Port of Brisbane Annual Weed Survey 2023

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Executive Summary

Weed monitoring has been conducted annually at the Port of Brisbane (the Port) since 2001. The monitoring program aims to:

- Detect the introduction and spread of new weed species on Port lands
- Monitor priority weed species within high value natural assets managed by the Port of Brisbane Pty Ltd (PBPL), especially habitat for migratory waders and locally significant wetlands, and sites considered to be at potential risk to new weed incursion from imported vehicles.

Priority weeds targeted in the survey include Weeds of National Significance (WoNS), Prohibited and Restricted Matters regulated under the *Queensland Biosecurity Act 2014*, environmental weeds listed by the Brisbane City Council and native species that have the potential to negatively impact on local habitat values. This report presents the findings of the 2023 monitoring survey.

Weed composition and distribution at the Port has remained relatively stable over the 2022-23 monitoring period. No newly imported weeds were recorded at the Port. The sites considered most at risk to weed introductions are imported vehicle storage areas and downstream environments. These areas are maintained (mown) and/or are influenced by saline water, reducing the potential for new weeds to establish and spread.

All weed species recorded at the monitoring sites are common and widespread in degraded coastal habitats of south-east Queensland. New species detected during the survey were balloon vine (*Cardiospermum* sp.) at the Port Gate Drain; asthma plant (*Chamaesyce hirta*) at The Lake ; Port Drive South and Port Gate Drain; glycine (*Glycine tabacina*) at Port Gate Drain; creeping indigo (*Indigofera spicata*) at Bird Hide and Port Gate Drain; urena burr (*Urena lobata*) at Port Drive South; fine leafed verbena (*Glandularia aristigera*) at Bird Hide and Port Drive South; pink purslane (*Portulaca pilosa*) at Bird Hide, Port Drive South and Port Gate Drain; and Mullumbimby couch (*Cyperus brevifolius*) at Bird Hide, Port Drive North and South and Port Gate Drain.

Patches of madeira vine were observed at Port West Drain and Fort Lytton, as has previously been recorded. It is recommended that these patches are treated to reduce their further spread.

Patches of native reed (*Phragmites australis*) and Sesbania pea (*Sesbania cannabina*) are common throughout the Port with both species having the potential to reduce saltmarsh habitat values. Ongoing monitoring will assess whether these species are contributing to altered hydrological conditions that may favour the establishment of terrestrial weeds which could reduce saltmarsh values for migratory waders. There has been a decrease cover of these species at the Bird Hide since the 2022 survey.

Restoration works at Fort Lytton have continued to result in an increase in saltmarsh. Prior to restoration works this area was highly degraded and dominated by weed species. The restored site is currently dominated by salt couch grassland with succulent samphire and intertidal mudflat with sparse mangrove recruitment. Filled sites dominated by weeds within and directly adjacent to intertidal wetlands at Port Drive and Port West may have similar restoration potential.

Overall, the monitoring program has found that: (i) no new weeds were recorded in the Port; (ii) weeds at the Port are also widespread in south-east Queensland, (iii) saltmarsh communities are potentially vulnerable to native species encroachment and exotic weed invasion, and should be a focus for ongoing management.

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1 Introduction

The Port of Brisbane (the Port) supports high value natural assets at risk of weed invasion to new weed incursion from imported goods, and established weeds from the broader region. These high value natural assets include habitat for migratory waders and locally significant freshwater and estuarine wetlands.

Weed monitoring surveys have been conducted annually at the Port of Brisbane since 2001. The aims of the weed monitoring program are to:

- Characterise habitat conditions at each survey site
- Monitor priority weed species within high value natural assets managed by the Port of Brisbane Pty Ltd (PBPL)
- Detect the introduction and spread of new weed species at survey sites and the broader port area
- Provide recommendations for strategic weed management at the Port based on a risk-based approach which considers feasibility, likelihood of success and impact.

2 Methodology

2.1 Priority Target species

Priority weeds targeted in the survey are plant species listed under one or more of the following categories:

- Weeds of National Significance (WoNS) (refer Annex A)
- Prohibited and Restricted Matters regulated under the Queensland *Biosecurity Act 2014* (refer Annex B)
- Environmental weeds listed by the Brisbane City Council (refer Annex C).

In addition to target weed species, the survey targeted native species that have the potential to negatively impact local natural assets. In particular, the survey targeted Sesbania pea (*Sesbania cannabina*), which is a native woody species that is being monitored at the Port for it's potential to spread within and dominate local saltmarsh and wader habitat. As the species can form dense thickets and substantial seedbanks it may have the potential to displace low saltmarsh cover and provide conditions more suitable for exotic grasses.

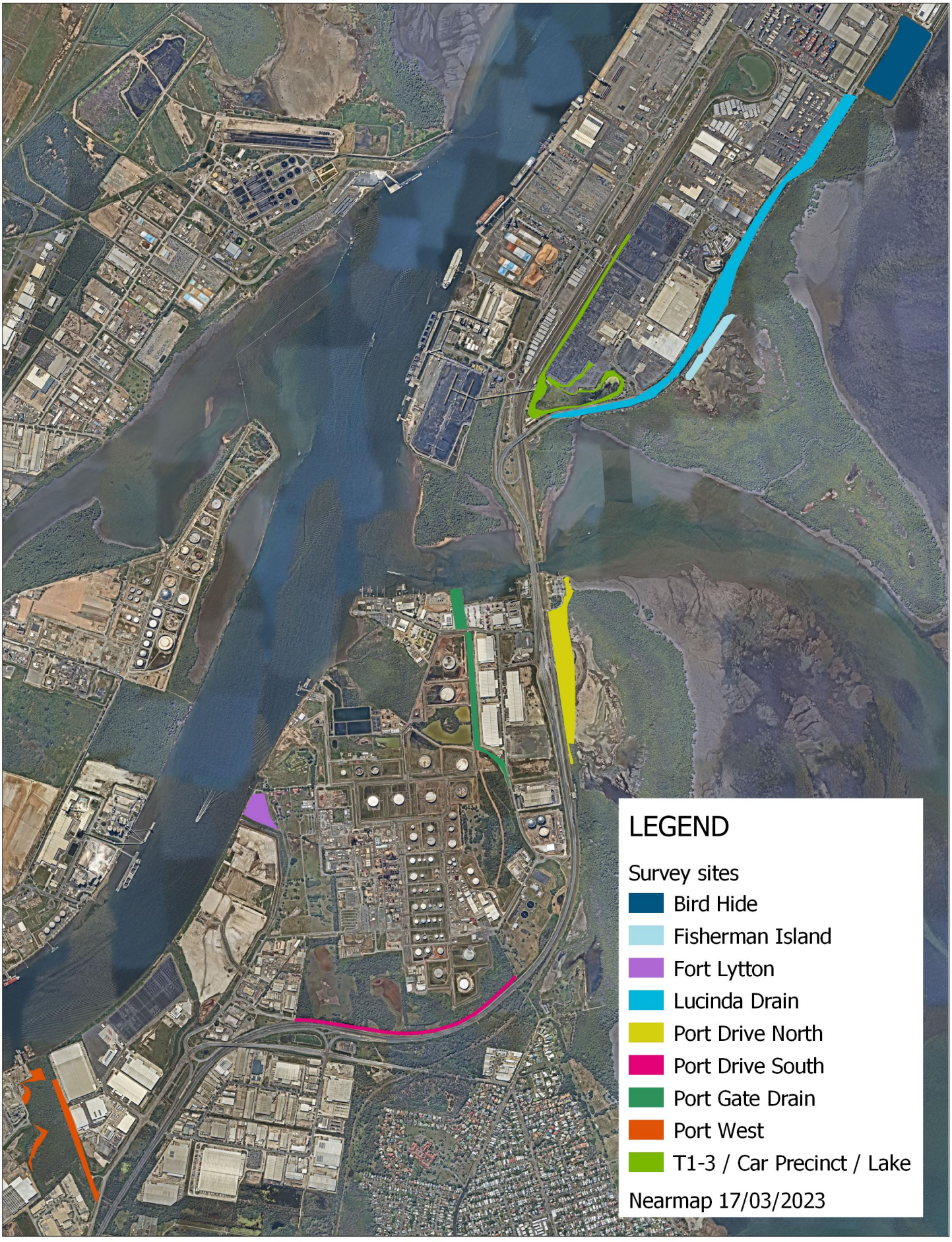
2.2 Survey Approach

In accordance with previous monitoring surveys, weed inspections in 2023 were undertaken in post-summer in April. The survey sites assessed in 2023 are shown in Figure 2.1, and were comprised of the following:

- Sites of locally significant natural asset value:
  - Bird Hide habitat for migratory waders
  - Local bird habitat at the Lake adjacent to the previous Visitors Centre
  - Locally significant wetlands at Lucinda Drain, Port Drive, Fort Lytton and Port West.
- Sites at risk to new weed imports:
  - Port West Drain
  - Port Gate Drain.

The survey was conducted by qualified ecologists. All surveys were conducted on-foot at the survey sites. Incidental observations of target weed species outside the survey sites were also recorded. The locations of all notable weed observations were recorded on a handheld GPS. Weed identification was undertaken on site.

