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SITE SENSITIVITY VERIFICATION REPORT

FOR THE

PERIODIC MAINTENANCE OF TR03105 FROM LADISMITH TO CALITZDORP (KM 0.9 TO KM 47.63) WESTERN CAPE

DEADP REF NO: TBO **DATE:** 09 March 2026

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1. INTRODUCTION

Sharples Environmental Services cc (SES) has been appointed by Bergstan South Africa Consulting and Development Engineers (Pty) Ltd, on behalf of the Western Cape Government: Department of Transport and Public Works to compile this Maintenance Management Plan (MMP) for the Maintenance of TR03105 from Ladismith to Calitzdorp (KM 0.9 to KM 47.63).

Trunk Road 31 is more commonly known as Route 62 and is a popular scenic alternative to the N2. The project is located between Ladismith and Calitzdorp in the Garden Route District Municipality of the Western Cape. The road as indicated below all fall within the Kannaland Municipality which is the local municipality. It passes through farmlands and along river valleys in generally rolling to flat terrain.
The Department of Transport and Public Works will be undertaking routine maintenance on the Route from km 0.9 to km 47.63 (TR03105). The specific objective of this project is to extend the functional life of this section of pavement by a Periodic Maintenance intervention in the form of pre-treatment and the application of a new surfacing and appurtenant works, i.e. pre-treatment of road repairs (surfacing / base repairs), drainage structures (minor culverts and side drains), minor repairs to structures (major culverts and bridges),cleaning and clearing of minor and major culverts, fencing repairs, guardrail repairs, replacement of road signs (where applicable)etc.

2. PROJECT DESCRIPTION

7.1 DESCRIPTION

The periodic maintenance of Trunk Road 31 Section 5 between km 0.9 and km 47.63 will consist of the following aspects.

Boundaries of the Site(s)

The site of the works shall consist of the entire road reserve, intersections, construction camp, any storage area on the site which the Contractor may require in addition to the area required for construction of the works and special works.

7.1.1 Road works

The periodic maintenance includes the reseal from km 0.9 to km 47.63 using a 14mm pre-coated aggregate, using a bitumen rubber modified binder followed by a fog spray. It is proposed that the intersections with heavy turning movements receive a 40mm asphalt surface.

7.1.2 Structural Works

Each bridge structure with key feature

- The following eight bridges exist on this section of TR31/5.
- B2664 Nels River at Zoar at 18.53 km
- B2665 Seven weeks Poort River at 20.48 km
- B6094 Wilge River at 24.63 km
- B6095 Vaarwel River at 26.5 km
- B4940 Huis River No.1 at 37.52 km
- B4941 Huis River No.2 at 39. 68 km
- B4342 Gamka River at 40.15 km
- B4942 Nels River at 47.87 km

General works on bridges include clearing vegetation, crack sealing, guardrail replacement, balustrade repair and paint where required. Repair of wingwalls and apron slab where required. Erosion protection using gabion mattresses and boxes.

Bridge B2664

Bridge No B2664 at the Nels River at Zoar at km 18.53 has 1 span, for a total length of 12.8 m. The structure is generally in a sound condition. The following defects have been noted and described along with proposed rehabilitation measures for this contract:

- Clear vegetation and reeds in waterway.
- Gabion basket damaged and loss of gabion stone. Local erosion between gabion and wingwall.
- Seal "gap" between all return walls and abutting grouted stone pitching.
- Localised cracking at return wall upstream.
- Concrete surface erosion to return walls, local spalling of concrete and exposed reinforcement at return wall.
- Missing bolts at guardrail bridge adapter. Washers at guardrail bridge adaptor indicating signs of corrosion.
- Clear blocked drainage scuppers.
- Local concrete spalling at abutment and exposed reinforcement.
- Reinstate bridge number by retrofitting the structure numbers to the inside elevation of the end blocks as per current standard plans
- Replace Thorma bridge expansion joint in bridge and sidewalk.

Bridge B2665

Bridge No 2665 over the Seven Weeks Poort River at km 20.48 has a simply supported deck with 2 spans, for a total length of 26 m. The structure is generally in a sound condition. The following defects have been noted and described along with proposed rehabilitation measures for this contract:

- Clear vegetation and reeds in waterway
- Local spalling of bridge deck at intersection with abutment.
- Reinstate fence at bridge.
- Concrete surface erosion at return walls.
- 0.3mm crack width measured on return walls.
- Loss of fines at end block, crack in asphalt surface.
- Local spalling and exposed reinforcement at parapets.
- Clear blocked drainage scuppers.
- Missing bolts and reflectors at guardrail, height of guardrail to be rectified.
- Replace Thorma bridge expansion joint in bridge and sidewalk.
- Reinstate bridge number by retrofitting the structure numbers to the inside elevation of the end blocks as per current standard plans.

