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PROJECT:	CapeNature Condition Assessment	DATE:	2025-06-18
DESCRIPTION:	Grootvadersbosch Nature Reserve - Barendkoen Management Road		

Photo ID	Stake Value	Distance	Rating	Description	Erosion Control and Drainage Measures
1	0			The initial section up to Stake 800 is traversable by maintenance vehicles and is vital for fire response, infrastructure servicing, and emergency access to the Helderfontein huts. The road consists of a clayey, muddy two-track route with vegetation in the center. During wet conditions, the surface becomes dangerously slippery. Regular traffic is feasible under dry conditions, but mobility and safety concerns arise in rain due to the slippery nature of the soil.	Import G5 gravel material to backfill eroded sections and level the track surface. Install concrete strips to improve traction and reduce further wear along the 270m affected length and construct concrete rolling dips (water bars) to manage stormwater runoff and prevent future erosion. This intervention will restore safe vehicle access, protect the surrounding environment, and support ongoing reserve operations.
18	800		4.Poor		
	800	800			
17	815			From Stake 815 onwards, the road becomes overgrown with dense fynbos, impeding vehicle movement. The track shows no recent maintenance activity, and the dirt and rocky surface remains stable but obstructed. Clearance is necessary to restore functional access. Overgrowth poses challenges for routine and emergency operations, indicating prolonged disuse of this section.	Clear track of vegetation. Import G5 gravel material/interlocking blocks/rocks to backfill eroded sections and level the track surface.
3	840		4.Poor		
4	840				
	920	120			
4	920		4.Poor	Overgrown vegetation persists along the road's edges. While not distinctly clear in the report photograph, signs of a developing slope failure or slip were observed along the lower edge of the track during the in-person inspection. Although not severe at this stage, this warrants monitoring and potential intervention. If unchecked, this instability may compromise road safety and accessibility further.	Conduct a geotechnical assessment during repairs to confirm the extent and cause of the observed slope movement. Based on findings, implement stabilisation measures such as installing a gabion retaining wall. Improve surface drainage by constructing side drains or berms to divert water away from the slope edge and reduce further saturation. Regular monitoring should be scheduled, especially after heavy rainfall, to detect early signs of worsening conditions. Limit vehicular access in the affected area until stability can be assured.
5	1080		1.Excellent	A boundary gate is encountered, which appears to delineate the Grootvadersbosch Nature Reserve limits.	No remedial work is required in this section.
7	1185			This section is marked by extremely uneven terrain, exposed bedrock, and heavy vegetation. Deep washouts have been filled with large rocks, which appear to provide some erosion control but have created a highly uneven and unstable path. This section is currently impassable for most maintenance vehicles and requires significant earthworks to reinstate.	Import G5 gravel material/rocks/interlocking blocks to backfill eroded sections and level the track surface. Install concrete strips to improve traction and reduce further wear along the 130m affected length and construct concrete rolling dips (water bars) to manage stormwater runoff and prevent future erosion.
8	920		4.Poor		
9	920				
	1540	620			
4	1540		4.Poor	Overgrown vegetation persists along the road's edges. Signs of slope failure or slip were observed along the lower edge of the track and can be seen om photo taken from earlier vantage point. Full assessment is limited due to hazardous slope conditions. Although not severe at this stage, this warrants monitoring and potential intervention. If unchecked, this instability may compromise road safety and accessibility further.	Conduct a geotechnical assessment during repairs to confirm the extent and cause of the observed slope movement. Based on findings, implement stabilisation measures such as installing a gabion retaining wall. Improve surface drainage by constructing side drains or berms to divert water away from the slope edge and reduce further saturation. Regular monitoring should be scheduled, especially after heavy rainfall, to detect early signs of worsening conditions. Limit vehicular access in the affected area until stability can be assured.
19			4.Poor	The track up tp the burned bridge continues to be extremely uneven terrain, exposed bedrock, and heavy vegetation. Deep washouts have been filled with large rocks, which appear to provide some erosion control but have created a highly uneven and unstable path. This section is currently impassable for most maintenance vehicles and requires significant earthworks to reinstate.	Import G5 gravel material/rocks/interlocking blocks to backfill eroded sections and level the track surface. Install concrete strips to improve traction and reduce further wear along the 150m affected length and construct concrete rolling dips (water bars) to manage stormwater runoff and prevent future erosion.

	4090	3170			
20	4090 4415	325	5.Critical	The Barendkoen track bridge was destroyed during a recent fire and subsequently washed away by heavy rain. The absence of this structure breaks the continuity of the route and compromises critical access.	Detailed findings and recommendations for this specific structure are addressed in a separate bridge condition assessment in this report. Immediate intervention is necessary to restore functional access. Remedy for track beyond bridge up to end of assessment: Import G5 gravel material/rocks/interlocking blocks to backfill eroded sections and level the track surface. Install concrete strips to improve traction and reduce further wear along the 150m affected length and construct concrete rolling dips (water bars) to manage stormwater runoff and prevent future erosion.