Whilst every effort has been made to identify targeted weed species in the Port survey sites, the detectability of plant species and the ability to accurately identify these in the field varies with seasonal and climatic conditions. Such conditions influence the presence of reproductive features (flowers, fruits and seeds) which are useful, and in some cases essential, for species identification. Consequently, the survey conducted should not be regarded as conclusive that targeted weeds do not occur at the Port.



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Weed survey sites 2023

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3 Results

3.1 Locally Significant Natural Assets

Lucinda Drain

Site Description
Lucinda Drain is a constructed channel located east of Lucinda Drive that provides drainage for stormwater run-off from hardstand areas at the Port to the north. The drain lies adjacent to locally significant estuarine wetlands and discharges through the Lucinda Weir into the Boat Passage.

The tidal channel does not contain extensive aquatic macrophyte cover but supported a low, discontinuous fringe of native grey mangrove (*Avicennia marina*). The drain is periodically maintained, with mangroves actively removed to ensure the drain provide its primary purpose of conveying stormwater run-off.

The channel banks supported planted and naturally recruited shrubs and trees comprised of a mix of local native terrestrial species such as eucalypts (*Eucalyptus spp.*), she-oaks (*Casuarina* spp.), figs (*Ficus* spp.), cotton tree (*Hibiscus tiliaceus*), paperbark (*Melaleuca* spp.) and parasol leaf tree (*Macaranga tanarius)*. Introduced shrubs were sparse and the groundcover was dominated by exotic grasses.

The western bank of the drain adjacent to Lucinda Drive undergoes regular maintenance involving mowing and weed spraying. Poor access along the eastern bank of Lucinda Drain limits regular maintenance but weeds are reportedly removed on an annual basis.

Weeds
The weed species recorded at Lucinda drain were typical of past surveys and weed density remains low. An example of weeds in the drain are shown in Figure 3.1 and the distribution of major woody weeds and recorded along the drain in 2023 are shown in Figure 3.2.

The following observations were made in the 2023 survey:

- No new weed species were recorded within the site.
- **Restricted Matters** recorded included: widespread but sparse broad-leaved pepper tree (*Schinus terebinthifolius*), lantana (*Lantana camara*) and groundsel (*Baccharis halimifolia*).
- Exotic species recorded were dominated by **environmental weeds** well established across Brisbane including: mile a minute (*Ipomoea cairica*), broad-leaved pepper tree, siratro (*Macroptilium atropurpureum*), Rhode's grass (*Chloris gayana*), green panic (*Megathyrsus maximus* var. *maximus*), Brazilian nightshade (*Solanum seaforthianum*), blackberry nightshade (*Solanum nigrum*) and rattlepod (*Crotalaria pallida*).
- **Woody weeds**: consistent with previous surveys, the dominant woody weed recorded at Lucinda Drain was broad-leaved pepper tree. Other woody weeds included lantana, Leucaena (*Leucaena leucocephala*) and Easter cassia (*Senna pendula* var. *glabrata*).
- **Vine species**: siratro, mile a minute, glycine (*Neonotonia wightii*), passionflower (Passiflora spp.) and Brazilian nightshade were the most abundant exotic vine species.

- **Groundcovers**: The groundcover was dominated by mown exotic grasses including Rhodes grass, green panic, red natal grass (*Melinis repens*). Very sparse Mossman River grass (*Cenchrus echinatus*) was also recorded.
- **Other exotic groundcovers, forbs and herbs** included: shrubby stylo (*Stylosanthes scabra*), hairy wandering Jew (*Commelina benghalensis*), tridax daisy (*Tridax procumbens*), creeping cinderella weed (*Calyptocarpus vialis*), gomphrena weed (*Gomphrena celosioides*), Bermuda grass (*Cynodon dactylon*), flannel weed (*Sida cordifolia*), shepherd's purse (*Capsella bursa-pastoris*), clasping heliotrope (*Heliotropium amplexicaule*), hairy fleabane (*Erigeron bonariensis*), redflower ragleaf (*Crassocephalum crepidioides*), beggar's tick (*Bidens pilosa*), purslane (*Portulaca oleracea*), blue billygoat weed (*Ageratum houstonianum*), beach evening primrose (*Oenothera drummondii*), common plantain (*Plantago major*), common sowthistle (*Sonchus oleraceus*), wiry spurge (*Phyllanthus virgatus*), threelobe false mallow (*Malvastrum coromandelianum*) and tall flatsedge (Cyperus eragrostis).
- No **aquatic macrophyte** weed species were recorded. The brackish to saline conditions of the channel limits the establishment of exotic aquatic macrophytes known from the region.
- Sparse sesbania pea was also observed on the banks of the drain.

Figure 3.1 North-eastern end of Lucinda Drain with exotic grass groundcover and dense vine infestation

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Weed Survey Results 2023
Lucinda Drain

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Bird Hide

Site Description

PBPL has constructed an artificial wetland near the future port expansion (FPE) on Fisherman Islands to provide high-tide roosts for migratory shore birds and waders. This site is referred to as the 'bird hide' and consists of open saline water, seagrass, saltmarsh, intertidal mudflats and sparse mangroves, and is bounded by exotic maintained grasslands. Culverts in the eastern bund wall provide tidal connection between the bird hide wetlands and Moreton Bay.

Weeds

The filled surrounds above tidal influence supported terrestrial grasslands which are regularly mown and comprised a range of exotic grasses and herbaceous environmental weeds widespread throughout the region.

The following observations were made in the 2023 survey:

- No new weed species were recorded within the site.
- Woody weed cover remains sparse due to lawn maintenance.
- **Restricted Matters** recorded included: sparse lantana, groundsel and Singapore daisy (*Sphagneticola trilobata syn. Wedelia trilobata*).
- **Exotic grasses**: Rhode's grass, green panic, Mossman river grass, red natal grass, Johnson grass (*Sorghum halepense*), Bermuda grass and South African pigeon grass (*Setaria sphacelata*).
- **Vines**: mile a minute, siratro, passionflower and glycine.
- **Herbs**: Creeping indigo (*Indigofera spicata*), Mullumbimby couch (*Cyperus brevifolius*), pink purslane (*Portulaca pilosa*), common plantain, blackberry nightshade, fine leafed verbena (*Glandularia aristigera*), clasping heliotrope, tall flatsedge, New Zealand spinach (*Tetragonia tetragonioides*), shrubby stylo, tridax daisy, gomphrena weed, hairy fleabane, redflower ragleaf, common sowthistle, beggar's tick, dirty Dora (*Cyperus difformis*), shepherd's purse, purslane, blue billygoat weed, beach evening primrose, American sea rocket (*Cakile edentula*) and phasey bean (*Macroptilium lathyroides*).

An example of the weeds observed in 2023 are shown in Figure 3.3 and the distribution of major woody weeds (including potentially invasive native species) are shown in Figure 3.4.

Weed composition on the fill surrounding the wetlands has not greatly changed between survey episodes. The saline conditions of the intertidal wetlands prevent the establishment of most introduced species, except for minor patches of groundsel. Siratro was also observed in samphire zones at the upper tidal limit.

Phragmites and Sesbania have decreased in extent within the samphire and saltmarsh communities of the wetlands and some dieback was noted during the survey. Ongoing monitoring will assess whether these changes favour the establishment of terrestrial weeds, particularly exotic grasses and broad-leaved pepper, which could reduce saltmarsh values for migratory waders.

Figure 3.3 Exotic grasses and vines on the banks of the Bird Hide

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Bird Hide

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The Lake

Site Description

The Lake is located at Port of Brisbane Park at the southern end of Fisherman Islands. The Lake is a highly modified, constructed wetland that provides habitat values for local wetland bird species.

Weeds

There have been no major changes in weed species composition at the Lake, 2023 results were consistent with the previous survey as follows:

- **Restricted Plants** recorded included broad-leaved pepper tree
- Exotic species recorded were dominated by **environmental weeds** well established across Brisbane including: broad-leaved pepper tree, mile a minute, siratro, Mossman river grass, green panic, and blackberry nightshade
- Dominant **woody weeds** included broad-leaved pepper tree, groundsel, and lantana
- Dominant exotic **vines** recorded included mile a minute, passionflower, siratro, glycine and cowpea (*Vigna* sp.)
- The sparse **groundcover** was regularly mowed. The most widespread exotic groundcovers were thatch grass, green panic, Mossman river grass, red natal grass, Rhode's grass, crabgrass (*Digitaria ciliaris*), Bermuda grass, Dallas grass (*Paspalum* spp.), South African pigeon grass and pampas grass (*Cortaderia selloana*)
- Common exotic **herbs and forbs** included asthma plant (*Chamaesyce hirta*), snakeweed (Stachytarpheta sp.), Phasey bean (*Macroptilium lathyroides*), hairy wandering Jew, creeping Cinderella, rattlepod, shrubby stylo, cupid's shaving brush (*Emilia sonchifolia*), blue billygoat weed, ribwort plantain (*Plantago lanceolata*), tall flatsedge (*Cyperus eragrostis*), beggar's tick, coral berry (*Rivina humilis*), reflower ragleaf, false daisy *(Eclipta prostrata*), inkweed *(Phytolacca octandra*), shepherd's purse, gomphrena weed, clasping heliotrope (*Heliotropium amplexicaule*), creeping lantana (*Lantana montevidensis*), fleabane (*Conyza bonariensis*), flatweed (*Hypochaeris radicata*), beach evening primrose, tridax daisy, verbana (*Verbena bonariensis*), purslane and threelobe false mallow
- Exotic **aquatic macrophytes** recorded in the shallow waters on the Lakes edge included umbrella sedge (*Cyperus involucratus*) and long-leaved willow primrose (*Ludwigia longifolia*)
- No fireweed (*Senecio madagascariensis*) was recorded.