Bridge B6094

Bridge No 6094 over the Wilge River at km 24.63 has a simply supported deck of 1 Span, for a total length of 5.95 m. The structure is generally in a sound condition. The following defects have been noted and described along with proposed rehabilitation measures for this contract:

- The Clear trees and vegetation below all spans.
- Guardrails corroded, missing reflectors, missing spacer blocks, height to be rectified to align with required height.
- Terrain and vegetation do not enable access to bridge.

- Reinstate bridge number by retrofitting the structure numbers to the inside elevation of the end blocks as per current standard plans.

Bridge B2658

Bridge No 6095 over the Vaarwel River at km 26.5 has a simply supported deck with 1 span, for a total length of 6.63 m. The following are the proposed rehabilitation/ maintenance measures:

- Clear trees and vegetation below all spans.
- Guardrails corroded, missing reflectors, missing spacer blocks, height to be rectified to align with required height.
- Terrain and vegetation do not enable access to bridge.
- Reinstate bridge number by retrofitting the structure numbers to the inside elevation of the end blocks as per current standard plans.

At the time of inspection, the bridge was inaccessible. The BMS report shows the following to be repaired:

- Major Crack in wingwall needs to be repaired
- Cracks in the walls
- Debris on apron slab
- Severe Scour at outlet

Bridge 4940

Bridge No 4940 over the Huis River 2 at km 37.52 has a simply supported deck with 3 spans for a total length of 58.8 m. The structure is generally in a sound condition. The following defects have been noted and described along with proposed rehabilitation measures for this contract:

- River board at bridge refers to Huis 2, road logs indicate section labelled Huis 1.
- Clear trees and vegetation below all spans.
- Local concrete crack (0.3mm) at return wall.
- Local spalling of concrete and exposed reinforcement of parapets.
- No agreement plate on bridge.
- Shrinkage cracks on bridge where remedial work has previously been undertaken.
- Guardrails missing reflector plates, missing bolts and spacer blocks to be corrected.
- Replace expansion joints
- Reinstate bridge number by retrofitting the structure numbers to the inside elevation of the end blocks as per current standard plans.

Bridge B4941

Bridge No B4941 over the Huis River No.1 at km 39.68 has a simply supported deck with 3 spans, for a total length of 45m. The following defects have been noted and described along with proposed rehabilitation measures for this contract:

- River board at bridge refers to Huis 1, road logs indicate section labelled Huis 2.
- Clear trees and vegetation below all spans.
- Crack to soffit of bridge deck.
- Concrete spalling to pier.
- No agreement plates.
- Replace expansion joint.
- Reinstate bridge number by retrofitting the structure numbers to the inside elevation of the end blocks as per current standard plans.

Bridge 4342

Bridge No 4342 over the Gamka River at km 40.15 has a simply supported deck with 5 spans for a total length of 96 m. The structure is generally in a sound condition. The following defects have been noted and described along with proposed rehabilitation measures for this contract:

- Clear trees and vegetation below all spans.
- Vertical cracks (0.65mm and 0.75mm) on return wall.
- Loose bolts at guard rail bridge adapter.
- Clear blocked drainage scuppers.
- Local spalling of concrete on parapets and exposed reinforcement.
- Replace expansion joints
- Reinstate bridge number by retrofitting the structure numbers to the inside elevation of the end blocks as per current standard plans.

Bridge 4942

Bridge No 4942 over the Nels River at km 47.87 has a simply supported deck with 5 spans for a total length of 96 m. The structure is generally in a sound condition. The following defects have been noted and described along with proposed rehabilitation measures for this contract:

- Clear thick reeds below all spans.
- No agrement plate displayed on bridge.
- No river sign board placed at bridge.
- Replace expansion joints.
- Retrofit the structure numbers to the inside elevation of the end blocks as per current standard plans.

Culverts with key features
Major culverts

There are nineteen major culverts along this section of the TR31/5. In general, all major culverts need clearing and silt build up to be removed. The general condition of the culverts is fair to good with repairs required to the cracking and spalling. Exposure of the rebar needs treatment in accordance with standard methods.

CHAINAGE (km)	STRUCTURE NO.	SPAN	OBSERVATIONS	REMEDIAL ACTIONS
4.14	C10939	4.6m	• Minor siltation in cell • Concrete surface erosion on culvert walls and headwall • Horizontal crack on abutment on downstream • Mound of sediment and tree hinders flow downstream • Missing reflector plates and missing bolts on guardrails	• Clear siltation • Clean and prepare the eroded surfaces and Apply a suitable concrete repair mortar to restore the eroded areas. • Seal the crack with epoxy resin to prevent water ingress. • Vegetation Clearing and removal of sediment mound • Replace missing reflector plates and bolts
5.1	C10938	2/4.6m	• Minor siltation in cell • Concrete surface erosion on culvert wall and wingwall • Vertical hairline crack on culvert wall • Mound of sediment and vegetation hinders flow downstream • Missing reflector plates on guardrails • Height of guardrail	• Clear siltation • Clean and prepare the eroded surfaces and apply a suitable concrete repair mortar to restore the eroded areas. • Seal the crack with epoxy resin to prevent water ingress. • Replace missing reflector plates • Realignment of guardrail

