



Gauteng Department of Agriculture and Rural Development (GDARD)

Basic Assessment Report in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment Regulations, 2010 (Version 1)

List of all organs of state and State Departments where the draft report has been submitted, their full contact details and contact person

Kindly note that:

1. This **Basic Assessment Report** is the standard report required by GDARD in terms of the EIA Regulations, 2010.
 2. This application form is current as of 2 August 2010. It is the responsibility of the EAP to ascertain whether subsequent versions of the form have been published or produced by the competent authority.
 3. **A draft Basic Assessment Report must be submitted to all State Departments administering a law relating to a matter likely to be affected by the activity to be undertaken. The draft reports must be submitted to the relevant State Departments and on the same day, two CD's of draft reports must also be submitted to the Competent Authority (GDARD) with a signed proof of such submission of draft report to the relevant State Departments.**
 4. 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.
 5. Selected boxes must be indicated by a cross and, when the form is completed electronically, must also be highlighted.
 6. An incomplete report shall be rejected.
 7. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
 8. Five (5) copies (3 hard copies and 2 CDs-PDF) of the final report and attachments must be handed in at offices of the relevant competent authority, as detailed below.
 9. No faxed or e-mailed reports will be accepted. Only hand delivered or posted applications will be accepted.
 10. Unless protected by law, and clearly indicated as such, all information filled in on this application will become public information on receipt by the competent authority. The applicant/EAP must provide any interested and affected party with the information contained in this application on request, during any stage of the application process.
-

DEPARTMENTAL DETAILS

Gauteng Department of Agriculture and Rural Development
Attention: Administrative Unit of the Sustainable Utilisation of the Environment (SUE) Branch
P.O. Box 8769
Johannesburg
2000

Administrative Unit of the Sustainable Utilisation of the Environment (SUE) Branch
18th floor Glen Cairn Building
73 Market Street, Johannesburg

Admin Unit telephone number: (011) 355 1345
Department central telephone number: (011) 355 1900

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

(For official use only)

File Reference Number:					
Application Number:					
Date Received:					

*** Submission to State Departments (Number 3 above)**

Has a draft report for this application been submitted to all State Departments administering a law relating to a matter likely to be affected as a result of this activity? Yes

Is a list of State Departments referred to above been attached to this report? Yes

if no, state reasons for not attaching the list.

Not Applicable

SECTION A: ACTIVITY INFORMATION

1. ACTIVITY DESCRIPTION

Project title (must be the same name as per application form):

200BDTPD (Bone Dry Tonnes per Day) Repulper and Recovered Fibre Plant at Sappi Enstra Mill

Select the appropriate box

The application is for an upgrade of an existing development The application is for a new development Other, specify

Does the activity also require any authorisation other than NEMA EIA authorisation?

YES NO

If yes, describe the legislation and the Competent Authority administering such legislation

The activities applied for, are subject to the National Environmental Management: Waste Act, Act 59 of 2008. As these are only Basic Assessment activities the Competent Authority is the MEC, in this case represented by the Gauteng Department of Agriculture, Conservation and Rural Development.

If yes, have you applied for the authorisation(s)?

If yes, have you received approval(s)? (attach in appropriate appendix)

YES NO

2. 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 EIA regulations:

Title of legislation, policy or guideline:	Administering authority:	Promulgation Date:
The Constitution of the Republic of South Africa (Act No. 108 of 1996)	South African Government	1996
National Environmental Management Act No. 107 of 1998 as amended.	Department of Environmental Affairs (DEA)	27 November 1998
National Environmental Management Act No. 59 of 2008.	DEA	10 March 2009
The Environmental Conservation Act (Act No. 73 of 1989)	DEA	1989
The National Water Act (Act No. 36 of 1998)	Department of Water Affairs	1998
The National Heritage Resources Act (Act No. 25 of 1999)	South African Heritage Resources Agency (SAHRA)	1999
Occupational Health and Safety Act (Act No. 85 of 1993)	Department of Labour	1993

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

--	--

3. ALTERNATIVES

Describe the proposal and alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished. The determination of whether the 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.

The no-go option must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. **Do not** include the no go option into the alternative table below.

Note: After 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.
Provide a description of the alternatives considered

No.	Alternative type, either alternative: site on property, properties, activity, design, technology, operational or other(provide details of "other")	Description
1	Proposal: Site on property and Design	<ol style="list-style-type: none"> 1. The waste paper bales will be received and stored in the current wood yard. 2. From the storage area the bales will be transported to the processing area. Once at the processing area it will be placed on a conveyor and fed into the existing repulper. 3. From the existing repulper, the pulped material will be screened in order to remove contaminants, such as staples, sticky paper, etc. 4. From the screening the pulp paper will move into the high-density chest. 5. Finally the pulp will make its way into the existing paper production area.
2	Alternative: Site on property and Design	<ol style="list-style-type: none"> 1. The waste paper bales will be received and stored in the current brown bale store area. 6. From the storage area the bales will be transported to the processing area. Once at the processing area it will be placed on a conveyor and fed into the existing repulper. 7. From the existing repulper, the pulped material will be screened in order to remove contaminants, such as staples, sticky paper, etc. 2. From the screening the pulp paper will move into the high-density chest. 3. Finally the pulp will make its way into the existing paper production area.

In the event that no alternative(s) has/have been provided, a motivation must be included in the table below.

Two alternatives have been proposed. The alternatives were selected on the basis of location, design, proximity to services and ease of access. Some advantages and disadvantages still exist with both the alternatives. Sappi's evaluation indicates that the most advantageous alternative is the preferred alternative.

NOTE: The numbering in the above table must be consistently applied throughout the application report and process

4. PHYSICAL SIZE OF THE ACTIVITY

Indicate the total physical size (footprint) of the proposal as well as alternatives. Footprints are to include all new infrastructure (roads, services etc), impermeable surfaces and landscaped areas:

Proposed activity

Alternatives:

Alternative 1 (if any)

Alternative 2 (if any)

Size of the activity:

	5800 m ²
--	---------------------

	820 m ²
--	--------------------

	Ha/ m ²
--	--------------------

or, for linear activities:

Proposed activity

Alternatives:

Alternative 1 (if any)

Length of the activity:

--

--

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

k/km

Indicate the size of the site(s) or servitudes (within which the above footprints will occur):

Proposed activity

Size of the site/servitude:
582 592.57 m²

Alternatives:

Alternative 1 (if any)

582 592.57 m²

Alternative 2 (if any)

Ha/m²

5. SITE ACCESS

Proposal

Does ready access to the site exist, or is access directly from an existing road?

YES

If NO, what is the distance over which a new access road will be built

Describe the type of access road planned:

Not applicable

Include the position of the access road on the site plan.

Alternative 1

Does ready access to the site exist, or is access directly from an existing road?

YES

If NO, what is the distance over which a new access road will be built

Describe the type of access road planned:

Not applicable

Include the position of the access road on the site plan.

PLEASE NOTE: Points 6 to 8 of Section A must be duplicated where relevant for alternatives

Section A 6-8 has been duplicated

2

Number of times

(only complete when applicable)

6. SITE OR ROUTE PLAN

A detailed site or route (for linear activities) plan(s) must be prepared for each alternative site or alternative activity. It must be attached as Appendix A to this document. The site or route plans must indicate the following:

- the scale of the plan, which must be at least a scale of 1:2000 (scale can not be larger than 1:2000 i.e. scale can not be 1:2500 but could where applicable be 1:1500)
- the property boundaries and numbers of all the properties within 50m of the site;
- the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
- the exact position of each element of the application as well as any other structures on the site;
- the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, septic tanks, storm water infrastructure and telecommunication infrastructure;
- walls and fencing including details of the height and construction material;
- servitudes indicating the purpose of the servitude;
- sensitive environmental elements on and within 100m of the site or sites including (but not limited thereto):
 - Rivers and wetlands;
 - the 1:100 and 1:50 year flood line;
 - ridges;
 - cultural and historical features;
 - areas with indigenous vegetation (even if it is degraded or infested with alien species);
- for gentle slopes the 1m 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
- the positions from where photographs of the site were taken.
- Where a watercourse is located on the site at least one cross section of the water course must be included (to allow the 32m position from the bank to be clearly indicated)

7. SITE PHOTOGRAPHS

Colour photographs from the center 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 the appropriate Appendix. It should be supplemented with additional photographs of relevant features on the site, where applicable.

8. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of 1:200 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. To be attached in the appropriate Appendix.

SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

Note: Complete Section B for the proposal and alternative(s) (if necessary)

Further:

Instructions for completion of Section B for linear activities

- 1) For linear activities (pipelines etc) it may be necessary to complete Section B for each section of the site that has a significantly different environment.
- 2) Indicate on a plan(s) the different environments identified
- 3) Complete Section B for each of the above areas identified
- 4) Attach to this form in a chronological order
- 5) Each copy of Section B must clearly indicate the corresponding sections of the route at the top of the next page.

Section B has been duplicated for sections of the route times

Instructions for completion of Section B for location/route alternatives

- 1) For each location/route alternative identified the entire Section B needs to be completed
- 2) Each alternative location/route needs to be clearly indicated at the top of the next page
- 3) Attach the above documents in a chronological order

Section B has been duplicated for location/route alternatives times
(complete only when appropriate)

Instructions for completion of Section B when both location/route alternatives and linear activities are applicable for the application

Section B is to be completed and attachments order in the following way

- All significantly different environments identified for Alternative 1 is to be completed and attached in a chronological order; then
- All significantly different environments identified for Alternative 2 is to be completed and attached chronological order, etc.

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

- Unstable rocky slopes or steep slopes with loose soil
- Dispersive soils (soils that dissolve in water)
- Soils with high clay content (clay fraction more than 40%)
- Any other unstable soil or geological feature
- An area sensitive to erosion

	NO
	NO
YES	
	NO
	NO

(Information in respect of the above will often be available at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

b) are any caves located on the site(s) NO
 If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S): **Longitude (E):**

c) are any caves located within a 300m radius of the site(s) NO
 If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S): **Longitude (E):**

d) are any sinkholes located within a 300m radius of the site(s) NO
 If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S): **Longitude (E):**

If any of the answers to the above are "YES" or "unsure", specialist input may be requested by the Department

6. AGRICULTURE

Does the site have high potential agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 3)? NO

Please note: The Department may request specialist input/studies in respect of the above.

7. GROUNDCOVER

To be noted that the location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Indicate the types of groundcover present on the site and include the estimated percentage found on site

Natural veld - good condition % = 0	Natural veld with scattered aliens % = 0	Natural veld with heavy alien infestation % = 0	Veld dominated by alien species % = 60	Landscaped (vegetation) % = 2
Sport field % = 0	Cultivated land % = 0	Paved surface (hard landscaping) % = 7	Building or other structure % = 29	Bare soil % = 2

Please note: The Department may request specialist input/studies depending on the nature of the groundcover and potential impact(s) of the proposed activity/ies.

Are there any rare or endangered flora or fauna species (including red list species) present on the site NO

If YES, specify and explain:

Are there any rare or endangered flora or fauna species (including red list species) present within a 200m (if within urban area as defined in the Regulations) or within 600m (if outside the urban area as defined in the Regulations) radius of the site. NO

If YES, specify and explain:

Are there any special or sensitive habitats or other natural features present on the site? NO
 If YES, specify and explain:

Was a specialist consulted to assist with completing this section NO
 If yes complete specialist details

Name of the specialist:

Qualification(s) of the specialist:

Postal address:

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Postal code:

Telephone: Cell:

E-mail: Fax:

Are any further specialist studies recommended by the specialist? YES NO

If YES, specify:

If YES, is such a report(s) attached? YES NO

If YES list the specialist reports attached below

Signature of specialist: _____ Date:

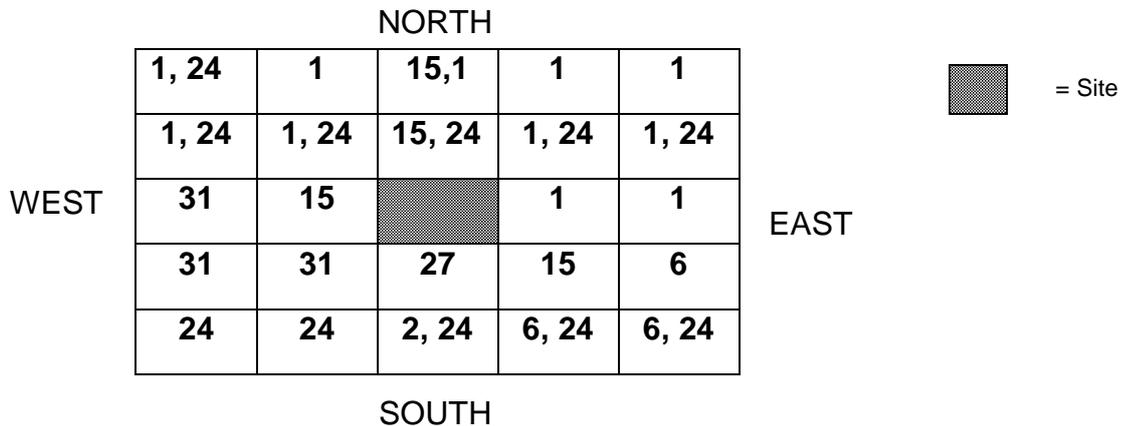
Please note; If more than one specialist was consulted to assist with the filling in of this section then this table must be appropriately duplicated

8. LAND USE CHARACTER OF SURROUNDING AREA

Using the associated number of the relevant current land use or prominent feature from the table below, fill in the position of these land-uses in the vacant blocks below which represent a 500m radius around the site

1. Vacant land	2. River, stream, wetland	3. Nature conservation area	4. Public open space	5. Koppie or ridge
6. Dam or reservoir	7. Agriculture	8. Low density residential	9. Medium to high density residential	10. Informal residential
11. Old age home	12. Retail	13. Offices	14. Commercial & warehousing	15. Light industrial
16. Heavy industrial ^{AN}	17. Hospitality facility	18. Church	19. Education facilities	20. Sport facilities
21. Golf course/polo fields	22. Airport ^N	23. Train station or shunting yard ^N	24. Railway line ^N	25. Major road (4 lanes or more) ^N
26. Sewage treatment plant ^A	27. Landfill or waste treatment site ^A	28. Historical building	29. Graveyard	30. Archeological site
31. Open cast mine	32. Underground mine	33. Spoil heap or slimes dam ^A	34. Small Holdings	
Other land uses (describe):				

NOTE: Each block represents an area of 250m X 250m



Note: More than one (1) Land-use may be indicated in a block

Please note: The Department may request specialist input/studies depending on the nature of the land use character of the area and potential impact(s) of the proposed activity/ies. Specialist reports that look at health & air quality and noise impacts may be required for any feature above and in particular those features marked with an "A" and with an "N" respectively.

Have specialist reports been attached YES NO

If yes indicate the type of reports below

9. SOCIO-ECONOMIC CONTEXT

Describe the existing social and economic characteristics of the area and the community condition as baseline information to assess the potential social, economic and community impacts.

According to the Statistics of South Africa (2003), the population for Ekurhuleni Metropolitan Municipality was 2 480 277 persons in 2001. The average population density was 1 304 people/m², and the unemployment rate is approximately 40%. The majority of the population is black (78%), followed by Coloured (15%), Asian (6%) and white (1%). The site is situated in Ward 72 within the Ekurhuleni Metropolitan Municipality.

10. CULTURAL/HISTORICAL FEATURES

Please be advised that if section 38 of the National Heritage Resources Act 25 of 1999 is applicable to your proposal or alternatives, then you are requested to furnish this Department with written comment from the South African Heritage Resource Agency (SAHRA) – Attach comment in appropriate annexure

38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as-

- (a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
- (b) the construction of a bridge or similar structure exceeding 50m in length;
- (c) any development or other activity which will change the character of a site-
 - (i) exceeding 5 000 m2 in extent; or
 - (ii) involving three or more existing erven or subdivisions thereof; or
 - (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
 - (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
- (d) the re-zoning of a site exceeding 10 000 m2 in extent; or
- (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

Are there any signs of culturally (aesthetic, social, spiritual, environmental) or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including archaeological or palaeontological sites, on or close (within 20m) to the site?

YES	
-----	--

If YES, explain:

The canteen of Sappi has been registered as a historical building

If uncertain, the Department may request that specialist input be provided to establish whether there is such a feature(s) present on or close to the site.

Briefly explain the findings of the specialist if one was already appointed:

No specialist was involved in this project

Will any building or structure older than 60 years be affected in any way?
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?

	NO
	NO

If yes, please attached the comments from SAHRA in the appropriate Appendix

Description of the Affected Environment

Geology

The Sappi Enstra Mill is underlain by dolomite of the Chuniespoort Group – Transvaal Sequence. Locally, Karoo outliers are present, but Karoo sediments are not present below the Mill area. Dolerite/diabase intrusives are present in the Enstra Mill area, and two well defined dykes trending roughly north-west and a sill (commonly referred to as the green syenite sill) are encountered. The dominant dyke, the Modder dyke, is located adjacent to the eastern boundary of the Licenced Sappi Waste Disposal (SWD) facility. The green sill is an anticlinal feature that outcrops below the north western portion of the facility. To the north of the SWD facility, the sill has a moderate north dip and is overlain by near surface dolomite. The southern limb is overlain by alluvial soils, residual dolomitic soils and hard rock dolomite. Well defined clay layers, with significantly low permeabilities, underlie the entire landfill site.

Climate

Rainfall in the area varies between 650 and 750 mm per year. The average is 719 mm. Most rain falls in the summer months between October and March with heavy falls commonly associated with thunderstorms. The

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

average wind direction is North to North-East, while average monthly temperatures are between 2.7 °C and 25.9 °C.

Topography

The Sappi Enstra Mill is situated at an altitude of between 1600m and 1650 m Above Mean Sea-Level (amsl). The topography in the area is mostly flat and slopes gently to the south-east.

Soils

The site is underlain by drained red, apedal soils of the Hutton form (Hu) overlying weathering and hard rock and various other unconsolidated materials.

Land Capability

The project site is located within an industrial complex and as such the land capability of the site is extremely poor. The majority of the Enstra Mill surrounding area, is potentially arable, and has few limitations which will reduce the choice of plants or require moderate conservation practices, with farming practices being easy to apply. Cultivation can thus occur.

Land Use

Erf 12 on which the mill is situated is zoned as industrial land.

Surrounding Land Uses

Industrial activities exist to the south of Enstra Mill, while agricultural activities occur to the north and east. Residential areas, namely Rowhill, East Geduld and Dersley are located approximately 1.5 km south, 2 km south east and 2 km north-west of Enstra Mill respectively.

Kimberly Clark, a paper towelling manufacturing company, is situated to the south west of the facility and comprises a mill, production facilities, warehouses and administration offices. Aurora owns the gold mine directly to the west of the Sappi site, known as East Geduld Proprietary mine. Impala Platinum Refinery is located to the south of the site, on East Geduld Road. The property comprises of a refinery, warehousing and administration offices.

Biodiversity

Enstra Mill site falls within the Soweto Highveld Grassland vegetation type. The land uses surrounding the site include mixed residential, industrial and agricultural. There are no sites of ecological interest within the vicinity of the site. Both sites considered for this waste management project are situated within Enstra Mill industrial complex and are devoid of any visible flora or fauna habitation. Therefore impacts to flora and fauna resulting from these existing activities can be considered negligible.

