

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	2	-4.5	-1	3	2	2	2	2	-4.5	Medium	1	1	1.00	-4.5
Impacts on Visual Environment and Sense of Place	Operation	-1	3	5	2	3	2	-6.5	-1	3	5	2	2	2	-6	High	2	1	1.13	-6.75
Impacts on Visual Environment and Sense of Place	Rehab and closure	-1	3	2	1	2	2	-4	-1	3	2	1	2	2	-4	Medium	1	1	1.00	-4
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	3	4	3	-10.5	-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
Disturbance / destruction of sites of heritage significance	Construction	-1	1	2	1	3	2	-3.5	-1	1	2	1	2	1	-1.5	Medium	1	1	1.00	-1.5
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
Employment opportunities	Planning	1	3	2	1	1	3	5.25	1	2	1	1	4	3	6	Medium	1	1	1.00	6
Employment opportunities	Construction	1	3	2	2	1	3	6	1	2	2	1	4	3	6.75	Medium	1	1	1.00	6.75
Employment opportunities	Operation	1	3	4	4	1	3	9	1	4	4	1	4	3	9.75	Medium	1	1	1.00	9.75
Employment opportunities	Decommissioning	1	3	2	2	1	3	6	1	2	2	1	4	3	6.75	Medium	1	1	1.00	6.75
Employment opportunities	Rehab and closure	1	3	2	2	1	3	6	1	2	2	1	4	3	6.75	Medium	1	1	1.00	6.75
Expectations regarding creation of opportunities	Planning	-1	3	2	2	5	2	-6	-1	3	2	1	5	2	-5.5	Medium	1	1	1.00	-5.5
Impacts of traffic on people – dust, noise, safety – from a social and nuisance perspective	Operation	-1	3	2	2	5	2	-6	-1	3	2	1	5	2	-5.5	Medium	1	1	1.00	-5.5
Negative perceptions relating to the risk of TSF failure.	Operation	-1	3	2	2	5	2	-6	-1	3	2	1	5	2	-5.5	Medium	1	1	1.00	-5.5
Impacts on livelihoods of landowners.	Operation	-1	3	2	2	5	2	-6	-1	3	2	1	5	2	-5.5	Medium	1	1	1.00	-5.5
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
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 of 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, 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, 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 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
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 (alternative 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
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