

	TRANSMISSION ENVIRONMENTAL MANAGEMENT PLAN - PROJECTS / SERVICE PROVIDERS	Template 240-43921898	Rev 6
		Document 240-131566734	Rev 1
		Effective Date 5 August 2016	
		Review Date August 2019	

\*This EMP should be used to assist Project Managers/Contractors/ Vendors in compiling their project specific EMP\*  
 \*The contents of this EMP is not limited and the responsibility remains with the relevant supplier/ contractor to ensure all project specific activities and legislation has been identified and managed  
 \*The purpose of this EMP is to provide a guideline to manage project activities that are not subjected to the EIA process I.L.o. National Environmental Management Act, 1998 (Act No. 107 OF 1998) Environmental Impact Assessment Regulations (2014)\*

Site / Line: The Ankerlig - Aurora 400kV 2 line, between tower 70 and 71.  
 Project Code:  
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 Date Compiled: 10 FEBRUARY 2022  
 Project / Contract Number:

- The works will be under the Ankerlig - Aurora 400kV 2 line due to a ground-to-phase under clearance on the line. The under clearance span is between tower 70 and 71 with a farm road running under and perpendicular to the line.
- The Contractor must take note that the work will be carried out under live overhead cables and extra caution must be taken, especially when plant and equipment will be in use, as there are height restrictions that should be complied with and taken into consideration.

- The scope of works are namely:
- Strip topsoil to a minimum depth of 150mm and spoil.
  - Remove the existing gravel layer-works to a depth of 750mm to spoil for lowering of the gravel road.
  - Rip the roadbed in-situ material in 2 layers of 150mm and re-compact to a desired MOD AASHTO refer on the issued drawing.
  - Compact 150mm of wearing course to a desired MOD AASHTO refer on the issued drawing.
- Civil scope of work involve the following design aspects:
- Co-ordinates & levels indicated are provisional & must be verified on site prior to any commencement of earthworks.
  - Barricading and cordoning off the area of construction work.
  - A proper risk assessment to be compiled to check the traffic using the road and a temporary detour road to be constructed in order for the residents only to gain access.
  - Stop and go controls to be in place and managed accordingly.
  - Mandatory road signs to be in place indicating road construction ahead.
  - Traffic to be redirected/detoured when the road will be Rip and Cut during construction and no thoroughfare is possible.
  - Strip topsoil to a minimum depth of 150mm and spoil.
  - Remove existing gravel layer-works to a depth of 750mm and spoil.
  - Rip the roadbed in-situ material in 2 layers of 150mm and re-compact to a desired MOD AASHTO refer on the issued drawing.
  - Compact 150mm of wearing course to a desired MOD AASHTO refer on the issued drawing.
  - All quantities are specified on the issued drawing.
  - PS. All open trenches to be properly barricaded and notices displayed indicating open trenches.
  - All construction is to be carried out in accordance with Eskom's Safety, Health and Environmental Specification.
  - Design working clearances will ensure that the design is safe to construct & operate.

The works will be under the Ankerlig - Aurora 400kV 2 line between Tower 70-71. Due to a ground-to-phase under clearance on the line. The under clearance span is between tower 70 and 71 with a farm road running under and perpendicular to the line.  
 Take N1 and N7 to Philadelphia Rd/R304; Take the R304 exit from N7; Continue on R304 to Atlantis, Turn right onto Dassenberg Dr/R307; continue driving towards Darling until you get to the Grootte Post turn off, turn left onto the gravel road and continue until you get the Grootte Post and turn left, drive past the cellars and drive until you get to Towers 70 and 71

Note: Appointed contractor to submit method statements based on the site SPECIFIC EMP (project aspects and impacts).

