2015

MARCUS BEACH BUSHCARE ASSOCIATION STRATEGIC PLAN

Prepared by

Marcus Beach Bushcare Association

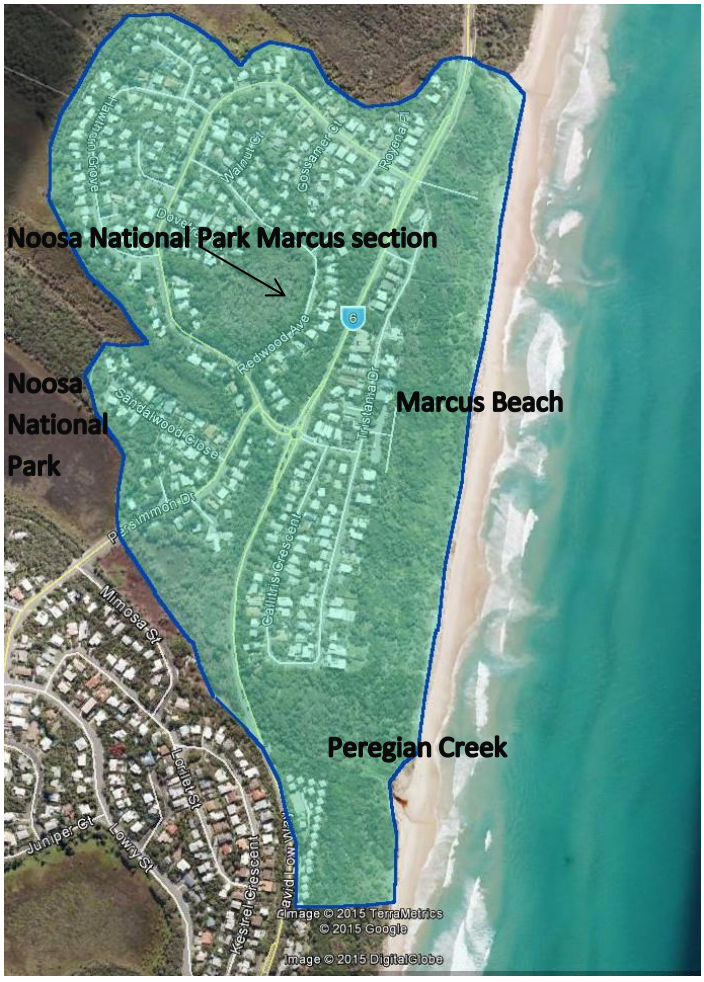
MARCUS BEACH BUSHCARE ASSOCIATION

STRATEGIC PLAN

BACKGROUND

Bush Restoration Sites and Their Vegetation

The Marcus Beach Bushcare Association Strategic Plan covers the bushland within an area that extends along the foreshore between Marcus Creek (Beach Access 45) and a line just south of Peregian Creek between The Retreat and Glen Eden Resorts, and then extends over the whole of the Marcus Beach community to the Noosa National Park, Lake Weyba Section, as shown on the map below. The area is made up of vegetated coastal dunes extending from the beach to the east. Vegetation types include Coastal Sand Dunes, Heaths, Woodlands/Forests and Wetlands. Marcus and Peregian creeks drain from Wallum swamps within Noosa National Park to the west of David Low Way. There are also a number of bushland verges along David Low Way with heavy weed infestation, which will form part of the MBBA working area. In addition, under the guidance of Queensland Parks and Wildlife Service, the MBBA works the Marcus Section of Noosa National Park; a small area of Noosa National Park bounded by Mahogany Drive and Redwood Ave, within the residential area of Marcus Beach. A map showing the land tenure situation for the MBBA work area is appended as Annex 4



Designated Area of Work for MBBA Bush Restoration

The vegetation along and just behind the beach dunes includes Jack Bean (*Canavalia rosea*), Pig Face (*Carprobrotus glaucescens*), Coastal She-Oak (*Casuarina equisetifolia*), and Twining Guinea Flower (*Hibbertia scandens*). Common species present behind the dunes in a more sheltered woodland or heath environment include Midyim (*Austromyrtus dulcis*), *Banksia integrifoliaI*, Beach Bird's Eye (*Alectryon coraceus*) and Tuckeroo (*Cupaniopsis anacardioides*),Of particular interest are Beach Daisy (*Acites megalocarpa*), together with the Crinum Lily (*Crinum pendunculatum*) and the Shepherd's Crook Orchid (*Geodorum densiflorum*). The latter is associated with Wallum Wetlands. The two creeks, particularly Peregian Creek, contain species associated with Freshwater Wetlands, such as Common Paperbark (*Melaleuca quinquenervia)*, Giant or Common Reed (*Phragmites australis*), and sedges such as *Rhyncospora* species. A more detailed list of native species found in the MBBA bushcare restoration area is appended in Annex 1. This list gives an indication of the richness of the biodiversity in just this small area with over 60 species of trees, shrubs, herbs, vines and grasses.

