

# APPENDIX M

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## Impact Assessment

## IMPACT ASSESSMENT METHODOLOGY

The following impact rating approach used by EnviroAfrica CC is a basic exponential rating system to assess actual and potential negative environmental impacts.

Positive environmental impacts are also listed. All positive impacts need to be enhanced or increased where possible but positive impacts are not rated or given a score since the rating is based on risks.

Environmental activities or aspects are identified, based on:

- the phases of the project,
- the nature (or description) of the actual and potential impacts of the activities.

For every project activity or aspect, various environmental impacts are listed. Every negative impact is allocated a value as per each of the following criteria:

- Likelihood (Probability)
- Extent (Severity)
- Duration (Frequency)
- Consequence (Receiving environment and Toxicity)

Once a value is allocated for each of the criterion, the scores are averaged to determine the final impact rating see Table 1 below.

EnviroAfrica then further assesses environmental significance, based on the nature of the impact, as per the score and colour key which forms part of Table 1 below. This results in impacts having either a low (indicated in green), medium (indicated in yellow) or high (indicated in orange and red) significance.

- Note:**
- i. One environmental aspect or project activity e.g. site clearance may have multiple impacts in different areas.
  - ii. The various impacts per aspect/project activity are documented in the Quantification of Aspects and Impact/s Significance Rating form (Table 2 Annexure B).
  - iii. As a baseline, impact rating values/scores are allocated taking the **worst case** scenario into account i.e. with no mitigation. The baseline rating is compared with those after mitigation has been taken into account i.e. the post-mitigation rating. Post mitigation rating is used for the actual impact assessment.

| SIGNIFICANCE CRITERIA                      | Very High  | Moderately High  | Medium   | Moderately Medium  | Low  | Very Low  | Score |
|--|--|--|--|--|--|---|-------|
| Value                                      | 32   | 16   | 8  | 4  | 2  | 1   |       |
| Likelihood / Probability (L/P)             | Impact will definitely occur   | Very likely for impact to occur  | Impact may occur once annually   | Impact may occur less than once annually but at least twice every five years   | Impact may occur one to two times (maximum) in project's life                      | Very unlikely for impact to occur / Impact will not occur         |       |
| Extent / Severity (E/S)                    | Impact potentially reaches beyond national boundaries  | Impact has definite provincial potential national consequences   | Impact will a potentially affect neighbouring province   | Impact confined to local province  | Impact confined to local region but not province wide                              | Impact confined to project property / site                        |       |
| Duration / Frequency (D/F)                 | Continual / daily occurrence   | Impact will occur once a week  | Impact will occur once a month   | Impact will occur once a year  | Impact will occur once every ten years   | Possible that impact will never occur in Project's                |       |
| Consequence: Receiving environment (C: RE) | Very sensitive, pristine area – protected site or species permanently or seasonally present                                  | Unused industrially zoned area containing only indigenous fauna / flora species  | Unused industrially zoned area containing indigenous and alien fauna / flora species   | Semi-disturbed area already rehabilitated / recovered from prior impact  | Disturbed area undergoing rehabilitation / recovering from prior impacts           | Disturbed area, already in need of rehabilitation prior to impact |       |
| Consequence: Toxicity (C:T)                | Impact is poisonous to natural environment and is not contained - no rehabilitation possible - permanent irreversible impact | Impact is potentially poisonous to natural environment and is not contained – only partial rehabilitation possible – potential permanent irreversible impact | Impact is potentially poisonous to natural environment and is partially contained – some rehabilitation possible and is potentially reversible | Impact is potentially poisonous to natural environment and is partially contained – complete rehabilitation possible | Impact is potentially poisonous to natural environment but is completely contained | Impact is not poisonous to natural environment                    |       |
| <b>FINAL RATING (average score)</b>        |  |  |  |  |  |   |       |

### ENVIRONMENTAL RATING SIGNIFICANCE KEY:

| SIGNIFICANCE            | RATING            | Final rating score / value range |
|-------------------------|-------------------|----------------------------------|
| Significant             | Very High         | 853 and above                    |
|                         | High              | 683 to 853                       |
| Increasing Significance | Medium            | 512 to 683                       |
|                         | Moderately Medium | 341 to 512                       |
| Insignificant           | Low               | 171 to 341                       |
|                         | Very Low          | 1 to 171                         |