CHAINAGE (km)	STRUCTURE NO.	SPAN	OBSERVATIONS	REMEDIAL ACTIONS
6.99	C10937	4.6m	• Excessive siltation in cell (average of 1.1m of clear height to soffit of culvert slab at inlet) • Concrete surface erosion on culvert wall and wingwall • Missing reflector plates on guardrails	• Clear siltation • Clean and prepare the eroded surfaces and Apply protective sealants to reduce future erosion caused by water flow or chemical exposure. • Replace missing reflector plates
9.01	C10947	4.6m	• Mound of sediment at inlet of structure • Vegetation at inlet structure • Concrete surface erosion to culvert walls and wingwall • Localised reinforcement exposed on headwall • Erosion of soil behind wingwall at outlet structure • Missing and damaged reflector plates on guardrails • Height of guardrail	• Clear mound and remove obstructions • Apply a rust inhibitor to the cleaned reinforcement to prevent further corrosion • Apply a repair mortar to damaged area • Erosion protection • Replace missing and damaged reflector plates • Realignment of Guardrail
9.74	C10946	4.6m	• Vegetation and mound of sediment at inlet and outlet structure • Terrain and vegetation inhibiting access, wingwalls at outlet structure inaccessible. • Vegetation and sediment covering section of weepholes. • Guardrails – spacer blocks, missing/damaged reflectors and height of guardrail	• Clear vegetation at inlet and outlet structure and remove vegetation • Replace missing and damaged reflector plates • Clear vegetation from weepholes • Realignment of Guardrail

CHAINAGE (km)	STRUCTURE NO.	SPAN	OBSERVATIONS	REMEDIAL ACTIONS
14.2	C10945	4.6m	• Vegetation and sediment to be cleared upstream and downstream. • Sediment and litter to be cleared in culvert. • Localised spalling of concrete at headwall of outlet structure. • Minor diagonal crack in culvert wall. • Guardrails – Missing/damaged reflectors and height of guardrail	• Clear vegetation, litter and sediment • Clean and prepare the eroded surfaces and Apply protective sealants to reduce future erosion caused by water flow or chemical exposure. • Seal the crack with epoxy resin to prevent water ingress. • Replace missing reflector plates • Realignment of guardrail
16.24	C10944	4.6m	• Vegetation and sediment to be cleared below culvert, upstream and downstream. • Concrete surface erosion to headwall. • Guardrails – Missing/damaged reflectors, delineator obstructed by vegetation.	• Clear vegetation, litter and sediment • Clean and prepare the eroded surfaces and Apply protective sealants to reduce future erosion caused by water flow or chemical exposure. • Replace missing reflector plates • Realignment of guardrail
17.17	C10936	4.6m	• Accumulation of sediment downstream impeding flow of waterway. • Cracked and spalled concrete at headwall downstream. • Cracked and spalled concrete at headwall downstream inclusive of exposed reinforcement. • No culvert number at outlet structure. • Guardrails – Missing/damaged reflectors, spacer blocks.	• Clear all sedimentation • Clean and prepare the spalled area and Apply protective sealants to reduce future erosion caused by water flow or chemical exposure. • Apply a repair mortar to damaged area • Replace missing reflector plates • Realignment of guardrail and replace spacer blocks

CHAINAGE (km)	STRUCTURE NO.	SPAN	OBSERVATIONS	REMEDIAL ACTIONS
18.66	C10943	3.1m	• No culvert number visible on outlet and inlet structure. • Terrain and vegetation impeded access to culvert. • Guardrails – Missing/damaged reflectors, spacer blocks.	• New culvert number • Clear vegetation • Replace missing reflector plates • Realignment of guardrail and replace spacer blocks
20.43	C10942	3.1m	• Concrete surface erosion to inlet and outlet structures. • Vegetation and terrain impedes inspection lower down to culvert. • Spalling and cracked concrete at headwall upstream and downstream. • No culvert number visible at inlet and outlet structure. • Guardrails – Missing/damaged reflectors, missing bolts, spacer blocks, height of guardrail.	• Clean and prepare the eroded surfaces and apply a suitable concrete repair mortar to restore the eroded areas. • Crack repair to be undertaken, methodology relative to crack width measured. • Spalled concrete to be removed, reinforcement to be inspected for corrosion. Appropriate methodology to be undertaken for treatment of reinforcement and reinstatement of concrete surface. • Vegetation Clearing. • New culvert number • Replace missing reflector plates and bolts, realignment of guardrail and replace spacer blocks.
27.14	C11029	2.5m	• Vegetation and terrain does not enable for access to culvert. • Guardrails are very inadequate (rusted, no spacer blocks at posts, etc.)	• Vegetation Clearing. • Replace existing guardrails with new.