Beside Marcus Creek showing newly planted area with community volunteers

Within the Marcus section of Noosa National Park the vegetation is a mix of Sea Coast, Wallum Woodlands, Freshwater Wetlands and Heath, and includes Bribie Island Pine (*Calitris columellaris*), Morten Bay Ash (*Corymbia tesselaris*), Tuckeroo (*Cupaniopsis anacardioides)*, Wallum Banksia (*Banksia aemula*), and Common Paperbark (*Melaleuca quinquenervia)*.

Much of the Marcus and Peregian Beach urban area originally contained stands of *Allocasuarina littoralis* (Black She-oak), which is the preferred food species in this area of the vulnerable Glossy Black Cockatoo (*Calyptorhynchus lathami*). Unfortunately, this She-oak has often been regarded as unattractive by local residents, and the population has declined, seriously impacting the cockatoos.

Weed Invasion

Like most of the coastal areas along the Sunshine Coast weed species have become prevalent and are competing with and, in many cases, suppressing the native species. The rationale for including all of the Marcus Beach and part of north Peregian Beach in the designated area of work for MBBA is that even

bushland verges along roads and residential properties contain numerous weed species and act as seed sources for other areas. Major weed species found in the area include Basket Asparagus (*Asparagus aethiopicus*), Broad-leaved Pepper (*Schinus terebinthifolius*), Glory Lily (*Gloriosa superba*), Singapore Daisy (*Sphagneticola triobata*), and *Abrus.* A more complete list of weeds present and their control methods can be found in Annex 2.

Some of the weeds present are ecosystem transforming weeds. Such weeds have the potential to progressively invade bushland areas and change the environment and ecosystem as they encroach on existing native vegetation. Singapore Daisy, Asparagus Fern and Para Grass are three such weeds, and they have shown within the MBBA bushland restoration area how they can dominate the existing ground cover, smothering native species and preventing the natural regeneration of native ground cover, shrub and tree species.

Dense covering of Asparagus Fern in the Noosa National Park Marcus Section

The condition of the bushland throughout the MBBA bush restoration area varies. Some sites, such as near the mouth of Peregian Creek and between the boardwalk and Peregian Creek have heavy infestations of weeds with much of the native ground cover and regeneration of the major tree species being suppressed. Other areas, such as along beach accesses 45 and 47, and on Corymbia Hill, just north of Peregian Creek have few weeds present. And then there are quite a number areas that, either naturally or through earlier bushcare work have minor to moderate infestations of weeds. There are very few areas where native bushland, except for dominant tree species, has been completely replaced by exotic weeds.

Community Links and Involvement

The MBBA bush restoration area is part of the Noosa Biosphere Reserve and quite close to the Lake Weyba Section of the Noosa National Park. The presence of highly mobile weed species is therefore a threat to both the area itself as well as to the National Park, while impoverishing the biodiversity of the Noosa Biosphere Reserve. The beach foreshore and Marcus Section of the Noosa National Parks have been declared Environmental Sensitive Areas under the Land Protection Act (2002) by Noosa Council. This means, inter alia, that it is an area of high nature conservation value under the Vegetation Management Act (1999), and therefore worthy of special consideration in preserving its ecology.

Concerned residents within the local community of Marcus and North Peregian Beach have recognised the need for action and the Marcus Beach Bushcare group was formed in 2009. This group concentrated its efforts at weeding and restoring the natural vegetation between Beach Access 45 and 47. An offshoot group began weeding in the Marcus Section of the Noosa National Park in 2012. Then in 2012 work was undertaken by concerned residents along Peregian Creek, where Singapore Daisy was especially bad. A Peregian Creek Bushcare Group was formed in early 2014. Then in September 2014 the two groups became part of the Marcus Beach Bushcare Association, which was incorporated as an association that same month.

The groups meet monthly and, on occasion, more often to remove weeds as well as to plant gaps in their respective areas. Planting has included a National Tree Planting Day in 2012 at Marcus Creek, while the Sunshine Coast Council and later Noosa Council have assisted by providing contracted working teams to eradicate weeds on a broader scale at both sites. Assistance has also been provided at Peregian Creek by the adjacent Retreat Resort and by several day outings from Peregian College students. As a result of both community and council work, the area has significantly less weeds and native vegetation is more profuse than would otherwise have been the case. However, the weed growth continues to be prolific and requires constant maintenance to prevent new outbreaks while there are considerable existing areas of weeds that require removal.

PLAN OBJECTIVE

The Marcus Beach Bushcare Association's goal is:

- To protect and conserve the natural values of the Marcus Beach area and adjacent bushland reserves;
- To support the preservation of the area's bio-diversity; and
- To encourage active participation of the community, natural resource managers and governing bodies in the above.

