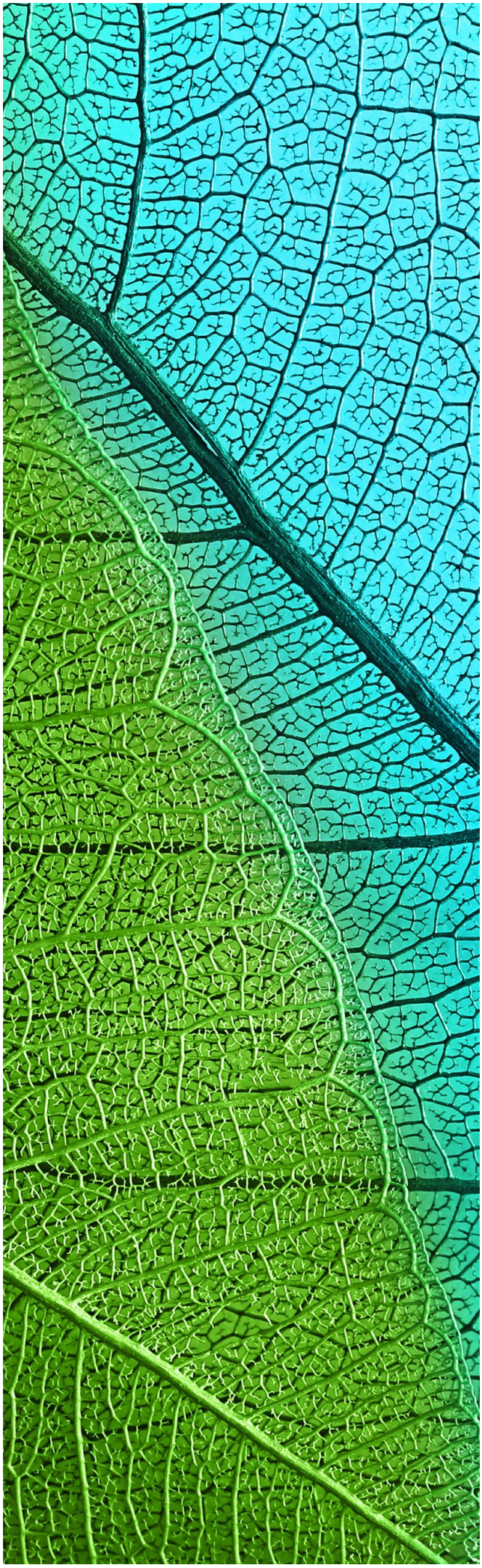

96-166 Centre Road, Narre Warren

Offset Site Monitoring for Revegetation and Weeds – 12 Months Post-construction

Prepared for
Narre Warren Central Pty Ltd
c/- The Fidus Group

December 2024
Report No. 14090.7 (3.0)

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Contents

Figures

1. Introduction

Background

Narre Warren Central Pty Ltd engaged Nature Advisory Pty Ltd to conduct ecological monitoring of a 3.35 ha offset site located at 96-166 Centre Road, Narre Warren, in the Casey local government area (Figure 1). The offset site is to account for clearing of Eastern Dwarf Galaxias (*Galaxiella pusilla*) habitat in the neighbouring development site. Dwarf Galaxias is listed as critically endangered under the Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The offset site is bordered by Centre Road to the north, Hallam Road and a large drain to the west, with grassland and constructed stormwater wetlands owned by Melbourne Water to the east and the south. Past land use at the offset site would have been agriculture (e.g. grazing). To the west of the offset site across Hallam Road, there is a known habitat area for Eastern Dwarf Galaxias that is managed by Melbourne Water. However, there was no connectivity between this western habitat area and the offset site prior to the works.

Prior to works, the offset site was densely vegetated with exotic pasture grasses, herbaceous weeds, with a low cover of native wetland vegetation. The offset site has peaty and porous topsoil.

The offset site is to be designed and managed in accordance with the *Offset Management Plan* (OMP) that was prepared by Nature Advisory in November 2015.

The offset site is owned by Melbourne Water, however, Narre Warren Central Pty Ltd will be responsible for managing and maintaining the offset site for the first five years. During this time, council is to be in consultation with Melbourne Water, after which the handover period for managerial responsibilities will be negotiated with Melbourne Water.