Table 1: Environmental Significance rating methodology (rating criteria and scoring to allocate significance)

**A. ASPECT / ACTIVITY: Transport of Equipment / Material to Site (pre-construction site establishment)**

| No. | IMPACT   | L/P | E/S | D/F | C: RE | C: T | Pre-Mitigation Score (Baseline) | L/P | E/S | D/F | C: RE | C: T | Post-Mitigation Score (Impact) | Short Description of Mitigation Measures   |
|-----|--|-----|-----|-----|-------|------|---------------------------------|-----|-----|-----|-------|------|--------------------------------|--|
| 1   | Particulate and gaseous emissions due to use of vehicles/machinery       | 16  | 32  | 32  | 1     | 16   | 19,4                            | 16  | 16  | 32  | 1     | 16   | 16,2                           | Vehicles serviced regularly/well maintained. Vehicles not allowed to idle for extended periods. Routine site and vehicle checks. Dust suppression to be used if possible, should continuous dust emissions occur. Fugitive particulate emissions minimised by enforcing speed limits on dirt roads and by limiting excavation to non-peak traffic period on local regional (dirt) road to avoid dust clouds over public roads. |
| 2   | Potential impedance of normal traffic flow on main access road           | 16  | 8   | 4   | 4     | 2    | 6,8                             | 16  | 8   | 4   | 2     | 2    | 6,4                            | Comply with legislative requirements. If necessary, use traffic controllers. Avoid transpotation of sand during peak traffic times.  |
| 3   | Animal/human interaction/accident with vehicles                          | 32  | 2   | 1   | 8     | 2    | 9                               | 8   | 2   | 1   | 8     | 2    | 4,2                            | Training and awareness regarding road safety. Routine checks to ensure vehicles in good condition.   |
| 4   | Vehicle accident   | 16  | 8   | 4   | 1     | 2    | 6,2                             | 8   | 8   | 4   | 1     | 2    | 4,6                            | Training and awareness regarding road safety. Routine checks to ensure vehicles in good condition.   |
| 5   | Spillages of fuel/oil/HCSs from vehicles/vehicle loads                   | 32  | 2   | 4   | 32    | 4    | 14,8                            | 16  | 2   | 4   | 32    | 4    | 11,6                           | Training and awareness regarding use and storage of fuel/oil/HCSs. Adequate drip trays and spill clean up kits provided. Routine monitoring of vehicle loads and vehicles for leaks.   |
| 6   | Noise from heavy vehicles  | 32  | 2   | 16  | 1     | 1    | 10,4                            | 16  | 1   | 16  | 1     | 1    | 7                              | Ensure vehicle exhaust pipes in good condition. Vehicles not to be used outside of normal working hours.   |
| 7   | Potential littering along route from drivers/personnel in vehicles       | 32  | 16  | 16  | 8     | 1    | 14,6                            | 16  | 2   | 16  | 2     | 1    | 7,4                            | Training and awareness regarding littering. Provision of rubbish bags for inside vehicle when travelling.  |
| 8   | Impact of slowed traffic due to trucks transporting sand on public roads | 16  | 16  | 8   | 1     | 1    | 8,4                             | 8   | 16  | 4   | 1     | 1    | 6                              | Limit transport of trucks to non-peak traffic times if possible. Avoid built up areas during peak traffic times.   |
| 9   | Aesthetic/visual impact of stored/parked vehicles and equipment          | 32  | 1   | 32  | 1     | 1    | 13,4                            | 16  | 1   | 16  | 1     | 1    | 7                              | Park vehicles and daily store of equipment at designated areas on site using natural topography/vegetation/buildings as screens.   |
| 10  | Environmental training/awareness e.g. at on-site start up                |     |     |     |       |      |                                 |     |     |     |       |      |                                |  |

