

DWS RISK ASSESSMENT MATRIX APPLIED TO THE PROPOSED DEVELOPMENT OF THE HAMMERSDALE INDUSTRIAL ESTATE ON PORTION 4 OF THE FARM LOT A, STERK SPRUIT NO. 2627 KWAZULU NATAL.

19/02/2018

Phases	Activity	Aspect	Impact	Flow Regime	Severity			Severity	Spatial scale	Duration	Consequence	Frequency of activity	Frequency of impact	Legal Issues	Detection	Likelihood	Significance	Risk Rating	Control Measures	Borderline LOW MODERATE Rating Classes	Type Watercourse	Confidence
					Physico & Chemical (Water Quality)	Habitat (Geomorph + Vegetation)	Biota															
Construction	Upgrade of an access road and construction of a portion of platform within the buffer zone of the Sterkspruit River	Edge effects such as the indiscriminate movement of construction vehicles and personnel as well as the dumping of spoil material.	Disturbance of riparian habitat, compaction of soils, proliferation of alien and invasive vegetation.	1	1	2	1	1.25	1	2	4.25	1	3	5	1	10	42.5	L	Mitigation measures as listed within the freshwater assessment report (EnviroSwift KZN, 2018).	N/A	Sterkspruit River and associated riparian areas (PES Category C, High EIS).	80%
Construction	Construction of 32 platforms and associated infrastructure.	Clearing of vegetation, disturbance of soils and compaction of soils.	Increase in sediment laden stormwater runoff resulting in the sedimentation and erosion of the Sterkspruit River and associated riparian habitat as well as the channelled valley bottom wetland.	1	1	2	1	1.25	1	2	4.25	1	2	5	2	10	42.5	L	Mitigation measures as listed within the freshwater assessment report (EnviroSwift KZN, 2018).	N/A	Sterkspruit River and associated riparian areas (PES Category C, High EIS). Channelled valley bottom wetland (PES Category D, Moderate EIS)	80%
Construction	Construction of 32 platforms and associated infrastructure.	Spillages of cement and hydrocarbons (e.g. oil and fuel from vehicles) may enter into the Sterkspruit River and the channelled valley bottom wetland with stormwater runoff.	Water quality impairment within the Sterkspruit River and the channelled valley bottom wetland.	1	2	1	1	1.25	1	2	4.25	1	2	5	3	11	46.75	L	Mitigation measures as listed within the freshwater assessment report (EnviroSwift KZN, 2018).	N/A	Sterkspruit River and associated riparian areas (PES Category C, High EIS). Channelled valley bottom wetland (PES Category D, Moderate EIS)	80%
Operation	Construction of 32 platforms and associated infrastructure during the construction phase will result in operational phase impacts	Increase in hardened surfaces and in associated stormwater runoff.	Erosion and sedimentation of Sterkspruit River and associated riparian areas as well as the channelled valley bottom wetland.	1	1	1	1	1	1	1	3	1	2	5	2	10	30	L	Mitigation measures as listed within the freshwater assessment report (EnviroSwift KZN, 2018).	N/A	Sterkspruit River and associated riparian areas (PES Category C, High EIS). Channelled valley bottom wetland (PES Category D, Moderate EIS)	80%
Operation	Light industrial activities	Increase in contaminated stormwater runoff from hardened surfaces associated with the development.	Water quality impairment within the Sterkspruit River and the channelled valley bottom wetland.	1	1	1	1	1	1	1	3	5	2	5	3	15	45	L	Mitigation measures as listed within the freshwater assessment report (EnviroSwift KZN, 2018).	N/A	Sterkspruit River and associated riparian areas (PES Category C, High EIS). Channelled valley bottom wetland (PES Category D, Moderate EIS)	60%