GEOGRAPHICAL AND PHYSICAL

GEOLOGY

Alternative 1, 2 and 3	**Geographical and Physical Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Construction activities can affect the underlying geological layers on site to some extent.**
Nature of impact:	**Disturbance to subsurface geological layers**
Extent and duration of impact:	**Extent 1 (footprint) & Duration 2 (two to five years)**
Consequence of impact or risk:	**Construction and excavation activities can affect the underlying geological layers on site to some extent.**
Probability of occurrence:	**2 (Improbable: some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**1- Resource will not be lost (R)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Disturbance to surrounding subsurface geological layers**
Cumulative impact prior to mitigation:	**It is not anticipated that the impact will be high as the affected substrata is deep and the integrity of the underlying ground structures will not be sacrificed.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2- Partly mitigatable (PM)**
Proposed mitigation:	**Demarcation and work within demarcated areas only.**
Residual impacts:	**It is not anticipated that the impact will be high as the affected substrata is deep and the integrity of the underlying ground structures will not be sacrificed.**
Cumulative impact post mitigation:	**It is not anticipated that the impact will be high as the affected substrata is deep and the integrity of the underlying ground structures will not be sacrificed.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
OPERATIONAL PHASE	
Potential impact and risk:	**Maintenance activities can affect the underlying geological layers on site to some extent.**
Nature of impact:	**Disturbance to subsurface geological layers**
Extent and duration of impact:	**Extent 1 (footprint) & Duration 2 (two to five years)**
Consequence of impact or risk:	**Construction and excavation activities can affect the underlying geological layers on site to some extent.**
Probability of occurrence:	**2 (Improbable: some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**1-Resource will not be lost (R)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Disturbance to surrounding subsurface geological layers**
Cumulative impact prior to mitigation:	**It is not anticipated that the impact will be high as the affected substrata is deep and the integrity of the underlying ground structures will not be sacrificed.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2-Partly mitigatable (PM)**
Proposed mitigation:	**Demarcation and work within demarcated areas only.**
Residual impacts:	**It is not anticipated that the impact will be high as the affected substrata is deep and the integrity of the underlying ground structures will not be sacrificed.**

Cumulative impact post mitigation:	**It is not anticipated that the impact will be high as the affected substrata is deep and the integrity of the underlying ground structures will not be sacrificed.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	
Nature of impact:	**Disturbance to subsurface geological layers**
Extent and duration of impact:	**Extent 1 (footprint) & Duration 2 (two to five years)**
Consequence of impact or risk:	**Construction and excavation activities can affect the underlying geological layers on site to some extent.**
Probability of occurrence:	**2 (Improbable: some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**1-Resource will not be lost (R)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Disturbance to surrounding subsurface geological layers**
Cumulative impact prior to mitigation:	**It is not anticipated that the impact will be high as the affected substrata is deep and the integrity of the underlying ground structures will not be sacrificed.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2-Partly mitigatable (PM)**
Proposed mitigation:	**Demarcation and work within demarcated areas only.**
Residual impacts:	**It is not anticipated that the impact will be high as the affected substrata is deep and the integrity of the underlying ground structures will not be sacrificed.**
Cumulative impact post mitigation:	**It is not anticipated that the impact will be high as the affected substrata is deep and the integrity of the underlying ground structures will not be sacrificed.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**

SOIL EROSION AND DUST

Alternative 1, 2 and 3	**Geographical and Physical Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Soil erosion and dust**
Nature of impact:	**Construction activities will cause a disturbance to the soil and the vegetation cover on the site. This disturbance, unless carefully managed, could spread as a result.** **Soil erosion can occur due to wind (wind erosion cause dust pollution); and due to overland storm water flow should rains fall during construction. Due to the sloping nature of the terrain, it is unlikely that a shallow perched water table will develop on site. Residual soils are also expected to have a very low permeability and due to low infiltration rates and the sloping terrain, water will tend to runoff from surface in a downslope direction.** **Soil erosion can occur due to wind (wind erosion causes dust pollution).**
Extent and duration of impact:	**Extent 1 (footprint) & Duration 5 (permanent)**
Consequence of impact or risk:	**Construction and excavation activities can result in erosion and dust.**
Probability of occurrence:	**2 (Improbable: some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**2-Resource may be partly destroyed (PR)**

Degree to which the impact can be reversed:	**Completely reversible (R)**
Indirect impacts:	**Disturbance to surface area can result in erosion and dust generation**
Cumulative impact prior to mitigation:	**Exposing soil may lead to erosion and dust generation if not mitigated.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**16 - Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**1-Completely mitigatable (CM)**
Proposed mitigation:	**Control access to roads and other areas to avoid disturbance of areas outside the development footprint.** **Undertake dust suppression as needed.** **Personnel should be restricted to the camp site and immediate construction areas only.** **Undertake storm water management measures as required, with special attention to storm water management that may be required upslope.** **Rehabilitate or stabilise eroded areas immediately to prevent increase in erosion.**
Residual impacts:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Cumulative impact post mitigation:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
OPERATIONAL PHASE	
Potential impact and risk:	**Soil erosion and dust**
Nature of impact:	**Operational activities should not cause a disturbance to the soil and the vegetation cover on the site.** **Soil erosion can occur due to wind (wind erosion cause dust pollution).**
Extent and duration of impact:	**Extent 1 (footprint) & Duration 5 (permanent)**
Consequence of impact or risk:	**Erosion and dust.**
Probability of occurrence:	**2 (Improbable: some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**1-Resource will not be lost (R)**
Degree to which the impact can be reversed:	**Completely reversible (R)**
Indirect impacts:	**Disturbance to surface area can result in erosion and dust generation.**
Cumulative impact prior to mitigation:	**Exposing soil may lead to erosion and dust generation if not mitigated.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**1-Completely mitigatable (CM)**
Proposed mitigation:	**Control access to roads and other areas to avoid disturbance of areas outside the development footprint.** **Undertake dust suppression as needed.** **Rehabilitate or stabilise eroded areas immediately to prevent increase in erosion.**
Residual impacts:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Cumulative impact post mitigation:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**Soil erosion and dust**

Nature of impact:	**Decommissioning activities will cause a disturbance to the soil and the vegetation cover on the site. This disturbance, unless carefully managed, could spread as a result.** **Soil erosion can occur due to wind (wind erosion cause dust pollution); and due to overland storm water flow should rains fall during construction. Due to the sloping nature of the terrain, it is unlikely that a shallow perched water table will develop on site. Residual soils are also expected to have a very low permeability and due to low infiltration rates and the sloping terrain, water will tend to runoff from surface in a downslope direction.** **Soil erosion can occur due to wind (wind erosion causes dust pollution).**
Extent and duration of impact:	**Extent 1 (footprint) & Duration 5 (permanent)**
Consequence of impact or risk:	**Decommissioning and excavation activities can result in erosion and dust.**
Probability of occurrence:	**2 (Improbable: some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**1-Resource will not be lost (R)**
Degree to which the impact can be reversed:	**Completely reversible (R)**
Indirect impacts:	**Disturbance to surface area can result in erosion and dust generation**
Cumulative impact prior to mitigation:	**Exposing soil may lead to erosion and dust generation if not mitigated.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**16 - Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**1-Completely mitigatable (CM)**
Proposed mitigation:	**Control access to roads and other areas to avoid disturbance of areas outside the development footprint.** **Undertake dust suppression as needed.** **Personnel should be restricted to the camp site and immediate construction areas only.** **Rehabilitate or stabilise eroded areas immediately to prevent increase in erosion.**
Residual impacts:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Cumulative impact post mitigation:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**

