



AQUATIC BIODIVERSITY ASSESSMENT

of the proposed EA amendment application for

HEROLD'S BAY COUNTRY ESTATE DEVELOPMENT, GEORGE LOCAL MUNICIPALITY

DATE: 28 October 2025

PREPARED FOR:

Sharples Environmental Services
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1. INTRODUCTION

Upstream Consulting was appointed to provide an aquatic biodiversity specialist statement to inform an EA amendment application which seeks to remove the approved filling station from the layout, and rezone the consolidated portion to Business Zone II, allowing for a restaurant, gymnasium (place of leisure), liquor store, and flats. No enlargement of the authorised development footprint or alteration to bulk services is proposed. The change pertains only to the operational land-use type within the already-approved area.

The ToR provided by the client states that “only the potential impacts associated with the proposed changes to the layout need to be assessed or commented on.” It is the understanding of Upstream Consulting that the development footprint will not change, only the operational land use (at the filling station area).

Figure 1 below shows an excerpt from the authorised development layout plan of 2021 (indicating the area planned for a service station in the south-western corner) and Figure 2 shows the same area in the amended development layout plan (2025) being applied for business use.

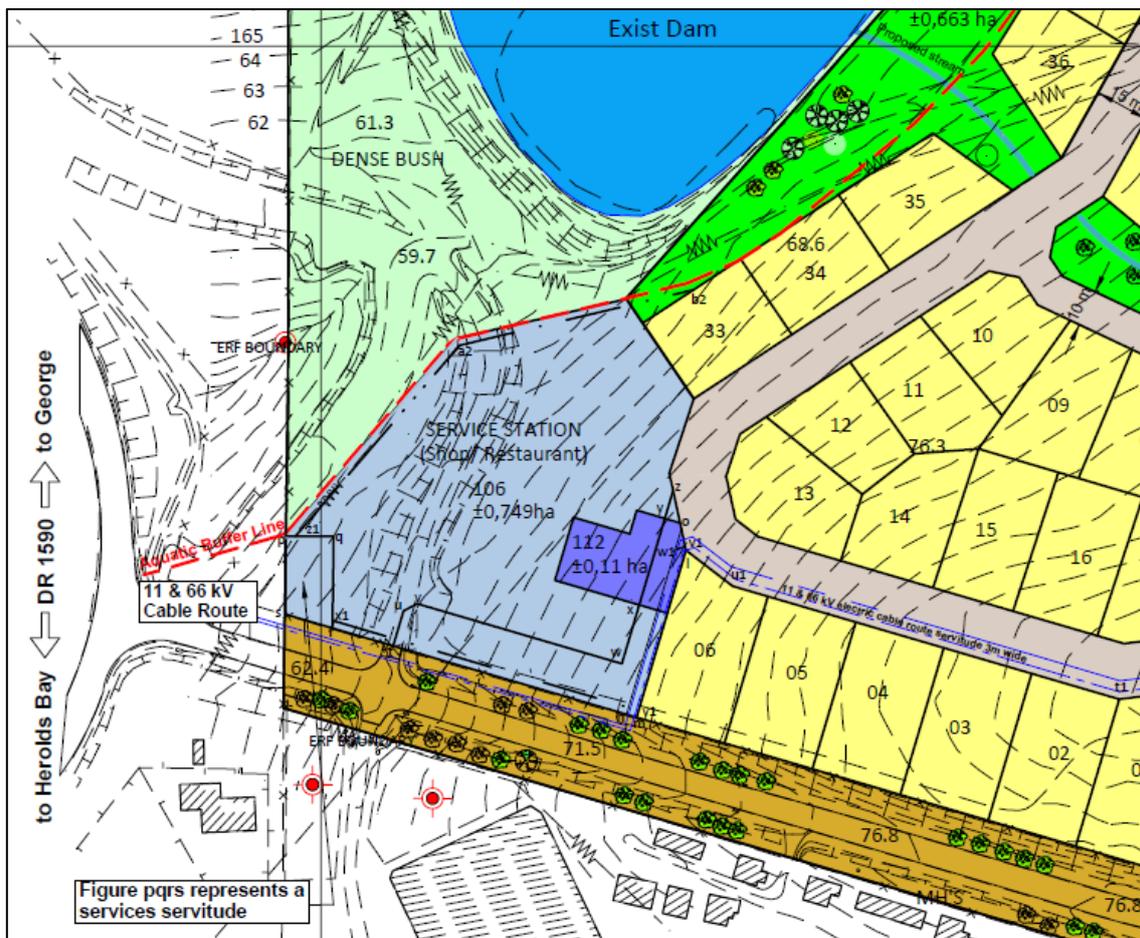


Figure 1: Excerpt from Plan No. HDB/C/204-4 (November 2021) by Nel & De Kock Town and Regional Planners showing the area approved as service station