NO.	ACTIVITY	ASPECT	IMPACT	SIGNIFICANCE	OBJECTIVE	TARGET	MEANS	LEGAL OBLIGATION AND OTHER REQUIREMENTS	DUE DATE	RESPONSIBLE PERSON	DATE COMPLETED	ACTION EFFECTIVENESS		
												Fully effective	Partially effective	Ineffective
1	Procurement	Evaluation and adjudication of tender submissions	Failure to include environmental requirements during tender process could result into environmental degradation	HIGH	Ensure Eskom SHEQ requirements are specified / included during tender process	With the submission of each tender	Ensure Environmental requirements are taken into account during tender process.	SHE Requirements for the Eskom/Commercial Process (32-726) - Procedure Manual for Perform Occupational Health and Safety Management and Environmental Management : Conduct EH&S Incident Management (EPC 32-95) - Environmental Inspections Report for Substation (TRM-FM-0071) - National Environmental Management Act 107 of 1998 section 28 Duty of Care, - National Water act 36 of 1998 section 20 (Control of emergency incidents). - National Environmental Act 107 of 1998 section 30 (Control of emergency incidents) - Fire Brigade Services Act 99 of 1987 S8, S21 - Relevant by-laws of the site Municipalities		Project Manager				
2	Procurement	Placement of order/contract with suppliers	Specifying environmental criteria for supplies & advice on the use of products or services to minimise the environmental impacts.	HIGH	Ensure Environmental requirements are taken into account when placing an order	Placement of order	Specifying environmental criteria for suppliers/service providers.	SHE Requirements for the Eskom/Commercial Process (32-726) - Procedure Manual for Perform Occupational Health and Safety Management and Environmental Management : Conduct EH&S Incident Management (EPC 32-95) - Environmental Inspections Report for Substation (TRM-FM-0071) - National Environmental Management Act 107 of 1998 section 28 Duty of Care, - National Water act 36 of 1998 section 20 (Control of emergency incidents). - National Environmental Act 107 of 1998 section 30 (Control of emergency incidents) - Fire Brigade Services Act 99 of 1987 S8, S21 - Relevant by-laws of the site Municipalities		Project Manager				

