

Impact	Phase	Pre-Mitigation						Post Mitigation						Priority Factor Criteria						
		Nature	Extent	Duration	Magnitude	Reversibility	Probability	Pre-mitigation ER	Nature	Extent	Duration	Magnitude	Reversibility	Probability	Post-mitigation ER	Confidence	Cumulative Impact	Irreplaceable loss	Priority Factor	Final score
Impacts on Visual Environment and Sense of Place	Construction	-1	3	2	2	2	3	-6.75	-1	3	2	3	2	3	-7.5	Medium	1	1	1.00	-7.5
Impacts on Visual Environment and Sense of Place	Operation	-1	4	4	3	4	4	-15	-1	4	4	3	4	4	-15	High	2	1	1.13	-16.875
Impacts on Visual Environment and Sense of Place	Rehab and closure	-1	4	2	2	3	3	-8.25	-1	3	2	2	3	2	-5	Medium	2	1	1.13	-5.625
Increase in air quality impacts due to construction of the TSF	Construction	-1	3	2	3	2	4	-10	-1	2	2	3	2	3	-6.75	Medium	1	1	1.00	-6.75
Increase in air quality impacts due to the operation of Valley TSF	Operation	-1	3	4	4	4	3	-11.25	-1	3	4	2	3	3	-9	Medium	1	1	1.00	-9
Increase in air quality impacts due to decommissioning and closure	Rehab and closure	-1	3	2	3	2	4	-10	-1	2	2	3	2	3	-6.75	Medium	1	1	1.00	-6.75
Climate Change Impacts	Operation	-1	5	4	2	3	2	-7	-1	5	4	1	3	2	-6.5	Medium	2	1	1	0
Disturbance / destruction of sites of heritage significance	Construction	-1	2	4	3	5	3	-10.5	-1	1	5	1	2	1	-2.25	Medium	1	1	1.00	-2.25
Disturbance / destruction of palaeontological resources	Construction	-1	1	5	4	5	4	-15	1	1	5	2	5	2	6.5	Medium	1	1	1.00	6.5
Impact on livelihoods	Construction	-1	3	4	5	4	5	-20	-1	2	2	4	3	4	-11	High	3	3	1.50	-16.5
Impact on livelihoods	Operation	-1	3	4	5	3	5	-18.75	-1	3	4	4	4	4	-15	High	3	3	1.50	-22.5
Impact of community expectations and social licence to operate	Construction	-1	4	4	4	3	5	-18.75	-1	3	3	3	3	4	-12	High	3	2	1.38	-16.5
Impact of community expectations and social licence to operate	Operation	-1	3	4	4	3	4	-14	-1	2	2	3	3	4	-10	High	2	2	1.25	-12.5
Impact on health and wellbeing	Construction	-1	2	2	3	3	5	-12.5	-1	2	2	3	3	4	-10	High	2	1	1.13	-11.25
Impact on health and wellbeing	Operation	-1	2	3	5	4	5	-17.5	-1	2	2	3	3	4	-10	High	2	1	1.13	-11.25
Impact on health and wellbeing	Decommissioning	-1	2	3	5	3	5	-16.25	-1	2	2	4	3	4	-11	High	2	1	1.13	-12.375
Economic impacts from social perspective	Construction	1	3	2	4	2	4	11	1	3	3	4	2	4	12	High	2	1	1.13	13.5
Economic impacts from social perspective	Operation	1	3	3	4	2	4	12	1	2	2	3	2	3	6.75	High	3	3	1.50	10.125
Increase in social pathologies	Construction	-1	3	2	4	3	4	-12	-1	3	3	4	3	4	-13	High	2	1	1.13	-14.625
Noise impacts	Construction	-1	1	1	2	1	2	-2.5	-1	1	1	1	1	2	-2	Medium	1	1	1.00	-2
Noise impacts	Operation	-1	1	1	2	1	2	-2.5	-1	1	1	1	1	2	-2	Medium	1	1	1.00	-2
Noise impacts	Decommissioning	-1	1	1	2	1	2	-2.5	-1	1	1	1	1	2	-2	Medium	1	1	1.00	-2
Noise impacts	Rehab and closure	-1	1	1	2	1	2	-2.5	-1	1	1	1	1	2	-2	Medium	1	1	1.00	-2
Exhalation and dispersion of radon gas to the atmosphere during the operational phase of the Projects	Operation	-1	2	5	1	3	2	-5.5	-1	2	5	1	3	1	-2.75	Medium	1	1	1.00	-2.75
