

**Submission Form for Comments and Feedback**

***Environmental Quality Report: Biodiversity of the Howard Sand Plains SOC; and Recommendations***

*Submissions close: Monday 25 May 2015, 5pm*

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<b>ENVIRONMENTAL QUALITY REPORT Section / Page</b>	<b>COMMENT</b>
	<a href="#">Click here and press the TAB key to add extra rows to this table.</a>
5,1 Page 51	Option 1 is our preferred option as this provides maximum protection for the biodiversity values and is compatible with protection of the Howard Bore Field which is crucial to Darwin's water supply.
5.3 Page 54; 5.4 page 57	With options 3 and 4 there is a high likelihood that the 500 m buffers will not provide adequate protection of the groundwater supply to the prime <i>Utricularia</i> habitats. In the Swan Plain near Perth a 2 km buffer is recommended in the direction from which groundwater flows to protect groundwater supplies (Waters and Rivers Commission 2000). A precautionary approach would support a buffer in excess of 500 m to ensure long-term protection of the key habitats given: the paucity of understanding of the hydrologic characteristics of the substrates that feed the prime sand sheet heath habitats; the low topographic relief; depth of mining; evidence of erosion channels radiating from some mining operations; and interconnected nature of the wetlands. Buffers are also important with regard to protection from invasive species such as <i>Urochloa humidicola</i> . Generally there appears to be inadequate accounting for off-site impacts of contemporary land use such as invasive species, erosion, modified surface and subsurface hydrology, disruption to dispersal of plants and animals and impact on fire regimes. Specifically with mining operations there often appears to be inadequate consideration of the environmental impact of haul roads, disturbance to lands adjoining tenements, erosion on adjoining lands, invasive species and occasional mining activities that appear to extend past the tenement boundary. The inadequate attention to off-site impacts of contemporary land uses in the Howard Sand Plains Site of Conservation Significance accentuates the need for substantial buffers to protect the high

**Please complete the form and send it via one of the following by no later than *Monday 25 May 2015, 5pm*:**

**Email:** [NTEPA.Consult@nt.gov.au](mailto:NTEPA.Consult@nt.gov.au)

**Post:** NT EPA, GPO Box 3675, Darwin NT, 0801

**Privacy:** Your personal information will be used for the purpose of collecting and collating comments received on the NT EPA draft guidelines. The NT EPA is subject to the *Information Act* and its Regulations. Information will not be disclosed to a third party, unless required by law or otherwise stated.

ENVIRONMENTAL QUALITY REPORT Section / Page	COMMENT
	biodiversity values of the area.  Reference Water and Rivers Commission 2000 <i>Wetland buffers</i> . Water Notes WN4. Water and Rivers Commission, Western Australia.
5.5 Page 58	With option 5 the proposed 250 m buffer appears grossly inadequate to provide protection of the groundwater supply to the prime <i>Utricularia</i> habitats. See comment above pertaining to proposed buffer for options 3 and 4.

GENERAL COMMENTS (delete if not applicable)
<a href="#">Click here and press the TAB key to add extra rows to this table.</a>
<p>The Top End Native Plant Society is a community group with an interest in the conservation and cultivation of native plants. With a membership in excess of 50, the Society is composed of a mix of people from both urban Darwin and the adjoining rural area. Our members place a high value on the flora of the Top End and have conducted many field excursions to the Howard Sand Plains over the last 2 decades. We are very concerned about the ongoing degradation of the extraordinary biodiversity values of the sand plains, such as the high diversity of carnivorous plants that was recognized internationally in Peter Taylor’s monograph on <i>Utricularia</i> published in 1989. We welcome this opportunity to input into the environmental planning process that will determine the future character of the place that is our home.</p>
<p>An illustration of the community interest in the Howard Sand Plains Site of Conservation Significance is evident on the Wildflowers of the Darwin Region website supported by the Top End Native Plant Society <a href="http://www.topendnativeplants.org.au/">http://www.topendnativeplants.org.au/</a> where illustrations of plants are arranged by flower colour. Species that are characteristic of the sand sheet heath communities are annotated as “sand plain species”, for example a selection of <i>Utricularia</i> species within the yellow category.</p>