CHAINAGE (km)	STRUCTURE NO.	SPAN	OBSERVATIONS	REMEDIAL ACTIONS
28.48	C11030	3.1m	• Vegetation and terrain does not enable for access to culvert. • Damaged guardrails, missing bolts, damaged and missing reflectors, height of guardrail inadequate, missing spacer blocks.	• Vegetation Clearing. • Replace damaged guardrails with new, replace missing reflector plates and bolts, realignment of guardrail and replace spacer blocks.
32.84	C11031	3.1m	• Vegetation and terrain does not enable for access to culvert. • Dense vegetation and trees in upstream and downstream waterway • Damaged and rusted guardrails, damaged and missing reflectors, missing spacer blocks.	• Vegetation Clearing. • Replace existing guardrails with new.
32.98	C11032	2/3.0m	• Vegetation and terrain does not enable for access to culvert. • Dense vegetation and trees in upstream and downstream waterway • Damaged and rusted guardrails, damaged and missing reflectors, missing spacer blocks.	• Vegetation Clearing. • Replace existing guardrails with new.
33.16	C11033	2/3.1m	• Vegetation, terrain and fence does not enable for access to culvert. • Dense vegetation and trees in upstream and downstream waterway • Guardrails: Missing bolts, damaged and missing reflectors, spacer blocks to be rectified.	• Vegetation Clearing. • Replace existing guardrails with new.

CHAINAGE (km)	STRUCTURE NO.	SPAN	OBSERVATIONS	REMEDIAL ACTIONS
37.75	C11034	3.0m	• 0.7mm crack width to wing wall at outlet structure • Sediment to be removed in culvert. • 0.3mm crack width measured to soffit of culvert deck. • 0.8mm crack width measured to wingwall at inlet structure. • Dense vegetation at inlet structure. • Guardrails: Missing bolts, damaged and missing reflectors, spacer blocks to be rectified.	• Clear vegetation and sediment. • Crack repair to be undertaken, methodology relative to crack width measured. • Replace missing reflector plates and bolts, realignment of guardrail and replace spacer blocks.
40.43	C11035	3.5m	• Localised cracking at headwall at inlet and outlet structure. • 1.6mm crack width on wingwall at outlet structure. • Vegetation and rock to be removed from upstream and downstream section of culvert. • Guardrails: Damaged reflectors, spacer blocks to be rectified.	• Crack repair to be undertaken, methodology relative to crack width measured. • Clear vegetation and rock. • Replace missing reflector plates, realignment of guardrail and replace spacer blocks.

CHAINAGE (km)	STRUCTURE NO.	SPAN	OBSERVATIONS	REMEDIAL ACTIONS
40.56	C11036	3.5m	• Localised cracking at headwall at inlet and outlet structure. • Concrete surface erosion and localised spalling of concrete to outlet structure. • Concrete surface erosion to inlet structure. • Localised spalling of concrete at culvert wall. • Vegetation and trees to be removed from waterway. • Guardrails: Damaged reflectors, spacer blocks to be rectified.	• Crack repair to be undertaken, methodology relative to crack width measured. • Clean and prepare the eroded surfaces and apply a suitable concrete repair mortar to restore the eroded areas. • Spalled concrete to be removed, reinforcement to be inspected for corrosion. Appropriate methodology to be undertaken for treatment of reinforcement and reinstatement of concrete surface. • Clear vegetation. • Replace missing reflector plates, realignment of guardrail and replace spacer blocks.
44.17	C11037	3.0m	• Vegetation to be removed from waterway. • Terrain and slope of embankment impedes access to culvert. • Guardrails: Damaged reflectors, spacer blocks to be rectified.	• Clear vegetation. • Replace missing reflector plates, realignment of guardrail and replace spacer blocks.

Proposed Remedial Actions:

- Clear siltation
- Clear litter and sedimentation
- Clean and prepare the eroded surfaces and apply a suitable concrete repair mortar to restore the eroded areas.
- Seal the crack with epoxy resin to prevent water ingress.
- Vegetation Clearing and removal of sediment mound.
- Replace missing reflector plates and bolts.
- Realignment of guardrail.
- Clear mound and remove obstructions.
- Apply a rust inhibitor to the cleaned reinforcement to prevent further corrosion.
- Apply a repair mortar to damaged area.
- Clear vegetation at inlet and outlet structure and remove vegetation.
- Clean and prepare the eroded surfaces and apply protective sealants to reduce future erosion caused by water flow or chemical exposure.
- Replace spacer blocks
- New culvert number
- Spalled concrete to be removed, reinforcement to be inspected for corrosion. Appropriate methodology to be undertaken for treatment of reinforcement and reinstatement of concrete surface.
- Replace guardrails.
- Crack repair to be undertaken methodology relative to crack width measured.

