Inquiries: 9411 3584

Our Ref: 6119



1 March 2019

To Whom it May Concern,

## Clearing Permit Application – Typha *orientalis* Management City of Cockburn – Various Wetland Reserve

The City of Cockburn wishes to apply for a clearing permit to actively manage *Typha orientalis* throughout various wetland conservation reserves within the confines of the City's boundary.

Sites may include but not be limited to;

- Baler Reserve
- Bibra Lake Reserve
- Boorn Reserve
- Yangebup Lake Reserve

Typha orientalis, although recently classified as a native species, has a tendency to become weedy where conditions are favourable. This is of particular concern in our drying climate. Being an opportunistic species the City has noticed that the populations of *Typha orientalis* have become invasive, growing as a monoculture on mudflats, displacing other native species and reducing the quality of other flora and fauna habitat, particularly in our seasonal wetlands such as Bibra Lake.

The City is aware of the habitat value of *Typha* for native fauna such as birds and the Oblong Turtle, and will therefore tailor management measures to maintain habitat for these creatures while maintaining habit for other species including Waders, many of which are visitors from other parts of the world. *Typha* will not be removed completely, only small areas will be removed at any given time to help reduce the rate of its spread and allow natural recruitment of other native vegetation. Where deemed necessary alternative species, such as local sedges and rushes will be planted to provide habitat.



**Figure 1:** Baler Reserve, previously cleared prior to *Typha orientalis* being reclassified



**Figure 2:** Boorn Reserve, previously cleared prior to *Typha orientalis* being reclassified



Figure 3: Boorn Reserve, photo 2



**Figure 4:** Yangebup Lake South. The City has been managing Typha in this waterbody for many years



**Figure 5:** Yangebup Lake South. Photo 2



**Figure 6:** Yangebup Lake Nutrient Stripping Basin (NSB). The City needs to manage Typha at this location to prevent blocking



**Figure 7:** Yangebup Lake (NSB). Photo 2



**Figure 8:** Yangebup Lake (NSB). Photo 3



**Figure 9:** Yangebup Lake (NSB). Photo 4



**Figure 10:** Yangebup Lake (NSB). Photo 5





Figure 11: Bibra Lake. The City has tried to manage Typha within this reserve for many years. Ongoing maintenance required to prevent a floristic monoculture. Photo taken in the south west corner facing east north east direction

**Figure 12:** Bibra Lake. Photo taken in the south west corner facing east



**Figure 13:** Bibra Lake. Photo taken in the south west corner facing north east



Figure 14: Bibra Lake. Photo taken from the west facing east





**Figure 15:** Bibra Lake. Photo taken from the north west corner facing east

**Figure 16:** Bibra Lake. Photo taken from the north west corner facing north

The WALGA Environmental Planning Tool outlines current areas of *Typha orientalis* which require management, however it is highly likely that additional isolated populations will appear around the perimeter of these wetlands which will need management in the future to help ensure they don't dominate over other native species and reduce biodiversity. The City would remove these small isolated pockets when they are deemed to be impacting habitat or other flora. Clearing would not exceed 0.5ha at any one time.

We look forward to your favourable consideration of this clearing permit. If you have any questions regarding this matter please contact me

Yours sincerely,

**Adam Harris** 

**Environmental Officer- Natural Resource Management**