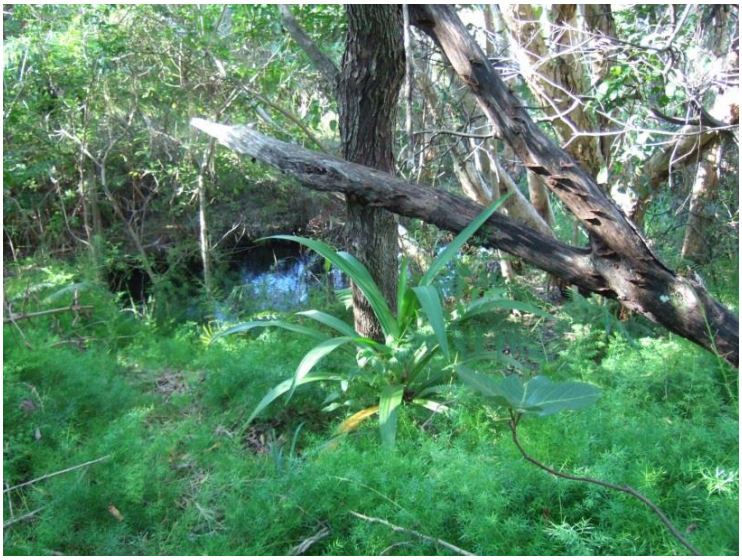
Within the context of this goal the Objective for this Strategic Plan is: To achieve a largely weed-free environment, promote the growth of native vegetation and protect the local biodiversity as well as the natural values of the area through active participation of the local community in collaboration with local natural resource managers.

THE PLAN

Approach

Weeding will be the main activity of the bushcare work. A limited amount of planting of native species will be undertaken in areas opened up by weeding or other causes, where there is a paucity of natural regeneration of native species. However, the weed problem is both severe and recurring and so the approach to bushcare being adopted by MBBA is one of the **community working in conjunction with other relevant agencies**, while endeavouring to get contractors to tackle the more densely weeded areas. To provide funding for such contractors and other bushcare activities the Association will actively apply for **grant funding** as such funding opportunities arise.

Care will be taken to ensure weeding operations do not cause undue erosion or damage to creeks. The likelihood of this happening is slight, except for some steep sand banks close to the mouth of both creeks.



Dense Asparagus Fern with emerging Crinum Lily, Peregian Creek

MBBA will continue to work closely with the **Natural Areas Operations Section of Noosa Council**, which provides technical assistance, tools, and materials, including bags, and disposes of weeds removed. The Council is also in a position to provide, periodically, additional weeding manpower through the use of the Green Army or contractors. MBBA will also liaise with the **Parks and Wildlife Section** of Noosa Council, whose responsibility includes nature strips and vegetated road verges, and lobby both them and Natural Areas Operations to maintain areas under their care as weed free as possible.

In a similar manner, MBBA will liaise with **Queensland Parks and Wildlife Services** to manage weed infestations in the Marcus National Park section as well as in the verges of the surrounding National Park. This will include lobbying to achieve a weed-free status in those areas as soon as possible.

The Association will also continue to maintain links with **Noosa and District Landcare**, who have provided technical assistance and seedlings, and will continue to provide the same in the future. At Peregian Creek a close liaison will continue to be maintained with **TheRetreat Resort**, which abuts the area by the creek. To date the managers of this tourist and residential complex have been very supportive of the work being done by the Association and have contributed materially.

The local community provides the main support for MBBA bushcare and efforts will continue to be made to recruit new members, both working and non-working, to the association. Efforts will also continue to involve school children from nearby schools in weeding and planting operations.

Site inspections to determine the condition of the bushland and the status of weeds will be undertaken regularly. These will determine where weeding should be focussed, both in terms of an annual work plan and for each weeding session.

The aims and bushcare work being done by the association will be publicised, as in the past, through letter box drops, advertisements and articles in local publications, and by word of mouth. Signs explaining the work being done will continue to be displayed at work sites and new signs established, with Council and Landcare assistance, e.g. at Peregian Creek Beach Access 49. It is planned that, eventually, with external financial assistance, signs will be erected naming the more common native species within the area.

Education of the local community on the natural botanical values of the area and the threats posed by specific weeds, including those in residential gardens, will be carried out by the Association through the use of pamphlets supplied by Landcare and Noosa Council on local plants and weeds. The Association will also continue to maintain and improve its **website**, which gives details of the more important invasive weeds as well as native plants that may be planted in residential properties instead of weed species.

Annual work plans for Marcus and Peregian Creek areas will be prepared detailing and prioritizing areas to be tackled and weeds to be removed. Priority will be given to areas of more intense weed infestations with the more invasive weeds, though taking into account the propensity for regeneration of native species or planting so as not to leave bare areas open for further weed infestation. At the same time consideration will be given to exposing weeding or planting sites to the public so as to publicize the work being undertaken.

Health and safety risk assessments will be undertaken at each work site to ensure health and safety requirements are met. The main health and safety concerns are snakes, minor cuts and abrasions from bush work. First aid kits will be available at work sites together with a snake bite kit and sun screen, and at least one team member will endeavour to be trained in first aid.

The status of weeds and native vegetation will be monitored on a periodic basis. The species and quantity of weeds removed will continue to be regularly recorded after each working session as will the number and species of any seedlings planted. In addition the rough area weeded or planted will be assessed periodically.

This strategic plan will be reviewed and revised annually, taking into account lessons learned over the previous year and after assessing the status of vegetation and weeds at the sites worked on by MBBA.