Objectives for the offset site:

The offset site is to achieve the following objectives listed in Section 5.2.1 of the OMP:

- Use engineering solutions to modify the hydrological and wetting regime of the offset site to the benefit of Eastern Dwarf Galaxias;
- Create an off-line wetland connected to existing Eastern Dwarf Galaxias habitat, vegetated to provide suitable habitat for the species;
- The enhancement of the created Eastern Dwarf Galaxias habitat within the proposed offset site through revegetation and weed control to create a range of open and shady areas suitable for the species; and
- Implement measures to mitigate the incursion of high threat fish species such as Eastern Gambusia.

It is important to note that the vegetation buffers around the western and eastern boundaries of the offset site (along Centre Road and Hallam Road) are to be retained and weed management in these buffers is to be undertaken. Areas of missing native vegetation within these buffers are to be revegetated.

Timing for monitoring

The following weed and revegetation monitoring timeline was set under Section 5.4.2 and Section 5.4.3 of the OMP:

- At the completion of all construction works (including wetland construction and revegetation works);
- Six months post-construction;
- 12 months post-construction; and
- Annually in spring in years 2, 3, 4, 6 and 8.

The construction works were completed on 7th December 2023, whereupon Melbourne Water inspected the offset site, and the establishment period officially began on this date. Consistent with the OMP, the previous monitoring survey was conducted 6-months post construction on 17th June 2024.

The current monitoring survey constitutes the 12-month post-construction monitoring survey and was conducted on 10th December 2024.

Report structure

This report is divided into the following sections:

Section 2 describes the methods used for the field survey.

Section 3 describes the limitations of the assessment.

Section 3 describes the results of the field survey.

Section 4 provides a review of the monitoring program.

Section 5 provides the recommendations for management of the habitat buffers.

This investigation was undertaken by a team at Nature Advisory comprising Neassa Fritchley (Botanist), James Bennie (GIS Analyst) and Caroline Tan (Senior Ecologist and Project Manager)

