

PORMPURAAW ABORIGINAL SHIRE PEST & BIOSECURITY MANAGEMENT PLAN 2016 - 2020

prepared by
Pormpuraaw Aboriginal Shire Council and Pormpuraaw Land & Sea Management
Kugu, Mungkan and Kuuk Thaayorre Traditional Land Owners and partners
December 2015



Disclaimer

This Pormpuraaw Aboriginal Shire Pest & Biosecurity Management Plan 2016 - 2020 reflects the priorities of the Pormpuraaw Aboriginal Shire Council with respect to biosecurity risk management and statutory pest species management as required by the *Biosecurity Act 2014 Qld*, the *Land Protection (Pest and Stock Route Management) Act 2002 Qld* and the *Land Protection (Pest and Stock Route Management) Regulation 2003*.

Plan priorities have been confirmed by Pormpuraaw Land & Sea Management in consultation with Kugu, Mungkan and Kuuk Thaayorre Traditional Land Owners. This Plan applies to lands and waters extending from the Holroyd (South Kendall) River to the Coleman River, being Aboriginal land and waters variously described as the Pormpuraaw Deed of Grant in Trust or the Pormpuraaw Aboriginal Shire.

This document has been prepared by Pormpuraaw Land & Sea Management on behalf and with the assistance of Kugu, Mungkan and Kuuk Thaayorre Traditional Land Owners of Pormpuraaw land, seas and waters, for Pormpuraaw Aboriginal Shire Council. Plan review, text and layout revision was assisted by Ellie Bock (Regional Advisory & Innovation Network (RAIN) Pty Ltd).

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WARNING: This publication may contain images of and references to deceased persons. Readers are reminded that explicit cultural protocols govern the use and release of images and names of deceased persons.



Priority Weeds of National Significance (WONS) at Pormpuraaw Aboriginal Shire

L - R: Parkinsonia flower, Olive Hymenachne, Rubber Vine eradication, Parkinsonia before treatment

Cover photos: Para Grass control Airport lagoon Pormpuraaw (main image)

Smaller images L - R: Predation reduction at Olive Ridley turtle nesting site, Olive Ridley turtle hatchling, Educating local children about feral pigs, Tools of the trade, Targeted aerial WONS treatment Pormpuraaw Aboriginal Shire.

Thanks go to.....

The initial *Pormpuraaw Community Council Pest Management Plan 2006 – 2010* for the Pormpuraaw Aboriginal Shire was developed by a committed group of Pormpuraaw councillors, employees, Pormpuraaw Land & Sea Management staff, community representatives and Local Government staff from Cook Shire Council. The following individuals were involved in extensive community discussions about the first Pest Management Plan for Pormpuraaw:

P. Bryan, A. Bryan, P. Bryan, C. Bryan, E. Charlie, R. Charlie, T. Charlie, L. Coleman, B. Coleman, D. Coleman, D. Coleman, G. Conrad, A. Congoo, A. Edwards, B. Edwards, K. Edwards, M. Edwards, S. Edwards, M. Glancy, R. Glancy, R. Graham, E. Holroyd, N. Holznagel, H. Jackson, J. Molyneux, J. Shortjoe, J. Shortjoe, M. Shortjoe, F. Tyore, K. Tyore, C. Waldron, C. William, D. William, D. William, G. William, S. William, S. William and C. Willie.

Many individuals were involved in compiling the *Pormpuraaw Aboriginal Shire Pest Management Plan 2016 - 2020*, developed by the Pormpuraaw Aboriginal Shire Council in association with Pormpuraaw Land & Sea Management. Assistance was also provided by Traditional Land Owners, Commonwealth and State agencies with responsibilities for pest and feral animal management, neighbours and other PL&SM partners.

Acronyms

ABS	Australian Bureau of Statistics
CYWFAP	Cape York Weeds and Feral Animal Program
CYPNRM	Cape York Peninsula Natural Resource Management Board
DAF	Department of Agriculture and Fisheries (Qld Government, including Biosecurity Qld)
DAWR	Department of Agriculture and Water Resources (Australian Government, previously AQIS)
DNRM	Department of Natural Resources and Mines (Qld Government)
DOGIT	Deed of Grant in Trust
EHO	Environmental Health Officer
NRM	Natural Resource Management
PASC	Pormpuraaw Aboriginal Shire Council
PL&SM	Pormpuraaw Land and Sea Management
PMP	Pest Management Plan
PPAG	Pormpuraaw Pest Advisory Group
DEH	Department of Environment & Heritage (Australian Government)

Reference Documents

Kowanyama, Pormpuraaw, Aurukun Weed and Pest Animal Mapping and Prioritisation Workshop Report August 2015

Pormpuraaw Aboriginal Shire Council and Pormpuraaw Land & Sea Management on behalf of Kugu, Mungkan and Kuuk Thaayorre Traditional Land Owners (2010) *Ngamp inth Wantharr Yumpnham Pormpuraaw Land & Sea Country Cultural and Natural Resource Management Plan 2010-2015*

Pormpuraaw Land & Sea Management 2015 - 2016 Workplans

Smith, N. and NT Environment Centre, *Weeds of the Wet / Dry Tropics of Australia, A Field Guide*
Cape York Peninsula Weed Pocket Book

TABLE OF CONTENTS

Executive Summary	5
Background	6
Map 1: Pormpuraaw Aboriginal Land and Waters	7
Pormpuraaw Aboriginal Lands and Waters.....	8
Pormpuraaw Aboriginal Shire Council	9
Pormpuraaw Land & Sea Management	9
Scientific Description of Pormpuraaw Lands and Waters	9
Biosecurity Management	10
An Evolving Pest Management Plan	10
Life and Operative Period of this Pest Management Plan	10
Goal of this Pest Management Plan	11
Objectives of this Pest Management Plan	11
Threats	12
Weeds of National Significance (WONS)	12
How are Pests Prioritised?	13
Further Considerations for Planning	13
Declared Pests	14
Other Relevant Management Plans	15
Methods for Prioritising Pests	15
Current Situation with Pests on Pormpuraaw Aboriginal Shire Lands.....	16
Serious Pest Plants (Declared Weeds) Found to Date at Pormpuraaw	16
Other Pest Plants (non-Declared Weeds) Found at Pormpuraaw	17
Potential Pest Plants (Weeds) of the Pormpuraaw Aboriginal Shire	18
Environmental Weeds Found At Pormpuraaw	19
Declared Pest Animals Found At Pormpuraaw	19
Threat Abatement Plans - Feral and Declared Pest Animals	20
Strategies to Achieve Plan Objectives and Overcome Obstacles	21
Objective 1: Professional Pest Management	21
Objective 2: Pest Identification and Mapping	21
Objective 3: Pest Awareness and Education	22
Objective 4: Preventing and Controlling The Spread of Pests	24
Objective 5: Community Capacity For Effective Pest Management	25
Specific Strategies to Address High Priority Pests	26
OLIVE HYMENACHNE - <i>Hymenachne amplexicaulis</i>	26
PARKINSONIA - <i>Parkinsonia aculeata</i>	28
RUBBER VINE - <i>Cryptostegia grandiflora</i>	30
FERAL CATS	32
<i>Felis catus</i>	32
Specific Strategies to Address Medium Priority Pests	34
Grader Grass - <i>Themeda quadrivalvis</i>	34
Leucaena - <i>Leucaena leucucephala</i>	36