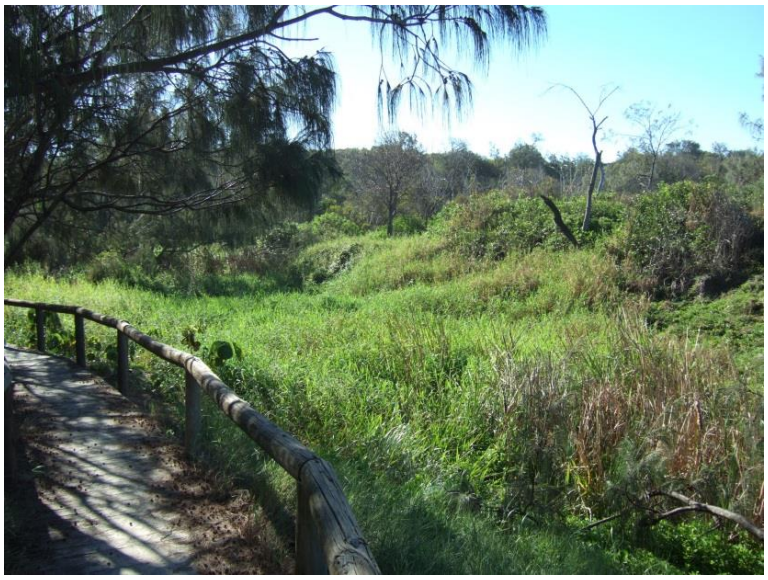
Methodology

As stated, the main focus for MBBA bushcare will be on **weeding**. Regular weeding and bushcare working bees, using community members will be undertaken once a month at Marcus Beach sites, once a month. at the National Park site, and twice a month at Peregian Creek. In addition, irregular working bees will be held as members desire.

The group generally adopts **the Bradley Method of bush regeneration**. Within an identified weed infested area, MBBA adopts the principle of working from the least degraded areas to create a "growing edge" to optimise the chance of natural regeneration by dormant native species seed or suppressed seedlings, e.g. removing Asparagus Fern to release Midyim Berry, Crinum Lily and other species. This method minimises the regrowth of weeds that thrive in large areas where there is no native cover.

It may sometimes be necessary to work in highly degraded areas, such as those heavily infested with Singapore Daisy or Para Grass. In these areas following weed clearing, in order to ensure there is adequate native species regeneration and to minimise weed re-infestation in the bare sites, native seedlings appropriate to the area may need to be planted, although natural regeneration is preferred. At the same time, it will be important to ensure areas already weeded are maintained weed-free and this may require periodic follow-up weeding.

Hand weeding with appropriate tools for such weeds as Asparagus Fern will be the main means of eradicating the weeds, with the weeds bagged and removed from the site. During the flowering and fruiting season for Asparagus Fern consideration will be given to removing flowers and fruits if insufficient resources are available to remove the plants themselves in a short period of time. Similarly, flowers and fruits of Gloriosa Lily and Pepper Tree would have priority, although removal of the whole plant will be the end objective.



Dense covering of Para Grass, Peregian Creek

For such weeds as sizable Pepper Trees and Umbrella Trees and significant areas of Para Grass, weedicides such as **Glyphosate (Roundup)** will be painted or dabbed on freshly cut surfaces, or sprayed on young leaves. The Association has at least one person qualified under the Chemical Accreditation Course.

Given the limited potential for community workers to effectively eradicate some areas of heavy weed infestation efforts will be made to obtain **contracted workers** to tackle these more difficult and larger areas of weed concern. This will be either through Noosa Council who employ such contractors on a regular basis or by directly hiring contractors using grant funding. MBBA will continue to apply for such grant funding from such sources as the Noosa Council Community Grants, Landcare, NRMA and other sources.

Planting will be done in areas where there are current gaps in the vegetation or a lack of natural regeneration or poor potential for natural regeneration after clearing of weeds. Such areas could include sand dunes adjacent to the beach, particularly after beach erosion and then natural sand restoration through water and wind as well as areas cleared of heavy concentrations of weeds such as Asparagus Fern, Singapore Daisy or Para Grass, which had previously carpeted the area, killing most native species.

Species for planting will be native species most adaptable, and preferably indigenous, to the site in which they will be planted and may include a mixture of tree as well as shrub or herbaceous species. A list of potential species for such plantings is appended in Annex 3. Seedlings for planting will be sourced through Noosa Council, Landcare, or through grants. Consideration will also be given to transplanting wildlings of some species such as Midyim. Because of the generally sandy and dry soil conditions hydrated water crystals will be placed with each seedling with watering done at planting. As is possible and as required further watering may be carried out to ensure survival particularly during dryer periods.

