Upgrade of the Gwaing River Bridge on N2 Section 7 in George

Report compiled in support of Part 1 Amendment to Environmental Authorisation

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DOCUMENT DETAILS

PART 1 AMENDMENT TO ENVIRONMENTAL AUTHORISATION: UPGRADE OF THE GWAING RIVER BRIDGE ON N2 SECTION 7 IN GEORGE

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Report purpose
This report is prepared in compliance with the requirements of Regulation 30 (1) of the EIA Regulations, 2014 (as amended) and is being subjected to a 30-day Public Participation Process.

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DOCUMENT CONTROL

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Abbreviations

EAP	Environmental Assessment Practitioner
ECO	Environmental Control Officer
DEA	Department of Environmental Affairs
DFFE	Department of Forestry, Fisheries and the Environment
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
NEMA	National Environmental Management Act 107 of 1998
NID	Notification of Intent to Develop
SANRAL	South African National Roads Agency SOC LTD

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1 INTRODUCTION

1.1 Background

The South African National Roads Agency SOC Ltd (SANRAL) received Environmental Authorisation (EA) from the Department of Environmental Affairs (DEA – now the Department of Forestry, Fisheries and the Environment, DFFE) in 2017 to undertake listed activities in terms of the National Environmental Management Act, 1998 (NEMA) and the Environmental Impact Assessment (EIA) Regulations, 2014. The authorised development comprises the upgrade of the existing Gwaing Bridge and associated section of the National Route 2 (N2) Section 7 (km 16 to km 18.5), located in George, Western Cape.

The approved project included the construction of a new bridge structure adjacent to the existing Gwaing bridge, the realignment of the carriageways to tie into the new structure, and the widening of existing cuttings to accommodate the revised alignment. The new 16 m wide bridge is located upstream (north) of, and approximately 15 m offset from, the existing structure.

SANRAL commenced with construction on 29 January 2018, and the development was anticipated to be completed within a period of 30 months. The appointed contractor failed to complete the works as programmed, and in April 2021 works on the site were stopped. Assignment of the contract to a second contractor was due to take effect on 21 November 2021. While in this transition process, the area experienced heavy rainfall which resulted in the Gwaing River flooding and causing damage to the scaffolding and formwork. Due to the damage caused by the floods, the second contractor could not proceed with the project.

To date the project remains incomplete and SANRAL intends to appoint a third contractor to undertake the remaining works.

As a result of cumulative delays associated with contractor insolvency, weather-related damage, and the suspension of construction activities, the project has not been completed within the construction validity period stipulated in the Environmental Authorisation (EA). An amendment to the EA is therefore required to enable the continuation and completion of the authorised development.

1.2 Purpose of this amendment

Condition 7 of the EA stipulates that construction must be completed within five years from the commencement of on-site activities. As this timeframe has been exceeded, SANRAL appointed an Environmental Assessment Practitioner (EAP) and initiated engagement with DFFE as the Competent Authority, to determine the appropriate regulatory process to enable the continuation of construction.

DFFE confirmed that an amendment to Condition 7 of the EA would be required to permit continuation of construction, and that this amendment is to be processed as a Part 1 amendment, in accordance with Regulation 29 of the Environmental Impact Assessment Regulations (2014) and is subject to the public participation requirements outlined in Regulation 41.

The amendment is limited in scope to an administrative amendment to Condition 7 and does not introduce new listed activities or constitute a substantial deviation from the original Environmental Authorisation (See Appendix 1).

