



Development Planning, Environment & Management Unit Biodiversity Management Department

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Our Ref.: EIA/147/IW/25/26
EDTEA/DEA/DMR Ref: TBC
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Telephone: 031 322 9352
Your Ref: TBC

Attention: Ryan Fuller

Tel: 078 634 2636
E-mail: ryan@redgiraffe.co.za

Dear Sir/Madam,

EIA/147/IW/25/26: WATER USE LICENCE APPLICATION FOR THE PROPOSED ABSTRACTION OF WATER FROM THE UMHLATUZANA RIVER ETHEKWINI METROPOLITAN MUNICIPALITY

With reference to the abovementioned application please be advised that various Municipal Departments have had sight of the proposal, and the following comments are submitted for your attention:

Cleansing and Solid Waste (CSW)	No comment to date.
Coastal Policy	No comment to date.
Coastal Stormwater and Catchment Management (CSCM)	No comment to date.
Disaster Management	No comment to date.
Environmental Health	No comment to date.
Biodiversity Management Department (BMD)	The Department has received and reviewed your Water Use Licence Application (WULA) for the proposed abstraction of water from the uMhlatuzana River via an instream weir. This review focuses on the potential impacts of the proposed abstraction weir on a river system that the submitted Aquatic Assessment (GroundTruth, July 2025) confirms is already in a severely modified and critically degraded state due to sewage contamination and other anthropogenic pressures. The Department's primary concern is to ensure that this intervention does not exacerbate existing ecological challenges and that it is designed and operated within the strict limits required to prevent further deterioration of the uMhlatuzana River. The proposed installation of a permanent instream structure (weir) represents a significant modification to the river. The following impacts, which are of high concern, must be robustly addressed: • The weir will fundamentally alter the natural flow regime. Upstream of the weir, flow velocities will decrease, creating a semi-lentic (still-water) environment. This will promote sedimentation and the deposition of pollutants, including the sewage derived nutrients already prevalent in the river. • The Aquatic Assessment (Sec 6.3) notes high nutrient levels (Ammonia: 4.09 mg N/L) and severe bacterial contamination (E. coli >2,420 count/100mL). A slower-flowing

impoundment behind the weir risks becoming a hotspot for algal blooms and further oxygen depletion, worsening the existing water quality crisis.

- The weir will act as a physical barrier to the movement of aquatic organisms, including fish and invertebrates. This can isolate populations, prevent access to upstream refugia and spawning grounds, and reduce genetic exchange.
- While the current fish community is likely depauperate due to poor water quality, the river's ecological importance and sensitivity are rated as high (Aquatic Assessment, Sec 6.6). Any recovery of the system in the future would be impeded by this barrier. The weir will create a new, artificial habitat upstream (deeper, slower) that will favour generalist and invasive species over those adapted to flowing water, further shifting the species distribution.
- The construction of the weir and its foundation will directly destroy the benthic (riverbed) habitat at the site. The associated activities (e.g., dewatering, excavation) will cause severe localised habitat loss and fragmentation.
- The Instream Habitat Integrity is already rated as "Fair, borderline Poor" (Aquatic Assessment, Sec 6.2, IHI Score: 62). The riverbed is identified as being impacted by sedimentation from sand mining and upstream erosion. The weir construction will add significant, acute disturbance to this already compromised habitat.
- The change from a lotic (flowing) to a lentic (still) environment upstream of the weir will eliminate riffle habitats critical for the spawning of many riverine fish and invertebrate species. The siltation caused by the weir can smother gravel and cobble substrates used as spawning beds.
- The Aquatic Assessment found the macroinvertebrate community to be in a "seriously modified condition" (SASS Score: 35), dominated by pollution-tolerant species. The proposed intervention risks further degrading the habitat conditions required for the recovery of more sensitive species that depend on specific flow and substrate conditions for reproduction.
- The proposal lacks a clear projection of how the weir will affect the official Present Ecological State (PES) of the river reach. The Aquatic Assessment confirms the system is already in a "largely modified" (Class D) to "seriously modified" condition. The introduction of a permanent instream barrier and abstraction point poses a significant risk of further degrading the PES by exacerbating habitat fragmentation, sedimentation, and water quality issues.
- A core principle of the National Water Act is the prevention of deterioration of water resources. The applicant must provide a specialist evaluation of the impact of the weir on the PES. The proposed development must be designed and managed to, at a minimum, prevent any further deterioration of the PES.
- The Department's position is that the ecological integrity of the uMhlathuzana River must not be degraded beyond its current state as a result of this licence. We strongly recommend that the applicant goes beyond this minimum standard and identifies tangible opportunities within the project to enhance the PES, such as integrated riparian rehabilitation and invasive alien species clearing, turning the project into a net-positive intervention for the river.
- Ecological Water Requirement (Reserve) Determination must be conducted prior to issuance of the license. The Reserve will legally define the quantity and quality of water that must be reserved to protect the aquatic ecosystem. Abstraction cannot be authorised without this foundational study.
- A comprehensive water quality management plan must be developed and submitted. Given the severe contamination, a plan must detail:
 - Pre-treatment requirements for abstracted water to handle high nutrient and bacterial loads.
 - A monitoring programme for upstream, abstraction point, and downstream water quality.
 - Contingency measures for abstraction during extreme pollution events.
 - Parameters (E. coli, nutrients, TSS), frequency and reporting protocol to DWS.