Affected Catchments

The nearest surface water body to the Sappi Enstra Mill site is Cowles Dam which is located directly to the southeast of the site but is within Sappi Enstra land ownership. This dam stores water flowing from the west within the Blesbokspruit which is located 500 m directly to the south of the site. The Blesbokspruit flows through the Alexander Dam approximately 1.5 km to the west of the site. A section of the Blesbokspruit, to the East of Sappi operations, has been classified as a Ramsar Site since 1986 and covers approximately 60 km². The Blesbokspruit runs from Kempton Park through Boksburg, Brakpan, Springs, Nigel and Heidelberg where it flows into the Vaal River at the Barrage. Approximately 45% of the catchment is urbanized while the remaining land is utilized for agricultural, mining and industrial activities.

According to the Nature Conservation Directorate, the water quality of the Blesbokspruit is generally poor due to artificial inputs from mines, sewage treatment works and other industrial activities (i.e. point source discharges). The quality of the water is mainly influenced by total dissolved salts in the previously mentioned effluents. The "fingerprint" of the water chemistry is similar throughout the wetland (high sulphate, phosphate, nitrite/nitrate and ammonia concentrations).

The surface water drainage within the Sappi Enstra site has been engineered as follows:

- Unaffected runoff is directed off-site into the Blesbokspruit; and
- Affected runoff is collected and treated within the Sappi water treatment facilities for reuse or disposal with the mill effluent to Cowles Dam.

Groundwater

Although the site is underlain by low permeability clays, the groundwater in the vicinity of the Sappi Enstra landfill site (including the groundwater from upslope areas with higher elevation than the groundwater level beneath or down slope of the site) has been impacted upon. Groundwater flows generally in a south easterly direction, but

anomalies, such as the northwest/southeast anomaly, restrict the groundwater potential of the area. Groundwater yield to the west of the anomaly is lower than to the east of the anomaly. The groundwater levels to the west of the anomaly are also lower than to the east thereof.

The site is underlain by residual soil and very highly weathered rock to a depth of over 15 m before fresh dolomite is encountered. The Malmani dolomites are considered to be potentially high yielding groundwater aquifers and are considered sensitive to contamination from surface sources of pollution, particularly if low permeability soil cover is thin or absent. Groundwater quality is naturally variable in dolomites and is not always of potable quality with a tendency for high magnesium concentrations, high calcium hardness and high concentrations of total dissolved salts.

Air Quality- Existing Regional Sources of Emissions to Atmosphere

Existing air pollution sources in the area include the Impala Platinum refinery, Geduld Proprietary Mines and Government Gold Mines and their associated slimes dams. These activities contribute to both particulate matter and gaseous airborne pollutants in the ambient air.

The nature of the paper production process is relatively intensive with regards to air emissions, thus air quality impacts from the mill are of high importance. Sappi currently sources ambient air quality monitoring data from the station located between Impala Platinum Refinery and the mill. Sappi has an Air Emissions license in place and in addition, Sappi undertakes annual monitoring of their stacks and continually monitor their boilers with regards to particulate matter, SO₂ and NO_x.

Ambient Noise Levels

Potential onsite receptors include Sappi Mill employees and visiting contractors. The noise impacts will mainly be due to vehicular movements to and from the waste facilities and also that from loading and offloading wastes. Given the existing noise levels at certain parts of the Mill, the sound levels from these activities will be considered negligible in comparison.

Heritage

No sites of archaeological, cultural and heritage interests will be affected by the existing facilities.

Visual Quality

The Waste Processing and Storage Areas should have minimal visual impact as they will be situated within the context of the existing Enstra Mill facility. Therefore the facilities are not perceived to be visually detrimental to their surroundings.

Existing Traffic Capacities

In terms of existing traffic capacities, all roads and intersections in the Sappi Enstra Mill area show acceptable handling for existing traffic.

Socio Economic

According to the Statistics of South Africa (2003), the population for Ekurhuleni Metropolitan Municipality was 2 480 277 persons in 2001. The average population density was 1 304 people/m², and the unemployment rate is approximately 40%. The majority of the population is black (78%), followed by Coloured (15%), Asian (6%) and white (1%). The site is situated in Ward 72 within the Ekurhuleni Metropolitan Municipality.

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Section B - Section of Route (complete only when appropriate for above)

Section B – Location/route Alternative No. (complete only when appropriate for above)

1. PROPERTY DESCRIPTION

Property description:
(Farm name, portion etc.)

2. ACTIVITY POSITION

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 decimal degrees. The degrees should have at least six decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

Alternative:

Latitude (S):	Longitude (E):
26.205600 (26°12'20.160")	28.444410 (28°26'39.876")

In the case of linear activities:

Alternative:

- Starting point of the activity
- Middle point of the activity
- End point of the activity

Latitude (S):	Longitude (E):
°	°
°	°
°	°

For route alternatives that are longer than 500m, please provide co-ordinates taken every 250 meters along the route and attached in the appropriate Appendix

Addendum of route alternatives attached

3. GRADIENT OF THE SITE

Indicate the general gradient of the site.

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
------	------------------------	-------------	-------------	--------------	-------------	------------------

4. LOCATION IN LANDSCAPE

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

Ridgeline	Plateau	Side slope of hill/ridge	Valley	Plain	Undulating plain/low hills	River front
-----------	---------	--------------------------	--------	------------------	----------------------------	-------------

5. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

b) Is the site located on any of the following?

- Shallow water table (less than 1.5m deep)
Dolerite/diabase intrusives are present in the Sappi Solid Waste Disposal (SWD) facility area, and two well defined dykes trending roughly north-west and a sill (commonly referred to as the green syenite sill) are encountered (J&W, 2011).
The dominant dyke, the Modder dyke, is located adjacent to the eastern boundary of the SWD facility. The green sill is an anticlinal feature that outcrops below the north western portion of the facility. To the north of the SWD facility, the sill has a moderate north dip and is overlain by near surface dolomite. The southern limb is overlain by alluvial soils, residual dolomitic soils and hard rock dolomite (J&W, 2011).
The resultant water level on the western side of the dyke is less than 1.5m.
Dolomite, sinkhole or doline areas - dolomite
- Seasonally wet soils (often close to water bodies)
- Unstable rocky slopes or steep slopes with loose soil

YES	
YES	
NO	NO

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

- Dispersive soils (soils that dissolve in water)
- Soils with high clay content (clay fraction more than 40%)
- Any other unstable soil or geological feature
- An area sensitive to erosion

	NO
YES	
	NO
	NO

(Information in respect of the above will often be available at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

b) are any caves located on the site(s) NO
 If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S): **Longitude (E):**

c) are any caves located within a 300m radius of the site(s) NO
 If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S): **Longitude (E):**

d) are any sinkholes located within a 300m radius of the site(s) NO
 If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S): **Longitude (E):**

If any of the answers to the above are "YES" or "unsure", specialist input may be requested by the Department

6. AGRICULTURE

Does the site have high potential agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 3)? NO

Please note: The Department may request specialist input/studies in respect of the above.

7. GROUNDCOVER

To be noted that the location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Indicate the types of groundcover present on the site and include the estimated percentage found on site

Natural veld - good condition % = 0	Natural veld with scattered aliens % = 0	Natural veld with heavy alien infestation % = 0	Veld dominated by alien species % = 60	Landscaped (vegetation) % = 2
Sport field % = 0	Cultivated land % = 0	Paved surface (hard landscaping) % = 7	Building or other structure % = 29	Bare soil % = 2

Please note: The Department may request specialist input/studies depending on the nature of the groundcover and potential impact(s) of the proposed activity/ies.

Are there any rare or endangered flora or fauna species (including red list species) present on the site NO

If YES, specify and explain:

Are there any rare or endangered flora or fauna species (including red list species) present within a 200m (if within urban area as defined in the Regulations) or within 600m (if outside the urban area as defined in the Regulations) radius of the site. NO

If YES, specify and explain:

Are there any special or sensitive habitats or other natural features present on the site? NO
 If YES, specify and explain:

Was a specialist consulted to assist with completing this section NO

If yes complete specialist details
 Name of the specialist:
 Qualification(s) of the specialist:
 Postal address:
 Postal code:

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Telephone: <input style="width: 150px; height: 15px;" type="text"/>	Cell: <input style="width: 150px; height: 15px;" type="text"/>		
E-mail: <input style="width: 150px; height: 15px;" type="text"/>	Fax: <input style="width: 150px; height: 15px;" type="text"/>		
Are any further specialist studies recommended by the specialist?		YES	NO
If YES, specify: <input style="width: 200px; height: 15px;" type="text"/>			
If YES, is such a report(s) attached?		YES	NO
If YES list the specialist reports attached below			

Signature of specialist: _____ Date:

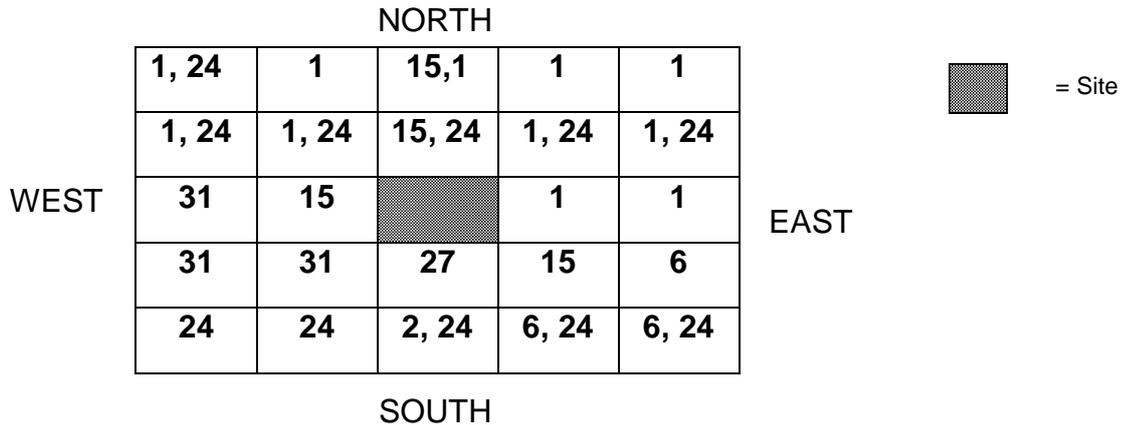
Please note; If more than one specialist was consulted to assist with the filling in of this section then this table must be appropriately duplicated

8. LAND USE CHARACTER OF SURROUNDING AREA

Using the associated number of the relevant current land use or prominent feature from the table below, fill in the position of these land-uses in the vacant blocks below which represent a 500m radius around the site

1. Vacant land	2. River, stream, wetland	3. Nature conservation area	4. Public open space	5. Koppie or ridge
6. Dam or reservoir	7. Agriculture	8. Low density residential	9. Medium to high density residential	10. Informal residential
11. Old age home	12. Retail	13. Offices	14. Commercial & warehousing	15. Light industrial
16. Heavy industrial ^{AN}	17. Hospitality facility	18. Church	19. Education facilities	20. Sport facilities
21. Golf course/polo fields	22. Airport ^N	23. Train station or shunting yard ^N	24. Railway line ^N	25. Major road (4 lanes or more) ^N
26. Sewage treatment plant ^A	27. Landfill or waste treatment site ^A	28. Historical building	29. Graveyard	30. Archeological site
31. Open cast mine	32. Underground mine	33. Spoil heap or slimes dam ^A	34. Small Holdings	
Other land uses (describe):				

NOTE: Each block represents an area of 250m X 250m



Note: More than one (1) Land-use may be indicated in a block

Please note: The Department may request specialist input/studies depending on the nature of the land use character of the area and potential impact(s) of the proposed activity/ies. Specialist reports that look at health & air quality and noise impacts may be required for any feature above and in particular those features marked with an ^A and with an ^N respectively.

Have specialist reports been attached NO

If yes indicate the type of reports below

9. SOCIO-ECONOMIC CONTEXT

Describe the existing social and economic characteristics of the area and the community condition as baseline information to assess the potential social, economic and community impacts.

According to the Statistics of South Africa (2003), the population for Ekurhuleni Metropolitan Municipality was 2 480 277 persons in 2001. The average population density was 1 304 people/m², and the unemployment rate is approximately 40%. The majority of the population is black (78%), followed by Coloured (15%), Asian (6%) and white (1%). The site is situated in Ward 72 within the Ekurhuleni Metropolitan Municipality.

10. CULTURAL/HISTORICAL FEATURES

Please be advised that if section 38 of the National Heritage Resources Act 25 of 1999 is applicable to your proposal or alternatives, then you are requested to furnish this Department with written comment from the South African Heritage Resource Agency (SAHRA) – Attach comment in appropriate annexure

38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as-

- (a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
- (b) the construction of a bridge or similar structure exceeding 50m in length;
- (c) any development or other activity which will change the character of a site-
 - (i) exceeding 5 000 m2 in extent; or
 - (ii) involving three or more existing erven or subdivisions thereof; or
 - (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
 - (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
- (d) the re-zoning of a site exceeding 10 000 m2 in extent; or
- (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

Are there any signs of culturally (aesthetic, social, spiritual, environmental) or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including archaeological or palaeontological sites, on or close (within 20m) to the site?

YES	
-----	--

If YES, explain:

The canteen of Sappi has been registered as a historical building

If uncertain, the Department may request that specialist input be provided to establish whether there is such a feature(s) present on or close to the site.

Briefly explain the findings of the specialist if one was already appointed:

No specialist was involved in this project

Will any building or structure older than 60 years be affected in any way?
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?

	NO
	NO

If yes, please attached the comments from SAHRA in the appropriate Appendix

Description of the Affected Environment

Geology

The Sappi Enstra Mill is underlain by dolomite of the Chuniespoort Group – Transvaal Sequence. Locally, Karoo outliers are present, but Karoo sediments are not present below the Mill area. Dolerite/diabase intrusives are present in the Enstra Mill area, and two well defined dykes trending roughly north-west and a sill (commonly referred to as the green syenite sill) are encountered. The dominant dyke, the Modder dyke, is located adjacent to the eastern boundary of the Licenced Sappi Waste Disposal (SWD) facility. The green sill is an anticlinal feature that outcrops below the north western portion of the facility. To the north of the SWD facility, the sill has a moderate north dip and is overlain by near surface dolomite. The southern limb is overlain by alluvial soils, residual dolomitic soils and hard rock dolomite. Well defined clay layers, with significantly low permeabilities, underlie the entire landfill site.

Climate

Rainfall in the area varies between 650 and 750 mm per year. The average is 719 mm. Most rain falls in the summer months between October and March with heavy falls commonly associated with thunderstorms. The average wind direction is North to North-East, while average monthly temperatures are between 2.7 °C and 25.9 °C.

Topography

The Sappi Enstra Mill is situated at an altitude of between 1600m and 1650 m Above Mean Sea-Level (amsl). The topography in the area is mostly flat and slopes gently to the south-east.

Soils

The site is underlain by drained red, apedal soils of the Hutton form (Hu) overlying weathering and hard rock and various other unconsolidated materials.

Land Capability

The project site is located within an industrial complex and as such the land capability of the site is extremely poor. The majority of the Enstra Mill surrounding area, is potentially arable, and has few limitations which will reduce the choice of plants or require moderate conservation practices, with farming practices being easy to apply. Cultivation can thus occur.

Land Use

Erf 12 on which the mill is situated is zoned as industrial land.

Surrounding Land Uses

Industrial activities exist to the south of Enstra Mill, while agricultural activities occur to the north and east. Residential areas, namely Rowhill, East Geduld and Dersley are located approximately 1.5 km south, 2 km south east and 2 km north-west of Enstra Mill respectively.

Kimberly Clark, a paper towelling manufacturing company, is situated to the south west of the facility and comprises a mill, production facilities, warehouses and administration offices. Aurora owns the gold mine directly to the west of the Sappi site, known as East Geduld Proprietary mine. Impala Platinum Refinery is located to the south of the site, on East Geduld Road. The property comprises of a refinery, warehousing and administration offices.

Biodiversity

Enstra Mill site falls within the Soweto Highveld Grassland vegetation type. The land uses surrounding the site include mixed residential, industrial and agricultural. There are no sites of ecological interest within the vicinity of the site. Both sites considered for this waste management project are situated within Enstra Mill industrial complex and are devoid of any visible flora or fauna habitation. Therefore impacts to flora and fauna resulting from these existing activities can be considered negligible.

Affected Catchments

The nearest surface water body to the Sappi Enstra Mill site is Cowles Dam which is located directly to the southeast of the site but is within Sappi Enstra land ownership. This dam stores water flowing from the west within the Blesbokspruit which is located 500 m directly to the south of the site. The Blesbokspruit flows through the Alexander Dam approximately 1.5 km to the west of the site. A section of the Blesbokspruit, to the East of Sappi operations, has been classified as a Ramsar Site since 1986 and covers approximately 60 km². The Blesbokspruit runs from Kempton Park through Boksburg, Brakpan, Springs, Nigel and Heidelberg where it flows into the Vaal River at the Barrage. Approximately 45% of the catchment is urbanized while the remaining land is utilized for agricultural, mining and industrial activities.

According to the Nature Conservation Directorate, the water quality of the Blesbokspruit is generally poor due to artificial inputs from mines, sewage treatment works and other industrial activities (i.e. point source discharges). The quality of the water is mainly influenced by total dissolved salts in the previously mentioned effluents. The "fingerprint" of the water chemistry is similar throughout the wetland (high sulphate, phosphate, nitrite/nitrate and ammonia concentrations).

The surface water drainage within the Sappi Enstra site has been engineered as follows:

- Unaffected runoff is directed off-site into the Blesbokspruit; and
- Affected runoff is collected and treated within the Sappi water treatment facilities for reuse or disposal with the mill effluent to Cowles Dam.

Groundwater

Although the site is underlain by low permeability clays, the groundwater in the vicinity of the Sappi Enstra landfill site (including the groundwater from upslope areas with higher elevation than the groundwater level beneath or down slope of the site) has been impacted upon. Groundwater flows generally in a south easterly direction, but anomalies, such as the northwest/southeast anomaly, restrict the groundwater potential of the area. Groundwater

yield to the west of the anomaly is lower than to the east of the anomaly. The groundwater levels to the west of the anomaly are also lower than to the east thereof.

The site is underlain by residual soil and very highly weathered rock to a depth of over 15 m before fresh dolomite is encountered. The Malmani dolomites are considered to be potentially high yielding groundwater aquifers and are considered sensitive to contamination from surface sources of pollution, particularly if low permeability soil cover is thin or absent. Groundwater quality is naturally variable in dolomites and is not always of potable quality with a tendency for high magnesium concentrations, high calcium hardness and high concentrations of total dissolved salts.

Air Quality- Existing Regional Sources of Emissions to Atmosphere

Existing air pollution sources in the area include the Impala Platinum refinery, Geduld Proprietary Mines and Government Gold Mines and their associated slimes dams. These activities contribute to both particulate matter and gaseous airborne pollutants in the ambient air.

The nature of the paper production process is relatively intensive with regards to air emissions, thus air quality impacts from the mill are of high importance. Sappi currently sources ambient air quality monitoring data from the station located between Impala Platinum Refinery and the mill. Sappi has an Air Emissions license in place and in addition, Sappi undertakes annual monitoring of their stacks and continually monitor their boilers with regards to particulate matter, SO₂ and NO_x.

