

|   |                   | Pre-Mitigation |        |          |           |               |             |               | Post Mitigation |        |        |          |           |               |             | Criteria      |       |            |                   |                    |        |          |             |
|---|-------------------|----------------|--------|----------|-----------|---------------|-------------|---------------|-----------------|--------|--------|----------|-----------|---------------|-------------|---------------|-------|------------|-------------------|--------------------|--------|----------|-------------|
| Impact  | Phase             | Nature         | Extent | Duration | Magnitude | Reversibility | Probability | mitigation ER | Pre-            | Nature | Extent | Duration | Magnitude | Reversibility | Probability | mitigation ER | Post- | Confidence | Cumulative Impact | Irreplaceable loss | Factor | Priority | Final score |
| 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 (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              |        |          |             |