

Cape $E\mathcal{A}P$ rac

Cape Environmental Assessment Practitioners (Pty) Ltd



Telephone: (044) 874 0365

(044) 874 0432 Web: www.cape-eaprac.co.za

17 Progress Street, George PO Box 2070, George 6530

22 September 2023

Our Ref: KNY816/02

RE: SITE SENSITIVITY VERIFICATION REPORT FOR BIGAI WETLAND MAINTENANCE MANAGEMENT PLAN, KNYSNA MUNICIPAL DISTRICT

On 20 March 2020 the Minister of Forestry, Fisheries and the Environmental published the general requirements for undertaking site sensitivity verification for environmental themes for activities requiring environmental authorisation (Government Gazette No. 43110). In terms of these requirements, prior to commencing with a specialist assessment, the **current land use** and **environmental sensitivity** of the site under consideration by the screening tool must be confirmed by undertaking a site sensitivity verification by either an EAP or a specialist.

The report uses national datasets to identify site sensitivities and potential specialist studies that may be required for any particular development. Since the datasets are not necessarily ground truthed, there may be instances where the required specialist study is in actual fact not necessary.

Prior to commencing with a specialist assessment, the **current use of the land** [must be verified] and the environmental sensitivity of the site under consideration identified by the screening tool [must be verified] by the undertaking a **site sensitivity verification** (SSV).

According to the Assessment Protocol for specialist involvement, if any part of the proposed development falls within an area of 'high" or "very high" sensitivity, the requirements prescribed for such sensitivity must be followed.

- 1. The SSV must be undertaken by an EAP or a specialist
 - The site sensitivity verification report has been compiled by the EAP.
- 2. A preliminary on-site inspection must be undertaken
 - Site inspection as undertaken by the EAP on 24 July 2023.
- 3. A desktop analysis, using satellite imagery, must be undertaken, alongside any other applicable/ relevant information.
 - Consideration has been given to the George GIS Viewer, SANBI, NFEPA, Cape Farm Mapper spatial layers and Google Earth.

1. General Site Information

The Knysna Municipality is responsible for maintenance of roads and road infrastructure which include, but are not limited to culverts and stormwater channels. Within the Bigai Wetland system these structures have become blocked due to upstream erosion resulting in sediment being carried into the lower lying, flat portion of the wetland. Due to the blockages runoff cannot drain properly resulting in permanent and temporary flooding of various streets within the study area.

To alleviate the flooding, it is proposed to clear silt/sediment buildup from the identified culverts/stormwater channels within the study area. The clearing will require the minimal removal of vegetation within the wetland area, as well as the moving/removal of material from the wetland at several locations within the study area (refer to the Maintenance Management Plan as well as the KMZ for spatial referencing of the various positions).

2. Screening Tool Results

According to the Screening Tool Report that was run on **21 August 2023**, the following summary of the development footprint environmental sensitivities is identified (Table 1).

Table 1: Summary of the development footprint environmental sensitivities.

Theme	Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
Agriculture Theme	Х			
Animal Species Theme		X		
Aquatic Biodiversity Theme	X	V	1	
Archaeological and Cultural Heritage Theme				x
Civil Aviation Theme			X	<u> </u>
Defence Theme				X
Paleontology Theme	X			
Plant Species Theme			X	
Terrestrial Biodiversity Theme	X		A	

Below is confirmation of the studies required for the MMP based on the sensitivity themes identified above.

2.1. Agriculture (Very High Sensitivity)

The Screening Tool identifies the agricultural sensitivity theme as "Very High" (Figure 1).