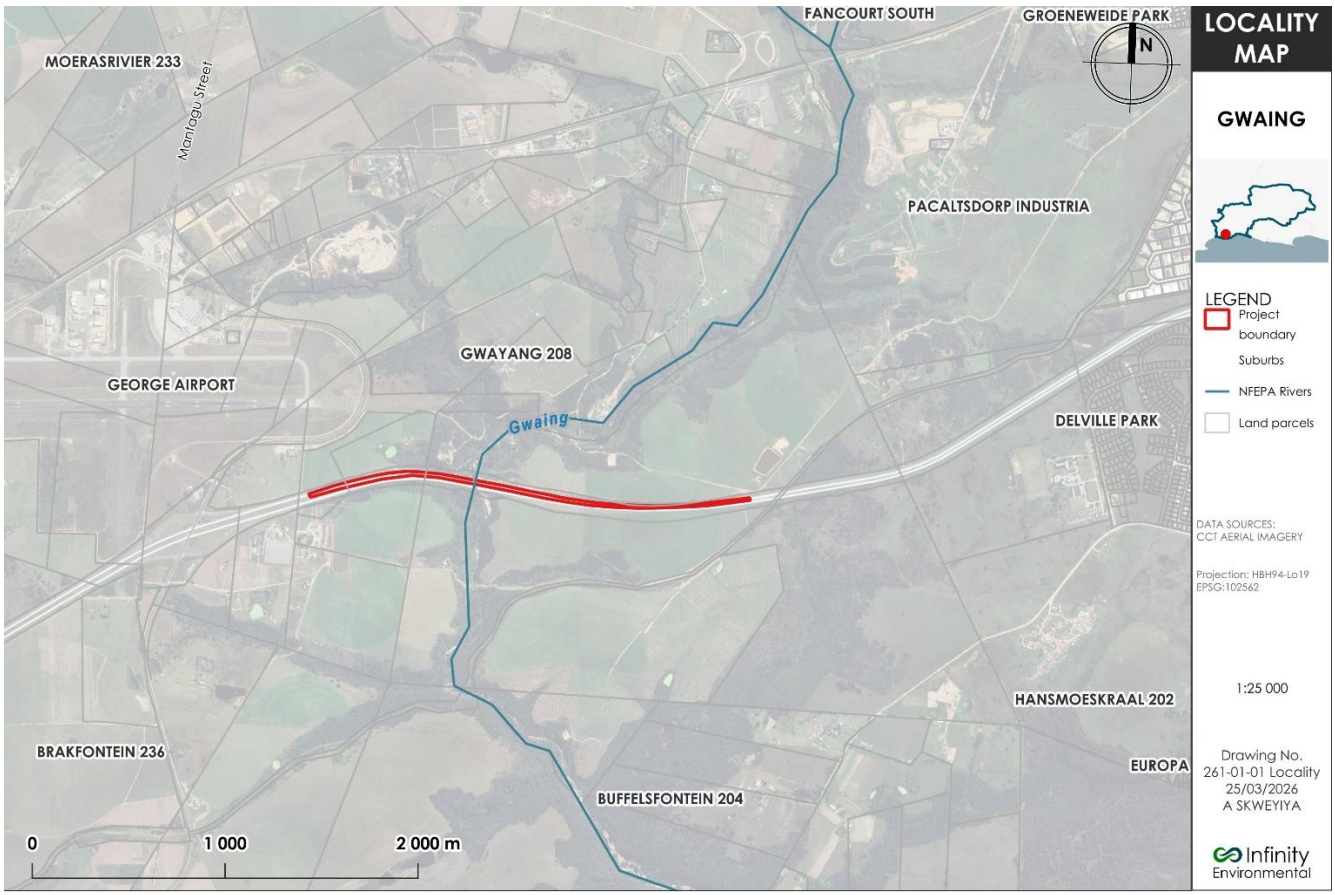


Figure 1: Locality Map

In line with the requirements of the Competent Authority, specialist assessments of impacts have been reviewed in 2026 to confirm whether the findings, conclusions, and recommended mitigation measures remain valid under current site conditions. The aquatic assessment was reviewed by Dr Jackie Dabrowski of Confluent Environmental (Pty) Ltd, and the botanical assessment was reviewed by Dr Juan Swanepoel of PAN Biodiversity Consulting.

Infinity Environmental (Pty) Ltd was appointed as the independent Environmental Assessment Practitioner (EAP) responsible for undertaking this amendment process. EAPs Tarryn Solomon, Anathi Skweyiya, and Jeremy Rose are responsible for the application.

2 PROPOSED AMENDMENT

2.1 Amendment

The proposed amendment falls within the ambit of a Part 1 Amendment in terms of Regulation 29, whereby an amendment may not change the scope of a valid environmental authorisation, nor increase the level or nature of the impacts initially assessed and considered when an application was made for Environmental Authorisation.

The applicant (SANRAL) has applied for an amendment to extend the construction period specified in Condition 7 of the EA as follows:

Current wording:

> *"7. Construction must be completed within five (05) years of the commencement of the activity on site.* "(Page 7)

Proposed new wording:

> 7. Construction must be completed within fifteen (15) years of commencement of the activity on site.

No other amendments are proposed.

2.2 Legislative Context

The amendment application is submitted in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), and the Environmental Impact Assessment (EIA) Regulations, 2014, as amended. Section 24 of NEMA provides the overarching legal framework for EA of listed activities that may result in significant environmental impacts.

The EIA Regulations, 2014 (GN R. 982, as amended), prescribe the procedures applicable to applications and for subsequent amendments. In terms of these Regulations, amendments to an existing EA are categorised according to the nature and extent of the proposed change.

This application is to be processed as a Part 1 amendment in terms of Regulation 29, as the proposed change does not constitute a substantial deviation from the original authorisation, does not introduce new listed activities, and does not result in an increase in the nature or significance of environmental impacts previously assessed.

In addition, the amendment process is subject to the procedural requirements of the EIA Regulations, including public participation provisions in Regulation 41, where applicable, and the decision-making requirements outlined in Regulations 28 and 30.

Regulation 28

(1) An application for the amendment of an EA must be submitted to the relevant competent authority on condition that the EA is valid on the date of receipt of such amendment application.

(1B) An EA which is the subject of an amendment application contemplated in this Chapter remains valid pending the finalisation of such amendment application.

(3) An application in terms of subregulation (1) must be made in writing and accompanied by a motivation for such amendment.

The EA was confirmed by the competent authority to be valid. An amendment application was subsequently completed and submitted to the competent authority on 09 March 2026, and receipt of the application was acknowledged by the DFFE on 19 March 2026.

Regulation 30

(1) Upon receipt of an application made in terms of regulation 29 the competent authority—
  (a) may request additional information within a period determined by the competent authority and such request must accompany the acknowledgement of receipt of the application and if such information is not submitted within such a period the application will be deemed to have lapsed; and
  (b) must refuse the application for amendment if the amendment being applied for does not fall within the ambit of regulation 29.
(2) The competent authority must within 30 days of acknowledging receipt of the application or of receipt of the additional information contemplated in subregulation (1)(a) decide the application.

The Competent Authority, in its acknowledgement correspondence, outlined the requirements and information needed for consideration (see Table 1 below). This report provides the necessary information and is being circulated for public comment.

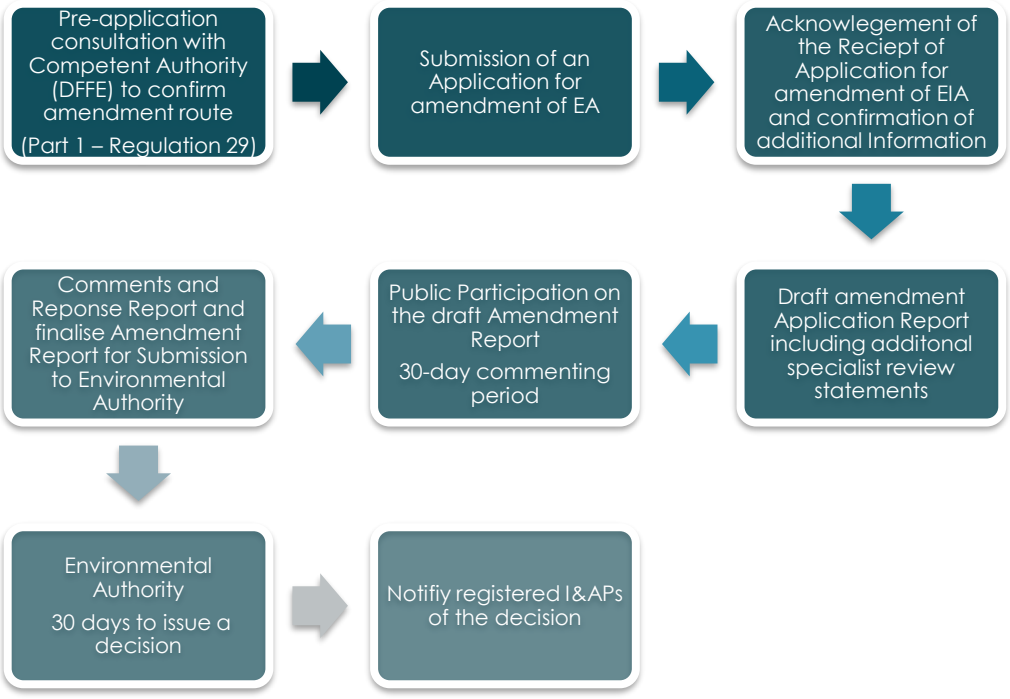
Table 1: Regulation 30(1) Requirements

Requirements in terms of Regulation 30 (1)	Report Section
A detailed motivation as to why the Department should extend the completion of the construction period of the authorised development, including the advantages and disadvantages associated with the approval or refusal to the request for extension	Section 3 and 3.2
The status (baseline) of the environment (social and biophysical) that was assessed during the initial assessment (by the relative specialist, if applicable)	Appendix 2 and 3
The current status of the assessed environment (social and biophysical) (by the relative specialist, if applicable);	Section6
A review of all specialist studies undertaken, and a detailed assessment, including a site verification report providing an indication of the status of the receiving environment (by the relative specialist, if applicable)	Section 7 and Appendix 4 & 5
The terms of reference for the specialist reports and declaration of interest of each specialist must be provided	Section 7.4 Appendix 8.1 and 8.2
The report mentioned above, must indicate if the impact rating as provided in the initial assessment remains valid; if the mitigation measures provided in the initial assessment are still applicable; or if there are any new mitigation measures which need to be included	Section 7

