

# Supporting information for Environmental Approval, South-East Dawesville.

## 1. Aerial Map and Boundary:

- Provide an aerial map of the project area with a north arrow.
- Clearly define the boundaries of the area to be redeveloped.



Figure 1 and 2: Southeast Dawesville Project Site Location and area detail, NTS.

## 2. Planting Strategy

The planting plan is organised with five planting approaches to achieve a range of outcomes for the site. Species were chosen after consultation from the City of Mandurah Design Team.

The aim is to:

Create a welcoming landscape that supports the design intent to create a district level amenity for SE Dawesville in keeping with the bushland, foreshore surrounds and suitable for a high use, public landscape.

To stabilise areas and mitigate dust in areas where level changes were part of the construction process. To choose species that are free of high maintenance requirements.

To establish species local to the area so they become seamlessly integrated into the greater Dawesville locale.

To choose species and deliver a planting plan that reinforces the character of Dawesville.

### Trees to play area and entry and along path connections:

Tree planting schedule: local species that will provide shade, have good form and be suitable for a public play area. Planting size 35-45Lt for a total quantity of 70 trees.

Species:

- *Agonis flexuosa*
- *Casuarina obesa*
- *Corymbia ficifolia*
- *Eucalyptus rudis*
- *Melaleuca preissii*



Figure 3: South-East Dawesville Concept Tree Planting Schedule

**Planting within the fenced play area:**

Groundcover planting schedule: local species positioned with consideration of growth habit that will allow passive surveillance within the fenced play area.

Planting ground cover plants in 140mm pots or forestry tubes.

Total of 605 plants over 244m<sup>2</sup> of garden area with 32 species proposed.

Refer to attached schedule Area J

Species within the fenced play area and adjacent areas impacted by earthworks areas:

- *Acacia willdenowiana*
- *Anigozanthos humilis*
- *Anigozanthus*
- *Astroloma pallidum*
- *Bossiaea eriocarpa*
- *Burchardia umbellate*
- *Conostylis aculeata*
- *Conostylis candicans*
- *Dampiera linearis*
- *Daviesia divaricata*
- *Diplolaena dampieri*
- *Ficinia nodosa*
- *Conostephium preissii*
- *Geranium solanderi*
- *Gompholobium tomentosum*
- *Haemodorum paniculatum*
- *Hibbertia hypericoides*
- *Hovea pungens*
- *Hovea trisperma*
- *Hypocalymma robustum*
- *Kennedia prostrata*
- *Lasiopetalum membranaceum*
- *Leucopogon propinquus*
- *Lyginia imberbis*
- *Patersonia occidentalis*
- *Persoonia saccate*
- *Philothea spicata*
- *Scaevola canescens*
- *Scaevola repens*
- *Sowerbaea laxiflora*
- *Templetonia retusa*
- *Thysanotus manglesianus*

Total of 5,722 local groundcover/shrub species to be planted.

Note: Final species to be planted will depend on availability from suppliers.



Figure 4: Southeast Dawesville Concept low level planting to play area and foreshore rehabilitation Planting Schedule.

### 3. Foreshore Revegetation:

Revegetation planting is to be undertaken within existing trees and established vegetation to be retained and areas not disturbed through any groundworks. Total planting with forestry tubes. Planting is to revegetate the Estuary edge that was created during the construction of the Dawesville Cut in 1992 with plant species local to the area.

#### Reeds and Sedges:

- *Baumea juncea*
- *Baumea preissii*
- *Gahnia trifida*
- *Juncus kraussii*
- *Juncus pallidus*
- *Lepidosperma longitudinale*
- *Meeboldina coangustata*

Total of 210 reeds and sedges to be planted in foreshore areas.

Note: Final species to be planted will depend on availability from suppliers.

#### Low growing wetland species:

- *Atriplex hypoleuca*
- *Frankenia pauciflora*
- *Lobelia alata*
- *Sporobolus virginicus*
- *Suaeda australis*
- *Tecticornia halocnemoides*
- *Threlkeldia diffusa*

Total of 210 low growing wetland species to be planted in foreshore areas.

Note: Final species to be planted will depend on availability from suppliers.

#### 4. Overall Design:

##### Background

The construction of the Dawesville Cut in 1994 resulted in fill from the construction being used to create the land area. This is located on the southern edge of the Inlet with a newly created foreshore along the Harvey Estuary. The total created land area is edged by Thisbe Drive and Estuary Road, Caddadup Reserve, and the Dawesville Channel.

