CONSTRUCTION PHASE									
Activity	**Nature of Impact**	**Impact type**	**Extent**	**Duration**	**Potential Intensity**	**Likelihood**	**Rating**	**Mitigation**	**Interpretation**
Site Preparation	Direct Impact:	Existing	1	4	4	1	9 - MOD	The removal of vegetation must be confined to the extent of the corridor.	Site preparation inherently entails the removal of vegetation. Maintenance activities associated with the pipeline will also entail vegetation removal along the alignment.
	Site preparation which will entail the removal of vegetation within the extent of the corridor.	Cumulative	1	4	2	0.75	5 - MOD		
		Residual	1	4	2	0.2	1 - LOW		
Vehicle movement and operation of equipment	Direct Impact:	Existing	1	2	2	1	5 - MOD	All onsite traffic can be restricted to specific designated roads. Off-road travel can only	
	Emmission of gaseous pollutants (such as sulphur dioxide, oxides of nitrogen, carbon	Cumulative	1	2	2	0.75	4 - MOD		
		Residual	1	2	2	0.2	1 - LOW		
Disturbance to graves	Direct Impact:	Existing	1	4	16	0.5	11 - HIGH	No movement of construction vehicles or workers are permitted within the 50m buffer around the perimeter of the cemtery.	Existing impacts associated with the cemetery include burrowing animals causing dressings and headstones to fall in or collapse, vegetation overgrowing the cemeteries and previous vandalism.
	Physical damage to graves in cemetery due to movement of workers, equipment and	Cumulative	1	4	8	0.5	7 - MOD		
		Residual	1	4	4	0.2	2 - LOW		
Soil erosion	Direct Impact:	Existing	1	1	1	0.2	1 - LOW	Erosion must be strictly controlled through the utilization of silt traps, silt fencing, Gabions, etc. This is especially pertinent within areas of steeper gradients; Topsoil stockpiles should be protected from erosion through the utilization of silt traps, silt fencing, Gabions, etc.	Soil erosion should not be a significant impacting feature due to the relatively flat topography of the site.
	Soil erosion will take affect any unprotected soils that have suffered disturbances, including unprotected stockpiles of stored topsoil. Soil stripping, soil compaction and vegetation removal will increase rates of	Cumulative	1	1	1	0.2	1 - LOW		Erosion, and subsequent siltation/smothering of habitat is an impacting feature throughout the region.
		Residual	1	1	1	0.2	1 - LOW		If mitigation measures are in place, no residual impacts should remain.
Impacts on water quality within wetland habitat unit.	Direct Impact:	Existing	2	2	2	0.2	1 - LOW	No fuel to be stored at or near watercourses or waterbodies; Equipment to be properly maintained and serviced; Fuel storage and pump areas to be bunded to avoid accidental leakage; No refuelling should be done within the riparian zones	Impacts to water quality should not occur if mitigation measures are in place.
	Impacts to water quality include accidental fuel/oil spills from poorly maintained equipment, accidents or container failure, and poorly managed and/or non bunded fuelling stations	Cumulative	1	1	1	1	3 - MOD		Water quality degradation is a common feature affecting the vast majority of the watercourses throughout the catchment area.
		Residual	1	1	1	0.2	1 - LOW		No residual impacts should remain if mitigation measures are in place.

Habitat fragmentation resulting from infrastructure development.	Direct Impact:	Existing	1	1	1	0.2	1 - LOW	Habitat fragmentation is not regarded as a significant impact pertaining to the proposed development activities. Indiscriminate habitat destruction is to be avoided and proper site reinstatement must be implemented.	The nature of the proposed development (a raised above-ground pipeline supported on concrete plinths) will not create a migratory barrier.
	Linear developments such as pipelines and roads lead to habitat fragmentation and potential population isolation.	Cumulative	1	1	1	0.2	1 - LOW		Habitat fragmentation is relatively high within the region and is a leading cause of habitat destruction.
