
|---|---|
| Can any part of the solid waste be classified as hazardous in terms of the NEM:W" ? | NO |

If YES, inform the competent authority and request a change to an application for scoping and EI" . " n application for a waste permit in terms of the NEM:W" must also be submitted with this application.

| | |
|---|---|
| Is the activity that is being applied for a solid waste handling or treatment facility? | NO |

If YES, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EI" . " n application for a waste permit in terms of the NEM:W" must also be submitted with this application.

**b) Liquid effluent**

| | |
|---|---|
| Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system? | NO |
| If YES, what estimated quantity will be produced per month? | $m^3$ |
| Will the activity produce any effluent that will be treated and/or disposed of on site? | NO |

**If YES, describe the type of effluent and the disposal mechanism/method**

| |
|---|
| **NOT APPLICABLE** |

| Will the activity produce effluent that will be treated and/or disposed of at another facility? | | NO |
|---|---|---|

If YES, provide the particulars of the facility:

| | | | |
|---|---|---|---|
| **Facility name:** | **NOT APPLICABLE** | | |
| **Contact person:** | | | |
| **Postal address:** | | | |
| **Postal code:** | | | |
| **Telephone:** | | **Cell:** | |
| **E-mail:** | | **Fax:** | |

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

| **NOT APPLICABLE** |
|---|

**c) Emissions into the atmosphere**

| Will the activity release emissions into the atmosphere other that exhaust emissions and dust associated with construction phase activities? | YES | |
|---|---|---|
| If YES, is it controlled by any legislation of any sphere of government? | | NO |

If YES, the applicant must consult with the competent authority to determine whether it is necessary to change to an application for scoping and EI" .

If NO, describe the emissions in terms of type and concentration:

| **During construction phase, dust associated with construction process will be generated by construction vehicles and machinery. Dust will be managed through regular watering of the construction site to ensure that the dust generated is only confined to the construction site. The greater portion of the construction site is far away from residential properties, and therefore dust will not be a nuisance to people, except closer to built-up areas.** |
|---|

**d) Waste Licence/Registration**

| Will any aspect of the activity produce waste that will require a waste licence/registration in terms of the NEM:W" ? | | NO |
|---|---|---|

If YES, please submit evidence that an application for a waste licence/registration has been submitted to the competent authority

**e) Generation of noise**

| Will the activity generate noise? | YES | |
|---|---|---|
| If YES, is it controlled by any legislation of any sphere of government? | | NO |

If YES, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EI" .

If NO, describe the noise in terms of type and level:

| **During the construction phase of the project, 'normal' noise levels associated with the construction vehicles will be generated. Noise levels will be managed through ensuring that all construction vehicles are appropriately serviced at all times so that they do not generate unnecessary loud noise levels. It will also be the requirements that construction activities only takes place during working hours so as to limit noise generation to day time only, particularly closer to built-up areas.** |
|---|

## 13. WATER USE

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box(es):

| Municipal ✓ | Water board | Groundwater | River, stream, dam or lake | Other | The activity will not use water |
|---|---|---|---|---|---|

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month: Litres

Does the activity require a water use authorisation (general authorisation or water use license) from the Department of Water and Sanitation? YES

If YES, please provide proof that the application has been submitted to the Department of Water and Sanitation.

## 14. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

**The activity is a gravity outfall sewer pipeline, and no energy efficient measures can be considered for this activity.**

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

**No energy sources are required for the proposed activity as it is a gravity fall sewer line. However, there are some pump stations associated with the sewer pipeline, although these are not part of the proposed portion to be upgraded. It is encouraged that the municipality should consider solar power as energy sources to power the pump stations in the municipal area into the future.**

Has a specialist been consulted to assist with the completion of this section? NO

If YES, please complete the form entitled "Details of specialist and declaration of interest" for the specialist appointed and attach in " ppendix F.

# SECTION B: SITE/AREA/PROPERTY DESCRIPTION

**Important notes:**

1. For linear activities (pipelines, etc) as well as activities that cover very large sites, it may be necessary to complete this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section B and indicate the area, as it appears on the Site Plan.

2. Paragraphs 1 - 6 below must be completed for each alternative.

| | |
|---|---|
| **Current land-use zoning as per local municipality IDP/records:** | **The existing outfall sewer pipeline is located within the municipal servitude, and it is anticipated that the proposed sewer upgrade will be done adjacent to the existing sewer pipeline, but importantly within the municipal servitude. If for some other reason the proposed outfall sewer line alignment will fall outside the municipal servitude, a servitude in favour of the municipality will be registered, at no cost to the land owners.** |

In instances where there is more than one current land-use zoning, please attach a list of current land use zonings that also indicate which portions each use pertains to, to this application.

Is a change of land-use or a consent use application required? NO

## 1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

**Alternative S1:**

| Flat | 1:50 – 1:20 ✓ | 1:20 – 1:15 | 1:15 – 1:10 | 1:10 – 1:7,5 | 1:7,5 – 1:5 | Steeper than 1:5 |
|---|---|---|---|---|---|---|

**Alternative S2 (if any):**

| Flat | 1:50 – 1:20 | 1:20 – 1:15 | 1:15 – 1:10 | 1:10 – 1:7,5 | 1:7,5 – 1:5 | Steeper than 1:5 |
|---|---|---|---|---|---|---|

**Alternative S3 (if any):**

| Flat | 1:50 – 1:20 | 1:20 – 1:15 | 1:15 – 1:10 | 1:10 – 1:7,5 | 1:7,5 – 1:5 | Steeper than 1:5 |
|---|---|---|---|---|---|---|

## 2. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site:

| | | | | | |
|---|---|---|---|---|---|
| 2.1 Ridgeline | | 2.4 Closed valley | ✓ | 2.7 Undulating plain / low hills | |
| 2.2 Plateau | ✓ | 2.5 Open valley | | 2.8 Dune | |
| 2.3 Side slope of hill/mountain | | 2.6 Plain | | 2.9 Seafront | |

## 3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

**Is the site(s) located on any of the following?**

| | **Alternative S1:** | | **Alternative S2 (if any):** | | **Alternative S3 (if any):** | |
|---|---|---|---|---|---|---|
| Shallow water table (less than 1.5m deep) | | NO | YES | NO | YES | NO |
| Dolomite, sinkhole or doline areas | | NO | YES | NO | YES | NO |
| Seasonally wet soils (often close to water bodies) | YES | | YES | NO | YES | NO |
| Unstable rocky slopes or steep slopes with loose soil | | NO | YES | NO | YES | NO |
| Dispersive soils (soils that dissolve in water) | | NO | YES | NO | YES | NO |
| Soils with high clay content (clay fraction more than 40%) | | NO | YES | NO | YES | NO |
| " ny other unstable soil or geological feature | | NO | YES | NO | YES | NO |
| " n area sensitive to erosion | | NO | YES | NO | YES | NO |

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted.

