

KLEINVLEI DAM - Preferred Alternative																			
Nature of Impact			Without Mitigation (Baseline)						Without Mitigation Score (Baseline)	With Mitigation						With Mitigation Score (Impact Assessment)	Degree to which impact can be reversed	Degree to which impact may cause irreplaceable loss of resources	Degree to which impact can be mitigated
Number	Aspect	Impact	Cumulative Impact	Probability (Likelihood)	Extent	Duration (Frequency)	Magnitude (Intensity/Severity)	Receiving Environment (Significance/Consequence)		Cumulative Impact	Probability (Likelihood)	Extent	Duration (Frequency)	Magnitude (Intensity/Severity)	Receiving Environment (Significance/Consequence)				
<b>CONSTRUCTION PHASE</b>																			
1	Impact on Cultural, Archaeological, and Heritage Resources	Loss and/or damage to potential archaeological and historical sites within the construction footprint	Negligible	-1	-1	-1	-1	-1	-1	Negligible	-1	-1	-1	-1	-1	-1	Very Low	Very Low	Low
2	Impact on Palaeontological Resources	Loss and/or damage to potential fossils within the construction footprint	Negligible	-1	-1	-1	-1	-1	-1	Negligible	-1	-1	-1	-1	-2	-1	Very Low	Very Low	Very Low
3	Botanical	Loss of Fynbos vegetation and/or riparian vegetation	Very Low	-8	-1	-8	-1	-2	-4	Negligible	-4	-1	-8	-1	-1	-3	Low	Low	Low
4	Freshwater Resources	vehicular movement (transportation of construction materials) and access to the site.	Very Low	-4	-2	-2	-1	-8	-4	Negligible	-2	-1	-1	-1	-4	-2	Medium	Very Low	Medium
5		Removal of vegetation and associated disturbances to soils.	Very Low	-4	-2	-2	-2	-8	-4	Negligible	-2	-1	-1	-1	-4	-2	Low	Low	Medium
6		*Excavation of dam basin to source fill material; stockpiling; Infilling and compaction of the proposed dam wall footprint	Very Low	-4	-2	-2	-2	-8	-4	Negligible	-2	-1	-1	-1	-4	-2	Medium	Low	Medium
7		*Use of concrete within close proximity to the excavated channel; *Connecting the downstream excavated channel to the spillway outlet	Very Low	-4	-2	-2	-2	-8	-4	Negligible	-2	-1	-1	-1	-4	-2	Medium	Very Low	Medium
8	Socio-economic	Jobs created during the construction phase	Very Low	8	2	4	2	2	4		0	0	0	0	0	0			
9	Dust	Dust will be generated during the construction of the proposed development which may impact surrounding communities.	Very Low	-4	-2	-2	-2	-4	-3	Negligible	-2	-2	-2	-1	-2	-2	Low	Negligible	Medium
10	Visual	Visual impact of construction activities and plant on site	Very Low	-8	-2	-2	-1	-1	-3	Very Low	-8	-2	-2	-1	-1	-3	Low	Negligible	Low
11	Traffic	Increase in trucks and construction plant	Very Low	-4	-1	-1	-2	-1	-1	Negligible	-4	-1	-1	-1	-1	-1	Very Low	Negligible	Low
12	Noise	Noise will be generated during the construction phase.	Negligible	-4	-1	-1	-2	-1	-1	Negligible	-2	-1	-1	-1	-1	-1	Low	Negligible	Low
<b>OPERATIONAL PHASE</b>																			
13	Freshwater Resources	*Potential foundation seepage of stored water into the downstream excavated channel and eventually into the Houdensbek River; *Overflow of water over the spillway when the dam is at full capacity.	Negligible	-4	-2	-2	-2	-4	-3	Negligible	-2	-1	-1	-1	-4	-2	Low	Negligible	Medium
14		Desilting activities resulting in the: *Removal of vegetation (terrestrial and wetland); and Earthworks and silt stockpiling, the runoff from which has the potential to increase silt loads within the downstream drainage line.	Very Low	-4	-2	-2	-2	-4	-3	Very Low	-2	-1	-1	-1	-4	-2	Low	Negligible	Medium
15		In the event where a leak has been detected within the dam wall itself, impacts include: - An increase in water quantity could cause extended periods of water saturation of the downstream drainage line reach; - Repair of a leak would entail the impacts as per above.	Very Low	-4	-2	-2	-2	-4	-3	Very Low	-2	-1	-1	-1	-4	-2	Medium	Negligible	Medium
16	Visual	Visual impact of dam	Very Low	-8	-1	-4	-1	-1	-3	Very Low	-4	-1	-4	-1	-2	-3	Low	Negligible	Low
17	Socio-economic	Creation of long-term employment opportunities.	Very Low	8	2	8	2	4	5	Very Low	0	0	0	0	0	0			