An example of exotic grass long the Lake's edge is shown in Figure 3.5 and the distribution of weeds at the Lake is shown in Figure 3.6.

Figure 3.5 Exotic grass along the Lake

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Weed Survey Results 2023
The Lakes

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Port Drive North

Site Description

This site is located on Whyte Island south of Boat Passage on the eastern side of Port Drive and south of the Port of Brisbane boat ramp. Whyte Island supports extensive intertidal wetlands comprising mangroves and saltmarsh of high ecological value.

Weeds

All weed species recorded at this site are widespread across the Port and are well-established in the Brisbane region and throughout coastal south-east Queensland.

The following observations were made in the 2023 survey:

- New species recorded included Mossman river grass and Cassia sp., both at the north end of the site
- **Restricted matters** recorded included widespread but sparce broad-leaved pepper tree. There was also groundsel, lantana and leucaena recorded.
- **Woody weeds:** broad-leaved pepper tree, groundsel, Leucaena, castor oil plant (*Ricinus communis*), and lantana
- **Exotic vines:** siratro, mile a minute and glycine
- **Groundcover and grasses:** Mossman river grass, Mullumbimby couch, green panic, Rhodes grass, pampus grass
- **Herbs and forbes:** tridax daisy, beach primrose, hairy fleabane, shrubby stylo, gomphrena, creeping cinderella, Brazilian nightshade, hairy fleabane, painted spurge, ribwort plantain, phasey bean, cupids shaving brush, and tall flatsedge.
- Sesbania pea and phragmites were also recorded.

The eastern edge of Port Drive North is dominated by mangroves, saltmarsh and saltpans. These habitats are not typically prone to weed invasion due to regular saline water inundation, slightly elevated areas within these habitats supported patches of broad-leaved pepper tree, Rhodes grass and siratro.

Previous surveys have noted that slashing of saltmarsh for ground maintenance reduces the habitat value of these local communities and can promote exotic grass species (Figure 3.7). Native reed continues to form sparse localised patches at the upper tidal limit of the saltmarsh.

The distribution of weeds recorded at Port Drive North in 2023 is shown in Figure 3.8.

Figure 3.7 Mowed salt couch (top) and area of higher elevation with broad leaved pepper tree (bottom)

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Weed Survey Results 2023
Port Drive North

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Port Drive South

Site Description

The western road corridor off Port Drive supports remnant *Melaleuca quinquenervia* wetlands in relatively good condition.

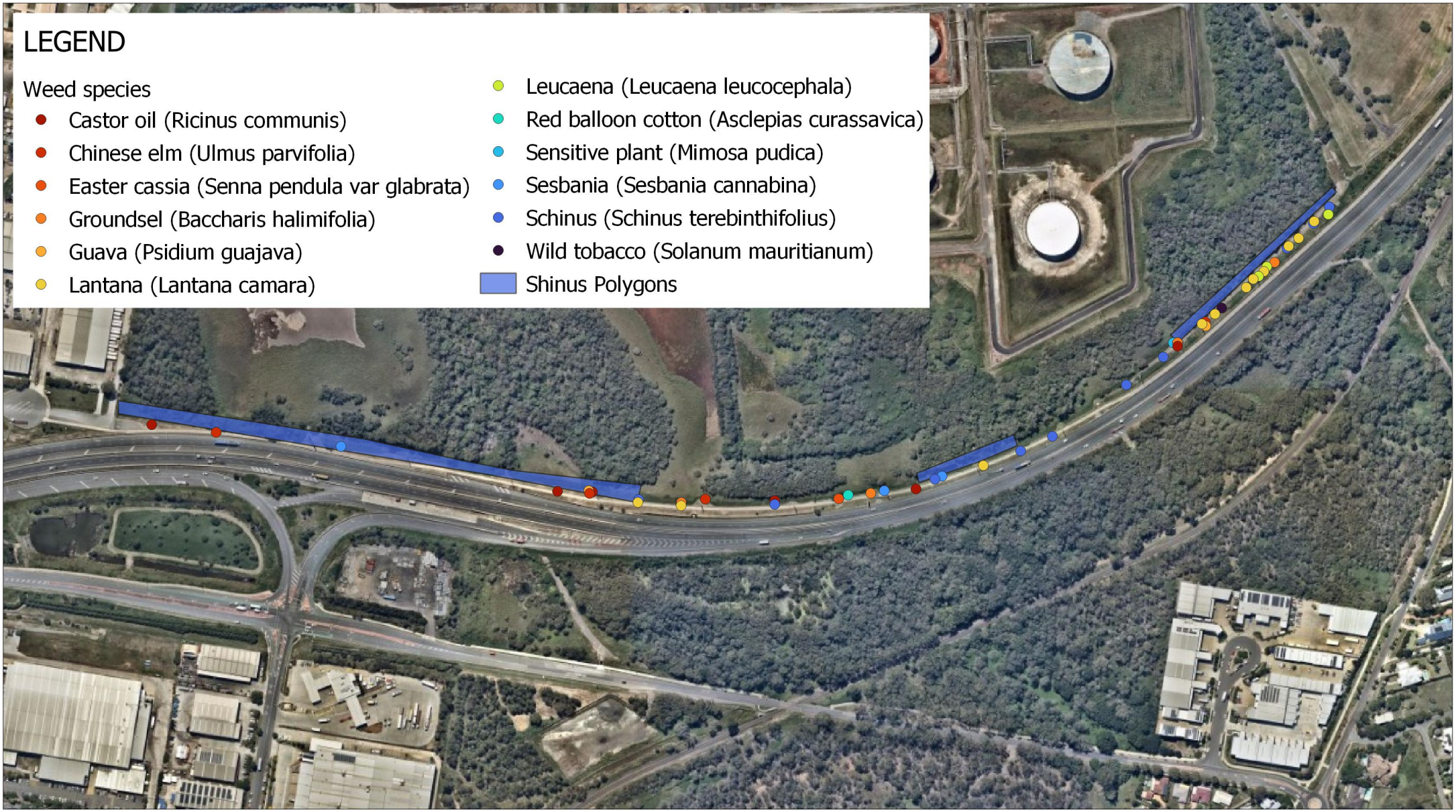
Weeds

The following weeds were observed in the 2023 survey:

- **Restricted Matters** recorded included: widespread broad-leaved pepper tree, particularly a continuous patch to the west of the site. Groundsel and lantana were also recorded, with lantana prominent in the east of the site.
- **Woody weeds:** broad-leaved pepper tree, groundsel, lantana, leucaena, umbrella tree, castor oil plant, Chinese elm, wild tobacco, guava, and easter cassia.
- **Vines:** mile a minute, silver leaf desmodium, siratro, and passionflower
- **Groundcover and grasses**: red natal grass, Rhodes grass, signal grass, Johnson grass, pampus grass, Mullumbimby couch
- **Herbs and forbs:** hairy fleabane, tridax daisy, painted spurge, cupids shaving brush, balloon cotton, cobblers peg, billygoat weed, snakeweed, rattle pod, redflower ragleaf, black nightshade, tall flatsedge, phragmites, sensitive plant, thatch grass, ribwort plantain, wiry spurge, gomphrena, asthma plant, phasey bean, wandering jew, red balloon cotton, creeping cinderella, pink purslane, clasping heliotrope, urena burr (*Urena lobata*), and fine leafed verbena
- Sesbania pea was also present.

An example of weeds adjacent to the Port Drive is shown in Figure 3.9 and notable weeds recorded are shown in Figure 3.10.

Figure 3.9 Example of weeds at Port Drive South



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Weed survey results 2023
Port Drive South

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Fort Lytton

Description
Port lands at Fort Lytton adjacent to the Brisbane River support intertidal wetlands comprising mangroves and saltmarsh of high ecological value, including one of the largest remaining patches of saltmarsh near the mouth of the Brisbane River.

Less than 0.5 ha of filled land within the site previously supported dense weeds before it was cleared and reprofiled in late 2019. Bollards were also installed to protect saltmarsh from vehicle disturbance. Within the restoration area there is regenerating saltcouch (*Sporobolus virginicus*), shoreline sea purslane (*Sesuvium portulacastrum*) and native reed (Figure 3.11). The cover of saltmarsh, particularly saltcouch, has overall increased since the restoration works in 2019. There has been a slight decrease in Sesuvium. Refer to Table 3.1 for a comparison of the area of ground cover species in the rehabilitation area between the 2022 and 2023 surveys.