## 4. GROUNDCOVER

**Indicate the types of groundcover present on the site. The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).**

| | | | | |
|---|---|---|---|---|
| Natural veld - good condition[E] | Natural veld with scattered aliens[E] ✓ | Natural veld with heavy alien infestation[E] | Veld dominated by alien species[E] | Gardens |
| Sport field ✓ | Cultivated land | Paved surface | Building or other structure ✓ | Bare soil |

**If any of the boxes marked with an "[E] "is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn't have the necessary expertise.**

## 5. SURFACE WATER

**Indicate the surface water present on and or adjacent to the site and alternative sites?**

| | | | |
|---|---|---|---|
| Perennial River | [redacted] | NO | [redacted] |
| Non-Perennial River | YES | [redacted] | [redacted] |
| Permanent Wetland | YES | NO | UNSURE |
| Seasonal Wetland | YES | [redacted] | [redacted] |
| " rtificial Wetland | [redacted] | NO | [redacted] |

**If any of the boxes marked YES or UNSURE is ticked, please provide a description of the relevant watercourse.**

**The Study area falls within the C24H quaternary catchment of the Middle Vaal Water Management Area (WMA), which is sub-catchment of the Vaal Major WMA (DWS 2012, https://www.dwa.gov.za/). Major rivers in this catchment include the Wilge, Liebenbergsvlei, Mooi, Renoster, Vals, Sand, Vet, Harts, Molopo and Vaal. The main river that flows within the study area is the Palmietspruit River, which is a first order stream.**

**A channeled valley bottom wetland was identified within the sewer outfall pipeline study area. The CVB wetland was associated with the Palmietspruit River of the North West Province. The CVB wetland is ranked as Moderately Modified both based on PES and EIS undertaken. This infers that the wetland has not experienced major impacts both due to natural or anthropogenic activities. The proposed sewer outfall upgrade will run along the existing pipeline but further away from the river. The sewer pipeline is located adjacent the CVB wetland with portions of it cutting through the wetland. The construction of the sewer pipeline will undoubtedly have a negative impact on the current state of the CVB wetland, however with proper mitigation measures put in place, impacts might be left at a minimum and the integrity of the wetland may be restored after construction. In addition, the proposed activity is a linear activity which has less detrimental impacts on water courses than other developments such as mining (Nemakhavhani, 2017).**

## 6. LAND USE CHARACTER OF SURROUNDING AREA

**Indicate land uses and/or prominent features that currently occur within a 500m radius of the site and give description of how this influences the application or may be impacted upon by the application:**

| | | |
|---|---|---|
| Natural area ✓ | Dam or reservoir | Polo fields |
| Low density residential | Hospital/medical centre | Filling station H |
| Medium density residential | School ✓ | Landfill or waste treatment site |
| High density residential | Tertiary education facility | Plantation |
| Informal residential A | Church | " griculture |
| Retail commercial & warehousing ✓ | Old age home | River, stream or wetland N ✓ |
| Light industrial | Sewage treatment plant A | Nature conservation area N |
| Medium industrial AN | Train station or shunting yard N | Mountain, koppie or ridge N |
| Heavy industrial AN | Railway line N ✓ | Museum |
| Power station | Major road (4 lanes or more) N ✓ | Historical building N |
| Office/consulting room | " irport N | Protected " rea N |
| Military or police base/station/compound | Harbour | Graveyard N |
| Spoil heap or slimes dam A | Sport facilities | " rchaeological site N |

| | | |
|---|---|---|
| Quarry, sand or borrow pit | Golf course | Other land uses (describe) |

If any of the boxes marked with an "N "are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain

| |
|---|
| |

If any of the boxes marked with an "AN" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

| |
|---|
| **NOT APPLICABLE** |

If any of the boxes marked with an "H" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

| |
|---|
| **NOT APPLICABLE** |

Does the proposed site (including any alternative sites) fall within any of the following:

| | | |
|---|---|---|
| Critical Biodiversity " rea (as per provincial conservation plan) | [redacted] | NO |
| Core area of a protected area? | [redacted] | NO |
| Buffer area of a protected area? | [redacted] | NO |
| Planned expansion area of an existing protected area? | [redacted] | NO |
| Existing offset area associated with a previous Environmental " uthorisation? | [redacted] | NO |

If the answer to any of these questions was YES, a map indicating the affected area must be included in " ppendix B (as part of sensitivity map).

## 7. BIODIVERSITY

Please note: The Department may request specialist input/studies depending on the nature of the biodiversity occurring on the site and potential impact(s) of the proposed activity/ies. To assist with the identification of the biodiversity occurring on site and the ecosystem status consult http://bgis.sanbi.org or BGIShelp@sanbi.org. Information is also available on compact disc (cd) from the Biodiversity-GIS Unit, Ph (021) 799 8698. This information may be updated from time to time and it is the applicant/ E" P's responsibility to ensure that the latest version is used. " map of the relevant biodiversity information (including an indication of the habitat conditions as per (b) below) and must be provided as an overlay map to the property/site plan as " ppendix B to this report.

**a) Indicate the applicable biodiversity planning categories of all areas on site and indicate the reason(s) provided in the biodiversity plan for the selection of the specific area as part of the specific category)**

| **Systematic Biodiversity Planning Category** | | | | **If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan** |
|---|---|---|---|---|
| Critical Biodiversity " rea (CB" ) | Ecological Support " rea (ES" ) | Other Natural " rea (ON" ) | No Natural " rea Remaining (NNR) | |
| | | | | |
| | | | | |

**b) Indicate and describe the habitat condition on site**

| Habitat Condition | Percentage of habitat condition class (adding up to 100%) | Description and additional Comments and Observations (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing, harvesting regimes etc). |
|---|---|---|
| Natural | **15%** | **Only a small percentage of the vegetation on the project site is a natural state due to human activities on the site.** |
| Near Natural (includes areas with low to moderate level of alien invasive plants) | **40%** | **Below 50% of the vegetation on the project site could be considered to be in near natural state.** |
| Degraded (includes areas heavily invaded by alien plants) | **15%** | **Disturbances on the project site due to human activities has led to the introduction of alien invasive plants on site.** |
| Transformed (includes cultivation, dams, urban, plantation, roads, etc) | **30%** | **About 30% of the project area can be considered transformed due to the existing railway line adjacent the sewer pipeline alignment as well as residential and business developments closer to site.** |

**c) Complete the table to indicate:**

**(i) the type of vegetation, including its ecosystem status, present on the site; and**

**(ii) whether an aquatic ecosystem is present on site.**

| Terrestrial Ecosystems | | " quatic Ecosystems |
|---|---|---|
| Ecosystem threat status as per the National Environmental Management: Biodiversity " ct (" ct No. 10 of 2004) | **Critical** | **Wetland (including rivers, depressions, channelled and unchanneled wetlands, flats, seeps pans, and artificial wetlands)** |
| | **Endangered** | |
| | **Vulnerable** | |
| | **Least Threatened** | **YES** [redacted] |

c) **Please provide a description of the vegetation type and/or aquatic ecosystem present on site, including any important biodiversity features/information identified on site (e.g. threatened species and special habitats)**

| |
|---|
| **According to the North West Province Biodiversity Conservation Assessment (2015) a Critical Biodiversity Area is located at a distance of about 1km from the proposed project site. The entire proposed site is located within an Endangered Ecosystem.**<br><br>**The majority of the development site is regarded as of High sensitivity. The sensitivity rating scale used to determine the sensitivity of the proposed site is that explained in section 3.5 above. The high sensitivity status is given due to the fact that the proposed sewer outfall upgrade pipeline runs along the Palmietspruit River and associated wetland system, and therefore due care must be exercised when undertaking the proposed project (Dotwana, 2017).** |

## 8. CULTURAL/HISTORICAL FEATURES

| | |
|---|---|
| " re there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources " ct, 1999, (" ct No. 25 of 1999), including " rchaeological or paleontological sites, on or close (within 20m) to the site? If YES, explain: | [redacted] NO<br>Uncertain |
| **NOT APPLICABLE** | |

If uncertain, conduct a specialist investigation by a recognised specialist in the field (archaeology or palaeontology) to establish whether there is such a feature(s) present on or close to the site. Briefly explain the findings of the specialist:

| |
|---|
| **NOT APPLICABLE** |

| | |
|---|---|
| Will any building or structure older than 60 years be affected in any way? | [redacted] NO |
| Is it necessary to apply for a permit in terms of the National Heritage Resources " ct, 1999 (" ct 25 of 1999)? | [redacted] NO |

If YES, please provide proof that this permit application has been submitted to S" HR" or the relevant provincial authority.

