

Impact	Phase	Pre-Mitigation						Post Mitigation						Criteria				Final score		
		Nature	Extent	Duration	Magnitude	Reversibility	Probability	mitigation ER	Nature	Extent	Duration	Magnitude	Reversibility	Probability	mitigation ER	Post- mitigation ER	Confidence	Cumulative Impact	Irreplaceable loss	Priority Factor
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	4	2	3	3	-9	-1	2	3	1	3	2	-4.5	Medium	1	1	1.00	-4.5
Introduction of alien and invasive species, especially plants;	Construction	-1	3	4	3	2	3	-9	-1	2	3	3	2	2	-5	Medium	1	1	1.00	-5
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	4	3	3	3	-9.75	-1	2	3	2	3	2	-5	Medium	1	1	1.00	-5
Continued fragmentation and degradation of habitats and ecosystems	Operation	-1	2	3	2	3	2	-5	-1	1	2	1	3	2	-3.5	Medium	1	1	1.00	-3.5
Spread of alien and/or invasive species	Operation	-1	3	3	3	2	2	-5.5	-1	2	2	2	1	1	-1.75	Medium	1	1	1.00	-1.75
Ongoing displacement and direct mortalities of the faunal community due to continued disturbance (road collisions, noise, light, dust, vibration, poaching, erosion, etc.).	Operation	-1	3	4	3	3	2	-6.5	-1	2	3	2	2	1	-2.25	Medium	1	1	1.00	-2.25
Loss of land capability	Planning	-1	1	1	1	2	1	-1.25	-1	1	1	1	1	1	-1	Low	1	1	1.00	-1
Soil compaction	Construction	-1	3	3	3	3	3	-9	-1	2	2	2	3	3	-6.75	Medium	2	3	1.38	-9.28125
Soil erosion (overland flows), Land degradation	Operation	-1	3	3	3	3	3	-9	-1	2	3	2	3	3	-7.5	Medium	2	3	1.38	-10.3125
Soil erosion, Land degradation	Decommissioning	-1	2	2	2	3	3	-6.75	-1	2	2	1	3	2	-4	Low	2	2	1.25	-5
Soil erosion (overland flows), Land degradation	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 (overland flows) and potential for erosion	Construction	-1	2	3	3	3	3	-8.25	-1	1	2	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
Increased water inputs (clean) to downstream wetlands	Operation	-1	2	4	2	3	3	-8.25	-1	2	4	2	3	3	-8.25	High	2	2	1.25	-10.3125
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 - Valley TSF unlined (alternative 1)	Operation	-1	2	3	2	3	3	-7.5	-1	1	2	2	3	2	-4	Medium	2	2	1.25	-5
Cumulative groundwater contamination- Valley TSF unlined (alternative 1)	Operation	-1	3	4	3	3	4	-13	-1	2	3	3	3	4	-11	Medium	2	2	1.25	-13.75
Groundwater contamination - Valley TSF lined (alteranative 2)	Operation	-1	1	2	1	2	2	-3	-1	1	2	2	3	1	-2	Medium	2	2	1.25	-2.5
Cumulative groundwater contamination- Valley TSF lined (alternative 2)	Operation	-1	3	4	3	3	4	-13	-1	2	3	3	3	4	-11	Medium	2	2	1.25	-13.75
Groundwater contamination - Valley TSF unlined (alternative 1)	Decommissioning	-1	2	3	2	3	3	-7.5	-1	1	2	2	3	2	-4	Medium	2	2	1.25	-5
Cumulative groundwater contamination - - Valley TSF unlined (alternative 1)	Decommissioning	-1	3	4	3	3	4	-13	-1	2	3	3	3	4	-11	Medium	2	2	1.25	-13.75
Groundwater contamination - Valley TSF lined (alternative 2)	Decommissioning	-1	1	2	1	2	2	-3	-1	1	2	2	3	1	-2	Medium	2	2	1.25	-2.5
Cumulative groundwater contamination- Valley TSF lined (alternative 2)	Decommissioning	-1	3	4	3	3	4	-13	-1	2	3	3	3	4	-11	Medium	2	2	1.25	-13.75
Decrease in subsurface flows and return flows	Construction	-1	3	3	3	3	3	-9	-1	2	2	2	3	2	-4.5	Medium	2	1	1.13	-5.0625
Decrease in subsurface flows and return flows	Operation	-1	2	3	3	2.75	3	-8.0625	-1	1	1	1	1	2	-2	Medium	2	1	1.13	-2.25