Weeds were focused in disturbed terrestrial lands to the east of the site. Weed species recorded in the 2023 survey include:

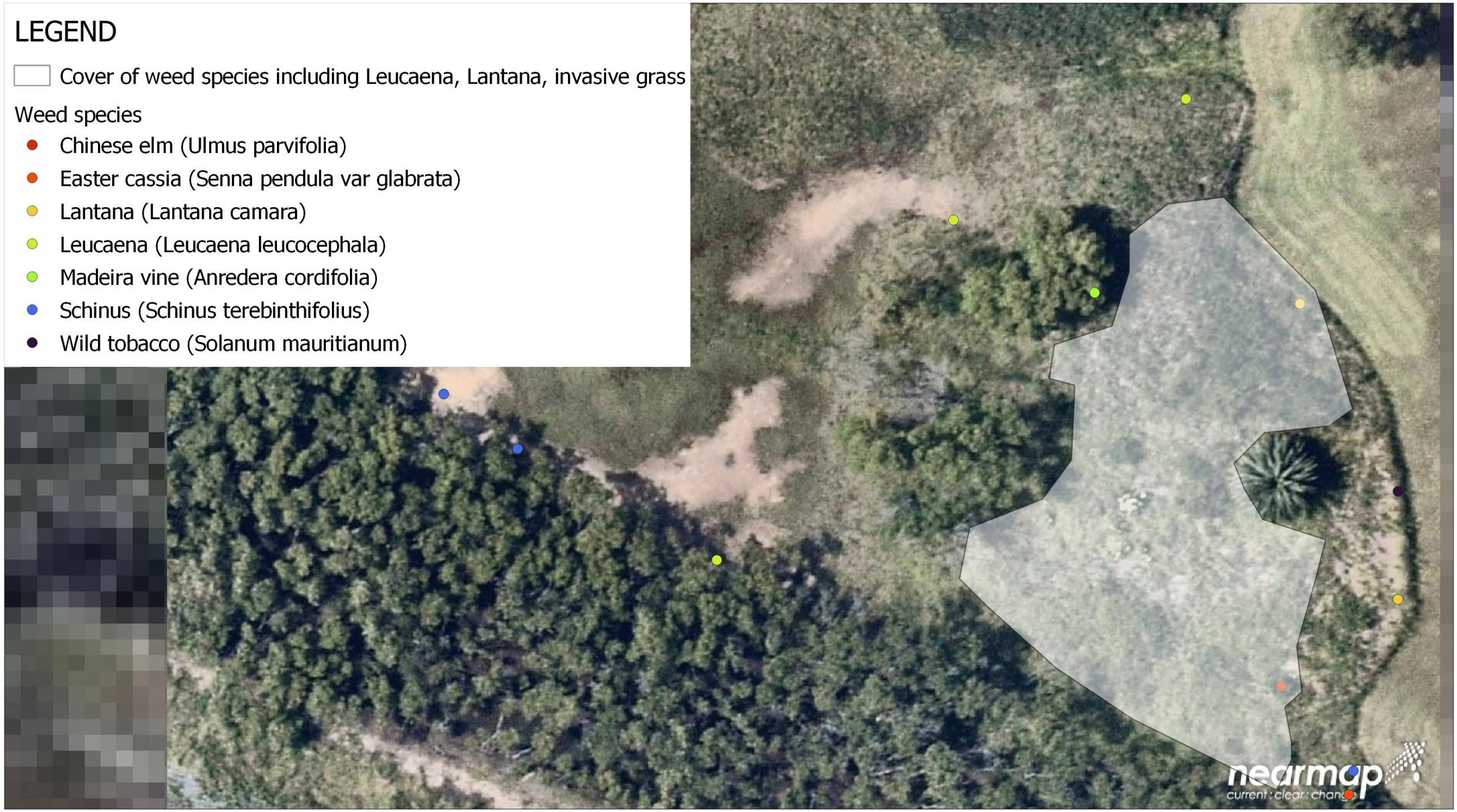
- **Restricted Matters** recorded included broad-leaved pepper tree, lantana, and madeira vine
- **Woody weeds:** leucaena, lantana, easter cassia, Chinese elm, and wild tobacco
- **Vines:** madeira vine, passionflower, mile a minute
- **Groundcover and grasses**: Rhodes grass, green panic
- **Herbs and forbes**: wandering jew, balloon cotton (*Gomphocarpus physocarpus*), clasping heliotrope, cobblers peg, snakeweed and hairy fleabane
- Phragmites were also recorded amongst the weed cover

Figure 3.11 shows the saltmarsh rehabilitation site and an example of the weeds to the east of the rehabilitation site is shown in Figure 3.12. The change in extent of saltmarsh between 2022 and 2023 is shown in Figure 3.13.

Table 3.1 Comparison of area of species in the restoration area between 2022 and 2023

Saltmarsh Habitat Type	2022 Area (m^2)	2023 Area (m^2)	Difference in Area (m^2)
Saltcouch grassland	590	703	113 (increase)
Sesuvium dominated samphire	117	108	9 (decrease)
Phragmites reedland	56	129	73 (increase)

Figure 3.11 Saltmarsh rehabilitation site (top) and weeds to the east of the saltmarsh (bottom)



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Weed survey results 2023
Fort Lytton

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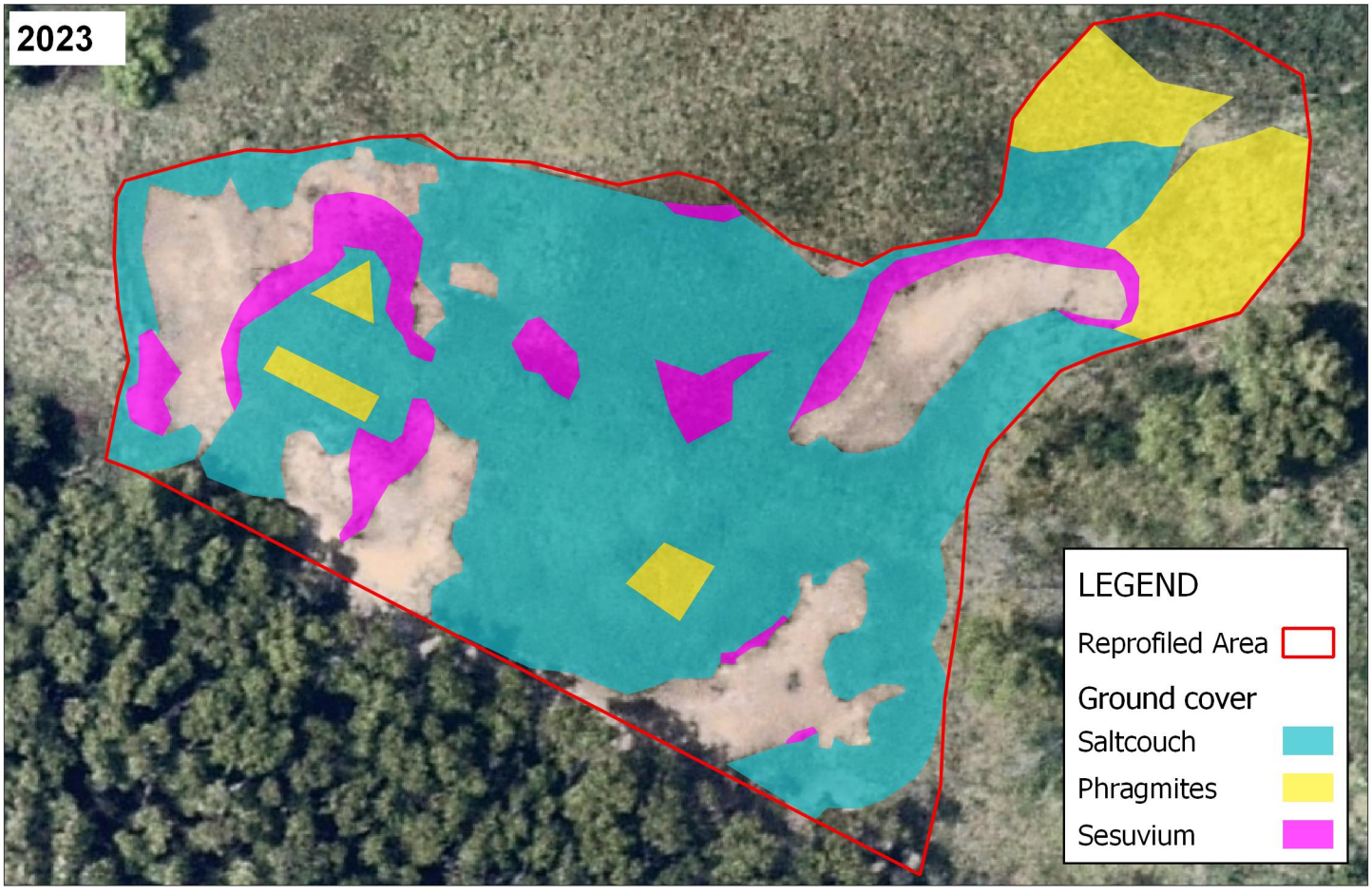

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Fort Lytton rehabilitation area 2022 vs 2023

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Port West Wetlands

Description

Port West, located west of Lytton Road approximately 4 km south-west of the Port, supports a mosaic of mangroves and saltmarsh wetlands directly connected to the Brisbane River. Like other sites at the Port, the saltmarsh-mangrove ecotone and upper tidal limits adjacent to industrial land uses are susceptible to disturbance and weed invasion.