## 9. SOCIO-ECONOMIC CHARACTER

### a) Local Municipality

**Please provide details on the socio-economic character of the local municipality in which the proposed site(s) are situated.**

**Level of unemployment:**

**The municipal area was as per the 2011 Statistics characterised by high unemployment levels (19.6%). This is lower than the national average of 25% but higher than the North West Province (17. 1%). The majority of people are employed as elementary (14%), plant and machine operators (15.4%) and craft related trades workers (15.2%). There are also a large number of professionals (16%). The African (22.4%) and coloured (21.8%) populations in the City of Matlosana in 2011 had higher levels of unemployment than the white (5%) or Asian (7.2%) population. The suburbs in the City of Matlosana that had the highest level of unemployment in 2011 are Kanana (28.1%), Khuma (29.5%) and Alabama (26%) (Source: South African Cities Network, 2014).**

**Economic profile of local municipality:**

**In accordance with the 2011 Statistics, The City of Matlosana currently contributes only 0.6% to the South African economy and 10.2% to that of the North West Province. At a district level, The City of Matlosana contributes 43.8% of the Dr Kenneth Kaunda District economy which represents 27.9% of the North West Province.**

**With regards to the economic sectors, mining plays an important role in the economy of the North West Province (28.79%) whereas the manufacturing sector (18.87%) also features strongly in the metropolitan areas. The current (2011) main pillars of the local economy of the City of Matlosana are the services (28.11%), financial (27.47%), transport and communication (17.26%), retail (14.30%) and mining (7.75%) sectors. The transport sector will possibly become more important as the N12 Route development occurs. This forms part of the alternative N1 Route between Gauteng and Cape Town, and is also on the main routes for exporting to Namibia and Botswana.**

**Surprisingly, agriculture has contributed only minimally to the economy of the City of Matlosana in 2011. Although the head office of Senwes is located in the area, they do not necessarily operate primarily in the City of Matlosana but have expanded mostly in the adjacent areas, such as Wolmaranstad and Bothaville in the Free State and even as far as Botswana.**

**In the nearby vicinity of the mines, mining companies bought out agricultural land. Although this is primarily to minimise the risks associated with pollution of agricultural land by mining activities, large portions of this land have now been rented back to farmers. There are a few small farms along the Schoonspruit that are under irrigation.**

**The mining sector's economic contribution to the City of Matlosana has dropped dramatically from 58.48% in 1996 to only 7.75% in 2011. This is directly related to the risks associated with deep mining and the 'depletion' of gold reserves. Even the share prices of the mining companies have declined drastically. In addition, labour union problems and the events of Marikana in Rustenburg have affected the current situation in gold mining. The contribution that the mining sector made in the North West Province also decreased from 37.8% in 1996 to 28.79% in 2011. This was not such a drastic drop for the province as a whole. In the North West Province, the other sectors have not changed in contributions they make to the**

**economy.**

**The sectors that have shown growth in their proportional share in the economy of the City of Matlosana are the trade sector (from 7.87 to 14.30%), the transport and communication sector (from 6.19 to 17.26%), the finance sector (from 9.40 to 23.27%) and lastly the services sector (from 12.59 to 28.41%). The demise of mining has thus resulted in a more diversified economy with transport, finance and services sectors proportionally growing their share of the economy.**

**AngloGold Ashanti, which was one of the main gold producers in the area, has moved all their mining activity south of the Vaal River into the Free State Province. However, the City of Matlosana is the main place of residence for people working on mines south of the Vaal River. The only major mining activity currently taking place within the City of Matlosana area is uranium mining (First Uranium and Uranium One) and gold mining (Pamodzi – not in operation36). For both gold and uranium, beneficiation tends to take place at the market. The only beneficiation that is currently taking place is the rehabilitation of the old mine dumps (rocks) and using the rocks for various types of construction.**

**The service economy of the City of Matlosana is fairly equally distributed between the service subsectors. These service economy subsectors are as follows in 2011: public administration (27.67%); education (31.8%); health (19.8%) and other services (20.8%). These services contribute to both public and private sectors (especially medical services) also increasing the services offered in the area. The role of good, fee-paying schools (mainly old Model C schools) should also be recognised. There are four high schools with hostels in the area. In the two Afrikaans-medium schools 90% (approximately 300) of the children in the hostels who go home over weekends, and are from the surrounding agricultural community of the North West region. The construction sector has been struggling for years but is picking up because of the development taking place on the N12.**

**Lastly, there is also an informal sector in the City of Matlosana's economic profile, and this is dominated by traders. Almost 50% of the informal sector comprised traders in 1996 and 2011. In 2001 these traders made up 57% of informal employment.**

**Level of education:**

**By 2011, almost half of the population in the City of Matlosana had obtained some secondary education (48.4%). It is slightly higher than the percentage of the population of the North West Province (43%) that has obtained some secondary education. Furthermore, 20% of this figure is for Grade 12 students. In 2011, 4% of the population had also obtained tertiary education (Certificate, Diploma or Bachelor degrees). The local uneducated population (6.1%) is lower than the national average of 17.9%.**

**Comparing education levels across the races, the Africans than the white population in the City of Matlosana are unschooled (7% compared to 1.2%). Overall, more of the white population (65%) obtained some secondary education as well as tertiary education (14.8%) than the African population (45% and 3% respectively) (Source: South African Cities Network, 2014).**

**b) Socio-economic value of the activity**

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| What is the expected capital value of the activity on completion? | **R 72.4 million** |
| What is the expected yearly income that will be generated by or as a result of the activity? | **R 0**<br>**The sewer pipeline will not generate any income.** |
| Will the activity contribute to service infrastructure? | YES [redacted] |
| Is the activity a public amenity? | YES [redacted] |
| How many new employment opportunities will be created in the development and construction phase of the activity/ies? | **30** |
| What is the expected value of the employment opportunities during the development and construction phase? | **R 2 000 000** |
| What percentage of this will accrue to previously disadvantaged individuals? | **85 %** |
| How many permanent new employment opportunities will be created during the operational phase of the activity? | **0**<br>**No new jobs will be created as a result of sewer upgrade.** |
| What is the expected current value of the employment opportunities during the first 10 years? | R<br>**Employment will only be created during construction phase as above.** |
| What percentage of this will accrue to previously disadvantaged individuals? | **0 %** |

## 10. SPECIALIST(S) CONSULTATION

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| **Has a specialist been consulted to assist with the completion of this section?** | [redacted] **NO** |

If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed and attach it in " ppendix F. " ll specialist reports must be contained in " ppendix G and must meet the requirement in " ppendix 6 of El" Regulations, 2014.