Strategies for Low Priority Pests39

Executive Summary

The Pormpuraaw Aboriginal Shire Council ('PASC' or the 'Council') holds certain responsibilities and roles under the *Land Protection (Pest and Stock Route Management) Act 2002*, including the statutory requirement to develop a Pest Management Plan ('PMP') to address current legislation (including mandatory pest species eradication and/or control requirements) and to raise community awareness of pest management issues. Council, and subsequent ministerial, approval of a current Pest Management Plan is required for the purposes of the Act.

The goal of this document, the *Pormpuraaw Aboriginal Shire Pest Management Plan 2016 - 2020*, is:

For all community members and visitors to work co-operatively towards effective and sustainable pest animal and pest plant management on Pormpuraaw Aboriginal lands and waters, whilst maintaining respect and understanding.

The main objectives for pest animal (feral) and pest plant (weed) management on Pormpuraaw Aboriginal lands and waters (being the Pormpuraaw Aboriginal Shire) for the period 2016 to 2020 are as follows:

1. Continue to develop professional pest management strategies and practices to reduce the detrimental impacts of weeds and feral animals on Pormpuraaw Aboriginal lands and waters, using the developing expertise and skills of Pormpuraaw Traditional Owner Rangers through Pormpuraaw Land & Sea Management and in on-going consultation with Kugu, Mungkan and Kuuk Thaayorre Traditional Land Owners.
2. Continue to undertake rigorous, professional work planning for active pest management; clearly define pest management activities and related roles and responsibilities.
3. Continue to identify, survey and map declared pests present on Pormpuraaw Aboriginal lands and waters, and effectively liaise with neighbouring Shires and landholders in this respect.
4. Continue to increase visitor awareness of the negative impact of pest species; promote methods available to visitors to reduce the spread of declared pest species on Pormpuraaw Aboriginal lands and waters; and actively manage visitor activities.
5. Continue to implement actions to prevent the spread of pests species into and out of Pormpuraaw Aboriginal lands and waters, including targeted aerial management activities.
6. Continue to work closely with Kugu, Mungkan and Kuuk Thaayorre Traditional Land Owners to collaborate on Homeland pest management; to identify shared values and to gain appropriate permissions and access for pest management activities.
7. Continue to foster community capacity to undertake effective pest management through permanent full-time, professionally trained and committed employees; on-going identification of training needs and the provision of training opportunities for the Pormpuraaw Community.

The Queensland Government's Office of Climate Change released a strategic document which outlines projected climate change impacts across Cape York Peninsula (Office of Climate Change (u.d.) *Climate Change in the Cape York Region: a regional summary*. Queensland Government, Brisbane, produced as part of the ClimateQ program). Further, the Australian Government prepared a *Climate Change Adaptation Strategy (2010)* and CSIRO has produced climate change assessments.

Human-created climate change impacts are likely to occur in the Pormpuraaw region by 2050 include (amongst others) the continuing spread of new and invasive pest species, in particular pest plants (weeds). These impacts will continue to generate significant strategic, time and resource management requirements for Kugu, Mungkan and Kuuk Thaayorre Traditional Land Owners, for the Pormpuraaw Aboriginal Shire Council and the Pormpuraaw Community as a whole.

Background

The *Pormpuraaw Aboriginal Shire Biosecurity and Pest Management Plan 2016 - 2020* is the revised statutory Pest Management Plan (PMP) for Pormpuraaw Aboriginal lands and waters within the Pormpuraaw Aboriginal Shire. This Plan further becomes the Pormpuraaw Aboriginal Shire's biosecurity management plan to manage the Council's general biosecurity obligation following the *Biosecurity Act 2014* (Qld) coming into effect on 1 July 2016.

The *Land Protection (Pest and Stock Route Management) Act 2002* Qld (the 'Act') requires all local governments in Queensland to prepare pest management plans in line with a set of guidelines setting out certain objectives and operational actions consistent with the eight (8) principles of pest management described in section 9 of the Act. The relevant web reference is <http://www.legislation.qld.gov.au/LEGISLTN/CURRENT/L/LandPrPSRMA02.pdf>

The *Land Protection (Pest and Stock Route Management) Regulation 2003* Qld (the 'Regulation') apply to the implementation of the Act. Refer to <http://www.legislation.qld.gov.au/LEGISLTN/CURRENT/L/LandPrPSRMR03.pdf>

The eight (8) principles outlined in the Act are:

- ▶ **Integration** of pest management and land use (CNRM, agriculture);
- ▶ **Public awareness** and knowledge of pests must be raised for effective pest management;
- ▶ **Commitment** must be long term by community, land users and all levels of government;
- ▶ **Consultation** and partnerships at local, regional, state and national levels;
- ▶ **Planning** must be consistent at local, regional, state and national levels;
- ▶ **Prevention** through early identification and intervention, and limiting the spread of pests through human activity;
- ▶ **Best practice** in ecologically and socially sustainable pest management;
- ▶ **Improvement** in pest management activities through research, monitoring and evaluation.

Guidelines act as strategic plans for the management of Class 2 pests (targeted species advice), Class 1 and Class 3 pests (more generic advice).

This *Pormpuraaw Aboriginal Shire Pest Management Plan 2016 - 2020* will guide the activities of:

- ▶ **Pormpuraaw Aboriginal Shire Council** (the "Council" or "PASC") as Trustee on behalf of Kugu, Mungkan and Kuuk Thaayorre Traditional Land Owners, for the Pormpuraaw Aboriginal Shire, covering 4,661 km² or 466,198 hectares legally described as Title Reference 50875487 (incl. various easements, encumbrances and interests);
- ▶ **Pormpuraaw Land & Sea Management** (PL&SM) as the Council's principal delivery agent for land and sea management, cultural and natural resource management within the Pormpuraaw Aboriginal Shire;
- ▶ **Registered Lessees / Leaseholders** of certain parts of Pormpuraaw Aboriginal lands and waters; and
- ▶ **Residents, visitors and other organisations** active in the area.

