

	<p style="text-align: center;">TRANSMISSION ENVIRONMENTAL MANAGEMENT PLAN - PROJECTS / SERVICE PROVIDERS</p> <p style="text-align: center;">Legal Requirements: http://intranet.eskom.co.za/EskomBusinesses/OtherSites/Pages/Le.aspx</p>	Template Identifier	240-43921898	Rev	7
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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.t.o. National Environmental Management Act, 1998 (Act No. 107 OF 1998) Environmental Impact Assessment Regulations (2014)

Site / Line: Grootvlei Theseus 1 (400kV) - T226

Project Code: 1074866384

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Date Compiled: 29/11/2021

Project / Contract Number:

Scope of work: Twr 226 refurbishment

Background and Purpose of Project: To prevent tower collapse and impact on continuity of power supply

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	Non compliance to environmental legal and other requirements that will lead to project delay.	HIGH	Ensure Eskom Environmental & Legal requirements are specified / included during tender process	With the submission of each tender	Ensure Environmental and Legal requirements are taken into account during tender process .	SHE Requirements for the Eskom Commercial Process (32-726)	Tender submission	Buyer				
		Placement of order/contract with suppliers	Non compliance to environmental legal and other requirements that will lead to project delay.	HIGH	Ensure Eskom Environmental & Legal requirements are specified / included during tender process	Placement of order	To ensure contract placed complies with Environmental and Legal requirements	SHE Requirements for the Eskom Commercial Process (32-726)	Tender stage	Buyer				
		Assessing contractors	Non compliance to environmental legal and other requirements that will lead to project delay.	HIGH	Ensure Eskom Environmental & Legal requirements are specified / included during tender process	On contract award	To ensure and approve contractor for Environmental and legal compliance before contract award	SHE Requirements for the Eskom Commercial Process (32-726)	On contract award	Tx Env Management / Project Manager				

3.2		Environmental Training & Awareness of contractors.	Lacking environmental awareness / knowledge of Eskom Transmission and other relevant environmental legal requirements may lead to legal contravention, damage to the environment and private property that may result into disputes and claims with landowners.	HIGH	To ensure contractors are aware of environmental requirement i.t.o. the EMP and environmental legal and other requirements	Daily	1. All contractors shall have a SHE & Security induction by the grid before work starts 2. Contractor team members must have proof of relevant training relating to the project scope of work and activities, e.g. Oil spill training, fire fighting training, emergency preparedness, tree identification, SHE representative training, etc. 3. Certificates must be in SHE file at all times. 4. Contractor team members must know their own environmental work instructions, procedures and method statements and grid provided Environmental Documents provided for each project.	National Environmental Management Act 107 of 1998, Sections 24(5), 24M, 24(2), 24(D) Occupational Health and Safety Act 85 of 1993 OSH Act Construction Regulations of 2003 Sections 23,24,25 and 27.		Duration of project	1. Grid SHE Dept 2. Contractor 3. Contractor 4. Contractor					
3.3		During / Final Construction Audits	Failure to conduct during and final construction audits on a regular basis during the course of the project can result in non compliances that are overlooked and failure to mitigate environmental incidents that have occurred.	HIGH	To ensure that non compliances or NCRs are picked up during construction activities and rectified / mitigated a.s.a.p. after it occurred. To conduct a final construction audit to ensure that the project is completed without any non compliances and NCRs open.	Weekly	1. The Grid SHE department can conduct compliance audits at any given time and unannounced for the duration of the project. 2. Failure to proof that the contractor team has a SHE Authorisation, have been inducted, SHE file approved, will result into issuing of an NCR by the grid. 3. Severe Environmental non-conformances or legal non-compliances may result in the stopping of the project.	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.	Duration of project	Grid SHE Dept						
4	VEGETATION MANAGEMENT & BUSHCLEARING	The cutting / removing of 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 protected tree are cut / plants removed without a permit.	On Occurrence	1. All ontractors staff involved in tree cutting and bushclearing are subjected to tree identification training prior to them starting with any bushclearing program in the grid. 2. Bushclearing activities may only be done for the relevant spans included in the scope of work and task order provided. 3. All permits for the cutting of protected trees must be obtained from the Dept. of Agriculture & Forestry before any protected tree is cut.. This must be done upfront and before any bushclearing activities start. 4. 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 bush clearing activities.	National Environmental Management Act, Act 107 of 1998, Sec 28 Duty of care and remediation of environmental damage. National Veld And Forest Fire Act, 101 of 1998 : 3. Formation of fire protection associations, 5. Duties of fire protection association. 12. Duty to prepare and maintain firebreaks. 13. Requirements for firebreaks,15. Exemption from duty to prepare and maintain firebreaks,16. Exemption from prohibitions on damaging plants,19. Agreements for mutual assistance, 24. Penalties, 25. Offences. National Veld And Forest Fire Act, 101 of 1998 - Fire Protection Association Regulations. Fertilizers, Farm Feeds, Agricultural Remedies & Stock Remedies Act No 36 of 1947, GN R383 of 1983-02-25 National Environmental Management: Protected Areas act 57 Of 2003 , section 17. National Forest Act (Act 84 of 1998), section 15(1), reg 20(1) and 21(1) National Forests Act: Notice Of Declaration Of Particular Groups Of Trees "Champion Trees" Under The National Forests Act; 6 November 2015; Gg 39379; Gn 1056. National Forests Act: Notice Of The List Of Protected Tree Species Under The National Forests Act; 20 November 2015; Gg 39433; Gn 1161. Waste Tyre Regulations, 2017; National Forests Act, 84 of 1998: 7. Prohibition on destruction of trees in natural forests, 15. Effect of declaration of protected trees: National Forest Act, 84 of 1998 - Notice of the List of Protected Tree Species under th	Duration of project	1. Contractor 2. Contractor 3. Grid Env Dept. 4. Grid L&S Dept / Contractor						