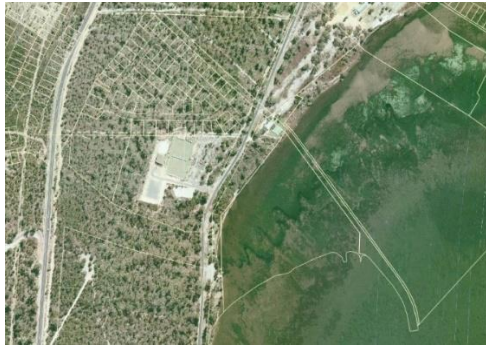


Figure 5: Aerial June 1985

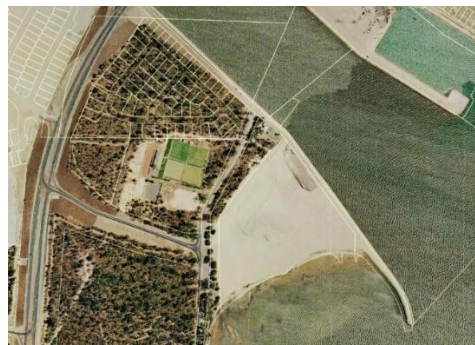


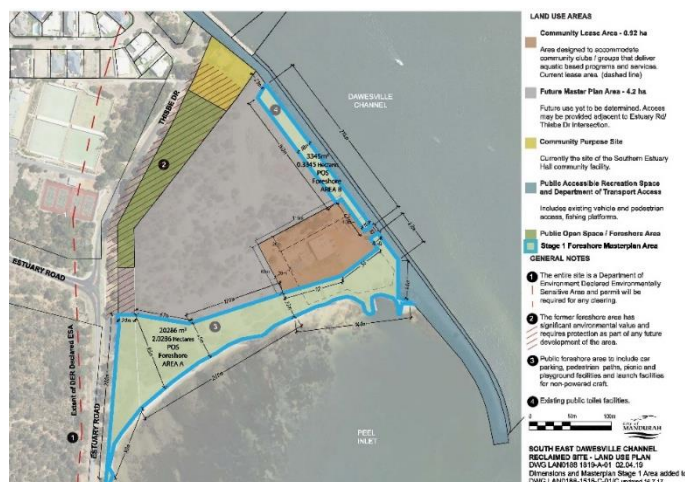
Figure 6: Aerial February 1995

Community consultation for the foreshore public open space area, began in March 2019 and formed the basis of the 2019 approved concept landscape plan, Dawesville Channel Southeast Foreshore Masterplan. This encompassed approximately 23,600m<sup>2</sup> area of foreshore and public open space. Future design will be undertaken on the 4.2-hectare, adjacent site to current proposed works.

##### Figure 7: Southeast Dawesville Land Use Plan

##### Objectives

Current design and costs are based on staged works, delivered across two financial years.



The design objectives are to provide a district level play area and foreshore park with picnic and recreation opportunities. The site has been identified as a location with the capacity to meet the need for a district level facility in the southern Dawesville region. Proposed path connections provide access to exercise and seating nodes along the foreshore and link to facilities along the Dawesville Cut. The material of chosen play and furniture components will be suitable for the Estuary environment and be in keeping to the natural surrounds. Colours will harmonise with the natural surrounds. The landscape design established a strong

connection with the Estuary and surrounds, with access opportunities to the foreshore through path networks

and with viewing prospects in the play area, along the path and at designated seating and exercise nodes across the site.



Figure 8: 23-24 SE Dawesville Design Development Plan (NTS).

The declared environmentally sensitive ecological area that exists adjacent to the site, will be retained and protected during the construction period. **One failing existing tree, *Casuarina obesa*, will be removed prior to construction.**

The existing vegetation currently on the site has been assessed by the Environmental Team and a clearing approval will be sought for the construction area prior to starting works.

The area designated for clearing amounts to 11,200m<sup>2</sup>. This include areas where sand fill will be sourced for use in the staged works. Fill will be collected from outside the existing project area but within the adjacent land area zoned for future development.

Existing trees on site, which are viable and valued will be retained, and weed control and revegetation will be part of the project works.

Jacksonia and Acacia are the tree species currently on the land formed by fill from the Dawesville Cut. Neither of these species are viable for public open space. The Jacksonia has an irregular form that tends to collapse and require regular maintenance. It is therefore variable as a shade tree. The Acacia species has a limited life span and as such, is a less suitable species than long life species that will guarantee ongoing shade in the public space.



Figure 9: 23-24 SE Dawesville Draft Clearing Plan (NTS).

### 5. Grassed Areas and Playground:



Figure 10: Highlighting the designated locations for grassed areas (NTS).

Grass areas total 2096m2 within the design.



Figure 10: 23-24 SE Dawesville Play Area – Detail Plan (NTS).

Shows where the playground equipment is to be positioned.

## 6. Carpark and Road Design:

The carpark is designed to accommodate 60+ cars with 3 accessible (acrod) bays and allows for a 12m bus to drive through both the lower and upper carparks. The flow from the street through the lower carpark to the upper carpark and the ability for the bus to drop off in the upper carpark is a practical feature.

Just to summarize the key points:

1. **Capacity:** Designed for 60+ cars.
2. **Accessible Bays:** 3 designated accessible (acrod) bays.
3. **Traffic Flow:** Bidirectional flow from the street through the lower carpark into the upper carpark.
4. **Bus Access:** The carpark can accommodate a 12m bus, which can drive continuously through both carparks, allowing for drop-off in the upper carpark and return to the street entry unimpeded.
5. **Parking Bays:** All parking bays are 2.5m wide, with 90-degree angles, except for one parallel accessibility bay in the lower carpark.

This design seems to prioritize accessibility and efficient traffic flow, making it convenient for both regular cars and larger vehicles like buses.



Figure 11: Southeast Dawesville Proposed carpark and existing carpark.



## **6. Sand Removal and Clean Fill Placement:**

No sand is required to be removed from the site.

Fill will be placed to raise the play area zone about the anticipated 2.5 flood zones.

Fill will be used to create a suitable surface for concrete path, pad construction and installation of play and picnic amenity. A grade of 1:20 will be achieved across the play area and along the path from the new carpark.

Yellow sand will be brought in from off the site to enable compaction for path, pad, and fence construction. Yellow sand can be compacted, whereas the fill from the site cannot be compacted.

The locations for placing fill are within the area of land that was created from fill when the Dawesville Cut was created in 1994.

### **General overview:**

#### **Staging of Works**

The proposed SE Dawesville Masterplan will be provided to the community for feedback. Construction of the SE Dawesville landscape works are proposed to be delivered over a two-year period, commencing with the construction of Stage 2, with Stage 3 in the next year, following budget approval.

Water will be connected to the site, as Stage 1 of the project, as part of the preliminary works required. Design and Specification for a new artesian bore at the Port Bouvard Sport and Recreation Sporting Club on Thisbe Drive is underway. This includes water storage, and a mainline for the future SE Dawesville foreshore upgrade and the Sporting Club.