Ngamp inth Wantharr Yumpnham Pormpuraaw Land & Sea Country Cultural and Natural Resource Management Plan 2010-2015 (© Pormpuraaw Aboriginal Shire Council and Pormpuraaw Land & Sea Management on behalf of Kugu, Mungkan and Kuuk Thaayorre Traditional Land Owners 2010) provides extensive background to Pormpuraaw Aboriginal lands and waters, current land and sea management activities and the cultural and natural resource management priorities of Pormpuraaw's Traditional Land Owners. *Ngamp inth Wantharr Yumpnham* also outlines the history of the Pormpuraaw Community, its geophysical location and its main agencies.

Edited extracts of *Ngamp inth Wantharr Yumpnham* are included below to provide a brief overview of the Pormpuraaw region for the purposes of this revised *Pormpuraaw Aboriginal Shire Pest Management Plan 2016 - 2020*. The former is due for revision in 2016. Full copies of *Ngamp inth Wantharr Yumpnham* are available from PL&SM care of Post Office Pormpuraaw QLD 4871 or by contacting PL&SM on (07) 4060 4155 or by email to ranger@pormpuraaw.qld.gov.au.

Map 1: Pormpuraaw Aboriginal Land and Waters

Pormpuraaw Aboriginal Shire

Area of jurisdiction of the Pormpuraaw Aboriginal Shire Council for statutory pest management purposes.



Pormpuraaw Aboriginal Lands and Waters

The place where the present-day community of Pormpuraaw is located lies within the traditional homelands of Kuuk Thaayorre (Thaayorre) people of western Cape York Peninsula, with Kugu and Mungkan homelands extending to the north. Within the Pormpuraaw Aboriginal Shire, lands, seas and waters are in part Thaayorre Country (generally the southern and south-eastern areas) and in part Kugu Mungkan Country (generally the northern and north-eastern areas).

Kugu, Mungkan and Kuuk Thaayorre Traditional Land Owners' connections to their respective homelands extends back to time immemorial (referred to by others as 'the Dreamtime'). Kugu, Mungkan and Kuuk Thaayorre peoples have managed their homelands as directed by Law and Custom over many tens of thousands of years. These connections continue today, expressed in codes and protocols transmitted via the unbroken spiritual and physical connections of Kugu, Mungkan and Kuuk Thaayorre Ancestors and Elders to these lands and waters, and to their many cultural / natural resources. Kugu, Mungkan and Kuuk Thaayorre moral codes and cultural protocols govern individual and clan access to resources and places; and related use rights and management obligations. Current archaeological evidence traces Aboriginal occupation of south-central Cape York Peninsula back to at least 37,000 years before present (BP).

The connection of Kugu, Mungkan and Kuuk Thaayorre Traditional Land Owners to the Pormpuraaw Aboriginal Shire is intimately connected to their spiritual and cultural inheritances as the land's traditional custodians. These centre around individual and clan totemic identities, and the connections between these totemic identities and particular locations across the Shire. Traditional Land Owners retain and maintain these connections into the present through their on-going relationships with Country, their Ancestors and their own identity as Kugu, Mungkan and Kuuk Thaayorre peoples.

The massive seasonally swollen but intermittent river systems of the Pormpuraaw region have sustained Kugu, Mungkan and Kuuk Thaayorre peoples over millennia. The Coleman, Edward and Holroyd (South Kendall) rivers carry freshwater from highlands far to the east, traversing across the vast grasslands and open woodlands of northern and central Cape York Peninsula. Each year during the northern Wet Season these rivers flood out onto huge floodplains; swamping their many braided channels for half the year; meandering between dunes; isolating islands of scrub; merging into salt pans. This area is known as the Northern Holroyd Plains Aggregation, a wetland of national significance. Estuaries loop along the longest of Cape coastlines - mangrove lined, intact, recharging and resilient. Huge deltas spread across the dry savannah during annual inundations, the largest is the combined Coleman - Mitchell / Alice delta.

The relationship between the land, waters and the sea in the Pormpuraaw region is of primary importance to Thaayorre and Mungkan Traditional Owners, who rely on these lands and waters each and every day for subsistence and supplementary foods; for resource materials; for their economic livelihoods, their physical health and their spiritual wellbeing. A reliance on healthy and sustainable local resources extends to the Pormpuraaw Community more generally.

Many Kugu, Mungkan and Kuuk Thaayorre families have homeland outstations on their familial ancestral lands which are part occupied during the northern Dry Season (usually May-October). Homelands include Christmas Creek, Yunmen, Maachank (Bull Lake), Melamen, Muthant, Ngakayengka, Penkelthan, Poonko, Puyil (Chillagoe Pocket), Southwell, Thaa Nhuge, Waarhurpaant, Wartoman and Yaawathn. During the Wet Season most people move back into Pormpuraaw Community to be close to services as the region is subject to regular and extensive inundation, making it generally inaccessible and isolated from November to April each year. Severe inundation occurs on an annual basis, and can be frequently exacerbated by cyclonic or other extreme weather events.

Negative impacts of concern to Kugu, Mungkan and Kuuk Thaayorre peoples range from the spiritually specific to more general environmental impacts. These concerns extend to declared and invasive pest animal and pest plant species.

The Council, PL&SM and the Pormpuraaw Community as a whole also share these concerns.

Pormpuraaw Aboriginal Shire Council

The Queensland Government enacted the *Community Services (Aborigines) Act 1984* to provide a legislative basis for community governance of Aboriginal-held community lands across the State. In July 1987, the elected Pormpuraaw Community Council assumed municipal responsibilities and acquired title over the Trust area which encompasses 4,661 km² (466,198 hectares) by way of Deed of Grant in Trust (DOGIT) title. Council as Trustee holds this title as the Pormpuraaw DOGIT on behalf of Kugu, Mungkan and Kuuk Thaayorre Traditional Land Owners.

The Council is a key employer within the Pormpuraaw region: over 50% of the Shire's population indicated they were employed by local government in the 2011 census (ABS). Employment of Pormpuraaw Shire residents is split about 50:50 full-time and part-time. A 2011 census derived demographic profile of the Shire indicates 71.5% of the population is aged 15 to 64 years, 23.5% aged 0 - 14 and 5% of the population is aged 65 years and over.

Pormpuraaw Land & Sea Management

Pormpuraaw has a dedicated Traditional Land Owner driven land and sea management agency, re-established in May 2006 after a period of dormancy due in large part to a lack of external investment. Pormpuraaw Land & Sea Management (PL&SM) and its Traditional Land Owner Ranger programme is a community priority, however remains without a dedicated Land & Sea Management operational base or centre. Office space, planning support and equipment for GIS mapping of declared weeds and marine debris recovery data continue to be key Council contributions to date.