Minor culverts summarised according to type, purpose and size

There are 236 minor culverts along the route of which 208 are pipe culverts and 28 are concrete box culverts. Furthermore, the general condition of all minor culverts can be summarised as below:

1. There 62 pipe culverts with stone pitched inlets and outlets, of which
    - 27 are functional and in fair condition.
    - 20 not functional as they are blocked (sedimented > 50%)
    - 7 are not functional due to damage to either the inlets and/ or outlets.
    - inlets/ outlets are not functional or inaccessible.
2. There are 146 pipe culverts with concrete headwalls, of which
    - 76 are functional and in fair condition
    - 17 not functional as they are blocked (sedimented >50%)
    - are not functional due to damage to the headwalls of the inlet/outlet (spalling/cracking)
    - 19 culverts are inaccessible not functional, or they no longer exist
    - 15 inlets/outlets are non-functional and inaccessible
3. There are 10 box culverts with stone pitched headwalls, of which
    - 5 are in fair condition
    - 5 are failing due to cracking or stone debonding from the wall.
4. There are 18 box culverts with concrete headwalls, of which
    - 6 are in fair condition
    - 1 is not functional due to damage to the inlet
    - 11 are inaccessible from the roadside
5. There are 2 lesser culverts not indicated on the bridge management system:
    - 23.47 - Access drainage
    - 25.57 – Access drainage

Proposed remedial work

In general, the following remedial work is proposed to the minor culverts:

1. Siltation and vegetation in the culverts, inlet and outlet must be removed.
2. The culverts listed on RNIS which could not be found or assessed due to vegetation encroachment (or non-existence must be cleaned and assessed for functionality).
3. The damaged concrete inlet/outlet structures are to be repaired.
4. The non-functional stone pitched inlet and outlet structures must be replaced with WCG standard concrete inlet and outlet structures.
5. All culverts are to have functional apron slabs at the inlet and outlet.
6. The condition during visual assessment was inhibited by siltation.
7. Scour protection works are to be constructed where evidence of damage due to scour.

3. FINDINGS OF THE SCREENING TOOL

The National Sector Classification Category selected to produce the Screening Tool Report, dated 25 November 2025 attached to this report. The application classification selected for this report is:

1. **Any activities within or close to a watercourse**

3.1 Wind and Solar Developments

No nearby wind or solar developments found.

3.2 Environmental Management Frameworks

No intersections with EMF areas found.

3.3 Relevant development incentives, restrictions, exclusions, or prohibitions

- South African Conservation Areas

The site is located within the Gouritz Cluster Biosphere Reserve, as seen in Figure 1.

