

SITE SENSITIVITY VERIFICATION (SSV) REPORT: THE PROPOSED MAINTENANCE WORK AND INSTALLING OF NEW GABION BASKETS AT CULVERT C10432 AND BRIDGE 0496, DIVISIONAL ROAD 1489 IN DE DOORNS

INTRODUCTION:

This Site Sensitivity Verification (SSV) Report was undertaken in terms of the *Protocols for the Assessment and Minimum Criteria for Reporting on identified Environmental Themes* (referred to “the Protocols” hereafter) as per Government Notice No. 320 (published in Government Gazette No. 43110 on 20 March 2020)¹. These Protocols, effective as of 09 May 2020, must be complied with for every new application submitted after the effective date. According to the Protocols, the EAP must verify the current use as well as environmental sensitivity of the proposed site in accordance with the DFFE Screening Tool Report, to determine the need for specialist inputs in relation to the themes (and proposed specialist assessments) included in the Protocols.

METHODOLOGY:

The SSV Report was compiled based on desktop studies including the SANBI BGIS Biodiversity Spatial Plan, vegetation maps (Vegetation map of SA (Mucina & Rutherford, 2006, as updated in the 2012 beta version and 2018 Final), NFEPA, land-use map, Google Earth imagery including historical imagery, Cape FarmMapper, specialist input in combination with the site visit of 27 August 2025 to investigate, identify, and evaluate the potential impacts, associated with the proposed development, on the receiving environment. The SSV Report was compiled by Andrie-Maryna van Heerden (EAPASA Candidate Reg. 2025/19998) and reviewed by Maboe Nthejane (EAPASA Reg. 2022/4942)

AIM OF THE SSV REPORT:

The aim of the SSV Report is to;

- Verify land use and theme sensitivities as identified by the DFFE Screening Tool;
- Confirm or motivate against the need for a particular specialist assessment(s) as indicated by the DFFE Screening Tool; and
- Should the need for a specialist assessment be refuted/challenged, provide motivation as to why the proposed specialist assessment is not applicable to the proposed development.

¹ The Protocols are in line with Section 24(5)(a) and (h) and Section 44 of the National Environmental Management Act (NEMA), 1998 (Act No. 107 of 1998).

SITE DESCRIPTION:

The Western Cape Department of Infrastructure wishes to conduct maintenance work and construct additional infrastructure on Bridge 0496 and Culvert 10432 on the Divisional Road ("DR") DR1489 in De Doorns. The proposed site is depicted in Figure 1 below:



Figure 1: Locality map showing the proposed site

The proposed maintenance work on Culvert 10432 and Bridge 0496 as well as the installing of gabion basket next to the said infrastructure for erosion protection is described in detail below:

Culvert C10432 – DR1489

The culvert is located below the DR1489 at the following approximate central point geographic coordinates: 33°28'41.29"S, 19°37'6.22"E

The Proponent proposes to conduct the following work on the culvert:

- Remove approximately 20m³ of accumulated material from the culvert chambers
- Install a gabion basket of approximately 10m³ in size to extend the existing retaining wall in an upstream direction for further erosion protection of outer stream bank at the culvert.

Bridge 0496 – DR1489

The bridge is located on the DR1489 at the following approximate central point geographic coordinates: 33°28'56.58"S, 19°37'16.69"E

The Applicant proposes to conduct the following work on the bridge:

- Remove approximately 10m³ of debris accumulated in the area around the footings of the bridge

- Install a gabion basket of approximately 8m³ in size to protect the Pier 1 footing of the bridge from further undercutting as a result of stream flow

In accordance with the 2018 Vegetation Map of South Africa, Lesotho and Swaziland (Mucina & Rutherford, 2006), the proposed footprints were both historically covered by Alluvium Fynbos (as shown in below in Figure 2), which is categorised as “Endangered”.