The Pormpuraaw Community is highly supportive of the Land and Sea Management programme; PL&SM Rangers have good working relationship with the Traditional Land Owners (Rangers are Traditional Land Owners themselves); and formal and informal lines of communication with stakeholders continue to develop in scope and function well.

Scientific Description of Pormpuraaw Lands and Waters

The Pormpuraaw region of western, coastal Cape York Peninsula is located between 14.8 and 141 degrees north-west and 15.2 and 142 degrees south-east in the Cape York Peninsula bioregion. The Pormpuraaw Aboriginal Shire extends across a significant extent of the northern Holroyd Plain and the western Coastal Plains sub-regions, bound in the north by the Holroyd (locally known as the South Kendall) River, in the south by the Coleman River, by Balurga Station to the south-east, and by Southwell and Strathgordon stations to the east.

This region is characterised by its lack of surface relief, with vast plains formed by alluvium deposited from the major watercourses (the Coleman, Edward and Holroyd rivers) on their westward flow towards the Gulf of Carpentaria. These plains are further characterised by a complex network of distributary channels, levees, flood-outs and clay bottomed swamps (Taylor 1984).

Extensive coastal ridges are a further important feature in the landscape. The beach ridges, of recent origin, are a complex parallel of dune and swale (distancing less than one (1) and up to five (5) kilometres in width), forming a continuous margin along the length of the Pormpuraaw coastline, dissected only by the aforementioned major rivers.

The inland ridges, once a shoreline of Pleistocene origin also run parallel to the coast (Rhodes 1980) and are separated from the beach ridges by a low seasonally inundated chenier plain comprising largely of tussock grassland on black soil, and sparsely vegetated or bare clay flats and saltpan. These two sets of ridges have a significant influence on the region's drainage patterns. Wet season flood waters are impounded behind the chenier ridges for considerable periods, often with more than 60% of the land surface area becoming inundated for a substantial period of the year.

Biosecurity Management

This Plan will function as the Pormpuraaw Aboriginal Shire Council's biosecurity management plan from 1 July 2016.

From this date onwards, everyone in Queensland - including all local governments - will be required to take all reasonable and practical steps to minimise the biosecurity risks of their activities (their general biosecurity obligation). These requirements arise from new legislation - the Biosecurity Act 2014 (Qld) - which comes into effect on 1 July 2016.

Under the new Act, Pormpuraaw Aboriginal Shire Council can authorise a biosecurity program for the Pormpuraaw Aboriginal Shire, and can appoint authorised officers to take charge of biosecurity matters or programs in the Shire.

Biosecurity programs allow Council to be proactive in identifying and managing weeds and pest animals. The program authorisation must detail:

- the pest animal (ferals) or pest plant (weeds) concerned (the biosecurity matter to which the program relates)
- management / control / eradication activities (the purpose of the biosecurity program)
- the area where the program is going to be rolled out
- what the authorised officers can make you do to manage / control / eradicate pests (authorised officer powers)
- what you have to do if a biosecurity program affects you
- how long the biosecurity program might be in place for

A surveillance program may be authorised by government to monitor compliance, or to confirm the presence or extent of pest plants and pest animals (invasive species) or disease affecting animals or plants. A surveillance program may also monitor the effects of measures taken in response to a biosecurity risk or to confirm the absence of the pest or disease. A prevention and control program may be authorised to prevent the entry, establishment or spread of weeds and pest animals in an area or to manage, control or eradicate them to reduce a significant biosecurity risk.

An Evolving Pest Management Plan

This Plan is an evolving document which seeks to build on past experience, outcomes and achievements.

Local knowledge of the spread and impacts of pest plants and animals in different environments is one of the most important tools in any pest management strategy. Pest management within the Pormpuraaw Aboriginal Shire is an evolving process. Getting it right depends on the action and co-operation of all local and regional stakeholders over time.

On behalf of the Council, PL&SM invites contributions from all local and regional stakeholders who have local knowledge of known and emerging declared pests within the Pormpuraaw Aboriginal Shire area and on neighbouring lands. Relevant technical advice in appropriate pest control methods are welcomed to assist in further refining this Plan.

Life and Operative Period of this Pest Management Plan

To meet legislative requirements under the *Land Protection (Pest and Stock Route Management) Act 2002* Qld the *Pormpuraaw Aboriginal Shire Pest Management Plan 2016 - 2020* will have a life of four (4) years from the date of its approval by the Pormpuraaw Aboriginal Shire Council.

However, to ensure that new information is integrated during this period of time, an annual review will be conducted to make any minor required changes to the Plan.

Within six months of the expiration of the *Pormpuraaw Aboriginal Shire Pest Management Plan 2016 - 2020* a formal review will be conducted, enabling input from all stakeholders in the development of the next Pest Management Plan.

Goal of this Pest Management Plan

For all community members and visitors to work co-operatively towards effective, sustainable pest animal and plant management on Pormpuraaw Aboriginal lands and waters, whilst maintaining respect and understanding.

Objectives of this Pest Management Plan

The primary objectives for pest plant (weed) and pest animal (feral) management on Pormpuraaw Aboriginal lands and waters, and thus for the Pormpuraaw Aboriginal Shire, for the period 2016 to 2020 are as follows:

1. ***Develop professional pest management strategies and practices*** to reduce the detrimental impacts of pest plants and pest animals on Pormpuraaw Aboriginal lands and waters, using the developing expertise and skills of Pormpuraaw Traditional Owner Rangers and PL&SM, in on-going consultation with Thaayorre and Mungkan Traditional Owners.
2. ***Undertake rigorous, professional work planning*** for pro-active and follow-up pest management;
3. ***Clearly define pest management activities, related roles and responsibilities.***
4. ***Continue to identify, survey and map declared pests*** present on Pormpuraaw Aboriginal lands and waters, and effectively liaise with neighbouring Shires and landholders in undertaking these pest management tasks.
5. ***Increase visitor awareness of the negative impact of pest species***, and promote appropriate methods available to visitors to reduce the spread of declared pest species on Pormpuraaw Aboriginal lands and waters; whilst actively managing visitor activities.
6. ***Implement actions to prevent the spread of pests species*** into and out of Pormpuraaw Aboriginal lands and waters, including targeted aerial management activities.
7. ***Work closely with Thaayorre and Wik Mungkan Traditional Owners in Homelands pest management***; identify shared values and gain appropriate permissions and access for pest management activities.
8. ***Foster community capacity to undertake effective pest management in the long term*** through permanent full-time, professionally trained and committed employees; including the on-going identification of training needs and the provision of appropriate training opportunities for the Pormpuraaw Community.

Threats

Pormpuraaw remains one of the few remote communities on Cape York Peninsula that is relatively free of serious pest plants (weeds). However, it is located on the northern containment lines of several very serious pest plants, including several Weeds of National Significance (WONS) and declared pest plant (weed) species. Key pest (feral) animals are feral pigs, feral horses, feral cattle and feral cats.