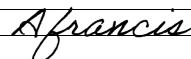
3	Procurement	Assessing contractors	Failure to make contractors aware of the impact of their deviations from set procedures could lead to negative environmental impacts	HIGH	Ensure that contractors are aware of the impact of their deviations from / non-compliance to set procedures.	Prior commencement of activities	Environmental File evaluation and approval for tender requirements	SHE Requirements for the EskomCommercial Process (32-726) - Procedure Manual for Perform Occupational Health and Safety Management and Environmental Management : Conduct EH&S Incident Management (EPC 32-93) - Environmental Inspections Report for Substation (TRM-FM-0071) - National Environmental Management Act 107 of 1998 section 28 Duty of Care, - National Water act 36 of 1998 section 20 (Control of emergency incidents). - National Environmental Act 107 of 1998 section 30 (Control of emergency incidents) - Fire Brigade Services Act 99 of 1987 SS, S21 - Relevant by-laws of the site Municipalities SHE Requirements for the EskomCommercial	Project Manager				
4	Project Management	The management of the project according to EMP and relevant environmental legal requirements.	Failure to ensure compliance with the EMP and relevant environmental legal requirements may lead to legal contraventions, customer complaints, claims against the business and damage to the environment and private / state	HIGH	To ensure that the project is effectively managed according to the EMP and all relevant environmental legal and other requirements.	0 Legal Contraventions / 0 Safety Incidents	Contractor is required to attend Eskom Environmental Induction, and ensure all requirements relevant to Environmental Management is understood. This will further be implemented by the contractor with staff through discussing all environmental non-compliances and requirements under agenda items at the project Inaugural meeting and progress meetings, Toolbox talks etc allocating responsible persons and action dates for mitigations.	National Environmental Management Act 107 of 1998, Sections 24(5), 24M, 24(2), 24(D); National Water Act 36 of 1998, S21. - Occupational Health and Safety Act 85 of 1993- OSH Act Construction Regulations of 2003 Sections 23,24,25 and 27. National Water Act: Draft Regulations Regarding The Procedural Requirements For Licence Applications In Terms Of Section 26(1)(K); 12 February 2015, Gg 38465, Gn 126.	Project Manager				
5	Project Management	Assessment & Planning	Failure to conduct line risk assessments and proper planning during the execution of this project activities may lead to environmental and safety incidents and damage to private / state property that my result in disputes with landowners.	HIGH	To ensure that risk assessments and proper planning are conducted to minimise or avoid environmental aspects that might lead to negative environmental impacts	0 Legal Contraventions / 0 Safety Incidents	Environmental requirements can be discussed daily during the toolbox talks. Environmental Risks assessments of the area can be done together with safety observations / assessments. Emergency contact numbers must be available on site. Land owners must be notified of dates contractors will be working in the servitude crossing private properties. Contractors working for Eskom must have identity cards, clearly marked clothing and vehicles.	Constitution 5 24, 32 National Environmental Management Act (107 of 1998, NEMA)	Project Manager				
6	Vegetation Management	The cutting and removing of indigenous plants and protected plant / tree species	Resulting into a legal contravention. Financial and legal prosecution implication from the authorities and or private property owners.	HIGH	To ensure that no indigenous or protected trees and plants are cut / removed / transported without a permit. Apply the permit conditions where required in term so fit escape of the work proposed. Restios may be saved up to 50 % of the stand and replanted close to the footprint of the workshop footprint.	0 Legal Contraventions	Tx Landowner Approval Certificate / Consent form must be completed prior to the start of the project and landowners must sign off on status of property after completion of any bush clearing activities. All removal and fuel reduction of indigenous vegetation must be completed under the requirements and authorisations of the CapeNature Permit issued. All high risk protected trees that are trimmed or cleared must be done under the requirements of the Permit issued by Department of Forestry. Where alien trees are found in the footprint of this project, the project has a responsibility to remove any Alien that may be present. All indigenous vegetation planned to be disturbed or removed from its original location must be applied for in a permit application to CapeNature. The Relocation of vegetation during the term of the project must be done by a qualified landscaper under suitable conditions stipulated by the Landscape service provider. To ensure the survival of the vegetation. All animals identified must be relocated before any clearing takes place.	NWREG 704 57; NVFFA 516; NFA 57; NFA SS 8-11, SS 12-16; GN 897/2006, GN 817/2007 57(1), 515(1); NEM:BDAR REGS 552, 556(1); NEM:BDAR REGS 151-152; NEM:BDAR REGS R138; NEM:BDAR CH 7; NEM:BDAR REGS 149 CH 6; NEM:PAAR 59-10, 545(1), 546(1), 548(1), 550(5); NEM:PAAR R106; National Environmental Management Act, Act 107 of 1998 Section 28 Duty of care and remediation of environmental damage. - National Water Act, Act 36 of 1998, Section 19 prevention and remedying effects of pollution. - Hazardous Substances Act No 15 of 1973, Sec 1 - 2 Classifies hazardous waste into groups. - Occupational Health and Safety Act Hazardous Chemical Substance Reg. 1179 Section 15 disposal of hazardous chemical substances. - Environmental Management: Waste Management Act, 59 of 2008 Sec 21 General requirements for storage of waste, Sec 25 Duties of persons transporting waste, Sec 26 Prohibition of unauthorised disposal. - Basil Convention , Annexure 2,3 and article 4 and 12 , Rotterdam Convention Article 3.2 and 9/Fertilisers, Farm Feeds, Agricultural Remedies & Stock Remedies Act No 36 of 1947, GN R383 of 1983-02-25. Nature conservation Ordinance 1974, Ord 19 of 1974, Section 63(1)(b&c)	Project Manager				
7	Vegetation Management	Proliferation of Alien Invasive species	It is legally non-compliant to allow alien species to proliferate. Sites should be monitored continuously to control spread of alien	HIGH	To ensure that Alien Invasive species are removed according to legal and other requirements.	0 Legal Contraventions	To ensure alien invasive species are included in scope of work during bush clearing programmes To ensure contractors / staff are trained on tree identification Method statement on removal and disposal of alien Invasive species in SHE files Quality checks on scope of work completed. The Toolbox talks must cover the requirements of the EMP and records of discussion must be kept on file.	CONSTITUTION 524, 532; NEMA 52, 524, 535, 531; NWA 551, 519; ECA 519, 519A, AA, S20, S20(9), 531A; GP-AN 2030 S44(2)(b)(h); NW-AN 2030 S44(2)(b)(h); AGRDRA 59(1), 59A; ESKA 512(1)(2); FA 510-11, 521, 523-27; NFA 526; NVFFA 512, 513, 515-18; NEM-AA (SECOND AMENDMENT ACT NO 8 OF 2004); NEMA 524 (A-I); NEMA REG R385, R386, R387; ECA 522; NWA 541; NWRA (NO 25 OF 1999) 538; MPRDA (NO 28 OF 2002) 5 107(1), 55(4); NWAREG R104 S1, 56, 57; PE; RLRA; ESTA; LTA; CARA S2, CARAREG R1048, S14, NWAREG 704, 57. Nature conservation Ordinance 1974, Ord 19 of 1974, Section 63(1)(b&c)	Project Manager				

