



Minda Incorporated
PO Box 5
Brighton
SA 5048

Claire Lock
Acting Chair
Australian Coastal Society
South Australia Branch
c/o PO Box 65, Flinders University
Bedford Park SA 5041
Mob: 0416 053 425
E: sa@australiancoastalsociety.org

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To whom it may concern,

Australian Coastal Society submission regarding Minda's draft Master Plan

The Australian Coastal Society welcomes the opportunity to provide comment on the draft Master Plan released by Minda Incorporated. The Society's submission relates to the environmental aspects of Minda's Master Plan, specifically the following components:

- Sand Dunes
- Retirement Apartments
- Environmental Sustainability Hub

Background

The Australian Coastal Society is a voice for the Australian coast and was established to promote knowledge and understanding of the environmental, social and economic value of the Australian coast. The Society contributes to international, national, state and local debates on coastal issues to foster rational, open decision-making in order to achieve sustainable use of coastal resources and responsible stewardship of coastal assets.

The Acting Chair of the South Australian Branch has more than ten years experience in coastal management and has previously provided environmental assessments and management advice to the City of Holdfast Bay, Minda Incorporated and state government departments regarding the Minda dunes. The assessments and management advice are available through three reports authored/co-authored by the Acting Chair^{1,2,3}.

¹ SA Urban Forest Biodiversity Program (2006), Distribution and Infestation Mapping of *Ehrharta villosa* var. *maxima* (Pyp Grass) – Minda Sand Dunes, Department for Environment and Heritage, Adelaide

² SA Urban Forest Biodiversity Program (2006), Plant Species of Conservation Significance – Minda Sand Dunes, Department for Environment and Heritage, Adelaide.

Environmental Concerns

The Society expresses strong concern regarding the proposed location of the retirement apartments. Our environmental concerns specifically relate to:

1. Remnant status of the Minda sand dunes
2. Impacts on plant species and communities of environmental significance
3. Impacts on indigenous fauna populations
4. Loss of long-term investment by the community and funding bodies
5. Loss of a showcase environmental site
6. Statements concerning 'environmental trends/requirements and best practice'.

1. Remnant status of the Minda Sand dunes

Whilst the Master Plan states that 'the sand dunes are a protected site and will not be affected', the Master Plan map places the proposed retirement apartments directly upon the secondary line of sand dunes. It is therefore only the most seaward dune, the foredune, which will not be built upon should the proposal proceed. It is prudent to remind Minda Incorporated it 'guarantee[d] that the sand dunes would not be developed' as one of the 'four non-negotiables...promised by the [Minda] Board' to Association members at the Special Association meeting held in March 2010⁴.

The Minda dune system (comprising foredune, swale and secondary dune areas) is recognised as environmentally significant as it is one of the last remaining remnant sand dune areas on the Adelaide coastline - only three percent (27 hectares) of the original Adelaide coastal dune system remains⁵. The Minda dunes provide one of only two examples of a secondary dune area on the metropolitan coast and as such these dunes are irreplaceable in environmental and educational terms.

Development on the remnant dune system will not only eliminate the secondary dune but will also result in the demise of the most seaward dune as a result of human pressure from the retirement apartments. Coastal ecosystems situated adjacent to urban development suffer from increased informal traffic associated with resident beach access, increased dune erosion and blow-out formation, increased weed invasion from spread of garden plants and dumping of garden debris, and increased predation and disturbance of native fauna from domestic pets. Situating 144 apartments adjacent to the foredune will have an immediate and irreversible negative impact on the remaining dune.

The proposed location of the retirement apartments will ensure the environmental significance of the whole remnant dune system is lost.

2. Impacts on plant species and communities of environmental significance

*"Minda [dune system] is a valuable remnant with flora and fauna habitat with conservation significant species"*⁶
The Minda dunes contain over thirty indigenous species, twelve of which are considered to be of conservation significance to the metropolitan coast and/or the Southern Lofty Floristic Region.

"The Minda Dunes have the only known population of Imperata cylindrica (Blady grass) in any dune system on the Adelaide metropolitan coast, along with a remnant stand of Santalum acuminatum (Quandong). Both these

³ Tyndall, J. and Lock, C. (2010) Biodiversity Management Plan - Minda Sand Dunes (draft), City of Holdfast Bay, Adelaide.

⁴ Minda Incorporated (2010) Around Minda, Newsletter (Summer edition), accessed online 30th April 2010. URL www.mindainc.com.au/files/AM_SUMMER%202010_WEB.pdf

⁵ Cordingley and Petherick (2006) Vegetation Management Plan Tennyson Dune Reserve Yaitya Worra (True Indigenous Sand), SA Urban Forest Biodiversity Program, Adelaide.

⁶ Caton B., Fotheringham D., Krahnert E., Pearson j., Royal M. and Sandercock R. (2009) Metropolitan Adelaide Coastal Conservation Assessment and Action Plan. Prepared for the Adelaide and Mount Lofty Ranges NRM Board and Department for Environment and Heritage.

species are of conservation significance. According to the Coast Protection Branch, 'the dunes also have a considerable population of *Cassythra pubescens* (Devil's Twine), *Lomandra leucocephala* var. *robusta* (Iron Grass) and *Pimelea serpyllifolia* ssp. *serpyllifolia* (Thyme Riceflower), much stronger than any other dune system on the metropolitan Adelaide Plains coastline. Preserving a portion of the former Adelaide dune system is important".⁷

Surveying and mapping of the conservation significant species found eight species only exist in the secondary dune area, currently earmarked for the proposed retirement apartments.