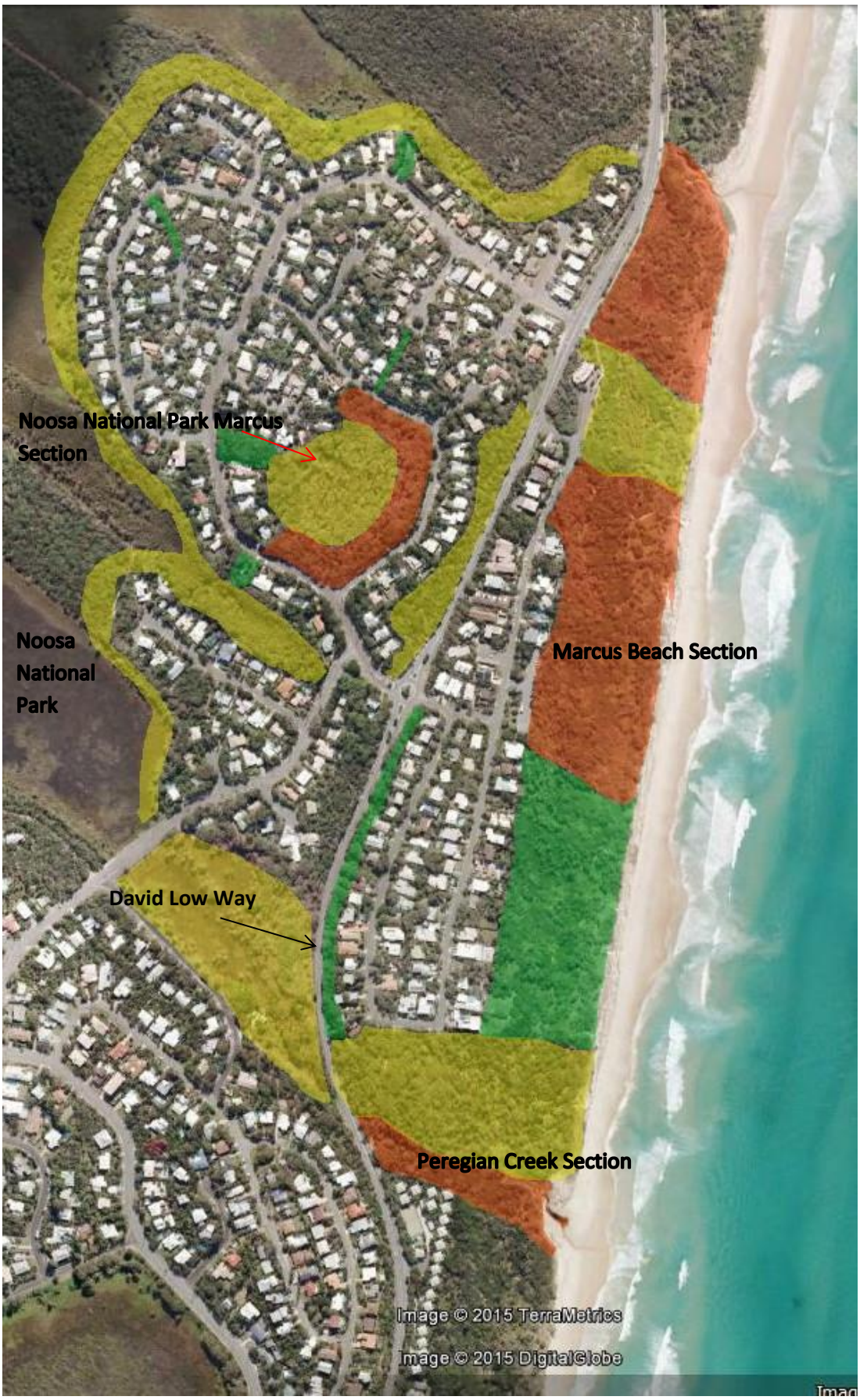
When possible, **special field days** for the public will be organised such as community weeding and planting days, while local schools will be asked to participate in weeding and planting operations as they have done in the past.

Areas weeded and planted will be **monitored** on a periodic basis to assess renewed weed infestations and seedling survival and growth. **A journal** will be kept for both the Marcus Beach and Peregian Creek sites. This will record operations as they occur by date, including details of volunteers or contractors; the species and quantity, and a rough estimate of the area of weeds removed; plus details of seedlings planted by species and area planted. The Journal will also contain notes on seedling survival and new weed infestations, as well as other pertinent observations.

Members will continue to update and publicise the **MBBA website** to help educate, foster interest and inform local communities regarding the Associations activities and weeding needs. It will also continue to provide detailed information, including photos, of the more common weed species to be found in the areas, as well as native plants, particularly those that may be substitutes for weed species currently being grown in local residents' gardens, or which may be added to gardens to improve local flora and attract bird life. Regular emails will also inform members of working bee dates and other news of interest to local bush carers.