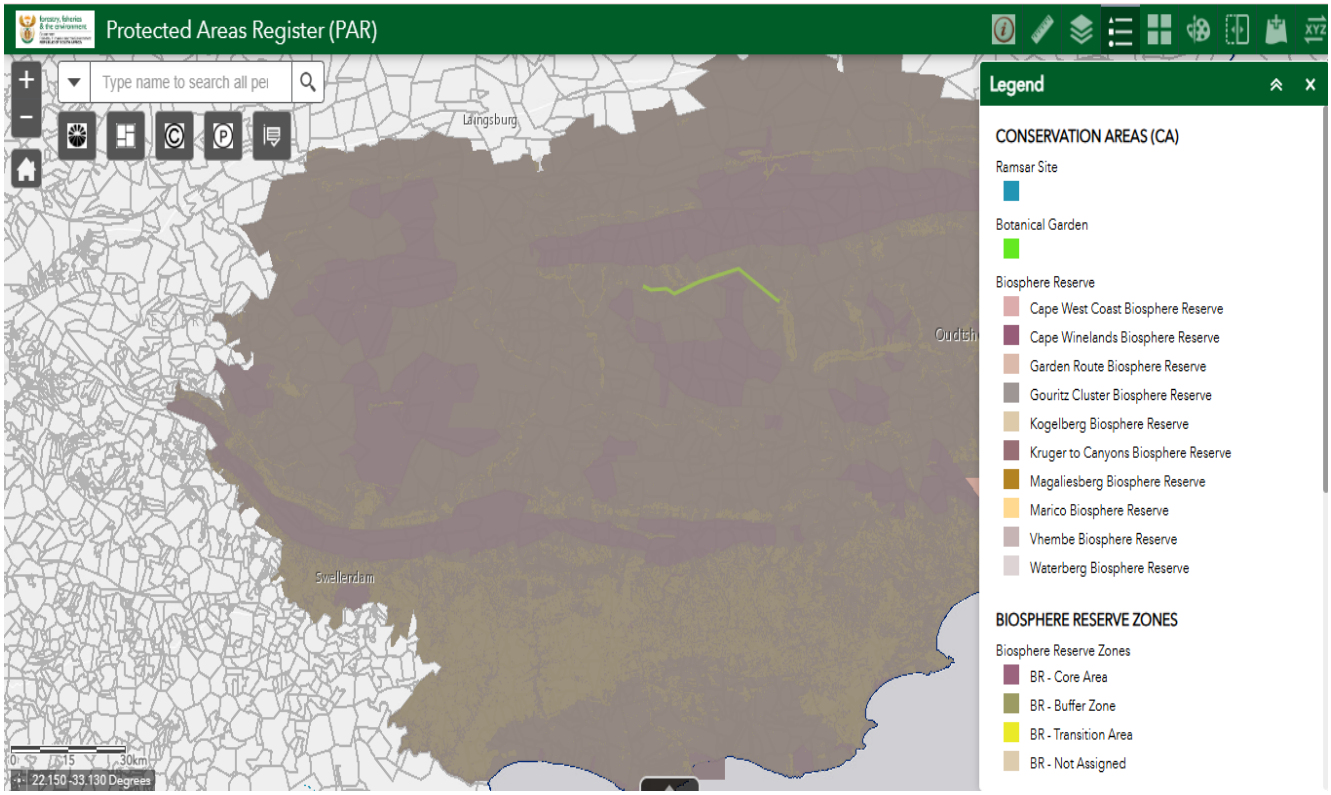

Figure 1: The site location within the Gouritz Cluster Biosphere Reserve

- <u>Strategic Gas Pipeline Corridors</u>

  The site is located within the Strategic Gas Pipeline Corridors. The proposed repair works will not impact on the gas pipeline corridor.

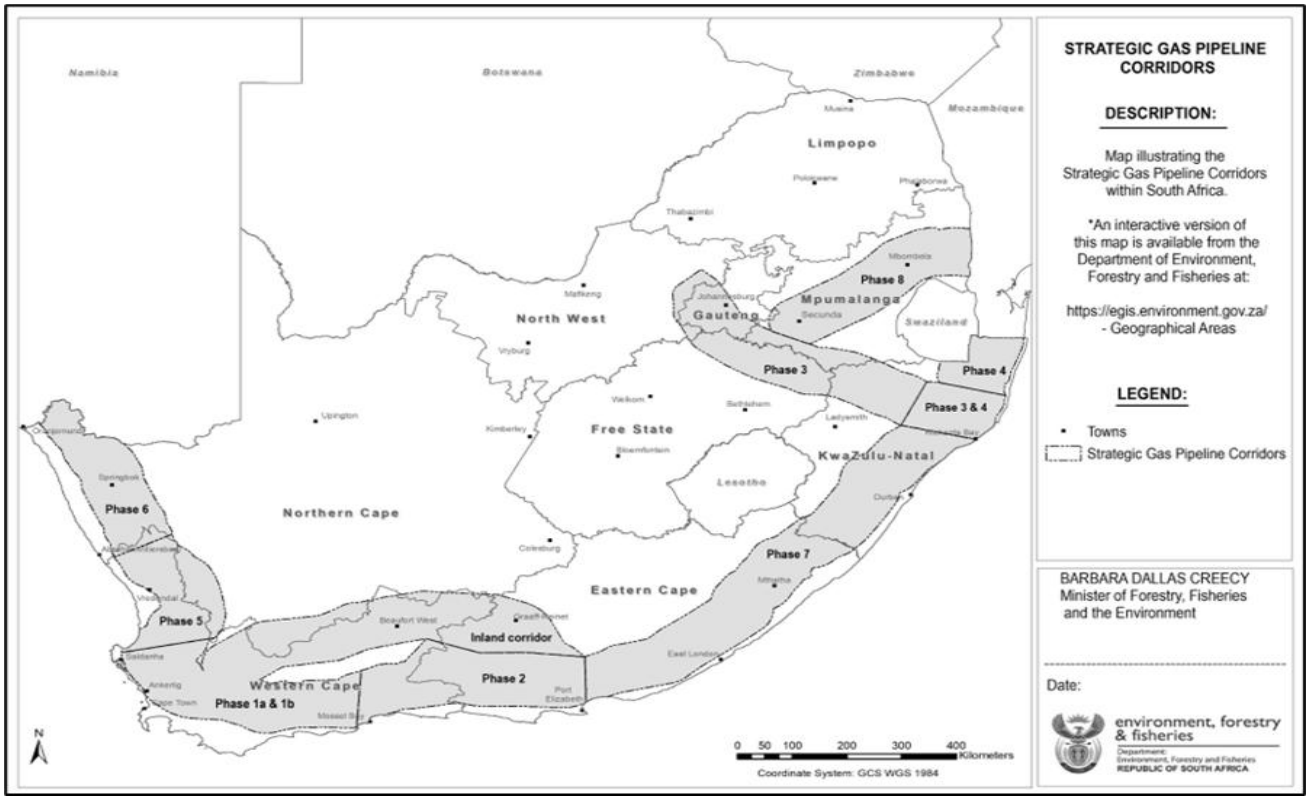

Figure 2: Strategic Gas Corridors of South Africa.

