

PROJECT: ACE Cable Installation, Van Riebeeckstrand – Alternative A

RISK MATRIX (Based on DWS 2015 publication: Section 21 c and I water use Risk Assessment Protocol)

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Risk to be scored for construction and operational phases of the project. MUST BE COMPLETED BY SACNASP PROFESSIONAL MEMBER REGISTERED IN AN APPROPRIATE FIELD OF EXPERTISE.

No.	Phases	Activity	Aspect	Impact	Severity				Severity	Spatial scale	Duration	Consequence	Frequency of activity	Frequency of impact	Legal issues	Detection	Likelihood	Significance	Risk Rating	Confidence level	Control Measures	Borderline LOW MODERATE Rating Classes	PES AND EIS OF WATERCOURSE
					Flow Regime	Physico & Chemical (Water Quality)	Habitat (Geomorph + Vegetation)	Biota															
1	Construction*	Establishment of ACE cable system*	Construction of Cable Landing Station (CLS)	Direct loss of artificial wetland (or portions of the wetland) at CLS site	2	2	2	1	1,75	1	4	6,75	1	4	1	1	7	47,25	L	80%		Artificial wetland: very low conservation importance	
			Excavation of trenches and burying of cables	Loss of vegetation and its associated habitat within dune slack wetland and surrounding buffer	0	0	1	0	0,25	1	1	2,25	1	3	5	2	11	24,75	L	80%	- Route cable along existing pathways through dune slack wetland - Rehabilitate areas of intact natural vegetation that are disturbed within or adjacent to dune slack wetland	Dune slack wetland: Ecological Category E (seriously modified PES); moderate conservation importance	
				Sedimentation of wetland areas from sand stockpiles and/or dewatering of trenches	1	2	2	1	1,5	1	1	3,5	1	3	5	2	11	38,5	L	80%	- Locate site office and construction camp, and all temporary toilets and solid waste disposal facilities at least 20 m from the edge of the dune slack wetland - Treat the dune slack wetland as a "no-go area" when construction work is carried out and demarcate it as such		
				Use of equipment and machinery for construction work	Physical destruction or damage of wetland areas through construction-related activities	0	0	2	1	0,75	1	1	2,75	1	2	5	1	9	24,75	L	80%		- Do not allow any machinery or vehicles with fuel or oil leaks to enter within 10m of the edge of the dune slack wetland - Do not allow fuel storage, refuelling, vehicle maintenance or vehicle depots within 20m of the edge of the dune slack wetland
					Pollution of wetlands, soils and underlying sub-surface water through runoff/infiltration of contaminants	0	3	0	1	1	1	3	1	2	5	3	11	33	L	80%	- Place refuelling and fuel storage areas on impervious bases with bunds around them (sized to contain 110% of the tank capacity)		
		Increased disturbance to aquatic and semi-aquatic fauna	0	0	0	2	0,5	2	1	3,5	1	3	1	3	8	28	L	80%	- Do not allow washing of vehicles or machinery within 20m of edge of dune slack wetland - Do not allow discharge of effluents or polluted water, including sediment-laden water from the dewatering of trenches (if carried out), to enter into the dune slack wetland - No spoil material, including excavated soil, should				
2	Operational	Disturbance of vegetation and soil through earth-moving and excavation activities	Introduction and spreading of invasive and/or alien plants in wetlands and adjacent buffer areas	Increased encroachment of invasive and/or alien plants into wetlands and adjacent buffer areas	0	0	2	1	0,75	2	5,75	1	3	1	2	7	40,25	L	80%	- Ensure that the disturbed areas are properly rehabilitated once the cable has been laid through the dune slack wetland, under the guidance and supervision of an adequately experienced botanical specialist - Implement a thorough follow-up invasive vegetation management programme for at least six months after the rehabilitation work has been completed	Dune slack wetland: Ecological Category E (seriously modified PES); moderate conservation importance		

* Impacts for the decommissioning of the ACE Cable System would be the same as those associated with the construction phase