into the EA, should the request to extend the commencement period be granted by the Department	
An indication if there are any new assessments/guidelines which are now relevant to the authorised development which were not undertaken as part of the initial assessment, must be taken into consideration and addressed in the report	7.1 Appendix 6
A description and an assessment of any changes to the environment (social and biophysical) that has occurred since the initial EA was issued	Section 7
Consent from all affected landowners (where applicable)	Not applicable
The Public Participation Process must be conducted in terms of Chapter 6 of the EIA Regulations, 2014 as amended.	Section 88
A comments and response report	TBC post public participation

2.3 Amendment Application Process Overview

The amendment process is undertaken in terms of the EIA Regulations, 2014, as amended, and includes consultation with the Competent Authority, preparation of the amendment report with supporting specialist input, public participation in accordance with Regulation 41, and compilation of a Comments and Response Report prior to submission of the final application for decision-making. The process is illustrated in the diagram below.



3 MOTIVATION

The project commenced construction on 29 January 2018, with an anticipated construction period of 30 months. However, progress was disrupted due to unforeseen challenges with appointed contractors. The first contractor encountered financial difficulties and was unable to complete the works, resulting in the suspension of construction in April 2021.

A second contractor was appointed on 21 November 2021; however, during this transition period, heavy rainfall resulted in flooding of the Gwaing River, which damaged scaffolding and formwork and further delayed progress. The second contractor subsequently entered voluntary liquidation in June 2022.

As a result of these cumulative delays, the project has been significantly impacted and requires additional time for completion. It is anticipated that a third contractor will commence construction in mid-2026. The remaining construction period is estimated at 18 months, with allowance for a 3-month extension of time and a 12-month defect liability period. Accordingly, an extension of up to 10 years is requested to accommodate the elapsed delays and ensure successful completion of the works. SANRAL will ensure that all remaining works are completed within the extended timeframe once the new contractor is appointed.

At present, construction is partially complete. Works already undertaken include the construction of all piers, two western bridge spans, and the western abutment wall. On western side of the road component, vegetation clearing, sub-base preparation, and base layer construction have been completed.

Outstanding works include the construction of the two eastern bridge spans, completion of temporary works to facilitate site access, and installation of formwork and scaffolding. Minor works remain on the caissons of the existing bridge. For the roadworks, remaining activities include reworking of the exposed layers due to vegetation growth, completion of the base layer, asphalt surfacing, filling of the western abutment wall, and installation of side drains.

The EAP and review specialists have confirmed that the project should be completed, subject to the implementation of previously recommended mitigation measures and rehabilitation requirements. From an aquatic ecology perspective, it has been noted that prolonged delay increases the risk of alien vegetation establishment, which may significantly complicate future rehabilitation efforts.

3.1 Regulatory and Environmental Justification for Extension

The request to extend the construction period is supported by regulatory, environmental, and project delivery considerations, outlined below.

3.1.1 Environmental Risks of Not Completing the Development

The project site is currently in a partially developed and disturbed state, with incomplete infrastructure within both the terrestrial and aquatic environments. Should the extension not be granted, the site is likely to remain in this condition indefinitely, resulting in ongoing and potentially escalating environmental impacts. These include:

- Continued erosion and instability within the river channel and banks, particularly in areas where temporary works and disturbed soils remain exposed.

- The persistence of construction-related debris and materials within the river corridor, contributing to physical habitat degradation and potential water quality impacts.
- The establishment and spread of alien invasive vegetation, which has already been observed to be increasing in the absence of active management.
- Reduced likelihood of successful ecological recovery, as rehabilitation measures are dependent on the completion of construction activities.

In this context, the non-completion of the project presents a greater long-term environmental risk than the controlled continuation and completion of construction under the existing EA and associated mitigation measures.

3.1.2 Legal and Strategic Importance of the Development

The development forms part of the National Route 2 (N2), which is a strategic national transport corridor under the management of the South African National Roads Agency SOC Ltd (SANRAL). The upgrade of the Gwaing River Bridge is intended to improve road safety, traffic flow, and infrastructure resilience along this key route. Failure to complete the authorised development would result in:

- The continued use of an inadequate and potentially unsafe bridge structure, posing risks to public safety.
- Compromised transport efficiency and connectivity along a nationally significant route.
- Misalignment with national infrastructure development objectives and investment commitments.

Extending the construction period will enable SANRAL to fulfil its mandate to provide and maintain safe and efficient national road infrastructure.

3.1.3 Dependence of Rehabilitation on Project Completion

A key consideration in this application is that rehabilitation of the affected environment is intrinsically linked to the completion of construction activities. The current incomplete state of the site limits the implementation of final rehabilitation measures, particularly within the river corridor.
Specialist input confirms that:

- Effective rehabilitation of the river system, including bank stabilisation and re-establishment of riparian vegetation, can only be properly undertaken once construction activities are completed.
- Delays in completing the project increase the complexity of rehabilitation due to ongoing erosion and the maturation of invasive alien species.
- Existing mitigation measures and rehabilitation plans remain appropriate but are contingent on project completion for full implementation.

Accordingly, granting the extension will facilitate the implementation of comprehensive rehabilitation measures, ultimately resulting in improved environmental outcomes compared to leaving the site in its current condition.

3.2 Advantages and disadvantages

3.2.1 Advantages and Disadvantages of Granting the Extension

The advantages and disadvantages associated with **granting** the extension of the construction period are outlined below.