SURFACE AND GROUND WATER POLLUTION

Alternative 1:	**Geographical and Physical Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Impact of construction activities on surface and underground water pollution**
Nature of impact:	**An Ecological Support Area (watercourse) is located within 100m of the site. Construction could impact on the functioning of this ESA.** **Construction activities should not have any impact on the wetland that is located on the opposite side of the N7. Diesel and oil spills affecting ground and surface water.** **Regional groundwater as a whole is vulnerable to contamination. Contaminants and pollutants from both point and diffuse sources would quickly enter the regional groundwater system.**

Extent and duration of impact:	**Extent 3 (Within a 20 km radius of the centre of the site) & Duration 3 (5 – 15 years)**
Consequence of impact or risk:	**Degradation of ESA. Possible pollution of surface and ground water.**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**2-Resource may be partly destroyed (PR)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Pollution of water resources. Degradation of ESA.**
Cumulative impact prior to mitigation:	**Diesel and oil spills affecting ground and surface water quality.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**64 - High**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2-Partly mitigatable (PM)**
Proposed mitigation:	**Mitigation measures included in EMP, attached as Appendix H, shall be adhered to.**
Residual impacts:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Cumulative impact post mitigation:	**Diesel and oil spills affecting ground and surface water quality.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**56 – Medium**
OPERATIONAL PHASE	
Potential impact and risk:	**Impact of construction activities on surface and underground water pollution**
Nature of impact:	**An Ecological Support Area (watercourse) is located within 100m of the site. Construction could impact on the functioning of this ESA.** **Operational activities (over flow of effluent water) may have any impact on the wetland that is located on the opposite side of the N7.** **Irrigation with effluent water may make groundwater vulnerable to contamination. Contaminants and pollutants from both point and diffuse sources would quickly enter the regional groundwater system.**
Extent and duration of impact:	**Extent 3 (Within a 20 km radius of the centre of the site) & Duration 3 (5 – 15 years)**
Consequence of impact or risk:	**Possible pollution of surface and ground water.**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**2-Resource may be partly destroyed (PR)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Pollution of water resources**
Cumulative impact prior to mitigation:	**Diesel and oil spills affecting ground and surface water quality.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**64 - High**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2-Partly mitigatable (PM)**
Proposed mitigation:	**Mitigation measures included in EMP, attached as Appendix H, shall be adhered to.** **These include quality testing in accordance with DWS standards.**
Residual impacts:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Cumulative impact post mitigation:	**Diesel and oil spills affecting ground and surface water quality.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**56 – Medium**

DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**Impact of construction activities on surface and underground water pollution**
Nature of impact:	**Diesel and oil spills affecting ground and surface water. An Ecological Support Area (watercourse) is located within 100m of the site. Construction could impact on the functioning of this ESA.**
Extent and duration of impact:	**Extent 3 (Within a 20 km radius of the centre of the site) & Duration 3 (5 – 15 years)**
Consequence of impact or risk:	**Possible pollution of surface and ground water.**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**2-Resource may be partly destroyed (PR)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Pollution of water resources**
Cumulative impact prior to mitigation:	**Diesel and oil spills affecting ground and surface water quality.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**64 - High**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2-Partly mitigatable (PM)**
Proposed mitigation:	**Mitigation measures included in EMP, attached as Appendix H, shall be adhered to.**
Residual impacts:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Cumulative impact post mitigation:	**Diesel and oil spills affecting ground and surface water quality.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**56 – Medium**

Alternative 2:	**Geographical and Physical Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Impact of construction activities on surface and underground water pollution**
Nature of impact:	**An Ecological Support Area (watercourse) is located within 150m of the site. Construction could impact on the functioning of this ESA.** **Construction activities should not have any impact on the wetland that is located on the opposite side of the N7. Diesel and oil spills affecting ground and surface water.** **Regional groundwater as a whole is vulnerable to contamination. Contaminants and pollutants from both point and diffuse sources would quickly enter the regional groundwater system.**
Extent and duration of impact:	**Extent 3 (Within a 20 km radius of the centre of the site) & Duration 3 (5 – 15 years)**
Consequence of impact or risk:	**Possible pollution of surface and ground water.**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**2-Resource may be partly destroyed (PR)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Pollution of water resources**
Cumulative impact prior to mitigation:	**Diesel and oil spills affecting ground and surface water quality.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**64 - High**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2-Partly mitigatable (PM)**

Proposed mitigation:	**Mitigation measures included in EMP, attached as Appendix H, shall be adhered to.**
Residual impacts:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Cumulative impact post mitigation:	**Diesel and oil spills affecting ground and surface water quality.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**56 – Medium**
OPERATIONAL PHASE	
Potential impact and risk:	**Impact of construction activities on surface and underground water pollution**
Nature of impact:	**An Ecological Support Area (watercourse) is located within 150m of the site. Construction could impact on the functioning of this ESA. Operational activities (over flow of effluent water) may have any impact on the wetland that is located on the opposite side of the N7.** **Irrigation with effluent water may make groundwater vulnerable to contamination. Contaminants and pollutants from both point and diffuse sources would quickly enter the regional groundwater system.**
Extent and duration of impact:	**Extent 3 (Within a 20 km radius of the centre of the site) & Duration 3 (5 – 15 years)**
Consequence of impact or risk:	**Possible pollution of surface and ground water.**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**2-Resource may be partly destroyed (PR)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Pollution of water resources**
Cumulative impact prior to mitigation:	**Diesel and oil spills affecting ground and surface water quality.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**64 - High**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2-Partly mitigatable (PM)**
Proposed mitigation:	**Mitigation measures included in EMP, attached as Appendix H, shall be adhered to.** **These include quality testing in accordance with DWS standards.**
Residual impacts:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Cumulative impact post mitigation:	**Diesel and oil spills affecting ground and surface water quality.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**56 – Medium**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**Impact of construction activities on surface and underground water pollution**
Nature of impact:	**An Ecological Support Area (watercourse) is located within 150m of the site. Construction could impact on the functioning of this ESA. Diesel and oil spills affecting ground and surface water**
Extent and duration of impact:	**Extent 3 (Within a 20 km radius of the centre of the site) & Duration 3 (5 – 15 years)**
Consequence of impact or risk:	**Possible pollution of surface and ground water.**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**2-Resource may be partly destroyed (PR)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Pollution of water resources**
Cumulative impact prior to mitigation:	**Diesel and oil spills affecting ground and surface water quality.**

Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**64 - High**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2-Partly mitigatable (PM)**
Proposed mitigation:	**Mitigation measures included in EMP, attached as Appendix H, shall be adhered to.**
Residual impacts:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Cumulative impact post mitigation:	**Diesel and oil spills affecting ground and surface water quality.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**56 – Medium**

Alternative 3: Preferred Site	**Geographical and Physical Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Impact of construction activities on surface and underground water pollution**
Nature of impact:	**An Ecological Support Area (watercourse) is located some 500m away from the site. This is a sufficient buffer.** **Construction activities should not have any impact on the wetland that is located on the opposite side of the N7. Diesel and oil spills affecting ground and surface water.** **Regional groundwater as a whole is vulnerable to contamination. Contaminants and pollutants from both point and diffuse sources would quickly enter the regional groundwater system.**
Extent and duration of impact:	**Extent 3 (Within a 20 km radius of the centre of the site) & Duration 3 (5 – 15 years)**
Consequence of impact or risk:	**Possible pollution of surface and ground water.**
Probability of occurrence:	**2 - Improbable (I)**
Degree to which the impact may cause irreplaceable loss of resources:	**2-Resource may be partly destroyed (PR)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Pollution of water resources**
Cumulative impact prior to mitigation:	**Diesel and oil spills affecting ground and surface water quality.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**24 – Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2-Partly mitigatable (PM)**
Proposed mitigation:	**Mitigation measures included in EMP, attached as Appendix H, shall be adhered to.**
Residual impacts:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Cumulative impact post mitigation:	**Diesel and oil spills affecting ground and surface water quality.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**20 – Low**
OPERATIONAL PHASE	
Potential impact and risk:	**Impact of construction activities on surface and underground water pollution**
Nature of impact:	**An Ecological Support Area (watercourse) is located some 500m away from the site. This is a sufficient buffer. Operational activities (over flow of effluent water) may have any impact on the wetland that is located on the opposite side of the N7.** **Irrigation with effluent water may make groundwater vulnerable to contamination. Contaminants and pollutants from both point**

	and diffuse sources would quickly enter the regional groundwater system.
Extent and duration of impact:	**Extent 3 (Within a 20 km radius of the centre of the site) & Duration 3 (5 – 15 years)**
Consequence of impact or risk:	**Possible pollution of surface and ground water.**
Probability of occurrence:	**2 - Improbable (I)**
Degree to which the impact may cause irreplaceable loss of resources:	**2-Resource may be partly destroyed (PR)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Pollution of water resources**
Cumulative impact prior to mitigation:	**Diesel and oil spills affecting ground and surface water quality.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**24 – Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2-Partly mitigatable (PM)**
Proposed mitigation:	**Mitigation measures included in EMP, attached as Appendix H, shall be adhered to.** **These include quality testing in accordance with DWS standards.**
Residual impacts:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Cumulative impact post mitigation:	**Diesel and oil spills affecting ground and surface water quality.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**20 – Low**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**Impact of construction activities on surface and underground water pollution**
Nature of impact:	**An Ecological Support Area (watercourse) is located some 500m away from the site. This is a sufficient buffer. Diesel and oil spills affecting ground and surface water.**
Extent and duration of impact:	**Extent 3 (Within a 20 km radius of the centre of the site) & Duration 3 (5 – 15 years)**
Consequence of impact or risk:	**Possible pollution of surface and ground water.**
Probability of occurrence:	**2 - Improbable (I)**
Degree to which the impact may cause irreplaceable loss of resources:	**2-Resource may be partly destroyed (PR)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Pollution of water resources**
Cumulative impact prior to mitigation:	**Diesel and oil spills affecting ground and surface water quality.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**24 – Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2-Partly mitigatable (PM)**
Proposed mitigation:	**Mitigation measures included in EMP, attached as Appendix H, shall be adhered to.**
Residual impacts:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Cumulative impact post mitigation:	**Diesel and oil spills affecting ground and surface water quality.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**20 – Low**

EMISSIONS AND AIR QUALITY

Alternative 1, 2 and 3	**Geographical and Physical Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Emissions and impact on air quality**
Nature of impact:	**Not applicable to the planning, design and development phase.**
OPERATIONAL PHASE	
Potential impact and risk:	**Emissions and impact on air quality.** **Net heat input: Maximum of 7.5 MW. As such the boilers will NOT be considered a controlled emitter as they are less than the 10MW of a "small boiler".**
Nature of impact:	**Emissions from the process are:** • **Steam (excess) from the boiler.** • **Smoke from the coal / HFO boiler.** • **Dust from the incoming products.** • **Dust from the cutting and milling.** • **Onion fumes from the peeling and drying process.**
Extent and duration of impact:	**Extent 3 (local) & Duration 5 (permanent)**
Consequence of impact or risk:	**Air pollution**
Probability of occurrence:	**4 (Highly probable (HP))**
Degree to which the impact may cause irreplaceable loss of resources:	**1- Resource will not be lost (R)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Air pollution can cause a variety of environmental effects, such us acid rain, eutrophication, effects on wildlife, ozone depletion, crop and forest damages, global climate change tec. However, the emissions from the proposed development will be negligible on a global scale.**
Cumulative impact prior to mitigation:	**Negative impact on surrounding air quality.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**48 – Medium**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2-Partly mitigatable (PM)**
Proposed mitigation:	• **Smoke from the coal / HFO boiler. These emissions will be controlled with filters to reduce the contaminants.** • **Dust from the incoming products. This will be controlled by cyclones.** • **Dust from the cutting and milling. This will be controlled by cyclones.** • **Onion fumes from the peeling and drying process. The added washing steps will keep this to a minimum.**
Residual impacts:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Cumulative impact post mitigation:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**Emissions and impact on air quality**
Nature of impact:	**Not applicable to the planning, design and development phase.**

ECOLOGICAL AND BIOLOGICAL

IMPACT ON SENSITIVE ENVIRONMENTS (RIVERS, WETLANDS ETC)