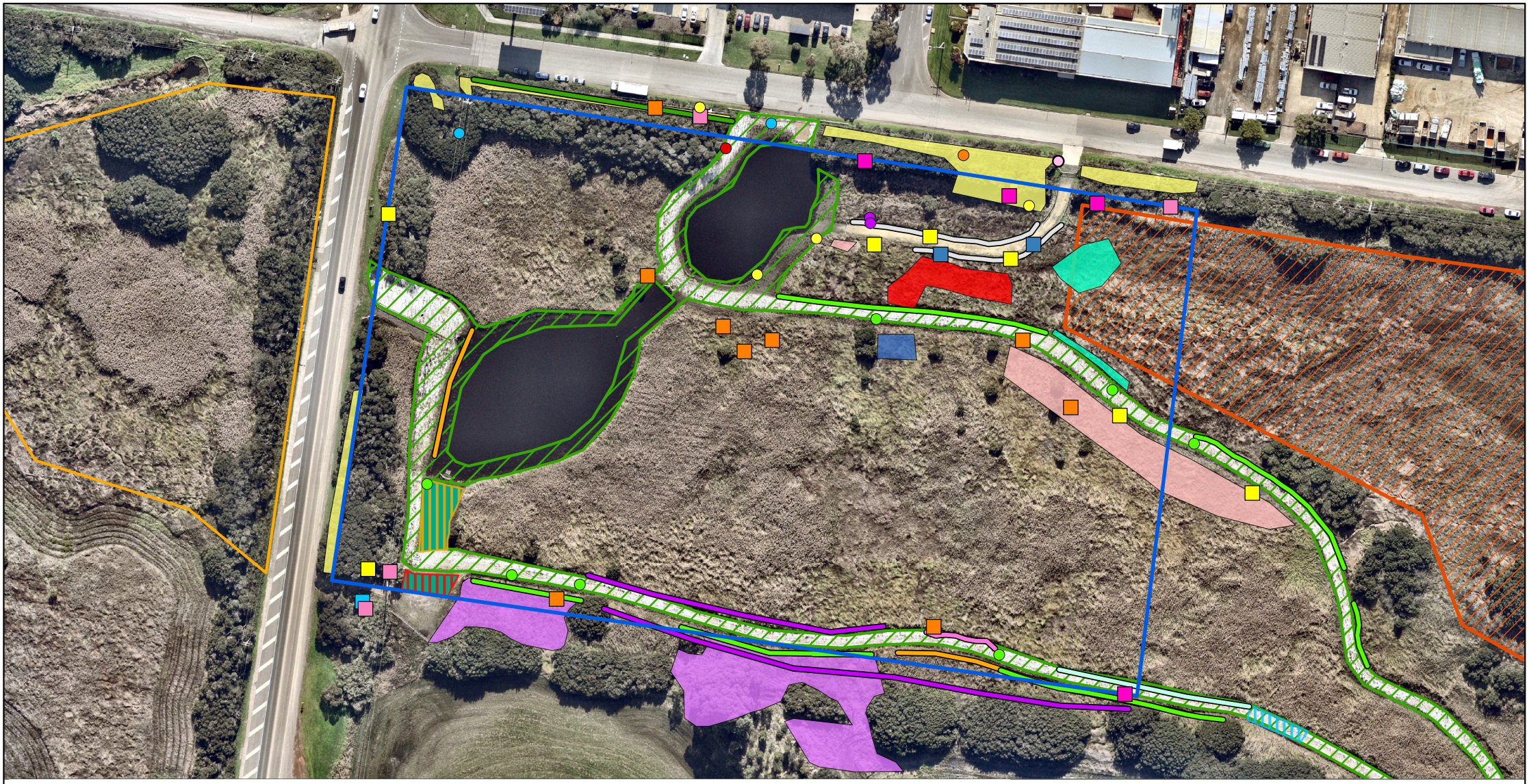

Figure 1: December 2024 Study area and monitoring observations

Project No:14090_07 **Project**:96-166 Centre Road, Narre Warren **Date**: 18/12/2024

- Site boundary
- Melbourne Water Dwarf Galaxias Habitat

Vegetation area

- Mixed native and non-native vegetation
- Revegetation Area

Weed observations

- Blackberry
- Cassinia sifton
- Sweet Briar
- Sweet Pittosporum
- White Arum-lily
- Yukka
- BlackBerry amidst understory
- Drain Flat-sedge
- Drain Flat-sedge, Clustered Dock and Aster Weed
- Drain Flat-sedge, Clustered Dock and Flaxleaf fleabane
- Drain weeds
- Fallen rope bunting
- Mixed weeds
- Blackberry
- Drain Flat-sedge and Yorkshire Fog
- Flaxleaf fleabane, Sow Thistle
- Flaxleaf fleabane, Couch grass, Drain flat sedge
- Flaxleaf fleabane, Drain Flat Sedge
- Toowoomba Canary-Grass and Tall Fescue
- Towoomba canary grass, Yorkshire fog and Clustered Dock
- Toowoomba Canary-Grass
- Wild Gladiolus infestation; Wild Gladiolus
- Weed-colonised area

Site observations

- Damaged fence
- Damaged matting
- Discarded material
- Dumped tyres
- Broken sediment fencing
- Wood shavings
- Rubbish

N

Metres

0 10 20 30 40 50

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2. Methods

The field assessment was conducted on 10th December 2024. During this assessment, the offset site was surveyed on foot although access was restricted to revegetation areas as the remainder of the offset site was largely riparian and contained extremely dense vegetation, mainly thickets of Common Reed and Cattail.

The current monitoring survey followed the survey method for the baseline monitoring survey, including revegetation and weed monitoring assessments as outlined in the OMP.

During the weed monitoring assessment, the following data were collected:

- Estimation of total weed cover (%);
- Estimation of cover for each high-threat weed species (%);
- Mapping of distinct high-threat weed infestations;
- Compilation of a list of all weed species identified in the offset site.

During the revegetation monitoring assessment, the following data were collected:

- Plant survival/mortality of plantings: approximate percentage and identify which species are not surviving;
- Evidence of herbivore or pathogen damage; and
- Presence and cover-abundance of introduced weeds.

Definition of high-threat weed

A high-threat weed is determined as any of the following:

- All woody weeds;
- Declared noxious weeds under the *Catchment and Land Protection Act 1994* (CaLP Act) namely:
    - State Prohibited Weeds (S): Any infestations are to be reported to DEECA. DEECA is responsible for the control of State Prohibited Weeds.
    - Regionally Prohibited Weeds (P): Landowners must take all reasonable steps to eradicate Regionally Prohibited Weeds on their land.
    - Regionally Controlled Weeds (C): Landowners have the responsibility to take all reasonable steps to prevent the growth and spread of Regionally Controlled Weeds on their land.
    - Restricted Weeds (R): Trade in these weeds and their propagules, either as plants, seeds or contaminants in other materials, is prohibited.
- Any other weed deemed to be high-threat due to the potential risk the species poses to the surrounding landscape; or

- Weeds not otherwise accounted for above, that are on Department of Energy, Environment and Climate Action's (DEECA) *Advisory List of Environmental Weeds* and occurred above a negligible percentage of cover.