Emission and dispersion of particulate matter that contains radionuclides to the atmosphere during the operational phase	Operation	-1	2	5	1	2	2	-5	-1	2	5	1	2	1	-2.5	Medium	1	1	1.00	-2.5
Implementation of the NNR-approved decommissioning plan	Rehab and closure	1	2	5	4	5	4	16	1	2	5	4	5	4	16	Medium	1	1	1.00	16
Reclamation of exsiting Harmony TSFs	Operation	1	4	5	5	5	4	19	1	4	5	5	5	5	23.75	Medium	3	1	1	0
Exhalation, emission and dispersion of radon gas and particulate matter that contains radionuclides during the post-closure phase	Rehab and closure	-1	2	5	1	2	2	-5	-1	2	5	1	2	1	-2.5	Medium	1	1	1.00	-2.5
Leaching and migration of radionuclides from the TSF during the post-closure phase	Rehab and closure	-1	3	5	1	3	2	-6	-1	3	5	1	3	2	-6	Medium	1	1	1.00	-6
Destruction, further loss and fragmentation of the habitats, ecosystems and vegetation community.	Construction	-1	3	5	4	3	4	-15	-1	3	3	3	3	3	-9	Medium	2	2	1.25	-11.25
Introduction of alien and invasive species, especially plants.	Construction	-1	3	4	3	3	3	-9.75	-1	2	3	3	2	2	-5	Medium	2	2	1.25	-6.25
Displacement of the indigenous faunal community (incl bird and bats) due to habitat loss, direct mortalities, and disturbance (road collisions, noise, dust, light, vibration, and poaching).	Construction	-1	3	5	5	4	5	-21.25	-1	3	5	4	3	5	-18.75	Medium	2	3	1.38	-25.78125
Potential leaks, discharges, pollutant from machinery and storage leaching into the surrounding environment.	Construction	-1	3	3	3	3	3	-9	-1	3	3	1	3	2	-5	Medium	2	2	1.25	-6.25
Continued encroachment of an indigenous vegetation community by alien invasive plant species as well as erosion due to disturbed soils	Operation	-1	3	4	3	3	3	-9.75	-1	2	3	3	3	2	-5.5	Medium	2	2	1.25	-6.875
Continued displacement and fragmentation of the faunal community (including threatened or protected species) due to ongoing anthropogenic disturbances (noise, dust and vibrations) and habitat degradation/loss (litter, road mortalities and/or poaching).	Operation	-1	3	5	4	3	4	-15	-1	3	5	4	2	4	-14	Medium	2	3	1.38	-19.25
Potential leaks, discharges, pollutant from the TSF spreading into the surrounding environment.	Operation	-1	2	3	4	2	4	-11	-1	2	3	3	2	4	-10	Medium	2	2	1.25	-12.5
Loss of land capability, Soil compaction, Soil erosion, Land degradation, Nutrient and water storage	Planning	-1	3	3	4	4	3	-10.5	-1	1	1	1	1	1	-1	Low	1	1	1.00	-1
Loss of land capability, Soil compaction, Soil erosion, Land degradation, Nutrient and water storage	Construction	-1	3	4	4	3	4	-14	-1	2	3	3	3	3	-8.25	High	2	3	1.38	-11.34375
Loss of land capability, Soil compaction, Soil erosion, Land degradation, Nutrient and water storage	Operation	-1	3	3	3	3	3	-9	-1	2	3	2	3	2	-5	Medium	2	3	1.38	-6.875
Loss of land capability, Soil compaction, Soil erosion, Land degradation, Nutrient and water storage	Decommissioning	-1	2	2	2	3	3	-6.75	-1	2	2	1	3	2	-4	Low	2	2	1.25	-5