4.5								National Forests Act, 1998 - Notice of the List of Protected Tree Species Under the National Forests Act, 1998 (Act no. For The Proper Administration Of Special Nature Reserves, National Parks And World Heritage Sites: 4. Prohibitions, 19.Development. National Environmental Management: Biodiversity Act, 10 of 2004: 6. Application of other biodiversity legislation, 7. National environmental management principles, 38. National biodiversity framework, 40. Bioregions and bioregional plans, 43. Biodiversity management plans, 52. Ecosystems that are threatened or in need of protection, 53. Threatening processes in listed ecosystems, 56. Listing of species that are threatened or in need of national protection, 65. Restricted activities involving alien species, 66. Exemptions. National Environmental Management: Biodiversity Act, 10 of 2004 - Publication						
5	EROSION CONTROL	Project activities e.g.) driving of vehicles / construction vehicles, excessive clearing of vegetation, excessive clearing of vegetation next to water courses, excavations	Failure to prevent erosion to occur or failure to rehabilitate erosion which was caused by various maintenance and project activities can impact negatively on lower stability which may lead to lower collapse and interruption of supply. Failure to manage and rehabilitate erosion in Eskom Servitudes can also lead to legal contraventions, customer complaints and trapping / injuring animals.	HIGH	To ensure erosion are prevented where practical and possible and ensure that where erosion have been identified it is managed and mitigated.	To ensure all erosion under eskom servitudes are identified, assessed and prioritised for management and mitigation there off.	1. Certain rehabilitations in sensitive areas such as river banks will require a Water Use Licence. This will be obtained by the grid Environmental Manager prior to the project and should have been identified in planning phase of project 2. To report, record all existing eroded areas before work commence. 3. Avoid driving in already eroded areas as far as practically possible. 4. Driving of vehicles / construction vehicles during wet and rainy conditions will impact negatively in servitudes leading to eroded areas, which needs to be rehabilitated on completion of project. 5. Avoid driving in wetlands at any costs, it is protected areas.	National Environmental Management Act, Act 107 of 1998, Sect 28 Duty of care and remediation of environmental damage. Conservation of Agricultural Resources Act 43 of 1983 - REG R1048 Sec 13:Restoration and reclamation of eroded areas. National Water Act 36 of 1998 Sec 19 prevention and remedying effects of pollution.	Duration of project	1. Project Manager / Grid Env Dept 2. Grid L&S Dept / Contractor 3. Contractor 4. Contractor 5. Contractor				
6	ACCESS ROAD	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 ensure well serviced access road/s. To maintain as to ensure soil erosion does not develop and access remains in a good condition for routine line inspections. Access roads which belong to land owners / private property much by used responsibly with consent of landowner.	Daily	1. To capture the condition of any access road prior to the start of the project to report and keep for record purposes. 2. All defects / damages occurring during the project should be reported, rectified immediately on occurrence. 3. The onus is on the contractor to be responsible for any rehabilitation on site/s should it damage / pollution incidents resulted from this project. 4. 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.	National Environmental Management Act 107 of 1998 section 28 Conservation of Agricultural Resources Act no. 43 of 1983 section 5,6, 12. Advertising on Roads and Ribbon Development Act 21 of 1940 section 2,3,4, 8, 9, 10 Fencing Act, 31 of 1963: Section 5. Boundary fencing in an area where contributions are not obligatory, Section 6. Boundary fencing where holding adjoins an area in which contributions are obligatory, Section 17. Clearing bush for boundary fencing, Section 21. Gates, Section 22. Leaving gates open, Section 26. Unintentional damaging of fencing, Section 29. Settlement of disputes. Sec 10. National Water Act,36 of 1998, Section 19 prevention and remedying effects of pollution. National Environmental Management Act, 107 of 1998, Section 28 Duty of care and remediation of environmental damage.	Duration of project	1. Contractor 2. Contractor 3. Contractor 4. Grid L&S Dept / Contractor				
6.1		Access of Eskom staff and or Contractors to sites along the servitude.	Employees entering the servitude understand whats allowed or not allowed. People / Contractos from outside the network can have a negative impact on environment and existing relationships with landowners resulting in deputes and claims against Eskom.	HIGH	To ensure that external people / contractors working on behalf of Eskom Tx do not contravene any legal or other requirement / bridge any agreement.	Daily	1. All Eskom staff and contractors must be in possession of a form of identification indicating who they are, employer and project and have marked clothing and vehicles. 2. All landowners who's property will be accessed during the duration of this project must be contacted prior to accessing the servitude / line crossing private / state property.	National Environmental Management Act 107 of 1998, section 28 Game Theft Act 105 of 1991 2,3,7 Fencing Act, 31 of 1963: Section 5. Boundary fencing in an area where contributions are not obligatory, Section 6. Boundary fencing where holding adjoins an area in which contributions are obligatory, Section 17. Clearing bush for boundary fencing, Section 21. Gates, Section 22. Leaving gates open, Section 26. Unintentional damaging of fencing, Section 29. Settlement of disputes. Sec 10.	Duration of project	1. Project Manager / Contractor 2. Grid L&S Dept / Contractor				