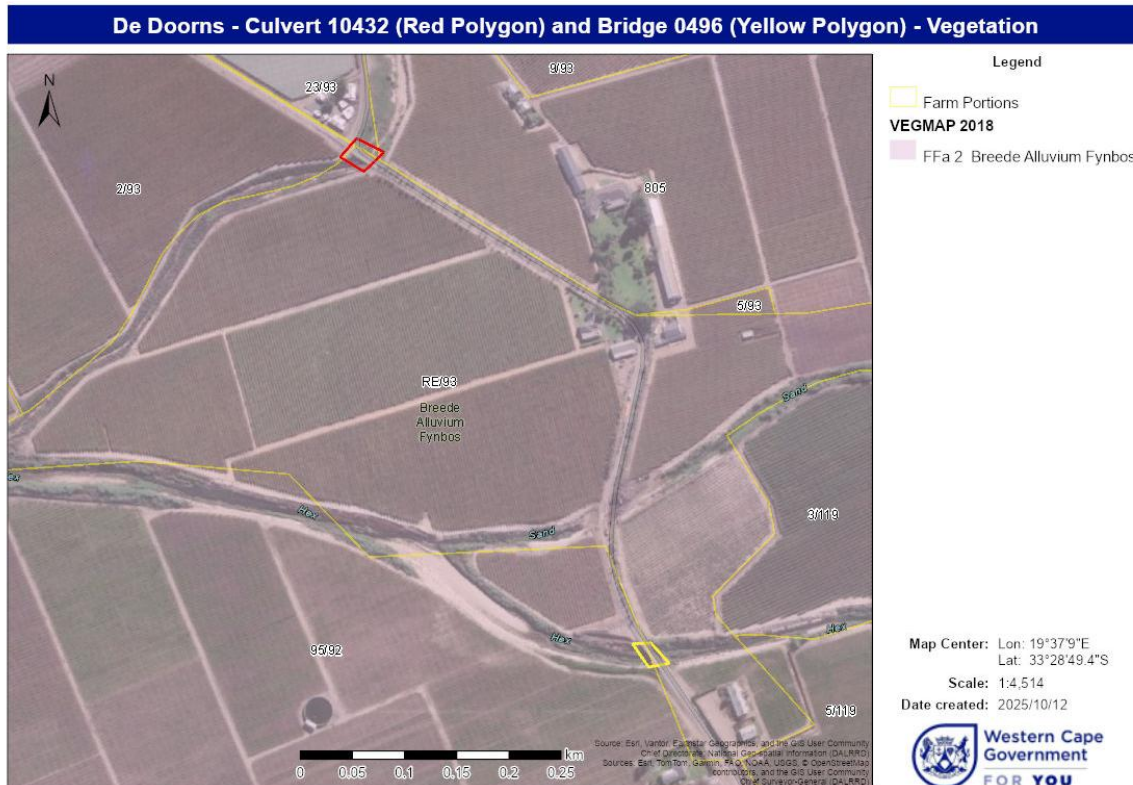


Figure 1: Map showing the De Doorns sites, Bridge 0496 (yellow polygon) & Culvert C10432 (red polygon)

According to the DFFE Screening Tool, a Very High sensitivity rating was given for the Terrestrial Biodiversity Theme, as the proposed development footprints falls within areas historically covered by an Endangered vegetation type. However, the proposed site is located within a watercourse where almost no indigenous vegetation exists and the degraded riparian area is dominated by Kikuyu.

De Doorns - Culvert 10432 (Red Polygon) and Bridge 0496 (Yellow Polygon) - CBAs



Figure 2: Map showing the De Doorns sites, Bridge 0496 (yellow polygon) & Culvert C10432 (red polygon), in relation to CBAs

According to the DFFE Screening Tool a Very High sensitivity rating was given for the Aquatic Biodiversity Theme, due the location of the proposed site within rivers that are categorised as CBA together with their riparian wetlands (Figure 3, refers). Culvert C10432 crosses the Sand River, a tributary of the Hex River and Bridge 0496 crosses the Hex River. Please refer to Figure 4 below.