8	Access	Use of access roads	The incorrect use of access roads in areas, which are prone to erosion, especially during wet conditions can lead to serious erosion. This can eventually make the entire area inaccessible and can affect the landowner's farm's carrying capacity. Damage to access roads and property can lead to claims and legal disputes and rehabilitation cost incurred.	HIGH	To use access roads which belongs to land owners on private property responsibly according to legal and other requirements, EMP, method statements	0 Legal Contraventions	To capture the condition of any access road prior to the start of the project to report and keep for record purposes. All defects / damages occurring during the project should be reported, rectified immediately on occurrence. The onus is on the contractor to be responsible for any rehabilitation on site/s should it damage / pollution incidents resulted from this project. Landowner's consent must be obtained prior to the start of the project and landowners must sign off on status of property after completion of any project activities. The Toolbox talks must cover the requirements of the EMP and records of discussion must be kept on file.	CONSTITUTION S24, S32; NEMA S2, S24, S35, S31; NWA S51, S19; ECA S19, S19A, AA, S20, S20(9), S31A; GP-AN 2030 S44(2)(b)(h); NW-AN 2030 S44(2)(b)(h); AODRDA S9(1), S9A; ESKA S12(1)(2); FA S10-11, S21, S23-27; NFA S26; WIFFFA S12, S13, S15-18; NEM-PA (SECOND AMENDMENT ACT NO 8 OF 2004); NEMA S24 (A-I); NEMA REG R385, R386, R387; ECA S22; NWA S41; NHRA (NO 25 OF 1999) S38; MPRDA (NO 28 OF 2002) S 107(1), S5(4); NWAREG R104 S1, S6, S7; PIE; RLRA; ESTA; LTA; CARA S2, CARAREG R104B, S14, NWAREG 704, S7. Eskom Access to Farms Standard (32-1173)	Project Manager				
9	Social Interaction	Public / Landowner Complaints	Inappropriate activities, activities in non-compliance to the EMP, legal and other requirements may lead to customer complaints.	HIGH	To ensure that public complaints are address and successfully resolved.	Resolution / Management of public and landowner complaints	All public complaints must be kept in a register with proof of resolution on the site SHE file. All public complaints must be reported to the relevant BU Env Dept. under which the project is executed. BUs to record and monitor public / landowner complaint until resolved. Public complaints must be closed out on project completion / handover to the BU. The Toolbox talks must cover the requirements of the EMP and records of discussion must be kept on file.	CONSTITUTION S24, S32; NEMA S2, S24, S35, S31; NWA S51, S19; ECA S19, S19A, AA, S20, S20(9), S31A; GP-AN 2030 S44(2)(b)(h); NW-AN 2030 S44(2)(b)(h); AODRDA S9(1), S9A; ESKA S12(1)(2); FA S10-11, S21, S23-27; NFA S26; WIFFFA S12, S13, S15-18; NEM-PA (SECOND AMENDMENT ACT NO 8 OF 2004); NEMA S24 (A-I); NEMA REG R385, R386, R387; ECA S22; NWA S41; NHRA (NO 25 OF 1999) S38; MPRDA (NO 28 OF 2002) S 107(1), S5(4); NWAREG R104 S1, S6, S7; PIE; RLRA; ESTA; LTA; CARA S2, CARAREG R104B, S14, NWAREG 704, S7.	Project Manager				
10	Wildlife Interaction	Poaching of game / wild / domestic animals.	The poaching of game / wild / domestic animals on private property is illegal.	HIGH	To ensure NO poaching of game / wild / domestic animals occurs on private property. When using TLB, a person is required to marshal the driver when moving the affected area. All tortoises must be removed during the clearing of the vegetation. All grubbed material must be removed off site to remove the risk to fire.	0 Legal Contraventions / 0 law suits / claims	To communicate EMP and legal requirements to all contractors working on project during SHE & Security induction. To include EMP and legal requirements in daily toolbox talks / risk assessments. To ensure SA police clearance for all contractor employees is done and submitted with ID documents during SHE file assessment. The Toolbox talks must cover the requirements of the EMP and records of discussion must be kept on file. All areas where Indigenous vegetation is to be removed must be surveyed by a suitable qualified animal specialist to ensure that no animals are injured and safely removed from site to an area safe for survival of the animals.	Eskom Requirements (EPC32-727, EPC32-247, EPC32-249, EPC32-245) National Environmental Management Act 107 of 1998 S2 & 28, 21, S435 National Environmental Biodiversity Act 10 of 2004 NEM: Biodiversity Act REGS 151, 152, R138, 149(CH6); NEM:BDA CH7; NEM:BDA S52, S56(1); NEM: Protected Areas Act (2004) S9-10, S45(1), S46(1), S48(1), S50(5);	Project Manager				
11	Movement in Indigenous vegetation and sensitive areas	Incorrect movement of vehicles / unlawful trespassing during this project in indigenous vegetation and sensitive areas could lead to social issues with land owners and damage and or pollution to the natural environment. Protected areas / sensitive ecosystems: National parks Privately owned game reserves / farms Rivers / riverbanks 500m from Wetlands / water bodies Proclaimed protected areas Graves sites	Land owners could refuse/restrict access to their properties. Pollution, erosion, damage to the environment.	HIGH	Ensure that no damage in sensitive area to the natural environment takes place. Legal requirements are adhered to. The CapeNature must be complied to. All Indigenous must be removed from the footprint as per the permit. Stands of reeds will be replanted where possible. All excavated Material will be removed from site to Vredenberg Landfill.	0 Legal Contraventions	To Landowner Approval certificate / consent form must be completed and signed off by contractor / site supervisor / landowner before and on completion of project. Identify and obtain all relevant permits required i.e. legislation prior to the start of any project activity. To include sensitive / protected areas in scope of work for relevant bush clearing programmes	Constitution S24, S32, S33; NEMA S2, S28, S31, S35; NEM: BDA REGS S52, S56(1); NEM: BDA REGS 151-152; NEM: BDA REGS R138; NEM: BDA CH 7; NEM: BDA REGS 149 CH 6; NEM: PAA S9-10, S45(1), S46(1), S48(1), S50(5); NEM: PAA R1061 Nature conservation Ordinance 1974, Ord 19 of 1974, Section 63(1)(b)&c	Project Manager				
12	Civil works: Establishment of construction camps, store and Laydown areas, offloading and storage of material and equipment.	site establishment	Potential negative on the indigenous vegetation when clearing the land for site establishment. Possible damage to construction equipment that might cause contamination of the natural environment, air t, ground and surface water	HIGH	To minimise water wastage and pollution of land and water contractor must source its own water for drinking and construction. All water usage must be measured and monitored. Water must be taken from reliable permitted sources	0 Legal contraventions and landowner complaints	The contractor will establish office, toilets, parking, rest areas and material storage and waste management areas with permission from the landowner. Site Establishment must not be within 500m from watercourse. Ensure proper effluent / sewerage management and implemented. Ensure that all equipments are inspected for possible leaks. Ensure sites have good housekeeping and kept clear. All excavated must be removed from site to a registered landfill or recycling plant. the material may be used onsite for infill in the same construction process but <b>must not be used</b> to cover water courses or wetlands. Excavated material must not be used to cover vegetation on in other parts of the substation. <b>THE ROAD MUST NOT EXCEED 8M WIDTH, NOR EXCEED 1 KILOMETRE AS THIS WOULD TRIGGER ENVIRONMENTAL AUTHORISATION THAT WILL DELAY THE PROJECT.</b>	National Water Act (Act 36 of 1998) GN R704 of 1999-06-04: Regulations on use of water for mining and related activities aiming at protection of water resources. GN 1160 of 1999-10-01 Establishment of the water management areas and their boundaries as a component of the National Water Resource Strategy; GN 1191 of 1999-10-08: General authorisations in terms of section 39 of the National Water Act, 1998. National Water Act 108 of 1997: GN R509 of 2001-06-08: Regulations relating to compulsory national standards and measures to conserve water. Atmospheric Pollution Prevention Act (Act 45 of 1965) GN R1651 of 1974-09-20: Regulations concerning the control of noxious or offensive gases emitted by diesel driven vehicles GN R1509 of 1977-08-20: Regulations to prohibit the damage of means adopted to prevent the dispersion of matter which may cause a nuisance.	Project Manager				