6.2		Bad Access	River crossings, servitude access route in poor condition, access gates removed / locked, etc.	HIGH	To ensure that areas where accessibility are difficult / poor condition are identified and managed.	Daily	1. To identified such areas in advance to confirm legal requirements, obtain permits / authorisations from government departments and plan project activities accordingly. 2. To report such occurrences so it can be rectified and managed. 3. Not to damaged fences, gates or cut locks without consent / prior written agreement of landowner / project manager.	National Environmental Management Act 107 of 1998. section 28 Game Theft Act 105 of 1991 2,3,7 Fencing Act, 31 of 1963: Section 5. Boundary fencing in an area where contributions are not obligatory, Section 6. Boundary fencing where holding adjoins an area in which contributions are obligatory, Section 17. Clearing bush for boundary fencing, Section 21. Gates, Section 22. Leaving gates open, Section 26. Unintentional damaging of fencing, Section 29. Settlement of disputes. Sec 10.	Duration of project	1. Project Manager / Grid Env Dept 2. Grid L&S / Contractor 3. Project Manager / Contractor					
7	SOCIAL INTERACTION	Unlawful occupation of land.	Unlawful occupation of land may lead to pollution of the environment, damage / theft of tower members as well as damage to private property.	HIGH	Illegal occupants to be handed in accordance with legal requirements	Daily	1. No contractor may make use of private property for camping during the duration of this project without written consent from / formal written agreement of compensation with the property owner.	Land Reform (Labour Tenants) Act. No. 3 of 1996. National Veld & Forest Fire Act 101 of 1998 National Environmental Management Act, Act 107 of 1998, Section 2, 28 Duty of care and remediation of environmental damage Game Theft Act, No. 105 of 1991 section, 2,3,7 Promotion of Access to Information Act, 2 of 2000: 11. Right of access to records of public bodies, 12. Act not applying to certain public bodies or officials thereof, 15. Voluntary disclosure and automatic availability of certain records, 50. Right of access to records of private bodies, 58. Deemed refusal of request, 64. Mandatory protection of commercial information of third party, 65. Mandatory protection of certain confidential information of third party. Fencing Act, 31 of 1963: Section 5. Boundary fencing in an area where contributions are not obligatory, Section 6. Boundary fencing where holding adjoins an area in which contributions are obligatory, Section 17. Clearing bush for boundary fencing, Section 21. Gates, Section 22. Leaving gates open, Section 26. Unintentional damaging of fencing, Section 29. Settlement of disputes.	Duration of project	Project Manager / Contractor					
7.1			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.	Daily	1. Handle within legal requirements in conjunction with Eskom's legal Dept, L&S Land Liaison officer and Land and rights departments and Grid representative/s if and when necessary. 2. All public complaints must be kept in a register with proof of resolution must be retained. 3. All public complaints must be reported to the grid under which the project is executed.		Duration of project	1. Project Manager / Contractor 2. Contractor 3. Contractor					
7.2		Social-Civil liability due to inappropriate activities whilst accessing servitudes on private property	Employees entering a private property can have an impact if they leave gates open and animals are lost, damage cultivated areas and incorrect use of access to roads. Various public complaints may arise from this project activities and if not resolved may lead to social, civil and financial liabilities for Eskom.	HIGH	To ensure that public complaints are successfully resolved without it being referred for civil litigation.	Daily	1. To attend to customer complaints and have minutes of meetings / any other documentation kept for record purposes. 2. Keep a public complaint register in the Environmental & Safety File on site. 3. No verbal agreements may be made with any landowners / external stakeholders. All agreements and resolutions shall only be done in writing and signed off by all parties / stakeholders. 4. Copies of these agreements / resolutions shall be sent to the grid L&S Dept for record keeping.	Land Reform (Labour Tenants) Act. No. 3 of 1996. National Veld & Forest Fire Act 101 of 1998 National Environmental Management Act, Act 107 of 1998, Section 2, 28 Duty of care and remediation of environmental damage Game Theft Act, No. 105 of 1991 section, 2,3,7 Promotion of Access to Information Act, 2 of 2000: 11. Right of access to records of public bodies, 12. Act not applying to certain public bodies or officials thereof, 15. Voluntary disclosure and automatic availability of certain records, 50. Right of access to records of private bodies, 58. Deemed refusal of request, 64. Mandatory protection of commercial information of third party, 65. Mandatory protection of certain confidential information of third party. Fencing Act, 31 of 1963: Section 5. Boundary fencing in an area where contributions are not obligatory, Section 6. Boundary fencing where holding adjoins an area in which contributions are obligatory, Section 17. Clearing bush for boundary fencing, Section 21. Gates, Section 22. Leaving gates open, Section 26. Unintentional damaging of fencing, Section 29. Settlement of disputes.	Duration of project	1. Project Manager / Contractor 2. Contractor 3. Project Manager / Contractor 4. Project Manager / Contractor					

7.3		Land Owner Interaction/s	<p>Incorrect liaison with landowners and I & AP could lead to Eskom's image being negatively affected.Lines are patrolled, on average, twice a year. Farmers often change the structure of their farms by erecting new fences, which sometimes prevent access to the servitude on their land. They also often use their own lock on Eskom gates. These cases have an impact on accessibility and often, due to the large distances travelled to get to a servitude, force employees to use unofficial access routes or to cut fences and locks.</p> <p>Social impact of I & AP. Refusal of entrance to sites and servitudes. Some instances could lead to litigation.</p>	HIGH	To maintain good relations.	Daily	<p>1. To comply with the EMP, legal and other requirements at all times.</p> <p>2. To have a contact list of property owners and to contact all property owners prior to entering their property.</p> <p>3. To have property owner sign off on status of land on completion of project activities.</p> <p>4. If access is denied it should be reported to the project manager for resolution.</p>		Duration of project	<p>1. Project Manager / Contractor</p> <p>2. Grid L&S Dept / Contractor</p> <p>3. Grid L&S / Contractor</p> <p>4. Contractor</p>				
7.5		Cropfields	<p>Cropfields might cause restriction of access to towers. Damage to cropfields can lead to claims against Eskom.</p>	HIGH	Ensure that these areas of crop fields are identified so alternative routes can be used or access negotiated with landowner.	Daily	<p>1. By conducting risk assessments prior to the start of projects i.t.o. access. Damage to crop will be compensated and the contractor will cary the cost.</p> <p>2. To obtain written consent from property owner, stipulating any specific requirements from the property owner.</p> <p>3. No fires to be made anywhere.</p>		Duration of project	<p>1. Contractor</p> <p>2. Grid L&S Dept / Contractor</p> <p>3. Contractor</p>				
8	WILDLIFE INTERACTION	Bird Nests	<p>The removal of bird nest from towers without a without authorisation will lead to a legal contravention.</p> <p>Injuring and killing of red data / protected bird species.</p>	HIGH	To remove bird nests posing a risk to the tower i.t.o. quality of supply etc. according to legal and other requirements.	On Occurrence	<p>1. No protected / red data bird species nest / chicks may be removed without a permit.</p> <p>2. These tower sites must be identified upfront prior to the project and reported to Grid Env Dept to apply for relevant permits.</p> <p>3. The permit that is currently in place and valid is only for a specific list of non-protected bird species (but conditions apply). - only Grid / Give line Eskom staff members whos ID documents were submitted to DESTEA may remove bird nest on behalf of the grid. The list of bird species nests that can be removed under this permit must be obtained from the grid Env Dept.</p> <p>4. No bird nest with eggs / chicks may be removed without authorisation (even under a permit).</p> <p>5. No contractor may remove bird nests. Contact the grid L&S Dept / Env Dept.</p>	<p>Game Theft Act 105 of 1991section 3</p> <p>- National Environmental Biodiversity Act 10 of 2004</p> <p>- CITIES (Convention of Traded in Endangered Species)</p> <p>- NEM:Biodiversity Act REGS 151,152, R138, 149(CH6); NEM:BDA CH7; NEM:BDA S52, S56(1);</p> <p>- NEM:Protected Areas Act (2004) S9-10, S45(1), S46(1), S48(1), S50(5); National Environmental Management - Protected Areas Act, 57 Of 2003: 9. Kinds of protected areas, 17. Purpose of protected areas.</p> <p>National Environmental Management: Protected Areas Act, 57 Of 2003 - Regulations For The Proper Administration Of Special Nature Reserves, National Parks And World Heritage Sites: 4. Prohibitions, 19.Development.</p> <p>National Environmental Management: Biodiversity Act, 10 of 2004: 6. Application of other biodiversity legislation, 7. National environmental management principles, 38. National biodiversity framework, 40. Bioregions and bioregional plans, 43. Biodiversity management plans, 52. Ecosystems that are threatened or in need of protection, 53. Threatening processes in listed ecosystems, 56. Listing of species that are threatened or in need of national protection, 65. Restricted activities involving alien species, 66. Exemptions.</p> <p>National Environmental Management: Biodiversity Act, 10 of 2004 - Publication of Lists of Critically Endangered, Endangered, Vulnerable and Protected Species;</p> <p>National Environmental Management: Biodiversity Act, 10 of 2004 - CITES Regulations, 2010;</p> <p>National Environmental Management: Biodiversity Act, 10 of 2004 - Prohibition of Trade in Certain Encephalartos (Cycad) Species;</p>	Duration of project	<p>1. Project Manager / Contractor</p> <p>2. Grid L&S Dept / Grid Env Dept.</p> <p>3. Info</p> <p>4. Contractor</p> <p>5. Contractor</p>				