MBBA Priority List (as per map below)

High priority
Maintain previously-weeded and re-vegetated areas at all sites.
Develop planting lists showing preferred species to be planted for revegetation at each site.
Develop annual work plans for each of the separate working areas, e.g. Marcus Beach, Peregian Creek, and Marcus Section of Noosa National Park
Marcus section NP: eliminate asparagus, mother-of-millions, umbrella tree, Ardisia and other weeds and revegetate where necessary.
Peregian Creek: eliminate asparagus through much of area; para grass near the creek mouth; Singapore Daisy adjacent to David Low Way and near creek mouth; plus umbrella trees, Abrus and other weeds throughout the area; and plant where necessary
Marcus foreshore central (Toona St to Melaleuca St): Eliminate pepper-tree, asparagus and Gloriosa Lily from new areas and re-vegetate as required.
Marcus Creek (Creek to bus-stop): Proceed southward with elimination of pepper-tree and asparagus as well as other weeds. Revegetate as necessary.
Extend and improve the MBBA website, so that it reinforces the goals of the MBBA, is a useful educational resource, and is well-used by the community.
Erect signs to increase community awareness of weeds, important native vegetation, and the work of the MBBA both at Marcus Beach and Peregian Creek sites.
Encourage Noosa councillors, council departments and QPWS to put resources into managing weed problems at priority sites.
Medium priority
Carry out maintenance work in previously weeded areas
Marcus section NP: Extend weeding and re-vegetation to central part of reserve.
Marcus foreshore North (Bus-stop to Toona St): Eliminate broad-leaved pepper, asparagus, umbrella trees as well as other weeds.
Corymbia Hill (Peregian Ck to Beach Access 48): Eliminate asparagus, mother-of millions and other weeds from new areas.
David Low Way central (west side between the two entrances to Mahogany Drive): Eliminate asparagus, mother-of-millions and other weeds.
National Park verge: Encourage QPWS to maintain weed reduction on fire trails and other zones verging on urban areas.
Organise a publicity campaign to encourage residents to remove weed species from their properties.
Long-term priority
Carry out maintenance work in previously-targeted areas
Marcus section NP: Extend weeding to easement on western side, entering from Mahogany Drive.
Marcus foreshore South (Melaleuca St to Beach Access 48): Eliminate asparagus, broad-leaved pepper, mother-of-millions as well as other weeds. Re-vegetate as required.
David Low Way South (east side, from Melaleuca St to Peregian Ck): Eliminate umbrella trees, purple succulent, mother-in-law's tongue, fishbone fern and other weeds. Re-vegetate as necessary.
Organise a campaign to encourage residents to remove weeds from easements.



MBBA priority areas (See list above)

EXPECTED OUTCOMES

At the end of five years the following outcomes might reasonably be expected:

- Significant reduction in weed population;
- Greater presence of native species;
- Improved natural values such as improved biodiversity and the presence of significant local native species with greater benefit to wildlife, local communities and tourists.
- Increased community participation in local bushcare.
- Increased community knowledge on both weed and native plant species.
- Less presence of weed species in residential gardens and verges

RISKS AND ISSUES

There are several risks or issues associated with undertaking the strategic plan and successfully achieving both the objectives and the expected outcomes. These include:

- Insufficient hired labour or contractors to effectively tackle weed problem resulting in difficulties in eliminating weeds as fast and as effectively as desired. (Risk medium)
- The inability to access grant funding to pay for contractors, plants and materials required to achieve the desired outcome. (Risk medium)
- A lack of sufficient interest from the local community in supporting MBBA's bushcare activities, either through field work or financially, thus making it more difficult to achieve the desirable level of weed elimination, as well as in maintaining weed-free areas that have been weeded. (Risk low)
- The inability to obtain adequate desirable species for planting, thus leaving areas denuded. (Risk low)
- Fire risk (low)

INDICATORS

Indicators showing achievement of the plan objectives and expected outcomes could include:

- Number of bags of weeds removed
- Species of weeds removed
- Area weeded (roughly)
- Area maintained largely weed-free
- Number of seedlings planted.
- Areas planted (roughly)
- Resulting increased coverage by natural revegetation (by species)
- Presence of any new native species
- Number and frequency of local community members participating in work.
- Number of school children visiting and working
- Number of website hits.

ANNEX 1 – Native Plants within MBBA Area

Trees:

Acacia flavescens - woodlands

Acacia leiocalyx (Black Wattle) - woodlands

Acronychia imperforate (Beach Acronychia) - woodlands/heath

Alectryon coriaceus (Beach Bird's-Eye) – woodlands/heath

Allocasuarina littoralis (Black She-oak) – woodlands and beach front

*Banksia aemula (*Wallum Banksia) –woodlands (Noosa National Park),

Banksia integrifolia (Coast Honeysuckle, Banksia) – dunes, woodlands

Callitris columellaris (Coastal Cypress Pine, Bribie Island Pine) – woodlands (Noosa National Park)

Casuarina equisetifolia (Coast She-Oak) – woodlands and beach front

Corymbia intermedia (Pink Bloodwood) - woodlands

Corymbia tesselaris (Moreton Bay Ash) – woodlands

Cupaniopsis anacardioides (Tuckeroo) –woodlands

Glochidion ferdinandi (Cheese Tree) - woodlands

Hibiscus tiliaceus (Cottonwood) – woodlands

Lophostemon confertus (Brush Box) - woodlands

Macaranga tanarius (Macaranga) – woodlands/heath

Melaleuca quinquenervia (Paperbark, Tea Tree) – wet heath/woodlands

Pandanus tectorus (Screw Pine, Pandanus) – woodlands and beach front

Petalostigma pubescens (Quinine Berry) – woodlands

Shrubs and Ground Cover

Actites megalocarpa (Beach Daisy, Beach Sow Thistle) – beach front

Austromyrtus dulcis (Midyim) – woodlands/heath

*Azolla pinnata (*AzollaFern) - creek

Banksia robur (Swamp Banksia) – wet heath

Boronia rosmarinifolia (Forest Boronia) – woodlands/heath

Carprobrotus glaucescens (Pig Face) – beach front

Crinum penduculatum (Crinum Lily) – woodlands and beach front

Dianella congesta (Beach Flax Lily) – woodlands/heath and beach front

Dianella longifolia (Pale flax lily) – woodlands/heath

Dodonea viscosa (Sticky Hop Bush) – woodlands

Gahnia clarkei (Tall Sawsedge) – woodlands (wetter situations)