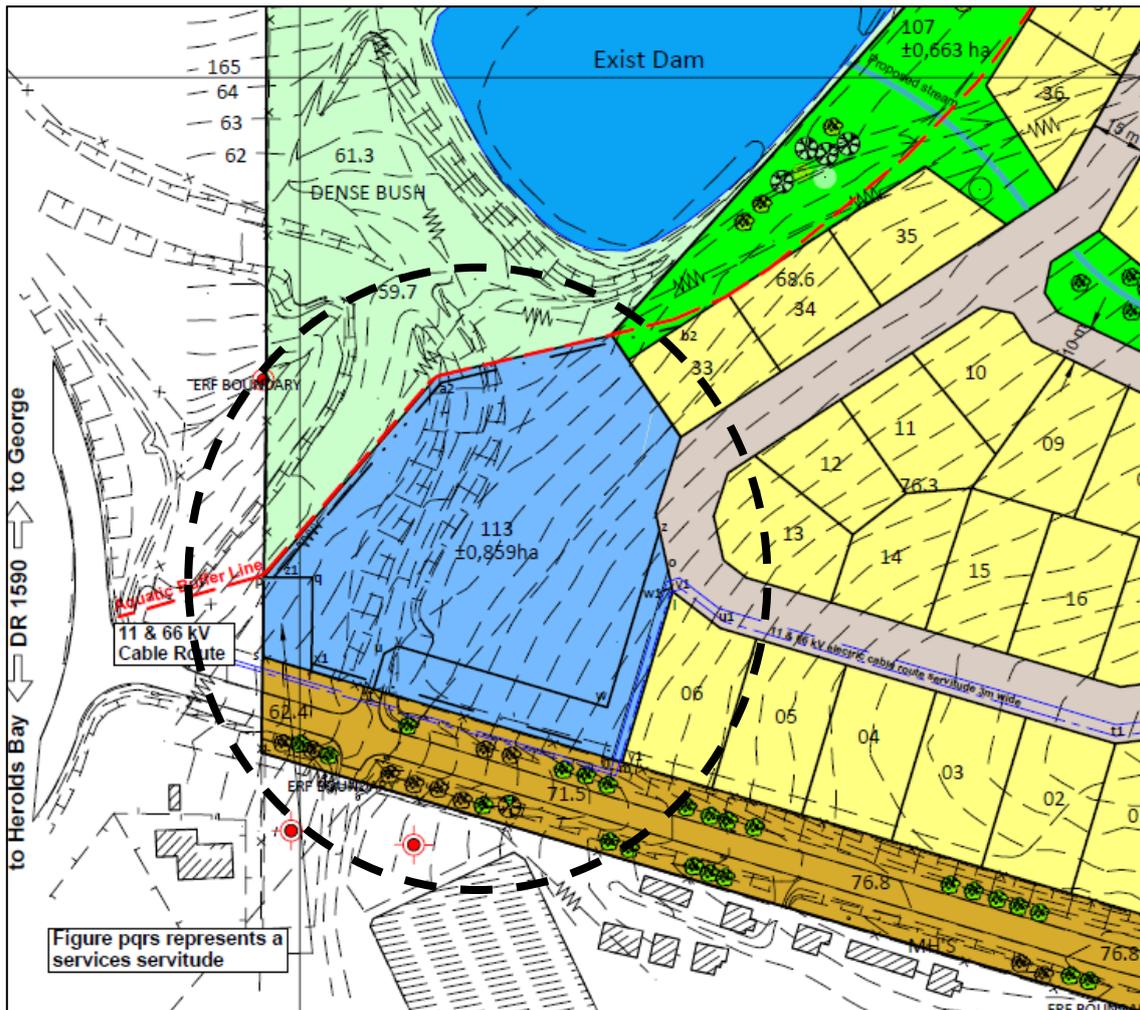


Figure 2: Excerpt from Plan No. HDB/C/204-5 (April 2025) by Nel & De Kock Town and Regional Planners showing the area previously proposed for service station amended to business zone

2. BACKGROUND

In 2019, while employed at Sharples Environmental Services cc (SES), the undersigned undertook a Freshwater Habitat Impact Assessment and subsequently a Freshwater Statement on the Basic Assessment Report for the proposed Herold's Bay Country Estate on Portion 7 of the farm Buffelsfontein No. 204, near Herold's Bay, Western Cape. Both documents identified two nearby watercourses—Stream A to the west (a modified non-perennial tributary flowing toward Herold's Bay) and Stream B to the northeast (a small ephemeral tributary of the Gwaiing River).