Building the retirement apartments in their proposed location would see the local extinction of eight plant species (seven of which are rated for their conservation significance in the Southern Lofty floristic region), and regional extinction of two plant species from the Adelaide metropolitan coastline. It is important to note that these plants cannot simply be replaced or replanted – many prove difficult to propagate and establish despite on-going efforts to do so.

3. Impacts on Indigenous fauna populations

The indigenous vegetation present in the dunes provides critical habitat for native fauna. The existence of a secondary dune area allows for a diversity of indigenous plant species and coastal habitat that is not found in urban areas with a single dune system abutted by residential housing.

Given there are only two remnant dunes remaining on the Adelaide coast, the Minda dunes provide critical coastal habitat in a highly urban area and offer an important refuge for birds, reptiles and invertebrates. For example, a bird survey conducted in 2007 found 31 native species present in the dunes, including two species (Golden Whistler and Grey Fantail) which had not been cited in the City of Holdfast Bay for several years prior⁸.

Removal of the secondary dune area will see the loss of vegetation and habitat that supports local fauna populations. The remaining foredune area would not be able to provide the habitat required to support existing fauna populations as foredune areas characteristically feature fewer plant species which are stunted in size and subject to direct coastal exposure. Direct coastal exposure ensures conditions such as sand blasting, strong winds, salt spray, direct sun exposure and high temperatures, which limit the fauna species that can survive in the foredune zone.

4. Loss of long term investment by the community and funding bodies

"The dunes need careful management, protection, conservation and restoration...Minda is committed to preservation of the dune system and to direct community involvement in the management of the dunes"

As stated in 2006 by Ian Thompson, Executive Manager Client Services at Minda⁹

Funding has been invested in the Minda dunes due to its ecological importance and the collaborative effort of the community, Minda Incorporated, council and state government departments to work together to protect and restore the dune system.

Funding has been invested over the past decade by the City of Holdfast Bay, state government agencies (Department for Environment and Heritage, the Coast Protection Board, Adelaide and the Mount Lofty Ranges Natural Resources Management Board), and the Federal Government through

⁷ SA Urban Forest Biodiversity Program (2006), Plant Species of Conservation Significance – Minda Sand Dunes, Department for Environment and Heritage, Adelaide.

⁸ Bentz, T (2007) Minda Dune Bird Surveys. Prepared for the City of Holdfast Bay and the Adelaide and Mount Lofty Ranges Natural Resources Management Board, Adelaide.

⁹ Daniels and Taite (2006) Adelaide Nature of a City, Biocity.

Envirofund, Caring for our Country and Wildlife Conservation Grants Program. Funding has been provided for scientific studies, management documents and for on-ground works including flora and fauna surveys, significant flora protection, weed and pest animal control, and other rehabilitation works. In-kind support has been provided by local and state governments for site visits, technical advice, and coordinating contractual arrangements.

The Holdfast Bay Dunecare team has been active in the Minda dunes since the mid 1990s, undertaking protection and rehabilitation works such as planting indigenous species, weeding, and undertaking access path maintenance. Youth training programs such as Green Corps have also undertaken conservation programs in the dunes and contributed to its restoration.

Should the proposed retirement apartments proceed in their current location or anywhere on the dune system, the financial investment and long-term community effort dedicated to the site will be lost.

5. Loss of a showcase environmental site

The Minda Master Plan states 'an environmental sustainability hub is proposed to showcase environmental initiatives' and Minda Acting CEO Robert Cairney explained the intention for people to come and learn about the environment at the new development at the public consultation meeting held on 22nd April 2010.

The Minda dunes are already a showcase environmental site due to their present environmental values. University field trips, national conference delegates, coastal management professionals and funding bodies visit the site to learn about the importance of the remnant dune system and the long term history of management undertaken to protect and restore the site.

Removal of the secondary dunes and the environmental damage that would occur would ensure it is a showcase site for negative rather than positive reasons. By locating the retirement apartments off the dune system, there would be opportunity for Minda to promote their previous support for protection of this dune system and capitalise on the unique educational opportunities already available.

6. Statements concerning 'environmental trends/requirements and best practice'

The Master Plan claims to 'set... out to implement environmental initiatives of the highest level' and 'tak[es] into account emerging environmental trends/requirements and best practice'. For the reasons outlined previously in this submission, the proposed development on the dune system currently will constitute worst environmental practice and does not deliver meaningful triple bottom line outcomes.

Achieving best environmental practice involves ensuring no development occurs on any part of the dune system and ideally a buffer zone would be established around the conservation area. The draft management plan¹⁰ outlines recommended management options for the dune system and provides a framework for implementing best practice coastal management. Minda could continue to support the work of council, volunteers and funding investors, and would then be in a position to promote its contribution to best practice environmental management.

The Australian Coastal Society is available to clarify or further discuss points made in this submission. The Society encourages Minda to consider how social, economic and meaningful environmental outcomes can be achieved by their proposed developments.

Yours sincerely,

Claire Lock
Acting Chair
Australian Coastal Society (South Australia Branch)

¹⁰ Tyndall, J. and Lock, C. (2010) Biodiversity Management Plan - Minda Sand Dunes (draft), City of Holdfast Bay, Adelaide.