A full list of weed species recorded in the offset site is provided in Appendix 1: Flora species list

Limitations

Short survey times and field assessments may fail to detect weed species as these may occur at other times. Additionally, some flora species may be undetectable or unidentifiable at the survey time due to a lack of flowers or fruit. An example of this is the Wild Gladiolus. This plant is largely undetectable outside of their flowering time between November-January, such that they were not identified during the previous survey in June but highly visible (due to flowering) and therefore identifiable during this assessment.

The early summer timing of the survey and the vegetation condition in the offset site were considered suitable for assessing the extent of weed infestations.

3. Monitoring results and recommendations

3.1 Overview of native vegetation

The topology of the offset site is a relatively flat, floodplain landscape with many areas being naturally waterlogged and periodically inundated. The offset site supports a mosaic of native wetland vegetation types, mainly Tall Marsh (EVC 821) as well as Plains Grassy Wetland (EVC 125) and Swamp Scrub (EVC 53).

Tall Marsh within the offset site was largely dominated by Common Reed, except where Cattail dominated the drainage line along the northern boundary of offset site. Areas of Plains Grassy Wetland occurred at the northern part of the site, often dominated by dense Tall Sedge with a variety of native plants such as Common Blown-grass, Common Spike-sedge, Small Loosestrife, Mat-rushes, Jointed Rush and other Rushes.

Stands of Swamp Scrub dominated by Swamp Paperbark and Woolly Tea-tree were observed along the northern, southern and western fringes of the offset site. There were also scattered Swamp Paperbark trees throughout the offset site. Swamp Scrub along the northern and western boundaries had and understory comprising indigenous Slender Knotweed and Rushes.

Photos 1-4. Native wetland vegetation in the offset site, including open wetlands and dense Common Reed (top and bottom left), with Swamp Scrub along the northern and western boundaries (top and bottom right).

3.2 Revegetation works

The revegetation works were established around the two constructed refuge pools and along a 'revegetation track' through the central section and southern boundary of the offset site (Figure 1). The revegetation areas had erosion matting pinned down.

The plantings at the northern side of refuge pool 1, the western side of refuge pool 2 and in between the pools consisted of Swamp Paperbark. This will over time fill in the gaps in Swamp Paperbark cover along the northern and western site boundaries, as well as create Swamp Scrub vegetation between the refuge pools.

The remainder of the revegetation works included other indigenous species that are common in wetlands in the region, such as Hop Goodenia, Kidneyweed, Mat-Rushes, and Rushes. Plantings were at an appropriate density, approximately 4 to 6 per metre square.

Plant Mortality

Total mortality of plantings within the matting was estimated to be about 5-10% overall. Biomass from the revegetation works has increased dramatically from the previous monitoring assessment in June. Hop Goodenia, Mat Rushes, Spear Grass and Common Blown Grass remained successful in establishment. Furthermore, planted Flax Lilies, Goodenia and Wallaby Grasses were observed to be flowering.

It was noted that other native species like Variable and Hairy Willow-herb, Small Loosestrife, River Buttercup and Common Spike-sedge were naturally establishing in the revegetation path.

Photo 5 & 6. A comparison between December 2024 (left) and June 2024 (right) surveys to show a clear increase in revegetation biomass

In addition, planted Bidgee-widgee has established to the extent that it dominated the ground cover in certain areas (see photos below), forming mats of native vegetation cover in the inter-tussock space.

The planted species that appeared to be struggling the most is the herbaceous Kidneyweed. Its patchy establishment is limited to moist areas (wet depressions and/or path edges) and struggling individuals on the edges of the revegetation path. This accounted for most of the revegetation plant mortality.

Photo 7 & 8. Bidgee-widgee forming mats in open space of the jut matting (left) and Kidneyweed under stress in drier areas of the revegetation path (right)

Planted Swamp Paperbark and Woolly Tea-tree in the western and northern entrance have mostly survived and grown considerably (see photos below), except the fallen individuals in the western entrance noted in the last survey which have since died.

Note that supplementary planting, if needed, is to occur in Year 2 under the OMP.

Photos 9 & 10. Increase in biomass of planted Woolly Tea-tree and Swamp Paperbark in December 2024 (left) to June 2024 (Right).

Some areas of the erosion matting had become unpinned and damaged (see photo below). The damage is most likely due to erosion over time and plants outgrowing the holes in the matting. Locations of the most damaged mat areas are shown in Figure 1.

Photo 11 & 12. Representative unpinning of matting caused by plants outgrowing the holes

Recommendations

- Although a high percentage of the revegetation works has been successful, one particular area has been identified in Figure 1 (photo below) which will require further weed management and replanting with similar plants used in the rest of the revegetation path. It is likely that planted individuals have not been as successful in establishing, hence weeds like Fleabane have established instead and the Fleabane could become a high threat weed if left unmanaged.