Geodorum densiforum (Shepherd's Crook Orchid) - woodlands

Hibbertia scandens (Twining Guinea Flower, Snake Vine) – beach dunes

Isolepis inundata (Swamp Club Rush) – Creek

Leocopogon pimeleoides (Bushy Whitebeard) – woodlands/heath

Lomandra longifolia (Mat Rush) - Creek

Oxalis rubens (Beach Oxalis) – beach front

*Patersonia sericea (*Native Iris) – woodlands/heath and beach front

Phebalium woombye - woodlands

Pteridium esculentum (Common Bracken) - woodlands

Ricinocarpus pinifolius (Wedding Bush) – woodlands/heath

Scaevola calendulacea (Scented Fan Flower) – beach front

Sesuvium portulacastrum (Sea Purslane) – beach front

Sporobulus virginicus (Sand/Saltwater Couch) – beach front

Tetraonia tetragonioides (New Zealand Spinach, Warigal Greens) – beach front

Wedelia spilanthoides (Daisy) – woodlands/heath and beachfront

Wikstroemia indica (Bootlace Bush) – beach front/heath

Xanthorrhoea johnsonii (Forest Grasstree) – woodlands/heath

Xanthorrhoea fulva (Wallum grasstree) – wet heath

Grasses

Eragrostis interrupta (Beach Love Grass) – beach front

Imperata cylindrica (Blady Grass) –woodlands/heath

Ischaemum triticeum (Creeping Wheat Grass) – beach dunes

Spinifex sericeus (Beach Spinifex) – beach front

Themeda triandra (Kangaroo Grass) - woodlands

Vines

Canavalia rosea (Jack Bean) - beach front

Cassytha filiformis (Dodder Laurel) - woodlands

Ipomoea pes-caprae (Goat's Foot Convolvulus) –beach dunes

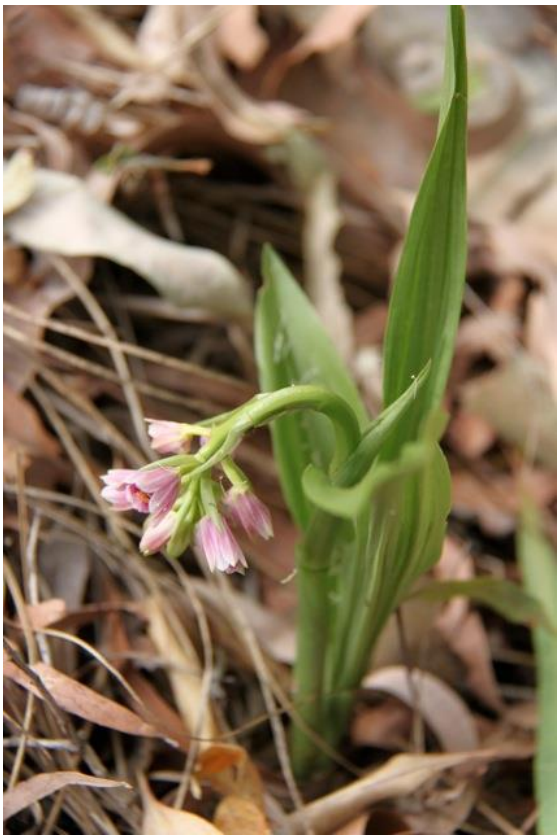
Lygodium microphyllum (Climbing Maidenhair) - woodlands