		Residual	1	1	1	0.2	1 - LOW		Limited residual impacts will remain should the mitigation measures be taken into consideration.
Disturbance features that alter the vegetation structures	Direct Impact:	Existing	2	1	1	0.5	2 - LOW	Indiscriminate habitat destruction to be avoided and the proposed development should remain as localised as possible (including support areas and services); Observation of the ecological sensitivity map and inclusion of the sensitive areas into greenspace planning will abate this impact. Reinstatement of construction sites to be implemented. Exotic vegetation managed and affected sites should be replanted within indigenous species.	The proposed ecological sensitivity map takes into consideration the areas that have retained any natural vegetation features. Taking into consideration the proposed sensitivity map will ensure that the proposed development only impacts those areas that have already been transformed.
	Disturbances of soils will lead to altered state of vegetation structures. This will often lead to bush encroachment or invasion of exotic invasive species.	Cumulative	2	1	1	0.5	2 - LOW		Cumulative loss of primary vegetation features is relatively high within the area and therefore should be avoided (primary vegetation does not feature within the proposed development infrastructure footprint area).
		Residual	2	1	1	0.2	1 - LOW		Transformation of vegetation structure within areas that have suffered disturbances requires active management. If mitigation measures are put into place to manage vegetation degradation then little to no residual impacts should remain.
Destruction of sensitive habitat.	Direct Impact:	Existing	2	1	1	0.2	1 - LOW	The ecologically sensitive features have been delineated and mapped. Conservation	
	Wetlands and riparian zones are considered sensitive and ecologically important habitat	Cumulative	1	1	1	0.2	1 - LOW		
		Residual	1	1	1	0.2	1 - LOW		
Destruction of ground-dwelling	Direct Impact:	Existing	2	1	1	0.2	1 - LOW	A walk-through of the site should be undertaken once the layout plans have been developed in order to clear the area of any RDL flora; Limit the footprint to only areas necessary for the construction process; Utilise single access roads only;	Largescale habitat transformation has already occurred due to the land use. The proposed development activities calls for minimally-invasive methods (above-ground pipeline supported on concrete plinths). This type of development requires minimal removal of vegetation.

Destruction of ground-dwelling and/or sedentary fauna.	Site clearing will remove vegetation and habitat to accommodate the infrastructure development. Ground-dwelling fauna (e.g. Mygalomorph spiders) or ground-nesting birds may be included when vegetation is stripped, suffering loss of individuals.	Cumulative	2	1	1	0.2	1 - LOW	Avoid indiscriminate destruction of habitat.	Displacement of sensitive faunal species due to habitat destruction eventually leads to loss of those species.
		Residual	1	1	1	0.2	1 - LOW		Residual impacts will remain as a new development is being proposed within an area that was relatively quiet and undeveloped within the recent past, but this has limited significance.
Destruction of ground-dwelling and/or sedentary fauna.	Direct Impact:	Existing	2	1	1	0.2	1 - LOW	A walk-through of the site should be undertaken once the layout plans have been developed in order to clear the area of any RDL flora; Limit the footprint to only areas necessary for the construction process; Utilise single access roads only;	Largescale habitat transformation has already occurred due to the land use. The proposed development activities calls for minimally-invasive methods (above-ground pipeline supported on concrete plinths). This type of development requires minimal removal of vegetation.
	Site clearing will remove vegetation and habitat to accommodate the infrastructure development. Ground-dwelling fauna (e.g. Mygalomorph spiders) or ground-nesting birds may be included when vegetation is stripped, suffering loss of individuals.	Cumulative	1	1	1	0.2	1 - LOW	Avoid indiscriminate destruction of habitat.	Displacement of sensitive faunal species due to habitat destruction eventually leads to loss of those species.
		Residual	1	1	1	0.2	1 - LOW		Residual impacts will remain as a new development is being proposed within an area that was relatively quiet and undeveloped within the recent past, but this has limited significance.