Alternative 1:	**Biological Aspect Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Impact on sensitive environments (rivers, wetlands etc)**
Nature of impact:	**All the facilities are situated on disturbed areas and not on any sensitive areas.** **An Ecological Support Area (watercourse) is located within 100m of the site. Construction could impact on the functioning of this ESA.** **Construction activities should not have any impact on the wetland that is located on the opposite side of the N7.**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 3 (5 – 15 years)**
Consequence of impact or risk:	**Degradation of ecological support area (water course).**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**2-Resource may be partly destroyed (PR)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Loss of habitat.**
Cumulative impact prior to mitigation:	**Loss of habitat.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**60 – High**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2-Partly mitigatable (PM)**
Proposed mitigation:	**Work within site boundaries with no construction activities outside the boundary of the proposed development.**
Residual impacts:	**Loss of significantly impacted upon habitat.**
Cumulative impact post mitigation:	**Possible impact on habitats.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**54 – Medium**
OPERATIONAL PHASE	
Potential impact and risk:	**Impact on the habitat present in the area.**
Nature of impact:	**An Ecological Support Area (watercourse) is located within 100m of the site. Operations could impact on the functioning of this ESA.** **Overflow of treated effluent water will be disposed of into a culvert at the N7 which may have an impact on the wetland that is located on the opposite side of the N7.**
Extent and duration of impact:	**Extent 3 Local (Within a 20 km radius of the centre of the site) & Duration 5 Permanent(P) (Will not cease)**
Consequence of impact or risk:	**Degradation of ESA watercourse and wetland (due to poor quality effluent.**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**2 - Resource may be partly destroyed (PR)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Loss of habitat and ecological support areas.**
Cumulative impact prior to mitigation:	**Loss of habitat.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**72 – High**

Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2-Partly mitigatable (PM)**
Proposed mitigation:	**Work within site boundaries.** **Conduct water quality testing on effluent as prescribed in the EMP and WUL.** **Maintain treatment plants as required.**
Residual impacts:	**Loss of habitat.**
Cumulative impact post mitigation:	**None.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**56 – Medium**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**Impact on sensitive environments (rivers, wetlands etc)**
Nature of impact:	**An Ecological Support Area (watercourse) is located within 100m of the site. decommissioning could impact on the functioning of this ESA.** **Decommissioning activities should not have any impact on the wetland that is located on the opposite side of the N7.**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Degradation of ecological support area (water course).**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**2-Resource may be partly destroyed (PR)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Loss of habitat.**
Cumulative impact prior to mitigation:	**Loss of habitat.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**52 – Medium**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2-Partly mitigatable (PM)**
Proposed mitigation:	**Work within site boundaries with no decommissioning activities outside the boundary of the proposed development.**
Residual impacts:	**Loss of significantly impacted upon habitat.**
Cumulative impact post mitigation:	**Possible impact on habitats.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**44 -Medium**

Alternative 2:	**Biological Aspect Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Impact on sensitive environments (rivers, wetlands etc)**
Nature of impact:	**All the facilities are situated on disturbed areas and not on any sensitive areas.** **An Ecological Support Area (watercourse) is located within 150m of the site. Construction could impact on the functioning of this ESA.** **Construction activities should not have any impact on the wetland that is located on the opposite side of the N7.**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 3 (5 – 15 years)**
Consequence of impact or risk:	**Degradation of ecological support area (water course).**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**2-Resource may be partly destroyed (PR)**

Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Loss of habitat.**
Cumulative impact prior to mitigation:	**Loss of habitat.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**60 – High**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2-Partly mitigatable (PM)**
Proposed mitigation:	**Work within site boundaries with no construction activities outside the boundary of the proposed development.**
Residual impacts:	**Loss of significantly impacted upon habitat.**
Cumulative impact post mitigation:	**Possible impact on habitats.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**54 – Medium**
OPERATIONAL PHASE	
Potential impact and risk:	**Impact on the habitat present in the area.**
Nature of impact:	**An Ecological Support Area (watercourse) is located within 150m of the site. Operations could impact on the functioning of this ESA.** **Overflow of treated effluent water will be disposed of into a culvert at the N7 which may have an impact on the wetland that is located on the opposite side of the N7.**
Extent and duration of impact:	**Extent 3 Local (Within a 20 km radius of the centre of the site) & Duration 5 Permanent(P) (Will not cease)**
Consequence of impact or risk:	**Degradation of ESA watercourse and wetland (due to poor quality effluent.**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**2 - Resource may be partly destroyed (PR)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Loss of habitat and ecological support areas.**
Cumulative impact prior to mitigation:	**Loss of habitat.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**72 – High**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2-Partly mitigatable (PM)**
Proposed mitigation:	**Work within site boundaries.** **Conduct water quality testing on effluent as prescribed in the EMP and WUL.** **Maintain treatment plants as required.**
Residual impacts:	**Loss of habitat.**
Cumulative impact post mitigation:	**None.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**56 – Medium**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**Impact on sensitive environments (rivers, wetlands etc)**
Nature of impact:	**An Ecological Support Area (watercourse) is located within 150m of the site. decommissioning could impact on the functioning of this ESA.** **Decommissioning activities should not have any impact on the wetland that is located on the opposite side of the N7.**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Degradation of ecological support area (water course).**
Probability of occurrence:	**4 (most likely)**

Degree to which the impact may cause irreplaceable loss of resources:	**2-Resource may be partly destroyed (PR)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Loss of habitat.**
Cumulative impact prior to mitigation:	**Loss of habitat.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**52 – Medium**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2-Partly mitigatable (PM)**
Proposed mitigation:	**Work within site boundaries with no decommissioning activities outside the boundary of the proposed development.**
Residual impacts:	**Loss of significantly impacted upon habitat.**
Cumulative impact post mitigation:	**Possible impact on habitats.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**44 -Medium**

Alternative 3: Preferred Site	**Biological Aspect Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Impact on sensitive environments (rivers, wetlands etc)**
Nature of impact:	**All the facilities are situated on disturbed areas and not on any sensitive areas.** **An Ecological Support Area (watercourse) is located some 500m away from the site. This is a sufficient buffer. The construction activities will only take place on disturbed areas and a buffer will be maintained.** **Construction activities should not have any impact on the wetland that is located on the opposite side of the N7.**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Degradation of ecological support area (water course).**
Probability of occurrence:	**1 (Very improbable (VP))**
Degree to which the impact may cause irreplaceable loss of resources:	**1-Resource will not be lost (R)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Loss of significantly impacted upon habitat.**
Cumulative impact prior to mitigation:	**Loss of significantly impacted upon habitat.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**7 – Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**1- Completely mitigatable (CM)**
Proposed mitigation:	**Work within site boundaries with no construction activities outside the boundary of the proposed development.**
Residual impacts:	**Loss of significantly impacted upon habitat.**
Cumulative impact post mitigation:	**Possible impact on habitats.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**3 - Low**
OPERATIONAL PHASE	
Potential impact and risk:	**Impact on the habitat present in the area.**
Nature of impact:	**All the facilities are situated on disturbed areas and not on any sensitive areas. An Ecological Support Area (watercourse) is located some 500m away from the site. This is a sufficient buffer. The operational activities will only take place on disturbed areas and a buffer will be maintained.**