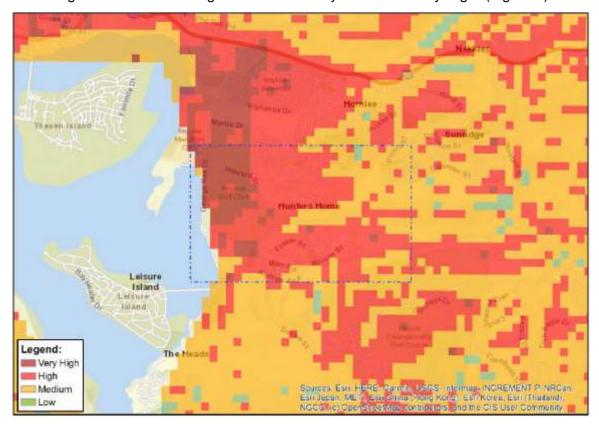


Figure 1: Image from Screening Tool identifying agricultural theme sensitivity for the property.

The study area falls within a wetland that feeds into the Knysna Estuary. The areas earmarked for maintenance are mostly along existing urban road networks that do not form part of any agricultural area. The wetland area is zoned Open Space and is not utilised for any agricultural land use.

This theme is therefore not deemed applicable.

The EAP is of the opinion that the rating awarded by the Screening Tool is incorrect and it is therefore refuted. Since there is no 'not applicable' category in the Screening Tool, the lowest level of 'Low' is awarded, however no specialist studies are required.

2.2. Animal Species (High Sensitivity)

The screening tool identified the sensitivity for animal species (fauna) as "High" (Figure 2) for the following species (Error! Reference source not found.):



Figure 2: Image from Screening Tool identifying Animal Species theme sensitivity for the property.

The study area is predominantly wetland habitat. The areas identified for maintenance are in and around culverts that are in place below several existing roads in a highly modified urban environment. The areas where culverts and stormwater channels must be cleared (of sediment to improve freshwater movement) are spread across the greater wetland area. Work space required at each of these identified culverts/stormwater channels is very small (maximum 2m x 2m each) and the likelihood of aquatic creatures being impacted is limited.

The aquatic specialist who compiled the MMP is well-versed in aquatic ecology and did not identify the need for any particular aquatic faunal investigations to inform the MMP.

The aquatic specialist confirmed that no Red Date or unique/special species of concern were observed during several field trips, although a bird species such as the Knysna Warbler could occur in the greater wetland, but the presence of such a species will not be compromised by the limited maintenance activities as proposed.

Because wetland habitat is generally deemed sensitive for both aquatic and bird species, there is a need to take a precautionary approach to maintenance considering local sensitivities, however all proposed maintenance is to existing infrastructure.

As a result, the overall sensitivity rating presented in the Screening Tool is refuted by the EAP and the category of 'Low' awarded instead. No further faunal specialist studies are required to inform the MMP although ECO monitoring at each position is recommended.

2.3. Aquatic Biodiversity (Very-High Sensitivity)

The screening tool identified the aquatic biodiversity theme as "Very High" (Figure 3). The property is within a Freshwater ecosystem priority area quinary catchment.

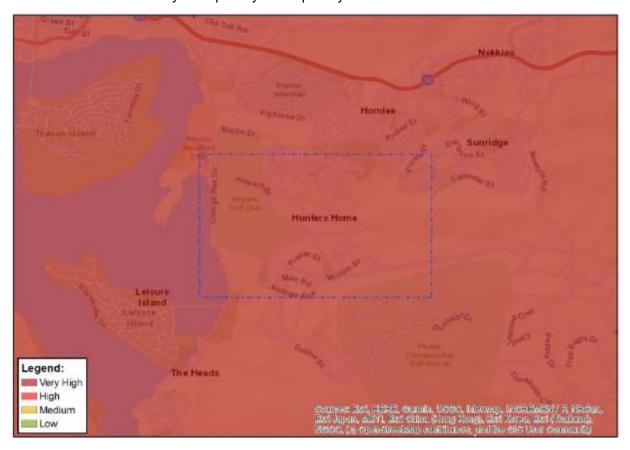


Figure 3: Image from Screening Tool identifying Aquatic Biodiversity theme sensitivity for the property.

The site location falls within a FEPA sub-quaternary catchment (SQC) which automatically flags it as being "very high". The study area is the Bigai Wetland system which explains the rating as awarded by the Screening Tool.

The MMP was purposefully compiled by an aquatic specialist who conducted extensive field work to determine present ecological state (PES), ecological importance and sensitivity (EIS), water quality, assessment of hydrological as well as vegetation type and sensitivity.

