## Big Swamp wetland – supporting information and photographs

Big Swamp wetland was originally an ephemeral dampland which has been significantly modified over time, including:

- land was cleared and reclamation for use as residential blocks commenced in the 1920s by carting sand and filling the dampland.
- the use of two sections as municipal landfills (south west and north east) (1960s-1980s).
- the topography was altered to artificially create numerous islands (1980s -1990s) (photo attached).
- planting at the site has been undertaken since with a mixture of local native and introduced species.

Big Swamp currently has three main functions; a stormwater compensation basin, an ecological function (predominantly as habitat for native and migratory fauna) and a place of recreation. Big Swamp is listed as an Environmentally Sensitive Area as it is a defined wetland and as such it is understood that a clearing permit is required to reduce the infestation of *Typha orientalis* (Typha).

A clearing permit (CPS 8982/1) was granted for an initial round of Typha removal that was completed in June and early November 2022 and outlined in **Figure 1**. Removal of the Typha was completed by Cove Waterways Management using their Truxor DM5045 amphibious machine that cut the Typha below the water level and results in the plants drowning. Replanting of other native wetland sedges will be completed by the City of Bunbury and the Friends of Big Swamp during the 2023/24 revegetation season (to commence in June 2023).

Typha is still extensive within Big Swamp and continues to act in a very invasive manner and with monocultures covering large sections of the wetland to the exclusion of all other native species as visible in the photographs taken at Big Swamp wetland on 27<sup>th</sup> February 2023.

The Typha continues to reduce the wetlands capacity to function as a stormwater compensation basin by impeding the movement of water and crowding drainage outlets. An additional round of clearing of the Typha is proposed to help open strategic channels within Big Swamp to help the movement of water and improve water quality. It is proposed that up to 1 ha of Typha be removed from locations outlined in.



Plate 1: Photograph taken from the southern boardwalk at Big Swamp looking north



Plate 2: Photograph taken from the southern boardwalk at Big Swamp looking north-west

