

ECO CONSTRUCTION SITE ENVIRONMENTAL INSPECTION REPORT

Project Name:	Upgrade of Klaarstroom Oxidation ponds	Report no	1
Main Contractor:	De Jager Loodgieter Kontrakteurs	Date	12 March 2020
ECO:	Bernard de Witt	EnviroAfrica Ref. no.	

ENVIRONMENTAL ASPECT	RATING	FINDINGS & RECOMMENDATIONS
RATING: 1 = EXTREMELY POOR 2 = POOR	3 = AVERAGE	4 = GOOD 5 = EXCELLENT
1. DEMARCATION Boundaries of “no go” areas, construction sites, -offices, temporary storage areas as well as labourer’s facilities must be demarcated (EMP and ECO requirements) and maintained for the length of the construction period.	4	Site demarcation is in place. Total site is demarcated with strong steel droppers with wire and traffic tape attached to it for good visibility Site demarcation is well maintained
2. NO-GO AREAS Identified “No-Go Areas”, must be demarcated for protection from construction damage (including secondary impact). <ul style="list-style-type: none"> All areas outside of the demarcated construction site(s) and access road(s) to be regarded as NO-GO areas, including remaining natural veld identified trees. Special attention to identified areas with significant vegetation. 	4	All areas outside the demarcation is no go areas. Due to the proper demarcation accidental entrance to no go areas is highly unlikely
3. SEARCH & RESCUE All flora identified for search & rescue must be removed before any construction take place and re-used in pre-approved way.	4	No search and rescue are required
4. VEGETATION & TOPSOIL REMOVAL Before any construction or earthworks, topsoil must be stripped (>150mm) and stockpiled for rehabilitation/ landscaping. Stockpiles: <ul style="list-style-type: none"> must be protected (erosion) and stored separately. may not be moved further than 50m or mixed with any other soil. must be convex and should not exceed 2m in height. 	4	Topsoil stored on heap to be used for rehabilitation of stormwater berm at top of the site

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<p>VEGETATION & TOPSOIL REMOVAL cont. In addition:</p> <ul style="list-style-type: none"> • Cleared areas must be stabilized. • Burning or burying of cleared vegetation is prohibited (may be used for mulch or slope stabilisation on site). 		
<p>5. CONSTRUCTION CAMP & SITE OFFICES Must be demarcated, organised and free of day-to-day litter (good housekeeping standards).</p>	4	Camp and office are properly demarcated and maintained
<p>6. LABOURER'S FACILITIES Facilities must be of acceptable standards suitably demarcated, well maintained, neat and tidy and with adequate ablution facilities.</p>	4	Labours facilities are located at site office
<p>7. ENTRANCE AND HAUL ROADS Only approved entrance and haul roads may be used. No new roads or parking areas may be developed without written approval from the ECO.</p>	4	Only existing roads are used. All other movement is restricted within the demarcated areas
<p>8. MANDATORY SITE EQUIPMENT Mandatory site equipment must be in place, well maintained and in accordance with EMP and ECO requirements.</p> <ul style="list-style-type: none"> • Sufficient refuse bins, well placed and cleaned regularly. • Sufficient fire extinguishers, readily available, maintained and functional. • Drip trays must be used at all fuel and oil storage and refuelling sites. • Toilets and sanitation facilities must be kept clean neat and hygienic. 	.3 .4 .4 .4	Refuse bin to be placed at site rest/coffee break area
<p>9. FUEL STORAGE Fuel storage areas must be situated within the demarcated construction camp site (or an area approved by the ECO).</p> <ul style="list-style-type: none"> • Larger containers must be bunded (containment of accidental spillages). • Drip trays must be used during refuelling or under stationary refuelling vehicles. • Fuel and oil storage and refuelling sites must be maintained. 	4	<p>Fuel tank is placed in temporary bunding area. Bunding area is lined with builder's plastic and checked for leaks. Bunding area volume is more than 110% of volume of fuel tank.</p> <p>Drip tray is present for when refuelling takes place</p>
<p>10. STOCKPILING & TEMPORARY STORAGE May only be placed on pre-approved sites, demarcated, stabilised or organised and neat.</p>	4	Stockpile area is at the site office. The demarcation of this site is the access road on the one side and the site office/laydown area on the other side