Ambient Noise Levels

Potential onsite receptors include Sappi Mill employees and visiting contractors. The noise impacts will mainly be due to vehicular movements to and from the waste facilities and also that from loading and offloading wastes. Given the existing noise levels at certain parts of the Mill, the sound levels from these activities will be considered negligible in comparison.

Heritage

No sites of archaeological, cultural and heritage interests will be affected by the existing facilities.

Visual Quality

The Waste Processing and Storage Areas should have minimal visual impact as they will be situated within the context of the existing Enstra Mill facility. Therefore the facilities are not perceived to be visually detrimental to their surroundings.

Existing Traffic Capacities

In terms of existing traffic capacities, all roads and intersections in the Sappi Enstra Mill area show acceptable handling for existing traffic.

Socio Economic

According to the Statistics of South Africa (2003), the population for Ekurhuleni Metropolitan Municipality was 2 480 277 persons in 2001. The average population density was 1 304 people/m², and the unemployment rate is approximately 40%. The majority of the population is black (78%), followed by Coloured (15%), Asian (6%) and white (1%). The site is situated in Ward 72 within the Ekurhuleni Metropolitan Municipality.

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT

The Environmental Assessment Practitioner must follow any relevant guidelines adopted by the competent authority in respect of public participation and must at least –

- 1(a) Fix a site notice at a conspicuous place, on the boundary of a property where it is intended to undertake the activity which states that an application will be submitted to the competent authority in terms of these regulations and which provides information on the proposed nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations on the application may be made;
- 1(b) inform landowners and occupiers of adjacent land of the applicant's intention to submit an application to the competent authority;
- 1(c) inform landowners and occupiers of land within 100 metres of the boundary of the property where it is proposed to undertake the activity and whom may be directly affected by the proposed activity of the applicant's intention to submit an application to the competent authority;
- 1(d) inform the ward councillor and any organisation that represents the community in the area of the applicant's intention to submit an application to the competent authority;
- 1(e) inform the municipality which has jurisdiction over the area in which the proposed activity will be undertaken of the applicant's intention to submit an application to the competent authority; and
- 1(f) inform any organ of state that may have jurisdiction over any aspect of the activity of the applicant's intention to submit an application to the competent authority; and
- 1(g) place an advertisement in one local newspaper and any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of these regulations.

2. LOCAL AUTHORITY PARTICIPATION

Local authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input. The planning and the environmental sections of the local authority must be informed of the application at least thirty (30) calendar days before the submission of the application to the competent authority (GDARD).

Has any comment been received from the local authority? 

If "YES", briefly describe the comment below (also attach any correspondence to and from the local authority to this application):

If "NO" briefly explain why no comments have been received

This activity is considered important to the local economy and as determined by the impact assessment, has a low environmental risk.
The Ekurhuleni Municipality was informed of the proposed development.

3. CONSULTATION WITH OTHER STAKEHOLDERS

Any stakeholder that has a direct interest in the activity, site or property, such as servitude holders and service providers, should be informed of the application at least thirty (30) calendar days before the submission of the application and be provided with the opportunity to comment.

Has any comment been received from stakeholders? 

If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

If "NO" briefly explain why no comments have been received

This activity is considered important to the local economy and as determined by the impact assessment, has a low environmental risk.
The Department of Water Affairs was informed of the proposed development.

4. GENERAL PUBLIC PARTICIPATION REQUIREMENTS

The Environmental Assessment Practitioner must ensure that the public participation is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement of local community structures such as Ward Committees and ratepayers associations. Please note that public concerns that emerge at a later stage that should have been addressed may cause the competent authority to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was inadequate.

The practitioner must record all comments and respond to each comment of the public / interested and affected party before the application is submitted. The comments and responses must be captured in a Comments and Responses Report as prescribed in the regulations and be attached to this application.

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

The Public Participation Process is vital to the Basic Assessment Process. The process to be followed is in accordance with Section 54 of NEMA Regulation 543. Registration of the project with Provincial and National Government has been made.

An advert was prepared and published in the Star newspaper on 8 February 2012.

A Background Information Document (BID) was prepared for registered I&AP's.

This BA Report will be made available to registered I&AP's.

7.1 Identification of I&APs

The existing Interested and Affected Parties (I&APs) were identified using Sappi Enstra Mill's existing stakeholder database. In addition the following I&APs were identified:

- The landowner;
- Landowners adjacent to the proposed activity;
- Metropolitan Municipality.

7.2 Notification of I&APs

All identified I&APs as described above were notified of the proposed development by means of a notification letter and a BID. The BID contained background information regarding the proposed project, explained the environmental authorisation process that will be followed and the contact details of the SRK public participation coordinator. All the identified I&APs were invited to register and to provide comments, suggestions or concerns.

Site notices were placed at the proposed development site.

In addition, an advertisement was placed in the Star on 20 April 2012, announcing the revised project title and inviting potential I&APs to register as stakeholders.

Please refer to Appendix E for proof of the notification letter, site notices, BID and advertisement.

5. APPENDICES FOR PUBLIC PARTICIPATION

All public participation information is to be attached in the appropriate Appendix. The information in this Appendix is to be ordered as detailed below

Appendix 1 – Proof of site notice

Appendix 2 – Written notices issued to those persons detailed in 1(b) to 1(f) above

Appendix 3 – Proof of newspaper advertisements

Appendix 4 – Communications to and from persons detailed in Point 2 and 3 above

Appendix 5 – Minutes of any public and/or stakeholder meetings

Appendix 6 - Comments and Responses Report

Appendix 7 –Comments from I&APs on Basic Assessment (BA) Report

Appendix 8 –Comments from I&APs on amendments to the BA Report

Appendix 9 – Copy of the register of I&APs

Appendix 10 – Comments from I&APs on the application

Appendix 11 - Other

SECTION D: RESOURCE USE AND PROCESS DETAILS

Note: Section D is to be completed for the proposal and alternative(s) (if necessary)

Instructions for completion of Section D for alternatives

- 1) For each alternative under investigation, where such alternatives will have different resource and process details (e.g. technology alternative), the entire Section D needs to be completed
- 4) Each alternative needs to be clearly indicated in the box below
- 5) Attach the above documents in a chronological order

Section D has been duplicated for alternatives times
(complete only when appropriate)

Section D Alternative No. (complete only when appropriate for above)

1. WASTE, EFFLUENT, AND EMISSION MANAGEMENT

Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?

YES	
<input style="width: 100px; border: 1px solid black;" type="text" value="10m<sup>3</sup>"/>	

If yes, what estimated quantity will be produced per month?

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

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

Will the activity produce solid waste during its operational phase?

YES	
<input style="width: 100px; border: 1px solid black;" type="text" value="90 Tons"/>	

If yes, what estimated quantity will be produced per month?

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

Has the municipality or relevant service provider confirmed that sufficient air space exists for treating/disposing of the solid waste to be generated by this activity?

YES	
----------------	--

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

Note: 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, 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 relevant legislation?

	NO
--	----

If yes, inform the competent authority and request a change to an application for scoping and EIA.

Is the activity that is being applied for a solid waste handling or treatment facility?

YES	
----------------	--

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

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

Liquid effluent (other than domestic sewage)

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?

	NO
<input style="width: 100px; border: 1px solid black;" type="text" value="m<sup>3</sup>"/>	

If yes, what estimated quantity will be produced per month?

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the liquid effluent to be generated by this activity(ies)? **Not Applicable**

Will the activity produce any effluent that will be treated and/or disposed of on site?

If yes, what estimated quantity will be produced per month?

YES	
<input style="width: 100px; border: 1px solid black;" type="text" value="60 m<sup>3</sup>"/>	

If yes describe the nature of the effluent and how it will be disposed.

Note that if effluent is to be treated or disposed on site the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA

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:

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

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:

Process water from the plant is recycled after passing through the thickener into the process water reservoir. Percentage of water from the final effluent sump gets recycled. Approximately 45% of process water is recycled treated sewage water from Anchor.

Liquid effluent (domestic sewage)

Will the activity produce domestic effluent that will be disposed of in a municipal sewage system?

If yes, what estimated quantity will be produced per month? *Not Applicable*

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the domestic effluent to be generated by this activity(ies)? *Not Applicable*

Will the activity produce any effluent that will be treated and/or disposed of on site?

If yes describe how it will be treated and disposed off.

NO	
m ³	
YES	NO
NO	

Not Applicable

Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

If yes, is it controlled by any legislation of any sphere of government? *Not Applicable*

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

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

NO	
YES	NO

Not Applicable

2. WATER USE

Indicate the source(s) of water that will be used for the activity

municipal	Directly from 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:

0 liters

If Yes, please attach proof of assurance of water supply, e.g. yield of borehole, in the appropriate Appendix

Does the activity require a water use permit from the Department of Water Affairs?

YES	
----------------	--

If yes, list the permits required

21 (f) The discharging of waste or water containing waste into a water resource through a pipe, canal, sewer or other conduit.

If yes, have you applied for the water use permit(s)?

If yes, have you received approval(s)? (attached in appropriate appendix)

YES	
YES	

3. POWER SUPPLY

Please indicate the source of power supply eg. Municipality / Eskom / Renewable energy source

Eskom.

If power supply is not available, where will power be sourced from?

Not applicable

4. ENERGY EFFICIENCY

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

Optimally designed in order to reduce unnecessary pumping. During the tender process a 255 kW motor was chosen over a 600 kW motor. The waste plant will utilize less energy than the pulp mill. Sappi as a whole has classified energy efficiency as a major priority.

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

Solar power has been investigated but was found to be economically unviable.

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Section D Alternative No. 2 (complete only when appropriate for above)

1. WASTE, EFFLUENT, AND EMISSION MANAGEMENT

Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?

YES	NO
10m ³	

If yes, what estimated quantity will be produced per month?

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

Construction solid waste will be landfilled

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

At the Sappi Enstra Landfill, Permit # 16/2/7/C212/B7/Y1/P416

Will the activity produce solid waste during its operational phase?

YES	NO
90 Tons	

If yes, what estimated quantity will be produced per month?

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

At the Sappi Enstra Landfill, Permit # 16/2/7/C212/B7/Y1/P416

Has the municipality or relevant service provider confirmed that sufficient air space exists for treating/disposing of the solid waste to be generated by this activity?

YES	NO
----------------	----

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

At the Sappi Enstra Landfill, Permit # 16/2/7/C212/B7/Y1/P416

Note: 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, 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 relevant legislation?

NO

If yes, inform the competent authority and request a change to an application for scoping and EIA.

Is the activity that is being applied for a solid waste handling or treatment facility?

YES	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 EIA.

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

The waste will be divided into the different waste streams, and if a recycling reuse option for the waste exists which is economically feasible it will be utilized.

Liquid effluent (other than domestic sewage)

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?

NO	NO
m ³	
YES	NO
YES	NO
60m ³	

If yes, what estimated quantity will be produced per month?

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the liquid effluent to be generated by this activity(ies)? *Not Applicable*

Will the activity produce any effluent that will be treated and/or disposed of on site?

If yes, what estimated quantity will be produced per month?

If yes describe the nature of the effluent and how it will be disposed.

Splashes or spillages of process water during fibre processing (95% water, 5% material (fibre, plastics, etc.)). Drains will be constructed around the existing repulper which will divert water to an existing drainage system. This water drains to a sump from which excess water is pumped to the water treatment plant where the activated sludge plant and aeration lagoon cleans the water within legal discharge levels. The final effluent is pumped to a final effluent sump and discharged into Cowles dam. Water Use License 08/C21D/FG/1505 allows for the discharging of waste or water containing waste into a water resource through a pipe, canal, sewer or other conduit.

Note that if effluent is to be treated or disposed on site the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA

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:		
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:

Process water from the plant is recycled after passing through the thickener into the process water reservoir. Percentage of water from the final effluent sump gets recycled. Approximately 45% of process water is recycled treated sewage water from Anchor.

Liquid effluent (domestic sewage)

Will the activity produce domestic effluent that will be disposed of in a municipal sewage system?

NO	NO
m ³	
YES	NO
NO	NO

If yes, what estimated quantity will be produced per month? *Not Applicable*

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the domestic effluent to be generated by this activity(ies)? *Not Applicable*

Will the activity produce any effluent that will be treated and/or disposed of on site?

If yes describe how it will be treated and disposed off.

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Not Applicable

Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

If yes, is it controlled by any legislation of any sphere of government? *Not Applicable*

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

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

	NO
YES	NO

Not Applicable

2. WATER USE

Indicate the source(s) of water that will be used for the activity

municipal	Directly from 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:

0 liters

If Yes, please attach proof of assurance of water supply, e.g. yield of borehole, in the appropriate Appendix

Does the activity require a water use permit from the Department of Water Affairs?

YES

If yes, list the permits required

21 (f) The discharging of waste or water containing waste into a water resource through a pipe, canal, sewer or other conduit.

If yes, have you applied for the water use permit(s)?

YES

If yes, have you received approval(s)? (attached in appropriate appendix)

YES

3. POWER SUPPLY

Please indicate the source of power supply eg. Municipality / Eskom / Renewable energy source

Eskom.

If power supply is not available, where will power be sourced from?

Not applicable

4. ENERGY EFFICIENCY

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

Optimally designed in order to reduce unnecessary pumping. During the tender process a 255 kW motor was chosen over a 600 kW motor. The waste plant will utilize less energy than the pulp mill. Sappi as a whole has classified energy efficiency as a major priority.

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

Solar power has been investigated but was found to be economically unviable.

SECTION E: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2006, 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. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summarise the issues raised by interested and affected parties.

No issues were raised.

Summary of response from the practitioner to the issues raised by the interested and affected parties
(A full response must be provided in the Comments and Response Report that must be attached to this report):

No responses were required.

2. IMPACTS THAT MAY RESULT FROM THE CONSTRUCTION AND OPERATIONAL PHASE

Briefly describe the methodology utilised in the rating of significance of impacts

		Consequence														
Likelihood	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	
	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	
	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60	
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	
	7	14	21	28	35	42	49	56	63	70	77	84	91	98	105	
	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120	
	9	18	27	36	45	54	63	72	81	90	99	108	117	126	135	
	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	

	HIGH	76 to 150	Improve current management
	MEDIUM	26 to 75	Maintain current management
	LOW	1 to 25	No management required

SIGNIFICANCE = CONSEQUENCE x LIKELIHOOD

1 Consequence = severity + spatial scale + duration

Severity	Insignificant / non-harmful 1 Small / potentially harmful 2 Significant / slightly harmful 3 Great / harmful 4 Disastrous 5
Duration	One day to one month 1 One month to one year 2 One year to 10 years 3 Life of the mine 4 More than life of organisation / facility / mine 5
Spatial scale	Area specific 1 Whole site / plant / mine 2 Regional / neighbouring areas 3 National 4 Global 5

2 Likelihood = frequency of the activity + frequency of the incident / impact

Frequency of the activity	Annually or less 1 Six monthly 2 Monthly 3 Weekly 4 Daily 5
Frequency of the incident / impact	Almost never / almost impossible 1 Very seldom / highly unlikely 2 Infrequent / unlikely / seldom 3 Often / regularly / likely / possible 4 Daily / highly likely / definitely 5

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the construction phase for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Proposal

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
Contamination of surface water	64M	Treat water in activated sludge plant	56M
Impacts on aquatic ecology	64M	Treat water in activated sludge plant	48M
Impacts on the Visual Landscape	42M	Utilise drab colours, no changes to external façade of building.	42M
Noise from installation	32M	None	32M
Disturbance of historical sites	42M	None	42M
Pollution from waste generation	72M	Recycle waste where economically feasible	56M
Sustainability of employment opportunities	120H	None	120H

Impact: Contamination of surface water due to discharge of process water into Cowles Dam		O		
Severity: 3	Spatial Scope: 3	Duration: 2		
Consequence rating: 8				
Frequency of activity: 4		Frequency of Impact: 4		
Likelihood rating: 8				
Impact Rating: 64M Maintain Current Management				
Suggested Management:				
<ul style="list-style-type: none"> - Treat water in activated sludge plant; - Reuse water wherever possible; - Devise water saving measures wherever possible; - Use water optimally at all times; - Effective storm water management will be implemented. 				
Impact rating following mitigation: 56M Maintain Current Management				

Impact: Impacts on aquatic ecology from discharge of process water into Cowles Dam		O		
Severity: 2	Spatial Scope: 3	Duration: 3		
Consequence rating: 8				
Frequency of activity: 4		Frequency of Impact: 4		
Likelihood rating: 8				
Impact Rating: 64M Maintain Current Management				
Suggested Management:				
<ul style="list-style-type: none"> - Treat water in activated sludge plant; - Reuse water wherever possible; - Devise water saving measures wherever possible; - Use water optimally at all times; - Effective storm water management will be implemented. 				
Impact rating following mitigation: 48M Maintain Current Management				

Impact: Disturbance of visual landscape		C	O		
Severity: 1	Spatial Scope: 1	Duration: 4			
Consequence rating: 6					
Frequency of activity: 5			Frequency of Impact: 2		
Likelihood rating: 7					
Impact Rating: 42M Maintain current Management					
Suggested Management:					
None					
Impact rating following mitigation: 42M Maintain current Management					

Impact: Noise impacts during installation operations associated with the use of power tools		C	O		
Severity: 1	Spatial Scope: 1	Duration: 2			
Consequence rating: 4					
Frequency of activity: 4			Frequency of Impact: 4		
Likelihood rating: 8					
Impact Rating: 32M Maintain current Management					
Suggested Management:					
None					
Impact rating following mitigation: 32M Maintain current Management					

Impact: Disturbance of historical buildings through vibrations		C	O		
Severity: 1	Spatial Scope: 1	Duration: 4			
Consequence rating: 6					

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Frequency of activity:4	Frequency of Impact:3
Likelihood rating:7	
Impact Rating: 42M Maintain current Management	
Suggested Management:	
None	
Impact rating following mitigation: 42M Maintain current Management	

Impact: Pollution from waste generation	C	O		
Severity: 2	Spatial Scope: 2	Duration: 5		
Consequence rating: 9				
Frequency of activity: 4	Frequency of Impact: 4			
Likelihood rating: 8				
Impact Rating: 72M Maintain current Management				
Suggested Management:				
Recycle waste where economically feasible				
Impact rating following mitigation: 56M Maintain current Management				

Impact: Sustainability of employment opportunities (Positive)	C	O		
Severity: 4	Spatial Scope: 3	Duration: 4		
Consequence rating: 11				
Frequency of activity: 5	Frequency of Impact: 5			
Likelihood rating: 10				
Impact Rating: 110H Improve current Management				
Suggested Management:				
None				
Impact rating following mitigation: 110H Improve current Management				

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Alternative 1

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
Contamination of surface water	64M	Treat water in activated sludge plant	56M
Impacts on aquatic ecology	64M	Treat water in activated sludge plant	48M
Impacts on the Visual Landscape	48M	Utilise drab colours, no changes to external façade of building.	42M
Noise from installation	32M	None	32M
Disturbance of historical sites	42M	None	42M
Pollution from waste generation	72M	Recycle waste where economically feasible	56M
Sustainability of employment opportunities	110H	None	110H