## SECTION C: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EI" Regulations, 2014, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

### 1. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

**Provide a summary and anticipated significance of the potential direct, indirect and cumulative impacts that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed. This impact assessment must be applied to all the identified alternatives to the activities identified in Section A(2) of this report.**

| **PLANNING PHASE** | | | |
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| **There are no direct or indirect impacts anticipated at the Planning Phase of development. However it is during this phase that it must be ensured that the designs of the structures that will be constructed are in such a way that impacts that could arise at the construction and operational phases are avoided or minimized. It is also during this phase that all the relevant authorisations/permits that are triggered by the activity must be to be applied for and obtained from the relevant authorities. Planning in terms of all the facilities that will be needed in order to manage waste, sewage waste, etc must be done at this phase. The flora and fauna species rescue plan (if required) must be developed and executed prior to any construction activities. A proper demarcation of the no-go areas and the pegging of the servitude must also be done prior to construction activities.** | | | |
| **CONSTRUCTION PHASE** | | | |
| **Direct and Indirect Impacts** | | | |
| **Activity** | **Impact summary** | **Significance** | **Proposed mitigation** |
| Vegetation clearing | **Loss of vegetation** | Medium (Negative) | • " reas designated for vegetation clearing should be identified and visibly marked off.<br>• Vegetation clearing in natural areas should be kept to a minimum and restricted to the proposed development footprint only, *i.e. the area on the way for the development.*<br>• Exposed areas should be rehabilitated with indigenous plants to the project area as soon as construction is finished. Detailed rehabilitation plans need to be compiled for all primary natural vegetation areas to be affected during the construction activities. The detailed rehabilitation plan should make provision for a nursery where plants which can be transplanted such as geophytes (bulbs) and/ or seedlings be maintained or propagated |

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| | | | depending on the nature of the species required.<br>• The compacted areas (e.g. tlb or crane tracks, etc.) which are no longer needed after construction may need to ripped or scarified to break up the compacted areas. These areas should then be sown with seed mix collected in the patches of indigenous vegetation on site. The appointed horticulturist must collect a locally indigenous seed mix from the natural vegetation on site (preferably by means of vacuum harvesting) and must store this for later use in areas in need of rehabilitation.<br>• The Environmental Control Officer (ECO) should liaise with botanist and horticulturist after completion of main construction phase to identify main areas of compaction in need of ripping and discuss best methodology; ripping may need to be done by tractor, followed by immediate mulching and sowing of previously stockpiled local mulch containing indigenous seed, and possibly hydro seeding with selected local seed.<br>• Management of the topsoil in these primary natural vegetation areas are critical, as they contain the seedbed for re-establishing the vegetation post construction, where structures are going to be placed which will not allow light and water to penetrate the soils |
| " ctivities associated with construction such as clearing of indigenous vegetation, disturbances of soil, importing of soil material, transportation of plant to site and movement of workers to site | **Alien plant species invasion** | Medium<br>(Negative) | • The best mitigation measure for alien and invasive species is the early detection and eradication of these species which will be ensured with the use of a monitoring programme.<br>• The Contractor must develop an " ction Plan or " Weed management strategy that will assist in preventing the introduction of weeds to the site and the removal of alien invasive species from the site throughout the lifespan of the construction stage. |
| Clearing of the vegetation during site establishment;<br><br>Construction and fencing; | **Impacts on Fauna**<br>Habitat loss for faunal species;<br><br>Noise | Medium<br>(Negative) | • Do not disturb nests, breeding sites or young ones;<br>• Do not attempt to kill or capture snakes unless directly threatening the safety of employees;<br>• Dogs or other pets are not allowed to the worksite as they are threats to the natural wild animal;<br>• Low speed limit should be enforced on site to reduce wild animal-vehicle collisions; |

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| Interaction between construction workers and wild animals;<br><br>Construction activities | disturbances to wild animals;<br><br>Trapping of wild animals in open trenches;<br><br>Trapping and killing of wild animals | | • No animals should be intentionally killed or destroyed and poaching and hunting should not be permitted on the site.<br>• Severe contractual fines must be imposed and immediate dismissal on any contract employee who is found attempting to snare or otherwise harms remaining faunal species.<br>• Hunting weapons are prohibited on site.<br>• Contract employees must be educated about the value of wild animals and the importance of their conservation.<br>• The ECO must conduct regular site inspections of removing any snares or traps that may have been erected.<br>• Employees and contractors should be made aware of the presence of, and rules regarding, fauna through suitable induction training and on-site signage. |
| Clearing of the vegetation;<br><br>Construction of the sewer pipeline;<br><br>Handling of chemicals on site;<br><br>Handling of construction vehicles and plant on site;<br><br>The use of sanitation facilities;<br><br>Discharging of effluent from site | **Impacts on the Stream (surface water) and underground water**<br><br>Disturbances on riparian and terrestrial vegetation can impact on the ecosystem of the streams;<br><br>Effluent of chemicals such as fuels can contaminate surface and underground water;<br><br>Flow of sewage into the streams/rivers can also pollute groundwater. | Medium<br><br>(Negative) | • Construction camp, storage, washing and maintenance of equipment, storage of construction materials or chemicals as well as any sanitation and waste management facilities must not be located within the distance of 100 m from any natural drainage line;<br>• The pollution of surface or ground water shall be prevented. Such pollution could result from the release, accidental or otherwise, of chemicals, oils, fuels, sewage, water from excavations, construction water, and water carrying soil particles or waste products;<br>• Clearing of vegetation should be kept to a minimum;<br>• Where applicable, no construction activity will be undertaken within a watercourse before the relevant water use licence has been obtained from the Department of Water and Sanitation. |
| Clearing of the vegetation; | **Soil Erosion** | Medium<br><br>(Negative) | Structural and non-structural (vegetative) erosion control measures should be designed, implemented, and properly maintained by the contractor in accordance with best management practices which |

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| Excavation and stockpiling of soil. | | | will include the following:<br>• Scheduling of activities to minimize the amount of disturbed area at any one time;<br>• Implementation of re-vegetation as early as feasible;<br>• Compacting loose soil as soon as possible after excavation, grading, or filling;<br>• " void areas with sensitive soils, steep slopes during rain or windy season. |
| Domestic waste generation and handling | **Domestic waste impacts**<br><br>Littering and pollution of the environment | Medium<br>(Negative) | • Clearly marked waste bins are to be provided for the separation of waste;<br>• Recyclable waste, including glass, paper and plastic must be separated at the construction camp, stored and recycled, where economically feasible;<br>• Train and educate site personnel on the importance of using the bins provided;<br>• Empty all full waste bins at a registered landfill site;<br>• Nominate a site representative to monitor and ensure proper usage of waste bins by site personnel;<br>• Do not bury or burn wastes on-site. |
| Construction waste generation and handling | **Construction waste impacts**<br><br>Pollution of the environment | Medium<br>(Negative) | • The Waste Management Plan must developed by the contractor and be adhered to at all times;<br>• " ll construction waste shall be stored in labeled waste skips located strategically on site. These skips shall be collected for removal to a licensed landfill site. No construction waste may be stored on site for longer than 90 days;<br>• The separation and recovery of recyclable materials is required and as such the contractor is expected to obtain and label recycling containers for the following (whichever relevant) and locate them within temporary office building and trailers:<br>- " luminum; Steel; Ferrous Metals; Non Ferrous Metals; and Waste Timber;<br>• Surplus concrete may not be dumped indiscriminately on site, but shall be removed from site when nearing completion of the different stages of work;<br>• Concrete trucks shall not be washed on site unless adequate washing and concrete collection facilities are introduced to site;<br>• The contractor will provide documentary evidence of proper waste disposal of the construction waste. |
| Hazardous waste | **Hazardous waste impacts** | Medium | • " ll waste fuel and chemical contaminated rags must be stored in leak-proof containers and disposed of at an |

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| generation and handling;<br><br>Handling of hazardous materials;<br><br>Concrete batching and cement use;<br><br>Storage and handling of fuels;<br><br>Maintenance of vehicles and plant | Contamination of soil and ground/surface water | (Negative) | approved hazardous waste site;<br>• Suitable Waste Disposal Contractor must be employed to remove waste oil. These wastes must only be disposed of at licensed landfill sites designed to handle hazardous waste. " ppropriate weigh bills must be provided for all hazardous waste being disposed of;<br>• Hazardous waste may only be stored on site (and in accordance to National Environmental Management: Waste " ct), where after it must be disposed of at a registered hazardous waste disposal site;<br>• Hazardous materials – such as paint, cement, fuel, oil, herbicides, battery acid or detergents – must be stored in sealed, lockable containers when not in use;<br>• " ll reasonable care must be taken to prevent spills of any hazardous material when in use;<br>• Storage areas shall display the required safety signs depicting “No smoking”, “No naked lights” and “Danger”. Containers shall be clearly marked to indicate contents as well as safety requirements;<br>• Cement products in bags must be stored in storage containers to be provided at the construction camp and should only be opened when needed;<br>• The cement storage facility and surrounding area must be swept and cleaned regularly as required to ensure that cement products do not the pollute the surrounding environment;<br>• Empty cement bags are to be collected and stored in a closed waste skip/ bins which, once full, can be disposed of at a registered landfill site;<br>• Cement bags are not to be burnt on site. No concrete batching on bare soil. Batch plants/areas shall be located within the designated working area on an impermeable surface to prevent cement spillages from contaminating bare soil;<br>• Care must be taken to prevent concrete spills;<br>• " ll spills (minor and major) must be recorded, cleaned and |