The 2019 assessment concluded that, following implementation of standard mitigation measures and appropriate spatial setbacks, residual impacts on aquatic ecosystems would be low and the systems could be maintained in their current ecological state. In 2021, an Environmental Authorisation (EA) was issued for the approved layout, which included a fuel service station as part of the mixed-use component.

3. SITE VERIFICATION

A site inspection was undertaken on 25 October 2025 to confirm the condition of the aquatic features previously assessed. The watercourse near the proposed service station area remains as described in 2019, and no new aquatic features were observed. The riparian condition and channel morphology are unchanged.



Plate 1: Photograph of the south-western corner of the property where the service station was proposed but is now proposed to be amended to business land use (2025)

4. ASSESSMENT OF THE PROPOSED AMENDMENT

Because the amendment involves only a change in land-use type and not in physical extent, the magnitude and significance of potential impacts on aquatic habitat remain fundamentally unchanged. In fact, the pollution risk is reduced: replacing the fuel station with low-intensity commercial and residential uses eliminates the hydrocarbon contamination risks associated with fuel storage and dispensing. The remaining activities (restaurant, gymnasium, liquor store, and flats) represent standard urban uses, whose runoff quality can be adequately managed through the stormwater and wastewater controls already recommended in the earlier assessment. No additional vegetation clearance, excavation, or stormwater outlets are proposed; therefore, the construction-phase risks remain as previously evaluated.

5. APPLICABILITY OF PREVIOUS RECOMMENDATIONS

All general mitigation measures and conditions previously recommended remain valid and must continue to be implemented. These include controls on stormwater management, erosion prevention, alien plant control, rehabilitation of disturbed areas, and appropriate operational management of effluent and runoff. The recommendations specific to the former fuel station (such as hydrocarbon containment, oil-separator maintenance, and spill-response measures) are no longer applicable. The approved development footprint must not be expanded beyond what was authorised, and all construction and operational activities must remain within the demarcated area.

6. CONCLUSION

Based on the review of previous assessments (SES 2019a, 2019b) and the site verification conducted in October 2025, the following conclusions are drawn:

- The proposed amendment does not increase the extent or significance of impacts on aquatic ecosystems relative to the 2019 findings.
- The risk of surface-water contamination is reduced under the new Business Zone II land-use scenario.
- The earlier mitigation and management measures remain applicable and sufficient to maintain the current ecological condition of the watercourses.

From a freshwater ecological perspective, the amended layout is acceptable, and the proposed EA amendment is supported.



Aquatic specialist services

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SPECIALIST DECLARATION OF INDEPENDANCE

This report has been prepared as per the requirements of the Environmental Impact Assessment Regulations and the National Environmental Management Act (Act 107 of 1998), any subsequent amendments and any relevant National and / or Provincial Policies related to biodiversity assessments. This also includes the minim requirements as stipulated in the National Water Act (Act 36 of 1998), as amended in Water Use Licence Application and Appeals Regulations, 2017 Government Notice R267 in Government Gazette 40713 dated 24 March 2017, which includes the minimum requirements for an Aquatic Biodiversity Report.

Report prepared by: Debra Fordham

Reviewed by: Colin Fordham

A handwritten signature in black ink, appearing to be "Colin Fordham".

Expertise / Field of Study: Internationally certified Professional Wetland Scientist and registered SACNASP ecologist, with <10 years of working experience, specialising in aquatic ecology. Debbie holds a M.Sc. degree in Environmental Science from Rhodes University, by thesis, entitled: The geomorphic origin and evolution of the Tierkloof Wetland, a peatland dominated by *Prionium serratum* in the Western Cape. She is a member of scientific organisations such as the Society of Wetland Scientists (SWS) where she holds a position on the Publications Committee of the International Chapter, the South African Wetland Society (SAWS), the South African Hydrological Society (SAHS), the Society for Ecological Restoration (SER), and the Southern African Association of Geomorphologists (SAAG).

I, **Debbie Fordham** declare that this report has been prepared independently of any influence or prejudice as may be specified by the National Department of Environmental Affairs Fisheries and Forestry and or Department of Water and Sanitation.

Signed:... A handwritten signature in black ink, appearing to be "Debbie Fordham".

..... Date:...28 October 2025.....

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