Impact: Contamination of surface water due to discharge of process water into Cowles Dam			C	O		
Severity: 3	Spatial Scope: 3	Duration: 2				
Consequence rating: 8						
Frequency of activity: 4			Frequency of Impact: 4			
Likelihood rating: 8						
Impact Rating: 64M Maintain Current Management						
Suggested Management:						
<ul style="list-style-type: none"> - Treat water in activated sludge plant; - Reuse water wherever possible; - Devise water saving measures wherever possible; - Use water optimally at all times; - Effective storm water management will be implemented. 						
Impact rating following mitigation: 56M Maintain Current Management						

Impact: Impacts on aquatic ecology from discharge of process water into Cowles Dam			C	O		
Severity: 2	Spatial Scope: 3	Duration: 3				
Consequence rating: 8						
Frequency of activity: 4			Frequency of Impact: 4			
Likelihood rating: 8						
Impact Rating: 64M Maintain Current Management						
Suggested Management:						
<ul style="list-style-type: none"> - Treat water in activated sludge plant; - Reuse water wherever possible; - Devise water saving measures wherever possible; - Use water optimally at all times; - Effective storm water management will be implemented. 						
Impact rating following mitigation: 48M Maintain Current Management						

Impact: Disturbance of visual landscape			C	O		
Severity: 1	Spatial Scope: 1	Duration: 4				
Consequence rating: 6						
Frequency of activity: 5			Frequency of Impact: 3			
Likelihood rating: 8						
Impact Rating: 48M Maintain current Management						
Suggested Management:						
Utilise drab colours, No changes to external façade of the building.						
Impact rating following mitigation: 42M Maintain current Management						

Impact: Noise impacts during installation operations associated with the use of power tools			C			
Severity: 1	Spatial Scope: 1	Duration: 2				
Consequence rating: 4						
Frequency of activity: 4			Frequency of Impact: 4			
Likelihood rating: 8						
Impact Rating: 32M Maintain current Management						
Suggested Management:						
None						
Impact rating following mitigation: 32M Maintain current Management						

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Impact: Disturbance of historical buildings through vibrations		C			
Severity: 1	Spatial Scope: 1	Duration: 4			
Consequence rating: 6					
Frequency of activity:4			Frequency of Impact:3		
Likelihood rating:7					
Impact Rating: 42M Maintain current Management					
Suggested Management:					
None					
Impact rating following mitigation: 42M Maintain current Management					

Impact: Pollution from waste generation		C	O		
Severity: 2	Spatial Scope: 2	Duration: 5			
Consequence rating: 9					
Frequency of activity: 4			Frequency of Impact: 4		
Likelihood rating: 8					
Impact Rating: 72M Maintain current Management					
Suggested Management:					
Recycle waste where economically feasible					
Impact rating following mitigation: 56M Maintain current Management					

Impact: Sustainability of employment opportunities (Positive)		C	O		
Severity: 4	Spatial Scope: 3	Duration: 4			
Consequence rating: 11					
Frequency of activity: 5			Frequency of Impact: 5		
Likelihood rating: 10					
Impact Rating: 110H Improve current Management					
Suggested Management:					
None					
Impact rating following mitigation: 110H Improve current Management					

No-go Alternative

This site is a brownfield site in that it is located within the Sappi Enstra Mill premises established in 1938. The area envisaged for both the proposed and alternative locations have been built up and is currently occupied by roads, pavements, buildings, pipelines and diverse other services. The plant is fully functional and operational, occupying space, discharging water into the Cowles Dam and generating waste. Not going ahead with the activity will not result in an improvement in the appearance and status of the site.

List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix.

No specialist reports were utilised.

3. IMPACTS THAT MAY RESULT FROM THE DECOMMISSIONING AND CLOSURE PHASE

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the decommissioning and closure phase for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

Proposal

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
Disturbance of visual landscape from removal of structures (Positive)	40M	None	40M
Noise impacts from decommissioning operations associated with the use of power tools	24L	None	24L
Disturbance of historical buildings from vibrations associated with the use of power tools	49M	None	49M
Pollution from waste generation	40M	Recycle waste where economically feasible	35M
Sustainability of employment opportunities	110H	Workers to be given the choice of forced over voluntary retrenchment. Workers to be given the opportunity to join skills development programs after retrenchment.	100H

Impact: Disturbance of visual landscape from removal of structures (Positive)				DC	CL
Severity: 2	Spatial Scope: 1	Duration: 5			
Consequence rating: 8					
Frequency of activity: 1	Frequency of Impact: 4				
Likelihood rating: 5					
Impact Rating: 40M Maintain current Management					
Suggested Management:					
None					
Impact rating following mitigation: 40M Maintain current Management					

Impact: Noise impacts from decommissioning operations associated with the use of power tools				DC	
Severity: 2	Spatial Scope: 1	Duration: 3			
Consequence rating: 6					
Frequency of activity: 1	Frequency of Impact: 3				
Likelihood rating: 4					
Impact Rating: 24L No Management Required					
Suggested Management:					
None					
Impact rating following mitigation: 24L No Management Required					

Impact: Disturbance of historical buildings from vibrations associated with the use of power tools				DC	
Severity: 2	Spatial Scope: 2	Duration: 3			
Consequence rating: 7					
Frequency of activity: 4	Frequency of Impact: 3				
Likelihood rating: 7					
Impact Rating: 49M Maintain current Management					
Suggested Management:					
None					
Impact rating following mitigation: 49M Maintain current Management					

Impact: Pollution from waste generation				DC	CL
Severity: 2	Spatial Scope: 1	Duration: 5			
Consequence rating: 8					
Frequency of activity: 1	Frequency of Impact: 4				
Likelihood rating: 5					
Impact Rating: 40M Maintain current Management					
Suggested Management:					
Recycle waste where economically feasible					
Impact rating following mitigation: 35M Maintain current Management					

Impact: Sustainability of employment opportunities				DC	CL
--	--	--	--	----	----

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Severity: 4	Spatial Scope: 3	Duration: 4
Consequence rating: 11		
Frequency of activity: 5	Frequency of Impact: 5	
Likelihood rating: 10		
Impact Rating: 110H Improve current Management		
Suggested Management:		
Workers to be given the choice of forced over voluntary retrenchment.		
Workers to be given the opportunity to join skills development programs after retrenchment.		
Impact rating following mitigation: 100H Improve current Management		

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Alternative 1

Potential impacts:	Significance rating of impacts:	Proposed mitigation:	Significance rating of impacts after mitigation:
Disturbance of visual landscape from removal of structures (Positive)	45M	None	45M
Noise impacts from decommissioning operations associated with the use of power tools	24L	None	24L
Disturbance of historical buildings from vibrations associated with the use of power tools	49M	None	49M
Pollution from waste generation	40M	Recycle waste where economically feasible	35M
Sustainability of employment opportunities	110H	Workers to be given the choice of forced over voluntary retrenchment. Workers to be given the opportunity to join skills development programs after retrenchment.	100H

Impact: Disturbance of visual landscape from removal of structures (Positive)				DC	CL
Severity: 2	Spatial Scope: 2	Duration: 5			
Consequence rating: 9					
Frequency of activity: 1	Frequency of Impact: 4				
Likelihood rating: 5					
Impact Rating: 45M Maintain current Management					
Suggested Management:					
None					
Impact rating following mitigation: 45M Maintain current Management					

Impact: Noise impacts from decommissioning operations associated with the use of power tools				DC	
Severity: 2	Spatial Scope: 1	Duration: 3			
Consequence rating: 6					
Frequency of activity: 1	Frequency of Impact: 3				
Likelihood rating: 4					
Impact Rating: 24L No Management Required					
Suggested Management:					
None					
Impact rating following mitigation: 24L No Management Required					

Impact: Disturbance of historical buildings from vibrations associated with the use of power tools				DC	
Severity: 2	Spatial Scope: 2	Duration: 3			
Consequence rating: 7					
Frequency of activity: 4	Frequency of Impact: 3				
Likelihood rating: 7					
Impact Rating: 49M Maintain current Management					
Suggested Management:					
None					
Impact rating following mitigation: 49M Maintain current Management					

Impact: Pollution from waste generation				DC	CL
Severity: 2	Spatial Scope: 1	Duration: 5			
Consequence rating: 8					
Frequency of activity: 1	Frequency of Impact: 4				
Likelihood rating: 5					
Impact Rating: 40M Maintain current Management					
Suggested Management:					
Recycle waste where economically feasible					
Impact rating following mitigation: 35M Maintain current Management					

Impact: Sustainability of employment opportunities				DC	CL
Severity: 4	Spatial Scope: 3	Duration: 4			
Consequence rating: 11					
Frequency of activity: 5	Frequency of Impact: 5				
Likelihood rating: 10					
Impact Rating: 110H Improve current Management					
Suggested Management:					

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Workers to be given the choice of forced over voluntary retrenchment.
 Workers to be given the opportunity to join skills development programs after retrenchment.

Impact rating following mitigation: 100H Improve current Management

No-go Alternative

This site is a brownfield site in that it is located within the Sappi Enstra Mill premises established in 1938. The area envisaged for both the proposed and alternative locations have been built up and is currently occupied by roads, pavements, buildings, pipelines and diverse other services.

The plant is fully functional and operational, occupying space, discharging water into the Cowles Dam and generating waste. Not going ahead with the activity will not result in an improvement in the appearance and status of the site.

List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix.

No specialist reports were utilised.

4. CUMULATIVE IMPACTS

Describe potential impacts that, on their own may not be significant, but is significant when added to the impact of other activities or existing impacts in the environment. Substantiate response:

On-going employment opportunities and on-going investment in Springs. The Enstra Mill is moth balling their mill and replacing it with the proposed Recovered Fibre plant. Not going ahead with the Recovered Fibre Plant could have dire consequences for the community with knock-on effects in terms of health, crime and other societal problems.

5. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that sums up the impact that the proposal and its alternatives may have on the environment after 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.

Proposal

This report is intended to offer an objective assessment of the concerns, which were identified during the basic assessment phase of the study as well as through the technical expertise, which lie within the environmental practitioners. The purpose of this report is to ascertain the impact of the proposed Repulper and Recovered Fibre Plant on the environment and the probability of the impacts manifesting themselves. This report will allow the relevant authority the opportunity to make an informed decision regarding the Repulper and Recovered Fibre Plant.

The negative impacts identified on the environment can be effectively mitigated and monitored, reducing the associated risk to "low" on the environment.

It is the opinion of SRK Consulting that there are no significant detrimental environmental impacts associated with the Repulper and Recovered Fibre Plant. The management of the negative impacts will require the implementation of mitigatory measures.

Alternative 1

Although the negative impacts of placing the Repulper and Recovered Fibre Plant at this location can be effectively mitigated and monitored, this site can not be justified more suitable than the preferred option. Although no direct environmental impacts, except for the slightly greater visual impact, the space investigated is just too small to be efficient.

No-go (compulsory)

The no-go alternative implies that Sappi will be retrenching several hundred personnel with the moth-balling of the paper mill, without providing a portion of them the opportunity to remain at Enstra Mill.

6. IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE

For proposal:

Potential impacts:	Significance rating of impacts:	Significance rating of impacts after mitigation:
Construction and Operation Phase		
Contamination of surface water	64M	56M
Impacts on aquatic ecology	64M	48M
Impacts on the Visual Landscape	42M	42M
Noise from installation	32M	32M
Disturbance of historical sites	42M	42M
Pollution from waste generation	72M	56M
Sustainability of employment opportunities	120H	120H

BASIC ASSESSMENT REPORT [REGULATION 22(1)]

Decommissioning and Closure		
Disturbance of visual landscape from removal of structures (Positive)	40M	40M
Noise impacts from decommissioning operations associated with the use of power tools	24L	24L
Disturbance of historical buildings from vibrations associated with the use of power tools	49M	49M
Pollution from waste generation	40M	35M
Sustainability of employment opportunities	110H	100H

For alternative:

Potential impacts:	Significance rating of impacts:	Significance rating of impacts after mitigation:
Construction and Operation Phase		
Contamination of surface water	64M	56M
Impacts on aquatic ecology	64M	48M
Impacts on the Visual Landscape	48M	42M
Noise from installation	32M	32M
Disturbance of historical sites	42M	42M
Pollution from waste generation	72M	56M
Sustainability of employment opportunities	110H	110H
Decommissioning and Closure		
Disturbance of visual landscape from removal of structures (Positive)	45M	45M
Noise impacts from decommissioning operations associated with the use of power tools	24L	24L
Disturbance of historical buildings from vibrations associated with the use of power tools	49M	49M
Pollution from waste generation	40M	35M
Sustainability of employment opportunities	110H	100H

Having assessed the significance of impacts of the proposal and alternative(s), please provide an overall summary and reasons for selecting the proposal or preferred alternative.

The option that is selected is the proposed activity, located at 26.2050539 S and 28.4453400 E. The proposal provides more space which will facilitate a more efficient layout. Even though the environmental impacts at both options are similar, the proposed option is located in an area of the plant where it will not be visible from outside the plant boundaries and therefore provides less visual impact.

7. 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).



If "NO", indicate the aspects that require further assessment before a decision can be made (list the aspects that require further assessment):

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:

A site specific Environmental Management Plan should be compiled (Appendix H) for the proposed *Repulper and Recovered Fibre Plant*.
The following are recommended:
The EMP should be a condition of the Environmental Authorisation issued by GDARD;
The EMP should be binding on all managers and contractors operating/utilizing the site;
The EMP should form part of the contractor's tender documentation.

8. ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)

If the EAP answers yes to Point 7 above then an EMPr is to be attached to this report as an Appendix
EMPr attached

Yes

SECTION F: APPENDIXES

The following appendixes must be attached as appropriate:

It is required that if more than one item is enclosed that a table of contents is included in the appendix

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Route position information

Appendix E: Public participation information

Appendix F: Water use license(s) authorisation, SAHRA information, service letters from municipalities, water supply information

Appendix G: Specialist reports

Appendix H: EMPr

Appendix I: Other information

CHECKLIST

To ensure that all information that the Department needs to be able to process this application, please check that:

- Where requested, supporting documentation has been attached;
- All relevant sections of the form have been completed; and

Appendix A: Site plan(s)

Figure 1: Proposed Activity

BASIC ASSESSMENT REPORT [REGULATION 22(1)]



SAPPI RECYCLING BASIC ASSESSMENT Proposed Activity

Path: J:\proj\440990_Sappi_VLA\B_GIS\GIS\PROJ\MXD\440990_2012.01.13_Sappi_Proposed_Activity.mxd

Figure 2: Alternative Activity

BASIC ASSESSMENT REPORT [REGULATION 22(1)]



Appendix B: Photographs



Figure 3: Bale Storing Area for Both Alternatives



Figure 4: Proposed Position for Conveyor Belt to Repulper (Proposal)



Figure 5: Proposed High-Density Chest for Repulper (Proposal)



Figure 6: Proposed Location of Screens, Thickeners and Reject Handling



Figure 7: Proposed Location for Conveyor Belt for Repulper (Alternative)



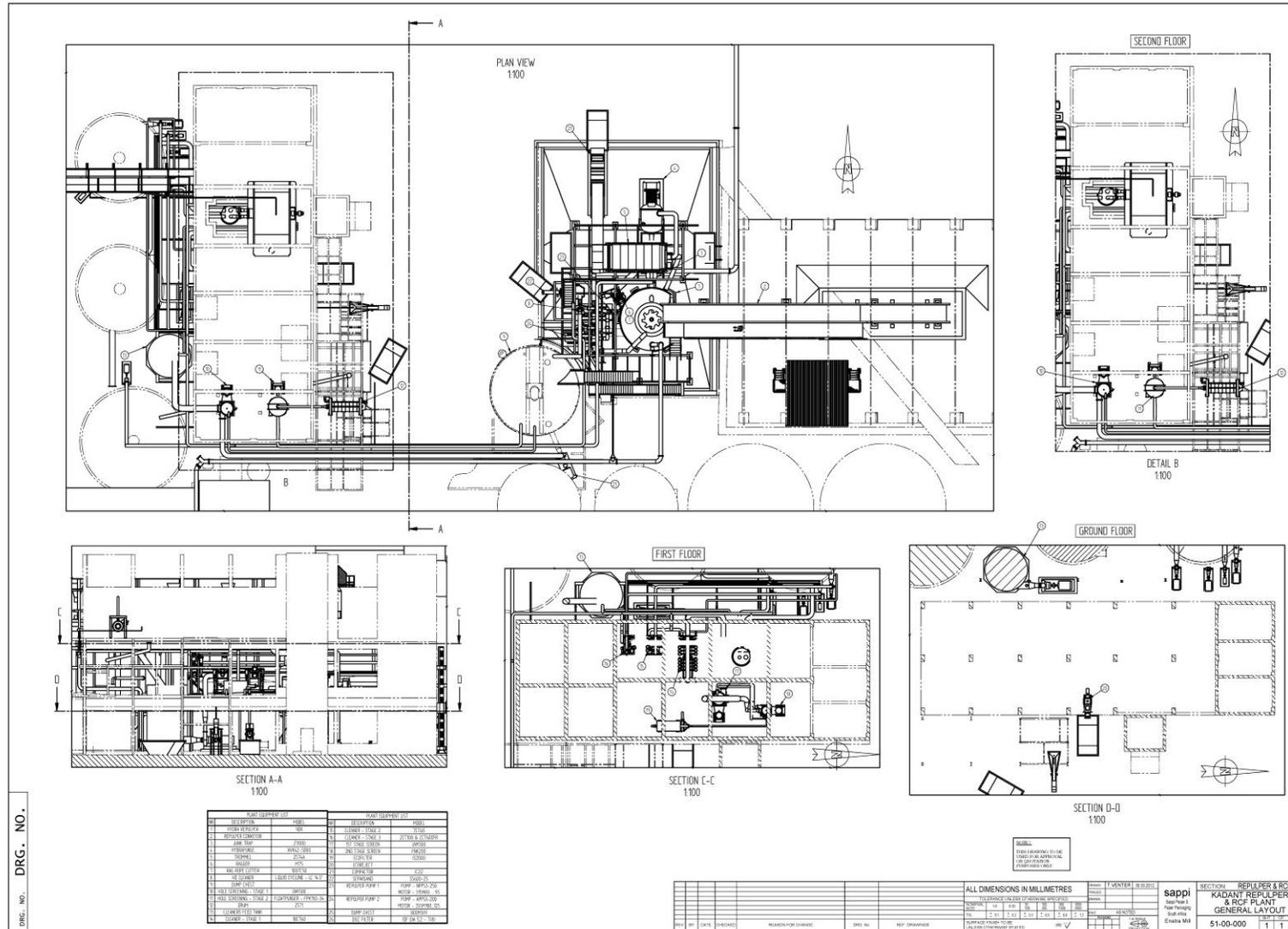
Figure 8: Proposed Location for Repulper (Alternative)



Figure 9: Proposed HD Chest for Repulper (Alternative)

Appendix C: Facility illustration(s)

BASIC ASSESSMENT REPORT [REGULATION 22(1)]



DRG. NO. DRG. NO.