The results of the wetland health PES yielded a score of 'D' which ultimately classes the Bigai Wetland in a category D/E which is Largely to Seriously Modified. The wetland's ecological function of flood attenuation and filtering runoff water which feeds the Knysna Estuary remains high.

The MMP speaks to improving the ecological functioning of the wetland by ensuring that freshwater water reaches the Knysna Estuary by opening blocked culverts.

The EAP does not refute the sensitivity rating as identified by the Screening Tool, however it is submitted that the specialist knowledge and input of the Aquatic Specialist is sufficiently expressed in the contents of the MMP. No further specialist studies are required to inform this theme.

2.4. Archaeological & Cultural Heritage (Low Sensitivity)

The screening tool identified this theme as being "Low" (Figure 4).

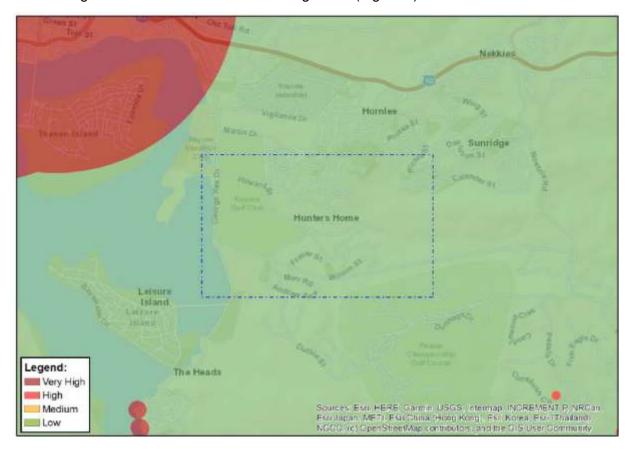


Figure 4: Image from Screening Tool identifying Archaeological & Cultural Heritage theme sensitivity for the property.

The maintenance work to be undertaken within the wetland will in no way impact on any known heritage/archaeological features since the clearing of sediment from culverts underneath roads and stormwater channels will take place is already modified environments.

Although the Screening Tool indicates the sensitivity for this theme as Low (not refuted by the EAP), it is submitted that the theme is not applicable to the maintenance work described in the MMP.

2.5. Civil Aviation (Medium Sensitivity)

The screening tool identified this theme as being "Medium" (Error! Reference source not found.).

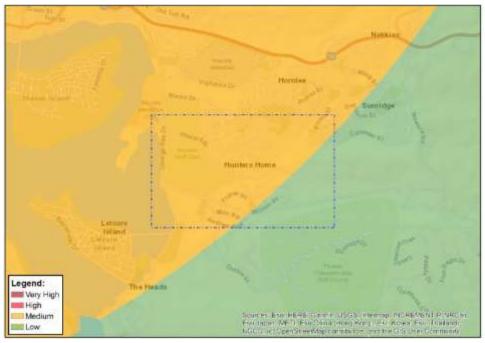


Figure 5: Image from Screening Tool identifying Civil Aviation theme sensitivity for the property.

The maintenance work to be undertaken within the wetland will in no way impact on civil aviation activities or operations in the area.

The EAP submits that this theme is not applicable to the maintenance work described in the MMP. The EAP therefore refutes the sensitivity rating of 'Medium'. Since there is no 'not applicable' category in the Screening Tool, the lowest level of 'Low' is awarded and no further studies are required.

2.6. Defence (Low Sensitivity)

The screening tool identified this theme as being "Low" (Figure 6).

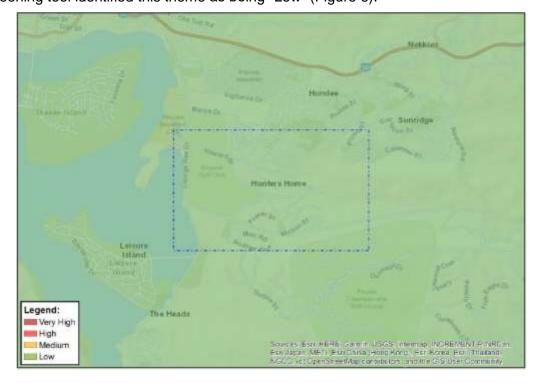


Figure 6: Image from Screening Tool identifying Defense theme sensitivity for the property.