Weeds

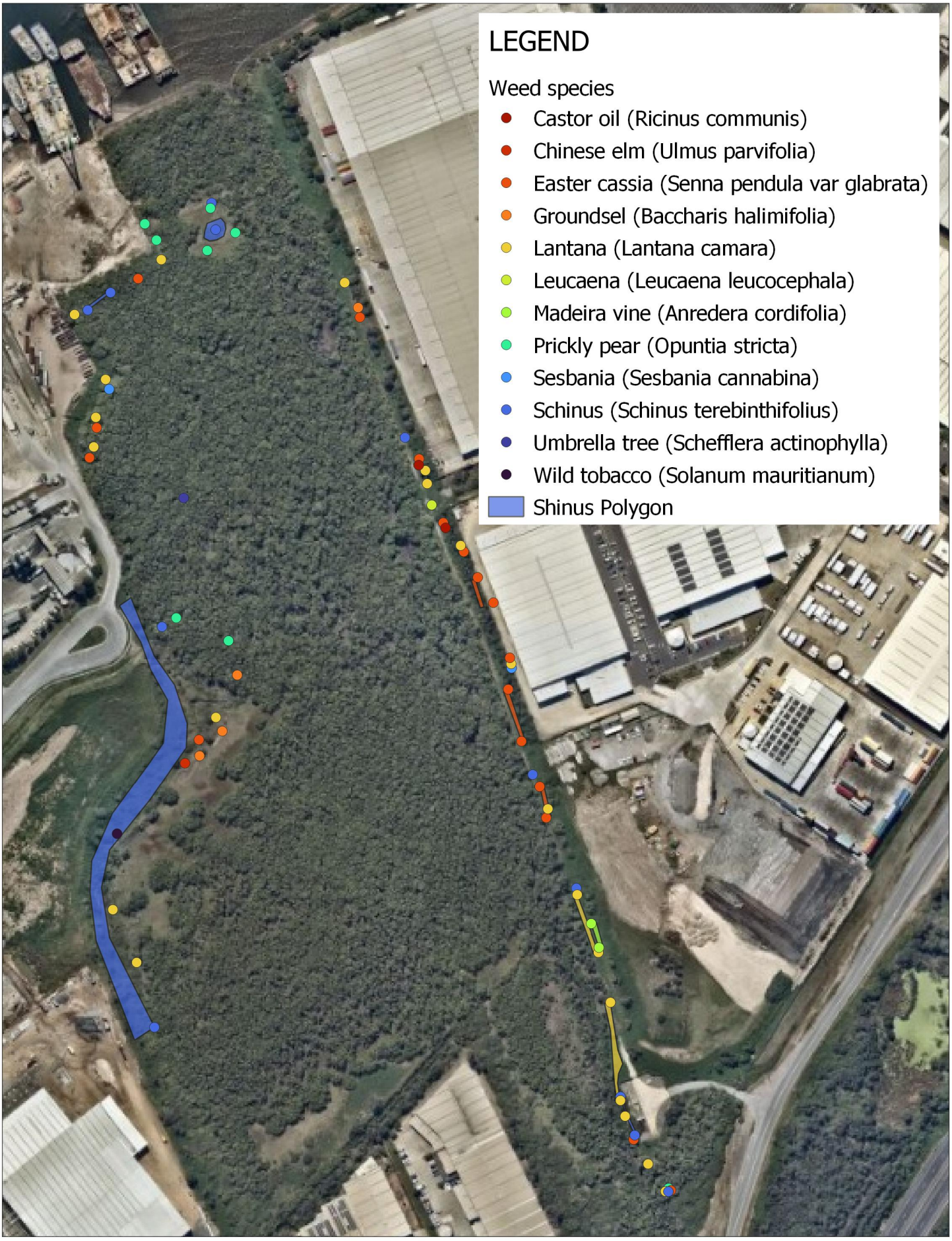
Several woody weeds were recorded since last years survey including wild tobacco, Chinese elm, umbrella tree and castor oil plant. Very sparse weed cover was recorded under the dense mangrove canopy comprising isolated prickly pear. Prickly pear has continued to spread in the higher ground areas as well.

- **Restricted Matters** recorded included broad-leaved pepper tree, lantana, groundsel madeira vine, and prickly pear
- **Woody weeds:** broad-leaved pepper tree, lantana, groundsel, easter cassia, wild tobacco, Chinese elm and, umbrella tree castor oil plant.
- **Vines:** madeira vine, siratro, mile a minute, and passionflower
- **Groundcover and grasses:** Rhodes grass and green panic
- **Herbs and forbes:** New Zealand spinach, hairy fleabane, and coral berry
- Phragmites and Sesbania pea were also recorded.

A patch of madeira vine was present in the east of this site, which was also recorded in previous years. It is recommended that the patch of madeira vine be treated and removed before it spreads any further.

An example of weeds at Port West is shown in Figure 3.14 and their distribution is shown in Figure 3.15.

Figure 3.14 Example of weeds at Port West



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Port West

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3.2 Sites at Risk to New Weed Imports

The following sites considered to be at potential risk to new weed incursion from imported vehicles.

Port West Drain

Description
Port West Drain is a narrow intertidal channel fringed by remnant mangroves comprised of native grey mangrove. The channel is bounded to the west by extensive mangrove forest (described above) and to the east by cleared land for industrial purposes.

Weeds
The drain on the eastern side of Port West had a dense fringe of weeds on either side of the access track and in some areas across the track. The following observations were made of this area in 2023:

- **Restricted Matters** recorded include broad-leaved pepper tree, lantana, groundsel, madeira vine, prickly pear and asparagus fern
- **Woody weeds**: broad-leaved pepper tree, lantana, groundsel, easter cassia, balloon cotton and castor oil plant
- **Vines:** madeira vine, siratro, mile a minute, passionflower and climbing asparagus fern (*Asparagus africanus*)
- **Groundcover and grasses**: green panic and red natal
- **Herbs and forbes**: asparagus fern, New Zealand spinach, blackberry nightshade, coral berry, snakeweed, hairy fleabane, cobblers peg (*Bidens pilosa*), common sowthistle, phasey bean, wandering jew, beach evening primrose, rattlepod, false daisy and redflower ragleaf.

A large patch of madeira vine was present in the east of this site, as also recorded previously. It is recommended that the patch of madeira vine be treated and removed before it spreads any further.

An example of weed species are shown in Figure 3.16 and survey records are shown in Figure 3.15.

Figure 3.16 Prickly pear (top) and dense weeds (bottom) at Port West Drain

Port Gate Drain

Site Description

Port Gate Drain lies to the south of Boat Passage and collects stormwater run-off from the adjacent hardstand areas and drains into, and partially receives, the tidal waters in Boat Passage. The banks of the drain are constructed of concrete, gravel and/or compacted earth, which limits extensive vegetation growth. The instream channel and banks in the south of the drain were cleared of vegetation prior to the 2023 weed survey. A fuel pipeline is currently being constructed alongside the drain.

Weeds

The following observations were made in the 2023 survey:

- **Restricted Matters** recorded included: broad-leaved pepper tree, groundsel and lantana
- **Wood weeds**: groundsel, Chinese elm, castor oil plant, balloon cotton and lantana
- **Vines**: siratro, passionflower, mile a minute, *Glycine tabacina* and balloon vine (*Cardiospermum sp*.)
- **Groundcover and grasses**: red natal, Rhodes grass, tall flatsedge, green panic, Johnson grass and Mullumbimby couch
- **Herbs and forbes:** phasey bean, hairy fleabane, Tridax daisy, rattlepod, cobblers peg, snakeweed, cupids shaving brush, common sowthistle, creeping lantana (*Lantana montevidensis*), asthma plant, creeping indigo, blackberry nightshade, shrubby stylo, pink purslane, clasping heliotrope, ribwort plantain, New Zealand spinach and Singapore daisy
- Sesbania pea and phragmites were also recorded.

An example of weeds at the Port Gate Drain are shown in Figure 3.17 and the results of the 2023 survey are shown in Figure 3.18.

Figure 3.17 Example of weeds at Port Gate Drain in the southern (top) and northern (bottom) ends

Title:

Weed Survey Results 2023
Port Gate Drain

Figure: **3.18**

Rev: **A**

N

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T1-3 Overflow and Car Precinct

Site Description

The T1-3 and Car Precinct areas at the Port store imported vehicles and are potential vectors for newly introduced weed species entering the country via container ships. The survey site includes constructed concrete drains, regularly maintained roadside lawn, landscaped garden beds and the maintained Queensland Rail freight line easement.