PLANT EQUIPMENT LIST		WOOD EQUIPMENT LIST	
NO.	DESCRIPTION	NO.	DESCRIPTION
01	WOOD EQUIPMENT	01	WOOD EQUIPMENT
02	REPELLER TANK	02	REPELLER TANK
03	WATER TANK	03	WATER TANK
04	WATER TANK	04	WATER TANK
05	WATER TANK	05	WATER TANK
06	WATER TANK	06	WATER TANK
07	WATER TANK	07	WATER TANK
08	WATER TANK	08	WATER TANK
09	WATER TANK	09	WATER TANK
10	WATER TANK	10	WATER TANK
11	WATER TANK	11	WATER TANK
12	WATER TANK	12	WATER TANK
13	WATER TANK	13	WATER TANK
14	WATER TANK	14	WATER TANK
15	WATER TANK	15	WATER TANK
16	WATER TANK	16	WATER TANK
17	WATER TANK	17	WATER TANK
18	WATER TANK	18	WATER TANK
19	WATER TANK	19	WATER TANK
20	WATER TANK	20	WATER TANK

ALL DIMENSIONS IN MILLIMETRES				DATE		DRAWN BY		CHECKED BY		SCALE		PROJECT NO.		SHEET NO.	
NO.	DATE	REVISION	REASON FOR CHANGE	DRG. NO.	REF. DRAWING	SCALE	PROJECT NO.	SHEET NO.	DATE	DRAWN BY	CHECKED BY	SCALE	PROJECT NO.	SHEET NO.	

SECTION: REPULPER & RCF
 KADANT REPULPER & RCF PLANT
 GENERAL LAYOUT
 51-00-000 1 1 A D

Appendix D: Route position information

This is not a linear development.

Appendix E: Public participation information
Appendix E1 – Proof of site notice



Figure 10: Site Notice at Sappi Enstra Mill Entrance



Figure 11: Site Notice at Sappi Enstra Mill Entrance



Figure 12: Site Notice at Impala Platinum Ltd Refineries



Figure 13: Site Notice at Impala Platinum Ltd Refineries



Figure 14: Site Notice at Hugenote High School

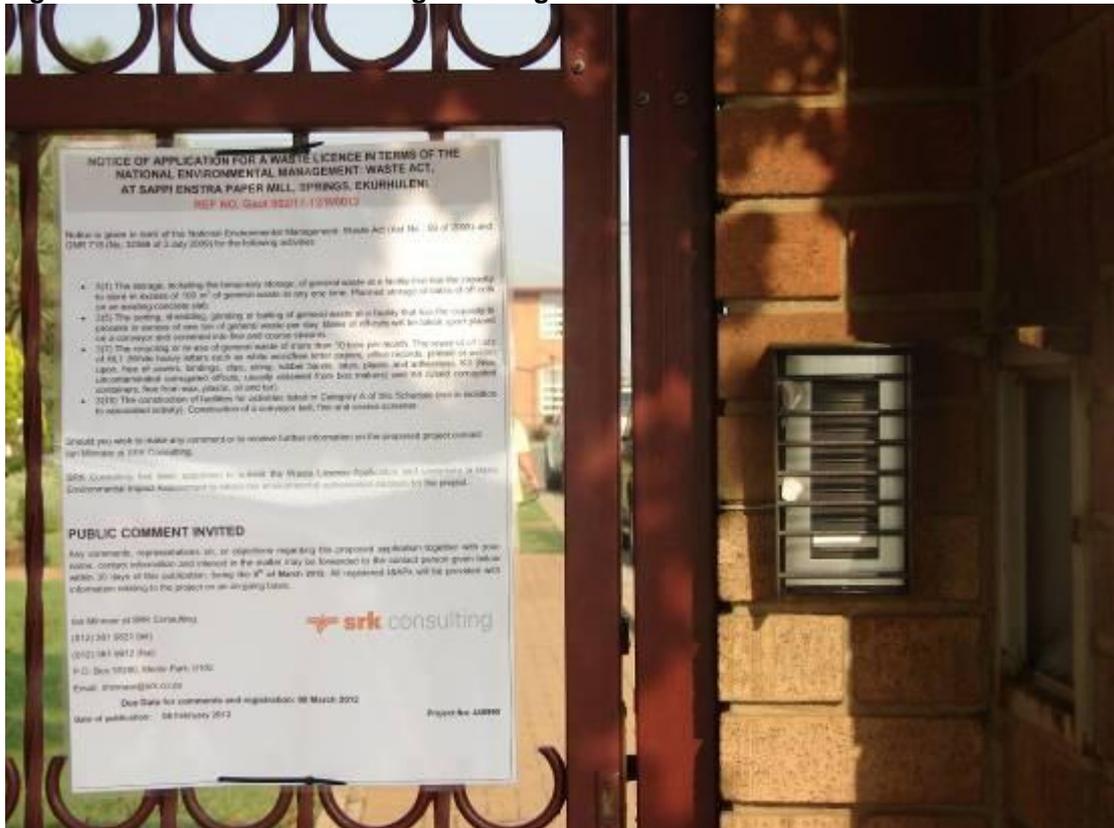


Figure 15: Site Notice at Hugenote High School



Figure 16: Site Notice at Springs Police Station



Figure 17: Site Notice at Springs Police Station



Figure 18: Site Notice in Library

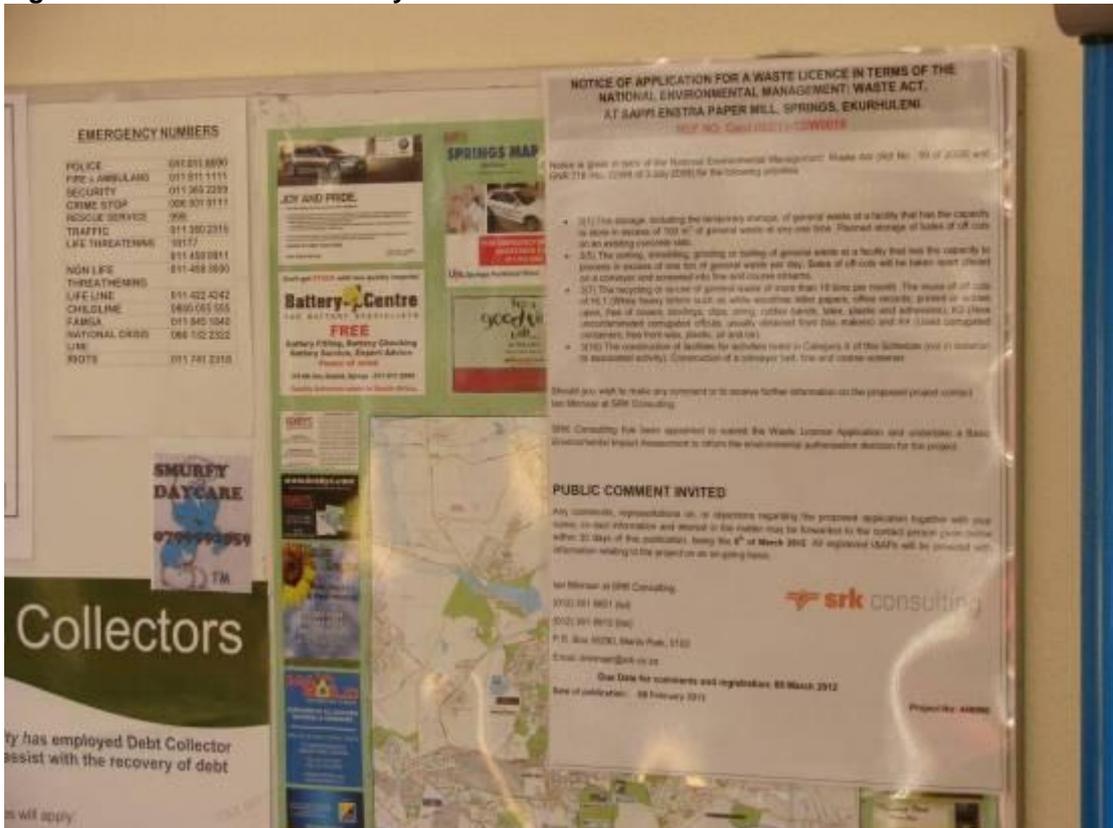


Figure 19: Site Notice in Library



Figure 20: Site Notice at Library

Appendix E2 – Written notices issued to landowners and organs of state with jurisdiction

Appendix E3 – Proof of newspaper advertisements

The Star, WEDNESDAY FEBRUARY 8, 2012

Legals & Tenders

There's POWER in Classified advertising

Classified is a powerful resource for connecting buyers and sellers

Whether it's a new car, a new house or a new job - classified from the pros makes it happen

Classifieds
0860 238 377

LIST AND FIND

Legals

wegotads.co.za

YOUR LOCAL MARKET PLACE

www.wegotads.co.za

WEST RAND DISTRICT MUNICIPALITY

INTEGRATED DEVELOPMENT PLAN (IDP) 2012/13

Section 34 of the Municipal Systems Act 32 of 2000 mandates a municipality to review its Integrated Development Plan (IDP) annually in accordance with an assessment of its performance measurements in terms of section 41 and to the extent that changing circumstances so demand.

Notice is hereby given of an **IDP Public Representative Forum Meeting** to be held on: **Friday, 24 February 2012 at 10h00** in the Imbizo Chamber, West Rand District Municipality (Randfontein).

Any enquiries should be directed to the Office of the Municipal Manager, attention Thembu Ntshokola (011) 411 5151/5000.

NOTICE OF APPLICATION FOR A WASTE LICENCE IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT, SAPP ENSTRA PAPER MILL, SPRINGS, EKURHULENI.

REF NO. Gaut 002/11-12/W0019

Notice is given in terms of the National Environmental Management: Waste Act (Act No. 59 of 2008) and GNR 718 (No. 32958 of 3 July 2009) for the following activities:

- 3(1) The storage, including the temporary storage, of general waste at a facility that has the capacity to store in excess of 100 m³ of general waste at any one time. Planned storage of bales of off cuts on an existing concrete slab.
- 3(5) The sorting, shredding, grinding or baling of general waste at a facility that has the capacity to process in excess of one ton of general waste per day. Bales of off-cuts will be taken apart placed on a conveyor and screened into fine and coarse streams.
- 3(7) The recycling or reuse of general waste of more than 10 tons per month. The reuse of off cuts of HLI (White heavy letters such as white woodfree letter papers, office records, printed or written upon, free of covers, bindings, clips, string, rubber bands, latex, plastic and adhesives), K3 (New uncontaminated corrugated offcuts, usually obtained from box makers) and K4 (Used corrugated containers, free from wax, plastic, oil and tar).
- 3(18) The construction of facilities for activities listed in Category A of this Schedule (not in isolation to associated activity). Construction of a conveyor belt, fine and coarse streams.

SRK Consulting has been appointed to submit the Waste Licence Application and undertake a Basic Environmental Impact Assessment to inform the environmental authorisation decision for the project.

Should you wish to make any comment or to receive further information on the proposed project contact Ian Minnaar at SRK Consulting.

Tel. No: (012) 361 9821
Fax No: (012) 361 9912
Postal Address: P.O. Box 30590, Midway Park, 0102
Email: iminnaar@srk.co.za
Date of this notice: January 2012

srk consulting

Gauteng Gambling Board

GAUTENG GAMBLING ACT NO 4, OF 1995 (as amended) APPLICATION FOR AN AMUSEMENT MACHINE LICENSE

Notice is hereby given that Galaxy World Homeentertainment (Pty) Ltd of 92/93 Jubilee Mall, Cnr Jubilee and Harry Gwala Roads, Hammanskop Intend submitting an application to the Gauteng Gambling Board for an amusement machine license. The application will be open to public inspection at the offices of the board from **8 February 2012**.

Attention is directed to the provisions of Section 20 of the Gauteng Gambling Act No 4 of 1995 (as amended) which makes provision for the lodging of written representations in respect of the application.

Such representations should be lodged with the Chief Executive Officer, Gauteng Gambling Board, Private Bag 1123, Centurion, 0048, within one month from **8 February 2012**.

INVITATION TO TENDER CEF (SOC) Ltd

Request for Tender number: CEF/Basa/2012/01

APPOINTMENT OF SERVICE PROVIDER

You are hereby invited to submit a tender for the provision of the above to CEF (SOC) Ltd.

Invitation to Bid

Development Management Department

Infrastructure Development in the Nancefield Station Housing Project

Contract/Bid No: NANC001/2012

The Johannesburg Social Housing Company, an agent of the City of Johannesburg Metropolitan Municipality, wishes to select the preferred Construction Company for the construction of a new link road including storm water drainage, street lighting, and utility services near the Nancefield Station at the corner of Malibong Street and Tsebe Road opposite the Nancefield Station in Johannesburg, Gauteng.

Tenders must have a GCE CIBB grading, and must submit tenders provided that they satisfy the criteria stated in the Tender Document. Bid evaluation will be based on the 90/10 point system in line with current legislation. This is clearly stated in the documents and will be explained further during the briefing session.

All questions will only be answered during the compulsory briefing session.

The compulsory site inspection/briefing/clarification meeting will be held at **12:00 on 8 February 2012** on site (on the football field inside the premises) at the above mentioned address.

Bid documents will be available for collection from the Procurement Office, P.O. Box 137, Savenhagh Avenue, New Doornfontein, from 09:00 to 17:00, from 7 February 2012 to 10 February 2012.

A non-refundable fee of R100.00 (Eight Hundred Rand only), payable in cash, is required upon collection of the bid documents.

Bids must be sealed, externally marked "NANC001/2012", and deposited in the tender box, 1st Floor, 137 Savenhagh Avenue, New Doornfontein.

The closing time and date for the receipt of bids is at **12:00 on 29 February 2012**.

Bids will subsequently be opened in public in the Committee Room.

Chief Executive Officer
Johannesburg Social Housing Company

Joburg

a world class African city

JOSHCO

JOHANNESBURG SOCIAL HOUSING COMPANY

Invitation to Bid

Development Management Department

Upgrading of Infrastructure in the Selkirk Residential Project

Contract/Bid No: SELK001/2012

The Johannesburg Social Housing Company, an agent of the City of Johannesburg Metropolitan Municipality, wishes to select the preferred Construction Company to construct a new road and upgrade the walkways for the new Selkirk Residential Development on Selkirk Avenue between Jan Smuts Avenue and Brian Fisher Drive in the Randburg CBD. Tenders must have a GCE CIBB grading and must submit tenders provided that they satisfy all the criteria stated in the Tender Document.

Bid evaluation will be based on the 90/10 point system in line with current legislation. This is clearly stated in the documents and will be explained further during the briefing session.

All questions will only be answered during the compulsory briefing session.

The compulsory site inspection/briefing/clarification meeting will be held at **11:00 on 10 February 2012** at the above address on the open area opposite the Soccer Centre on Selkirk Avenue.

Bid documents will be available for collection from the Procurement Office, P.O. Box 137, Savenhagh Avenue, New Doornfontein, from 09:00 to 17:00, from 8 February 2012 during standard office hours.

A non-refundable fee of R500.00 (Five Hundred Rand only), payable in cash, is required upon collection of the bid documents.

Bids must be sealed, externally marked "SELK001/2012", and deposited in the tender box, 1st Floor, 137 Savenhagh Avenue, New Doornfontein.

The closing time and date for the receipt of bids is at **12:00 on 29 February 2012**.

Bids will subsequently be opened in public in the Committee Room.

Chief Executive Officer
Johannesburg Social Housing Company

Joburg

a world class African city

JOSHCO

JOHANNESBURG SOCIAL HOUSING COMPANY

JHB METROPOLITAN BUS SERVICES (SOC) LTD

Re-Invitation to Tender

Metrobus hereby invites all interested service providers to participate in the following tender:

Tender	Description	Closing Date
SEC01/2012	The provision of security services on behalf of Metrobus for a period of two years at the following sites and premises: • Metrobus Head Office, one Enoch Sontonga and Raikes Road, Braamfontein • Mispark Park Depot, 5 Raikes Road, Braamfontein • Village Main Depot, one Van Woudagh and Wemmer Jubilee Road, Salby • Rodeoport Depot, 16 President Street, Pretoria, Rodeoport • Fordsburg Depot, one Park Lane and Barney Simmonds Street, Fordsburg • Fendale Depot, one Malibongwe and Hans Schoeman Drive, Randburg	9 March 2012 at 10:30am

Vaal River

Municipality hereby invites

Bid Number	Bid Description	Compulsory Briefing/Inspection Date & Time
11/2012/56 No 61/2012	VALUATION ROLL 2013 TO 2016	15 FEBRUARY 2012 @ 10H IN MANOR PALOUDR

Bidders must comply with the following Disqualification. Additional:

1. Original valid tax clearance certificate issued
2. Proof indicating that your Municipal account is up to date
3. Certified copy of letter of good standing in
4. Copy of company profile & proposal must be submitted
5. A compulsory site briefing session will be held
6. A BEE certificate to be submitted.
7. Bidders must comply with all terms and conditions
8. The latest financial statements to be submitted

Collection & submission of bid documents between 08h00 to 15h15 on Monday to Friday, Vanderbijlpark, Cnr Klasië Havengas Street

Availability of bid documents: bid document 2012 at a cost of R 250.00 (payable in cash or by cheque)

Returning and closing date and time of bid: Municipal Offices, Vanderbijlpark, Cnr Klasië Havengas Street, Monday, 13 February 2012, the closing date where after it will be open for inspection.

Evaluation and adjudication of bid: bids will be opened in public in the presence of the Bidder and the Municipality.

Preference is given to bidders who enhance black economy empowerment (BBBEE)

Mr. S. Shabalala
MUNICIPAL MANAGER

REQUEST FOR PROPOSAL/2012/0111

For the Transnet Customer Care Program and Executive 2 (two) years with the (twelve) months.

Transnet invites suitably qualified service providers to submit proposals for the Transnet Customer Care Services for a period of 2 (two) years.

Transnet (SOC) Ltd. invites all interested service providers to submit proposals for the provision of the above to Transnet (SOC) Ltd.

Figure 21: Star Newspaper Advert placed on 8 February 2012

The Star

JOHANNESBURG

NOTICE OF APPLICATION FOR A WASTE LICENCE IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT WASTE ACT, FOR A REPULPER AND RECOVERED FIBRE PLANT AT SAPPENSTRA PAPER MILL, SPRINGS, EKURHULENI.
REF NO: Gaut-002/11-12/W0019

Notice is given in terms of the National Environmental Management Waste Act (Act No. 59 of 2008) and GNR 718 (No. 32368 of 3 July 2009) for the following activities:

- 3(1) The storage, including the temporary storage, of general waste at a facility that has the capacity to store in excess of 100 m3 of general waste at any one time. Planned storage of bales of off cuts on an existing concrete slab.
- 3(5) The sorting, shredding, grinding or bailing of general waste at a facility that has the capacity to process in excess of one ton of general waste per day. Bales of off-cuts will be taken apart placed on a conveyor and screened into fine and coarse streams.
- 3(7) The recycling or re-use of general waste of more than 10 tons per month. The reuse of off cuts of HL1 (White heavy letters such as white woodfree letter papers, office records, printed or written upon, free of covers, bindings, clips, string, rubber bands, latex, plastic and adhesives), K3 (New uncontaminated corrugated offcuts, usually obtained from box makers) and K4 (Used corrugated containers, free from wax, plastic, oil and tar).
- 3(18) The construction of facilities for activities listed in Category A of this Schedule (not in isolation to associated activity). Construction of a conveyor belt, fine and coarse screener.