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| | | | remediated;<br>• The construction of the workshops, cleaning bays and fuel dispensing areas of the construction camps should be in such a way that no accidental spillages leave the site and where practically feasible the surface and storm water run-off is diverted through an oil/water separator before leaving the site;<br>• The storage of chemicals such as oils and petrol on site should be avoided and in instances where the storage of chemicals on site is unavoidable, the storage areas for these chemicals will be surfaced, bunded and sited in locations that pose low risk to surrounding surface water - it must be done in a proper manner;<br>• If the refueling of construction machines and vehicles is done on site, it should be done in designated area with proper signage and bunding;<br>• " n oil spill kit should always be kept on the project site for use in the cleaning of any accidental oil spillage from construction machines and vehicles. Workers must be properly trained on the use of the spill kit;<br>• Drip trays will be put under all the construction machines and trucks and these drip trays will be checked regularly to see if there are leakages of chemicals. Leaking plant shall be repaired immediately or be removed from site to facilitate repair;<br>• If any servicing of the construction plant is to be done on site, it should be done in designated workshop area that is surfaced to avoid any leakage of oil into the ground;<br>• The use of road unworthy construction machines and vehicles must be avoided to minimize possible leakages of oils from engines of these machines;<br>• Oil spillages together with the polluted soil must be removed from the site and disposed of at the nearest authorized/registered hazardous waste disposal site. |
| Excavation and stockpiling | **Dust impacts** | Medium<br>(Negative) | • The speed of construction vehicles and machinery should be kept low; |





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| of soil;<br><br>Movement of construction vehicles on access gravel roads;<br><br>Transportation of soil material. | Generation of dust leading to air pollution | | • If excessive dust is created due to excavations, stripping of topsoil, etc. continual wetting down of surfaces must be undertaken;<br>• Material in transit should be loaded and contained within the load bin of the vehicle in such a way as to prevent any spillage onto the roads and the creation of dust clouds;<br>• If necessary, the load bin of the vehicle shall be covered with a tarpaulin to prevent dust;<br>• Excessive dust is to be controlled on unpaved access roads and site roads using sprayed water;<br>• Where possible haulage distances must be minimized;<br>• Environmentally friendly soil stabilizers may be used as additional measures to control dust on gravel roads and construction areas;<br>• Construction material such as soil being transported by trucks must be suitably moistened or covered to prevent dust generation;<br>• Minimize disturbance of natural vegetation;<br>• Water used for dust control shall only be taken from approved sources. |
| Construction activities involving the movement of construction trucks/vehicles and machinery<br><br>Blasting activities (if applicable) | **Noise impacts**<br>Generation of noise | Low<br>(Negative) | • Placement of material stockpiles: Where possible, material stockpiles should be placed so as to protect the site boundaries from noise from individual operations.<br>• Noise levels will be managed through ensuring that all construction vehicles are appropriately serviced at all times so that they do not generate unnecessary loud noise levels.<br>• It will also be the requirements that construction activities only takes place during working hours so as to limit noise generation to day time only. |
| Construction activities in relation to the health and safety of workers | **Health and Safety impacts**<br><br>Health and safety risks associated with construction work | Medium<br>(Negative) | The Health and Safety " ct must be complied with throughout the entire construction phase |
| Construction-related activities such as making of fire handling | **Construction-related fire hazard**<br><br>Fire hazard | Medium<br>(Negative) | • Reasonable and active steps to avoid increasing the risk of fire on site should be taken;<br>• Fires shall only be allowed in facilities or equipment specially constructed for this purpose. Fires for heating or cooking, e.g. a braai facility, shall only be permitted at an |

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| of flammable and combustible materials on site | Loss of vegetation | | approved designated site at the site camp and shall be away from any flammable stores or combustible materials. Such fires shall be supervised at all times; a fire extinguisher shall be at hand as well as sufficient water to completely douse the fire after use;<br>• " firebreak shall be cleared and maintained around the perimeter of the camp and office sites;<br>• " ll conditions incorporated in the requirements of the Occupational Health and Safety " ct shall be implemented;<br>• There will be no burning of waste on site. |
| Construction activities involving the movement of construction trucks/vehicles and machinery | **Construction-related public safety issues**<br><br>" ccidents resulting from the movement of construction vehicles and machinery which may result in members of the nearby local community being injured or dying | Low<br>(Negative) | • The construction site must be fenced off and community members must not be allowed to loiter within the construction site;<br>• The local community more especially the parents must be encouraged to get involved in making their kids to be aware of the dangers associated with the construction activities;<br>• Ensure all construction equipment and vehicles are properly maintained at all times;<br>• Ensure that operators and drivers are properly trained and make them aware, through regular toolbox talks, of any risk they may pose to the community. Place specific emphasis on the vulnerable sector of the population such as children and the elderly;<br>• The speed of construction vehicles and machinery must be kept low;<br>• Ensure that fires lit by construction staff are only ignited in designated areas and those safety precautions, such as not lighting fires in strong wilds and completely extinguishing fires before leaving them unattended, are strictly adhered to;<br>• Construction workers must be made to be aware of the risks associated with starting fires on construction sites;<br>• " ll excavated areas/trenches must be barricaded to avoid humans and animals from falling into them. |
| Influx of construction workers and their interaction with the local community | **Construction-related social well-being impacts**<br><br>Possible increase in social pathologies such as crime, HIV/" IDS | Low<br>(Negative) | • Ensure that construction workers are clearly identifiable. " ll workers should carry identification cards and wear identifiable clothing;<br>• Fence off all construction sites and control access to these sites;<br>• Liaise with the South " frican Police Services (S" PS) and existing local community safety structures/systems to ensure that criminal activities are monitored;<br>• Encourage local people to report any suspicious activity associated with the construction sites; |