Advantages

- Granting the extension will enable the completion of construction and implementation of final rehabilitation measures within the Gwaing River corridor and surrounding areas. This includes stabilisation of riverbanks, rehabilitation of riparian and aquatic habitats, and reduction of erosion, thereby improving the overall ecological functioning of the system.
- Completion of the works will facilitate the removal and appropriate management of residual construction materials and infrastructure, thereby reducing ongoing sources of disturbance and preventing further degradation of the river environment.
- Timely completion will reduce the need for prolonged or repeated construction activities, thereby limiting cumulative environmental impacts such as disturbance to the river system, air emissions, and the overall ecological footprint associated with extended construction timelines.
- The upgrade of the bridge and associated road infrastructure will improve road safety and traffic flow, reducing the risk of accidents associated with the current narrow and substandard crossing.
- The continuation of construction will provide temporary employment opportunities, contributing to local socio-economic benefits.

Disadvantages

- The continuation of construction will require the reinstatement of temporary works within the river channel, including access crossings, scaffolding, and formwork. These activities may result in short-term disturbances to the aquatic environment, including potential sedimentation and disruption of habitat.

3.2.2 Advantages and Disadvantages of Refusing the Extension

The advantages and disadvantages associated with refusing the extension of the construction period are outlined below.

Advantages

- Refusal of the extension would avoid short-term construction-related impacts within the river corridor, particularly those associated with reinstatement of temporary access and in-stream works.
- Additional waste generation and construction-related disturbances associated with completing the works would be avoided.

Disadvantages

- The site would remain in a partially developed and disturbed state, with ongoing environmental degradation resulting from exposed and unstable areas, residual construction materials, and altered river dynamics.
- The Gwaing River would remain vulnerable to continued erosion, channel instability, and sedimentation, particularly in areas affected by previous flood events and incomplete construction works.

- The establishment and spread of alien invasive vegetation within the disturbed footprint is likely to increase over time, further complicating future rehabilitation efforts and reducing ecological integrity.
- Rehabilitation of the river system would be significantly more difficult and less effective, as successful rehabilitation is dependent on the completion of construction activities and implementation of associated mitigation measures.
- The continued use of the existing bridge infrastructure would pose an ongoing risk to public safety, given its limited capacity and substandard condition, and may result in increased likelihood of accidents and associated environmental and socio-economic impacts.

3.2.3 Summary of Advantages and Disadvantages

Scenario	Environmental	Social	Economic / Infrastructure	Overall Implication
Granting Extension	Enables rehabilitation; reduces long-term degradation; allows removal of construction materials; short-term disturbance to river during completion.	Improves road safety; temporary employment opportunities	Completion of critical national infrastructure; avoids sunk-cost loss	**Positive long-term outcome despite short-term impacts**
Refusing Extension	Ongoing erosion, alien vegetation spread, and habitat degradation, no rehabilitation.	Continued safety risks due to inadequate bridge	Loss of investment; incomplete infrastructure	**Negative long-term outcome with escalating environmental risk**

4 CONSTRUCTION COMPLETED

As indicated in the sections above, the construction phase for the upgrade of the Gwaing River Bridge and the associated road alignments commenced in 2018. This section provides a summary of the works completed from 2018 to 2021.

4.1 New bridge

The works completed for the new bridge include:

- Temporary works to enable access to the river for pier construction, including an access road, temporary culverts, and temporary backfill over the culverts to enable access across the river.
- Subsurface excavations and pile installation for the concrete footings for all three piers in the Gwaing River.
- Construction of all three wall-type concrete piers to their full height.
- Completion of the easternmost two of the four spans, each constituting an in-situ concrete post-tensioned double-cell box girder deck.
- Construction of both concrete abutment structures (east and west).

Photograph 1: Showing two completed eastern spans and pier above Gwaing River

Photograph 2: Showing the top view of the end point of the two completed spans

Photograph 3: Showing bottom view of the end point of the two completed spans

Photograph 4: showing a full constructed pier and outstanding two western spans to be constructed.

Photograph 5: Showing the western abutment wall

4.2 Roadway construction

The works completed for the new alignment of the roadway include:

- Clearing of vegetation to the full approved extent;
- Translocation of protected species from within the development footprint;
- Bulk earthworks to widen and level the surface to subgrade level for the entire works area;
- Stormwater culverts and pipelines installation and backfilling, but not construction of inlets, outlets, and side drains;
- Construction of layer works as far as the base layer on the western side of the bridge, except for a 10m section nearest the abutment wall; and
- Construction of layer works to subgrade level on the eastern side of the bridge.

Photograph 6: Showing western side of the approach constructed to base level

Photograph 7: eastern side of the approached constructed to subgrade level

5 WORKS REQUIRED FOR COMPLETION

5.1 Permanent works

5.1.1 New and existing bridge

The new bridge requires the construction of the two remaining western spans, as well as the installation of the balustrades and the surfacing of the deck. The existing bridge will require erosion protection measures around the exposed caissons, along with structural repair works. These works include replacing the bridge joints, refurbishing the bearings, concrete repairs, and protective coating of the balustrade.

Photograph 8: Showing the top view of the missing western spans of the bridge

5.1.2 Roadway

Although earthworks have been completed, the exposed layer is currently covered with weeds and grass, which may require reworking before further construction can proceed. The base layer is required on the unfinished portion of the western side and on the eastern side. Once all base layers are in place, asphalt surfacing will be carried out. In addition, fill behind the abutment wall on the western side is still outstanding.

Photograph 9: Base layer partially completed on the western side of the bridge

Photograph 10: The outstanding portion on the western side

Photograph 11: Showing the eastern side completed to subgrade level and grass and weeds sprouting

5.1.3 Stormwater

The new stormwater infrastructure requires construction of new inlets, outlets, and side drains.

5.2 Temporary works

The contractor will require safe access to the site to undertake the remaining works. The western bank is steep and impractical to use for access. The eastern bank, which was previously used by the former contractor, offers a safe and feasible access route. For access to the eastern bank, the reinstatement of flow diversion via a temporary culvert (or culverts) will be required, to convey flows beneath a reinstated temporary causeway. Scaffolding and formwork will be constructed beneath the two western spans.

Following completion of construction and removal of temporary works, rehabilitation of the river corridor will be required, both within the road reserve and potentially downstream to address impacts of the earlier phase of construction.

6 STATE OF THE SITE

A site visit was undertaken by the EAPs on 10 February 2026 to verify the status of completed components of the project scope and the current state of the site. All accessible parts of the site were accessed on foot and georeferenced photographs of all infrastructure, and the surrounding environment were captured.

6.1 Roadway alignment

The area for the alignment of the new eastbound (northern) carriageway was fully cleared of indigenous vegetation. The area was excavated, backfilled where required, and the base layer of the roadway was constructed along the full extent, with the exception of a short section west of the western abutment, where only the fill layer was completed. The roadway east of the new bridge was further constructed as far as the subgrade.

