

<p>VERY HIGH SENSITIVITY RATING – for aquatic biodiversity features.</p>	<p>2. Aquatic Biodiversity Specialist Assessment</p> <p>2.1. The assessment must be prepared by a specialist registered with the South African Council for Natural Scientific Professionals (SACNASP), with expertise in the field of aquatic sciences.</p> <p>2.2. The assessment must be undertaken on the preferred site and within the proposed development footprint.</p> <p>2.3. The assessment must provide a baseline description of the site which includes, as a minimum, the following aspects:</p> <p>2.3.1. a description of the aquatic biodiversity and ecosystems on the site, including;</p> <ul style="list-style-type: none"> (a) aquatic ecosystem types; and (b) presence of aquatic species, and composition of aquatic species communities, their habitat, distribution and movement patterns; <p>2.3.2. the threat status of the ecosystem and species as identified by the screening tool²⁰;</p> <p>2.3.3. an indication of the national and provincial priority status of the aquatic ecosystem, including a description of the criteria for the given status (i.e. if the site includes a wetland or a river freshwater ecosystem priority area or sub catchment, a strategic water source area, a priority estuary, whether or not they are free-flowing rivers, wetland clusters, a critical biodiversity or ecologically sensitivity area); and</p> <p>2.3.4. a description of the ecological importance and sensitivity of the aquatic ecosystem including:</p> <ul style="list-style-type: none"> (a) the description (spatially, if possible) of the ecosystem processes that operate in relation to the aquatic ecosystems on and immediately adjacent to the site (e.g. movement of surface and subsurface water, recharge, discharge, sediment transport, etc.); and (b) the historic ecological condition (reference) as well as present ecological state of rivers (in-stream, riparian and floodplain habitat), wetlands and/or estuaries in terms of possible changes to the channel and flow regime (surface and groundwater). <p>2.4. The assessment must identify alternative development footprints within the preferred site which would be of a "low" sensitivity as identified by the screening tool and verified through the site sensitivity verification and which were not considered appropriate.</p> <p>2.5. Related to impacts, a detailed assessment of the potential impacts of the proposed development on the following aspects must be undertaken to answer the following questions:</p> <ul style="list-style-type: none"> 2.5.1. is the proposed development consistent with maintaining the priority aquatic ecosystem in its current state and according to the stated goal? 2.5.2. is the proposed development consistent with maintaining the resource quality objectives for the aquatic ecosystems present? 2.5.3. how will the proposed development impact on fixed and dynamic ecological processes that operate within or across the site? This must include: <ul style="list-style-type: none"> (a) impacts on hydrological functioning at a landscape level and across the site which can arise from changes to flood regimes (e.g. suppression of floods, loss of flood attenuation capacity, unseasonal flooding or destruction of floodplain processes);
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²⁰ These ecosystems include the National Environmental Management Biodiversity Act, 2004(Act No. 10 of 2004) listed ecosystems.