Weeds

The survey site is heavily modified and cleared and undergoes regular maintenance including mowing and spraying for weeds. Weeds recorded for this site are combined with the Lake and included:

- Dominant **woody weeds** included broad-leaved pepper tree, groundsel, and lantana
- Dominant exotic **vines** recorded included mile a minute, passionflower, siratro, glycine and cowpea (*Vigna* sp.)
- The sparse **groundcover** was regularly mowed. The most widespread exotic groundcovers were thatch grass, green panic, Mossman river grass, red natal grass, Rhode's grass, crabgrass (*Digitaria ciliaris*), Bermuda grass, Dallas grass (*Paspalum* spp.), South African pigeon grass and pampas grass (*Cortaderia selloana*)
- Common exotic **herbs and forbs** included asthma plant (*Chamaesyce hirta*), snakeweed (Stachytarpheta sp.), Phasey bean (*Macroptilium lathyroides*), hairy wandering Jew, creeping Cinderella, rattlepod, shrubby stylo, cupid's shaving brush (*Emilia sonchifolia*), blue billygoat weed, ribwort plantain (*Plantago lanceolata*), tall flatsedge (*Cyperus eragrostis*), beggar's tick, coral berry (*Rivina humilis*), reflower ragleaf, false daisy *(Eclipta prostrata*), inkweed *(Phytolacca octandra*), shepherd's purse, gomphrena weed, clasping heliotrope (*Heliotropium amplexicaule*), creeping lantana (*Lantana montevidensis*), fleabane (*Conyza bonariensis*), flatweed (*Hypochaeris radicata*), beach evening primrose, tridax daisy, verbana (*Verbena bonariensis*), purslane and threelobe false mallow.
- No **Restricted Matters** plants were recorded for this section of the site.

4 Discussion

The PBPL weed monitoring program aims to detect the introduction and spread of new weed species imported to the Port and to monitor priority weed species within high value natural assets, including habitat for migratory waders and locally significant wetlands. In summary:

- Weed composition and distribution at the Port remained relatively stable over the monitoring period and no newly imported weeds were recorded in 2023.
- All the weed species recorded in the survey sites are widespread in degraded coastal habitats of south-east Queensland.
- Some species were observed at sites that they had not been previously however, they are common at other sites and surrounding areas. These included: a balloon vine species at the Port Gate Drain; asthma plant at The Lake, Port Drive South and Port Gate Drain; *Glycine tabacina* at Port Gate Drain; creeping indigo at Bird Hide and Port Gate Drain; urena burr at Port Drive South; fine leafed verbena at Bird Hide and Port Drive South; pink purslane at Bird Hide, Port Drive South and Port Gate Drain; and Mullumbimby couch at Bird Hide, Port Drive North and South and Port Gate Drain.
- Growing patches of madeira vine were observed at Port West Drain and Fort Lytton. Both areas have had this species recorded before however, treatment is recommended before the patches spread any further.
- The sites considered most at risk to weed imports are the imported vehicle storage areas and downstream environments. However, these sites provide poor habitat conditions for weeds as they area well maintained and/or subject to saline inundation.
- Localised patches of native reed and sesbania pea may cause impacts to saltmarsh habitat values, particularly at the bird hide. Ongoing monitoring will assess whether these species are contributing to altered hydrological conditions that may favour the establishment of terrestrial weeds which could reduce saltmarsh values for migratory waders.
- Restoration works at Fort Lytton have resulted in an increase in saltmarsh habitat in previously disturbed and degraded habitats at this site which has continued to expand. Filled sites within and directly adjacent to intertidal wetlands at Port Drive may have similar restoration potential. It is recommended that recreational and service vehicles are prevented from accessing intertidal habitats within this site to protect saltmarsh and wader habitat values.
- Regular monitoring will continue to be essential to assess the potential for new weed imports to southeast Queensland via the Port, and to inform the need for weed management.

5 References

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Annex A Weeds of National Significance (Department of Agriculture Water and the Environment)

Common Name	Scientific Name
African boxthorn	*Lycium ferocissimum*
Alligator weed	*Alternanthera philoxeroides*
Asparagus fern	*Asparagus aethiopicus*
Asparagus fern	*Asparagus scandens*
Athel pine	*Tamarix aphylla*
Bellyache bush	*Jatropha gossypiifolia*
Bitou bush, boneseed	*Chrysanthemoides monilifera subsp. monilifera and rotundata*
Blackberry	*Rubus fruticosus agg.*
Bridal creeper	*Asparagus asparagoides*
Bridal veil creeper	*Asparagus declinatus*
Broom	*Cytisus scoparius*
Cabomba	*Cabomba caroliniana*
Cats claw vine	*Dolichandra unguis-cati*
Chilean needle grass	*Nassella neesiana*
Climbing asparagus	*Asparagus africanus*
Climbing asparagus fern	*Asparagus plumosus*
Cotton-leaved physic-nut	*Jatropha gossypifolia*
Delta arrowhead	*Sagittaria platyphylla*
Fireweed	*Senecio madagascariensis*
Flax-leaved broom	*Genista linifolia*
Gamba grass	*Andropogon gayanus*
Gorse	*Ulex europaeus*
Hymenachne	*Hymenachne amplexicaulis*
Lantana	*Lantana camara*
Mesquite	*Prosopis spp.*
Madeira vine	*Anredera cordifolia*
Mimosa	*Mimosa pigra*
Montpellier broom	*Genista monspessulana*
Parkinsonia	*Parkinsonia aculeata*

Common Name	Scientific Name
Parthenium weed	*Parthenium hysterophorus*
Pond apple	*Annona glabra*
Prickly acacia	*Vachellia nilotica ssp. indica*
Prickly pear	*Austrocylindropuntia spp.*
Prickly pear	*Cylindropuntia spp.*
Prickly pear	*Opuntia spp.*
Rubber vine	*Cryptostegia grandiflora*
Salvinia	*Salvinia molesta*
Serrated tussock	*Nassella trichotoma*
Silver nightshade	*Solanum elaeagnifolium*
Water hyacinth	*Eichhornia crassipes*
Willows except weeping willows, pussy willow and sterile pussy willow	*Salix spp. except S. babylonica, S. X calodendron and S. X reichardtiji*

Annex B Restricted Invasive Plants under the Queensland Biosecurity Act (Department of Agriculture and Fisheries)

Restricted matter	Category
• Bitou bush (*Chrysanthemoides monilifera ssp. rotundifolia*)	2, 3, 4 and 5
• Boneseed (*Chrysanthemoides monilifera ssp. monilifera*)	2, 3, 4 and 5
• Bridal creeper (*Asparagus asparagoides*)	2, 3, 4 and 5
• Bunny ears (*Opuntia microdasys*)	2, 3, 4 and 5
• Hudson pear (*Cylindropuntia pallida syn. Cylindropuntia rosea and C. tunicata*)	2, 3, 4 and 5
• Jumping cholla (*Cylindropuntia prolifera*)	2, 3, 4 and 5
• Koster's curse (*Clidemia hirta*)	2, 3, 4 and 5
• Limnocharis or yellow burrhead (*Limnocharis flava*)	2, 3, 4 and 5
• madras thorn (*Pithecellobium dulce*)	2, 3, 4 and 5
• Mexican bean tree (*Cecropia pachystachya, C. palmata and C. peltata*)	2, 3, 4 and 5
• Mexican feather grass (*Nassella tenuissima*)	2, 3, 4 and 5
• Miconia (*M. calvescens, M. cionotricha, M. nervosa and M. racemosa*)	2, 3, 4 and 5
• Mikania vine (*Mikania micrantha*)	2, 3, 4 and 5
• Mimosa pigra (*Mimosa pigra*)	2, 3, 4 and 5
• Riverina prickly pear (*Opunita elata*)	2, 3, 4 and 5
• Water mimosa (*Neptunia oleracea and N. plena*).	2, 3, 4 and 5
• African boxthorn (*Lycium ferocissimum*)	3
• African fountain grass (*Cenchrus setaceum*)	3
• African tulip tree (*Spathodea campanulata*)	3
• Alligator weed (*Alternanthera philoxeroides*)	3
• Annual ragweed (*Ambrosia artemisiifolia*)	3
• Asparagus fern (*Asparagus aethiopicus, A. africanus, A. scandens, A. declinatus and A. plumosus*)	3
• Athel pine (*Tamarix aphylla*)	3
• *Austrocylindropuntia* cactus with the following names: • Cane cactus (*Austrocylindropuntia cylindrica*) • Eve's pin cactus (*A. subulata*)	3
• Badhara bush (*Gmelina elliptica*)	3
• Balloon vine (*Cardiospermum grandiflorum*)	3
• Bellyache bush (*Jatropha gossypiifolia* and hybrids)	3