Parsonia stramineo (Monkey Vine) - woodlands

Smilax glyciphylla (Sweet Sarsparilla, Monkey Vine) - woodlands

Stephania japonica (Snake Vine) – beach front

Vigna marina (Dune Bean) – beach front



Shepherd's Crook Orchid (*Geodorum densiforum)*

ANNEX 2 – Weeds within MBBA Bushland Restoration Area

Weed	Form	Control Method
American Sea Rocket (*Cakile edentula*)	Herb	Hand remove
Asparagus Fern (*Asparagus aethioppicus)* **Class 3**[1]	Ground Creeper	Hand removal using crowning. Remove root material and fruiting and flowering stems from site
Blue Billy Goat Weed (*Ageratum houstonianum*)	Herb	Hand remove.
Brazilian Cherry (*Eugenia uniflora*)	Shrub or small tree	Hand remove if small. Cut, scrape and paint with Glyphosate/water
Broad Leaf Pepper Tree (*Schinus terebinthifolia*)	Tree	Hand remove if small. Cut/frill and paint with Glyphosate/water
Cat's Ear (*Hypochaeris microcephala)*	Herb	Hand remove.
Shoebutton Ardisia (*Ardisia elliptica*	Tree	Hand remove if small. Cut/frill and dab with Glyphosate.
Corky Passion Vine (*Passiflora suberosa)*	Vine	Hand remove, digging out root.
Easter Cassia (*Senna pendula var. glabrata*)	Shrub or small tree	Hand remove if small. Cut/frill and dab with Glyphosate
Emilia (*Emilia sonchifolia)*	Herb	Hand remove.
Fishbone fern (*Nephrolepis cordifolia*)	Herb	Hand remove
Gidee-Gidee, Crab's Eye Creeper (*Abrus precatorius ssp. Africanus*)	Vine	Hand remove. Cut and paint with Glyphosate
Gloriosa Lily (*Gloriosa superba)*	Vine	Hand remove, taking tubers if possible. Foliar spray with Glyphosate
Groundsel (*Baccharis halimifolia*) ***Class 2***	Shrub or small tree	Hand remove if small. Cut/frill and dab with Glyphosate
Guinea Grass (*Megathyrsus maximus*)	Grass	Hand removal. Cut and spray with Glyphosate.

[1] Class 1 to 3 are declared pests in Parts 1, 2 and 3 respectively or Schedule 2 of the *Land Protection Regulation,* in the Queensland *Land Protection, Pests and Stock Routes Management Act.* 2002.

Lantana (*Lantana camara)* ***Class 3, WONS***[2]	Vine	Cut and hand remove, pulling out roots. Cut and paint with Gylphosate/water
Mile-a-Minute (*Ipomoea cairica*)	Vine	Remove by hand.
MilkThistle (*Sonchus oleraceus*)	Herb	Hand remove
Mistflower (*Ageratina reparia*)	Herb	Hand remove
Mossman River Grass (*Cenchrus echinatus*)	Grass	Hand remove
Mother-of millions (*Bryophyllum delagoense*) ***Class 2***	Herb	Hand remove
Painted Spurge (*Euphorbia cyathophora*)	Herb or small shrub	Hand remove.
Para Grass (*Urochloa mutica*)	Grass	Hand remove, digging out rhizomes. Cut and paint or foliar spray with Glyphosate.
Singapore Daisy (*Sphagneticola trilobata)* ***Class 3***	Ground-covering herb	Hand remove. Spray with Glyphosate at 20gm/10L.
Thickhead (*Crassocephalum crepidioides)*	Herb	Hand remove.
Umbrella Tree (*Schefflera actinophylla*)	Tree	Hand removal when small. Remove all live plant material. Cut/frill and paint with Glyphosate.

[2] WONS: Declared a Weed of National Significance under the Commonwealth Government Weeds Strategy.

ANNEX 3 – Native Species Compatible with Sites for Planting

Beach Front Dunal Sites

Beach Spinifex (*Spinifex sericeus*)

Boobialla (*Myoporum boninense*)

Coastal She Oak (*Casuarina equisetifolia*)

Creeping Wheat Grass (*Ischaemum triticeum)*

Dune Bean (*Vigna marina)*

Flax Lily (*Dianella congesta*)

Goats Foot Convolvulus (*Ipomoea pes-caprae*)

Jack Bean (*Canavalia rosea*)

Pandanus, Screw Pine (*Pandanus tectorius*)

Pig Face (*Carprobrotus glaucescens*)

Snake Vine, Twining Guinea Flower (*Hibertia scandens*)

Scented Fan Flower (*Scaevola calendulacea*)

Behind Dunes (Consider species currently growing in or near the site to be planted)

Banksia, Coast Honeysuckle (*Banksia integrifolia*)

Beach Bird's Eye (*Alectryon coriaceus*)

Black She-oak (*Allocasuarina littoralis*)

Coastal She Oak (*Casuarina equisetifolia*)

Flax Lily (*Dianella congesta*)

Midyim (*Austromyrtus dulcis*)

Pandanus, Screw Pine (*Pandanus tectorius*)

Quinine Berry (*Petalostigma pubescens)*

Sticky Hop Bush (*Dodonaea viscosa)*

Tuckeroo (*Cupaniopsis anacardioides*)

Wallum Banksia (*Banksia aemula*) – National Park section

Woodland/Coastal Heath

Black She-oak (*Allocasuarina littoralis*)

Cheese Tree (*Glochidion fernandi*)

Moreton Bay Ash (*Corymbia tesselaris*)

Midyim (*Austromyrtus dulcis*)

Native Iris (*Patersonia sericea*)

Pale Flax Lily (*Dianella longifolia*)

Pink Bloodwood (*Corymbia intermedia*)

Tuckeroo (*Cupaniopsis anacardioides*)

Marshy Areas and Creeks

Mat Rush (*Lomandra longifolia*)

Sedge (*Rhyncospora rubra*)

Swamp Banksia (*Banksia robur*)

Swamp Club Rush (*Isolepis inundata*)

Annex 4: Land Tenure Situation for MBBA Work Area