Photo 13. Fleabane and Common Sow Thistle in Figure 1. Photo shows lack of success of planted vegetation and the potential for fleabane to outgrow remaining native vegetation

- Damaged areas of erosion matting will require repair and the plantings in these areas that died as a result will need to be replaced (see below). We recommend re-planting with Hop Goodenia, Mat-rushes, and Spear and Wallaby Grasses. We do not recommend any more plantings with Kidneyweed due to lack of previous success – alternative herbaceous plants to consider instead would be Centella (*Centella cordifolia*) or Hairy Willow-herb (*Epilobium hirtigerum*).

- The planted Swamp Paperbark and Woolly Tea-trees that have fallen over and died will need to be replaced.
- Most of the tree guards have been removed from site. A small collection of planted shrubs along the border of the southern dam still have tree guards. These will need to be removed and disposed of appropriately (offsite), when no longer required.

Photo 16. Tree guards surrounding the southern dam to the right of the photo

3.3 Weed Infestations

Overall, there was a low presence of weeds at the offset site, apart from certain mapped weed areas (shown in Figure 1) and the edges of the existing dirt track at the northern part of the site. The density of the native wetland vegetation, particularly in the areas dominated by Common Reed, Cumbungi and Tall Sedge, has helped to suppress weed infestations in the rest of the site.

It was noted that the expanses of grassland northeast and east of the offset site appeared to contain a mixture of native and non-native vegetation, with Toowoomba Canary-grass as the main weed, as viewed from afar inside the offset site and Centre Road (Figure 1).

High-threat weed species in the offset site included:

- Blackberry (C)
- Yucca
- Wild Gladiolus
- Drain Flat-sedge
- Sweet Briar (C)
- White Arum-lily
- Ox-tongue
- Sweet Pittosporum (C)
- Spear Thistle (C)
- Toowoomba Canary-grass
- Yorkshire Fog

There has been no evidence of woody weed removal since the previous survey.

As revegetation areas were covered in erosion matting, weed presence here was generally minor. The main weed species were Drain Flat-sedge and Fleabane. There was no evidence of spot spraying identified during the survey.

Mixed weeds

Figure 1 shows areas of mixed weeds along the edges of the existing dirt track at the northern part of the offset site. These areas contained scattered infestations of Toowoomba Canary-grass, Yorkshire Fog, Dallis Grass but was characteristic due to many additional herbaceous weeds like Asterweed, Flaxleaf Fleabane, Scarlett Pimpernel, Carrot Weed, Oxtongue, Wild Gladiolus, Clustered Dock, Ribwort, and Drain Flat-sedge. High threat and woody weeds like Blackberry, Sweet Briar, and larger Ox-tongue individuals were also present along this part of the track.

Drainage weeds

Edges of the revegetation track (Figure 1) had similar weeds to the existing dirt track, though infestations were to a lesser degree (varying from moderate to minor/scattered). The dominant weeds were the Wild Gladiolus, Drain Flat sedge, Creeping Buttercup, and Clustered Dock often limited to the drainage line either side of the track.

Swamp Scrub

The Swamp Scrub along the site boundaries contained understorey weeds at the edges of the scrub, weed incursions further inside the scrub were only minor. Blackberry spread throughout the immediate understory along the roadside vegetation, as well as incidental White Arum-lily and tall Yucca trees. It is worth noting that roadside Kikuyu may become an issue in future as it was observed extending into the Swamp Scrub.

Colonised area

The previous survey identified an area in the southwest of the offset site that was generally devoid of vegetation. It was noted that the purpose of this area was unknown, but the current survey found weeds are colonising that area. This area is now densely dominated by Drain Flat-sedge, Couch Grass, and Fleabane (see photos below and Figure 1). These weeds are likely to invade the adjacent native wetland and revegetation works if left managed, therefore these weeds should be removed and it is recommended that native species be seeded or planted here.

Photo 22. Southwest of the offset site, previously non-vegetated (right) is now dominated by Fleabane, Couch grass, and Drain Flat-sedge (left).

Recommendations

Weed control is likely to be a continued challenge along tracks, revegetation areas, and along the adjacent roads (Hallam Road and Centre Road) as these types of disturbed areas are at the edges of existing vegetation which are easily recolonised by weeds.

A full list of flora species recorded during the current survey is provided in Appendix 1. This includes all weed species in the offset site that are listed as regionally prohibited (P) or regionally controlled (C) under the CaLP Act.