**B. ASPECT / ACTIVITY: Site Clearance/Topsoil**

| No. | IMPACT  | L/P | E/S | D/F | C: RE T | Pre-Mitigation Score (Baseline) | L/P | E/S | D/F | C: RE T | Post-Mitigation Score (Impact) | Short Description of Mitigation Measures  |
|-----|---|-----|-----|-----|---------|---------------------------------|-----|-----|-----|---------|--------------------------------|---|
| 1   | Negative impact on protected trees/plants/fauna during site clearance     | 32  | 1   | 32  | 32      | 25.8                            | 16  | 1   | 4   | 8       | 9                              | Demarcation of protected trees/trees to be avoided, or for which permits must be applied to allow correct removal and/or relocation (as per biodiversity specialist report). Designation of no-go areas on site to protect flora/trees to be defined at on-site start up meeting. Environmental awareness/training. Routine site compliance checks. |
| 2   | Gaseous emissions due to use of vehicles/machinery                        | 16  | 32  | 32  | 1       | 19.4                            | 16  | 16  | 32  | 1       | 16                             | Vehicles serviced regularly/well maintained. Vehicles not allowed to idle for extended periods. Routine site and vehicle checks.  |
| 3   | Dust (particulate) emission generation                                    | 32  | 8   | 32  | 1       | 21                              | 16  | 4   | 32  | 1       | 16                             | Utilisation of dust suppression to be used if possible, should continuous dust emissions occur. Fugitive particulate emissions minimised by enforcing speed limits on dirt roads. Vehicles confined to roads only. Vehicles serviced regularly/well maintained. Vehicles not allowed to idle for extended periods. Routine site and vehicle checks. |
| 4   | Indigenous biodiversity (flora) removal                                   | 32  | 2   | 16  | 32      | 18                              | 32  | 1   | 4   | 8       | 9.2                            | Demarcation of protected trees/trees to be avoided, or for which permits must be applied to allow correct removal and/or relocation (as per biodiversity specialist report). Designation of no-go areas on site to protect flora/trees to be defined at on-site start up meeting. Environmental awareness/training. Routine site compliance checks. |
| 5   | Alien biodiversity (flora) removal  |     |     |     |         |                                 |     |     |     |         |                                |   |
| 6   | Topsoil removal/stockpiling   | 32  | 2   | 16  | 8       | 11.8                            | 32  | 1   | 16  | 8       | 11.6                           | Topsoil management plan to be in place at on-site start up meeting in line with specialist reports. Routine site checks to ensure compliance.   |
| 7   | Habitat loss (effect on fauna)  | 32  | 1   | 4   | 8       | 9.2                             | 32  | 1   | 4   | 8       | 9.2                            | Due to the nature of the development, habitat loss will take place irrespective of mitigation measures.   |
| 8   | Animal interaction/fatalities   | 16  | 1   | 16  | 8       | 8.4                             | 16  | 1   | 4   | 8       | 6                              | Designation of no-go areas on site to be defined at on-site start up meeting. Environmental awareness/training. Routine site compliance checks.   |
| 9   | Heritage discovery (archaeological or palaeontological) due to excavation | 8   | 1   | 4   | 8       | 4.4                             | 2   | 1   | 2   | 8       | 2.8                            | Designation of no-go areas on site to be defined, if required at site meeting. Environmental awareness/training. Routine site compliance checks as per EMP.   |
| 10  | Visual impact of site clearance/dust                                      | 32  | 2   | 32  | 1       | 13.6                            | 16  | 2   | 32  | 1       | 10.4                           | Utilisation of dust suppression on roads if required. Fugitive particulate emissions minimised by enforcing speed limits on dirt roads. Vehicles confined to roads only. Vehicles serviced regularly/well maintained. Vehicles not allowed to idle for extended periods. Routine site and vehicle checks.   |
| 11  | Local employment opportunities  |     |     |     |         |                                 |     |     |     |         |                                | Current employees (2-4 persons) of CA Konstruksies will be provided with further employment.  |
| 12  | Environmental training/awareness e.g. at on-site start up meeting         |     |     |     |         |                                 |     |     |     |         |                                |   |