	Overflow of treated effluent water will be disposed of into a culvert at the N7 which may have an impact on the wetland that is located on the opposite side of the N7.
Extent and duration of impact:	**Extent 3 Local (Within a 20 km radius of the centre of the site) & Duration 5 Permanent(P) (Will not cease)**
Consequence of impact or risk:	**Degradation of ESA watercourse and wetland (due to poor quality effluent.**
Probability of occurrence:	**2 - Improbable (I)**
Degree to which the impact may cause irreplaceable loss of resources:	**2 - Resource may be partly destroyed (PR)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Loss of habitat and ecological support areas.**
Cumulative impact prior to mitigation:	**Loss of habitat.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**28 - Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**1- Completely mitigatable (CM)**
Proposed mitigation:	**Work within site boundaries.** **Conduct water quality testing on effluent as prescribed in the EMP and WUL.** **Maintain treatment plants as required.**
Residual impacts:	**Loss of habitat.**
Cumulative impact post mitigation:	**None.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**Impact on sensitive environments (rivers, wetlands etc)**
Nature of impact:	**All the facilities are situated on disturbed areas and not on any sensitive areas.** **An Ecological Support Area (watercourse) is located some 500m away from the site. This is a sufficient buffer. The decommissioning activities will only take place on disturbed areas and a buffer will be maintained.** **Decommissioning activities should not have any impact on the wetland that is located on the opposite side of the N7.**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Degradation of ecological support area (water course).**
Probability of occurrence:	**1 (Very improbable (VP))**
Degree to which the impact may cause irreplaceable loss of resources:	**1-Resource will not be lost (R)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Loss of significantly impacted upon habitat.**
Cumulative impact prior to mitigation:	**Loss of significantly impacted upon habitat.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**7 – Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**1- Completely mitigatable (CM)**
Proposed mitigation:	**Work within site boundaries with no decommissioning activities outside the boundary of the proposed development.**
Residual impacts:	**Loss of significantly impacted upon habitat.**
Cumulative impact post mitigation:	**Possible impact on habitats.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**3 - Low**

SOCIO-ECONOMIC

INCREASE IN JOBS

Alternative 1, 2 and 3	**Socio-Economic Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Increased jobs**
Nature of impact:	**Temporary construction jobs will be created. The locals may not have sufficient skills to utilize the employment opportunities and "others (work force and job seekers)" may be employed from outside the community.**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Influx of contract workers due to lack of skills. Influx of job seekers due to jobs created. Littering.**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**NA – Positive**
Degree to which the impact can be reversed:	**NA – Positive**
Indirect impacts:	**NA – Positive**
Cumulative impact prior to mitigation:	**NA – Positive**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low (positive)**
Degree to which the impact can be avoided:	**NA – Positive**
Degree to which the impact can be managed:	**NA – Positive**
Degree to which the impact can be mitigated:	**NA – Positive**
Proposed mitigation:	**Local contractors, employing or seeking to employ local (historically disadvantaged individuals (HDIs) from the region who are suitably qualified, should get preference. The municipality, local community and local community organizations should be informed of the project and potential job opportunities by the developer.**
Residual impacts:	**NA – Positive**
Cumulative impact post mitigation:	**NA – Positive**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low (positive)**
OPERATIONAL PHASE	
Potential impact and risk:	**Increased jobs**
Nature of impact:	**Jobs will be created. The locals may not have sufficient skills to utilize the employment opportunities and "others (work force and job seekers)" may be employed from outside the community.**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Influx of contract workers due to lack of skills. Influx of job seekers due to jobs created. Littering.**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**NA – Positive**
Degree to which the impact can be reversed:	**NA – Positive**
Indirect impacts:	**NA – Positive**
Cumulative impact prior to mitigation:	**NA – Positive**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low (positive)**
Degree to which the impact can be avoided:	**NA – Positive**
Degree to which the impact can be managed:	**NA – Positive**

Degree to which the impact can be mitigated:	**NA – Positive**
Proposed mitigation:	**Local contractors, employing or seeking to employ local (historically disadvantaged individuals (HDIs) from the region who are suitably qualified, should get preference.** **The municipality, local community and local community organizations should be informed of the project and potential job opportunities by the developer.**
Residual impacts:	**NA – Positive**
Cumulative impact post mitigation:	**NA – Positive**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low (positive)**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**Increased jobs**
Nature of impact:	**Temporary construction jobs will be created. The locals may not have sufficient skills to utilize the employment opportunities and "others (work force and job seekers)" may be employed from outside the community.**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Influx of contract workers due to lack of skills.** **Influx of job seekers due to jobs created.** **Littering.**
Probability of occurrence:	**4 (most likely)**
Degree to which the impact may cause irreplaceable loss of resources:	**NA – Positive**
Degree to which the impact can be reversed:	**NA – Positive**
Indirect impacts:	**NA – Positive**
Cumulative impact prior to mitigation:	**NA – Positive**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low (positive)**
Degree to which the impact can be avoided:	**NA – Positive**
Degree to which the impact can be managed:	**NA – Positive**
Degree to which the impact can be mitigated:	**NA – Positive**
Proposed mitigation:	**Local contractors, employing or seeking to employ local (historically disadvantaged individuals (HDIs) from the region who are suitably qualified, should get preference.** **The municipality, local community and local community organizations should be informed of the project and potential job opportunities by the developer.**
Residual impacts:	**NA – Positive**
Cumulative impact post mitigation:	**NA – Positive**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low (positive)**

INCREASE IN TRAFFIC

Alternative 1, 2 and 3	**Socio-Economic Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Traffic Impacts**
Nature of impact:	**The construction machinery will only have a traffic impact on delivery to, and collection from the site and are therefore regarded as negligible.**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 2 (2 – 5 years)**
Consequence of impact or risk:	**The construction machinery will only have a traffic impact on delivery to, and collection from the site and are therefore regarded as negligible.**
Probability of occurrence:	**2 (some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**1-Resource will not be lost (R)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**The minor increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Cumulative impact prior to mitigation:	**The minor increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**16 – Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2-Partly mitigatable (PM)**
Proposed mitigation:	**Avoid peak traffic hours (07h00 – 08h00 and 17h00 – 18h00) as far as possible**
Residual impacts:	**The minor increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Cumulative impact post mitigation:	**The minor increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low**
OPERATIONAL PHASE	
Potential impact and risk:	**Traffic Impacts**
Nature of impact:	**Increased traffic due to the operation activities requiring various vehicles to come onto and leave the site.** **The fresh product, and the distribution of the dehydrated product, will generate on average a maximum of 3 truck movements per day. These trucks do not necessarily deliver during peak N7 traffic hours. These trucks would be either articulated or interlink.** **Arrival of fresh product will be from both the north and south approach off the N7, but delivery of dehydrated product will predominantly enter N7 traffic in a southbound direction.** **There is not expected to be any significant growth in trip generation.**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 5 (Will not cease)**
Consequence of impact or risk:	**The increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Probability of occurrence:	**2 (some possibility, but low likelihood)**