13	Oil Management	Planning for oil management activities on site.	Incorrect / poor oil management practices can lead to serious ground, ground water / surface water pollution. Oil spill causes serious environmental damage and can lead to health and safety risks for humans and animals. Oil spill that caused damage to the environment and or private property can lead to legal contravention, claims and rehabilitation costs for the business.	HIGH	To ensure that correct planning of oil management activities forms part of the scope of any project to minimise and avoid pollution incidents. To ensure all legal requirements are identified well in advance to ensure authorisation, permits are obtained prior to the start of such a project where required. To avoid costly delays in projects while waiting to obtain permits and authorisations. To communicate EMP and legal requirements to all contractors working on project during SHE & Security Induction To include EMP	0 Legal Contraventions	Identify activities in scope of work before project commence. Complete a risk assessment prior to the start of project on the management of all oil spillages, storage, disposal activities. The risk assessment must be verified and signed off by the BU Environmental professional. Establish quantities of oil to be used, stored on or disposed from site. Ensure that an EPP for oil management on site is in place. Ensure that required oil is stored in bunds and drip trays to avoid contamination of ground in the event of a release. Oil spill kit must be onsite, trained person to deal with oil spills, Oil spill clean up contractor available to cleanup any incidents that may occur during the scope of the work.	Hazardous Substance Act (S1,2,3); HazAct R452,R453; HazReg R1382; SANS 10228; NRTA REG 225; MINREGS(1998) S4,10,10.2,10.2.1, 10.2.2,10.2.3; OSHA S8,10; OSHA GENERAL SAFETY REGS R1031 S4, S4(9)(a), S4(9)(c); OSHA HAZ CHEM SUBSTANCES REGS R1179 S1, S15(a)-(f); Constitution S24, S32, S33, NEMA S2, S28, S31, S35; NWA S1, S19; GP-AN 2030 S44(2)(B)&(H); NW-AN 2030 S4(2)(B)&(H); NVFFA S12,13,17,18; OSHA HAZ CHEM SUBSTANCES REGS R1179 S3, S3(2), NWA REG 704(5)(1), S2(2)(c), S4, S7, S8; NVFFA CH2,4 S13,15,16,34, CH5.	Project Manager				
14	Driving of Vehicles	The incorrect use of access roads, speeding or driving irresponsibly, maintenance of vehicles, causing damage to property or injuring of animals / people.	This can eventually make the entire area inaccessible and can affect the landowner's relations negatively resulting in claims and or civil / criminal liability.	HIGH	To ensure no environmental damage is caused by vehicles during this project. One track in and one track out. All damage to the surfaces must be rehabilitated by the contractor. Fire extinguisher with every vehicle Oil spill kit onsite to address and leaks and spills by vehicles, hydraulics or equipment	0 Claims / Safety incidents	Use existing roads. No vehicle maintenance on site or in the servitude or on private property. Be aware of environmental sensitive areas / soil(land) and steep or leave gates in the position it was found/ or as agreed by land owner. Damaged locks to be replaced. Record all damage to infrastructure/ towers / antilimbing devices Vehicles which are not road worthy (i.e. leaking oil) shall not be used or allowed on site.	National Roads Act, National Water Act (Act 36 of 1998) GN R704 of 1999-06-04: Regulations on use of water for mining and related activities aiming at protection of water resources. GN 1160 of 1999-10-01 Establishment of the water management areas and their boundaries as a component of the National Water Resource Strategy. GN 1191 of 1999-10-08: General authorisations in terms of section 39 of the National Water Act, 1998. National Water Act 108 of 1997: GN R509 of 2001-06-08: Regulations relating to compulsory national standards and measures to conserve water. Atmospheric Pollution Prevention Act (Act 45 of 1965) GN R1651 of 1974-09-20: Regulations concerning the control of noxious or offensive gases emitted by diesel driven vehicles R1599 of 1977-08-20 Regulations to prohibit the damage of means adopted to prevent the dispersion of matter which may cause a nuisance.	Project Manager				