8.1		Bird electrocutions and collisions with powerline infrastructure.	Bird fatalities can be attributed to electrocutions and collisions with earth wire. There will be loss of infrastructure and loss of supply. Killing of protected & endangered species.	LOW	To ensure bird electrocution / collisions are reported.	On Occurrence	1. Report all bird fatalities in the servitude to the grid Env Dept.	Game Theft Act 105 of 1991 section 3 - National Environmental Biodiversity Act 10 of 2004 - CITIES (Convention of Traded in Endangered Species) - Provincial Nature Conservation Ordinances - AGPA S3, S5, S6; AGPAREG 110, 111, R276; - National Conservation Ordinance no 8 of 1969 NEM:Protected Areas Act (2004) S9-10, S45(1), S46(1), S48(1), S50(5); NEM:Protected Areas Act R1061. National Environmental Management - Protected Areas Act, 57 Of 2003: 9. Kinds of protected areas, 17. Purpose of protected areas. National Environmental Management: Protected Areas Act, 57 Of 2003 - Regulations For The Proper Administration Of Special Nature Reserves, National Parks And World Heritage Sites: 4. Prohibitions, 19.Development. National Environmental Management: Biodiversity Act, 10 of 2004: 6. Application of other biodiversity legislation, 7. National environmental management principles, 38. National biodiversity framework, 40. Bioregions and bioregional plans, 43. Biodiversity management plans, 52. Ecosystems that are threatened or in need of protection, 53. Threatening processes in listed ecosystems, 56. Listing of species that are threatened or in need of national protection, 65. Restricted activities involving alien species, 66. Exemptions. National Environmental Management: Biodiversity Act, 10 of 2004 - Publication of Lists of Critically Endangered, Endangered, Vulnerable and Protected Species; National Environmental Management: Biodiversity Act, 10 of 2004 - CITES Regulations, 2010; National Environmental Management: Biodiversity Act, 10 of 2004 - Prohibition of Trade in Certain Encephalartos (Cycad) Species. NEM:Biodiversity Act REGS 151,152, R138, 149(CH6); NEM:BDA CH7. - Free State -Nature Conservation Ordinance S2, SS 3&5, Chapter 3, Chapter 5A;	Duration of project	Project Manager / Contractor					
8.2		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.	Daily	1. To communicate EMP and legal requirements to all contractors working on this project daily at the toolbox talk or project progress meetings. 2. No poaching of any animals, it is a criminal offence.		Duration of project	Project Manager / Contractor					
8.3		Interaction with animals.	The injuring or killing of animals accidentally with vehicles can lead to claims against Eskom	HIGH	To ensure that vehicles are driven responsibly with caution and legal / safe speeds. That all wildlife incidents are reported for investigation and mitigation.	Daily	1. To keep and maintain a Environmental Incident register on site which includes Wildlife Incidents. 2. To report such incident at to the Project Manager immediately after occurrence.		Duration of project	Project Manager / Contractor					