Degree to which the impact may cause irreplaceable loss of resources:	**1-Resource will not be lost (R)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**The increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Cumulative impact prior to mitigation:	**The increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2-Partly mitigatable (PM)**
Proposed mitigation:	**None**
Residual impacts:	**The increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Cumulative impact post mitigation:	**The increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**Traffic Impacts**
Nature of impact:	**The decommissioning machinery will only have a traffic impact on delivery to, and collection from the site and are therefore regarded as negligible.**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 2 (2 – 5 years)**
Consequence of impact or risk:	**The decommissioning machinery will only have a traffic impact on delivery to, and collection from the site and are therefore regarded as negligible.**
Probability of occurrence:	**2 (some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**1-Resource will not be lost (R)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**The minor increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Cumulative impact prior to mitigation:	**The minor increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**16 – Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2-Partly mitigatable (PM)**
Proposed mitigation:	**Avoid peak traffic hours (07h00 – 08h00 and 17h00 – 18h00) as far as possible**
Residual impacts:	**The minor increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Cumulative impact post mitigation:	**The minor increase in traffic volumes at certain times of day will add to the existing traffic volumes. As the existing traffic volumes are relatively low, this cumulative impact is not significant.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low**

IMPACT ON PLANNING POLICIES

Alternative 1, 2 and 3	**Socio-Economic Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Impact on surrounding and municipal planning policies and guidelines.**
Nature of impact:	**Rezoning from agriculture 1 to Agri-Industrial 2 required. Agri-Industrial activities on agricultural land to process onions that is produced in close proximity on surrounding agricultural land.**
Extent and duration of impact:	**Extent 1 (Footprint) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Possible impact on surrounding and municipal planning policies and guidelines.**
Probability of occurrence:	**2 (some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**1-Resource will not be lost (R)**
Degree to which the impact can be reversed:	**Completely reversible (R)**
Indirect impacts:	**Impact on surrounding and municipal planning policies and guidelines.**
Cumulative impact prior to mitigation:	**Impact on surrounding and municipal planning policies and guidelines.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**1-Completely mitigatable (CM)**
Proposed mitigation:	**Rezoning application in process to be approved and that the conditions associated with the approved rezoning are implemented and adhered to.**
Residual impacts:	**Impact on surrounding and municipal planning policies and guidelines.**
Cumulative impact post mitigation:	**Possible impact on surrounding and municipal planning policies and guidelines.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
OPERATIONAL PHASE	
Potential impact and risk:	**Impact on surrounding and municipal planning policies and guidelines.**
Nature of impact:	**Rezoning from agriculture 1 to Agri-Industrial 2 required. Agri-Industrial activities on agricultural land to process onions that is produced in close proximity on surrounding agricultural land.**
Extent and duration of impact:	**Extent 1 (Footprint) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Possible impact on surrounding and municipal planning policies and guidelines.**
Probability of occurrence:	**2 (some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**1-Resource will not be lost (R)**
Degree to which the impact can be reversed:	**Completely reversible (R)**
Indirect impacts:	**Impact on surrounding and municipal planning policies and guidelines.**
Cumulative impact prior to mitigation:	**Impact on surrounding and municipal planning policies and guidelines.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**1-Completely mitigatable (CM)**
Proposed mitigation:	**Rezoning application in process to be approved and that the conditions associated with the approved rezoning are implemented and adhered to.**
Residual impacts:	**Impact on surrounding and municipal planning policies and guidelines.**

Cumulative impact post mitigation:	**Possible impact on surrounding and municipal planning policies and guidelines.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 - Low**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**Impact on surrounding and municipal planning policies and guidelines.**
Nature of impact:	**Not applicable**

NOISE

Alternative 1, 2 and 3	**Socio-Economic Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Noise due to construction machinery**
Nature of impact:	**Noise due to construction machinery during the construction/development phase. Construction machinery may cause noise disturbance to the directly adjacent land users/ owners. It is not anticipated that the noise will be considerable and will only be temporary. Noise due to construction activities is unlikely to cause a nuisance to adjacent residential areas (approximately 2km away).**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Nuisance**
Probability of occurrence:	**1 (Very improbable (VP))**
Degree to which the impact may cause irreplaceable loss of resources:	**1-Resource will not be lost (R)**
Degree to which the impact can be reversed:	**Completely reversible (R) - This will not be a long-term impact nor will it have an impact on the natural processes. It is thus 100% reversible.**
Indirect impacts:	**Nuisance**
Cumulative impact prior to mitigation:	**Nuisance**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**9 – Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**1- Completely mitigatable (CM)**
Proposed mitigation:	**Machinery and vehicles should be regularly maintained to prevent excessive noise. All machinery and work activities must adhere to the requirements of the noise regulations.**
Residual impacts:	**Nuisance**
Cumulative impact post mitigation:	**Nuisance**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**7 - Low**
OPERATIONAL PHASE	
Potential impact and risk:	**Noise impacts**
Nature of impact:	**Noise due to industrial activities on site during operational phase (boiler, process equipment, trucks etc.). Noise due to operational activities is unlikely to cause a nuisance to adjacent residential areas (approximately 2km away).**
Extent and duration of impact:	**Extent 3 Local (Within a 20 km radius of the centre of the site) & Duration 5 Permanent (P) (Will not cease)**
Consequence of impact or risk:	**Nuisance**
Probability of occurrence:	**1 (Very improbable (VP))**
Degree to which the impact may cause irreplaceable loss of resources:	**1-Resource will not be lost (R)**
Degree to which the impact can be reversed:	**Completely reversible (R)**
Indirect impacts:	**Nuisance**
Cumulative impact prior to mitigation:	**Nuisance**

Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**14 – Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**1- Completely mitigatable (CM)**
Proposed mitigation:	**Machinery and vehicles should be regularly maintained to prevent excessive noise. All machinery and work activities must adhere to the requirements of the noise regulations.**
Residual impacts:	**Nuisance**
Cumulative impact post mitigation:	**Nuisance**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**12 - Low**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**Noise due to decommissioning machinery**
Nature of impact:	**Noise due to decommissioning machinery during the decommissioning phase. Decommissioning machinery may cause noise disturbance to the directly adjacent land users/ owners. It is not anticipated that the noise will be considerable and will only be temporary. Noise due to decommissioning activities is unlikely to cause a nuisance to adjacent residential areas (approximately 2km away).**
Extent and duration of impact:	**Extent 2 (On site or within 100 m of the site) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Nuisance**
Probability of occurrence:	**1 (Very improbable (VP))**
Degree to which the impact may cause irreplaceable loss of resources:	**1-Resource will not be lost (R)**
Degree to which the impact can be reversed:	**Completely reversible (R) - This will not be a long-term impact nor will it have an impact on the natural processes. It is thus 100% reversible.**
Indirect impacts:	**Nuisance**
Cumulative impact prior to mitigation:	**Nuisance**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**9 – Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**1- Completely mitigatable (CM)**
Proposed mitigation:	**Machinery and vehicles should be regularly maintained to prevent excessive noise. All machinery and work activities must adhere to the requirements of the noise regulations.**
Residual impacts:	**Nuisance**
Cumulative impact post mitigation:	**Nuisance**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**7 - Low**