SRK Consulting has been appointed to submit the Waste Licence Application and undertake a Basic Environmental Impact Assessment to inform the environmental authorisation decision for the project.

Should you wish to make any comment or to receive further information on the proposed project contact Ian Minnaar at SRK Consulting.

Tel. No: (012) 361 9821
Fax No: (012) 361 9912
Postal Address: P.O Box 35290, Menlyn Park, 0102
Email: iminnaar@srk.co.za

Date of this notice: 20 April 2012

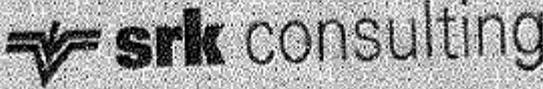
 **srk consulting**

Figure 22: Star Newspaper Advert placed on 20 April 2012

Appendix E4 –Communications to and from local authority and other stakeholders

Appendix E5 – Minutes of any public and/or stakeholder meetings

No public meeting was required.

Appendix E6 - Comments and Responses Report

No comments were received.

Appendix E7 –Comments from I&APs on Basic Assessment (BA) Report

This is the draft Basic Assessment Report and Sappi is awaiting comment.

Appendix E8 –Comments from I&APs on amendments to the BA Report

This is the draft Basic Assessment Report and thus no amendments have yet been made or have been necessary.

Appendix E9 – Copy of the register of I&APs

440994 SAPPI WLA

K Chiota
Environmental Manager
Pamodzi Gold/Aurora
Grootvaly Road, Strubenvale
1570

Main 011-362-6395
Fax 011-815-6218
Cell 083-447-8377

Email: kimbton@pamodzigold.co.za

P. Makhakela
DWA
DWA, 1st floor, Sanlam Plaza East, 271 Schoeman
Street, c/o van der Walt Street
Pretoria Gauteng 0001
South Africa

Main 012-392-1362
Fax 012-392-1359

Email: makhubelel@dwaf.gov.za

S Narain
Director
DEA
DEA, c/o van der Walt and Pretorius Street, 2nd floor
Fedsure South Towers, Pta
Pretoria Gauteng 0001
South Africa

Main 012-310-3920
Fax 012-310-3753

Email: kntoampe@deat.gov.za

Z Smale
Director
GDARD
GDACE, 11th floor, Diamond corner building, Market
street, JHB
Johannesburg Gauteng South Africa

Main 011-355-1900

Email: zingisa.smale@gauteng.gov.za

Dean Stone
Ward Councillor
Ekurhuleni Metro Council
Pretoria Gauteng South Africa

Main 011 999 8300
Cell 082 806 4584

Email: dean.stone@ekurhuleni.gov.za

D De Beer
Gauteng South Africa

440994 SAPPI WLA

P. Mangena
KCC
Gauteng South Africa

P. Nyandeni
DPK7
Gauteng South Africa

N Radebe
DPK7
Gauteng South Africa

N Simelane
DPK7
Gauteng South Africa

K van den Berg
KCC
Gauteng South Africa

F Visser
Ekurhuleni Metro Council
Edenvale Gauteng 1609
South Africa

Main 011-360-2528

Email: flipv@ekurhuleni.com

T. Pieterse
Contracts manager
Envirofill
121 EP Malan Road, Pomona
Johannesburg Gauteng 1630
South Africa

Main 011-396-4601
Fax 011-396-1003

Email: etienned@enviro-fill.co.za

S Madden
Blesbokspruit Forum
18 Rudd Road, Dunnottar
Johannesburg Gauteng 1590

Main 011-734-3661
Fax 011-734-3661

440994 SAPPI WLA

South Africa

Email: stmadden@mweb.co.za

H Julsing
Resident
2 Maskew Street, Rowhill, Springs
Gauteng 1559
South Africa

Cell 082-497-0250

GM Dunn
Resident
20 Wombie Street, Rowhill, Springs
Johannesburg Gauteng 1560
South Africa

Main 011-811-2506

JM van den Berg
General Manager
Springs Chamber of Commerce
21 Eighth Street, Springs
Johannesburg Gauteng 1560
South Africa

Main 011-815-5750
Fax 011-815-2455
Cell 083-567-0933

Email: chambspr@intekom.co.za

M Mithal
Chairman
Concerned Bakerton Residents
31F 2nd Street, Springs
Johannesburg Gauteng 1560
South Africa

Main 011-362-5688
Fax 011-845-2986
Cell 082-707-6117

M Severin
WESSA Springs/Nigel branch
57 Lonely Road, Selcourt, Springs
Johannesburg Gauteng 1559
South Africa

Cell 083-447-7280

Email: mike.severin@pamsa.co.za

J Skelton
Resident
64 Sowles Street, Rowhill, Springs
Johannesburg Gauteng 1559
South Africa

Main 011-811-5947

440994 SAPPI WLA

F Hugo
Resident
7 Laagte Avenue, Petersfield Ext, Springs
Johannesburg Gauteng 1559
South Africa

Main 011 362 1947

C Mohr
Teacher
Benoni Highschool, 33A Drakenstein Avenue,
Eastvale, springs
Johannesburg Gauteng 1559
South Africa

Main 0118494120/9
Cell 083-662-3551

L van Rooyen
Reporter
The Springs Advertiser
c/o 5th avenue and 8th Street, Springs
Johannesburg Gauteng 1559
South Africa

Main 011-812-4800

Email: springseditorial@caxton.co.za

N Shabangu
Far East Rand Hospital
c/o Boswel, Registry office, Gardenview
Gauteng 2047
South Africa

Fax 011-817-3525
Cell 072-242-4263

Email: jny29@wemail.co.za

M Langa
Impala Platinum
East Geduld Road, Springs
Gauteng 1560

South Africa

Van Aswagen
Impala Platinum
East Geduld Road, Springs
Gauteng 1560
South Africa

L van den Berg
SHEM Manager
Impala Platinum

Main 011-360-3155

440994 SAPPI WLA

East Geduld Road, Springs
Johannesburg Gauteng 1560
South Africa

Email: louise.grobbelaar@implats.co.za

C. Burger
Impala Platinum
East Geduld Road, Springs
Johannesburg Gauteng 1560
South Africa

Main 011-360-3156

Email: louise.grobbelaar@implats.co.za

S Martinuzzi
Kimberley Clark
East Geduld Road, springs
Johannesburg Gauteng 1560
South Africa

Main 011-360-7034

Fax 011-360-7113

Email: E18018@ustcax.kcc.com

L Pistorius
Managing Director
H Pistorius & Co.
Kerkstraat 1100, Pta
Pretoria Gauteng 0001
South Africa

Main 12-342-1075

Fax 012-342-1199

Cell 082-883-3330

Email: leo@aglime.co.za

L Classeens
Zincor
Plover street, Sturibult, Springs
Gauteng 1559
South Africa

C van der Merwe
Environmental Manager
Zincor
Plover street, Sturibult, Springs
Johannesburg Gauteng 1559
South Africa

Main 011-812-9500

Email: charl.vandermerwe@exxaro.com

440994 SAPPI WLA

D Mabelane
Kwa Thema Healing and Reconciliation Centre
Rooms 3 and 4 Welfare Kwa Thema Civic Centre
Johannesburg Gauteng South Africa

Main 011-737-6171
Fax 086-623-5725

AM Maurizi
Ekurhuleni Metro Council
Water Quality Office, Srings Depot, Diesel Road, New
Era
Johannesburg Gauteng 1559
South Africa

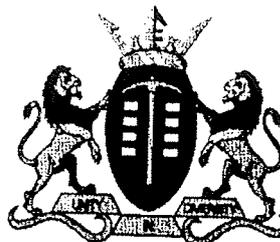
Main 011-360-2194

Email: annemariam@ekurhuleni.com

Appendix E10 – Comments from I&APs on the application

No comments were received.

Appendix E11 - Other



agriculture and rural development

Department: Agriculture and Rural Development

GAUTENG PROVINCE

Diamond Corner Building, 68 Eloff & Market Street, Johannesburg
P O Box 8769, Johannesburg, 2000

Telephone: (011) 355-1900

Fax: (011) 355-1000

Email: gdard@gauteng.gov.za

Website: <http://www.gpg.gov.za>

Enquiries: Lerato Sibiya

Telephone: 011-355 1702

Reference: GWM/11-12/0122

FAX COVER SHEET

Receiver's Details		Sender's Details	
To:	Mr. Ian Minnaar	From:	GDARD
Company:	SRK Consulting (Pty) Ltd	Section:	Waste Management
Fax no.	(012) 361-9912	Floor:	7 th Floor Glencairn Building
Tel no.	(012) 361-9821	Tel:	(011) 355-1900
Date:	2012	Pages:	3 incl. cover
Re:	RESPONSE TO A QUERY FOR THE SAPPI WASTE LICENCE APPLICATION		

CC: GDARD: General Waste Management

Attn: Ms. L. Vilakazi

Fax: 086 604 2482

Tel: (011) 355-1354

GDARD: Head of Department

Attn: Ms. S. Sekgobela

Fax: (011) 333-0667

Tel: (011) 355-1973



**agriculture and
rural development**

Department: Agriculture and Rural Development
GAUTENG PROVINCE

68 Eloff Street, cnr. Market Street Johannesburg, P.O. Box 8769 Johannesburg 2000, Tel 011 355-1900 Fax 011 355-1000, Website: <http://www.gdard.gpg.gov.za>

Reference: GWM//11-12/0122
Enquiries: Lerato Sibiya
Telephone: (011) 355 1702
Email: Lerato.sibiya@gauteng.gov.za

SRK Consulting (Pty) Ltd

P.O. Box 35290

Menlo Park

0102

Tel: (012) 361-9821

Fax: (012) 361-9912

Attention: Mr. Ian Minnaar

PER REGISTERED MAIL / FASCIMILE

Dear Sir

RESPONSE TO A QUERY FOR THE SAPPI WASTE LICENCE APPLICATION

The Department acknowledges receipt of your letter received via email on 06 January 2012 regarding above mentioned application.

The information submitted indicates that the proposal entails the following activities which are listed in terms of the National Environmental Management: Waste Act (NEM: WA), 2008 (Act 59 of 2008), and therefore legally requires a waste management licence from the Department:

- a) Category A: Activity 1 *"the storage, including the temporary storage, of general waste at a facility that has the capacity to store in excess of 100m³ of general waste at any one time, excluding the storage of waste in lagoons"*.
- b) Category A: Activity 5 *"The sorting, shredding, grinding or bailing of general waste at a facility that has the capacity to process in excess of 500m²"*.
- c) Category A: Activity 7 *"The recycling of general waste at a facility that has an operational area in excess of 500m²"*.
- d) Category A: Activity 18 *"The construction of facilities for activities listed in Category A of this Schedule (not in isolation to associated activity)"*.

According to GN 719 a person who wishes to commence, undertake or conduct a activity listed under Category A must conduct a Basic Assessment process and Category B must conduct a Scoping and EIA process as stipulated in the Environmental Impact Assessment Regulations made under section 24(5) of the National Environmental Management Act (NEMA) (Act 107, of 1998), as part of the waste licence management application.

In light of the above information before us, the proposed activity falls under Category A, activity numbers (1, 5, 7, & 18).

Therefore a Basic Assessment process as stipulated in the Environmental Impact Assessment Regulations made under section 24(5) of the NEMA should be followed.

You are therefore advised to do the following:

1. Fill in and sign an application form for a new waste management license in terms of NEM: WA. Please note that the forms are available at GDARD offices and also from GDARD's website at www.gdard.gpg.gov.za under waste management documents.
2. Compile and submit five (5) copies (3 full colour hard copies and 2 CDs-PDF) and attach all supporting documentation as required in Appendices on the application form.

You are reminded that any development (including earthworks and pegging of the site) prior to written waste management license from this Department is a contravention of Section 20 & 67 of NEM: WA and will result in the issuing of directives to address the non-compliance, including an order to cease the activity, as well as instituting criminal and/or civil proceedings to enforce compliance by the Department.

We have noted the time constraints for the project and therefore encourage SRK to ensure that complete information is submitted timeously to the Department to enable the review of the Basic Assessment Report and application within the legislated time-frames.

Should you have enquiries regarding the above, please contact Ms. Lerato Sibiyi at the number given above.

Yours faithfully



Ms. Z. Smale

Director: Waste Management

Date 13/01/2012

CC: GDARD: General Waste Management

Attn: Ms. L. Vilakazi
Fax: 086 604 2482
Tel: (011) 355-1354

GDARD: Head of Department

Attn: Ms. S. Sekgobela
Fax: (011) 333-0667
Tel: (011) 355-1973

**Appendix F: Water use license(s) authorisation, SAHRA information,
service letters from municipalities, water supply information**
Appendix F1: Water Use License Authorisation



water affairs

Department:
Water Affairs
REPUBLIC OF SOUTH AFRICA

Private Bag X313, Pretoria, 0001, Sedibeng Building, 185 Schoeman Street, Pretoria Tel: (012) 336-7500
Fax: (012) 323-4472 / (012) 326-2715

LICENCE IN TERMS OF CHAPTER 4 OF THE NATIONAL WATER ACT, 1998 (ACT NO. 36 OF 1998) (THE ACT)

I, **Maxwell Sirenya**, in my capacity as Director-General in the Department of Water Affairs and acting under authority of the powers delegated to me by the Minister of Water and Environmental Affairs, hereby authorise the following water uses in respect of this licence.

SIGNED: ... *Maxwell Sirenya* ...

DATE: *24/01/2012*

LICENCE NO: 08/C21D/FG/1505
FILE NO: 16/2/7/C212/B7

1. **Licensee:** **Sappi Southern Africa (Pty) Ltd –Enstra Mill**
Postal Address: P. O Box 3246
Spring
1560
2. **Water Uses**
 - 2.1 Section 21 (f) of the Act: Discharging waste or water containing waste into a water resource through a pipe, canal, sewer or other conduit subject to the conditions set out in Appendices I and II.
 - 2.2 Section 21 (g) of the Act: Disposing of waste in a manner which may detrimentally impact on a water resource, subject to the conditions set out in Appendices I and III.
3. **Properties on which the uses will be exercised**
 - 3.1 Section 21 (f) of the Act: Remainder of Portions 36, 37, 67 and 207 of the farm Geduld 123 IR
 - 3.2 Section 21 (g) of the Act: Remainder of Portions 36, 37, 67 and 207 of the farm Geduld 123 IR
4. **Registered owner of the Property**
 - 4.1 Sappi Southern Africa (Pty) Ltd – Enstra Mill
5. **Licence and Review Period**
 - 5.1 This licence is valid for a period of five (5) years from the date of issuance and may be reviewed every one (1) year.

Licence No: 08/C21D/FG/1505
File No: 16/2/7/C212/B7

6. Definitions

Any terms, words and expressions as defined in the National Water Act, 1998 (Act 36 of 1998) shall bear the same meaning when used in this licence.

"The Regional Head" means the Regional Chief Director: Gauteng, Department of Water Affairs, Private Bag X995, Pretoria, 0001

"The Report means Integrated Water Management Strategy compiled by Sappi Fine Paper (The applicant) in support of their water use licence application".

7. Description of the activity

This licence authorises Sappi Manufacturing (Proprietary) Limited, for the disposal and discharging of water from fine paper manufacturing at the Remainders of Portions 36, 37, 67, and 207 of the farm Geduld 123 IR, Quaternary Catchment C21D in the Upper Vaal Water Management Area.

APPENDIX I**General conditions for the licence**

1. This licence is subject to all applicable provisions of the National Water Act, 1998 (Act 36 of 1998).
2. The responsibility for complying with the provisions of the licence is vested in the Licensee and not any other person or body.
3. The Licensee must immediately inform the Regional Head of any change of name, address, premises and/or legal status.
4. If the property in respect of which this licence is issued is subdivided or consolidated, the Licensee must provide full details of all changes in respect of the properties to the Regional Head of the Department within 60 days of the said change taking place.
5. If a water user association is established in the area to manage the resource, membership of the Licensee to this association is compulsory.
6. The Licensee shall be responsible for any water use charges or levies imposed by a responsible authority.
7. While effect must be given to the Reserve as determined in terms of the Act, where a desktop determination of the Reserve has been used in issuance of a licence, when a comprehensive determination of the Reserve has finally been made, it shall be given effect to.
8. When compulsory licensing is implemented for the water resource in respect of which this licence was issued, the water use authorised in this licence could be subject to appropriate reduction.
9. The licence shall not be construed as exempting the Licensee from compliance with the provisions of any other applicable Act, Ordinance, Regulation or By-law.
10. The licence and amendment of this licence are also subject to all the applicable procedural requirements and other applicable provisions of the Act, as amended from time to time.
11. The Licensee shall conduct an annual internal audit on compliance with the conditions of licence. A report on the audit shall be submitted to the Regional Head within one month of the finalisation of the audit, and shall be made available to an external auditor should the need arise.
12. The Licensee shall appoint an independent external auditor to conduct an annual audit on compliance with the conditions of this licence. The first audit must be conducted within 3 (three) months of the date this licence and a report on the audit shall be submitted to the Regional Head within one month of finalisation of the report.
13. Flow metering, recording and integrating devices shall be maintained in a sound state of repair and calibrated by a competent person at intervals of not more than two years. Calibration certificates shall be available for inspection by the Regional Head or his representative upon request.

2012 -01- 2 4

Licence No: 08/C21D/FG/1505
File No: 16/2/7/C212/B7

14. Any incident that causes or may cause water pollution shall be reported to the Regional Head or his/her designated representative within 24 hours.

APPENDIX II**Section 21(f) of the Act: Discharging waste or water containing waste into a water resource****1. QUANTITY OF WATER CONTAINING WASTE**

- 1.1 This licence authorises the discharging to the BlesbokSpruit of a maximum volume of 9 333 600m³/a (nine million three hundred and thirty three thousand six hundred cubic metres) of purified effluent per annum with an average daily volume of 28 000 m³ (twenty eight thousand cubic metres).

2. QUALITY OF WASTE WATER TO BE DISCHARGED

- 2.1 The Licensee shall investigate and implement technologies to improve the variable contents of the effluent to meet the standards given below:

Table 1: Quality of waste water to be discharged

Variable	Limits
pH	5.5 – 9.5
Ortho Phosphate	< 0.8 mg/l
Ammonia as N	< 2 mg/l
Nitrate as N	1.5 mg/l
<i>E-Coli</i>	500 CFU/100 ml
Electrical Conductivity	< 70 mS/m
TDS	< 1325 mg/l
COD	< 35 mg/l
Sodium as Na	<100 mg/l
Chloride as Cl	< 150 mg/l
Suspended Solids	< 25 mg/l
Iron (mg/l)	40.96
Fluoride (mg/l)	2.4
Barium (mg/l)	1.3
Boron (mg/l)	2.5
Molybdate (mg/l)	63
Manganese (mg/l)	5.7
Silicon (mg/l)	131
Selenium (mg/l)	2.7
Strontium (mg/l)	0.49

3 MONITORING**3.1 Quantity of water containing waste**

- 3.1.1 The quantity of water containing waste discharged in the Blesbokspruit shall be metered continuously and recorded daily.
- 3.1.2 Monitoring for the quantity of the water containing waste shall be done at the final discharge point.