10	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 done vehicles during this project.	Daily	<p>1. Use existing roads</p> <p>2. No vehicle maintenance on site or in the servitude or on private property.</p> <p>3. Be aware of environmental sensitive area's</p> <p>4. Leave gates in the position it was found/ or as agreed by land owner.</p> <p>5. Damaged locks to be replaced.</p> <p>6. Record all damage to infrastructure/ towers /anticlimbing devices</p> <p>7. Be aware of sensitive soil(sand) and steep area's</p> <p>8. Vehicles which are not road worthy (i.e. leaking oil) shall not be used or allowed on site.</p>	<p>NEM: Air Quality Management Act (39 of 2004), sec 2.Environment Conservation Act, 73 of 1989:</p> <p>Section 25. Regulations regarding noise, vibration and shock, Section 29. Offences and penalties.</p> <p>Environment Conservation; Environment Conservation Act, 73 of 1989 - Noise Control Regulations (Free State).</p> <p>National Environmental Management: Air Quality Act, 39 Of 2004 - GN 1210 - National Ambient Air Quality Standards: 2.3 Ambient air quality measurement requirements, 3.4 National Ambient Air Quality Standards for Ozone (O3), 3.6 National Ambient Air Quality Standards for Lead (Pb), 3.7 National Ambient Air Quality Standards for Carbon Monoxide (CO).</p> <p>National Environmental Management: Air Quality Act, 39 Of 2004 - Extension of Definition For Noxious or Offensive Gas;</p> <p>National Environmental Management: Air Quality Act, 39 Of 2004 - Declaration of Controlled Area under Part II of Act No. 45 of 1965:Atmospheric Pollution Prevention Act 45 OF 1965.</p> <p>National Environmental Management: Air Quality Act 39 Of 2004 - Vaal Triangle Priority Area AQMP Implementation Regulations, 2009;</p> <p>National Environmental Management: Air Quality Act, 2004, (Act No. 39 of 2004) - Declaration Of The Vaal Triangle Air-Shed Priority Area In Terms Of Section 18(1) Of The National Environmental Management: Air Quality Act, 2004, (Act No. 39 of 2004);</p> <p>National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) - GN R. 827 - National Dust Control Regulations.</p> <p>National Environmental Management : Air Quality Act, 39 of 2004</p>	Duration of project	Project Manager / Contractor					
							<p>Regulations Regarding the Phasing-out and Management of Ozone-Depleting Substances (GN 351): 3. Prohibition of production, importation, exportation, use or placing on the market of ozone-depleting substances and equipment, 4. General prohibition of stockpiling, 5. Phase out schedule for HCFCs, HCFC-141b and equipment charged with HCFC 22. 9. Offences and penalties.</p> <p>National Environmental Management, 39 of 2004: National Greenhouse Gas Emission Reporting Regulations: 5. REGISTRATION, 7. REPORTING REQUIREMENTS, 13. RECORD KEEPING, 16. OFFENCES.</p> <p>National Environmental Management: Air Quality Act, 39 of 2004: Declaration of Greenhouse Gases as Priority Air Pollutants.</p> <p>Mangaung bylaw on Noise Control: Section 5, 6, Section 8 - Motor vehicles i.t.o. SANS 10181 non-exempted vehicles, SANS 101281 exempted vehicles (>5dBA); Section 12 - use of measuring equipment; Section 13 Exemptions for emergency sirens.</p>								
11	WASTE MANAGEMENT	Domestic and General Waste and litter generated during this project in the servitude.	These types of activities cause pollution and degradation to the environment. Leaving waste under the line and on private property can lead to customer complaints and claims against Eskom	HIGH	Waste is handled and dispose of as required by legislation and best practices.	Daily	<p>1. No waste to be left on site/ servitude af shift ends.</p> <p>2. Domestic / general waste to be disposed of at the closest registered municipal waste site.</p> <p>3. Waste register to be completed for waste disposal and kept on site in environmental and safety file.</p> <p>4. Building rubbles shall only be taken to a licenced municipal site who are registered to receive this general waste type.</p> <p>5. Arrangements for the re-use of building rubble as backfilling material shall be agreed with relevant landowner/ end user in writing. This agreement must be send to grid environmental department.</p>	<p>-National Water Act,36 of 1998, Sec 19 prevention and remedying effects of pollution.</p> <p>- National Environmental Management Act, 107 of 1998, Sec 28 Duty of care and remediation of environmental damage.</p> <p>Prohibition Of The Dumping Of Rubbish Ordinance, 8 of 1976 (Free State):2 Prohibition of the dumping of rubbish, 4 Offences and penalties.</p> <p>National Environmental Management: Waste Act: Amendment To List Of Waste Management Activities That Have Or Are Likely To Have A Detrimental Effect On The Environment; 24 July 2015; Gg 39020, Gn 633.</p> <p>National Environmental Management: Waste Act, 59 of 2008: 9. Waste service standards, 14. Declaration of priority wastes, 15. Consequences of declaration of priority wastes, 16. General duty in respect of waste management, 17. Reduction, re-use, recycling and recovery of waste, 20. Consequences of listing waste management activities, 21. General requirements for storage of waste, 22. Storage of general waste, 23. Waste collection services, 24. Collection of waste, 25. Duties of persons transporting waste, 26. Prohibition of unauthorised disposal, 27. Littering, 45. Application for waste management licences. National Environmental Management: Waste Act, 59 of 2008: 60. Establishment of national waste information systems, 67. Offences, 74. Applications for exemption, 82. Transitional provision regarding listed waste management activities: SCHEDULE 1,Schedule 3.</p> <p>National Environmental Management: Waste Act, 59 of 2008 - National Waste Information Regulations, 2012: 3. Application of Regulations, 5. Application for registration,8. Reporting or submission of information, 9. Record keeping, 12. Offences and penalties.</p>	Duration of project	Project Manager / Contractor					

