

River Rehabilitation - Operational Phase

POTENTIAL ENVIRONMENTAL IMPACT (NATURE OF THE IMPACT)	ENVIRONMENTAL SIGNIFICANCE BEFORE MITIGATION							RECOMMENDED MITIGATION MEASURES			ENVIRONMENTAL SIGNIFICANCE AFTER MITIGATION						
	Consequence			Likelihood (Probability)		Significance (Degree to which impact may cause irreplaceable loss of resources)	SRK Methodology	Management and mitigation measures	Timeframe	Responsibility	Consequence			Likelihood (Probability)		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																	
Sediment may build up behind the new structures.	3	1	2	2	2	24	L No Management Required	The design of the structure makes provision for limiting sediment build up.	Prior to construction	Contractor	3	1	1	1	1	10	L No Management Required
								The bridge must be maintained regularly.	Annually	ECO							
Spillages from the plant and 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	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
								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							
								No large scale mixing of cement will take place on site. Where possible Ready Mix cement should be used for the cast <i>in-situ</i> structures. Any mixing of cement must take place on top of an impermeable surface.	When applicable	ECO							
Waste management																	
Contamination of the area with general waste (litter, construction material etc.) and hazardous waste (Oils, hydrocarbon etc.) produced during maintenance activities may have negative impacts on the surrounding environment.	3	2	1	2	1	18	L No Management Required	Portable toilet facilities must be provided for maintenance workers and serviced and maintained as and when necessary by a registered waste disposal company.	When applicable during maintenance	ECO	3	2	1	1	1	12	L No Management Required
								All waste produced during maintenance should be removed as soon as possible and disposed of at a Municipal Landfill Site.	Upon completion of site maintenance	ECO							
								No dumping of waste and excess construction materials generated during maintenance will be allowed in the bush surrounding the maintenance site.	During maintenance	ECO							
								No waste is to be buried or burned on site.	On-going	ECO							
								Appropriate disposal facilities, such as litter bins, must be provided during maintenance activities.	During Maintenance	ECO							
Soil and Land Use																	
Indirect Impact: Disturbance of vegetation on the river banks due to the maintenance activities may lead to erosion of the river banks.	3	2	2	1	2	21	L No Management Required	No parking of vehicles or equipment should take place off the access road or designated parking areas.	On-going	ECO	3	2	2	1	1	14	L No Management Required
								All work must take place within the maintenance footprint area must be rehabilitated once the maintenance has been completed.	Upon completion of site maintenance	ECO							
Biodiversity																	
Disturbance of fauna during site maintenance activities	3	1	2	1	1	12	L No Management Required	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.	During Maintenance	ECO	3	1	2	1	1	12	L No Management Required
								No trapping or hunting of fauna should be allowed on site during any phase of the project.	On-going	ECO							
The disturbance of the area surrounding the upgraded river crossing could lead to the spread of invasive alien vegetation. Particularly after flood events.	3	3	3	3	2	45	MH Maintain Current Management	No vegetation is to be removed outside of the demarcated zones. This will prevent disturbance of natural vegetation and the establishment of alien and invader vegetation species specified by GNR 507 and 508 or any amendments to the legislation.	During sitemaintenance	ECO	3	3	3	3	1	36	ML Maintain Current Management
								An alien eradication and management program must be developed. Eradication and monitoring must be undertaken at the start of the wet season (August) and the end of the wet season (May) as well as after major flooding events (when the 1:100 flood level is reached).	Prior to the completion of construction	ECO							