Feral pigs (*Sus scrofa*) are present throughout the Pormpuraaw Aboriginal Shire, but are also a food supply for local people. Feral pigs damage homelands, damage Country, and eat smaller native animals and the eggs of native species.

Hard-hoofed animals such as feral cattle (*Bos sp.*) and feral horses (*Equus sp.*) damage Homelands, pollute and foul waterways and lagoons. Many feral cattle become bogged in wetter areas (swamps, lagoons) during the Wet Season.

Feral cats (*Felis catus*) are a serious threat to a range of native animals, in particular birds, small reptiles and mammals.

Pormpuraaw Aboriginal Rangers through PL&SM in association with the Council now capture comprehensive control data which is used in annual prioritisation work. PL&SM collaborates with neighbouring landowners wherever possible. This data is maintained and managed by the Council's Environmental Manager and PL&SM.

In terms of controlling pest species, access to country is difficult due to low relief resulting in extensive Wet Season flooding. Serious pest plant infestations and feral pig damage have also inhibited access during the Dry Season in areas.

Other key factors that contribute to difficulties in controlling pest problems include:

- ▶ Loss of traditional cultural and natural resource management knowledge and methods over several generations
- ▶ Land degradation and quantifying damage to Country and the effects of erosion.
- ▶ Ineffective and inappropriate fire management regime.
- ▶ Uncontrolled and under-managed tourist and visitor activities.
- ▶ Historic lack of consistent funding, resourcing, training and staff retention to support effective and professional pest management activities.

Changes in the local climate may see the spread of previously limited pest weeds over time.

Weeds of National Significance (WONS)

The following pest plants present within the Pormpuraaw Aboriginal Shire are recognised as Weeds of National Significance (WONS):

- ▶ Olive Hymenachne (*Hymenachne amplexicaulis*)
- ▶ Parkinsonia (*Parkinsonia aculeata*)
- ▶ Rubber Vine (*Cryptostegia gradiflora*)

WONS species and control measures are described on the website - <http://www.weeds.gov.au/weeds/lists/wons.html>

Potential WONS threats to the Shire but not yet recorded at Pormpuraaw include: Gamba Grass (*Andropogon gayanus*), Mimosa pigra (*Mimosa pigra*), Pond Apple (*Annona galbra*), Salvinia (*Salvinia molesta*) and Water Hyacinth (*Eichhornia crassipes*).

How are Pests Prioritised?

Within the Pormpuraaw Aboriginal Shire, land is primarily managed for one or more of the following values:

- ▶ Traditional cultural / natural values, resource uses and management of Country
- ▶ Nature conservation (environmental) values
- ▶ Tourism values
- ▶ Rural production and other economic values
- ▶ Residential and social values

In identifying and determining the priority pest animal and plant species included in this Plan, Kugu, Mungkan and Kuuk Thaayorre Traditional Land Owners and the Pormpuraaw Community considered all locally known and observed pest species in relation to the range of current land uses occurring within the Pormpuraaw Aboriginal Shire.

The recommendations included in this PMP are based on current best knowledge of pest ecology, rate of spread, invasion potential, available control methods and other related factors, while keeping in mind the needs for long-term sustainability of the range of land uses taking place on Pormpuraaw Aboriginal lands and waters. The content of this Plan is reviewed, revised and up-dated periodically on an as needs basis to ensure it remains current during its life.

Further Considerations for Planning

Pest management planning and implementation is not only about prioritising pest animal or pest plant species for control. It also involves:

- ▶ ***developing realistic goals and measures of success*** in control and where possible eradication;
- ▶ ***ensuring all stakeholders can work co-operatively*** in achieving the agreed pest management goals;
- ▶ ***developing stronger community awareness*** of pest species and pest management;
- ▶ ***applying professional and safe control techniques*** at all times; and
- ▶ ***applying consistent, professional hygiene measures*** in preventing new pest species from invading the Pormpuraaw Aboriginal Shire, spreading from one part of the Shire to another or moving across Shire and neighbouring boundaries.

This PMP addresses these critical pest management matters. It should be read in its entirety to appreciate the holistic, integrated approach to pest management intended to be implemented across Pormpuraaw Aboriginal lands and waters.

Declared Pests

The *Land Protection (Pest and Stock Route Management) Act 2002* and the *Land Protection (Pest and Stock Route Management) Regulation 2003* provide legislative measures to manage pests and address the impacts these species have on the environment. This Act and associated Regulation came into effect as a Queensland law on 1 July 2003.

The Act recognises the economic, environmental and social impacts of pests. It describes declared pest plant species (weeds requiring eradication or control), environmental weeds, requirements for limiting weed spread and the spread of animal pests, legal pest management planning requirements and the pest management roles of private landholders, local and State governments across Queensland.

A declared pest species (animal or plant) cannot be offered for sale, traded, or given away without a permit. People are required to take reasonable steps to not spread pest species (and serious environmental weeds) through their economic, private or recreational activities. Pest management planning, land and resource management activities for land and fresh water bodies in Queensland must take note of all declared pests. The Act requires declared pest animals and pest plants to be eradicated and/or controlled by the land holder.

There are three (3) declaration categories, common to both pest animals and pest plants. Categories and species included within these categories are listed in the various schedules to the Regulation.

The three (3) categories of declaration are:

CATEGORY	DESCRIPTION	EXAMPLES
Class 1	Not generally established in Queensland but having the potential to cause an adverse economic, environmental or social impact.	Siam Weed (<i>Chromolaena odorata</i>) Thunbergia (<i>Thunbergia grandiflora</i> and <i>T. laurifolia</i>) Mimosa pigra (<i>Mimosa pigra</i>)
Class 2	Established in Queensland and can cause significant adverse economic, environmental or social impact (including in another State).	Parkinsonia (<i>Parkinsonia aculeata</i>) Olive Hymenachne (<i>Hymenachne amplexicaulis</i>) Feral pig (<i>Sus scrofa</i>) Feral cat (<i>Felis catus</i>)
Class 3	Established in Queensland and has or could have adverse economic, environmental or social impact (including in another State).	Yellow Bells (<i>Tecoma stans</i>) Lantana (<i>Lantana camara</i>) African Tulip (<i>Spathodea campanulata</i>) Singapore daisy (<i>Sphagneticola trilobata</i>)

The Biosecurity Queensland website (http://www.BiosecurityQueensland.qld.gov.au/4790_8341.htm) provides the following advice:

A Class 1 pest is one that is not commonly present in Queensland, and if introduced would cause an adverse economic, environmental or social impact. Class 1 pests established in Queensland are subject to eradication from the State. Landowners must take reasonable steps to keep land free of Class 1 pests. It is a serious offence to introduce, keep or supply a Class 1 pest without a permit issued by Biosecurity Queensland. Penalties of up to \$80 000 apply.