								National Environmental Management: Waste Act, 59 of 2008 - Waste Classification and Management Regulations, 2013 (GN R634); 4. Waste Classification; 5. Safety Data Sheets, 6. General, 7. Waste Treatment, 8. Waste Disposal to Landfill, 10. Records of waste generation and management, 11. Waste Manifest System, Annexure 1: Wastes that do not require Classification or Assessment, Annexure 2: Waste Manifest System Information Requirements, 13. Training, 14. Emergency Preparedness Plan, 16. Auditing, 18. Reporting, 19. Records. National Environmental Management: Waste Act 59 of 2008 - List of Waste Management Activities That Have, or are Likely to Have, a Detrimental Effect on the Environment (GN 921 of 2013); National Environmental Management: Waste Act, 59 of 2008 - National Norms and Standards for the Remediation of Contaminated Land Soil Quality (GN 331); National Environmental Management Act, 107 of 1998 - Regulations for Admission of Guilt Fine Regulations, 2015.						
12		Hazardous waste including but not limited to asbestos, silica gel, PCBs, oil and oil contaminated soils and materials, chemicals, old herbicides and herbicide containers, pesticides, etc.	Hazardous waste are dangerous to humans and animals, causing land, water and ground water pollution. Incorrect handling and disposal may lead to claims against the business and legal contraventions.	HIGH	Hazardous waste is identified and stored, transported and dispose according to legal and other requirements.	On occurrence	1. No hazardous waste may be disposed without the authorisation and approval of the grid Environmental Manager 2. The Grid Environmental Manager will issue a Method Statement on Hazardous waste management and disposal for each project. 3. To adhere to the Project EMP and relevant Method Statements and all times and insure compliance with all compliance obligations	Prohibition Of The Dumping Of Rubbish Ordinance, 8 of 1976 (Free State); 2 Prohibition of the dumping of rubbish, 4 Offences and penalties. - 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; The South African National Roads Agency Limited And National Roads Act, 7 of 1998. Hazardous Substances Act, 15 of 1973: 3. Sale of Group I and Group III, and letting, use, operation, application and installation of Group III, hazardous substances, 3A. Production, acquisition, disposal, and importation and exportation, of Group IV hazardous substances, 13. Liability in regard to substance sold in a sealed package, 14. Special defences , 16. Liability of employer or principal, 19. Penalties, 21. Forfeiture and disposal of goods. National Road Traffic Act, 93 of 1996: 42. Certification of roadworthiness required in respect of motor vehicle, 54. Transportation of certain dangerous goods prohibited. National Road Traffic Act, 93 of 1996 - National Road Traffic Regulations, 2000: 275. Transportation of Dangerous Goods Prohibited, 277. Duties of Operator, Driver, Consignor and Consignee, 278. Dangerous Goods to be Compatible, 280. Driver to Undergo Training, 281. Documents to be Held by Driver. Hazardous Substances Act, 15 of 1973 - Declaration of Group I Hazardous Substances	Duration of project	1. Project Manager / Contractor 2. Grid Env Dept 3. Project Manager / Contractor				
13	Chemical substance management	Use of oil / diesel/ petrol/ herbicides	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 forming part of the scope of work of any project leads to minimisation and avoidance of pollution and 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. To avoid costly delays in projects while waiting to obtain permits and authorisations.	On occurrence	1. Identify activities involved in oil management in scope of work before project commence. 2. Ensure that an oil / chemical spill management plans are in place in contractor specific procedures / work instructions / method statements 3. All chemical spillages must be reported to the Grid Env Dept. 4. Cost associated with spillage clean-up and rehabilitation will be carried by the contractor	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. Occupational Health and Safety Act, 85 of 1993 - Asbestos Regulations, 2001: 5. Information and training, 12. Cleanliness of premises and plant, 16. Records, 19. Labeling, packaging, transportation and storage, 20. Disposal of asbestos, 23. Offences and penalties. Occupational Health and Safety Act, 85 of 1993 - GN R84 - Construction Regulations, 2014: 25. Use and temporary storage of flammable liquids on construction sites, 27. Housekeeping and general safeguarding on construction sites. - 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. Occupational Health and Safety Act, 85 of 1993 (OHSA): 7. Health and safety policy, Occupational Health and Safety Act, 85 of 1993 - Regulations for Hazardous Chemical Substances, 1995: 3 Information and training, 9A. Handling of hazardous chemical substances, 14 Labelling, packaging, transportation and storage, 15 Disposal of hazardous chemical substances , 16 Offences and penalties. Hazardous Substances Act, 15 of 1973: 3. Sale of Group I and Group III, and letting, use, operation, application and installation of Group III, hazardous substances, 3A. Production, acquisition, disposal, and importation and exportation, of Gr	Duration of project	1. Project Manager / Contractor 2. Contractor 3. Contractor 4. Contractor				

13.1		Oil disposal	Oil spill that caused damage to the environment and or private property can lead to legal contravention, claims and rehabilitation costs for the business.	MED	To ensure that all oil is treated as hazardous waste and disposed according to legal and other requirements.	On occurrence	1. No unauthorised oil contaminated waste shall be disposed without the Grid Environmental Manager's authorisation. The Grid Environmental department will coordinate hazardous waste disposal.	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 S44(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.	Duration of project	1. Grid Env Dept				
13.2		Chemical substance storage	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 oil storage on site is done according to legal requirements, policy and procedures.	On occurrence	1. Chemical substances such as oil / petrol / diesel / herbicides shall be stored in portable bunded facilities / bunded areas on site where work in servitudes are done. 3. 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). 4. To label demarcated hazardous chemical substances containers to correspond to contents. 5. The disposal of empty chemical substance containers are regarded as hazardous waste disposal. 6. No hazardous waste may be disposed without the authorisation of the grid Environmental manager.	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 S44(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.	Duration of project	Project Manager / Contractor				
14	ARCHEOLOGICAL SITES	Disturbance and damage to archeological sites when doing line inspection/maintenance.	Could lead to social impact on communities involved and litigation.	LOW	Ensure archeological site are not disturbed or damaged.	Daily	1. Identify and communicate areas where archeological sites are present on the servitude / site. 2. Take necessary measures to avoid such sites 3. Ensure records area kept on location of sites	National Environmental Management Act 107 of 1998. (1) Every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or National Environmental Management: Protected Areas Act, Act 57 of 2003. National Heritage Resources Act, 25 of 1999: 27. National heritage sites and provincial heritage sites, 28. Protected areas, 31. Heritage areas, 32. Heritage objects, 34. Structures, 35. Archaeology, palaeontology and meteorites, 36. Burial grounds and graves, Heritage Agreements: 42, 51. Offences and penalties National Heritage Resources Act, 25 of 1999 - Declaration Of Types Of Heritage Objects;	Duration of project	1. Grid L&S Dept / Contractor 2. Contractor 3. Grid L&S Dept / Contractor				
15	MOVEMENT IN SENSITIVE AREAS	Incorrect movement of vehicles / unlawful trespassing during this project in sensitive areas could lead to social issues with land owners and damage and or pollution to the natural environment.	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	Daily	1. Identify all sensitive areas on the servitude and record locations for management purposes. 2. Adhere and comply with project EMP and all Environmental method statements issued by the grid Environmental Dept.	National Environmental Management Act, Act 107 of 1998, Sec 28 Duty of care and remediation of environmental damage. Constitution of the Republic of SA Act 108 of 1996 Section 24 everyone has the rights to an environment that is not harmful to human wellbeing. National Water Act 36 of 1998 Sec 21 water use registration. National Environmental Management - Protected Areas Act, 57 Of 2003: 9. Kinds of protected areas, 17. Purpose of protected areas. National Environmental Management: Protected Areas Act, 57 Of 2003 - Regulations For The Proper Administration Of Special Nature Reserves, National Parks And World Heritage Sites: 4. Prohibitions, 19.Development. National Environmental Management: Biodiversity Act, 10 of 2004: 6. Application of other biodiversity legislation, 7. National environmental management principles, 38. National biodiversity framework, 40. Bioregions and bioregional plans, 43. Biodiversity management plans, 52. Ecosystems that are threatened or in need of protection, 53. Threatening processes in listed ecosystems, 56. Listing of species that are threatened or in need of national protection, 65. Restricted activities involving alien species, 66. Exemptions. National Environmental Management: Biodiversity Act, 10 of	Duration of project	1. Grid L&S Dept 2. Project Manager / Contractor				