15	Waste Management	Domestic / General Waste and litter generated during this project in the servitude. This include uncontaminated building rubble	These types of activities cause pollution and degradation to the environment. Leaving waste under the line and on private property can lead to landowner complaints and claims against Eskom	HIGH	Waste is handled and disposed as required by legislation and best practices. All general waste to dispose at Vredenberg or local Landfill site to the farm in question. All hazardous waste to be disposed at Vissershok Landfill. All excavated material agreed to be used as infill on the landowner's properties must be done under permission by the landowner and not contain any Environmental Legislation	0 Legal contraventions / landowner complaints	Contractor to ensure that permission is acquired for the use of a local landfills and that hazardous waste landfill vissershok is used for disposal of hazardous waste. A registered hazardous waste service provider must be used for transport of hazardous waste to the registered site. All manifests from the landfill, the Eskom Georneys manifest and waste registers must be completed and available for record purposes. The contractor is required to report all waste removal from the site monthly to the Eskom Environmental Manager. Domestic / General waste to be disposed of at the closest registered / licensed municipal waste site. Waste disposal register to be completed for waste disposal and kept on site in environmental and safety file. Retain all waste disposal documentation / records Report waste disposal figures to BU Env Dept.	Constitution S24, S32, S33, NEMA S2, S28, S31, S35; Hazardous Substance Act (S1,2,3); HazAct R452,R453; HazReg R1382; SANS 10228; NRTA REG 225; MINREGS(1998) S4,10,10.2,10.2.1, 10.2.2,10.2.3; OSHA S8,10; OSHA GENERAL SAFETY REGS R1031 S4, S4(9)(a), S4(9)(c); OSHA HAZ CHEM SUBSTANCES REGS R1179 S1, S15(a)-(f); National Environmental Management Act 107 of 1998. Duty of Care Section 28; National Water act 36 of 1998 section 19, National Environmental Management: Waste Act, Act 59 of 2008, section 16, S21, S24 (b), 25 - Hazardous Substance Act 15 of 1973 (S1,2), SANAS 10228: The identification and classification of Dangerous Goods for Transport National Road and Traffic Act, 93 of 1996 - REG 225; Occupational, Health and Safety Act 85 of 1993 S8, 10; Occupational Health and Safety - Hazardous Chemical Substances R1179 S1, S15(a)-(f); Asbestos regulations. National Environmental Management Act: Regulations For Admission Of Guilt Fines For Waste Management Offences; 24 July 2015; Gg 39024, Gg 635 Requirements for safe processing, handling, storing, disposal and phaseout of Asbestos and Asbestos containing Material, equipment and articles. (EPC 32 303)- Environmental Conservation Act, 1989; Regulations 341 for the prohibition of the use, manufacturing, import and export of asbestos and asbestos containing materials	Project Manager				
16	Chemical substance Management	Incorrect storage of Solvents, chemical substances & Paints.	Health hazard to humans and environmental pollution	HIGH	To ensure that all chemicals, solvent and paints are stored according to the OHSACT requirements noted in the Hazardous Chemical Substance GN 1179 of 25 August 1995. Report all chemical spills to the environmental department with in the day shift and effectively cleanup pollution risk. Contractor must appoint a cleanup contractor that is qualified.	Zero legal contravention	To store hazardous chemicals substances in bonded areas. Label demarcated hazardous chemical store. To store all solvents, chemical substances and paints in appropriate storage areas / facilities where chemical / solvent registers are available and updated. Appointed Hazardous Chemical Co-ordinator for the chemical products on site. To ensure conformance with organisation Environmental EPP Procedure to address spillages. To ensure MSDS are available at areas where such products are stored and meets the 16 point requirements as set by the OSH Act (1993). Labell items and racks accordingly, ensure spill kits for oil and battery acid are available onsite. Appointment a Hazardous chemical Co-ordinator to ensure that all chemicals onsite are managed accordingly	Eskom Waste Standard (32-245), National Environmental Management Act, Act 107 of 1998 Section 28 Duty of care and remediation of environmental damage. - National Water Act, Act 36 of 1998, Section 19 prevention and remedying effects of pollution. - Hazardous Substances Act No 15 of 1973, Sec 1 - 2 Classifies hazardous waste into groups. - Occupational Health and Safety Act Hazardous Chemical Substance Reg 1179 Section 15 disposal of hazardous chemical substances. - Environmental Management: Waste Management Act, 59 of 2008 Sec 21 General requirements for storage of waste, Sec 25 Duties of persons transporting waste, Sec 26 Prohibition of unauthorised disposal. - Basil Convention, Annexure 2,3 and article 4 and 12. - Rotterdam Convention Article 1,2 and 9	Project Manager				

