

Nature and Consequences of impact	Duration / Frequency of activity likely to cause impact	Geographical Extent	Severity (level of damage caused) if impact were to occur	Probability of impact without mitigation	Significance before application of Mitigation Measures	Will activity cause irreplaceable loss of resources?	Mitigation	Probability of impact after mitigation	Significance after application of Mitigation Measures
The following table rates impacts after the application of mitigation measures and operates on a scale of 0-14. A score of between 1 and 5 is rated as low. A score of between 6 and 10 is rated as medium. A score of between 11 and 14 is rated as high.	0 = No impact 1 = short term / once off 2 = medium term / during operation 3 = long term / permanent	0 = No impact 1 = point of impact / restricted to site 2 = local / surrounding area 3 = regional	0 = No impact 1 = minor; 3 = medium 5 = major	0 = No impact 1 = Low 2 = Medium 3 = High	1 - 5 = low. 6 - 10 = medium. 11 - 14 = high.	10 = Yes = No	0 = No impact - 5 = can be fully mitigated - 3 = can be partially mitigated - 1 = unable to be mitigated	0 = No impact 1 = Low 2 = Medium 3 = High	1 - 5 = low. 6 - 10 = medium. 11 - 14 = high.
	A	B	C	D	Significance	E	F	G	Significance
<b>Site Specific Impacts - Preferred Alternative</b>									
<b>A</b> 1. Direct impact: Erosion and loss of soil from the watercourse leading to sedimentation of the downstream, wetlands and watercourses.	2	2	1	2	7	0	-4	1	4
2. Cumulative Impacts: Erosion and loss of material leading to deposition of material downstream of the wetland affecting other wetland systems.	3	2	2	2	9	0	-4	0	5
3. Direct Impact: The habitat for fauna living within the construction footprint will be modified, resulting in habitat destruction within the Nsuze River, and tributaries of the Tugela, Mkalazi and Mamba Rivers, and their associated riparian and wetland areas.	3	1	2	3	9	0	-4	1	6
4. Cumulative Impact: Increase in turbidity of water affecting water quality impacting on aquatic fauna.	2	1	2	2	7	0	-5	1	3
<b>B</b> 5. Direct Impact: This would result in direct and cumulative damage to the wider wetland areas outside of the construction area.	2	2	2	3	9	0	-5	1	5
<b>C</b> 6. Direct Impact: Physical damage to wetland areas associated with the rivers and tributaries during excavation, resulting in the loss of wetland.	3	2	2	3	10	0	-5	1	6
<b>D</b> 7. Direct Impact: Draining the excavated areas can cause major siltation of downstream wetland and watercourses.	2	2	2	3	9	0	-5	1	5
8. Direct Impact: Hydrocarbon spills can occur through careless management of fuel operated machinery such as pumps and generators.	2	1	1	3	7	0	-3	1	5
<b>E</b> 9. Direct Impact: This will result in the loss of vegetation within the Eastern Valley Bushveld (SVs 6) and the Ngongoni Veld (SVs 4) vegetation types.	2	1	2	3	8	0	-3	1	6
<b>F</b> 10. Indirect Impact: Encroachment of alien vegetation into cleared areas i.e. Castor Oil. Proliferation of weeds was identified as an impact in the specialist assessments.	2	1	2	3	8	0	-5	1	4



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<b>Generic Construction Impacts</b>									
<b>O</b> 20. On site erosion due to improper management of storm water by the contractor during construction.	2	1	1	3	7	0	-5	1	3
<b>P</b> 21. Dusty conditions impacting on air quality affecting community members and fauna along the construction route.	2	2	2	2	8	0	-4	1	5
<b>Q</b> 22. Creating a nuisance to the surrounding area and residents.	2	1	2	2	7	0	-5	1	3
<b>R</b> 23. Impacting existing traffic conditions and pedestrians.	2	2	1	2	7	0	-3	1	5
<b>S</b> 24. Emissions from construction vehicles associated with the construction of the Middledrift WSS, Phase 2.	2	2	1	1	6	0	-3	1	4
<b>T</b> 25. Unidentified existing services being impacted on site.	2	1	3	2	8	0	-5	1	4
<b>U</b> 26. Improper storage of waste on site resulting in littering and impact on environment on site affecting surrounding community. Incorrect disposal of waste leading to pollution at the dump site or at sites where waste may be illegally disposed of.	2	1	3	2	8	0	-5	1	4
<b>V</b> 27. Construction staff having to use the surrounding areas as ablutions, resulting in contamination of the environment.	2	1	4	2	9	0	-5	1	5
<b>W</b> 28. Resulting in the contamination of the environment.	2	1	3	1	7	0	-5	0	2
<b>X</b> 29. Excessive noise pollution on site.	2	2	2	2	8	0	-3	0	5
<b>Y</b> 30. Damage to adjacent properties during construction.	2	1	3	1	7	0	-5	1	3

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Site Specific Impacts - Alternative 2									
Z 31. There is a greater potential for erosion to take place within the Nsuze River, and tributaries of the Tugela, Mkalazi and Mamba Rivers, and their associated riparian and wetland areas, resulting in downstream sedimentation of this eroded material.	2	2	4	3	11	0	-3	1	9
AA 32. Pier obstructing flow within the watercourses. This increases the potential for erosion to take place within the Nsuze River, and tributaries of the Tugela, Mkalazi and Mamba Rivers, and their associated riparian and wetland areas, resulting in downstream sedimentation of this eroded material.	3	2	4	3	12	0	-1	3	14
33. Having a raised pipe above the surface level would expose the pipe to flood damage and consequential ongoing maintenance and service disruption.	3	1	3	3	10	0	-3	1	8
34. The exposed pipes will detract from the aesthetics of the surround area.	3	2	3	3	11	0	-1	1	11