- Continued weed control should aim for the following:
    - While all weeds should be removed or reduced as much as possible, the high-threat weed species (listed above) are to be prioritised.
    - Reduce weed cover in the Weed Areas mapped on Figure 1.
    - Reduce weed cover along the dirt track in the northern part of the site and in the areas of Swamp Scrub. All woody weeds (Blackberry, Gorse, Sweet Briar, Sweet Pittosporum and Yucca) are to be completed removed.
- Continued weed control actions should include the following:
    - Weed control should mostly occur during the times of the year when herbaceous and grassy weeds are actively growing and prior to flowering/seed set (generally in late spring), so treatment is most effective.

- Spot-spray using a herbicide that is appropriate for use in environmentally sensitive areas, such as Roundup Biactive® (Glyphosate). Spot-spray on target grassy and herbaceous weeds, with care to avoid off-target damage to revegetation works and native plants in the existing wetland vegetation.
- For areas containing significant infestations of Toowoomba Canary-grass (as shown in Figure 1), it is strongly recommended that the Toowoomba Canary-grass be regularly slashed every 3 months, including in late spring. Slashing prior to seed set in late spring will help prevent their spread and recruitment. Slashing also reduces biomass, enhancing visibility for weed treatment.
- Woody weeds can be removed using the cut-and-paint method, at any time of the year.
- Spot-spraying of Wild Gladiolus should occur in summer when it is flowering and therefore easily visible.

Photos 19-23. Top left – Weedy area along the dirt track. Top right – Wild Gladiolus in the northeast of the offset site. Bottom left – example of Toowoomba Canary-grass dominated area. Bottom right – weeds along the revegetation track in the southern part of the site.

3.4 Other

Fencing

Permanent fencing was installed at the two refuge pools as indicated on Figure 1. The current perimeter fencing along the norther boundary does not prevent members of the public from accessing the offset site (this appears to be intentional as there is an open entryway incorporated into the fence). However, this leaves the revegetation works vulnerable to vandalism and damage as shown by the dumping of rubbish within the offset site. This survey found that the northern fencing remains damaged (see photo below).

Photos 24. Damaged perimeter fencing next to the entryway at the northern boundary.

Rubbish

There was rubbish present in the offset site during this survey, including along the edge of the wetland pools (Figure 1). Swamp Scrub along Centre Road also still contains some rubbish dumping. Unfortunately, this Swamp Scrub can be easily accessed by members of the public from Centre Road. Clean up of litter or dumped waste within the site is the responsibility of the proponent. but not along roadsides which is required to be addressed by council.

Photos 25-29. Litter inside the offset site and dumped tyres in the Swamp Scrub along Centre Road.

Rope bunting was observed along the interface of the existing wetland vegetation and the revegetation track, in the southern part of the offset site (Figure 1). This was evidently used to prevent accidental encroachment into the vegetation during construction of the revegetation track, however it currently does not serve a purpose and most of it has fallen. Similarly, broken sediment fencing was identified to the west of the most northern dam (Figure 1). The majority of the revegetation efforts have finished, and it is unlikely needed for sediment protection purposes, as such it and the rope bunting should now become part of the rubbish removal effort.

Photo 30-31. Rope bunting along the southern portion of the revegetation track (left) and broken sediment fencing (right).

Recommendations

- The damaged section of the northern fencing will require repair.
- Although the intention may be to enable public access to the offset site in the long-term, it is recommended that the fencing along Centre Road include wire mesh (Image 1 below) and that the entry ways be locked off outside of maintenance activities, to limit revegetation works from damage. Revegetation sites and reserves tend to be vulnerable to vandalism and other disturbances like dumping of garden waste as shown by the continued presence of rubbish 12-months post construction.
- Remove litter and dumped rubbish inside the offset site. (Note: It is the council's responsibility to address littering and illegal waste dumping on public land, such as the roadsides of Centre Road and Hallam Road.)
- Remove all roped bunting (and stakes) at the southern part of the offset site as they have become rubbish in the site. Vegetation in these areas is becoming overgrown and if delayed It will become harder to be removed.
- Future use of the non-revegetated area (now colonised by dense weeds) is yet to be confirmed. If this area is to be a permanent area set aside for maintenance and access, the area will require works to provide proper foundation. If this area will not serve as a maintenance purpose and has another intended purpose, it needs to be managed as to limit the continued establishment of high threat weeds. It is recommended that this area undergoes a revegetation treatment and done so rapidly as to provide additional native vegetation, mitigate weed establishment and soil erosion.

Image 1. Example photo of mesh fencing.