17	Excavation of material	Heavy Vehicles	Oil contamination Damaging natural vegetation and water courses with dumping of excavated material	HIGH	prevent contamination of natural environment, permission of landowner of stockpiling and storage will be placed, rehabilitate storage areas to landowner satisfaction	Zero legal contravention	Top soil excavated may not be removed from site/s without a permit to a registered landfill site. Any Archeological material found must not be destroyed during the excavation process and reported immediately to the authorities. Top soil from excavations must be stored on site and used for backfilling where required under strict permission from the landowner. <u>NO INFILLING OF WETLANDS.</u> <u>WATERCOURSES WILL BE ALLOWED</u> Care should be taken to store topsoil and ensure it does not become contaminated with hazardous material eg. oils	CA 24, S32; NEMA 52, S28, S35, S31; NEMA REG R385; ECA S19, S19A, S20, S20(9), S31A; ECA-AA (EC AMENDMENT ACT 2003); NWA S1, S19; HAZACT, OHS Act (Act 85 of 1993), SA NATIONAL RESOURCE HERITAGE ACT. Asbestos Regulations GNR.155 of 10 February 2002	Project Manager					
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<b>NOTES</b>	
<p><b>Compliance obligations:</b></p> <p>All service providers and subcontractors must be inducted by the Principal contractor prior to access to the site</p> <p>Approved Contractor must be used for waste contractors and Scrap removal from site.</p> <p>Records must be kept of all Sewage, general waste, hazardous waste and scrap from site</p> <p>Monthly waste reporting is required per the eskom Template.</p> <p>Store all chemicals and other hazardous materials per the Occupational Health and Safety Regulations requirements.</p> <p>Store all waste in required bins clearly identifiable</p> <p>Remove all stockpiled material from site</p> <p>Do not stockpile in water course, wetland, or on indigenous vegetation</p> <p>Dispose General legal Municipal site, record of landfill use must be kept</p> <p>Dispose Hazardous waste at Vissershok Hazardous landfill site, records must be kept</p> <p>Use the appropriate qualified service providers for waste collection, emergency spill clean ups, fire response</p> <p>The contractor must have Environmental Representative to ensure compliance to the Environmental Legislation</p> <p>Comply with the Municipality By Laws: relating to the disposal of waste, The use of the water for Construction Purposes, The use of water for potable supply.</p> <p>The contractor is required to have written permissions from the municipality to use landfill site, water resources and sewage treatment works.</p> <p>Develop and implement a Fire Management Plan for the construction period by and for the contractor</p> <p>Contractor required to keep records of all wastes, Env Toolbox talks, internal Environmental audits, Environmental Incidents onfile</p> <p>Contractor required to have a Waste Management Plan detailing how all waste generated by the project will be addressed.</p> <p>Provide Landscaper services for the relocation of indigenous vegetation during the project.</p> <p>Provide a animal specialist for the removal and relocation of animals found during the civil work planned in natural areas of the site.</p>	<p><b>Existing site conditions:</b></p> <p>Provide own Drinking water</p> <p>Provide own construction water</p> <p>Provide own toilets for construction staff</p> <p>Snakes may frequent the site,</p> <p>Insects like bees may also be present onsite</p> <p>All storage of new material must be agreed with the landowner,</p> <p>All storage of stockpiled excavated material must be agreed with the landowner</p> <p>All excavated material must be removed from site to a registered landfill with records.</p> <p>Written agreement with landowner for any arrangements for site establishment, storage, placement of excavated material.</p> <p>Onsite for storage of project material, construction offices, parking, toilets and waste areas.</p>