A Class 2 pest is one that is established in Queensland and has, or could have, a substantial adverse economic, environmental or social impact. Management of these pests requires coordination and they are subject to programs led by local government, community or landowners. Landowners must take reasonable steps to keep land free of Class 2 pests. It is a serious offence to introduce, keep or supply a Class 2 pest without a permit issued by Biosecurity Queensland. Penalties of up to \$40 000 apply.

Class 3 pests are established in Queensland and have, or could have, an adverse economic, environmental or social impact. Landholders are not required to control Class 3 pests unless their land is in or adjacent to an environmentally significant area. It is a serious offence to introduce, feed or supply a Class 3 pest without a permit issued by Biosecurity Queensland. Penalties of up to \$20 000 apply.

Other Relevant Management Plans

There are several other plans and strategies dealing with pest management that should be considered in conjunction with this Plan. They are:

- ▶ WONS Weed Management Manuals (<http://www.weeds.gov.au/>)
- ▶ Australian Weeds Strategy 2006
- ▶ Queensland Weeds Strategy 2002-2006
- ▶ Queensland Pest Animal Strategy 2002-2006
- ▶ Cook Shire Pest Management Plan 2003-2006
- ▶ *Ngamp inth Wantharr Yumpnham* Pormpuraaw Land & Sea Country CNRM Plan 2010-2015 (review in 2016)
- ▶ Cape York Peninsula Pest Management Strategy 2006-2011
- ▶ AQIS Response Plan (Pest Lists)

Methods for Prioritising Pests

Is it a problem for Country?

Each pest animal and pest plant is rated according to what potential 'threat' (damage or harm) it can cause to sacred places or important places in Thaayorre or Mungkan traditional laws and culture; places or areas of high ecological (natural / environmental) values, and places of economic or social importance.

The threat rating can be different for different areas or habitat. The rating categories are:

- ▶ **1** **HIGH** threat
- ▶ **2** **MEDIUM** threat
- ▶ **3** **LOW** threat
- ▶ **4** No current threat

Can we achieve our aims?

An 'achievability' rating is given to each pest animal or pest plant as follows:

- ▶ **1** **ERADICATED** from a clear target area
- ▶ **2** **REDUCED** in number (animals) or in area (plants) within a clear target area
- ▶ **3** **CONTAINED** to prevent spread (plants) or large quick increases in numbers (animals)
- ▶ **4** **MANAGED** effectively with fire (aerial incendiary, mosaic/patch burning), chemical or biological control

Is it a declared pest animal or plant?

The local and state wide declaration status for each pest is noted. Considering all of the information above, each species is rated **HIGH**, **MEDIUM** or **LOW** priority.

This rating reflects strategic importance, the given 'achievability' rating, the category if it is declared, and the operational, technical, administrative, financial and social feasibility of controlling or eradicating the pest animal or pest plant.

Current Situation with Pests on Pormpuraaw Aboriginal Shire Lands

Pest management at Pormpuraaw in recent years has focused on the implementation of eradication and control of declared Weeds of National Significance (WONS), and on the mapping of known and new infestations for eradication or control and follow-up work. Work has also been done on known Class 2 pest plants.

The priority WONS at Pormpuraaw are:

- ▶ Olive Hymenachne
- ▶ Parkinsonia
- ▶ Rubber Vine

Priority Class 2 Declared Weeds at Pormpuraaw are:

- ▶ Chinee Apple



Olive Hymenachne



Parkinsonia



Rubber Vine

Serious Pest Plants (Declared Weeds) Found to Date at Pormpuraaw

COMMON NAME	BOTANICAL NAME	THREAT TO COUNTRY			ACHIEVABILITY		DECLARATION CATEGORY	PRIORITY
		Natural areas	Leases Homelands	Town and camping areas				
Olive Hymenachne	<i>Hymenachne amplexicaulis</i>	1	1	-	2	As per current eradication and control program	CLASS 2 + WONS	HIGH
Parkinsonia	<i>Parkinsonia aculeata</i>	1	1	-	2	As per current eradication and control program	CLASS 2 + WONS	HIGH
Rubber Vine	<i>Cryptostegia grandiflora</i>	1	1	-	2	As per current eradication and control program	CLASS 2 + WONS	HIGH
Chinee Apple	<i>Zizphus mauritiana</i>	1	1	2	2	Hygiene, hand pulling, grubbing, fire, cut stump, foliar spray, basal bark, lower grazing intensity, control ferals, revegetation	CLASS 2	HIGH



AQIS feral pig autopsies



Rubber Vine control



Feral pig control



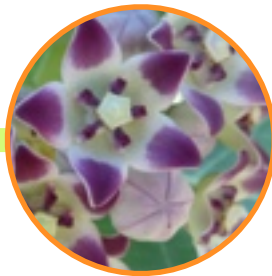
Parkinsonia control

Other Pest Plants (non-Declared Weeds) Found at Pormpuraaw

COMMON NAME	BOTANICAL NAME	THREAT TO COUNTRY			ACHIEVABILITY		DECLARATION CATEGORY	PRIORITY
		Natural areas	Leases Homelands	Town and camping areas				
Caltrop <i>Mungkan:</i> Tharwenga <i>Kuuk</i> <i>Thaayorre:</i> Tharpunkal	<i>Tribulus terrestris</i>	3	2	1	2	Hygiene, hand pulling, lower grazing intensity, foliar spray, control ferals	not declared disturbed areas, agricultural land, native vegetation pushes out natives	HIGH in camping areas and along roads
Castor Oil Plant	<i>Ricinus communis</i>	2	3	1	2	Hygiene, hand pulling, grubbing, slashing, lower grazing intensity, control ferals, foliar spray, cut stump, basal bark	not declared	HIGH around towns and homesteads. LOW in other places.
Hyptis	<i>Hyptis suaveolens</i> <i>Hyptis pectinata</i>	3	3	3	3	Hygiene, hand pulling, lower grazing intensity, foliar spray, control ferals, revegetation	not declared	HIGH along main access road.
Leucaena (Coffee Bush)	<i>Leucaena leucocephala</i>	3	-	1	3	Hygiene, hand pulling, slashing, lower grazing intensity, foliar spray, cut stump, basal bark, revegetation	not declared	HIGH
Neem	<i>Azadirachta indica</i>	1	-	2	1	Hygiene, hand pulling, grubbing, cut stump, revegetation	not declared	HIGH
Grader Grass	<i>Themeda quadrivalvis</i>	-	-	-	1	Hygiene, hand pulling, slashing, low grazing intensity, foliar spray, revegetation	not declared	HIGH
Calotrope (Rubber Bush)	<i>Calotropis procera</i>	1	1	3	4	Hygiene, hand pulling, grubbing (plants must be dried & burnt), foliar spray, basal bark, cut stump, lower grazing intensity, control ferals, revegetation	not declared - roadsides and overgrazed land	MEDIUM
Noogoora Burr	<i>Xanthium occidentale</i>	3	-	3	3	Prevent seed spread, targeted spraying when plant is flowering	not declared	MEDIUM
Candle Bush	<i>Senna alata</i>	3	-	3	3	Hand pulling, grubbing, foliar spray, cut stump	not declared	LOW
Sida	<i>Sida rhombifolia</i>	3	2	2	3 or 4 (in wet areas)	Hygiene, hand pulling, grubbing, slashing, low grazing intensity, foliar spray, revegetation	not declared - disturbed and overgrazed land	LOW



