

River Rehabilitation - Construction Phase

POTENTIAL ENVIRONMENTAL IMPACT (NATURE OF THE IMPACT)	ENVIRONMENTAL SIGNIFICANCE BEFORE MITIGATION						SRK Methodology	No.	RECOMMENDED MITIGATION MEASURES			ENVIRONMENTAL SIGNIFICANCE AFTER MITIGATION								
	Consequence			Likelihood					Significance (Degree to which impact may cause irreplaceable loss of resources)	Management and mitigation measures	Timeframe	Responsibility	Consequence			Likelihood			Significance (Degree to which impact may cause irreplaceable loss of resources)	SRK Methodology
	Severity	Spatial	Duration	Frequency: Activity	Frequency: Impact	Severity							Spatial	Duration	Frequency: Activity	Frequency: Impact				
Surface water																				
Construction activities within the river and on the river banks will loosen sedimentary material resulting in an increase in the current sediment load.	2	2	2	3	3	36	ML Maintain Current Management	1	The construction footprint must be declared and no construction activities must extend past the demarkated construction zone.	On-going	ECO	2	1	2	1	2	15	L No Management Required		
								2	The amount of heavy machinery and equipment needed to work within the river course should be limited. Only the equipment that is absolutely necessary should be allowed in the river course.	On-going	ECO									
								3	Strict controls and environmental education should be employed for all the construction workers that are working within the water course.	Prior to the commencement of construction	ECO									
								4	Construction should preferably take place during the dry season.	March-August	Project management									
Spillages from the equipment that will be used during construction activities could result in pollution of the water by hydrocarbons.	3	2	1	3	2	30	ML Maintain Current Management	5	Plastic trays and liners must be used to prevent cement and spillages of other hazardous substances such as oil or diesel into the water body.	On-going	ECO	3	2	1	3	1	24	L No Management Required		
								6	No refueling of vehicles or machinery will be allowed on the construction site. All refueling will be done in the site camp or another designated area off site.	On - going	ECO									
Noise																				
Construction activities resulting in noise disturbance in the surrounding area	2	1	1	1	1	8	L No Management Required	7	Any potential noise disturbance will be temporary. No mitigation required	{-}	{-}	2	1	1	1	1	8	L No Management Required		
Waste management																				
Contamination of the area with general waste (litter, construction								8	Any waste produced during the construction should be removed as soon as possible and disposed of at a Municipal Landfill Site.	Weekly during construction	ECO									
								9	All construction materials should be stored in designated areas.	On-going	ECO									
								10	No dumping of excess construction materials will be allowed in the bush surrounding the construction site.	On-going	ECO									

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<p>General waste (litter, construction material etc.) and hazardous waste (Oils, hydrocarbon etc.) produced during the construction phase may have negative impacts on the surrounding environment.</p>	4	2	2	3	3	48	<p>MH Maintain Current Management</p>	11	No waste is to be buried or burned on site.	On-going	ECO	4	2	2	2	1	24	<p>L No Management Required</p>	
	12	Chemical toilets are to be maintained in a clean state on a regular basis and must be moved to ensure that they adequately service the work areas. The contractor is to ensure that the surrounding bush is not being used as an ablution facility.	On-going	Contractor/ECO															
	13	Appropriate disposal facilities, such as litter bins, must be provided within the construction camp.	On-going	ECO															
Heritage																			
<p>Impact on unidentified heritage artefacts.</p>	3	1	1	2	2	20	<p>L No Management Required</p>	14	<p>If any artefacts of archaeological or cultural interest are found, including graves, then the area will be marked and all activities in that vicinity will cease with immediate effect. SAHRA and the North West Provincial Heritage Resources Authority (NWPHRA)/the Provincial Heritage Resources Authority - Gauteng (PHRA-G) will be notified of the finding and operations at that specific site will only continue after the relevant NWPHRA has granted permission to do so.</p>	On-going	ECO	3	1	1	2	2	20	<p>L No Management Required</p>	
Soil and Land Use																			
<p>Indirect Impact: Disturbance of vegetation on the river banks due to the construction activities may lead to further erosion of the river banks.</p>	3	2	2	2	2	28	<p>ML Maintain Current Management</p>	15	No parking of vehicles or equipment should take place off the access road or designated parking areas.	On-going	ECO	3	1	2	2	1	18	<p>L No Management Required</p>	
								16	All work must take place within the construction footprint area and the construction area must be rehabilitated once the construction process has been completed.	After construction	ECO								
Biodiversity																			
<p>Construction activities could result in the disturbance of the vegetation specifically on the banks of the water course.</p>	3	2	1	2	3	30	<p>ML Maintain Current Management</p>	17	No vehicles or plant should be parked within the river course when not actively working on the construction.	On-going	ECO	3	2	1	2	2	24	<p>L No Management Required</p>	
								18	The protection of threatened or protected species (TOPS) must be carried out in accordance to NEMBA (Act 10 of 2004) Chapter 4, Part 2. This will include any amendments or changes to regulations and guidelines pertaining to the protection of TOPS.	On-going	ECO								

