10 January 2020

Appendix F

Impact Assessment

for Final Basic Assessment Multi-Purpose Lifestyle Complex - Postmasburg





#	Project Phase	Activity	Element	Impact Description	Impact Type Degree of loss	Duration	Scale	Severity	Initial Probability	Initial RISK Before mitigation	Final Probability	Final RISK Residual Impact
1	Site Clearance	Clearing Indigenous Vegetation	Flora	Loss of protected plant specimens	Direct Negative Moderate	Medium term	Site	Medium	Definite	50	Improbable	10
2	Site Clearance	Clearing Soils	Flora	Loss of topsoil	Direct Negative Moderate	Permanent	Site	High	Definite	70	Probable	28
3	Site Clearance	Generation and accumulation of vegetation stockpiles	Infrastructure	Changes in soil functionality: loss of topsoil	Direct Negative Moderate	Permanent	Site	High	Definite	70	Probable	28
4	Construction	Construction: earth works	Infrastructure	Impact on traffic and transport networks	Indirect Negative Low	Permanent	Local	Low	Definite	45	Definite	45
5	Construction	Construction: earth works	Land use	Generation and cumulation of waste	Direct Negative Moderate	Permanent	Site	Medium	Definite	60	Highly Probable	48
7	Construction	Construction: earth works	Air	Changes in air quality - dust	Direct Negative Low	Short term	Site	Low	Definite	20	Definite	20
6	Construction	Operation of facility	Infrastructure	Changes to municipal service delivery	Direct Positive Moderate	Permanent	Local	High	Definite	75	Improbable	15
8	Construction	Rehabilitation	Land use	Restoration of soil functionality and production	Direct Positive High	Permanent	Site	High	Definite	70	Improbable	14
9	Operational	Maintenance and monitoring	Economic	Costs: Change in land use value	Direct Positive Moderate	Permanent	Local	High	Definite	75	Improbable	15
#	Operational	Operation of facility	Flora	Impact on traffic and transport networks	Indirect Negative Low	Permanent	Local	Low	Definite	45	Definite	45
#	Operational	Rehabilitation	Flora	Establishment of protected plants	Direct Positive High	Permanent	Site	High	Definite	70	Improbable	14
#	Operational	Maintenance and monitoring	Sense of Place	Changes in social interaction with environment	Direct Positive Moderate	Permanent	Local	High	Definite	75	Improbable	15

Element	Impact Description	Discussion	Cumulation Description	Cumulative Impact Scale	Cumulative Impact Probability	Cumulative Impact Scale2	Cumulative Impact Probability2	Cumulation RISK Significance
Flora	Loss of protected plant specimens	The loss of a protected species will be lost with a high probability that species will be replaced on site as part of the landscaping design.	Cumulative tree specimen loss is a significant concern, especially with development expansions in prime distribution range of these species. Urban open space quality is increasingly deteriorated where these specimens are not part of the urban context.	Site	Highly Probable	1	4	40
Flora	Loss of topsoil	Topsoil must be stored on a previously disturbed area, retained and maintained with organic material for landscaping across the municipality.	Cumulative soil functionality depletion is directly related to the topsoil management on site. Through mitigation, this should not be a cumulative risk	Site	Probable	1	2	28
Infrastructure	Changes in soil functionality: loss of topsoil	Topsoil must be stored on a previously disturbed area, retained and maintained with organic material for landscaping across the municipality.	Cumulative soil functionality depletion is directly related to the topsoil management on site. Through mitigation, this should not be a cumulative risk	Site	Probable	1	2	28
Infrastructure	Impact on traffic and transport networks	Infrastructure impacts will occur to allow vehicle traffic to the site. No new roads or access areas are created, and existing infrastructure will be used more frequently. The site is also not linking directly to any highway or key traffic lanes.	Cumulative impacts from traffic is definite with general population increase and the community use of the facilities.	Site	Probable	1	2	16
Land use	Generation and cumulation of waste	Without a municipal integrated waste management strategy to reallocate; re-use or recycle construction waste, cumulation of waste from this project is definite.	Cumulative impact on land use because of waste generation is definite and can only be addressed through strategic municipal wide measures.	Local	Highly Probable	2	4	52
Air	Changes in air quality - dust	Dust will occur and is more a construction, human nuisance issue than ecological impact on site.				FALSE	FALSE	0
Infrastructure	Changes to municipal service delivery	The current available nature areas, lifestyle quality, environmentally healthy and recreationally stimulating areas in Postmasburg is very limiting, affecting the quality of life of all residents. This development will have a significant positive impact in the community.	Cumulative positive impacts could develop where other green areas use the screening process and procedures of this project to enhance other areas.	Site	Probable	1	2	28

Element	Impact Description	Discussion	Cumulation Description	Cumulative Impact Scale	Cumulative Impact Probability	Cumulative Impact Scale2	Cumulative Impact Probability2	Cumulation RISK Significance
Land use	Restoration of soil functionality and production	Topsoil must be stored on a previously disturbed area, retained and maintained with organic material for landscaping across the municipality.	Cumulative soil functionality depletion is directly related to the topsoil management on site. Through mitigation, this should not be a cumulative risk	Site	Probable	1	2	28
Economic	Costs: Change in land use value	The current available nature areas, lifestyle quality, environmentally healthy and recreationally stimulating areas in Postmasburg is very limiting, affecting the quality of life of all residents. This development will have a significant positive impact in the community.	Cumulative positive impacts could develop where other green areas use the screening process and procedures of this project to enhance other areas.	Site	Probable	1	2	28
Flora	Impact on traffic and transport networks	Infrastructure impacts will occur to allow vehicle traffic to the site. No new roads or access areas are created, and existing infrastructure will be used more frequently. The site is also not linking directly to any highway or key traffic lanes.	Cumulative impacts from traffic is definite with general population increase and the community use of the facilities.	Site	Probable	1	2	16
Flora	Establishment of protected plants	Biodiversity value, protected species re-establishment and education opportunities are possible with successful rehabilitation/landscaping of the site	Cumulative positive impacts could develop where other green areas use the screening process and procedures of this project to enhance other areas.	Site	Probable	1	2	28
Sense of Place	Changes in social interaction with environment	The current available nature areas, lifestyle quality, environmentally healthy and recreationally stimulating areas in Postmasburg is very limiting, affecting the quality of life of all residents. This development will have a significant positive impact in the community.	Cumulative positive impacts could develop where other green areas use the screening process and procedures of this project to enhance other areas.	Site	Probable	1	2	28