Transmission Project Manager		Grid Senior Environmental Advisor	
Name & Surname	Clive Cooper	Name & Surname: Adrian Francis	Adrian Francis
Signature		Signature	
Date	10-Feb-22	Date: 10 February 2022	16-Apr-20

<b>CONTRACTORS DETAILS</b>	
I,.....(Name of Contractor), accept the above Environmental Management Plan and acknowledge having read and understood my responsibilities.	
SIGNATURE	DATE
CONTACT DETAILS	
ESKOM PROJECT MANAGER/ SITE REPRESENTATIVE (NAME)	
SIGNATURE	DATE

**Effectiveness Criteria**

\* **Fully effective** : Nothing more to be done except review and monitor the existing controls. Controls are well designed for the risk, are largely preventive and address the root causes and management believes that they are effective and reliable at all times. Reactive controls only support preventive controls

\* **Partially effective**: Most controls are designed correctly and are in place and effective. Some more work to be done to improve operating effectiveness or management has doubts about operational effectiveness and reliability

\* **Ineffective**: While the design of controls may be largely correct in that they treat most of the root causes of the risk, they are not currently very effective. There may be an over-reliance on reactive controls  
or  
Some of the controls do not seem correctly designed in that they do not treat root causes, those that are correctly designed are operating effectively