- Main Electricity Distribution Substation

The specific objective of this project is to extend the functional life of this section of pavement by a Periodic Maintenance intervention in the form of pre-treatment and the application of a new surfacing and appurtenant works, i.e. pre-treatment of road repairs (surfacing / base repairs), drainage structures (minor culverts and side drains), minor repairs to structures (major culverts and bridges),cleaning and clearing of minor and major culverts, fencing repairs, guardrail repairs, replacement of road signs (where applicable)etc. These activities will not obstruct access to the main electricity distribution substation.

3.4 Area Environmental Sensitivity

The following summary of the development footprint environmental sensitivities is identified by the screening tool report. The footprint environmental sensitivities for the proposed development footprint as identified by the screening tool report, are indicative only and must be verified on site by a suitably qualified person before the specialist assessments identified below can be confirmed.

Table 1: Site sensitivity and features

Theme	Sensitivity				
	Very High	High	Medium	Low	Features
Agriculture	X				**High** • Old_fields **High** • Rainfed Annual Crop Cultivation/ Planted Pastures **High** • Klein Karoo Valley PAA **Low** • 0.4 Low – Vey Low **Low** • 0.5 Low **Low** • 0.3 Low-Vey Low **Low** • 02.Very Low **Low** • 0.1 Very Low **Medium** • 0.7 Low- Medium **Medium** • 0.6 Low- Medium
Animal Species		X			**High:** • *Aves-Aquila verreauxii* • *Aves-Neotis ludwigii* • *Aves-Afrotis afra* • *Aves-Polemaetus bellicosus*
Aquatic Biodiversity	X				**Very High** • Rivers_Z • SWSA (SW) _Outeniqua
Archaeological, Cultural Heritage	X				**Very High** • Within 2km of a Grade II Heritage site

Civil Aviation		**X**			**High** • Within 15 km of a civil aviation radar • Between 8 and 15 km from a major civil aviation aerodrome
Defence				**X**	**Low sensitivity**
Palaeontology	**x**			**X**	**Low sensitivity**
Plant Species				**X**	**Low sensitivity**
Terrestrial Biodiversity	**X**				**Very High** • ESA 2: Restore from other land use • CBA 2: Terrestrial • CBA 1: Terrestrial • SWSA (SW) _Outeniqua • EN_Garden Route Shale Fynbos

3.5 Specialist assessments identified

Based on the selected classification, and the environmental sensitivities of the proposed development footprint, the following list of specialist assessments have been identified for inclusion in the assessment report. It is the responsibility of the EAP to confirm this list and to motivate in the assessment report, the reason for not including any of the identified specialist study including the provision of photographic evidence of the footprint situation.

Table 2: Screening Tool Recommended Specialist Studies

No.	**Specialist Assessment**	**Assessment Protocol**
1.	Landscape/Visual Impact Assessment	General
2.	Archaeological and Cultural Heritage Impact Assessment	Guidance for HIA
3.	Palaeontology Impact Assessment	Guidance for PIA
4.	Terrestrial Biodiversity Impact Assessment	Terrestrial
5.	Aquatic Biodiversity Impact Assessment	Aquatic
6.	Hydrology Assessment	General
7.	Socio-Economic Assessment	General
8.	Plant Species Assessment	Plant Species
9.	Animal Species Assessment	Animal Species

4. NEMA LEGISLATIVE REQUIREMENTS

NATIONAL ENVIRONMENTAL MANAGEMENT ACT, NO. 107 OF 1998, AS AMENDED AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 (AS AMENDED)

The periodic maintenance of TR31/5 will be undertaken within the existing road reserve and will consist of maintenance/upgrades of the road surface, cross sections, intersections, existing access roads, associated damaged drainage structures, road signage and erosion occurring to road embankments and drainage structures.

The following listed activities contained in the National Environmental Management Act (NEMA) Environmental Impact Assessment (EIA) Regulations, 2014 (as amended 2017), defined in Government Notice No. 324(as amended) are identified as falling within the ambit of the management and maintenance of roads and drainage structures.

Activity 19: Government Notice No. R 327 (Listing Notice 1)

The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse;

but excluding where such infilling, depositing, dredging, excavation, removal or moving—

a) will occur behind a development setback;
b) is for maintenance purposes undertaken in accordance with a maintenance management plan;
c) falls within the ambit of activity 21 in this Notice, in which case that activity applies;
d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or
e) where such development is related to the development of a port or harbour, in which case activity 26 in Listing notice 2 of 2014 applies.

Activity 27: Government Notice No. R 327 (Listing Notice 1)

The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for—

(i) the undertaking of a linear activity; or
(ii) maintenance purposes undertaken in accordance with a maintenance management plan.

Activity 12: Government Notice No. R 324 (Listing Notice 3)
The clearance of an area of 300 square meters or more of indigenous vegetation except where such clearance of vegetation is required for maintenance purposes undertaken in accordance with maintenance management plan.