Tharwenga / Tharpunkal



Calotrope



Candle Bush



Castor Oil Plant

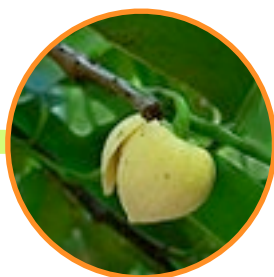
photo credits L-R: Forest & Starr (far left), CC-F Xaver (2nd from right) and Michael W, (far right) courtesy of Wikimedia Commons <http://commons.wikimedia.org>

Potential Pest Plants (Weeds) of the Pormpuraaw Aboriginal Shire

COMMON NAME	BOTANICAL NAME	THREAT TO COUNTRY			ACHIEVABILITY		DECLARATION CATEGORY	PRIORITY
		Natural areas	Leases Homelands	Town and camping areas				
Lantana	<i>Lantana camara</i>	If seen report to PL&SM or Traditional Owner Rangers			2	Hand pulling, grubbing, foliar spray, slashing	CLASS 3 + WONS	HIGH
Mimosa pigra	<i>Mimosa pigra</i>	If seen report to PL&SM or Traditional Owner Rangers			2	Quarantine, hygiene, fire, hand pulling, grubbing, foliar spray, basal bark, cut stump	CLASS 1 + WONS	HIGH
Pond Apple	<i>Annona glabra</i>	If seen report to PL&SM or Traditional Owner Rangers			2		CLASS 2 + WONS	HIGH
Salvinia	<i>Salvinia molesta</i>	If seen report to PL&SM or Traditional Owner Rangers			1	Nets, hygiene, foliar spray	CLASS 2 + WONS	HIGH
Sicklepod	<i>Senna obtusifolia</i>	1	2	2	2	Hygiene, hand pulling, grubbing, slashing, lower grazing intensity, revegetation	CLASS 2	HIGH
Singapore daisy	<i>Sphagneticola trilobata</i>	If seen report to PL&SM or Traditional Owner Rangers			2	Hygiene, hand pulling, foliar spray	CLASS 3	HIGH
Spinyheaded Sida	<i>Sida acuta</i>	3	2	disturbed, overgrazed land	3 or 4 (in wet areas)	Hygiene, hand pulling, slashing, low grazing intensity, foliar spray, revegetation	not declared	LOW
Thunbergia	<i>Thunbergia laurifolia</i>	1	1	1	2	Hygiene, cut stump, grubbing, revegetation	CLASS 1	HIGH
	<i>Thunbergia grandiflora</i>	1	1	1	2	Hygiene, cut stump, grubbing, revegetation	CLASS 2	HIGH
Water hyacinth	<i>Eichhornia crassipes</i>	If seen report to PL&SM or Traditional Owner Rangers			1	Nets, hygiene, foliar spray	CLASS 2	HIGH



Singapore daisy



Pond Apple



Water hyacinth



Salvinia molesta

photo credits L-R: Uniprot Consortium, all other images courtesy of Wikimedia Commons <http://commons.wikimedia.org>

Environmental Weeds Found At Pormpuraaw

COMMON NAME	BOTANICAL NAME	THREAT			ACHIEVABILITY	DECLARATION CATEGORY	PRIORITY
		Natural areas	Leases Homelands	Town and camping areas			
Centro	<i>Centrosema molle</i>	-	-	1	2	not declared	LOW
Grader Grass	<i>Themeda quadrivalis</i>	-	along roads	1	2	not declared	HIGH
Ipomoea sp.	<i>Ipomoea hederifolia</i>	1	disturbed habitat	1	1	not declared	HIGH – very aggressive
Khaki Burr	<i>Alternanthera pungens</i>	-	native pastures	1	2	not declared	MEDIUM
Noogoora Burr	<i>Xanthium occidentale</i>	rivers, creeks	disused land, roads	1	2	not declared	MEDIUM
Mossman River Grass	<i>Cenchrus echinatus</i>	-	along roads	1	2	not declared	HIGH
Para Grass	<i>Brachiaria mutica</i>	rivers, creeks	along roads	1	2	not declared	MEDIUM
Passionfruit	<i>Passiflora sp.</i>	-	-	1	2	not declared	MEDIUM
Stylo	<i>Stylosanthes hamata</i>	-	-	1	2	not declared	MEDIUM
Yellow Bells	<i>Techoma stans</i>	-	-	1	2	not declared	HIGH



Declared Pest Animals Found At Pormpuraaw

COMMON NAME	BOTANICAL NAME	THREAT			ACHIEVABILITY	DECLARATION CATEGORY	PRIORITY
		Natural areas	Leases Homelands	Town and camp areas			
Feral pigs	<i>Sus scrofa</i>	1	1	2	2	CLASS 2	HIGH
Dingo	<i>C. familiaris dingo</i>	3	1	1	2	CLASS 2	HIGH
Feral / wandering cats	<i>Felis catus</i>	1	2	2	3	CLASS 2	HIGH
Rabbits	<i>Oryctolagus cuniculus</i>	2	2	2	2	-	MEDIUM
Feral horses	<i>Equus caballus</i>	2	2	3	2	-	MEDIUM
Feral cattle	<i>Bos indicus</i>	2	2	3	2	-	MEDIUM
Buffalo	<i>Bubalus bubalis</i>	1	2	2	2	not declared but prohibited under the NCA (Qld)	MEDIUM

Threat Abatement Plans - Feral and Declared Pest Animals

Weeds of National Significance (WONS) is the national prioritisation framework for highly invasive pest plant species. WONS mapping for addressing the threat posed by Olive Hymenachne is provided below as an example. Each WONS is the subject of a National Priority Action Framework assessment, with related mapping, resources and technical control information available at <http://www.weeds.org.au/WoNS/>