The maintenance work to be undertaken within the wetland will in no way impact on defence activities or operations in the area.

The EAP submits that this theme is not applicable to the maintenance work described in the MMP. Since there is no 'not applicable' category in the Screening Tool, the EAP awards the lowest level of 'Low' to this theme. No further studies are required.

2.7. Palaeontology (Very High sensitivity)

The screening tool identified this theme as being "Very High" (Figure 7).

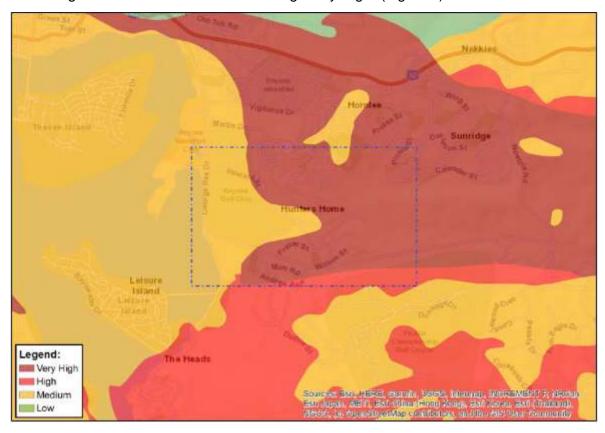


Figure 7: Image from Screening Tool identifying Paleontology theme sensitivity for the property.

The maintenance work to be undertaken within the wetland not impact on any known palaeontological features since the clearing of sediment from culverts underneath roads and stormwater channels will take place is already modified environments.

The EAP therefore refutes the sensitivity rating awarded by the Screening Tool and submits that the theme is 'not applicable'. Since there is no 'not applicable' category in the Screening Tool, the lowest level of 'Low' is awarded, however no further studies are required.

2.8. Plant Species (Medium Sensitivity)

The screening tool identified this theme as being "Medium" (Figure 8).

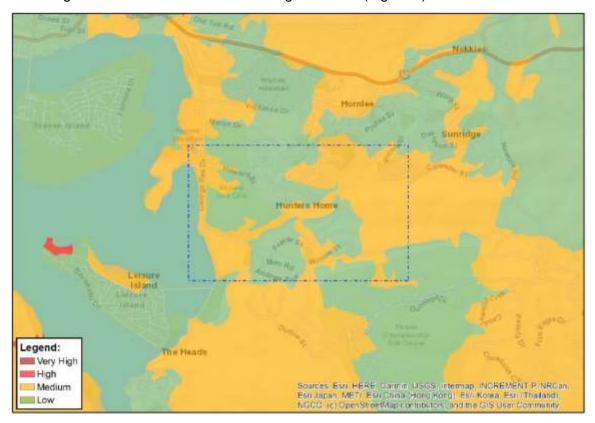


Figure 8: Image from Screening Tool identifying Plant Species theme sensitivity for the property.

The vegetation type indicated for this area according to the SANBI database is Garden Route Shale Fynbos (Endangered, VegMap 2018, Ecosystem Threat Status, 2021).

The botanist, Bianke Fouche who co-authored the MMP, comments on the fact that areas to the west of George Rex Drive and the golf course are *mapped* as Non-terrestrial estuarine vegetation, salt marsh, which has no conservation status. The vegetation on Erf 12403 is partially mapped as Non-terrestrial estuarine vegetation, reeds and sedges which reflects a more fresh water influence at the site.

According to the Western Cape Biodiversity Spatial Plan (WCBSP; 2017) some of the proposed maintenance sites (culverts, drainage channels, dumping sites) are located in Critical Biodiversity Area 1 and Protected Areas (Figure 5). The lower Bigai Wetland area is categorised as CBA1: Aquatic, and the Knysa Estuary up to and including sections of the Knysna Golf Course are part of the SANParks Protected Area (Garden Route National Park).