C. ASPECT / ACTIVITY: Construction and Operation

| No. | IMPACT  | L/P | E/S | D/F | C: RE | C: T | Pre-Mitigation Score (Baseline) | L/P | E/S | D/F | C: RE | C: T | Post-Mitigation Score (Impact assessment) | Short Description of Mitigation Measures  |
|-----|---|-----|-----|-----|-------|------|---------------------------------|-----|-----|-----|-------|------|---|---|
| 1   | Poor access control/fencing                                   | 32  | 1   | 32  | 8     | 1    | 14.8                            | 2   | 11  | 4   | 8     | 1    | 5.2                                       | Secure fencing of site to take place before any materials/equipment brought to site. Access to be controlled via locked gate and security services.   |
| 2   | Demarcation of areas to be excavated                          | 32  | 2   | 8   | 1     | 1    | 8.8                             | 32  | 1   | 4   | 1     | 1    | 7.8                                       | Excavation 'blocks' or 'strips' must be clearly defined before any material/equipment arrives on site. Excavation areas to be in-line with specialist recommendations. Routine site inspection for adherence to demarcated area parameters.   |
| 3   | Ablutions for site labour (non-adherence to designated areas) | 32  | 2   | 32  | 1     | 8    | 15                              | 32  | 1   | 16  | 1     | 1    | 10.2                                      | Training and awareness regarding designated abluition areas and need for adherence. Provision of sufficient abluitions area in line with legal requirements on site. Ad hoc site visits to check compliance in line with training.  |
| 4   | Littering   | 32  | 16  | 16  | 8     | 1    | 14.6                            | 16  | 2   | 16  | 2     | 1    | 7.4                                       | Training and awareness regarding littering. Provision of sufficient rubbish bins/bin bags on site and routine removal of bins/bags to a registered waste site. Ad hoc checks to ensure compliance in line with training.  |
| 5   | Habitat loss (effect on fauna)                                | 32  | 1   | 4   | 8     | 1    | 9.2                             | 32  | 1   | 4   | 8     | 1    | 9.2                                       | Due to the nature of the development, habitat loss will take place irrespective of mitigation measures.   |
| 6   | Animal interaction/fatalities                                 | 16  | 1   | 16  | 8     | 1    | 8.4                             | 16  | 1   | 4   | 8     | 1    | 6   | Designation of no-go areas on site to be defined at on-site start up meeting. Environmental awareness/training. Routine site compliance checks.   |
| 7   | Aesthetic impact during construction                          | 32  | 2   | 2   | 1     | 1    | 7.6                             | 16  | 2   | 2   | 1     | 1    | 4.4                                       | Park vehicles and temporary/daily use storage of equipment at designated areas on site using natural topography/vegetation as screens. Fugitive particulate emissions minimised by enforcing speed limits on dirt roads and using dust suppression on roads, if required. Vehicles confined to roads only. Routine site and vehicle checks.   |