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<p>11. WASTE CONTROL The contractor is expected to control all construction related waste material and general litter on actual construction sites and its immediate surroundings.</p> <ul style="list-style-type: none"> Waste management must be in accordance with the EMP, of acceptable standards, with regular removal of general waste, hazardous waste as well as construction waste (e.g. concrete waste and spoil). 	3	<p>More refuse bins needed at construction area and more specific at coffee break area.</p> <p>It is suggested that a "chicken parade be conducted to pick up all cigarette buds and windblown papers (mainly from municipal dump site)and plastic containers.</p>
<p>12. CEMENT MIXING & BATCHING AREAS Mixing areas must be approved by the ECO, suitably demarcated and may not result in pollution.</p> <ul style="list-style-type: none"> Polluted cement water may only be released into sedimentation ponds. Sedimentation ponds must be maintained and cleaned regularly (and reinstated after use). 	4	<p>Ready mix concrete is used where necessary.</p> <p>Cement mixing for building of chambers is mixed on plastic</p>
<p>13. CONSTRUCTION VEHICLE MAINTENANCE Construction vehicles must be in good working order and well maintained to prevent oil and fuel leakages and to reduce noise levels.</p>	4	In order
<p>14. HEAVY EARTHMOVING EQUIPMENT Construction vehicles and equipment may only operate <u>within</u> the demarcated site boundaries (and approved access roads), especially heavy earthmoving vehicles.</p>	4	In order
<p>15. DUST CONTROL Adequate control measures must be in place to prevent dust nuisance or pollution (entrance-, haul roads and exposed surfaces).</p> <ul style="list-style-type: none"> Areas of concern must be watered regularly during construction AND periods of strong winds, BUT must take water saving into account. 	4	Dust on site(specially access roads) is controlled by water truck on daily basis or when needed
<p>16. EROSION CONTROL Erosion resulting from works must be controlled.</p> <ul style="list-style-type: none"> Temporary and permanent drainage areas must be maintained. Erosion damage and damage in drainage courses must be reinstated. 	4	In Order
<p>17. NOISE CONTROL Effective noise control measures must be in place and acceptable working hours</p>	4	In order

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must be kept (deviations must be approval by the ECO).		
<p>18. ARCHAEOLOGICAL & HERITAGE FINDS Should any archaeological or heritage remains be exposed during excavations or any activity on site, these must immediately reported to The site agent/engineer, the ECO HWC or SAHRA.</p>	4	In order
<p>19. METHOD STATEMENTS Method statements must be submitted and approved before commencement of the works. Possibly Required:</p> <ol style="list-style-type: none"> 1. Demarcation & No-Go Areas (Map) 2. Clearing of vegetation & topsoil conservation 3. Stockpiling & temporary storage 4. Construction camp & site offices 5. Labourer's facilities 6. Mandatory site equipment 7. Fuel storage 8. Entrance & haul roads 9. Waste management 10. Cement/Concrete mixing 11. Dust control 12. Erosion control 13. Noise control 14. Rehabilitation <p>Additional Method Statements</p>	4	<p>In Order</p> <p>No specific Method statements were requested at this stage as all needed was discussed on site and agreed on</p> <p>Specific method statements will be requested when needed</p>
<p>20. ENVIRONMENTAL CONDUCT Environmental conduct of construction personnel must be acceptable (e.g. no burning or burying of refuse; no littering and no cement bags or other construction waste material lying around).</p>	5	Environmental conduct is good. Contractor Environmental Site agent check all works daily and take remedial action as and when required
<p>21. ENVIRONMENTAL CHECKLIST The contractor must ensure that the weekly environmental checklist is completed at the end of each week and it must be available at the site offices.</p>	4	Weekly site checklist was checked and signed by the ECO

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<p>22. REHABILITATION On completion of the project or phase, all areas impacted by the construction activities must be reinstated and/or rehabilitated to the satisfaction of the ECO with emphasis on the following:</p> <ul style="list-style-type: none"> • Site offices must be removed and the areas rehabilitated or reinstated to the satisfaction of the ECO. • Labourer’s facilities must be removed and the areas rehabilitated or reinstated to the satisfaction of the ECO. • All construction site areas must be rehabilitated or reinstated to the satisfaction of the ECO. • All temporary fencing and demarcation must be removed and the areas reinstated to the satisfaction of the ECO. • Temporary storage areas must be rehabilitated or reinstated to the satisfaction of the ECO. • All remaining construction material must be removed and the areas rehabilitated or reinstated to the satisfaction of the ECO. • Any additional disturbed areas must be rehabilitated or reinstated to the satisfaction of the ECO. 	3	Will take place when construction phase is completed
<p>23. SPOT FINES & PENALTIES Spot fines and penalties must be recorded and documented by the ECO (in accordance with the EMP).</p>	N/A	
<p>24. FIXED POINT PHOTOS Photographs must be taken by the ECO, Site Engineer and or Site Manager, prior to, during and immediately after construction as visual reference. These photographs must be stored with other records relating to the EMP.</p>	4	Photos taken by ECO. Available on request

ECO COMMENTS

Site in a general good and clean state.

End of report



ECO Signature