Loss of land capability, Soil compaction, Soil erosion, Land degradation, Nutrient and water storage	Rehab and closure	-1	2	2	2	2	2	-4	-1	2	2	1	2	1	-1.75	Low	1	2	1.13	-1.96875
Direct loss, disturbance and degradation of wetlands.	Construction	-1	2	1	5	3	4	-11	-1	2	1	4	3	3	-7.5	High	2	2	1.25	-9.375
Increased bare surfaces, runoff and potential for erosion	Construction	-1	2	1	3	3	3	-6.75	-1	2	1	2	3	3	-6	High	2	2	1.25	-7.5
Degradation of wetland vegetation and the introduction and spread of alien and invasive vegetation	Construction	-1	2	1	4	3	4	-10	-1	2	1	3	3	3	-6.75	High	2	2	1.25	-8.4375
Increased sediment loads to downstream reaches	Construction	-1	2	1	3	3	3	-6.75	-1	2	1	2	3	3	-6	High	2	2	1.25	-7.5
Contamination of wetlands with hydrocarbons due to machinery leaks and eutrophication of wetland systems with human sewerage and other waste.	Construction	-1	2	1	3	3	2	-4.5	-1	2	1	2	3	2	-4	High	2	2	1.25	-5
Disruption of wetland soil profile and alteration of hydrological regime	Construction	-1	2	1	3	3	3	-6.75	-1	2	1	2	3	3	-6	High	2	2	1.25	-7.5
Siltation of water resources	Operation	-1	2	4	2	3	3	-8.25	-1	2	4	2	3	3	-8.25	High	2	2	1.25	-10.3125
Altering surface and subsurface flow patterns	Operation	-1	2	1	4	3	4	-10	-1	2	3	3	2	4	-10	High	2	2	1.25	-12.5

Impaired water quality from residual tailings materials entering the system	Operation	-1	2	1	4	3	4	-10	-1	2	3	3	2	4	-10		2	2	1.25	-12.5
Altering surface and subsurface flow patterns	Decommissioning	-1	2	1	4	3	4	-10	-1	2	3	3	2	4	-10		2	2	1.25	-12.5
Degradation of wetland vegetation and proliferation of alien and invasive species	Decommissioning	-1	2	1	4	3	4	-10	-1	2	1	3	3	3	-6.75	High	2	2	1.25	-8.4375
Disruption of wetland soil profile, hydrological regime and increased sediment loads	Decommissioning	-1	2	1	3	3	3	-6.75	-1	2	1	2	3	3	-6	High	2	2	1.25	-7.5
Groundwater contamination	Operation	-1	3	3	3	3	4	-12	-1	2	2	3	3	4	-10	Medium	2	2	1.25	-12.5
Cumulative groundwater contamination	Operation	-1	3	4	3	3	4	-13	-1	2	3	3	3	4	-11	Medium	2	2	1.25	-13.75
Groundwater contamination	Decommissioning	-1	3	3	3	3	4	-12	-1	2	2	2	3	3	-6.75	Medium	2	2	1.25	-8.4375
Cumulative groundwater contamination	Decommissioning	-1	3	4	3	3	4	-13	-1	2	2	2	3	3	-6.75	Medium	2	2	1.25	-8.4375
Soil Erosion	Construction	-1	4	4	3	3	4	-14	-1	1	2	2	2	3	-5.25	Medium	2	1	1.13	-5.90625
Soil Erosion	Operation	-1	3	4	2	2	4	-11	-1	1	2	2	2	3	-5.25	Medium	2	2	1.25	-6.5625
Pollutants Entering the Surface Water Environment	Construction	-1	4	2	3	5	4	-14	-1	3	2	1	3	2	-4.5	Medium	2	1	1.13	-5.0625
Pollutants Entering the Surface Water Environment	Operation	-1	5	4	5	5	3	-14.25	-1	5	2	5	5	2	-8.5	Medium	2	3	1.38	-11.6875
Decrease in Runoff	Construction, operation, decommissioning	-1	4	4	2	5	5	-18.75	-1	4	4	2	5	5	-18.75	Medium	2	1	1.13	-21.09375
Decrease in Runoff	Rehab and closure	-1	4	4	2	5	5	-18.75	-1	1	1	1	1	5	-5	Medium	2	1	1.13	-5.625
Flood Risk	All phases	-1	4	1	5	5	1	-3.75	-1	4	1	5	5	1	-3.75	Medium	1	3	1.25	-4.6875