| 8   | Resource use: water   | 32  | 1   | 32  | 2     | 1    | 13.6                            | 32  | 1   | 32  | 2     | 1    | 13.6                                      | Training and awareness regarding sound water use/management. Storm water management plan in place (as per specialist report) at on-site start up meeting. Ad hoc checks to ensure compliance in line with training and management plans/programmes.   |
| 9   | Resource use: land  | 32  | 2   | 32  | 8     | 1    | 15                              | 32  | 1   | 32  | 2     | 1    | 13.6                                      | Training and awareness regarding land management on site. Ad hoc checks to ensure compliance in line with training and management plans/programmes.   |
| 10  | Resource use: flora/biodiversity                              | 32  | 2   | 16  | 32    | 8    | 18                              | 32  | 1   | 4   | 8     | 1    | 9.2                                       | Demarcation of protected trees/trees to be avoided, or for which permits must be applied to allow correct removal and/or relocation (as per biodiversity specialist report). Designation of no-go areas on site to protect flora/trees to be defined at on-site start up meeting. Environmental awareness/training. Routine site compliance checks to ensure avoidance of demarcated specimens. |
| 11  | Resource use: air (particulate/dust emissions)                | 32  | 8   | 32  | 1     | 32   | 21                              | 16  | 4   | 32  | 1     | 16   | 13.8                                      | Utilisation of dust suppression to be used if possible, should continuous dust emissions occur (e.g. during excavations). Fugitive particulate emissions minimised by enforcing speed limits on dirt roads. Vehicles confined to roads only. Vehicles serviced regularly/well maintained. Vehicles not allowed to idle for extended periods. Routine site and vehicle checks.                   |
| 12  | Resource use: hydrocarbons/fuels                              | 32  | 2   | 32  | 8     | 16   | 18                              | 32  | 2   | 32  | 8     | 2    | 15.2                                      | Training and awareness regarding efficient fuel/hydrocarbon use. Ad hoc checks to ensure compliance in line with training and management plans/programmes.  |
| 13  | Recycling of waste products where possible                    |     |     |     |       |      |                                 |     |     |     |       |      |   |   |
| 14  | Storage of fuels/hazardous chemical substances                | 32  | 2   | 4   | 32    | 4    | 14.8                            | 16  | 2   | 4   | 32    | 4    | 11.6                                      | Training and awareness regarding use and storage of fuel/oil/HCSs. Adequate drip trays and spill clean up kits provided. HCSs and fuel stores stored in line with legal requirements. Routine monitoring of vehicle loads and vehicles for leaks.   |
| 15  | Noise from heavy vehicles                                     | 32  | 2   | 16  | 1     | 1    | 10.4                            | 16  | 1   | 16  | 1     | 1    | 7   | Ensure vehicle exhaust pipes in good condition. Vehicles not to be used outside of normal working hours.  |
| 16  | Training/Skills transfer                                      |     |     |     |       |      |                                 |     |     |     |       |      |   |   |
| 17  | Local employment opportunities                                |     |     |     |       |      |                                 |     |     |     |       |      |   |   |