3.2 Surface monitoring

- 3.2.1 Monitoring for quality shall only be carried out on a monthly basis and reported to the Regional Head on a quarterly basis to determine the impact of the activities on surface water quality at the monitoring points listed below:
- 3.2.2 At the final discharge point before discharge into the Blesbokspruit;
- 3.2.1.1 Upstream of the discharge point into the Cowles Dam at Enstra Road; and
- 3.2.1.2 Downstream of the discharge point into the Blesbokspruit i.e. after complete mixing has occurred.
- 3.2.1.3 The following variables should be analysed for each sampling points: pH, Chemical Oxygen Demand, Electrical Conductivity, Sodium (as Na), Chloride (as Cl), Suspended Solids, Ortho Phosphate, Ammonia, Nitrate, Sulphate (as SO₄), *E. Coli*, and/or any other variable as may be required from time to time by the Regional Head.
- 3.2.3 The date, time and monitoring point in respect of each sample taken shall be recorded together with the results of the analysis.
- 3.2.4 Analysis shall be carried out in accordance with methods prescribed by and obtainable from the South African Bureau of Standards (SABS), in terms of the Standards Act, 1982 (Act 30 of 1982).
- 3.2.5 The methods of analysis shall not be changed without prior notification to and written approval by the Minister
- 3.2.6 Monitoring points shall not be changed prior to notification to and written approval by the Regional Head.
- 3.2.7 Additional monitoring requirements may be set by the Regional Head from time to time and will be communicated to the Licensee.

3.3 Biomonitoring

- 3.3.1 The existing biomonitoring sampling and analysis performed every 6 months, for the relevant range of the Blesbokspruit as compiled by an acknowledged Aquatic Scientist, shall be submitted to the Regional Head.
- 3.3.2 The monitoring programme shall continue to include, but not be limited to the following:
- 3.3.3 The program must be able to qualify and quantify the biological impact due to the Licensee's effluent on the environment along and downstream of the Licensee's premises.
- 3.3.4 Biomonitoring points upstream and downstream of the discharge point so as to compile results according to the South African System (SASS) method as adjusted for site specification application.
- 3.3.5 Bioaccumulation tests on vertebrates along the Blesbokspruit.

Licence No: 08/C21D/FG/1505
File No: 16/27/C212/B7

- 3.3.6 An Aquatic Scientist approved by the Regional Head must establish a monitoring programme for the following indices: Invertebrate Habitat Assessment System (IHAS) and the latest SASS (South African Scoring System). Sampling must be done once during the summer season and once during the winter season, annually, to reflect the status of the river upstream and downstream activities.

4 REPORTING

- 4.1 The Licensee shall update the water balance annually and calculate the loads of waste emanating from the activities. The Licensee shall determine the contribution of their activities to the mass balance for the water resource and must furthermore co-operate with other water users in the catchment to determine the mass balance for the water resource reserve compliance point.
- 4.2 A revised plan for the further treatment of the final effluent from Sappi Enstra shall be submitted to the Department on or before 31 December 2013 for consideration detailing plans for the further purification of the effluent for re-use of the purified water containing waste to the standards .

2012 -01- 2 4

APPENDIX III

Section 21(g) of the Act: Disposing of waste in a manner which may detrimentally impact on a water resource**1 DISPOSAL OF WATER CONTAINING WASTE**

- 1.1 The Licensee is authorised to dispose of maximum quantity in cubic metres per annum (m³/a) into waste management facility on the farm described below in Table

Table 1: Volumes of waste to be disposed at the waste disposal facilities.

Facility	Description	volume (m ³ /a)	Capacity (m ³)	Property description	Co-ordinates
Black Liquor Dam	Disposal of water containing waste into the black liquor dams	1 355 975	22 290m ³	Portions 36, 37, 67 and 207 of the farm Geduld 123 IR	S 26.2071° E 28.4460°
Treated Sewage Water Dams	Disposal of treated sewage water into reservoirs	5 475 000	22 500	Portions 36, 37, 67 and 207 of the farm Geduld 123 IR	S 26.2054° E 28.4394°
Pollution control dam	Stormwater pollution control dam	88 695	7 000	Portions 36, 37, 67 and 207 of the farm Geduld 123 IR	S 26.2071° E 28.4449°

- 1.2 The storage of water containing waste in the dams described above shall not exceed the dams' respective capacities and shall always maintain a minimum of 0.8m freeboard.
- 1.3 No other water or water containing waste shall be stored in the described dams, except for that emanating from the premises of the Licensee;
- 1.4 The water containing waste stored in these dams shall not be utilised for purposes other than that authorised this licence or in accordance with the IWWMP.
- 1.5 The Licensee must investigate and implement the appropriate technological treatment options of the effluent. The report from the investigation must be submitted within two (2) years from the date of issuance of this licence.
- 1.6 No activities shall be allowed within the 1:100 year flood line or within a 100 meter horizontal distance from any watercourse including the construction storage facilities of water containing waste. This shall exclude all activities that commenced prior to 1998.
- 1.7 All structures must be designed to take cognizance of the end use. This includes all dams, waste dams and other constructions that will remain after closure of the operation.
- 1.8 Water containing waste storage facilities must be designed in line with the waste stream characterisation, with the liner in compliance with the requirements as defined in the Minimum requirement series of the Department.

2. QUALITY OF WASTE WATER TO BE DISPOSED

- 2.1 The quality of waste water to be disposed of into waste water facilities indicated on Table 1 above shall not exceed the following limits as specified in Table 2 below.

Table 2: Quality of waste water to be disposed into the Black Liquor Dam and Storm water Dam

Variable	Limits
pH	10.4
Electrical Conductivity (mSm)	52.7
COD (mg/l)	34119.70
Suspended Solids (mg/l)	305.70
Total Dissolved Solids	64132.48
Iron (mg/l)	40.96
Phosphate (mg/l)	172.69l
Calcium (mg/l)	58
Magnesium (mg/l)	25
Potassium (mg/l)	974
Sulphate (mg/l)	3139.59
Sodium as Na	39000
Chloride as Cl	10112.73
Fluoride (mg/l)	2.4
Barium (mg/l)	1.3
Boron (mg/l)	2.5
Molybdate (mg/l/	63
Manganese (mg/l)	5.7
Silicon (mg/l)	131
Selenium (mg/l)	2.7
Strontium (mg/l)	0.49

- 2.2 A Groundwater Management and Remediation Programme shall be developed and implemented as part of the Plan required in terms of the conditions of this licence and submitted within 1 (one) year after the issuance of this licence.. The programme shall include at least but not limited to the following criteria:
- 2.2.1 Measures to protect the resource including measures to reduce and ultimately phase out potential sources of groundwater pollution;
- 2.2.2 The identification, qualification and mitigatory measures to address the possible impact on the shallow and deep groundwater aquifer by the activities specified in terms of condition 1.1 of this Appendix;
- 2.2.3 Description of the source and extent of groundwater pollution and soil contamination in the areas impacted by the activities as mentioned in condition 1.1 of this Appendix;
- 2.2.4 The quantitative and qualitative prediction, verification and proposed mitigation measures of the possible impacts on the water resource associated with the disposal of water containing waste;

2012 -01- 2 4

Licence No: 08/C21D/FG/1505

File No: 16/2/7/C212/B7

- 2.2.5 The description of existing pollution, the prediction of future pollution, verification of predicted values with time, and measures to address groundwater and associated surface water impacts in the short, medium and long term;
- 2.2.6 The impact of the industrial activity on the
- 2.2.7 e groundwater shall be investigated annually and the groundwater model of the pollution plume verified and updated accordingly;
- 2.2.8 The report on the groundwater investigation in accordance with condition 2.2 of this Appendix shall be submitted to the Regional Head in March every year.
- 2.2.8 The Licensee shall only implement actions as stipulated in the Report after approval has been granted by the Department.
- 2.2.9 Lime Disposal Facility is impacting on the groundwater quality to the south of the site and the groundwater quality is deteriorating. Therefore the Licensee is required to submit a Plan on how the current pollution will be capped and remediated as well as the management of the future pollution. The plan must be submitted within one (1) year from the date of issuance of this licence.
- 2.2.10 All recommendations made by Golder Associates report: Sappi Enstra Water Monitoring Report, Groundwater and Surface Water Quality Interpretation (2009) conducted at sites should be adhered to.

3. GROUNDWATER MONITORING

- 3.1 The quantities of water containing waste stored in the wastewater facilities shall be recorded daily.
- 3.2 Monitoring of the quality of groundwater shall be carried out at the groundwater monitoring points as identified in the approved groundwater monitoring program.
- 3.3 The identified pollution plume at site should be cleaned out and proper groundwater management plan set up for the site and be submitted with the Plan within one (1) year of the date of issuance of this licence.
- 3.4 The monitoring points, frequency of monitoring and variables shall not be changed without prior notification to and written approval by the Regional Head.
- 3.5 The date, time and monitoring point in respect of each sample taken shall be recorded together with the results of analysis.
- 3.6 Monitoring points shall not be changed prior to notification to and written approval by the Regional Head.

4. STORM WATER MANAGEMENT

- 4.1 Stormwater leaving the Licensee's premises shall in no way be contaminated by any substance, whether such substance is a solid, liquid, vapour or gas or a combination thereof which is produced, used, stored, dumped or spilled on the premises.

- 4.2 Increase runoff due to vegetation clearance and/or soil compaction must be managed, and steps must be taken to ensure that storm water does not lead to bank instability and excessive levels of silt entering the stream.
- 4.3 Where necessary works must be constructed to attenuate the velocity of any storm-water discharge and to protect the banks of the affected watercourses.
- 4.4 Storm-water control works must be constructed, operated and maintained in a sustainable manner throughout the impacted area.
- 4.5 Increased runoff due to vegetation clearance and/or soil compaction must be managed, and steps must be taken to ensure that storm-water does not lead to bank instability and excessive levels of silt entering the streams.
- 4.6 All storm-water that would naturally run across the pollution areas shall be diverted via channels and trapezoidal drains designed to contain the 1:50 year flood.
- 4.7 The polluted storm water captured in the storm water control dams shall be pumped to the process water treatment plant for reuse and recycling.
- 4.8 Measures shall be provided around all premises to prevent storm water ingress into the surroundings of the works. These drains shall be designed to contain a maximum runoff, which could be expected over a period of 24 hours with a frequency of once in 50 years.
- 4.9 The Licensee shall confine water to a water system, away from any dirty area by constructing the necessary works to divert water away from a dirty area.
- 4.10 All runoff water (storm water) arising as a result of precipitation on dirty areas shall be considered as water containing waste, and must be contained within the dirty water system (excluding process water drains)
- 4.11 Runoff water arising from operational actions, must be regarded as water containing waste, and must be contained in the dirty water system.
- 4.12 Uncontaminated water must under no circumstances be used to dilute water containing waste but must be diverted to and discharged into the nearest clean storm water channel or watercourse.
- 4.13 The waste water disposal facilities as well as the stormwater and wastewater drainage systems shall be monitored weekly for leakages, spillages and overflows and appropriate actions implemented to resolve problems.
- 4.14 The Licensee shall implement measures to monitor any stormwater (excluding process water drains) leaving areas where it could come in contact with any contaminants or pollutants associated with the activities of the Licensee.
- 4.15 The Licensee must indicate on a map the location and extent of un-rehabilitated and disturbed areas as well as any areas with erosion problems within the boundary of activities. Storm water measures to minimise sheet flow over these areas must be indicated. Storm water measures to catch and contain run-off from these areas must be indicated, including the final treatment or management option.

- 4.16 The Licensee shall not allow any water containing waste to flow untreated or unmanaged into a clean water resource.

5. PIPELINES

- 5.1 The pipelines used for the transportation of water containing waste to the dams shall be painted in a noticeable colour or manufactured of a coloured material distinctly different from the colour of the pipelines used for transportation of drinking water to avoid the possibility of any cross-connections of the different pipelines.
- 5.2 All stop valves and taps on the pipelines transporting water containing waste shall be of a type that can be opened and closed by means of a valve.

6 ACCESS CONTROL

- 6.1 Strict access procedures must be followed in order to gain access to the main factory and the entire residue disposal sites as well as dirty water systems in the content of the Licensee.
- 6.2 Access to dams containing residue deposits and dirty water systems must be limited to authorised personnel employed by Sappi or contractors employed by Sappi.
- 6.3 Notice prohibiting unauthorised persons from entering the areas as well as an internationally acceptable sign indicating the risks involved by unauthorised entry must be displayed along the boundary fence of these areas.
- 6.4 The Licensee shall ensure that any dam or dirty water system containing any poisonous, toxic or injurious substance to be effectively fenced-off to restrict access thereto, and must erect warning notice boards at prominent locations to warn persons of the hazardous contents thereof.
- 6.5 The Licensee shall ensure access control in any area used for the stockpiling or disposal of any residue or substance that causes has caused or is likely to cause pollution of a water resource in order to protect any measures taken to prevent the pollution of water.
- 6.6 The Licensee shall protect any existing pollution control measures or replace any existing pollution control measures deleteriously affected, managed or destroyed by the removing or reclaiming of materials from any residue deposit or stockpile, and establish additional measures for the prevention of pollution of a water resource which might occur, is occurring or has occurred as a result of such operations.
- 6.7 The Licensee shall take all reasonable steps to maintain service roads in a condition that ensures unimpeded access to residue deposits, dirty water systems, plant areas and other facilities for vehicles transporting residue, products and other materials.

7 CONTINGENCIES

- 7.1 Accurate and up-to-date records shall be kept of all system malfunctions resulting in non-compliance with the requirements of this licence. The records shall be available for inspection

2012-01-24

Licence No: 08/C21D/FG/1505

File No: 16/2/7/C212/B7

by the Regional Head upon request. Such malfunctions shall be tabulated under the following headings with a full explanation of all the contributory circumstances:

- 7.1.1 operating errors
- 7.1.2 mechanical failures (including design, installation or maintenance)
- 7.1.3 environmental factors (e.g. flood)
- 7.1.4 loss of supply services (e.g. power failure) and
- 7.1.5 other causes.

7.2 The Licensee must, within 24 hours, notify the Regional Head of the occurrence or potential occurrence of any incident which has the potential to cause, or has caused water pollution, pollution of the environment, health risks or which is a contravention of the licence conditions.

7.3 The Licensee must, within 14 days, or a shorter period of time, as specified by the Regional Head, from the occurrence or detection of any incident referred above, submit an action plan, which must include a detailed time schedule, to the satisfaction of the Regional Head of measures taken to:

- 7.3.1 correct the impacts resulting from the incident
- 7.3.2 Prevent the incident from causing any further impacts and prevent a recurrence of a similar incident.

8 WATER USE EFFICIENCY

8.1 The Licensee shall continuously investigate and put into practice water saving devices or apply techniques for the reuse of water or water containing waste in an endeavour to conserve water at all times.

8.2 Notwithstanding the requirements of condition 8.1, the Licensee shall:

- 8.2.1 Not use water cleansing as a substitute for dry methods;
- 8.2.2 Use high pressure low volume washing systems;
- 8.2.3 Implement measures to promote staff awareness regarding the importance of conserving water at all times;
- 8.2.4 Prevent and minimize the contamination of clean water;
- 8.2.5 Develop and implement multi-purpose usage that enhance biological and environmental systems and;
- 8.2.6 Develop and optimize biological water treatment to enable multi-purpose usage.

9 GROUND WATER RESOURCE PROTECTION

9.1 The impact of the waste water activities on the Ground Water must not exceed the Ground Water Resource Quality Limit as stipulated in the Ground Water Quality Limit for the area, as indicated in Table 3:

Table 3: Ground Water Quality Limit

Parameter	Ground Water Quality Limit
pH	6-9.5
Electrical Conductivity	30.25
Calcium (as Ca) in mg/l	21.02
Magnesium (as mg) in mg/l	12.10
Chloride (as Cl) in mg/l	9.35
Sodium (as Na) in mg/l	14.74
Sulphate (as SO ₄) in mg/l	6.71
Nitrate as NO ₃ in (mg/l)	0.25
Fluoride (as F) in mg/l	0.13

10 INTEGRATED WATER MANAGEMENT REQUIREMENTS

- 10.1 The Licensee shall ensure that all operational activities and actions, including water uses will promote social upliftment and development.
- 10.2 The Licensee shall incorporate an active and continuing environmental awareness and training program in their current Health and Safety Induction Program. All employees and contractors that could impact on the environment, whether ecological, social or economic must be made aware of their impacts on the environment, whether direct or indirect as well as measures to minimize or manage these impacts.
- 10.3 Licensee shall identify all relevant interested and affected parties and actively promote their participation during the full economic duration (construction, operational and closure phases) of the industrial activity. Results and findings of environmental and licence condition shall be made available to all Interested and Affected Parties upon request. The environmental and licence conditions audit reports shall be made available electronically to the Regional Head on his request, together with the minutes and attendance register of such a meeting.
- 10.4 The Licensee shall support and empower Catchment Forums and Catchment Communities to ensure effective and efficient Integrated Catchment Management.

11 REMEDIATION, REHABILITATION AND CLOSURE REQUIREMENTS

- 11.1 The Licensee shall have a suitably qualified and capable person to identify evaluate and select various alternatives for the development or acceptable rehabilitation of the complete industrial site including the lime dams, decommissioned irrigation fields as well as any other disposal facilities and water containing waste impoundments and list them in the Rehabilitation Programme,
- 11.2 The Licensee shall design a remediation program addressing the following issues:
- 11.2.1 The formulation of site-specific remediation objectives addressing sequential land use, water and risk assessments.

2012 -01- 2 4

Director- General

Licence No: 08/C21D/FG/1505

File No: 16/2/7/C212/B7

- 11.2.2 Highlighting remediation options, selecting the optimal option that is a cost-effective, sustainable solution that protects human health and the environment while allowing viable re-use of the property.
- 11.3 The Licensee shall appoint a suitable qualified and capable person to identify appropriate vegetation species to be used for rehabilitation to ensure a sustainable rehabilitated system after closure. Programmes to increase the rehabilitation stock must be started in time to ensure sufficient vegetation stock during the rehabilitation and/or decommissioning phase.
- 11.4 An effective monitoring program must be developed, looking at the main constituents of concern as well as other associated contaminants that have different breakdown and transport pathways.
- 11.5 The monitoring program should make provision for further monitoring of the surface water body, further analysis of the soils, groundwater quality monitoring and lower aquifer monitoring and the extent of the contaminant plumes. Details of the monitoring program must be forwarded to the Department.

12 INTERGRATED WATER AND WASTE MANAGEMENT

- 12.1 The Licensee must update an *Integrated Water and Waste Management Plan (IWWMP)*, which must together with the *Rehabilitation Strategy and Implementation Programme (RSIP)*, be submitted to the Regional Head for approval within one (1) year from the date of issuance of this licence.
- 12.2 The IWWMP and RSIP shall thereafter be updated and submitted to the Regional Head for approval, annually.
- 12.3 The Licensee must, at least 180 days prior to the intended closure of any facility, or any portion thereof, notify the Regional Head of such intention and submit any final amendments to the IWWMP and RSIP as well as a final *Closure Plan*, for approval.
- 12.4 The Licensee shall make full financial provision for all investigations, designs, construction, operation and maintenance for a water treatment plant should it become a requirement as a long-term water management strategy.