ODOURS

Alternative 1, 2 and 3	**Socio-Economic Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Odours**
Nature of impact:	**Not applicable to the planning, design and development phase.**
OPERATIONAL PHASE	
Potential impact and risk:	**Odours**
Nature of impact:	**Onion fumes from the peeling and drying process causes a distinctive odour.**
Extent and duration of impact:	**Extent 3 (local) & Duration 5 (permanent)**
Consequence of impact or risk:	**Nuisance**
Probability of occurrence:	**4 (Highly probable (HP))**
Degree to which the impact may cause irreplaceable loss of resources:	**1- Resource will not be lost (R)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Nuisance**
Cumulative impact prior to mitigation:	**Nuisance**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**48 – Medium**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2-Partly mitigatable (PM)**
Proposed mitigation:	• **Cyclones.** • **The added washing steps will keep this to a minimum.** • **Complaints register must be in place.**
Residual impacts:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Cumulative impact post mitigation:	**It is not anticipated that the impact will be high if the mitigation measures are adhered to.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**Odours**
Nature of impact:	**Not applicable to the planning, design and development phase.**

HERITAGE AND CULTURAL HISTORIC

IMPACT ON ARCHAEOLOGICAL ETC

Alternative 1, 2 and 3	**Cultural-Historical Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**The potential impact of the proposed development on archaeological, paleontological and heritage remains.**
Nature of impact:	**The potential impact of the proposed development on archaeological, paleontological and heritage remains**
Extent and duration of impact:	**Extent 1 (Footprint) & Duration 5 (Will not cease)**
Consequence of impact or risk:	**The proposed development, related facilities and infrastructure will have no impact on the cultural-historical aspects.**
Probability of occurrence:	**2 (some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**2-Resource may be partly destroyed (PR)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**The proposed development, related facilities and infrastructure will have no impact on the cultural-historical aspects.**
Cumulative impact prior to mitigation:	**Destruction of cultural-historical features at the site will contribute to the loss of such features in the general area due to other non-related activities. This can at all times be mitigated to prevent/ minimise the loss of such features.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**16 – Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2-Partly mitigatable (PM)**
Proposed mitigation:	**Should any burials, fossils or other historical material be encountered during construction, work must cease immediately and HWC must be contacted.**
Residual impacts:	**Destruction of cultural-historical features at the site will contribute to the loss of such features in the general area due to other non-related activities. This can at all times be mitigated to prevent/ minimise the loss of such features.**
Cumulative impact post mitigation:	**Destruction of cultural-historical features at the site will contribute to the loss of such features in the general area due to other non-related activities. This can at all times be mitigated to prevent/ minimise the loss of such features.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low**
OPERATIONAL PHASE	
Potential impact and risk:	**The potential impact of the proposed development on archaeological, paleontological and heritage remains.**
Nature of impact:	**The potential impact of the proposed development on archaeological, paleontological and heritage remains**
Extent and duration of impact:	**Extent 1 (Footprint) & Duration 5 (Will not cease)**
Consequence of impact or risk:	**The proposed development, related facilities and infrastructure will have no impact on the cultural-historical aspects.**
Probability of occurrence:	**2 (some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**2-Resource may be partly destroyed (PR)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**The proposed development, related facilities and infrastructure will have no impact on the cultural-historical aspects.**
Cumulative impact prior to mitigation:	**Destruction of cultural-historical features at the site will contribute to the loss of such features in the general area due to other non-related activities. This can at all times be mitigated to prevent/ minimise the loss of such features.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low**
Degree to which the impact can be avoided:	**High**

Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2-Partly mitigatable (PM)**
Proposed mitigation:	**Should any burials, fossils or other historical material be encountered during construction, work must cease immediately and HWC must be contacted.**
Residual impacts:	**Destruction of cultural-historical features at the site will contribute to the loss of such features in the general area due to other non-related activities. This can at all times be mitigated to prevent/ minimise the loss of such features.**
Cumulative impact post mitigation:	**Destruction of cultural-historical features at the site will contribute to the loss of such features in the general area due to other non-related activities. This can at all times be mitigated to prevent/ minimise the loss of such features.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**The potential impact of the proposed development on archaeological, paleontological and heritage remains.**
Nature of impact:	**The potential impact of the proposed development on archaeological, paleontological and heritage remains**
Extent and duration of impact:	**Extent 1 (Footprint) & Duration 5 (Will not cease)**
Consequence of impact or risk:	**The proposed development, related facilities and infrastructure will have no impact on the cultural-historical aspects.**
Probability of occurrence:	**2 (some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**2-Resource may be partly destroyed (PR)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**The proposed development, related facilities and infrastructure will have no impact on the cultural-historical aspects.**
Cumulative impact prior to mitigation:	**Destruction of cultural-historical features at the site will contribute to the loss of such features in the general area due to other non-related activities. This can at all times be mitigated to prevent/ minimise the loss of such features.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**16 – Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2-Partly mitigatable (PM)**
Proposed mitigation:	**Should any burials, fossils or other historical material be encountered during construction, work must cease immediately and HWC must be contacted.**
Residual impacts:	**Destruction of cultural-historical features at the site will contribute to the loss of such features in the general area due to other non-related activities. This can at all times be mitigated to prevent/ minimise the loss of such features.**
Cumulative impact post mitigation:	**Destruction of cultural-historical features at the site will contribute to the loss of such features in the general area due to other non-related activities. This can at all times be mitigated to prevent/ minimise the loss of such features.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low**

VISUAL/SENSE OF PLACE

Alternative 1:	**Cultural-Historical Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Visual impact of construction.**
Nature of impact:	**The construction activities for the proposed developments will have a temporary visual impact on the landscape.**
Extent and duration of impact:	**Extent 3 (Local) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Unsightly construction camp/s and activities on construction site.**
Probability of occurrence:	**4 Highly probable (HP)**
Degree to which the impact may cause irreplaceable loss of resources:	**2 - Resource may be partly destroyed (PR)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Temporary visual impact on the landscape.**
Cumulative impact prior to mitigation:	**Temporary visual impact on the landscape.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**40- Medium**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2 - Partly mitigatable (PM)**
Proposed mitigation:	**Proposed construction activities must be limited to development footprint site. Construction camp must be neatly fenced and construction site must be neat and tidy.**
Residual impacts:	**Temporary visual impact on the landscape.**
Cumulative impact post mitigation:	**Temporary visual impact on the landscape.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**32 - Medium**
OPERATIONAL PHASE	
Potential impact and risk:	**Visual impact**
Nature of impact:	**The agri-industrial facility will have a visual impact. Visual character and 'sense of place' will be impacted on as vacant land is being transformed into a agri-Industrial site. Considering the viewpoint of road users, this development will have a visual impact.**
Extent and duration of impact:	**Extent 2 (site) & Duration 5 (permanent)**
Consequence of impact or risk:	**Visual impact**
Probability of occurrence:	**4- Highly probable (HP)**
Degree to which the impact may cause irreplaceable loss of resources:	**2 - Resource may be partly destroyed (PR)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Visual impact on the landscape.**
Cumulative impact prior to mitigation:	**Visual impact on the landscape.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**64 – High**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2 - Partly mitigatable (PM)**
Proposed mitigation:	**Landscape plan**
Residual impacts:	**Visual impact on the landscape.**
Cumulative impact post mitigation:	**Visual impact on the landscape.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**40 - Medium**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**Visual impact of decommissioning.**