D. ASPECT / ACTIVITY: Operation and Maintenance

| No. | IMPACT  | L/P | E/S | D/F | C: RE T | Pre-MITIGATION Score (Baseline) | L/P  | E/S | D/F | C: RE T | Post-MITIGATION Score (Impact assessment) | Short Description of Mitigation Measures |   |
|-----|---|-----|-----|-----|---------|---------------------------------|------|-----|-----|---------|---|--|---|
| 1   | Poor access control/fencing                                   | 32  | 1   | 32  | 8       | 1                               | 14,8 | 2   | 11  | 4       | 8   | 1  | Secure fencing of site to take place before any materials/equipment brought to site. Access to be controlled via locked gate and security services.   |
| 2   | Demarcation of areas to be excavated                          | 32  | 2   | 8   | 1       | 1                               | 8,8  | 32  | 1   | 4       | 1   | 1  | Excavation 'blocks' or 'strips' must be clearly defined before any material/equipment arrives on site. Excavation areas to be in-line with specialist recommendations. Routine site inspection for adherence to demarcated area parameters.   |
| 3   | Ablutions for site labour (non-adherence to designated areas) | 32  | 2   | 32  | 1       | 8                               | 15   | 32  | 1   | 16      | 1   | 1  | Training and awareness regarding designated ablation areas and need for adherence. Provision of sufficient ablations area in line with legal requirements on site. Ad hoc site visits to check compliance in line with training.  |
| 4   | Littering   | 32  | 16  | 16  | 8       | 1                               | 14,6 | 16  | 2   | 16      | 2   | 1  | Training and awareness regarding littering. Provision of sufficient rubbish bins/bins on site and routine removal of bins/bags to a registered waste site. Ad hoc checks to ensure compliance in line with training.  |
| 5   | Habitat loss (effect on fauna)                                | 32  | 1   | 4   | 8       | 1                               | 9,2  | 32  | 1   | 4       | 8   | 1  | Due to the nature of the development, habitat loss will take place irrespective of mitigation measures.   |
| 6   | Animal interaction/fatalities                                 | 16  | 1   | 16  | 8       | 1                               | 8,4  | 16  | 1   | 4       | 8   | 1  | Designation of no-go areas on site to be defined at on-site start up meeting. Environmental awareness/training. Routine site compliance checks.   |
| 7   | Aesthetic impact during construction                          | 32  | 2   | 2   | 1       | 1                               | 7,6  | 16  | 2   | 2       | 1   | 1  | Park vehicles and temporary/daily use storage of equipment at designated areas on site using natural topography/vegetation as screens. Fugitive particulate emissions minimised by enforcing speed limits on dirt roads and using dust suppression on roads, if required. Vehicles confined to roads only. Routine site and vehicle checks.   |
| 8   | Resource use: water   | 32  | 1   | 32  | 2       | 1                               | 13,6 | 32  | 1   | 32      | 2   | 1  | Training and awareness regarding sound water use/management. Storm water management plan in place (as per specialist report) at on-site start up meeting. Ad hoc checks to ensure compliance in line with training and management plans/programmes.   |
| 9   | Resource use: land  | 32  | 2   | 32  | 8       | 1                               | 15   | 32  | 1   | 32      | 2   | 1  | Training and awareness regarding land management on site. Ad hoc checks to ensure compliance in line with training and management plans/programmes.   |
| 10  | Resource use: flora/biodiversity                              | 32  | 2   | 16  | 32      | 8                               | 18   | 32  | 1   | 4       | 8   | 1  | Demarcation of protected trees/trees to be avoided, or for which permits must be applied to allow correct removal and/or relocation (as per biodiversity specialist report). Designation of no-go areas on site to protect flora/trees to be defined at on-site start up meeting. Environmental awareness/training. Routine site compliance checks to ensure avoidance of demarcated specimens. |
| 11  | Resource use: air (particulate/dust emissions)                | 32  | 8   | 32  | 1       | 32                              | 21   | 16  | 4   | 32      | 1   | 16                                       | Utilisation of dust suppression to be used if possible, should continuous dust emissions occur (e.g. during excavations). Fugitive particulate emissions minimised by enforcing speed limits on dirt roads. Vehicles confined to roads only. Vehicles serviced regularly/well maintained. Vehicles not allowed to idle for extended periods. Routine site and vehicle checks.                   |
| 12  | Resource use: hydrocarbons/fuels                              | 32  | 2   | 32  | 8       | 16                              | 18   | 32  | 2   | 32      | 8   | 2  | Training and awareness regarding efficient fuel/hydrocarbon use. Ad hoc checks to ensure compliance in line with training and management plans/programmes.  |
| 13  | Recycling of waste products where possible                    |     |     |     |         |                                 |      |     |     |         |   |  |   |
| 14  | Storage of fuels/hazardous chemical substances                | 32  | 2   | 4   | 32      | 4                               | 14,8 | 16  | 2   | 4       | 32  | 4  | Training and awareness regarding use and storage of fuel/oil/HCS. Adequate drip trays and spill clean up kits provided. HCSs and fuel stores stored in line with legal requirements. Routine monitoring of vehicle loads and vehicles for leaks.  |
| 15  | Noise from heavy vehicles                                     | 32  | 2   | 16  | 1       | 1                               | 10,4 | 16  | 1   | 16      | 1   | 1  | Ensure vehicle exhaust pipes in good condition. Vehicles not to be used outside of normal working hours.  |
| 16  | Training/Skills transfer                                      |     |     |     |         |                                 |      |     |     |         |   |  |   |
| 17  | Local employment opportunities                                |     |     |     |         |                                 |      |     |     |         |   |  |   |