END OF LICENCE

Appendix F2: Landfill Authorisation



DEPARTMENT: WATER AFFAIRS AND FORESTRY

Private Bag X313, Pretoria, 0001
 Sedibeng Building, 185 Schoeman Street, Pretoria
 Tel: (012) 336-7500 Fax: (012) 323-4472 / (012) 326-2715

F - ☒ 012 323 0321
 E - ☒ tek@dwaf.pwv.gov.za

☒ T Hopkins
 ☒ 012 336 7553
 ☒ 16/2/7/C212/B7/Y1

PERMIT NUMBER: 16/2/7/C212/B7/Y1/P416
 CLASS: H:H
 WASTE DISPOSAL SITE: ENSTRA MILL SOLID WASTE DISPOSAL SITE
 LOCATION: REMAINDER OF PORTION 36 OF THE FARM GEDULD
 123 IR, DISTRICT OF SPRINGS
 PERMIT HOLDER: SAPPI FINE PAPERS ENSTRA MILL
 ADDRESS: P.O. BOX 3246, SPRINGS, 1560

**PERMIT IN TERMS OF SECTION 20 OF THE ENVIRONMENT CONSERVATION ACT,
 1989 (ACT 73 OF 1989)**

By virtue of the powers delegated to me by the Minister of Water Affairs and Forestry (hereinafter referred to as "the Minister"), I, Barbara Gay Schreiner, in my capacity as Chief Director: Water Use and Conservation in the Department of Water Affairs and Forestry (hereinafter referred to as "the Department"), hereby, in terms of section 20(1) of the Environment Conservation Act, 1989 (Act 73 of 1989), authorise the abovementioned Permit Holder to operate and rehabilitate the Enstra Mill Solid Waste Disposal site with the aim of closure, subject to the conditions specified herein.

PERMIT CONDITIONS

In this Permit, "Director" means the Director: Water Quality Management of the Department, who may be contacted at the address below:

The Director General
 Department of Water Affairs and Forestry
 Private Bag X313
 PRETORIA
 0001

1 LOCATION

1.1 This Permit authorises the continued operation and rehabilitation with the aim of closure of a waste disposal site on the Remainder of Portion 36 of the farm Geduld 123 IR, District of Springs, (hereinafter referred to as "the Site") according to the following reports:

- (a) 35PA-ENSTRA by Jarrod Ball and Associates, dated February 1995;
- (b) 103R-ENSTRA by Jarrod Ball and Associates, dated July 1996;
- (c) "Landfill Management, Enstra Mill Landfill Operating Plan" (ENS/0006) dated 10 December 1999,

(hereinafter referred to as "the Reports"), submitted by the Permit Holder.

1.2 The boundaries of the Site must be as indicated by the co-ordinates on plan number ENO/003 dated 30 June 1999 by Jarrod Ball and Associates, submitted by the Permit Holder.

2 PERMISSIBLE WASTE, CLOSURE AND REHABILITATION

2.1 CLOSURE AND REHABILITATION

2.1.1 The Site may not be used for the disposal of waste after the final landform as indicated on Drawing number ENO/003 dated 30 June 1999 by Jarrod Ball and Associates has been achieved, but must be rehabilitated in accordance with the requirements for closure specified in the latest edition of the "Minimum Requirements" series of documents as published by the Department (hereinafter referred to as the "Minimum Requirements"), the Reports, the conditions of this Permit and any other written instruction issued by the Director to the Permit Holder.

2.1.2 The rehabilitation of the site must be undertaken in two stages, namely:

- (a) the short/medium-term closure stage: the ongoing disposal of waste, the implementation of engineering measures to prepare the

- site for rehabilitation (closure construction), and the management of impacts during this stage according to conditions 3; and
- (b) the ongoing and medium/long-term management stage: the maintenance of these measures and the management of impacts according to condition 4.

2.1.3 The site must be rehabilitated to "Open Space".

2.1.4 The Permit Holder must take all reasonable steps to prevent the disposal of waste on the Site after the period specified in condition 2.1.1, and must remove all waste disposed to an appropriately permitted waste disposal facility.

2.2 PERMISSIBLE WASTE

2.2.1 Subject to the provision of condition 2.1.1, any portion of the Site which has been constructed or developed according to condition 3 of this Permit, may be used for the disposal of the waste types listed in Annexure I.

2.2.2 Except for the waste generated by the Permit Holder and approved under condition 2.2.1, no waste originating from any other source may be disposed of on the Site.

2.2.3 The Permit Holder must take all reasonable steps to prevent the disposal of waste on the Site for which the Site has not been approved.

3 SHORT TERM OPERATION AND CONSTRUCTION FOR CLOSURE PHASE

3.1 DURATION OF CLOSURE CONSTRUCTION

3.1.1 During this phase, the Site may be used for the ongoing disposal of waste and the Permit Holder must implement the approved engineering measures according to conditions 3.2 and 3.3 of this Permit in order to prepare the Site for rehabilitation and manage the impacts resulting from these measures according to condition 3.4.

3.2 GENERAL CONSTRUCTION REQUIREMENTS

3.2.1 The operation with a view to closure and closure construction of the Site must be in accordance with the requirements for closure specified in the Minimum Requirements, the approved plans numbered EN/102, EN/103, EN/104, EN/105, EN/106, and ENO/003 as contained in the Reports, the conditions of this Permit and any other written instruction issued by the Director to the Permit Holder.

3.2.2 The further development and construction for closure of the Site which are not shown on the plans approved in terms of conditions 3.2.1, may only be undertaken by the Permit Holder after specified engineering plans have been submitted to and approved in writing by the Director.

- 3.2.3 The construction for closure of the Site must be carried out under the supervision of a Professional Civil Engineer, registered under the Engineering Profession of South Africa Act, 1990 (Act 114 of 1990) as proposed by the Permit Holder and approved by the Director.
- 3.2.4 After construction for closure of the Site is completed according to conditions 3.2.1 and 3.2.2, the Permit Holder must notify the Director thereof and the person referred to in condition 3.2.3 must submit a certificate or alternatively a letter to the Director that the construction for closure of the Site, as proposed by the Permit Holder and approved by the Director, was carried out in accordance with recognised civil engineering practice.
- 3.2.5 An official of the Department and the person referred to in condition 3.2.3 must inspect the completed construction works of the Site referred to in condition 3.2.4. If the Director is satisfied with the construction of the Site, written confirmation will be given that the construction complies with the Minimum Requirements and that the Site is regarded as closed.
- 3.2.6 Works constructed in compliance with conditions 3.3.2 and 3.3.3 must be of such a capacity as to maintain a freeboard of half a metre while accommodating all stormwater runoff, which could be expected as a result of the estimated maximum precipitation during a period of 24 hours with an average frequency of once in 50 (fifty) years (hereinafter referred to as the "estimated maximum precipitation").

3.3 SPECIFIC CONSTRUCTION MEASURES

3.3.1 Engineering of stability, slopes and final shape and cover

- 3.3.1.1 The Site must be constructed in accordance with recognised civil engineering practice, with special consideration to stability.
- 3.3.1.2 The maximum height of the Site must not exceed 15 metres above ground level.
- 3.3.1.3 The slope of the sides of the Site must be constructed and maintained in such a manner that the occurrence of erosion is prevented.
- 3.3.1.4 The entire Site must be reshaped to facilitate stormwater control and the slope of the sides of the Site must be constructed and maintained in such a manner that surface runoff is directed away from the edges of the Site.
- 3.3.1.5 The Site must be progressively capped as indicated on plan number EN/105 according to the capping design as indicated on the drawing submitted by the Permit Holder as Annexure to the letter dated 25 November 1998 and approved by the Department.
- 3.3.1.6 The capped area must be covered with 200 mm topsoil, after which it must be vegetated.



- 3.3.1.7 Vegetation on the capped area must be maintained on an ongoing basis.
- 3.3.1.8 The long-term integrity of the capping layer must be monitored, with specific reference to vegetation and permeability.
- 3.3.1.9 In the event of failure of the approved capping, the Permit Holder must take proper remedial actions in consultation with the Department.
- 3.3.1.10 Should experimental capping be considered, field trials must be conducted after consultation with the Department.
- 3.3.1.11 Should the capping referred to in conditions 3.3.1.5 to 3.3.1.10 prove not to be adequate, the Department may insist on capping according to the latest edition of the Minimum Requirements.
- 3.3.1.12 The rate of settlement of the waste body must be measured quarterly.

3.3.2 Construction of leachate and contaminated stormwater control measures

- 3.3.2.1 Leachate interception drains must be constructed according to the Reports to effectively intercept contaminated stormwater, as well as surface and sub-surface leachate on the Site, while accommodating all stormwater runoff under estimated maximum precipitation conditions.
- 3.3.2.2 All leachate and contaminated stormwater collected in the interception drains must be diverted to the leachate collection and holding works constructed in compliance with conditions 4.2.1 and 4.2.2.

3.3.3 Construction of stormwater measures

- 3.3.3.1 Stormwater diversion works must be constructed in compliance with condition 4.2.1 as capping proceeds to ensure separation of clean run-off from capped areas and contaminated run-off from ongoing disposal.
- 3.3.3.2 Stormwater diversion works must be of such a capacity as to accommodate all stormwater runoff, which could be expected as a result of the estimated maximum precipitation.

3.4 MANAGEMENT DURING CLOSURE CONSTRUCTION

3.4.1 Disposal of Waste

- 3.4.1.1 The disposal of permissible waste as approved under condition 2.2.1 must be aimed at achieving the final landform as specified in condition 2.1.1 and the operation of the Site must be done in accordance with the –
 - (a) Minimum Requirements;
 - (b) the Reports;
 - (c) the approved Operation Plan;
 - (d) the conditions of this Permit;



- (e) any written Operational Procedures or amendments of the Operation Plan submitted by the Permit Holder and approved by the Director;
- (f) and any other written direction issued by the Director to the Permit Holder.

3.4.1.2 The disposal of waste must be such that the generation of leachate by the Site is less than 200 mm per annum.

3.4.1.3 The Permit Holder must keep a record of the following details for all waste loads disposed of on the Site according to condition 10.1:

- (a) source of the waste
- (b) volume of the waste.

3.4.1.4 The Permit Holder must submit a record of the following details for all waste streams disposed of on the Site, and must report any changes in writing to the Director:

- (a) physical properties of the waste (e.g. flammable, % liquid, etc.);
- (b) chemical composition of the waste;
- (c) primary classification of the waste according to SABS Code 0228;
- (d) secondary Classification of the waste according to the Minimum Requirements; and

3.4.2 General management measures

3.4.2.1 Waste disposed of on the Site may not be allowed to burn, but must be compacted and covered with ash at the end of each working day.

3.4.2.2 Waste disposed of on the Site may not be reclaimed.

3.4.2.3 Wind-blown waste and litter must be picked up and removed from fences and vegetation on a daily basis.

3.4.2.4 The Permit Holder must take all reasonable steps to ensure that while the Site is operative, nuisance conditions or health hazards, or the potential creation of nuisance conditions or health hazards are prevented.

3.4.2.5 The Permit Holder must implement, maintain and at all times apply sufficient dust control measures while the Site is operative, to prevent wind-blown dust from causing nuisance conditions or health hazards.

3.4.2.6 The Permit Holder must implement, maintain and at all times apply sufficient odour control measures while the Site is operative, to prevent odours from causing nuisance conditions or health hazards if required.

3.4.3 Bufferzone

3.4.3.1 The Permit Holder must take all reasonable steps, such as suitable zoning, written agreements with adjacent landowners, buying out land and/or

obtaining a servitude, to establish and maintain a "bufferzone", which must not be less than 800 metres, between the Site and the nearest residential and/or light industrial areas for the operative life of the Site.

3.4.3.2 The Permit Holder must submit written proof to the Director of the steps taken according to condition 3.4.3.1, within one year from the date of this Permit.

3.4.3.3 Heavy industries or industries that may create nuisance conditions may be permitted within the bufferzone in terms of the appropriate legislation.

3.4.4 Access control

3.4.4.1 Weatherproof, durable and legible notices in at least three official languages applicable in the area, must be displayed at each entrance to the Site. These notices must prohibit unauthorised entry and state the hours of operation, the name, address and telephone number of the Permit Holder and the person responsible for the operation of the Site.

3.4.4.2 The Permit Holder must ensure effective access control on the Site by having it fenced to a height of 1.8 metres, with gates of the same height at all entrances, to reasonably prevent entry of domestic animals and unauthorised persons while the Site is operative.

3.4.4.3 The Permit Holder must ensure that those entrance gates which are used to gain access to the Site during operational hours are manned at all times. Other gates must be kept locked when not in use.

3.4.4.4 Notices prohibiting unauthorised persons from entering the Site, as well as an internationally accepted sign indicating the risks involved in unauthorised entry must be displayed at the entrance gates, at the corners of the Site and at other strategic points to prevent unauthorised entry.

3.4.4.5 The Permit Holder must take all reasonable steps to maintain service roads in a condition which ensures unimpeded access to the Site for vehicles transporting waste and must keep these roads free of waste.

3.4.5 Operating Hours

3.4.5.1 Waste may be accepted on site 24 hours per day.

3.4.5.2 Spreading and compaction of waste may only take place between 07h00 and 17h00.

3.4.5.3 No heavy machinery shall be in operation on the Site between 18h00 in the evening and 06h00 the next morning.



4 LONG TERM MAINTENANCE AFTER CLOSURE OF THE SITE

4.1 GENERAL IMPACT MANAGEMENT

- 4.1.1 The Permit Holder must on a continuous basis, maintain all works constructed on the Site, or any portion thereof, in accordance with the Minimum Requirements, the Reports, the conditions of this Permit and any other written instruction issued by the Director to the Permit Holder for a period of 30 years or for any longer period as may be determined by the Director.
- 4.1.2 The Permit Holder must implement, maintain and at all times apply sufficient odour control measures, to prevent odours from causing nuisance conditions or health hazards if required.
- 4.1.3 The vegetative cover and vegetation established in terms of condition 3.3.1.7 must be maintained on a continuous basis.
- 4.1.4 The Site must be maintained in such a way that –
- (a) the formation of pools due to rain is prevented;
 - (b) free surface runoff of rain-water is ensured;
 - (c) contamination of stormwater is prevented;
 - (d) no objects or materials which may hamper the rehabilitation of the Site are present;
 - (e) the build-up and/or lateral migration of landfill gas is prevented; and
 - (f) little or no erosion occurs.

4.2 WATER QUALITY MANAGEMENT

4.2.1 Runoff Management

- 4.2.1.1 All runoff water (stormwater) arising as a result of precipitation on the capped areas of the Site must be prevented from coming into contact with any substance, whether such substance is a solid, liquid, vapour or gas, or a combination thereof, which is produced, stored dumped or spilled on the premises, including leachate and must be diverted and drained from the Site and from the capped area of the Site, by means of works constructed by the Permit Holder in accordance with condition 3.3.3.
- 4.2.1.2 Runoff water, as referred to in condition 4.2.1.1, may not be discharged to the Cowles Dam unless it complies with the quality requirements specified in Annexure II.
- 4.2.1.3 Runoff water referred to in condition 4.2.1.2 which complies to the quality requirements specified in Annexure II or with such quality requirements as may from time to time be determined by the Director, will be regarded as uncontaminated runoff water and must be diverted away from the Site to the environment and discharged into Cowles Dam.
- 

- 4.2.1.4 Runoff water referred to in condition 4.2.1.2, which does not comply to the quality requirements specified in Annexure II, or with such quality requirements as may from time to time be determined by the Director, may not be discharged to the environment but must be collected and must be regarded as leachate and dealt with according to condition 4.2.2.
- 4.2.1.5 In the event that runoff water referred to in condition 4.2.1.1 becomes contaminated with leachate or as a result of the operational activities on the Site and/or the premises of the Permit Holder, it must be regarded as leachate and dealt with according to condition 4.2.2.
- 4.2.1.6 Runoff water arising from operational actions, for example the washing of vehicles and containers, or which are suspected to be contaminated must be regarded as contaminated and must be dealt with according to condition 4.2.2.

4.2.2 Leachate and Contaminated Runoff Management

- 4.2.2.1 All leachate produced by the Site, must be collected in leachate interception drains constructed according to condition 3.3.2.
- 4.2.2.2 All leachate produced by the Site and collected according to condition 4.2.2.1 must be diverted to a leachate collection and holding sump with sufficient capacity to maintain a freeboard of half a metre while accommodating all leachate and contaminated runoff water, from where it must be sprayed over those portions of the Site which comply with the requirements set in terms of condition 3.
- 4.2.2.3 The Permit Holder must ensure that the leachate collection works constructed according to condition 3.3.2. is emptied regularly according to condition 4.2.2.2 in order to ensure compliance with freeboard requirements.
- 4.2.2.4 No leachate or contaminated runoff water may be discharged to a water resource or the environment.
- 4.2.2.5 The Permit Holder must investigate alternatives to spraying onto the Site for the management of leachate as progressive capping continue and submit proposals to the Department for approval within two (2) years prior to closure of the Site.

5 WATER QUALITY MONITORING

5.1 GROUND WATER QUALITY MONITORING NETWORK

- 5.1.1 The ground water monitoring network for the Site must consist of the boreholes numbered SRK1, SRK2, SRK3, JBA1, JBA2, JBA3 and JBA5 as indicated by the co-ordinates on Drawing number ENO/003, as submitted by the Permit Holder.
- 

- 5.1.2 Samples from the borehole numbered SRK3 shall be considered as background monitoring.
- 5.1.3 Monitoring of the network described in condition 5.1.1 must be conducted during each monitoring occasion in terms of condition 5.3.
- 5.1.4 Monitoring boreholes must be clearly marked and numbered, and must be equipped with lockable caps. The Department reserves the right to sample monitoring boreholes at any time and to analyse these samples, or to have samples taken and analysed.
- 5.1.5 The Permit Holder must maintain the groundwater quality monitoring network to the satisfaction of the Director, so that unobstructed sampling, as required in terms of this Permit, can be undertaken.

5.2 SURFACE WATER QUALITY MONITORING NETWORK

- 5.2.1 Monitoring of the impact of the Site on the surface water quality must be conducted in the Vlei downstream from the Site at the monitoring point numbered SW5 and at the inflow to the Cowles dam at monitoring point numbered SW1.
- 5.2.2 Monitoring of uncontaminated runoff water quality must be conducted in all stormwater drains on the Site.
- 5.2.3 Monitoring of leachate must be conducted –
- (a) in the leachate collection works constructed according to condition 3.3.2.1; and
 - (b) at any other location which may be specified by the Director.
- 5.2.4 The location of monitoring points referred to in condition 5.2.3, as identified by the Director, as well as any other location or locations which may from time to time be specified by the Director, shall be communicated in writing to the Permit Holder and this communication shall be regarded as part of the Permit.

5.3 FREQUENCY OF WATER QUALITY MONITORING AND VARIABLES FOR ANALYSIS

- 5.3.1 Monitoring of the ground water quality network must be conducted at the locations specified in condition 5.1.1:
- (a) quarterly for the variables listed in Annexure III; as well as
 - (b) bi-annually during the months of September and March for the additional variables listed in Annexure IV.
- 5.3.2 The rest level of ground water in the monitoring boreholes must be recorded during each monitoring occasion.
- 5.3.3 Monitoring of the surface water quality network must be conducted at the locations specified in condition 5.2:

Appendix G: Specialist reports

No specialist reports were required for this study.

Appendix H: EMPr

Appendix I: Other information

No other information has been attached.