



ASSESSMENT OF POTENTIAL IMPACTS

PROJECT NAME: Fairbreeze Mine Extension into Heleza Moya Farm

PROJECT NUMBER: 41104206

DMRE REF: KZN30/5/1/2/2/123MR

IMPACT ASSESSMENT SUMMARY TABLES

ACTIVITY	POTENTIAL IMPACT	Magnitude	Duration	Scale	Probability	Significance	Significance without Mitigation	Magnitude	Duration	Scale	Probability	Significance	Significance with Mitigation
Construction Phase													
Heritage and Palaeontology													
Excavations	Unearthing of graves	4	2	1	2	14	Low	2	2	1	2	10	Low
Air Quality													
Site establishment, bulk earthworks, development, relocation of required service infrastructure on the site	Generation of dust, PM ₁₀ and PM _{2.5} on sensitive receptors	6	2	2	3	30	Moderate	4	2	1	2	14	Low
Noise													
Site clearance	Noise increase at the boundary of the mine footprint and at the abutting residential areas	2	3	1	1	6	Low	2	3	1	0	0	Low
Civil construction and construction activities at the footprint	Noise increase at the boundary of the mine footprint	2	3	1	1	6	Low	2	3	1	0	0	Low
Assembly of conveyor sections and the belt	Noise increase at the boundary of the mine footprint	2	3	1	1	6	Low	2	3	1	0	0	Low
Constructions of the haul road	Noise increase at the boundary of the mine footprint	2	3	1	1	6	Low	2	3	1	0	0	Low
Social													
Continuation of the Fairbreeze Mine	Continued economic revenue	2	3	3	3	24	Low	4	4	4	4	48	Moderate
Continuation of the Fairbreeze Mine	Extension of training programs	4	3	4	4	44	Moderate	4	4	4	4	48	Moderate
Continuation of the Fairbreeze Mine	Extension to the employment of staff at the mine	4	3	4	4	44	Moderate	4	4	4	4	48	Moderate
Vegetation clearing and bulk earth works	Loss and disturbance of fauna habitat	3	1	4	4	32	Moderate	2	1	1	2	8	Low
Vegetation clearing and bulk earth works	Injury, mortality and disturbance of fauna	3	1	4	4	32	Moderate	2	1	1	2	8	Low
Vegetation clearing and bulk earth works	Establishment and spread of alien invasive species resulting in degradation of fauna habitat.	4	2	4	4	40	Moderate	2	1	2	2	10	Low
Terrestrial Flora													
Vegetation clearing and earth works	Loss and Disturbance of Flora Habitat	5	2	5	5	60	Moderate	4	1	4	4	36	Moderate
Habitat fragmentation and soil compaction	Disruption of Ecosystem Processes due to Project Infrastructure	3	2	4	3	27	Low	2	2	2	2	12	Low
Vegetation clearing and earth works	Establishment and Spread of Alien Invasive Species	5	2	4	4	44	Moderate	2	1	2	2	10	Low
Vegetation clearing and earth works	Loss of Flora Species of Conservation Concern	5	2	5	4	48	Moderate	3	1	4	3	24	Low
Surface water													
Clearing of vegetation for construction	Erosion and sedimentation due to clearing of vegetation and construction activities	6	2	3	4	44	Moderate	3	2	2	4	28	Low
Visual													
Earthworks and site establishment	Visibility and visual exposure	1	1	1	1	3	Low	1	1	1	1	3	Low
Operational Phase													
Air Quality													
Mining, progressive backfilling and rehabilitation and ongoing support activities	Generation of dust, PM ₁₀ and PM _{2.5} on sensitive receptors	4	4	1	2	18	Low	2	4	1	1	7	Low
Terrestrial Fauna													
<div><div></div> Vehicle collisions along access roads during day-to-day maintenance activities.</div> <div><div></div> Increased hunting and snaring as a result of improved accessibility associated with the proposed access road network</div>	Injury, mortality disturbance of fauna	5	2	5	3	36	Moderate	3	1	2	2	12	Low
<div><div></div> Vehicle collisions along access roads during day-to-day maintenance activities.</div> <div><div></div> Increased hunting and snaring as a result of improved accessibility associated with the proposed access road network.</div>	Establishment and spread of alien invasive species	4	2	4	3	30	Moderate	2	1	2	2	10	Low
Terrestrial Flora													
Operational earthworks and soil management activities, resulting in disturbance of terrestrial ecosystems and species	Establishment and spread of alien invasive species	4	2	4	3	30	Moderate	2	1	2	2	10	Low
Social													
Skills development program	Skill transfer and development	2	3	3	3	24	Low	4	4	4	4	48	Moderate
Continuation of the Fairbreeze Mine	Impacts of dust and noise	2	3	3	2	16	Low	2	1	1	2	8	Low
Surface Water													
Change of flow regime in Amanzimnyama and Siyaya Rivers	Reduction in baseflows impacting on water users and ecology	1	2	2	5	25	Low	1	2	2	5	25	Low



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Impact on water quality of streams draining and flowing adjacent to the mine	Deterioration of water quality in receiving streams due to mining activities.	1	2	2	4	20	Low	1	2	2	4	20	Low
Decommissioning and Closure Phase													
Terrestrial Flora													
dismantling and clearing away of infrastructure	Establishment and spread of alien invasive species	4	2	4	4	40	Moderate	2	1	2	2	10	Low
Surface Water													
Change in flow regime in Amanzimnyama and Siyaya	Reduced flow impacting the water users and ecology. Potentially impacting the Siyaya Estuary	1	5	3	4	36	Moderate	1	5	3	3	27	Low