**E. ASPECT / ACTIVITY: Decommissioning/Demolition**

| No. | IMPACT   | L/P | E/S | D/F | C: RE T | Pre-Mitigation Score (Baseline) | L/P | E/S | D/F | C: RE T | Post-Mitigation Score (Impact assessment) | Short Description of Mitigation Measures  |   |
|-----|--|-----|-----|-----|---------|---------------------------------|-----|-----|-----|---------|---|---|---|
| 1   | Poor access control/fencing  | 32  | 1   | 32  | 8       | 14.8                            | 32  | 1   | 4   | 8       | 6.2                                       | Ensure site securely fenced before any materials/equipment is demolished. Access to be controlled via locked gate and security services.  |   |
| 2   | Demarcation of areas requiring additional landscaping/rehabilitation | 32  | 2   | 8   | 1       | 8.8                             | 32  | 1   | 4   | 1       | 7.8                                       | Rehabilitation/landscaping of excavated areas to be on-going as operations continue. Topsoil to be replaced and contouring/sloping to be as per site-management plan and specialist reports. Routine site inspection for adherence to lay down area parameters.   |   |
| 3   | Abutions for site labour (non-adherence to designated areas)         | 32  | 2   | 32  | 1       | 15                              | 32  | 1   | 16  | 1       | 10.2                                      | Training and awareness regarding designated ablation areas and need for adherence. Provision of sufficient ablutions area in line with legal requirements on site. Ad hoc site visits to check compliance in line with training.  |   |
| 4   | Littering  | 32  | 16  | 16  | 8       | 14.6                            | 16  | 2   | 16  | 2       | 7.4                                       | Training and awareness regarding littering. Provision of sufficient rubbish bins on site. Ad hoc checks to ensure compliance in line with training.   |   |
| 5   | Effect on fauna (continued habitat loss)                             | 32  | 1   | 4   | 8       | 9.2                             | 8   | 1   | 4   | 8       | 4.4                                       | Rehabilitation and revegetation/seeding programme to be finalised before decommissioning takes place. Routine site checks/visits to ensure rehabilitation plan implemented to regain natural habitat.   |   |
| 6   | Animal interaction/fatalities  | 16  | 1   | 16  | 8       | 8.4                             | 16  | 1   | 4   | 8       | 6   | Designation of no-go areas on site to be defined at on-site start up meeting. Environmental awareness/training. Routine site compliance checks.   |   |
| 7   | Aesthetic impact during demolition/decommissioning                   | 32  | 2   | 2   | 1       | 7.6                             | 16  | 2   | 2   | 1       | 4.4                                       | Use natural topography where possible to screen final layout of solar PV panels. Panels low to the ground to avoid excessive visual impact. Park vehicles and store equipment at designated areas on site using natural topography/vegetation/buildings as screens. Fugitive particulate emissions minimised by enforcing speed limits on dirt roads and using dust suppression on roads. Vehicles confined to roads only. Routine site and vehicle checks. |   |
| 8   | Resource use: water  | 32  | 1   | 32  | 2       | 13.6                            | 32  | 1   | 32  | 2       | 13.6                                      | Training and awareness regarding sound water use/management. Storm water management plan in place at on-site start up meeting. Ad hoc checks to ensure compliance in line with training and management plans/programmes.  |   |
| 9   | Resource use: land   | 32  | 2   | 32  | 8       | 15                              | 32  | 1   | 32  | 2       | 13.6                                      | Training and awareness regarding land management on site. Ad hoc checks to ensure compliance in line with training and management plans/programmes.   |   |
| 10  | Resource use: florabiodiversity                                      | 32  | 2   | 16  | 32      | 18                              | 32  | 1   | 4   | 8       | 9.2                                       | Demarcation of protected trees/trees to be avoided, or for which permits must be applied to allow correct removal and/or relocation (as per biodiversity specialist report). Designation of no-go areas on site to protect floral/trees to be defined at on-site start up meeting. Environmental awareness/training. Routine site compliance checks to ensure avoidance of demarcated specimens.  |   |
| 11  | Resource use: air (particulate/dust emissions)                       | 32  | 8   | 32  | 1       | 21                              | 16  | 4   | 32  | 1       | 13.8                                      | Utilisation of dust suppression to be used if possible, should continuous dust emissions occur (e.g. during excavations and possible trench blasting). Fugitive particulate emissions minimised by enforcing speed limits on dirt roads. Vehicles confined to roads only. Vehicles serviced regularly/well maintained. Vehicles not allowed to idle for extended periods. Routine site and vehicle checks.  |   |
| 12  | Resource use: hydrocarbons/fuels                                     | 32  | 2   | 32  | 8       | 18                              | 32  | 2   | 32  | 8       | 15.2                                      | Training and awareness regarding efficient fuel/hydrocarbon use. Ad hoc checks to ensure compliance in line with training and management plans/programmes.  |   |
| 13  | Recycling of waste products where possible                           |     |     |     |         |                                 |     |     |     |         |   |   |   |
| 14  | Storage of fuels/hazardous chemical substances                       | 32  | 2   | 4   | 32      | 14.8                            | 16  | 2   | 4   | 32      | 4   | 11.6  | Training and awareness regarding use and storage of fuel/oil/HCSs. Adequate drip trays and spill clean up kits provided. HCSs and fuel stores stored in line with legal requirements. Routine monitoring of vehicle loads and vehicles for leaks. |
| 15  | Noise from heavy vehicles  | 32  | 2   | 16  | 1       | 10.4                            | 16  | 1   | 16  | 1       | 7   | Ensure vehicle exhaust pipes in good condition. Vehicles not to be used outside of normal working hours.  |   |
| 16  | Training/Skills transfer   |     |     |     |         |                                 |     |     |     |         |   |   |   |
| 17  | Local employment opportunities                                       |     |     |     |         |                                 |     |     |     |         |   |   |   |