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| | infections, alcoholism, prostitution and drug use. | | • Prevent loitering within the vicinity of the construction sites;<br>• Ensure that an onsite HIV and " IDS policy is in place and that construction workers have easy access to condoms;<br>• Implement HIV / " IDS and alcohol abuse campaigns in the communities;<br>• The contractor must develop employee wellness and public health programs in collaboration with local communities. These could include regular health surveys, educational programs and Voluntary Counselling and Testing (VCT) campaigns. |
| Construction activities and the physical intrusion of the project into the existing social environment | **Construction-triggered sense of loss of place**<br><br>Loss of a sense of place. | Low<br>(Negative) | • Ensure that, at all times, people have access to their properties as well as to social facilities such as schools, churches, transport and shops;<br>• Liaise with leaders in those areas to ensure that any community concerns are recognized and where reasonable are swiftly addressed. Where necessary always provide prompt and clear feedback to communities;<br>• In order to minimize visual intrusion in the area soil stockpiles must not be kept too high and that the plant is kept in areas that are screen off from communities;<br>• Ensure that local activities such as business and sports are not affected negatively by construction activities;<br>• During construction regularly monitor the effect that the project has on existing infrastructure facilities within the area. |
| Interaction of the contractor with the local community | **Construction-related employment opportunities**<br><br>Creation of employment opportunities for local people and SMMEs<br><br>Skills transfer from the contractor to the members of the local community | High<br>(Positive) | • Local residents should be recruited to fill semi and unskilled jobs;<br>• Women should be given equal employment opportunities and encouraged to participate as part of the local labor force;<br>• " Skills transfer plan should be put in place at an early stage and workers should be given the opportunity to develop skills which they can use to secure jobs elsewhere post-construction;<br>• " procurement policy promoting the use of local business should, where possible, be put in place to be applied throughout the construction phase;<br>• Liaise with local community structures (e.g. civic structures) to identify local labor pool;<br>• Prioritize sub-contracting to local SMMEs;<br>• Consultation with the local communities must ensure that the temporary nature of the employment opportunities is clearly communicated. |
| **OPERATIONAL PHASE** | | | |
| **Direct and indirect impacts** | | | |

| Activity | Impact summary | Significance | Proposed mitigation |
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| Operation of the upgraded outfall sewer pipeline | **Alien plant species invasion risk**<br><br>Risk of alien invasive plants invading the servitude of the outfall sewer pipeline | Medium<br>(Negative) | • " plan to control the spreading of invasive plants which will include the monitoring of the site and eradication of the invasive must be developed and implemented;<br>• Further damage to the environment because of maintenance work on the sewer pipeline servitude must be avoided since this may increase the chances for the alien invasive plants to re-establish themselves. |
| Operation of the upgraded outfall sewer pipeline | **Increase in the sewerage flow capacity**<br><br>" n increase in the sewerage flow capacity leading to elimination of sewer blockages and overflows previously experienced. | High<br>(Positive) | None |
| Operation of the upgraded outfall sewer pipeline | **Impacts on Stream and Wetland**<br><br>Water resources may be polluted by sewer leaks and spillages<br><br>Water quality may deteriorate as a result of erosion and sedimentation | Medium<br>(Negative) | • " sewer management plan must be developed and implemented to anticipate and prevent possible leaks and spillages before they occur;<br>• " storm water management plan must be developed and implemented at the operational phase on a continuous basis;<br>• " erosion control plan must be developed and implemented at the operational phase on a continuous basis;<br>• Servicing of maintenance vehicles should not be done within a distance of 100 m from any natural drainage channel and wetland;<br>• " n oil spillage cleaning kit must always be available when maintenance work is done on site and accidental oil spillages must be cleaned and the contaminated soil be disposed of at a registered hazardous waste site. |

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| | Contamination of water by fuel and other chemicals | | |
| Behavior of outfall sewer pipeline maintenance workers | **Veld Fires**<br>Veld fires as a result of making open fire or throwing of lit cigarettes stumps | Low<br>(Negative) | • No fires must be made in the veld and cigarettes stumps should be put off before thrown away<br>• Maintenance workers must be made aware about the importance of not starting veld fires. |
| Behavior of outfall sewer pipeline maintenance workers | **Domestic waste impacts**<br>Littering resulting from throwing away of waste generated by maintenance workers on site | Low<br>(Negative) | • Domestic waste generated during maintenance work should be collected into refuse bags for disposal into the nearest municipal waste bin where service of collecting waste for disposal into landfill site is rendered by the municipality;<br>• Maintenance workers must consistently be made aware of the importance of not littering. |

| **CUMMULATIVE IMPACTS** | | | |
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| **Past, current and future actions** | **Environmental resource cumulatively impacted** | **Significance** | **Mitigation Measures** |
| Existing outfall sewer pipeline<br>Existing outfall sewer line service road<br>Proposed outfall sewer pipeline upgrade to be constructed<br>Proposed service road to be constructed | **Vegetation**<br>Possible clearing of the vegetation in the past to give way to the existing infrastructures and structures resulted in possible vegetation loss, which will be compounded by further vegetation clearing when the new proposed structures are | Medium<br>(Negative) | • " reas designated for vegetation clearing should be identified and visibly marked off.<br>• Vegetation clearing in natural areas should be kept to a minimum and restricted to the proposed development footprint only, i.e. the confirmed servitude and access road.<br>• Exposed areas should be rehabilitated with indigenous plants to the project area as soon as construction is finished.<br>• Supervision by an ecologist to ensure success of the rescue operation<br>• Replanting should only occur in springs or early summer (September to November), once the first rains have fallen, in order to facilitate |

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| | constructed. The clearing of vegetation results in vegetation loss directly. Indirectly it can promote increase in soil erosion, cause faunal habitat loss and impact in biodiversity. | | establishment |
| Existing outfall sewer pipeline<br>Existing outfall sewer line service road<br>Proposed outfall sewer pipeline upgrade to be constructed<br>Proposed service road to be constructed | **Alien invasive/exotic plant species**<br><br>Past actions possibly contributed to the introduction and spreading of alien invasive plant species within the study area. This will be compounded by the possible further introduction and/or spreading of the alien invasive plants as a result of proposed future actions. The spreading of alien invasive plants can indirectly impact on the indigenous plants and ecosystems | Medium<br>(Negative) | • The best mitigation measure for alien and invasive species is the early detection and eradication of these species which will be ensured with the use of a monitoring programme.<br>• " n alien invasive management programme should be developed and implemented in order to control alien invasive species |
| Existing outfall sewer pipeline<br>Existing outfall sewer line service road<br>Proposed outfall sewer pipeline upgrade to be constructed<br>Proposed service road to be constructed | **Soil**<br><br>Past and future actions will have a cumulative effect on soil erosion. Soil erosion could lead to loss of soil fertility and stability thus affecting the growth of indigenous plants whilst promoting the | Medium<br>(Negative) | • If areas that are susceptible to erosion cannot be avoided, then erosion hindering structures such as gabions must be placed in and along these areas to reduce and prevent any further erosion and sedimentation;<br>• The unnecessary removal of vegetation on the construction site must be avoided or minimized to reduce the acceleration of erosion.<br>• Erosion damages must be repaired on a progressive basis throughout the construction period.<br>• " storm water management plan must be |

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| | establishment of alien invasive plants. This could indirectly affect faunal species. | | developed and implemented |
| Existing outfall sewer pipeline<br>Existing outfall sewer line service road<br>Proposed outfall sewer pipeline upgrade to be constructed<br>Proposed service road to be constructed | **Stream and Wetland (water resources)**<br>The past actions possibly caused impacts such sedimentation, loss of water quality and water flow disturbances on the river and streams. Proposed future actions could possibly result in impacts on the river and streams thereby causing a cumulative effect. Impacts on the river and streams could indirectly affect aquatic fauna and flora species | Medium<br>(Negative) | • Construction camp, storage, washing and maintenance of equipment, storage of construction materials or chemicals as well as any sanitation and waste management facilities must not be located within the distance of 100 m from any natural drainage lines or wetland.<br>• The pollution of surface or ground water shall be prevented. Such pollution could result from the release, accidental or otherwise, of chemicals, oils, fuels, sewage, water from excavations, construction water and water carrying soil particles or waste products.<br>• Clearing of vegetation should be kept to a minimum.<br>• Where applicable, no construction activity will be undertaken within a watercourse, including wetland before the relevant water use authorization has been obtained from the Department of Water and Sanitation.<br>• Where applicable, all the conditions (including the impact management measures to be undertaken) as stipulated in the relevant water use authorization granted by the Department of Water and Sanitation for the water uses must be adhered to.<br>• The construction of the outfall sewer pipeline must be done according to the method statement.<br>• " storm water management plan must be developed and implemented throughout the construction stage.<br>• " blution facilities such as chemical toilets facilities shall be used and sited on the project and camping site in such a way that they do not cause water or other pollution.<br>• When these toilets are full, their contents (sewage waste) must be removed in a manner that will not cause any pollution and will be transported off the site and disposed of at an authorized sewage disposal facility.<br>• Before environmental-friendly toilets are used, |

| | | | |
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| | | | the permission to dispose the sewage waste at an authorized sewage facility must be obtained from the relevant service provider.<br>• Discharge of any waste water containing pollutants, such as cements, lime, chemicals and oils and fuels into any drainage lines or wetland or onto any adjacent natural vegetation should be prevented.<br>• " ll effluent water from site shall be disposed of in a properly designed and constructed system, situated so as not to adversely affect water courses (streams, rivers, pans, dams, wetlands etc.). Only domestic type wastewater shall be allowed to enter the designated system.<br>• Wash areas shall be placed and constructed in such a manner so as to ensure that the surrounding areas are not polluted. |
| | | | |