The Department recognises the applicant's need for a secure water supply. However, the proposed solution involves constructing a significant instream infrastructure on a river that is already ecologically compromised. The potential for the weir to compound

	existing stressors particularly sewage contamination by altering flow, trapping pollutants, and fragmenting habitat is a matter of high concern. We strongly advise the applicant to address the points raised in this letter comprehensively.
EThekwini Electricity (MV/LV Planning)	Please note HV Planning has no objections, however a separate comment shall be provided under a letterhead from MV/LV Planning to receive complete approval from the Energy Management Directorate (formerly known as eThekwini Electricity).
EThekwini Transport Authority (ETA)	This application is Supported.
EThekwini Water and Sanitation (EWS – Water Planning)	No comment to date.
EThekwini Water and Sanitation (EWS – Wastewater Design Branch)	No comment to date.
Fire Safety	No comment to date.
Land Use Management (LUM)	No comment to date.
Parks, Leisure, and Cemeteries	No comment to date.
Pavement, and Geotechnical and Engineering (P&GE)	P&GE has no geotechnical objection to abstraction of water. Prior to any detailed design or construction, a comprehensive geotechnical founding investigation (including drilling of boreholes), by a suitably experienced engineering geologist, is essential to determine optimum founding for all structures but the weir in particular. Inadequate founding will likely result in the weir being undermined and washed away in a future flood, even a modest one. Further, the lower slope where treatment works are proposed is already a cut-to-fill platform and will have potentially variable founding conditions.
Strategic Planning Branch (SPB)	In view thereof, SPB raises no objection to this proposal as it will increase production of the subject facility. Notwithstanding the above, the proposed abstraction has the potential to affect uMhlathuzana River and the D'MOSS surrounding the subject site during and post abstraction, therefore a formal confirmation of support must be obtained from both the Department of Water and Sanitation and Biodiversity Management in this regard. From a strategic planning perspective, this WULA application aligns with the intent of the Spatial Development Framework (SDF, 2025/2026) and the Central Spatial Development Plan (CSDP, 2014/15). The application is however subject to the following conditions: a) This branch's support is subject the applicant meeting all sector requirements. b) This support should not be deemed to be an approval of the eThekwini Municipality. c) This branch reserves the right to comment further should the need arise.
Catalytic Projects	No comment to date.

Should you require clarification on any of the above issues, please contact the writer on telephone: 031 322 9352 or via e-mail: EIA.Portal@Durban.gov.za In addition, the Department requests that a copy of the Environmental Authorisation be emailed to the same address.

Yours faithfully,



MS MICHELLE LOTZ

Pr. Sci. Nat. (Reg. No. 400 253/04) and Registered EAP (2020/2182)

MANAGER: BIODIVERSITY IMPACT ASSESSMENT

BIODIVERSITY MANAGEMENT DEPARTMENT (PREVIOUSLY: ENVIRONMENTAL PLANNING AND CLIMATE PROTECTION DEPARTMENT)

DATE: 22 OCTOBER 2025

25_071

MS ZINHLE DLAMINI

DEPUTY HEAD: BIODIVERSITY MANAGEMENT DEPARTMENT

DATE:

MR SANDILE SOKHELA

ACTING HEAD: DEVELOPMENT PLANNING, ENVIRONMENT AND MANAGEMENT

DATE:

Copy To:

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