16	EQUIPMENT MANAGEMENT	Cleaning of Machinery	Chemical pollution is caused by vehicle oils, grease or solvents. Chemical pollution to the environment can lead to a legal contravention and rehabilitation costs, fines and claims. Maintenance of machinery and or vehicles can lead to veld fires.	HIGH	To ensure that no machinery is maintained under the line / in the servitude that can result to pollution or veld fires.	Daily	1. By inspecting machinery prior to maintenance / project activity starting. Not to make use of the incorrect tools for the job and not to make use of malfunctioning machinery. 2. To ensure all staff and contractors are sufficiently trained in using the machinery correctly. 3. No equipment maintenance on any site allowed.	CA 24, S32; NEMA S2, S28, S35, S31; NEMA REG R385; ECA S19, S19A, S20, S20(9), S31A; ECA:AA (EC AMENDMENT ACT 2003); NWA S1, S19; HAZACT, OSHA	Duration of project	Project Manager / Contractor						
17	Establishment of construction camps and store. Off -loading construction 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 contamination of natural environment	No environmental pollution due to construction activities, No water wastage	1. Camp sites must not be located next 100 year flood line of the stream or the river. And 300 meters of the geo-hydrological gradient of the surface water. 2. Ensure proper effluent management and implemented. Ensure that all equipments are inspected for possible leaks. 3. All camp sites must have written agreements with landlords established.	National Water Act (Act 36 of 1998) GN R704 of 1999-06-04: Regulations on use of water for miniming 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 vehiclesGN R1599 of 1977-08-20 Regulations to prohibit the damage of means adopted to prevent the dispersion of matter which may cause a nuisance.	Duration of project	Project Manager / Contractor						
18	Delivery of materials	Heavy vehicles	Oil contamination to natural environment. Potential of hydrocarbon contamination of ground due to spillage or leaks	HIGH	To manage and control movement of both equipment and construction personnel	Ensure that personnel and construction equipment remain within the construction parameters during construction phase.	1. No oil leaks, oil leaks to be cleaned with spillage kit. All oil contaminated supersorb to be disposed as hazardous waste. 2. Chemical spillages shall be reported, recorded and treated and the area rehabilitated on the cost of the contractor. 3. Ensure that the contractor has a spillage kit and the employees are trained how to clean small to medium spillages. 4. Store oil on the portable bunded area, where there is no bunded area temporal bunded area to be build using turpolines . 5. No hazardous waste disposal without the authorisation of the grid environmental manager.	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.	Duration of project	Project Manager / Contractor						
19		Material storage on site	poor house keeping or incorrect storage of materials on site could result to spillage and litter to the natural environment. If valves are not properly closed the oil could leak and cause contamination	HIGH	Safe handling of equipment and materials	Ensure that personnel and construction equipment remain within the construction parameters during construction phase	1. Separated materials and stored on the appropriate facilities that are free of leaks. 2. Delivery of material shall be done in a demarcated area. 3. Fire exstingishers to be available on site and ensure that they are serviced. 4. Good and tidy housekeeping practices at all times	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.	Duration of project	Project Manager / Contractor						
20	Place steel work into the foundation	Steel off-cuts and steel cutting and gridding	Illegal dumping of steel off-cut waste on the natural environment	HIGH	Ensure that steel off-cuts are stored and disposed in an environmentally friendly manner	No steel off-cuts are disposed on the natural environment	1. Ensure that the site has adequate waste receptors to store waste prior transportation. 2. All recyclable waste to be recycled with licensed recyclers.	CA 24, S32; NEMA S2, S28, S35, S31; NEMA REG R385; ECA S19, S19A, S20, S20(9), S31A; ECA:AA (EC AMENDMENT ACT 2003); NWA S1, S19; HAZACT, OSHA,	Duration of project	Project Manager / Contractor						
21	Connect earthing to steel work	Weldind and brazing	Possible fire veld due to uncontrolled sparks	HIGH	Ensure that welding is controlled	No veld fires are started due to welding activity	1. All welding areas to have serviced fire estinguishers and all workers to be trained, to use fire estinguisher in the event of fire.	CA 24, S32; NEMA S2, S28, S35, S31; NEMA REG R385; ECA S19, S19A, S20, S20(9), S31A; ECA:AA (EC AMENDMENT ACT 2003); NWA S1, S19; HAZACT, OSHA,	Duration of project	Project Manager / Contractor						
22	Concrete foundation casting	Use of concrete	Possible concrete spillage during construction.	HIGH	All concrete spills to managed	No concrete spills on site during construction	1. All concrete spills to cleaned prior close of business	CA 24, S32; NEMA S2, S28, S35, S31; NEMA REG R385; ECA S19, S19A, S20, S20(9), S31A; ECA:AA (EC AMENDMENT ACT 2003); NWA S1, S19; HAZACT, OSHA,	Duration of project	Project Manager / Contractor						

