1. **SIGNIFICANCE ANALYSIS: “NO-GO” ALTERNATIVE - THE PROPOSED POWERLINE REMAINS IN ITS CURRENT STATE AND NO UPGRADES ARE PERFORMED**

Without = Without Mitigation

With = With Mitigation

**Table 5.1 Analysis of the significance of potential biodiversity and ecological processes impacts**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **NEGATIVE IMPACTS / EFFECTS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | **Activity** | | | **Nature of impact** | | | **Spatial extent** | | | | | **Severity / intensity / magnitude** | | | | | **Duration** | | | | **Resource loss** | **Reversibility** | | | | | **Probability** | | | | **Significance scoring without mitigation** | | **Significance scoring with mitigation** |
| **Without** | | **With** | | | **Without** | | **With** | | | **Without** | | **With** | | **Without** | | | **With** | | **Without** | | | **With** |
| **Planning Phase** | **None – No planning or construction phases associated with the No-Go alternative** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Construction Phase** |
| **Operational Phase** | General Operation as currently in place. | | Increased proliferation of alien invasive plant species. Degradation of natural environment. | | | 3 | | 1 | | | 5 | | 2 | | | 3 | | 1 | | | 4 | | 3 | 1 | | 1 | | | 0.6 | | **18** | | **5.4** |
| **Decommissioning Phase** | Improper rehabilitation of areas *post* closure | | Alien plant encroachment | | | 3 | | 1 | | | 5 | | 2 | | | 3 | | 1 | | | 4 | | 3 | 1 | | 0.9 | | | 0.4 | | **16.2** | | **3.6** |
|  | | **POSITIVE IMPACTS / EFFECTS** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | **Activity** | | | **Nature of impact** | | | | | **Spatial extent** | | | | | **Severity / intensity / magnitude** | | | | | **Duration** | | | | | | | | **Probability** | | | | **Significance scoring** | |
| **Construction Phase** | | **None** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Operational phase** | | No construction | | | No disturbance of flora and fauna in the surrounding areas and on the site. | | | | | 1 | | | | | 3 | | | | | 7 | | | | | | | | 0.3 | | | | **3.3** | |

**Table 5.2 Analysis of the significance of potential water-related impacts**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **NEGATIVE IMPACTS / EFFECTS** | | | | | | | | | | | | | | |
|  | **Activity** | **Nature of impact** | **Spatial extent** | | **Severity / intensity / magnitude** | | **Duration** | | **Resource loss** | **Reversibility** | | **Probability** | | **Significance scoring without mitigation** | **Significance scoring with mitigation** |
| **Without** | **With** | **Without** | **With** | **Without** | **With** | **Without** | **With** | **Without** | **With** |
| **Planning Phase** | **None – No planning or construction phases associated with the No-Go alternative.** | | | | | | | | | | | | | | |
| **Construction Phase** |
| **Operational Phase** | Storm water infrastructure maintenance | Erosion and scour - increased sedimentation. | 3 | 1 | 5 | 2 | 7 | 3 | 3 | 3 | 1 | 0.9 | 0.6 | **18.9** | **6** |
| **Decommissioning Phase** | **None** | | | | | | | | | | | | | | |

# Table 5.3 Analysis of the significance of potential construction-related impacts as well as visual related impacts

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **NEGATIVE IMPACTS / EFFECTS** | | | | | | | | | | | | | | |
|  | **Activity** | **Nature of impact** | **Spatial extent** | | **Severity / intensity / magnitude** | | **Duration** | | **Resource loss** | **Reversibility** | | **Probability** | | **Significance scoring without mitigation** | **Significance scoring with mitigation** |
| **Without** | **With** | **Without** | **With** | **Without** | **With** | **Without** | **With** | **Without** | **With** |
| **Planning phase** | **None – No planning or construction phases associated with the No-Go alternative.** | | | | | | | | | | | | | | |
| **Construction Phase** |
| **Operational Phase** |

# Table 5.4 Analysis of the significance of potential social and socio-economic impacts

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **NEGATIVE IMPACTS / EFFECTS** | | | | | | | | | | | | | | |
|  | **Activity** | **Nature of impact** | **Spatial extent** | | **Severity / intensity / magnitude** | | **Duration** | | **Resource loss** | **Reversibility** | | ***P*** | | **Significance scoring without mitigation** | **Significance scoring with mitigation** |
| **Without** | **With** | **Without** | **With** | **Without** | **With** | **Without** | **With** | **Without** | **With** |
| **Planning**  **Phase** | **None – No planning or construction phases associated with the No-Go alternative.** | | | | | | | | | | | | | | |
| **Construction Phase** |
| **Operational Phase** | Operation of existing 220 kV Powerline | South African Grid Code N-1 requirement will not be met | 6 | 1 | 6 | 1 | 7 | 3 | 4 | 3 | 3 | 1 | 0.7 | **26** | **8.4** |
| Loss or outage of 220kV Powerline | loss of supply to the area and other surrounding towns fed by the substations | 6 | 4 | 6 | 4 | 3 | 3 | 4 | 3 | 3 | 1 | 0.9 | **22** | **16.2** |
| inability to evacuate renewable generation in the Paulputs network into the national grid | 6 | 1 | 6 | 1 | 7 | 3 | 4 | 3 | 3 | 1 | 0.7 | **26** | **8.4** |