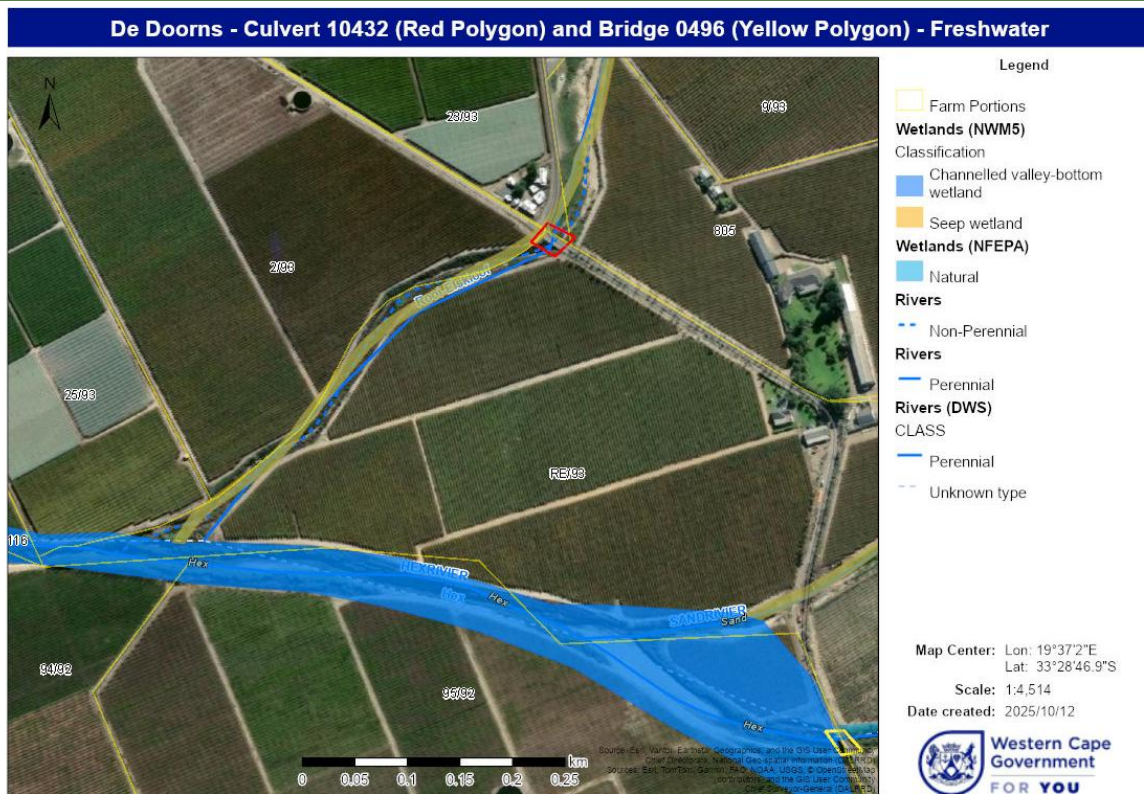


Figure 3: Map showing Bridge 0496 (yellow polygon) & Culvert C10432 (red polygon), in relation to freshwater resources (CapeFarmMapper, 2025)

Please see photographs taken on 06 November 2025 below:

Photographs taken on 06 November 2025



Photo 1: Photograph of Culvert C10432 where the proposed installing of a gabion basket will extend existing retaining wall (facing upstream)



Photo 2: Photograph of Culvert C10432 of existing gabion basket (facing downstream)



Photo 3: Photograph of accumulated material to be cleared from chamber of culvert



Photo 4: Photograph of accumulated material to be cleared from chamber of culvert



Photo 5: View of Bridge 0496 showing the Hex River flowing underneath



Photo 6: View of Bridge 0496 showing Pier 1 footing of the bridge for which gabion basket installation is proposed to give protection from further erosion



Photo 7: Close-up view showing labelling of Bridge 0496.



Photo 8: View of Bridge 0496 from the eastern side.

Table 1. Themes and associated sensitivity (for both Bridge 0496 and Culvert 10432) as per the DFFE Screening Tool.