The side slopes of the cuttings were shaped to their final angle, and side drains were excavated but have not been constructed. A laydown/stockpile area was established north of the western abutment, and an access road to the river valley was constructed north of the eastern abutment.

The side slopes and side drains are unsurfaced, and vegetation has re-established outside the compacted roadway since abandonment of the construction works in 2021. In places, this is dominated by alien and invasive *Eucalyptus, Populus*, and *Acacia mearnsii*. Elsewhere a mixture of locally indigenous pioneer species has recolonised areas of topsoil, including *Passerina sp*. and *Helichrysum sp*. as well as grasses. Weeds and grasses are also sprouting on the exposed base layer.

Photograph 12: Showing establishment of indigenous plant species in places along side slopes west of the bridge

Photograph 13: Eucalyptus alien invasives north of the western abutment

Photograph 14: Showing western approach road alignment completed to base level

Photograph 15: Showing unfinished portion of the western approach

Photograph 16: Showing the eastern approach road alignment resprouting grasses and weeds completed up to subgrade level

Photograph 17: Invasive Populus and other vegetation along side slopes of the eastern approach

6.2 River corridor

All three piers have been completed, but as the in-situ construction of the spans requires formwork to be constructed from below, the works within the river valley are not yet completed. Substantial temporary works were implemented during construction, including:

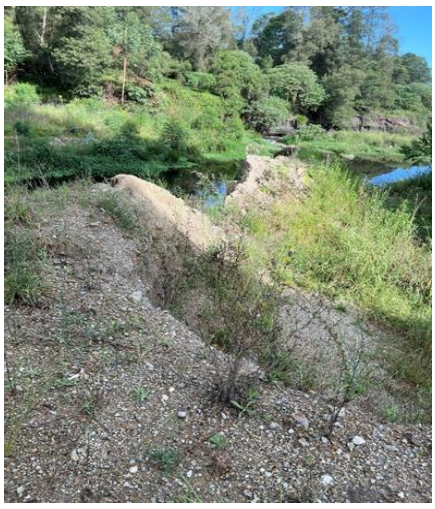
- construction of an access road on the eastern bank;
- placement of a ~2 m diameter corrugated steel culvert to temporarily convey river flows between the western and central piers;
- diversion of flows into the culvert using a coffer dam formed from bulk bags; and
- placement of fill on either side of the temporary culvert to allow for access by plant and machinery to the western bank and for construction of scaffolding and formworks in the river.

Several flood events have occurred since suspension of works, which have resulted in the erosion of the fill material placed for temporary access, the blockage of the temporary culvert, and the re-diversion of flows toward the eastern bank between the eastern pier and the abutment. Apart from erosion and siltation of the works area and downstream channel, the river corridor currently contains

residual construction material of various types. An eroded cut slope of approximately 6 m in height forms the eastern bank, with apparent and ongoing undercutting. Alien and invasive vegetation has re-established throughout the works area.

Photograph 18: Showing eroded fill material around the pier

Photograph 19: Showing eroded eastern bank



Photograph 20: Showing earth berm along the channel

Photograph 21: Showing corrugated steel culvert temporarily conveying the river flows

7 SPECIALIST REVIEW

7.1 Review of New Guidelines

A review was undertaken to determine whether any new legislation, guidelines, screening tools, protocols, or updated assessment approaches could materially affect the findings of the original specialist studies.

Since completion of the original assessments, the following key updates were considered:

- The National Web-Based Environmental Screening Tool and associated sensitivity outputs.
- Applicable environmental assessment protocols (including terrestrial biodiversity and aquatic assessment protocols).
- The NEM:BA List of Threatened Ecosystems.
- The NEM:BA Alien and Invasive Species Regulations and Species Lists (2022).
- The increasing integration of climate change considerations within environmental assessment and decision-making frameworks.

The National Web-Based Environmental Screening Tool was reviewed to confirm the environmental sensitivities associated with the site and to determine whether any additional specialist input or assessment requirements are triggered. The screening results were considered in conjunction with the original specialist studies and site verification findings. The outcomes of the Screening Tool and their alignment with the specialist assessments are discussed further in Section 7.2 below.

The review confirms that these updates do not introduce any new requirements or methodological changes that materially affect the validity of the original botanical or aquatic assessments. The studies remain consistent with current accepted practice, and their findings, conclusions, and mitigation measures remain valid.

7.2 Screening Tool Protocols and Site Sensitivity Verification

A Site Sensitivity Verification Report was also requested to be prepared as part of the requirements provided by the Competent Authority in terms of Regulation 30 (1). The development was originally authorised in 2017 by the Department of Environmental Affairs, prior to the publication of the Protocols for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes generated by the National Environmental Screening Tool. As part of the amendment application process, the Competent Authority requested that a site sensitivity verification report be completed to confirm the current state of the site and to identify any new assessments or guidelines that may now apply to the authorised development but were not considered during the initial environmental assessment.

A site verification report, appended in Appendix 6 is completed in accordance with the requirements of the Protocols as published in terms of GN 320 of 2020 and GN 1150 of 2020. Below is the summary of the outcome.

Theme/Assessment	Site Sensitivity Verification	Outcome
Agriculture Theme	The site is mapped as very high sensitivity for the agricultural theme due agricultural potential to support Non-pivot Irrigated Annual Crop Cultivation or Planted Pastures. The development is situated entirely within the road reserve of the National Route (N2). No agricultural land will be lost due to the completion of the upgrade or expected impact to prevent agricultural activities to the surrounding farms. The agricultural sensitivity rating within the road reserve is disputed.	A specialist study is not required.
Animal Species Theme	The site is mapped as high sensitivity for animal species theme due to its distribution of high sensitivity bird species, and medium sensitive amphibians and invertebrates The site does not provide conducive habitat conditions for the species identified by the screening tool. This is due to the existing fragmentation of habitat in the area and the absence of the specific ecological features required to support breeding. The sensitive rating by the screening tool is disputed.	A specialist study is not required
Aquatic Biodiversity Theme	The site is mapped very high sensitivity for aquatic biodiversity theme due to presence of a river classified as a critical biodiversity area and channelled valley-bottom wetland and falls within a Strategic Water Source Area. The new bridge is constructed above the Gwaing River. Although most of the major works have been completed within the river corridor, temporary access, as well as the installation of scaffolding and formwork beneath the remaining spans, will still be required to complete the outstanding construction activities. A freshwater impact assessment was undertaken during the EIA process and has since been reviewed to confirm that its findings and conclusions remain valid.	A Freshwater Impact Assessment was completed during the EIA process. As part of the amendment application, the specialist confirmed that the Freshwater Impact Assessment remains valid and applicable.