23	Water Management	Water supply	Being uninformed of where the drinking water supply come from may pose a risk to health, safety and ensuring legal and other requirements are met during water pipes leaking and water contamination	HIGH	To know source of water supply.	0 Legal contraventions, Water quality suitable for human consumption	1. To supply own drinking for for all contractor staff 2. No illegal use / abstraction of water sources on private property in/ outside servitudes are allowed.	National Environmental Management Act 107 of 1998, S2, S28, S35. Constitution of the Republic of South Africa, 1996: Section 24. Environment National Water Act, 36 of 1998: 4. Entitlement to water use, 19. Prevention and remedying effects of pollution, 20. Control of emergency incidents, 21. Water use (c&i), 22. Permissible water use, 32. Definition of existing lawful water use, 33. Declaration of water use as existing lawful water use, 34. Authority to continue with existing lawful water use, 35. Verification of existing water uses, 37. Controlled activity, Part 7: Individual applications for licences, Part 8: Compulsory licences for water use in respect of specific resource, Part 10: Contravention of or failure to comply with authorisations, Part 2: Servitudes. Schedule 1: Permissible use of Water; National Water Act, 36 of 1998 - General Authorisations in terms of Section 39 of the National Water Act, 36 of 1998 (GN 398/2004); National Water Act, 36 of 1998- General Authorisation in terms of section 39 of the NWA for water uses as defined in section 21(c) or section 21(i); National Water Act 36 of 1998: Revision of General Authorisation For The Taking And Storing of Water (GN 538 of 2016): 4. Taking of water from a groundwater resource. National Water Act REG GN 201(2007); NEMAREG R386; Water Services Act, 108 of 1997: 7. Industrial use of water. S56, S57, S59, S78 Water Services Act, 10	Duration of project	Contractor				
24	Sewerage Management	Use of onsite toilet facilities / chemical portable toilets	Ground and groundwater pollution, human health risks	HIGH	To ensure that no ground or groundwater pollution occurs from site by the contamination of sewerage effluent.	0 Legal Contraventions	1. To ensure that sewerage leaks are monitored by regular inspections. 2. Chemical toilet facilities require the following documentation: a) The service provider subcontracted shall be licenced for the transportation of hazardous waste material b) To complete and update a waste disposal control register for all sewerage waste removed from site. c) To obtain documented proof of sewerage disposal at legal and licenced waste water treatment facilities from sub-contracted service provider. 3. To report sewerage disposal / collection figures to the grid Environmental Dept for the duration of the project.	National Environmental Management Act 107 of 1998, S2, S28, S35. Constitution of the Republic of South Africa, 1996: Section 24. Environment National Water Act, 36 of 1998: 4. Entitlement to water use, 19. Prevention and remedying effects of pollution, 20. Control of emergency incidents, 21. Water use (c&i), 22. Permissible water use, 32. Definition of existing lawful water use, 33. Declaration of water use as existing lawful water use, 34. Authority to continue with existing lawful water use, 35. Verification of existing water uses, 37. Controlled activity, Part 7: Individual applications for licences, Part 8: Compulsory licences for water use in respect of specific resource, Part 10: Contravention of or failure to comply with authorisations, Part 2: Servitudes. Schedule 1: Permissible use of Water; National Water Act, 36 of 1998 - General Authorisations in terms of Section 39 of the National Water Act, 36 of 1998 (GN 398/2004); National Water Act, 36 of 1998- General Authorisation in terms of section 39 of the NWA for water uses as defined in section 21(c) or section 21(i); National Water Act 36 of 1998: Revision of General Authorisation For The Taking And Storing of Water (GN 538 of 2016): 4. Taking of water from a groundwater resource. National Water Act REG GN 201(2007); NEMAREG R386; Water Services Act, 108 of 1997: 7. Industrial use of water. S56, S57, S59, S78 Water Services Act, 10	Duration of project	Contractor				
25	Fire Management	The use of tools that may cause a fire (e.g. grinders, blow torches, etc.)	Land degradation, injuries / fatalities of people, animals, damage to properties and Eskom assets	HIGH	To prevent any uncontrolled fire at all times	0 Legal contraventions, injuries, land claims and plant damage	1. No open fire are allowed on any grid site / servitude 2. Electric hand tools that have a risk causing fires, may only be used after a risk assessment. 3. No grinding, blow torches, etc. to be used on days with high fire danger indexes or strong winds. 4. No smoking in grid servitudes allowed 5. Contractor teams must have sufficient fire fighting equipment on site e.g. fire fighting extinguishers	National Veld And Forest Fire Act, 101 of 1998 : 3. Formation of fire protection associations, 5. Duties of fire protection association. 12. Duty to prepare and maintain firebreaks. 13. Requirements for firebreaks, 15. Exemption from duty to prepare and maintain firebreaks, 16. Exemption from prohibitions on damaging plants, 19. Agreements for mutual assistance, 24. Penalties, 25. Offences. National Veld And Forest Fire Act, 101 of 1998 - Fire Protection Association Regulations. Fire Brigade Services Act (Act 99 of 1987) - Section 3, 8, 12, 16, 17, 18, 21 Standard bylaws relating to the Fire Brigade Services Act (AN 1687): Section 6 - Obstruction and damage; Section 8 - Combustible material; Section 10 - Exits. Mangaung Fire-Fighting bylaw: Section 7 - combustible materials; Section 8 - Making fires; Section 10 - Accessibility of fire fighting equipment and fire fighting installations; Section 13 - upkeep and maintenance of fire-fighting equipment and fire fighting installations; Section 16 - Emergency Preparedness plans	Duration of project	Contractor				

NOTES	
<p>Compliance obligations: All relevant compliance obligations is important. The Aspect significance in terms of the project is indicated with (High, Medium, Low) depending on the relevance to the project scope of work. Applicable compliance obligations are highlighted in the corresponding column. The contractor to monitor EMP implementation in the last four columns. It is the responsibility of the contractor to source site / project specific Local Municipal by-laws.</p> <p>The Grid will also highlight which legislation and other requirements are critical to the project scope of work in the form of additional supporting method statements.</p>	<p>Existing site conditions: See Operational EMP for powerlines. All landowner negotiations to be confirmed for access and in writing before work commence. Department of Water Affairs provided exemption for Water Use Licence requirements in terms of existing land use. However the project needs to be managed according to the requirements as set out in the NWA Notice 509 of 2016.</p> <p>General Authorisation for water uses defined in section 21 (c) and (j). The SGR Environmental department shall conduct pre-, during and post construction audits to adhere to relevant legal requirements and the contractor shall ensure continues compliance audits for the duration of the project until completion and shall provide relevant environmental documents and records as and when required by the Southern Grid Environmental Department.</p> <p>Contract employees to take care on driving on access road to substation / lines that can be muddy after rains.</p> <p>Contract employees to include snakes and bees awareness for project duration in risk assessments.</p> <p>Contractors to bring/ provide own water for drinking to site.</p> <p>Boreholes on site not to be used for industrial purposes.</p> <p>Contractors to use site toilet facilities / provide their own chemical toilets on site. Have an oil spill clean-up kit and general and hazardous waste bins provided for waste storage.</p> <p>Care is to be taken while travelling to sites on the dirt roads. Beware snakes, scorpions, spiders, bees, wasps and ticks.</p> <p>Make sure to have all COVID-19 PPE, requirements in place and follow all protocols before going onto site.</p>

Transmission Project Manager		Grid Environmental Manager	ENVIRONMENTAL OFFICER
Name & Surname	Yoliswa Makale	Name & Surname	ASHLEIGH DU PREEZ
Signature		Signature	
Date		Date	29/11/2021

CONTRACTORS DETAILS

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
<p>* 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</p> <p>*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</p> <p>*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</p>