Whilst this highlights the need to take a precautionary approach to maintenance considering local sensitivities, all proposed maintenance is to existing infrastructure.

Site verification by the botanist confirms that parts of the golf course adjacent to George Rex Drive are presently dominated by saltmarsh as well as reeds and sedges. Vegetation within most of the project area has been significantly modified is no long representative of the mapped vegetation type. The area mapped as Garden Route Shale Fynbos which is an Endangered vegetation type has been **completely transformed** to create the Knysna golf course and surrounding suburbs.

2.9. Terrestrial Biodiversity (Very High Sensitivity)

The screening tool identified this as being "Very High" (Figure 9).

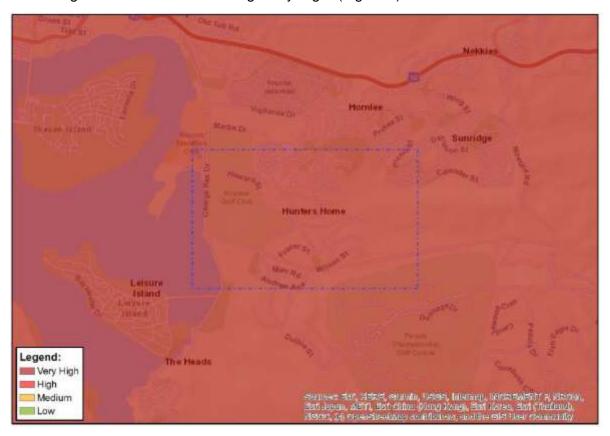


Figure 9: Image from Screening Tool identifying Terrestrial Biodiversity theme sensitivity for the property.

According to the Western Cape Biodiversity Spatial Plan (WCBSP; 2017) some of the proposed maintenance sites (culverts, drainage channels, dumping sites) are located in **Critical Biodiversity Area 1** and **Protected Areas**.

The lower Bigai Wetland area is categorised as **CBA1: Aquatic**, and the Knysa Estuary up to and including sections of the Knysna Golf Course are part of the **SANParks Protected Area** (Garden Route National Park).

Whilst this highlights the need to take a precautionary approach to maintenance considering local sensitivities, all proposed maintenance is to existing infrastructure.

The maintenance work to be undertaken is very limited and distributed over a number of locations in the Bigai wetland system. The work areas are small (maximum 2mx2m) and in places identified as more sensitive the Aquatic Specialist has recommended that work be done by hand only, with clearing of invasive alien vegation, search and rescue of plants as well as replanting of said plants in the same area as further mitigation.

Based on the input from the aquatic and botanical specialists, the EAP refutes the sensitivity rating of the Screening Tool and instead awards a sensitivity rating of 'Medium', however the input from the specialist are deemed sufficient to inform the maintenance actions and no further specialist studies are required for this theme.

3. Specialist Assessments

It is important to note that specialist involvement is needed when the environment could be significantly affected by the proposed activity, where that environment is valued by, or important to society and/or where there is insufficient information to determine whether impacts would be significant.

The scope of specialists' contribution (if required) depends on the **nature of the project**, the environmental context [of the site] and the amount of available information (CapeFarmMapper, SANBI datasets, input from specialists, Screening Tool), and does not always entail detailed studies or assessment of impacts (*Source: Guideline for the review of specialist input in EIA processes, 2005*).

Based on the selected classification and broad environmental sensitivities awarded to the different themes, the EAP submits that the aquatic and botanical input obtained from the specialists that co-authorised the Maintenance Management Plan are sufficient and detailed enough to inform decision-making. Due to the limited scope, scale and nature of the maintenance activities involved within the Bigai wetland system, the EAP submits that no further specialist studies are necessary to enable informed comment and/or decision-making by the Competent Authority.

Kind regards,

Ms Louise-Mari van Zyl

Environmental Assessment Practitioner

EAPASA Reg: 2019/1444