	The sensitivity rating generated by the national environmental screening tool is confirmed and remains applicable to the project.	
Archaeological and Cultural Heritage Theme	The site is mapped low sensitivity for Archaeological and Cultural Heritage Theme A Notification of Intent to Develop (NID) was submitted to Heritage Western Cape in 2016, and it was confirmed that the proposed development was not expected to impact any heritage resources. The continuation of the project does not alter the scope of works originally provided to HWC as part of the NID submission. Accordingly, there is no reason to believe that any heritage resources will be affected by the remaining construction activities. The sensitivity rating of low sensitivity is confirmed.	A compliance statement is not required.
Civil Aviation Theme	The site is mapped very high sensitivity for the civil aviation theme due to being within 8 km of a major civil aviation aerodrome, 15km of a civil aviation radar and being and within 5 km of an air traffic control or navigation site. The development does not exceed the limits and restrictions set out by the South African Civil Aviation Authority as it will not exceed height of 45m above ground level and occurs at the same level as the existing road. For these reasons, the project site has no civil aviation related sensitivities.	A specialist study is not required.
Defence Theme	The site is mapped low sensitivity for the Defence theme No defence operations and bases are situated near the site. Therefore, the rating is confirmed.	A compliance statement is not required
Plant Species Theme	The site is mapped as having medium sensitivity for plant species due to presence of medium sensitive vegetation.	A Botanical Assessment was completed during the EIA process. As part of the

	A botanical assessment was undertaken in 2017 during the EIA process. A total of 53 species including 11 protected species were confirmed as occurring within the project footprint. The search and rescue was completed prior to clearing of vegetation. The reviewing specialist noted that following vegetation clearing, an additional nine plant species were confirmed as occurring within the project footprint. The sensitivity rating by the screening tool is confirmed.	amendment application, the specialist confirmed that the Botanical Impact Assessment remains valid and applicable.
Terrestrial Biodiversity Theme	The site is mapped as very high sensitivity due to presence of Garden Route Granite Fynbos (Critically endangered) and Cape Lowland Alluvial Vegetation (Endangered) and is classified as a CBA. A botanical assessment was undertaken in 2017 as part of the EIA process. The ecosystem type identified by the national environmental screening tool was confirmed by the botanical specialists. However, the area has since become degraded due to the proliferation of invasive alien plant species.	A Botanical Assessment was completed during the EIA process. As part of the amendment application, the specialist confirmed that the Botanical Impact Assessment remains valid and applicable.

Other studies identified include:

- **Landscape/Visual Impact Assessment:** the study is not required, as the proposed development is not expected to significantly alter the character of the N2 or the surrounding landscape. The anticipated visual impacts are limited to construction-related activities, which are temporary in nature and will be mitigated through the measures outlined in the EMPr.
- **Palaeontology Impact Assessment:** The site is not expected to contain any fossil resources, and all deep subsurface excavations associated with the project have already been completed. Should any fossils be discovered during the remaining construction activities, work in the affected area will be halted immediately and the find will be reported to Heritage Western Cape. The study is not required.
- **Hydrology Assessment:** Engineering reports completed during the EIA period consist of design for stormwater infrastructure which will control the stormwater within the site. No further studies will be completed.

  Socio-Economic Assessment: The development is expected to deliver positive socio-economic benefits, including short-term employment opportunities for local labour during the construction phase, as well as longer-term benefits associated with the completion of this strategic section of the National Route.

  A socio-economic study was not undertaken during the previous phase of the EIA, and no new or material socio-economic impacts have been identified that would warrant a separate assessment as part of this amendment application.

7.3 Specialist Review Process

In accordance with Regulation 30(1)(a) of the Environmental Impact Assessment Regulations, 2014 (as amended), the Competent Authority requested that a review of previously completed specialist studies be undertaken as part of the application for amendment of the Environmental Authorisation. The purpose of this requirement is to confirm whether the findings, conclusions, and mitigation measures of the original environmental assessments remain valid considering current site conditions and the lapse in construction activities.

The specialist review process was therefore initiated to provide an updated consideration of the receiving environment and to determine whether any changes have occurred that may influence the original environmental impact assessment outcomes or necessitate revised mitigation measures.

The review process comprised both a desktop assessment of the original specialist reports and available environmental data, as well as targeted site verification inspections undertaken by the relevant specialists. These site visits were conducted to ground-truth current environmental conditions within the approved project footprint, including both terrestrial and aquatic environments.

The botanical specialist site verification was undertaken on 12 March 2026, while the freshwater (aquatic) specialist site verification was undertaken on 19 March 2026. These inspections focused on identifying any changes in vegetation composition, habitat condition, invasive species proliferation, and riverine system stability since the suspension of construction activities in 2021.

The findings of these reviews are presented in the subsections that follow and are intended to inform the Competent Authority's decision-making regarding the proposed extension of the EA validity period.

7.4 Terms of Reference for Specialist Review

The specialist review was undertaken in accordance with Regulation 30(1)(a) of the Environmental Impact Assessment Regulations, 2014 (as amended), as requested by the Competent Authority for the amendment of the EA for the Gwaing River Bridge project. The purpose of the review was to confirm whether the findings, conclusions, and mitigation measures of the original specialist studies remain valid under current site conditions following the suspension of construction activities in 2021.

- Confirmation of the continued validity of original specialist findings and recommendations.
- Identification of any material environmental changes within the project footprint and surrounding area.
- Assessment of current terrestrial and aquatic environmental conditions.
- Verification of the effectiveness and continued relevance of existing mitigation measures.
- Review of potential changes in ecological, invasive species, and riverine conditions.
- Provision of input to support the Competent Authority's decision on the extension of the EA validity period.

7.5 Botanical Assessment Review

The botanical specialist review was conducted by Juan Swanepoel, an ecologist registered with SACNASP (Pr. Sci. Nat. 139466) from PAN Biodiversity Consulting. A site inspection was undertaken on 12 March 2026 to determine whether the findings of the original Vegetation Impact Assessment* Report by (Du Preez, 2017) remain valid.

The specialist observed that vegetation clearing had already been completed on site, and as a result, a significant amount of vegetation previously assessed has since been replaced by roads at various stages of construction.