3.5 Works conducted immediately post-survey

We note that after the above monitoring assessment was conducted, further works were undertaken on site on 13 December 2024. A Daily Works Record including photos of the works is provided in Appendix 2.

This included weed spraying along the access track and removal of rubbish from the inlet pond (as recommended above).

Appendix 1: Flora species list

Origin	Common name	Scientific name	EPBC	FFG-T	FFG-P	CaLP Act
*	Aster-weed	*Symphyotrichum subulatum*				
*	Bastard's Fumitory	*Fumaria bastardii*				
	Bidgee-widgee	*Acaena novae-zelandiae*				
*	Black Nightshade	*Solanum nigrum s.l.*				
*	Blackberry	*Rubus cissburiensis*				C
*	Carrot	*Daucus carota*				
*	Cat's Ear	*Hypochaeris spp.*				
*	Clustered Dock	*Rumex conglomeratus*				
*	Cocksfoot	*Dactylis glomerata*				
	Common Blown-grass	*Lachnagrostis filiformis s.l.*				
#	Common Cotula	*Cotula australis*			P	
	Common Reed	*Phragmites australis*				
*	Common Sow-thistle	*Sonchus oleraceus*				
	Common Spike-sedge	*Eleocharis acuta*				
	Cotton Fireweed	*Senecio quadridentatus*			P	
	Crane's Bill	*Geranium spp.*				
*	Creeping Buttercup	*Ranunculus repens*				
*	Curled Dock	*Rumex crispus*				
*	Drain Flat-sedge	*Cyperus eragrostis*				
*	Flaxleaf Fleabane	*Erigeron bonariensis*				
*	Gorse	*Ulex europaeus*				C
	Hairy Pennywort	*Hydrocotyle hirta*				
	Hairy Willow-herb	*Epilobium hirtigerum*				
*	Hemlock	*Conium maculatum*				C
*	Hogweed	*Polygonum aviculare s.s.*				
	Hop Goodenia	*Goodenia ovata*				
*	Jointed Rush	*Juncus articulatus subsp. artic*				
	Kidney Weed	*Dichondra spp.*				
*	Kikuyu	*Cenchrus clandestinus*				
	Knobby Club-sedge	*Ficinia nodosa*				
	Leafy Flat-sedge	*Cyperus lucidus*				
*	Lesser Quaking-grass	*Briza minor*				
*	Lesser Reed-mace	*Typha latifolia*				
	Mat-rush	*Lomandra spp.*				
*	Ox-tongue	*Helminthotheca echioides*				
*	Paspalum	*Paspalum dilatatum*				
*	Perennial Rye-grass	*Lolium perenne*				

Notes: **EPBC** = Threatened species status under the EPBC Act; **FFG-T** = Threatened species status under the FFG Act; **FFG-P** = Listed as protected (P) under the FFG Act; **CaLP Act**: Declared noxious weeds under the CaLP Act (S = State Prohibited Weeds – any infestations must be reported to DELWP that is responsible for control of these; P = Regionally Prohibited Weeds – landowners must eradicate these; C = Regionally Controlled Weeds – landowners must prevent the growth and spread of these; R = Restricted Weeds – trade in these weeds and propagules, either as plants, seeds or contaminants in other materials is prohibited).

* = introduced to Victoria

= Victorian native taxa occurring outside the natural range

† = planted

Origin	Common name	Scientific name	EPBC	FFG-T	FFG-P	CaLP Act
*	Prairie Grass	*Bromus catharticus*				
*	Prickly Lettuce	*Lactuca serriola*				
*	Prickly Lettuce	*Lactuca serriola*				
*	Prunus	*Prunus spp.*				
*	Rat-tail Grass	*Sporobolus africanus*				
*	Ribwort	*Plantago lanceolata*				
	River Buttercup	*Ranunculus inundatus*				
*	Rough Sow-thistle	*Sonchus asper s.l.*				
	Rush	*Juncus spp.*				
*	Scarlet Pimpernel	*Lysimachia arvensis var. arver*				
*	Self-heal	*Prunella spp.*				
*	Shepherd's Purse	*Capsella bursa-pastoris*				
*	Silvery Hair-grass	*Aira caryophyllea subsp. caryo*				
*	Slender Centaury	*Centaurium tenuiflorum*				
	Slender Knotweed	*Persicaria decipiens*				
	Small Loosestrife	*Lythrum hyssopifolia*				
*	Soft Brome	*Bromus hordeaceus*				
	Spear Grass	*Austrostipa spp.*				
*	Spear Thistle	*Cirsium vulgare*				C
	Spiny-headed Mat-rush	*Lomandra longifolia*				
*	Striped Rush-leaf	*Sisyrinchium micranthum*				
#	Swamp Paperbark	*Melaleuca ericifolia*				
*	Sweet Briar	*Rosa rubiginosa*				C
#	Sweet Pittosporum	*Pittosporum undulatum*				
*	Tall Fescue	*Festuca arundinacea*				
	Tall Sedge	*Carex appressa*				
*	Toowoomba Canary-gra	*Phalaris aquatica*				
	Trefoil	*Lotus spp.*				
*	Twiggy Turnip	*Brassica fruticulosa*				
	Variable Willow-herb	*Epilobium billardiereanum*				
*	Veldt Grass	*Ehrharta spp.*				
	Water Milfoil	*Myriophyllum spp.*				
	Water Plantain	*Alisma plantago-aquatica*				
	Wattle Mat-rush	*Lomandra filiformis*				
*	White Arum-lily	*Zantedeschia aethiopica*				
*	White Bladder-flower	*Araujia sericifera*				
*	White Clover	*Trifolium repens var. repens*				