Nature of impact:	**The decommissioning activities for the proposed developments and decommissioning will have a temporary visual impact on the landscape.**
Extent and duration of impact:	**Extent 3 (Local) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Unsightly activities on decommissioning site.**
Probability of occurrence:	**2 (some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**2 - Resource may be partly destroyed (PR)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Temporary visual impact on the landscape.**
Cumulative impact prior to mitigation:	**Temporary visual impact on the landscape.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**40- Medium**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2 - Partly mitigatable (PM)**
Proposed mitigation:	**Proposed decommissioning activities must be limited to development footprint site. Decommissioning site must be neat and tidy.**
Residual impacts:	**Temporary visual impact on the landscape.**
Cumulative impact post mitigation:	**Temporary visual impact on the landscape.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**32 - Medium**

Alternative 2:	**Cultural-Historical Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Visual impact of construction.**
Nature of impact:	**The construction activities for the proposed developments will have a temporary visual impact on the landscape.**
Extent and duration of impact:	**Extent 3 (Local) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Unsightly construction camp/s and activities on construction site.**
Probability of occurrence:	**4 Highly probable (HP)**
Degree to which the impact may cause irreplaceable loss of resources:	**2 - Resource may be partly destroyed (PR)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Temporary visual impact on the landscape.**
Cumulative impact prior to mitigation:	**Temporary visual impact on the landscape.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**40- Medium**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2 - Partly mitigatable (PM)**
Proposed mitigation:	**Proposed construction activities must be limited to development footprint site. Construction camp must be neatly fenced and construction site must be neat and tidy.**
Residual impacts:	**Temporary visual impact on the landscape.**
Cumulative impact post mitigation:	**Temporary visual impact on the landscape.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**32 - Medium**
OPERATIONAL PHASE	
Potential impact and risk:	**Visual impact**
Nature of impact:	**The agri-industrial facility will have a visual impact. Visual character and 'sense of place' will be impacted on as vacant land is being transformed into a agri-Industrial site. Considering**

	the viewpoint of road users, this development will have a visual impact.
Extent and duration of impact:	**Extent 2 (site) & Duration 5 (permanent)**
Consequence of impact or risk:	**Visual impact**
Probability of occurrence:	**4- Highly probable (HP)**
Degree to which the impact may cause irreplaceable loss of resources:	**2 - Resource may be partly destroyed (PR)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Visual impact on the landscape.**
Cumulative impact prior to mitigation:	**Visual impact on the landscape.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**64 – High**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2 - Partly mitigatable (PM)**
Proposed mitigation:	**Landscape plan**
Residual impacts:	**Visual impact on the landscape.**
Cumulative impact post mitigation:	**Visual impact on the landscape.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**40 - Medium**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**Visual impact of decommissioning.**
Nature of impact:	**The decommissioning activities for the proposed developments and decommissioning will have a temporary visual impact on the landscape.**
Extent and duration of impact:	**Extent 3 (Local) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Unsightly activities on decommissioning site.**
Probability of occurrence:	**2 (some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**2 - Resource may be partly destroyed (PR)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Temporary visual impact on the landscape.**
Cumulative impact prior to mitigation:	**Temporary visual impact on the landscape.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**40- Medium**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2 - Partly mitigatable (PM)**
Proposed mitigation:	**Proposed decommissioning activities must be limited to development footprint site. Decommissioning site must be neat and tidy.**
Residual impacts:	**Temporary visual impact on the landscape.**
Cumulative impact post mitigation:	**Temporary visual impact on the landscape.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**32 - Medium**

Alternative 3:	**Cultural-Historical Impacts**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**Visual impact of construction.**
Nature of impact:	**The construction activities for the proposed developments will have a temporary visual impact on the landscape.**
Extent and duration of impact:	**Extent 3 (Local) & Duration 1 (0 – 1 years)**
Consequence of impact or risk:	**Unsightly construction camp/s and activities on construction site.**
Probability of occurrence:	**2 (some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**2 - Resource may be partly destroyed (PR)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Temporary visual impact on the landscape.**
Cumulative impact prior to mitigation:	**Temporary visual impact on the landscape.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**16 – Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2 - Partly mitigatable (PM)**
Proposed mitigation:	**Proposed construction activities must be limited to development footprint site. Construction camp must be neatly fenced and construction site must be neat and tidy.**
Residual impacts:	**Temporary visual impact on the landscape.**
Cumulative impact post mitigation:	**Temporary visual impact on the landscape.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low**
OPERATIONAL PHASE	
Potential impact and risk:	**Visual impact**
Nature of impact:	**The agri-industrial facility will have a visual impact. Visual character and 'sense of place' will be impacted on as vacant land is being transformed into a agri-Industrial site. Considering the viewpoint of road users, this development will have a visual impact.**
Extent and duration of impact:	**Extent 2 (site) & Duration 5 (permanent)**
Consequence of impact or risk:	**Visual impact**
Probability of occurrence:	**4- Highly probable (HP)**
Degree to which the impact may cause irreplaceable loss of resources:	**2 - Resource may be partly destroyed (PR)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Visual impact on the landscape.**
Cumulative impact prior to mitigation:	**Visual impact on the landscape.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**40 - Medium**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2 - Partly mitigatable (PM)**
Proposed mitigation:	**Landscape plan**
Residual impacts:	**Visual impact on the landscape.**
Cumulative impact post mitigation:	**Visual impact on the landscape.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**28 – Low**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	**Visual impact of decommissioning.**
Nature of impact:	**The decommissioning activities for the proposed developments and decommissioning will have a temporary visual impact on the landscape.**
Extent and duration of impact:	**Extent 3 (Local) & Duration 1 (0 – 1 years)**

Consequence of impact or risk:	**Unsightly activities on decommissioning site.**
Probability of occurrence:	**2 (some possibility, but low likelihood)**
Degree to which the impact may cause irreplaceable loss of resources:	**2 - Resource may be partly destroyed (PR)**
Degree to which the impact can be reversed:	**Partly reversible (PR)**
Indirect impacts:	**Temporary visual impact on the landscape.**
Cumulative impact prior to mitigation:	**Temporary visual impact on the landscape.**
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**16 – Low**
Degree to which the impact can be avoided:	**High**
Degree to which the impact can be managed:	**High**
Degree to which the impact can be mitigated:	**2 - Partly mitigatable (PM)**
Proposed mitigation:	**Proposed decommissioning activities must be limited to development footprint site. Decommissioning site must be neat and tidy.**
Residual impacts:	**Temporary visual impact on the landscape.**
Cumulative impact post mitigation:	**Temporary visual impact on the landscape.**
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**8 – Low**