Restricted matter	Category
• Blackberry (*Rubus anglocandicans, Rubus fruticosus*)	3
• Broad-leaved pepper tree (*Schinus terebinthifolius*)	3
• Broom with the following names: • flax-leaf broom (*Genista linifolia*) • Montpellier broom (*Genista monspessulana*) • Scotch broom (*Cytisus scoparius*)	3
• Cabomba (*Cabomba caroliniana*)	3
• Camphor laurel (*Cinnamomum camphora*)	3
• Candyleaf (*Stevia ovata*)	3
• Cat's claw creeper (*Dolichandra unguis-cati*)	3
• Chilean needle grass (*Nassella neesiana*)	3
• Chinee apple (*Ziziphus mauritiana*)	3
• Chinese celtis (*Celtis sinensis*)	3
• Cholla cactus with the following names: • coral cactus (*Cylindropuntia fulgida*) • devil's rope pear (*Cylindropuntia imbricata*) • snake cactus (*Cylindropuntia spinosior*)	3
• Dutchman's pipe (*Aristolochia spp*. other than native species)	3
• Elephant ear vine (*Argyreia nervosa*)	3
• Fireweed (*Senecio madagascariensis*)	3
• Gamba grass (*Andropogon gayanus*)	3
• Giant sensitive plant (*Mimosa diplotricha var. diplotricha*)	3
• Gorse (*Ulex europaeus*)	3
• Groundsel bush (*Baccharis halimifolia*)	3
• Harrisia cactus (*Harrisia martinii syn. Eriocereus martinii, H. tortuosa and H. pomanensis syn. Cereus pomanensis*)	3
• Harungana (*Harungana madagascariensis*)	3
• Honey locust (*Gleditsia tricanthos* including cultivars and varieties)	3
• Hygrophila (*Hygrophila costata*)	3
• Hymenachne or olive hymenachne (*Hymenachne amplexicaulis* and hybrids)	3
• Kudzu (*Pueraria montana var. lobata, syn. P. lobata, P. triloba* other than in the Torres Strait Islands)	3
• Lantanas: • creeping lantana (*Lantana montevidensis*) • lantana or common lantana (*Lantana camara*)	3
• Madeira vine (*Anredera cordifolia*)	3

Restricted matter	Category
• Mesquites: • honey mesquite (*Prosopis glandulosa*) • mesquite or algrroba (*Prosopis pallida*) • Quilpie mesquite (*Prosopis velutina*)	3
• Mother-of-millions (*Bryophyllum delagoense syn. B. tubiflorum, Kalanchoe delagoensis*)	3
• Mother-of-millions hybrid (*Bryophyllum × houghtonii*)	3
• Ornamental gingers: • kahili ginger (*Hedychium gardnerianum*) • white ginger (*Hedychium coronarium*) • yellow ginger (*Hedychium flavescens*)	3
• Parkinsonia (*Parkinsonia aculeata*)	3
• Parthenium (*Parthenium hysterophorus*)	3
• Pond apple (*Annona glabra*)	3
• Prickly acacia (*Vachellia nilotica*)	3
• Prickly pears: • common pest pear, • spiny pest pear (*Opuntia stricta syn. O. inermis*) • drooping tree pear (*O. monacantha syn. O. vulgaris*) • tiger pear (*O. aurantiaca*) • velvety tree pear (*O. tomentosa*) • Westwood pear (*O. streptacantha*)	3
• Privets: • broad-leaf privet or tree privet (*Ligustrum lucidum*) • small-leaf privet or Chinese privet (*Ligustrum sinense*)	3
• Rat's tail grasses: • American rat's tail grass (*Sporobolus jacquemontii*) • giant Parramatta grass (*Sporobolus fertilis*) • giant rat's tail grass (*Sporobolus pyramidalis and Sporobolus natalensis*)	3
• Rubber vines: • ornamental rubber vine (*Cryptostegia madagascariensis*) • rubber vine (*Cryptostegia grandiflora*)	3
• Sagittaria (*Sagittaria platyphylla*)	3
• Salvinia (*Salvinia molesta*)	3
• Senegal tea (*Gymnocoronis spilanthoides*)	3
• Siam weed (*Chromolaena odorata and Chromolaena squalida*)	3
• Sicklepods: • foetid cassia (*Senna tora*) • hairy cassia (*Senna hirsuta*)	3

Restricted matter	Category
• sicklepod (*Senna obtusifolia*)	
• Silver-leaf nightshade (*Solanum elaeagnifolium*)	3
• Singapore daisy (*Sphagneticola trilobata; syn. Wedelia trilobata*)	3
• Telegraph weed (*Heterotheca grandiflora*)	3
• Thunbergias: • Laurel clockvine (*Thunbergia laurifolia*) • thunbergia or blue thunbergia (*Thunbergia grandiflora*)	3
• Tobacco weed (*Elephantopus mollis*)	3
• Water hyacinth (*Eichhornia crassipes syn. Pontederia crassipes*)	3
• Water lettuce (*Pistia stratiotes*)	3
• Willow (all *Salix spp.* other than *S. babylonica, S.* × *calodendron and S.* × *reichardtii)*	3
• Yellow bells (*Tecoma stans*)	3
• Yellow oleander or Captain Cook tree (*Cascabela thevetia syn. Thevetia peruviana*).	3

Annex C Brisbane City Council Environmental Weeds (Brisbane City Council)

Table C.1. Species included in the Biosecurity Act – prioritised for the Brisbane LGA (updated December 2022)

Risk classification	Common name	Species name
Significant	Alligator weed	*Altemanthera philoxeroides*
	Cabomba	*Cabomba caroliniana*
	Horsetails	*Equisetum spp.*
High	Broad-leaved pepper tree	*Schinus terebinthifolius*
	Cat's claw creeper	*Dolichandra unguis-cati*
	Hymenachne	*Hymenachne amplexicaulis*
	Kudzu	*Pueraria lobate*
	Parthenium	*Parthenium hysterophorus*
	Rat's tail grass/giant rat's tail grass	*Sporobulus pyramidalis and S.natalensis*
	Salvinia	*Salvinia molesta*
	Senegal tea	*Gymnocoronis spilanthoides*
	Water hyacinth	*Eichhornia crassipes*
	Water lettuce	*Pistia stratiotes*
	Water mimosa	*Neptunia oleracea (and N. plena)*
Moderate	Asparagus ferns	*Asparagus aethiopicus 'Sprengeri' A. africanus*
	Balloon vine	*Cardiospermum grandiflorum*
	Bridal creeper	*Asparagus asparagoides*
	Broadleaf privet	*Ligustrum lucidum*
	Giant Parramatta grass/rat's tail grasses/Parramatta grass	*Sporobolus fertilis, S. africanus, S. jacquemontii*
	Groundsel bush	*Baccharis halimifolia*
	Hygrophila/glush weed	*Hygrophila costata*
	Kahili ginger	*Hedychium gardnerianum*
	Madeira vine	*Anredera cordifolia*
	Willows	*Salix spp. other than S. babylonica, S. x calodendron, S. xreichardtii and S. chilensis; syn. S. humboldtiana = pencil willow (Chilean willow)*
Low	Annual ragweed	*Ambrosia artemisiifolia*

Risk classification	Common name	Species name
	Bitou bush	*Chrysanthemoides monilifera subsp. rotundata*
	Boneseed	*Chrysanthemoides monilifera ssp. monilifera*
	Camphor laurel	*Cinnamomum camphora*
	Chinese celtis	*Celtis sinensis*
	Dutchman's pipe	*Aristolochia elegans*
	Fireweed	*Senecio madagascariensis*
	Honey locust	*Gleditsia triacanthos including cultivars and varieties*
	Mexican feather grass	*Nassella tenuissima*
	Rubber vine	*Cryptostegia grandiflora*
	Tropical soda apple	*Solanum viarum*
	Yellow ginger	*Hedychium flavescens*
Very low	African fountain grass	*Pennisetum setaceum (Cenchrus setaceus)*
	African tulip tree	*Spathodea campanulata*
	Athel pine	*Tamarix aphylla*
	Belly-ache bush/cotton leaf/physic nut	*Jatropha gossypiifolia*
	Bitterweed	*Helenium amarum*
	Blackberry	*Rubus anglocandicans, Rubus fruticosus agg.*
	Chilean needle grass	*Nasella neesiana*
	Elephant ear vine	*Philodendron spp. Argyreia nervosa*
Very low	Harrisia cactus	*Harrisia martinii*
	Lantana (all species)	*Lantana spp.*
	Mexican bean tree	*Cecropia. palmata and C. peltata*
	Miconia	*Miconia calvescens, M. racemosa and M. nervosa*
	Mother of millions hybrid	*Bryophyllum × houghtonii*
	Pond apple	*Annona glabra*
	Prickly pear/tiger pear/ drooping tree pear/westwood pear/velvety tree pear	*Opuntia spp. (O. elata and O. microdasys – cat.2,3,4,5)*
	Sagittaria	*Sagittaria platyphylla*
	Singapore daisy	*Sphagneticola trilobata*
	Small-leaved privet/ Chinese privet	*Ligustrum sinense*

Risk classification	Common name	Species name
	Telegraph weed	*Heterotheca grandiflora*
	Yellow bells	*Tecoma stans*
	Yellow oleander/Captain Cook tree	*Cascabela thevetia syn. Thevetia peruviana*

Table C.2. Species in the Biosecurity Act – but assessed as having little impact in the Brisbane LGA