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* = introduced to Victoria

= Victorian native taxa occurring outside the natural range

† = planted

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Origin	Common name	Scientific name	EPBC	FFG-T	FFG-P	CaLP Act
*	Wild Gladiolus	*Gladiolus undulatus*				
*	Wild Radish	*Raphanus raphanistrum*				
	Woolly Tea-tree	*Leptospermum lanigerum*				
*	Yorkshire Fog	*Holcus lanatus*				
*	Yucca	*Yucca aff. whipplei (Long Fore*				

Notes: **EPBC** = Threatened species status under the EPBC Act; **FFG-T** = Threatened species status under the FFG Act; **FFG-P** = Listed as protected (P) under the FFG Act; **CaLP Act**: Declared noxious weeds under the CaLP Act (S = State Prohibited Weeds – any infestations must be reported to DELWP that is responsible for control of these; P = Regionally Prohibited Weeds – landowners must eradicate these; C = Regionally Controlled Weeds – landowners must prevent the growth and spread of these; R = Restricted Weeds – trade in these weeds and propagules, either as plants, seeds or contaminants in other materials is prohibited).

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= Victorian native taxa occurring outside the natural range

† = planted

Appendix 2: Daily Works Record by Australian Ecosystems

Australian EcoSystems
PO Box 583, Port Melbourne,
VIC 3207
03 9673 0300

Australian Ecosystems: Daily Works Record

Project and Client Details

Project Name - Number	CASEY GREEN - DWARF GALAXIA HABITAT - SPM001804
Date:	13 Dec 2024
Crew:	Alex Vaudeau
Site Condition:	Moderate rubbish loads on the northern fringe of the inlet pond.
Weed Cover:	Seeing positive dieback of weeds treated last visit.
Infill Required:	Aquatic infill to be undertaken around the galaxia pond.
Works Undertaken:	Sprayed out the MW access track. Picked up rubbish from the northern fringe of the inlet pond.

Site Photos

Site Photos:

Photo Comments:	Rubbish collected

Site Photos:	

Photo Comments:	Track sprayed out

Chemical Usage Details

Maintenance or Prep:	Maintenance
Application Method:	Knapsack
Target Weeds:	Kikuyu, Conyza, Asta, Lotus, Rye grass.
Rate:	per 10L
Chemical 1: Active Ingredient: MOA Group:	WEEDMASTER DUO-360 g/L GLYPHOSATE present as the ISOPROPYLAMINE and MONO-AMMONIUM SALTS
Chemical 1 Rate: (mls/gms)	100
Chemical 2: Active Ingredient: MOA Group:	
Chemical 2 Rate: (mls/gms)	0
Surfactant/Penetrant	SPREADWET 1000-Alkoxylated alcohols
Surfactant/Penetrant Rate: (mls/gms)	2
Dye Type:	ENVIRODYE RED-Diazo Dye
Dye Rate(ml):	20
Spray Volume(Ltrs)	10
Batches Mixed	1
Total Chem 1: Qty (ml)	100
Total Chem 2: Qty (ml)	0
Total Surfactant/Penetrant: Qty (ml)	2
Total Dye Qty (ml):	20

Weather

Sky	'part cloudy'
Temperature (degrees)	21
Wind speed(kph)	14
Wind direction	South West
I certify that this is a true and accurate record of agricultural spraying.	
Name of Person completing Spray Record:	Alex Vaudeau
Date:	13 Dec 2024