" complete impact assessment which include process undertaken to identify, assess and rank the impacts, the activity will impose on the site through the life of the activity in terms of EI" Regulation 2014, " ppendix 1(i) and (j) of GN R.982 must be included as " ppendix H.

## 2. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity and its alternatives may have on the environment <u>after</u> the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

**Alternative A (preferred alternative)**

**Presented below is the summary of the predicted potential impacts that are likely to arise from the construction of the proposed Adamayview outfall sewer pipeline upgrade. The types of impacts, duration of the impacts, likelihood/probability of the potential impacts actually occurring and the significance of these impacts before and after mitigation measures are also presented.**

**<u>Duration</u>**
Immediate ; Short term; Medium term; Long term; Permanent
***Likelihood/Probability of Occurrence***
Improbable; Low; Medium; High; Definite
**Type: Negative; Positive**

| CONSTRUCTION PHASE IMPACTS |
|---|

| IMPACT | TYPE | DURATION | LIKELIHOOD/ PROBABILITY | SIGNIFICANCE BEFORE MITIGATION | SIGNIFICANCE AFTER MITIGATION |
|---|---|---|---|---|---|
| **Impacts on vegetation**<br><br>**Disturbance and loss of vegetation** | **Negative** | **Medium term** | **Definite** | **Medium** | **Low** |
| **Alien plant species invasion** | **Negative** | **Long term** | **Definite** | **Medium** | **Low** |
| **Impacts on Fauna**<br><br>Habitat loss for faunal species; Noise disturbances to wild animals; Trapping of wild animals in open trenches; Trapping and killing of wild animals | **Negative** | **Medium term** | **High** | **Medium** | **Low** |
| **Impacts on the Stream (surface water) and underground water**<br><br>Disturbances on riparian and terrestrial vegetation can impact on the ecosystem of the streams; Effluent of chemicals such as fuels can contaminate | **Negative** | **Medium Term** | **High** | **Medium** | **Low** |

| | | | | | |
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| surface and underground water;<br>Use of Sanitation Facilities | | | | | |
| **Impacts on wetland**<br><br>Disturbances on riparian vegetation can impact on the habitat and ecosystem of the wetlands.<br><br>The water flow dynamics of the wetland could also be affected by construction activities<br><br>Excavations within the wetland can lead to deterioration of the water quality due to sedimentation etc.<br><br>Effluent of chemicals such as fuels can contaminate water within the wetland | **Negative** | **Medium term** | **High** | **Medium** | **Low** |
| **Soil Erosion** | **Negative** | **Short term** | **High** | **Medium** | **Low** |
| **Heritage impacts**<br><br>Uncovering of artefacts of heritage from below the ground. | **Negative** | **Immediate** | **Low** | **Low** | **Low** |
| **Domestic waste impacts**<br><br>Littering and pollution of the | **Negative** | **Short term** | **High** | **Medium** | **Low** |

| | | | | | |
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| environment | | | | | |
| **Construction waste impacts**<br><br>Pollution of the environment | **Negative** | **Medium term** | **High** | **Medium** | **Low** |
| **Hazardous waste impacts**<br><br>Contamination of soil and groundwater | **Negative** | **Medium term** | **High** | **Medium** | **Low** |
| **Dust impacts**<br><br>Generation of dust leading to air pollution | **Negative** | **Short term** | **Definite** | **Medium** | **Low** |
| **Noise impacts**<br><br>Generation of noise | **Negative** | **Immediate** | **Definite** | **Low** | **Low** |
| **Health and Safety impacts**<br><br>Health and safety risks associated with construction work | **Negative** | **Immediate** | **High** | **Medium** | **Low** |
| **Construction-related fire hazard** | **Negative** | **Short term** | **High** | **Medium** | **Low** |
| **Land and other property (infrastructure) issues**<br><br>Loss of land by the affected landowners | **Negative** | **Permanent** | **High** | **Medium** | **Low** |
| **Construction-related public** | **Negative** | **Immediate** | **Medium** | **Low** | **Low** |

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| **safety issues**<br><br>" ccidents resulting from the movement of construction vehicles and machinery which may result in members of the nearby local community being injured or dying | | | | | |
| **Construction-related social well-being impacts**<br><br>Possible increase in social pathologies such as crime, HIV/" IDS infections, alcoholism, prostitution and drug use. | **Negative** | **Short term** | **Medium** | **Low** | **Low** |
| **Construction-triggered sense of loss of place** | **Negative** | **Short term** | **Medium** | **Low** | **Low** |
| **Construction-related employment opportunities**<br><br>Creation of employment opportunities for local people and SMMEs<br><br>Skills transfer from the contractor to the members of the local community | **Positive** | **Short term** | **Definite** | **High** | **High** |

| OPERATIONAL PHASE IMPACTS | | | | | |
|---|---|---|---|---|---|
| **Noise impacts** | **Negative** | **Long term** | **Medium** | **Low** | **Low** |
| **Alien plant species invasion risk**<br><br>Risk of alien invasive plants invading the servitude of the outfall sewer | **Negative** | **Long term** | **High** | **Medium** | **Low** |
| **Impacts on the Stream**<br><br>Water quality may deteriorate as a result of erosion and sedimentation<br><br>Contamination of water by fuel and other chemicals | **Negative** | **Long term** | **High** | **Medium** | **Low** |
| **Impacts on Wetland**<br><br>Water quality may deteriorate as a result of erosion and sedimentation<br><br>Contamination of water by fuel and other chemicals | **Negative** | **Long term** | **High** | **Medium** | **Low** |
| **Veld Fires**<br><br>Veld fires as a result of making open fire or throwing of lit cigarettes stumps. | **Negative** | **Long term** | **Low** | **Low** | **Low** |
| **Domestic waste impacts**<br><br>Littering resulting from throwing | **Negative** | **Long term** | **Medium** | **Low** | **Low** |

| | | | | | |
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| away of waste generated by maintenance workers on site | | | | | |
| **CUMMULATIVE IMPACTS** | | | | | |
| **Cumulative impacts on vegetation** | **Negative** | **Long term** | **High** | **Medium** | **Low** |
| **Cumulative risk of alien plant invasion** | **Negative** | **Long term** | **High** | **Medium** | **Low** |
| **Cumulative impacts on soil** | **Negative** | **Long term** | **High** | **Medium** | **Low** |
| **Cumulative impacts on the Stream and Wetland (water resources** | **Negative** | **Long term** | **High** | **Medium** | **Low** |

