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	32	32	32	1	32	25,8	32	16	32	1	32	22,6	Vehicles serviced regularly/well maintained. Vehicles not allowed to idle for extended periods. Routine site and vehicle checks. Dust suppression e.g. using chemical road sealers. Fugitive particulate emissions minimised by enforcing speed limits on dirt 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	Traffic management plan in place. Comply with legislative requirements. If necessary, use traffic controllers.
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 ouside 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 possible abnormal loads being transported on public roads	16	16	8	1	1	8,4	8	16	4	1	1	6	Limit transport of abnormal loads to site 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 store 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 ("grub and clear")

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	Negative impact on protected trees/plants/fauna during site clearance	32	1	32	32	32	25,8	16	1	4	8	16	9	Demarcation of protected trees to be avoided, or for which permits must be applied for correct removal and/or relocation (c.f. 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	32	32	32	1	32	25,8	32	16	32	1	32	22,6	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	32	21	16	4	32	1	16	13,8	Utilisation of dust suppression on roads e.g. using chemical road sealers. 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	8	18	32	1	4	8	1	9,2	Demarcation of protected plants and trees to be avoided, or for which permits must be applied for correct removal and/or relocation (c.f. 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	1	11,8	32	1	16	8	1	11,6	Topsoil management plan to be in place at on-site start up meeting. Routine site checks to ensure compliance.
7	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.
8	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.

9	Heritage discovery (archaeological or palaeontological) due to excavation	8	1	4	8	1	4,4	2	1	2	8	1	2,8	Designation of no-go areas on site to be defined at on-site start up meeting.Environmental awareness/training. Routine site compliance checks as per EMPr.
10	Visual impact of site clearance/dust	32	2	32	1	1	13,6	16	2	32	1	1	10,4	Utilisation of dust suppression on roads e.g. using chemical road sealers. 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													
12	Environmental training/awareness e.g. at on-site start up meeting													

C. ASPECT / ACTIVITY: 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	Temporary roads for site establishment	32	2	8	8	1	10,2	32	1	4	8	1	9,2	Clear designation of temporary road area and requirements for vehicles to be confined to roads on site. Utilisation of dust suppression on roads e.g. using chemical road sealers. Fugitive particulate emissions minimised by enforcing speed limits on dirt roads.
2	Gaseous emissions due to use of vehicles/machinery	32	32	32	1	32	25,8	32	16	32	1	32	22,6	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	32	21	16	4	32	1	16	13,8	Utilisation of dust suppression on roads e.g. using chemical road sealers. 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	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.
5	Demarcation of lay down area	32	2	8	1	1	8,8	32	1	4	1	1	7,8	Lay down area clearly defined before any material/equipment arrives on site. Lay down area to be within 20ha applied for as part of BAR. Routine site inspection for adhereance to lay down area parameters.
6	Ablutions for site labour (non-adherance to designated areas)	32	2	32	1	8	15	32	1	16	1	1	10,2	Training and awareness regarding designated ablution areas and need for adherance. Provision of sufficient ablutions area in line with legal requirements on site. Ad hoc site visits to check compliance in line with training.
7	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 on site. Ad hoc checks to ensure compliance in line with training.

8	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.
9	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.
10	Visual impact of site clearance/dust	32	2	32	1	1	13,6	16	2	32	1	1	10,4	Utilisation of dust suppression on roads e.g. using chemical road sealers. 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	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 at on-site start up meeting. Ad hoc checks to ensure compliance in line with training and management plans/programmes.
12	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.
13	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.
14	Recycling of waste products where possible													
15	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.

D. ASPECT / ACTIVITY: Construction

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	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 lay down area	32	2	8	1	1	8,8	32	1	4	1	1	7,8	Lay down area clearly defined before any material/equipment arrives on site. Lay down area to be within 20ha applied for as part of BAR. Routine site inspection for adhereance to lay down area parameters.
3	Ablutions for site labour (non-adherance to designated areas)	32	2	32	1	8	15	32	1	16	1	1	10,2	Training and awareness regarding designated ablution areas and need for adherance. 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	1	14,6	16	2	16	2	1	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	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	Use natural topgraphy 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	1	13,6	32	1	32	2	1	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	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: 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.
11	Recycling of waste products where possible													
12	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.
13	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 ouside of normal working hours.
14	Training/Skills transfer													
15	Local employment opportunities													

E. ASPECT / ACTIVITY: Operation and Maintenance

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	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 lay down area	32	2	8	1	1	8,8	32	1	4	1	1	7,8	Lay down area clearly defined before any material/equipment arrives on site. Lay down area to be within 20ha applied for as part of BAR. Routine site inspection for adhereance to lay down area parameters.
3	Ablutions for site labour (non-adherance to designated areas)	32	2	32	1	8	15	32	1	16	1	1	10,2	Training and awareness regarding designated ablution areas and need for adherance. 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	1	14,6	16	2	16	2	1	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	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	Use natural topgraphy 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	1	13,6	32	1	32	2	1	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	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: 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.
11	Recycling of waste products where possible													
12	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.
13	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 ouside of normal working hours.
14	Training/Skills transfer													
15	Local employment opportunities													
16	Production of renewable/clean energy													