7.5.1 Original Botanical Assessment findings

According to the original Vegetation Impact Assessment (Du Preez, 2017), the ecosystem types occurring within the development footprint comprise Garden Granite Fynbos and Cape Lowland Alluvial Vegetation, both of which are classified as Critically Endangered under the National Environmental Management: Biodiversity Act. The report further notes that the site had already undergone significant modification due to agriculture, forestry activities, and alien vegetation clearing. A desktop assessment conducted for the study identified 112 plant species recorded within the relevant quarter degree square (3422AB, approximately 670 km²), based on data from the SANBI's POSA database. Of these species, 11 are Red-Listed and 63 are protected under the Western Cape Nature Conservation Ordinance (1974). Prior to vegetation clearing, a total of 53 species including 11 protected species were confirmed as occurring within the project footprint. The site was also reported to be impacted by alien invasive species, including *Acacia mearnsii, Acacia cyclops, Eucalyptus spp.,* and *Salvinia molesta.*

The mitigation measures provided in the original report include:

- Preconstruction search-and rescue involving the appropriate specialist, specifically for bulbous and succulent protected species.
- Limiting the extent of vegetation clearing.
- Alien and weed control within disturbed areas.
- Clear demarcation of construction and no-go areas.
- Rehabilitation of riparian vegetation in the river corridor following construction.
- Erosion protection.

7.5.2 Reviewing Specialist

The reviewing specialist confirms that the original findings regarding the ecosystem types remain valid and notes that additional transformation has occurred as a result of the authorised construction of the bridge and road alignment. According to Swanepoel (2026), a current desktop assessment for the broader project area (approximately 40 km²), using the updated data from the SANBI's POSA database and the Global Biodiversity Information Facility (GBIF), identified 356 distinct plant species. Of these, 24 are Red-Listed, and 71 are protected under the Western Cape Nature Conservation Ordinance (1974). Following vegetation clearing, an additional nine plant species were confirmed as occurring within the project footprint. However, no protected species were recorded within the footprint during the latest assessment. The specialist also reiterates the ongoing impact of alien

* Du Preez, J. 2017. Vegetation Impact Assessment Report: Proposed upgrading of the bridge on the N2 over the Gwaing River, George, Western Cape.

invasive species within the development footprint and surrounding areas. Species noted include *Acacia cyclops, Acacia mearnsii, Cortaderia selloana, Eucalyptus spp., Pinus spp., Solanum mauritianum,* and *Verbena bonariensis.*

Recommendations and conclusions

It was concluded that the botanical biodiversity and habitat conditions within the development footprint have undergone significant transformation as a result of vegetation clearing undertaken in accordance with the existing Environmental Authorisation. Based on the review of the original assessment and the findings of the site inspection, the specialist confirmed that the conclusions and recommendations of the original Vegetation Impact Assessment remain valid and applicable.

Accordingly, it is recommended that the construction period specified in the EA be extended and that construction activities continue in strict adherence to the botanical mitigation measures originally prescribed. This will ensure the ongoing management and conservation of the remaining vegetation and habitat within the project footprint.

7.6 Freshwater Assessment Review

The freshwater specialist review was conducted by Dr. Jackie Dabrowski, an aquatic and ecological specialist registered with SACNASP, from Confluent Biodiversity Specialists. A site visit was undertaken on 19 March 2026 to assess the current condition of the river and determine the extent to which conditions may have changed since the previous aquatic specialist report was compiled.

7.6.1 Original Freshwater Assessment

The original freshwater assessment report† outlined specific conditions, including the requirement for a post-construction rehabilitation plan to be prepared and implemented by a suitably experienced rehabilitation specialist. It also provided operational-phase mitigation measures aimed at preventing the establishment and spread of alien invasive plant species and promoting the retention of indigenous vegetation.

The report further recommended that post-rehabilitation efforts be permanently documented by establishing fixed photo-monitoring points at the commencement of construction. This approach enables consistent monitoring of site conditions and allows for clear tracking of changes and rehabilitation progress throughout construction and through to completion.

The specialist noted that one impact not addressed in the previous freshwater assessment report relates to significant channel and bed erosion that occurred following the flooding events. However, this impact is adequately addressed in the existing rehabilitation plan, which provides sufficient guidance for an aquatic specialist to undertake post-construction rehabilitation planning.

† Holme., C. 2016.Freshwater Habitat Impact Assessment: Doubling of the existing Gwaing River Bridge Crossing on the National Route N2 National Route, Georg, Eden District Municipality

7.6.2 Reviewing Specialist

During the site visit the specialist observed the following:

- The culvert used for the initial river diversion was blocked by debris and much higher than the current stream baseflow.
- The causeway that was built across the river was washed away. Only a concrete platform on the west bank next to the diversion culvert remains.
- Construction-related debris remains around the river which includes broken pipes, concrete blocks, fill material, metal rebar, sandbags, large sacks full of sand and rocks.
- Extensive alien vegetation is growing throughout the old construction area, although the entire river system was densely invaded. Dominant large species include Black Wattle (*Acacia mearnsii*), *Eucalyptus spp*., and Spanish Reed (*Arundo donax*). Smaller herbaceous species include goosefoot (*Chenopodium sp*.) and nightshade (*Solanum sp.)*
- Serious channel incision has occurred following flood events but especially following the 1:150 rainfall event experienced in November 2021. Large areas of bedrock are exposed, and eroded banks are around 3m high.
- No water quality testing was undertaken, but water quality appears to be poor, with thick green filamentous algae indicative of eutrophic waters attached to stream substrates. This is not specifically construction or site-related, but reflective of upstream impacts associated with the Gwaing Wastewater Treatment Works, George Landfill site, and localised water abstraction for farming.
- Remnant wetland vegetation typical of large wetland systems in George is present up and downstream of the construction area and includes *Psoralea affinis* (fountain bush) and *Cliffortia odorata*.

Based on the review of the original report, Dabrowski (2026) recommends that construction works recommence, as rehabilitation will become increasingly complex if the site remains abandoned, particularly due to the significant impacts associated with invasive alien plant species. The specialist concludes that the mitigation measures outlined together with the conditions included in the original freshwater specialist report, remain comprehensive and applicable. These measures must be fully implemented to ensure the best possible outcome for the Gwaing River throughout the execution of the project.

The role of the Environmental Control Officer (ECO) in monitoring compliance is emphasised as critical. The ECO must be familiar with both the freshwater mitigation measures and the conditions of the Environmental Authorisation. In the specialist's opinion, the existing conditions of approval are adequate to safeguard the affected aquatic ecosystem, provided that they are fully and consistently implemented.

The following mitigation measures are reiterated from the original report for implementation:

- Existing erosion damage and remaining construction materials must be addressed in the river.
- Rehabilitation efforts must focus on two key aspects, a) stabilisation of eroding banks, preferably through building up the river bed towards its original level (or at least a bit closer towards that); and b) control of alien vegetation through removal and active planting with indigenous plants. The latter will require ongoing maintenance until indigenous vegetation has established at least 80% cover in the construction footprint area.
- Monitoring of water quality must be undertaken during the construction phase, and every effort must be taken to minimise or eliminate sources of siltation during construction.