**The majority of the impacts that are likely to arise from the proposed upgrading of the Adamayview outfall sewer pipeline in the City of Matlosana are negative and are of medium significance before mitigation measures are taken into consideration. After implementing the recommended mitigation measures, which are feasible and possible to implement, the significance of these impacts will be reduced to low levels. The major positive impact that will arise at the construction phase of this proposed development are the short term employment opportunities that will be created for the local communities and the SMMEs. The on-the-job skills that will be gained by some of the employed local community members during the construction phase of the development, are skills that can put them in a stead to find employment elsewhere post the construction phase. Most importantly during the operational phase of this proposed development, the City of Matlosana will enhance its capacity for sewerage reticulation in the municipal area that will address the existing sewer overflows and blockages, and thereby guaranteeing continuous effective and efficient sanitation services to the residents of the City of Matlosana.**

**Alternative B**

**NOT APPLICABLE**

**Alternative C**

**NOT APPLICABLE**

**No-go alternative (compulsory)**

**The proposed outfall sewer pipeline upgrade in the City of Matlosana has been necessitated by the fact existing Adamayview outfall sewer pipeline has differential diameter ranging from 375 mm to 600 mm**

**to 1000 mm.**

**The section of the sewer line with a diameter of 375 mm has over the time been characterized by blockages and overflows. As a consequent, the City of Matlosana had a moratorium on approval of new developments, including new Housing projects, and various types of new businesses due to shortage of sewer reticulation capacity.**

**In order to address the overflows/blockages of the sewer pipeline at the 375 mm section, the City of Matlosana requires to upgrade that section of the sewer pipeline from 375 mm to 1050mm in diameter.**

**NO-GO option means that the status quo would remain, and no additional sewer reticulation capacity would be added. This is detrimental in that the blockages and overflows of the existing Adamayview outfall sewer pipeline would persist, with negative impacts of polluting the surface and groundwater resources. This could have ripple effects of causing water pollution related diseases such as cholera in the Municipal area.**

**Furthermore, the NO-GO option would result in depriving the City of Matlosana of possible revenue that would be realized if new businesses and housing development were to be allowed following the lifting of the above moratorium, which can only happen when there is enhanced sewer reticulation capacity.**

## SECTION D: PUBLIC PARTICIPATION

### 1. ADVERTISEMENT AND NOTICE

| | | |
|---|---|---|
| **Publication name** | **Klerksdorp Record Midweek** | |
| **Date published** | **1 August 2017** | |
| **Site notice position** | **Latitude** | **Longitude** |
| | **S26°50'50.5"** | **E26°41'45.4"** |
| | **S26°51'43.8"** | **E26°40'16.3"** |
| | **S26°51'43.9"** | **E26°40'16.4"** |
| **Date placed** | **13 September 2017** | |

**Include proof of the placement of the relevant advertisements and notices in Appendix I1.**

### 2. DETERMINATION OF APPROPRIATE MEASURES

Provide details of the measures taken to include all potential I&" Ps as required by Regulation 41(2)(e) and 41(6) of GN R.982.

Key stakeholders (other than organs of state) identified in terms of Regulation 40(2)(d) of GN R.982:

| Title, Name and Surname | Affiliation/ key stakeholder status | Contact details (tel number or e-mail address) |
|---|---|---|
| **Mr G Vogel** | **Keurhof School** | **018 462 9981** |
| **Mr D Lubbe** | **Oranje Toyota, Klerksdorp** | **018 406 5503/ 082 773 8705** |
| | | |

Include proof that the key stakeholder received written notification of the proposed activities as " ppendix I2. This proof may include any of the following:

- e-mail delivery reports;
- registered mail receipts;
- courier waybills;
- signed acknowledgements of receipt; and/or
- or any other proof as agreed upon by the competent authority.

## 3. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

| Summary of main issues raised by I&Aps | Summary of response from EAP |
|---|---|
| NO ISSUES RAISED YET | |
| | |

## 4. COMMENTS AND RESPONSE REPORT

The practitioner must make report (s) available to I&" Ps record all comments received from I&" Ps and respond to each comment before is submitted. The comments and responses must be captured in a comments and response report as prescribed in the EI" Regulations and be attached to the Final B" R as " ppendix I3.

## 5. AUTHORITY PARTICIPATION

" uthorities and organs of state identified as key stakeholders. Key stakeholders identified in terms of Regulation 7(1) and (2) and Regulation 40(2) (a)-(c) of GN R.982:

| Authority/Organ of State | Contact person (Title, Name and Surname) | Tel No | Fax No | e-mail | Postal address |
|---|---|---|---|---|---|
| Ward 39 City of Matlosana | Cllr Wolfgang Wallhorn | 072 645 9269 | | Matlosanaward39@gmail.com | |
| Ward 19 City of Matlosana | Cllr Johannes Le Grange | 082 964 5015 | | jjlegrange@telkomss.net | |
| DWS | Mr Terrence Ngilande | 083 236 4861 | | NgilandeT@dws.gov.za | |
| SANRAL | | | | | |
| | | | | | |

Include proof that the " uthorities and Organs of State received written notification and draft reports of the proposed activities as " ppendix I4.

## 6. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for any activities (linear or other) where deviation from the public participation requirements may be appropriate, the person conducting the public participation process may deviate from the requirements of that sub-regulation to the extent and in the manner as may be agreed to by the competent authority.

Proof of any such agreement must be provided, where applicable. " pplication for any deviation from the regulations relating to the public participation process must be submitted prior to the commencement of the public participation process.

" list of registered I&" Ps must be included as " ppendix I5.

Copies of any correspondence and minutes of any meetings held must be included in " ppendix I6.

## SECTION E. RECOMMENDATION OF PRACTITIONER

| | |
|---|---|
| Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)? | [redacted] NO |

If "NO", indicate the aspects that should be assessed further as part of a Scoping and EIA process before a decision can be made (list the aspects that require further assessment).

**The public participation process as not been completed yet. Public participation meetings still need to be conducted and all the commenting authorities still have to be provided the opportunity to comment on the draft BAR. All these will be done during the public commenting period, after which issues raised during the public participation meetings and the comments raised by the commenting authorities will inform the amendments that must be made to this draft BAR and the Draft EMPr before they can be finalised.**

If "YES", please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application.

**Recommendations will be made in the Final Basic Assessment Report that will be compiled and submitted to the Department for decision making.**

The EMPr that meet the requirements of EIA Regulation,2014, Appendix 4, must be attached as Appendix J.

| | |
|---|---|
| Is an EMPr attached? | YES [redacted] |

The details of the EAP who compiled the BAR and the expertise of the EAP to perform the Basic Assessment process must be included as Appendix K

If any specialist reports were used during the compilation of this BAR, please attach the declaration of interest for each specialist in Appendix F

Any other information relevant to this application and not previously included must be attached in Appendix L.

### SECTION F: AFFIRMATION BY EAP

I, **Mashudu Victor Siphugu** (name of person representing EAP) of **Lambeu Consulting and Training Services Pty Ltd** ( name of company) declare that the information provided is correct and relevant to the activity/ project and that, the information was made available to interested and affected parties for their comments. All specialist (s) reports are relevant for the competent authority to make informed decision.

_____ _____

**SIGNATURE OF EAP** **DATE**

DATE

## SECTION F: APPENDICES

The following appendices must be attached:

Appendix A: A3 Locality Map

Appendix B: Layout Plan and Sensitivity Maps

Appendix C: Photographs

Appendix D: Facility illustration(s)

Appendix E: Confirmation of services by Municipality (servitude and infrastructure planning)

Appendix F: Details and expertise of Specialist and Declaration of Interest

Appendix G: Specialist reports (including terms of reference)

Appendix H: Impact Assessment

Appendix I: Public Participation

Appendix J: Environmental Management Programme (EMPr)

Appendix K: Details of EAP and expertise

Appendix L: Any other Information

Appendix M: Financial Provision (if applicable)

Appendix N: Closure Plan (where applicable) as described in Appendix 5 of EIA Regulations, 2014