Common Name	Scientific Name
Acacias non-indigenous to Australia	*Acacia spp.* other than *Acacia nilotica* and *Acacia farnesiana*
African boxthorn	*Lycium ferocissimum*
Anchored water hyacinth	*Eichhornia azurea*
Annual thunbergia	*Thunbergia annua*
Badhara bush	*Gmelina elliptica*
Candleberry myrtle/candleberry myrth	*Myrica faya*
Candyleaf	*Stevia ovata*
Chinee apple	*Ziziphus mauritiana*
Cholla cactus/coral cactus/devil's rope pear/snake cactus/Hudson pear	*Cylindropuntia spp.* and their hybrids, other than *C. spinosior, C. fulgida* and *C. imbricata*
Christ's thorn	*Ziziphus spina-christi*
Eurasian water milfoil	*Myriophyllum spicatum*
Floating water chestnuts	*Trapa spp.*
Gamba grass	*Andropogon gayanus*
Giant sensitive plant	*Mimosa diplotricha* (prev. *Mimosa invisa)*
Giant sensitive tree	*Mimosa pigra*
Gorse	*Ulex europaeus*
Harungana	*Harungana madagascariensis*
Kochia	*Kochia scoparia syn Bassia scoparia*
Koster's curse	*Clidemia hirta*
Lagarosiphon	*Lagarosiphon major*
Laurel clock vine, fragrant thunbergia	*Thunbergia laurifolia, (syn grandiflora)*
Limnocharis/yellow burrhead	*Limnocharis flava*
Madras thorn	*Pithecellobium dulce*
Mesquites	All *Prosopis spp.* and hybrids other than *Prosopis glandulosa, P. pallida* and *P. velutina*

Common Name	Scientific Name
Mikania vine	*Mikania spp.*
Parkinsonia	*Parkinsonia aculeata*
Peruvian primrose	*Ludwigia peruviana*
Prickly acacia	*Acacia nilotica syn(Vachellia nilotica)*
Red sesbania	*Sesbania punicea*
Serrated tussock	*Nassella trichotoma*
Sicklepod/hairy cassia/foetid cassia	*Senna obtusifolia, S. hirsuta* and *S. tora* and *obtusifolia*
Spiked pepper	*Piper aduncum*
Tobacco weed	*Elephantopus mollis*
Water soldiers	*Stratiotes aloides*
White ginger	*Hedychium coronarium*
Witch weeds	*Striga spp.* other than native species

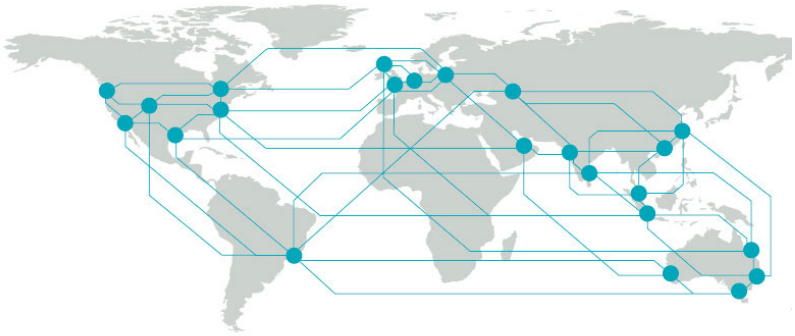
Table C.3. Species NOT in the Biosecurity Act but that are regulated under the Natural Assets Local Law

Common Name	Scientific Name
Agave	*Agave spp.*
Amazon frogbit	*Limnobium laevigatum*
Anzac tree daisy	*Montanoa hibiscifolia*
Arrowhead vine	*Syngonium spp.*
Arsenic bush	*Senna septemtrionalis*
Arum lily	*Zantedeschia aethiopica*
Bahia grass	*Paspalum notatum*
Balsam (busy Lizzie)	*Impatiens spp.*
Bamboos	*Phyllostachys aurea* and *nigra*
Black eyed Susan	*Thunbergia alata*
Blackberry nightshade	*Solanum nigrum*
Blade apple, lemon vine, Barbados gooseberry	*Pereskia aculeata*
Blue trumpet vine	*Thunbergia grandiflora*
Brazilian nightshade	*Solanum seaforthianum*
Cadaga or cadaghi	*Corymbia torelliana*
Cape ivy	*Senecio angulatus*
Cape spinach	*Emex australis*
Capeweed	*Arctotheca calendula*

Common Name	Scientific Name
Castor oil plant	*Ricinus communis*
Chinese tallow	*Triadica sebifera*
Cockspur coral tree	*Erythrina crista-galli*
Cocos palm or Queen palm	*Syagrus romanzoffiana*
Common Indian hawthorn	*Rhaphiolepis indica*
Condamine couch/lippia	*Phyla canescens*
Coral berry or Indian currant	*Ardisia crenata, Rivina humilis* or *Symphoricarpos orbiculatus*
Coral creeper	*Barleria repens*
Corky passion vine	*Passiflora suberosa*
Cotoneaster	*Cotoneaster lacteus*
Creeping lantana	*Lantana montevidensis*
Crofton weed	*Eupatorium adenophorum*
Dense water weed	*Egeria densa*
Devil's fig	*Solanum torvum*
Duranta	*Duranta erecta syn. D. repens* and *D. plumieri*
Dyschoriste	*Dyschoriste depressa*
Easter cassia	*Senna pendula var. glabrata*
Elephant grass	*Pennisetum purpureum*
Feathertop Rhodes grass	*Chloris virgata*
Fire flag	*Thalia geniculata*
Fishbone fern	*Nephrolepis cordifolia*
Foxglove	*Digitalis purpurea*
Giant devil's fig	*Solanum hispidum*
Giant reed	*Arundo donax*
Glory lily	*Gloriosa superba*
Glycine	*Neonotonia wightii*
Golden chain tree	*Laburnum anagyroides*
Golden rain tree	*Koelreuteria elegans ssp. formosana*
Golden rod	*Solidago altissima*
Green cestrum	*Cestrum parqui*
Guinea grass	*Megathyrsus maximus*
Hemlock	*Conium maculatum*

Common Name	Scientific Name
Himalayan ash	*Fraxinus griffithii*
Hiptage	*Hiptage benghalensis*
Indian rubber tree	*Ficus elastica*
Ivy gourd	*Coccinia grandis*
Jacaranda	*Jacaranda mimosifolia*
Japanese/Mexican sunflower	*Tithonia diversifolia, T.sp*
Japanese honeysuckle	*Lonicera japonica*
Johnson grass	*Sorghum halepense*
Khaki weed	*Alternanthera pungens*
Kidney leaf mud plantain	*Heteranthera reniformis*
Leucaena	*Leucaena leucocephala (all spp.)*
Little bluestem	*Schizachyrium microstachyum*
Live plant, Resurrection plant	*Bryophyllum pinnatum*
Mile a minute	*Ipomoea cairica*
Mist flower	*Ageratina riparia*
Mock orange	*Murraya paniculata*
Molasses grass	*Melinis minutiflora*
Monkey's comb	*Pithecoctenium crucigerum*
Morning glory	*Ipomoea indica*
Mossman river grass	*Cenchrus echinatus*
Mother-in-law's tongue	*Sansevieria trifasciata*
Needle burr or spiny amaranth	*Amaranthus spinosus*
Ochna	*Ochna serrulata*
Oleander	*Nerium oleander*
Pampas grass	*Cortaderia selloana*
Paper mulberry	*Broussonetia papyrifera*
Para grass	*Urochloa mutica*
Parrot feather	*Myriophyllum aquaticum*
Perennial horse gram	*Macrotyloma axillare*
Perennial ragweed	*Ambrosia psilostachya*
Pongamia tree	*Millettia pinnata*
Praxelis	*Praxelis clematidea*
Prickly poppy or Mexican poppy	*Argemone ochroleuca*

Common Name	Scientific Name
Purple succulent	*Callisia fragrans*
Red-head cotton bush	*Asclepias curassavica*
Rhodes grass	*Chloris gayana*
Rhus	*Toxicodendron succedaneum*
Ruellia	*Ruellia tweediana*
Shoebutton ardisia	*Ardisia elliptica*
Sicklebush	*Dichrostachys cinerea*
Signal grass	*Urochloa decumbens*
Silver leaf desmodium or velcro plant	*Desmodium uncinatum*
Siratro	*Macroptilium atropurpureum*
Slash pine	*Pinus elliotii*
South African pigeon grass	*Setaria sphacelata*
Stinking roger	*Tagetes minuta*
Taro	*Colocasia esculenta*
Thorn apples	*Datura spp*
Tipuana	*Tipuana tipu*
Tropical pickeral weed	*Pontederia rotundifolia*
Umbrella tree	*Schefflera actinophylla*
Wandering Jew	*Tradescantia fluminensis, T. pallida and T. spathacea*
Water lily	*Nymphaea caerulea ssp. zanzibarensis*
Whiskey grass	*Andropogon virginicus*
White moth plant	*Araujia sericifera and A. hortorum*
White mulberry	*Morus alba*
Wait-a while	*Caesalpinia decapetala*
Wild aster	*Aster subulatus*
Wild tobacco tree	*Solanum mauritianum*
Zebrina	*Tradescantia zebrina*



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