- Monitoring should focus on basic parameters such as Electrical Conductivity, pH, Dissolved Oxygen and clarity (simply measured using a clarity tube). These are easy and cost-effective parameters that can be measured by the ECO.
- Given the high intensity rainfall events that George can experience, the Gwaing River can be subject to rapid, severe flooding. Care must be taken during the construction phase to remove or secure any materials, equipment, machinery etc. well above the 1:100-year flood level.
- Clearance of alien vegetation from the construction footprint does not need to be postponed until the conclusion of construction. Where no further disturbance is anticipated, alien vegetation should be controlled to reduce the work required at a later point.

7.7 Validity of Impact Assessment and Mitigation Measures

The validity of the original impact assessment for the Gwaing River Bridge project remains unchanged and fully applicable for the purposes of this amendment application (extension of EA validity). The assessment was based on a combination of specialist studies, site verification, and engineering inputs, which continue to accurately represent the receiving environment and proposed construction activities.

While inherent uncertainties remain, particularly in relation to final construction methodologies, seasonal ecological variation, and the potential occurrence of unforeseen subsurface heritage resources, these were adequately considered in the original assessment through a precautionary approach. The mitigation measures contained in the Environmental Management Programme (EMPr, see Appendix 9) remain appropriate, implementable, and effective in reducing identified impacts to acceptable levels.

Importantly, no new activities, design changes, or material alterations to the approved project are proposed under this amendment. As such, no change in the nature, extent, or significance of environmental impacts is anticipated. The original conclusions of the EA therefore remain valid, and the existing mitigation measures continue to provide sufficient environmental protection for the duration of the extended validity period.

8 PUBLIC PARTICIPATION PROCESS

Public Participation is a critical informant of environmental assessment. Comprehensive, integrated and thorough application of public participation facilitates and ensures informed decision-making by the competent authority. Guidelines on public participation in terms of the NEMA EIA Regulations (Regulation 41), published by the then DEA (now the DFFE) in 2017, note that public participation should allow for the following:

- To provide an opportunity for all role players, including potential and registered interested and affected parties, EAPs, state departments, organs of state, and the competent authority to obtain clear, accurate and understandable information about the environmental impacts of the proposed activity or implications of a decision.
- To provide the opportunity for role-players to suggest ways for reducing or mitigating any negative impacts of the project and for enhancing its positive impacts.
- To enable the person conducting public participation to incorporate the needs, preferences and values of potential and registered interested and affected parties into the proposed development that becomes the subject of an application for an environmental authorisation.
- To provide opportunities for clearing up misunderstandings about technical issues, resolving disputes and reconciling conflicting interests.
- To encourage transparency and accountability in decision-making.
- To contribute toward maintaining a healthy, vibrant democracy.
- To give effect to the requirement for procedural fairness of administrative action as contained in the Promotion of Administrative Justice Act, 2000 (Act No. 3 of 2000).

8.1 Public Participation to be undertaken

This development constitutes a linear activity that is excluded from the requirement for landowner consent in terms of Regulation 39(2)(a), and the development is located entirely within the road reserve under the custodianship of the applicant. Therefore, landowner consent is not required.

The public participation process will be undertaken in accordance with Regulation 41 guidelines and is summarised below:

- A media advertisement will be placed in the *George Herald* on Thursday, 26 March 2026.
- Notice boards will be placed near the site boundary where they can be accessible to the public.
- Notification will be sent to
  - (i) Registered and potential Interested and Affected Parties (including I&APs previously registered),
  - (ii) Local Municipality with jurisdiction
  - (iii) Organs of state
  - (iv) Ward councillor
  - (v) Owners, persons in control of, and occupiers of land adjacent to the site

A Comments and Responses Report will be compiled following the closure of the 30-day public commenting period and will be included in the Final Amendment Report submitted to the Competent Authority for decision-making.

We invite any members of the public who feel they are affected by or have an interest in the proposed amendment to comment and to register as I&APs. All registered I&APs will receive communication regarding the proposed amendment and will be notified of any future opportunities for comment. I&APs are required to provide contact information and a declaration of any interest they may have in the application to register.

A 30-day public participation process will end on 29 April 2026.

Interested and affected parties are invited to review the Draft Amendment Report and **comment** using any of the following methods:


Online at **www.infinityenv.co.za/gwaingbridge**


By email to **comments@infinityenv.co.za**


By WhatsApp message to **060 524 7676**


The 30-day commenting period will start on Thursday, 26 March 2026 and end on Wednesday, 29 April 2026.

For more information, to comment, or to arrange alternative ways of participating, please contact the Environmental Assessment Practitioner, at the details above.

9 CONCLUSION AND NEXT STEPS

This Amendment Report for the Gwaing River Bridge project has been prepared by the appointed EAPs in support of an application for the extension of the authorised timeframe for the completion of construction.

The assessment confirms that the original environmental impact assessment remains valid and fit for purpose. The project has not changed in terms of its design, footprint, or activities, and the receiving environment remains accurately represented by the original specialist studies. On this basis, no new or additional environmental impacts are anticipated, and the previously identified impacts and associated mitigation measures remain applicable.

A review of relevant updates in environmental legislation, guidance, and assessment methodologies has been undertaken as part of the amendment process. These updates do not introduce any material changes that affect the validity of the original findings or conclusions, and the assessment remains aligned with current accepted practice.

Public participation for the amendment process is currently in progress. Interested and Affected Parties have been afforded access to the relevant information and the opportunity to provide comment. All inputs received will be compiled and addressed in a Comments and Response Report, which will form part of the Final Amendment Report submitted for decision-making.

9.1 Next Steps

Upon completion of the public participation process, all comments will be consolidated and appropriately addressed. The Final Amendment Report, inclusive of the Comments and Response Report, will thereafter be submitted to the competent authority for consideration and a decision on the requested extension of the amendment application.

10 REFERENCES

Du Preez., J. 2017. Vegetation Impact Assessment Report: Proposed upgrading of the bridge on the N2 over the Gwaing River, George, Western Cape.

Holme., C. 2016.Freshwater Habitat Impact Assessment: Doubling of the existing Gwaing River Bridge Crossing on the National Route N2 National Route, Georg, Eden District Municipality

Dabrowski., J. 2026. Validity, relevance and revision of aquatic specialist recommendations for continuation of construction of the Gwaing River Bridge.

Swanepoel., J.2026. Botanical statement addressing the Validity of the eight year old Vegetation Impact Statement