No	Theme	DFFE Sensitivity	Agree / Disagree	Proposed Sensitivity	Motivation
1	Agriculture Theme	Very High sensitivity	Disagree		The proposed site is located within a stream channel underneath Bridge 0496 and within a stream channel at Culvert 10432 in De Doorns. The proposed development is therefore unlikely to result in any negative impact on Agriculture. In fact, the gabion basket to be installed at Culvert 10432 will help prevent the agricultural field adjacent to the culvert from being eroded further by stream flow. In light of this, the EAP is of the view that appointing an agricultural specialist to compile an agricultural statement is not warranted and so the specialist will not be appointed.
2	Animal Species Theme	Low Sensitivity	Agree		The proposed development is largely confined to within stream channels where very animals exist. The EAP is of the view that appointing a specialist to compile an Animal Species specialist study report is not warranted and so the specialist will not be appointed.
3	Aquatic Biodiversity Theme	Very High sensitivity	Agree		A specialist has been appointed to compile a specialist study report.
4	Archaeological and Cultural Heritage Theme	Low Sensitivity	Disagree	Medium or High	Bridge 0496 is more than 60 years old and therefore the proposed repair work thereon requires prior approval from Heritage Western Cape. A specialist has been appointed to compile written input that will inform the application.
5	Civil Aviation Theme	Low Sensitivity	Agree	Low	The proposed development does not pose any kind of significant risk to civil aviation. The EAP is in fact of the view that the significance rating for the Civil Aviation Theme should be negligible.
6	Defence Theme	Low Sensitivity	Agree	Low	The proposed development is unlikely to cause any kind of significant impacts relating to the country's defence.
7	Palaeontology Theme	Medium Sensitivity	Agree		A specialist has been appointed to compile a statement that will inform the application.
8	Plant Species Theme	Low Sensitivity	Disagree	Negligible	The proposed development is largely confined to within stream channels where very little indigenous vegetation exists. The EAP is of the view that appointing a terrestrial biodiversity specialist to compile

					a terrestrial biodiversity specialist report is not warranted and the specialist will not be appointed.
9	Terrestrial Biodiversity Theme	Very High sensitivity	Disagree	Negligible	The proposed development is largely confined to within the Hex River and at Bridge 0496 the tributary of the hex River at Culvert 10432 where very little indigenous vegetation exists. All the same, a terrestrial biodiversity specialist has been appointed to compile a written input.

Table 2. Specialist assessments (for both Bridge 0496 and Culvert 10432) identified as per the DFFE Screening Tool.

No	Proposed Specialist Assessment	Verification of Site Sensitivity And Motivation On The Need For Specialist Investigation
1	Landscape/ Visual Impact Assessment	The proposed maintenance work on Culvert 10432 and on Bridge 0496 as well as the installing of an instream gabion basket next to each of the said infrastructure is unlikely to cause any kind of significant visual impact in the surrounding area. This is especially the case when considering that the two gabion baskets are each smaller than 11m ³ in size and that the proposed site is not within view of any major scenic route. A specialist will therefore not e appointed to compile written input.
2	Archaeological and Cultural Heritage Impact Assessment	A specialist has been appointed to compile a statement that will inform the application.
3	Palaeontological Assessment	A specialist has been appointed to compile a statement that will inform the application.
4	Terrestrial Biodiversity Assessment	A terrestrial biodiversity specialist has been appointed to compile written input.
5	Aquatic Biodiversity Impact Assessment	A specialist has been appointed to compile a statement that will inform the application.
6	Hydrology Assessment	The proposed maintenance work on the bridge and culvert as well as the installing of new gabion baskets for protection against further erosion will not likely result in any kind of significant impact on the hydrological characteristics of the surrounding catchment. A specialist will therefore not be appointed to compile the specialist study report.
7	Socio-Economic Assessment	The proposed development is of very small scale and is therefore unlikely to cause any kind of significant changes in the socio-economic characteristics of De Doorns. A specialist will therefore not be appointed to compile a socio-economic impact study report to inform the application for environmental authorisation.
8	Plant Species Assessment	The proposed development is largely confined to within stream channels where very little indigenous vegetation exists. The EAP is of the view that appointing a specialist to compile a plant species study report is not warranted and so the specialist will not be appointed.

9	Animal Species Assessment	The proposed development is largely confined to within stream channels where very few animals exist. The EAP is of the view that appointing a specialist to compile an animal species study report is not warranted and so the specialist will not be appointed.
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All the Specialist Assessments and Compliance Statements compiled by specialists and the written opinions of other suitably qualified professionals will be appended to the Basic Assessment Report and submitted to the competent authority for review.

Please do not hesitate to contact EnviroAfrica for any further information or clarity regarding the above.

Yours faithfully,

Maboe Nthejane
EAPASA Reg. 2022/4942



p:+27 21851 1616

e: Maboe@enviroafrica.co.za

a: Unit 7, Pastorie Park, Reitz Street, Somerset west, 7130

Postnet Suite 341, Private Bag X29 Somerset West 7129

W: www.enviroafrica.co.za