F. ASPECT / ACTIVITY: Decommissioning/Demolition

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	2	32	1	1	13,6	2	1	16	1	1	4,2	Ensure site securely fenced before any materials/equipment is demolished. Access to be controlled via locked gate and security services.
2	Demarcation of lay down area	32	2	32	1	1	13,6	2	1	16	1	1	4,2	Lay down area clearly defined before any material/equipment arrives on site. Method statement for laydown area to be in place. Lay down area to be within 20ha applied for as part of BAR. Minimise footprint. No-go areas restricted.
3	Ablutions for site labour (non-adherance to designated areas)	32	2	32	1	4	14,2	2	1	16	1	1	4,2	Training and awareness regarding designated ablution areas and need for adherance. Provision of sufficient ablutions area in line with legal requirements on site. Adherence to the EMPr & Implemention of Standard Managent Procedures in terms ablution facilities. Method Statement to be in place. Ad hoc site visits to check compliance in line with training.
4	Littering	32	2	32	1	2	13,8	16	1	16	1	1	7	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	16	1	1	10,2	32	1	16	1	1	10,2	Rehabilitation and revegetation/seeding programme to be finalised before decommissioning takes place. Routine site checks/visits to ensure rahabilitation plan implemented to regain natural habitat.
6	Animal interaction/fatalities	2	1	16	8	1	5,6	1	1	8	1	1	2,4	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	32	1	1	13,6	16	1	1	1	1	4	Use natural topgraphy 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.
	Potential leakage or spillage of wastewater/sewage/sludge/grit& screenings impacting drainage lines & ground water	32	2	32	1	8	15	16	1	8	1	2	5,6	Adherence to the EMPr & Implemention of Standard Managent Procedures. Closure Plan to be in place. Prevent contamination of natural environment at all cost
	Potential leakage or spillage of wastewater/sewage/sludge/ grit& screenings/ impacting soil	32	2	32	1	8	15	16	1	8	1	1	5,4	Adherence to the EMPr & Implemention of Standard Managent Procedures. Closure Plan to be in place. Prevent contamination of natural environment at all cost
	Potential leakage or spillage of water by runoff containing construction related substances such as cement/paint/oil/fuel etc impacting drainage lines & ground water	32	2	32	1	8	15	16	1	8	1	2	5,6	Routine site and vehicle checks. Ensure all vehicles are in good working on. Ensure drip trays on site. Adherence to the EMPr & Implementation of Standard Management Procedures. Closure Plan to be in place. Prevent contamination of natural environment at all cost
	Potential leakage or spillage of water by runoff containing construction related substances such as cement/paint/oil/fuel etc impacting soil	32	2	32	1	8	15	16	1	8	1	1	5,4	Routine site and vehicle checks. Ensure all vehicles are in good working on. Ensure drip trays on site. Adherence to the EMPr & Implementation of Standard Management Procedures. Closure Plan to be in place. Prevent contamination of natural environment at all cost
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 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: 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.
11	Recycling of waste products where possible													
12	Storage of fuels/hazardous chemical substances	32	2	32	1	32	19,8	16	1	8	1	4	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.
13	Noise from heavy vehicles	32	2	32	1	1	13,6	16	1	16	1	1	7	Ensure vehicle exhaust pipes in good condition. Vehicles not to be used ouside of normal working hours.
14	Training/Skills transfer													
15	Local employment opportunities													

F ASPECT / ACTIVITY: No-go

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	Poor access control/fencing	32	2	32	1	1	13,6							Status of site will remain unchanged. No muitigation will be implented. Therefore no post mitigation score can be allocated. Ponds will remain hydraulically and organically overloaded, risking the health if the environment and surrounding communities in future.
5	Habitat loss (effect on fauna)	32	1	16	1	1	10,2							Status of site will remain unchanged. No mitigation will be implented. Therefore no post mitigation score can be allocated. Ponds will remain hydraulically and organically overloaded, risking the health if the environment and surrounding communities in future.
	Potential leakage or spillage of wastewater/ sewage impacting drainage lines & ground water	32	2	32	1	8	15							Status of site will remain unchanged. No mitigation will be implented. Therefore no post mitigation score can be allocated. Ponds will remain hydraulically and organically overloaded, risking the health if the environment and surrounding communities in future.
	Potential leakage or spillage of wastewater/ sewage impacting soil	32	2	32	1	8	15							Status of site will remain unchanged. No mitigation will be implented. Therefore no post mitigation score can be allocated. Ponds will remain hydraulically and organically overloaded, risking the health if the environment and surrounding communities in future.

8	Resource use: water	32	2	32	1	1	13,6							Status of site will remain unchanged. No mitigation will be implented. Therefore no post mitigation score can be allocated. Ponds will remain hydraulically and organically overloaded, risking the health if the environment and surrounding communities in future.
9	Resource use: land	32	2	32	1	1	13,6							Status of site will remain unchanged. No mitigation will be implented. Therefore no post mitigation score can be allocated. Ponds will remain hydraulically and organically overloaded, risking the health if the environment and surrounding communities in future.
11	Irrigation of final effleunt	32	2	32	4	4	14,8							Status of site will remain unchanged. No mitigation will be implented. Therefore no post mitigation score can be allocated. Ponds will remain hydraulically and organically overloaded, risking the health if the environment and surrounding communities in future.
15	Local employment opportunities													