

PROJECT: Erf 878 Riebeek Kasteel

RISK ASSESSMENT MATRIX for Section 21 (c) and (i) Water Use activities - Version 2.1.1

Name of Assessor: Kimberley van Zyl
 SACNASP Registration Number: Pr. Nat. Sci. Reg. No.117097 (Ecological Science)
 Date of assessment: 4-Dec-25

Signature: 

Risk to be scored for all relevant phases of the project (factoring in specified control measures). MUST BE COMPLETED BY SACNASP PROFESSIONAL MEMBER REGISTERED IN AN APPROPRIATE FIELD OF EXPERTISE.

Phase	Activity	Impact	Potentially affected watercourses			Intensity of Impact on Resource Quality					Overall Intensity (max = 10)	Spatial scale (max = 5)	Duration (max = 5)	Severity (max = 20)	Importance rating (max = 5)	Consequence (max = 100)	Likelihood (Probability) of impact	Significance (max = 100)	Risk Rating	Confidence level
			Name/s	PES	Overall Watercourse Importance	Abiotic Habitat (Drivers)			Biota (Responses)											
						Hydrology	Water Quality	Geomorph	Vegetation	Fauna										
CONSTRUCTION & OPERATION	Loss and Disturbance of Wetland and Riparian Habitat: Approximately 100 m ² (0.01 ha) of the degraded portion of Seep Wetland 1 will be permanently lost due to the placement of infrastructure. In addition, construction activities may cause temporary habitat disturbance to the remaining portions of Seep Wetland 1, Seep Wetland 2, and the Krom River corridor, including trampling, edge disturbance, vegetation damage, and soil compaction within and adjacent to these features. Routine operational activities - including landscaping, pedestrian movement, maintenance of services, and informal access - may result in ongoing edge disturbance to wetland and riparian habitats within Seep Wetland 1, Seep Wetland 2, and the Krom River corridor. Alteration of Flow Regimes: Construction activities may temporarily alter the flow regime of remnant wetland and seep features, including short-term disruption of shallow subsurface flows and surface-water drainage patterns. The completed Eco-Lifestyle Estate may modify stormwater volumes and runoff pathways, potentially leading to localised erosion, sedimentation, or minor flow diversion within remnant watercourses. Water Quality Impairment from Sedimentation: Earthworks and soil disturbance may increase erosion and sediment mobilisation, resulting in sediment-laden runoff entering remnant watercourses if not adequately controlled. Water Quality Impairment from Pollutants: Accidental spills of hydrocarbons, cement wash water, or other construction-related contaminants, as well as contaminated stormwater runoff, may impair water quality in adjacent freshwater features. Stormwater discharged from developed areas may contain hydrocarbons or other pollutants. Without adequate stormwater management, this may impact the remaining seep systems and downstream drainage features	<1a>Watercourse Loss	Seep 1	E	Moderate	0	0	0	2	1	4	1	4	9	3	27	100%	27	L	High
		<1a>Watercourse Habitat disturbance	Seep 1	E	Moderate	0	0	0	1	1	2	4	4	10	3	30	60%	18	L	High
		<1a>Watercourse Habitat disturbance	Seep 2	E	Moderate	0	0	0	1	1	2	4	4	10	3	30	60%	18	L	High
		<1a>Watercourse Habitat disturbance	Krom River	E	Low / Very low	0	0	0	1	1	2	4	4	10	2	20	60%	12	L	High
		<1b>Alteration of flow	Seep 1	E	Moderate	1	0	0	0	0	2	4	4	10	3	30	60%	18	L	High
		<1b>Alteration of flow	Seep 2	E	Moderate	1	0	0	0	0	2	4	4	10	3	30	60%	18	L	High
		<1b>Alteration of flow	Krom River	E	Low / Very low	1	0	0	0	0	2	4	4	10	2	20	60%	12	L	High
		<1c>Increased Sedimentation and erosion	Seep 1	E	Moderate	0	1	1	0	0	2	4	4	10	3	30	60%	18	L	High
		<1c>Increased Sedimentation and erosion	Seep 2	E	Moderate	0	1	1	0	0	2	4	4	10	3	30	60%	18	L	High
		<1c>Increased Sedimentation and erosion	Krom River	E	Low / Very low	0	1	1	0	0	2	4	4	10	2	20	60%	12	L	High
		<1d>Water quality impairment	Seep 1	E	Moderate	0	1	0	0	0	2	4	4	10	3	30	60%	18	L	High
		<1d>Water quality impairment	Seep 2	E	Moderate	0	1	0	0	0	2	4	4	10	3	30	60%	18	L	High
		<1d>Water quality impairment	Krom River	E	Low / Very low	0	1	0	0	0	2	4	4	10	2	20	60%	12	L	High