(iii) Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEM:BA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004
(iv) Within critical biodiversity areas identified in bioregional plans

(v) Within the littoral active zone or 100 meters inland from high water mark of the sea or an estuarine functional zone, which ever distance is greater, excluding where such removal will occur behind the development setback line on erven in urban areas;

(vi) On land, where, at the of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning; or

(vii) On land designated for protection or conservation purposes in an Environmental Management Framework adopted in the prescribed manner, or a Spatial Development Framework adopted by the MEC or Minister.

It must be noted that all activities undertaken in accordance with this MMP should remain within the road reserve however if disturbance outside of the road reserve is required (for stabilising, shaping or erosion protection measures, etc) the above listed activities and their thresholds will be applicable.

To avoid the requirement to undertake an Environmental Impact Assessment, SES has been requested to compile a Maintenance Management Plan to ensure that activities are undertaken in regard to 'Duty of Care' and in order to mitigate and/or minimise detrimental impacts to the environment as a result of the maintenance activities.

4. SITE VERIFICATION

The site was visited on the on the 10th of September 2025. The Figures below show the current conditions of a variety of river crossings located within the study area of the TR31/5.

Figure 3: Nels River Bridge.

Figure 4: Gamka River Bridge.

Figure 5: Huis River 1 Bridge.

Figure 6: Huis River 2 Bridge.

Figure 7: Vaarwel River Bridge.

Figure 8: Wilge River Bridge.

Figure 9: Seven Weeks Port River Bridge.

Figure 10: Nels River Bridge at Zoar.

Figure 11: Major Culverts.

The identified specialist assessments are discussed with the observations made during the site visit.

4.1 Landscape/Visual Impact Assessment

The screening tool report recommended that a visual assessment be undertaken. We disagree; there is no need as the proposal is to repair damages and install protection measures to the site. The look of gabion retaining structures, a swale and earth v-drain is well known.

As seen from Figure 12A, the vegetation north of the proposed gabion structures is dense which will make the structures well hidden. As seen from Figure 12B, the outlet or flared swale will be partially visible to the building to the south as there is vegetation along the gate across the river. As seen from Figure 12C, the swale and earth v-drain will be visible to pedestrians and drivers using Langenhoven Road. The visual impact of the proposed repair works is therefore Low, and no study will be conducted.

Figure 12: Visibility of proposed works

4.2 Archaeological and Cultural Heritage

The screening tool rated this sensitivity as Very High. The site is within 2km of a Grade II Heritage site and within 100m of an ungraded Heritage site.

4.3 Palaeontology Impact Assessment

The proposed repairs and protection measures will be undertaken on existing footprints and previously disturbed areas, additionally the proposed activities do not trigger Section 38 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999). Therefore, no study will be conducted.

4.4 Terrestrial Biodiversity Impact Assessment

The screening tool rated this sensitivity as Very High. The site is mapped as Garden Route Shale Fynbos which has an Ecological Threat Status of Endangered.
The Screening Tool Reports mapped areas on or around the sites as ESA2, CBA1 and CBA2. According to the 2023 WC Biodiversity Spatial Plan the site is CBA1 and CBA2, but not ESA2. A specialist will be appointed to conduct a study to determine the site sensitivity.

4.5 Aquatic Biodiversity

The aquatic biodiversity theme was rated "Very High" by the screening tool report. The road crosses numerous watercourses and the nature of the proposed rehabilitation. A specialist was appointed to compile a report and determine the site sensitivity. According to the proposed maintenance activities can be mitigated to an acceptable level and that the risk of these activities to affected watercourses is Low. It is therefore recommended that environmental authorisation for the activities associated with road maintenance should be granted. In terms of the NWA, considering the Low risk associated with all construction and operational phase activities the rehabilitation plan qualifies for a General Authorisation.

4.6 Hydrology Assessment

The screening tool report recommended that a Hydrology Assessment be conducted. However, we are of the opinion that such an assessment is not required, as it is unlikely to provide additional value to the Basic Assessment Report. The proposed activities will be confined to the riverbank and are not expected to affect the hydrological regime.

4.7 Socio-Economic Assessment

The screening tool report recommended that a socio-economic assessment be conducted. We disagree as the proposal is to repair damages caused by heavy rainfall and floods. The socio-economic aspects of the proposal are thus known and straight forward in nature and as such an assessment will not be undertaken.

4.8 Plant Species

The screening tool rated this sensitivity as High.

4.9 Animal Species

The screening tool rated this sensitivity as High and identified four animal species with a high sensitivity rating and eight animal species with medium sensitivity rating.

5. Conclusion

Based on the findings of this report, and given that the proposed maintenance activities can be carried out in accordance with a Maintenance Management Plan (MMP), SES proposes to undertake only the following assessments:

No.	Specialist Assessment	Assessment Protocol
2.	Aquatic Impact Assessment	Aquatic