Nationally, feral cats, feral horses, feral water buffalo, cane toads, feral pigs and feral rabbits are listed as animals of concern. The Australian Government has developed *threat abatement plans* for key feral and declared pest animals, including:

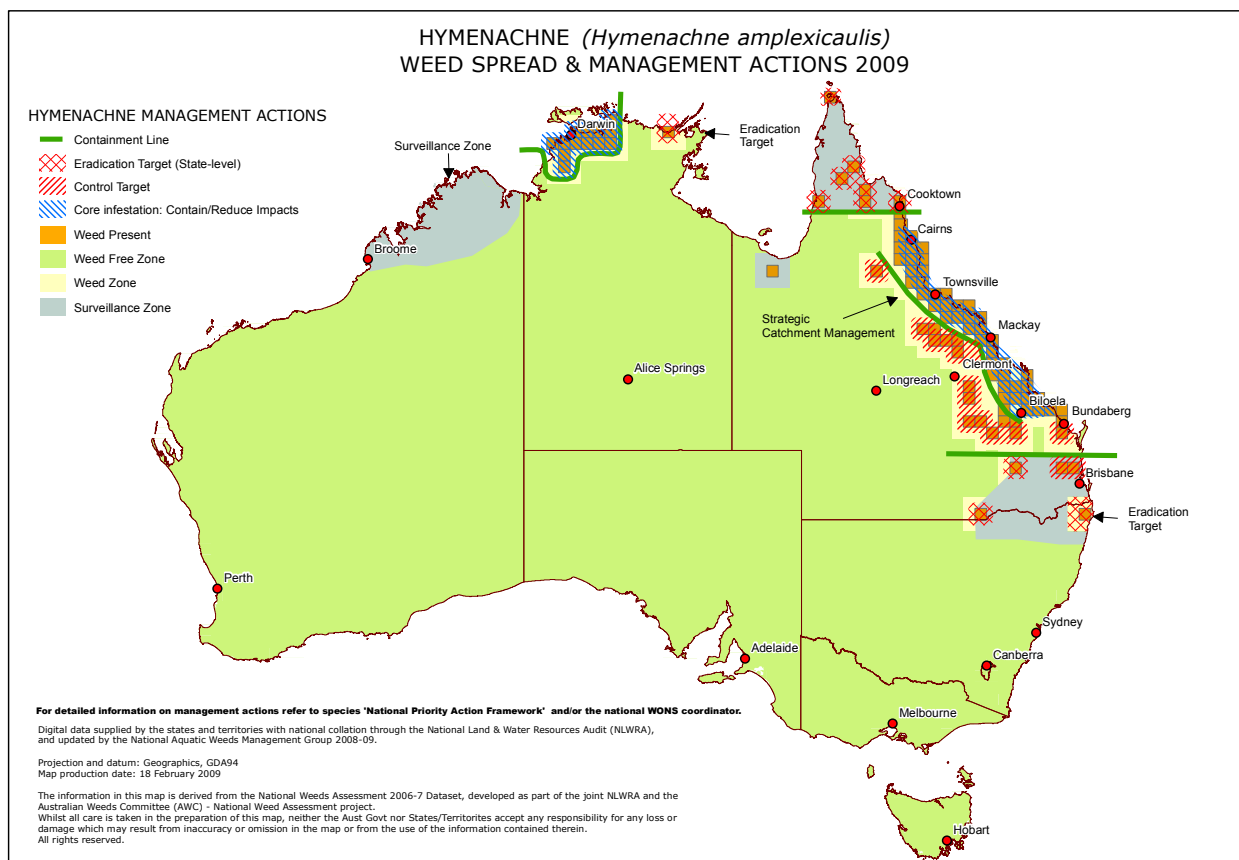
- ▶ Feral cats - background document and threat abatement plan
- ▶ Feral pigs - threat abatement plan
- ▶ Rabbits - background document and threat abatement plan

The Queensland Government has developed *pest animal risk assessments* for the following declared animals:

- ▶ Feral Horse (2009)
- ▶ Feral Pig

The Queensland Government Department of Primary Industries (Biosecurity Queensland) has also developed:

- ▶ *Feral Pig Pest Status Review*
- ▶ *Wild Dog Management Strategy 2010 - 2015* (consultation draft)
- ▶ *Wild Dogs / Dingo Economic Assessment* (2004)



Strategies to Achieve Plan Objectives and Overcome Obstacles

Objective 1: Professional Pest Management

Through consultation with Traditional Owners, develop professional pest management strategies to reduce the detrimental impacts of pest plants and pest animals throughout the Pormpuraaw Aboriginal Shire.

Objective 2: Pest Identification and Mapping

Identify and map pests present on the Pormpuraaw Aboriginal Shire and surrounding areas.

STRATEGIES / ACTIONS	WHO	WHEN
Annual inspection of priority weed spread locations – gravel pits, camp grounds, washdown facility and roadsides	CEO, PL&SM Coordinator and Traditional Owner Rangers	Refer to PL&SM Rangers annual workplan
Inspect controlled infestation sites to control regrowth and to monitor infestation limits	CEO, PL&SM Coordinator and Traditional Owner Rangers	
Training in weed identification and control	CEO, PL&SM Coordinator and Traditional Owner Rangers	
Training in GPS use and mapping, data capture methods	CEO, PL&SM Coordinator and Traditional Owner Rangers	
Training in data base management, including maintaining and updating data base.	PL&SM Coordinator and Traditional Owner Rangers	
Investigate options for security of existing data	CEO, PL&SM Coordinator	
Identify and map current weed distributions and determine potential threats to natural, cultural and economic values.	CEO, PL&SM Coordinator and Traditional Owner Rangers	

Objective 3: Pest Awareness and Education

Increase community and visitor awareness of the negative impact of pest animal and pest plant species and promote methods residents can safely undertake to reduce them.

STRATEGIES / ACTIONS	WHO	WHEN
Ensure that Traditional Owners are fully consulted during planning phase of pest control.	CEO, PL&SM Coordinator and Traditional Owner Rangers	Before pest management programs are carried out
Consider a Pest Management Group to assist with guiding and implementing the PMP across Pormpuraaw Aboriginal lands and waters.	Interested community members, Traditional Owner Rangers	On-going
Discuss pest issues at regional forums to develop regional links and strategic approaches. Regional forums include: Land & Sea Conferences, ROCCY, EHO Conferences	PL&SM Coordinator, CEO, Chairman	As required
To access CY Weed Id Deck to assist with recognition of weeds and distribute to relevant staff.	CYNRM, Biosecurity Qld (Biosecurity Queensland), PL&SM Coordinator	When funding for reprinting CYP Weed Id Decks is available
Weeds that cannot be positively identified to be sent to Queensland Herbarium for positive identification.	CYNRM, Out station Co-ordinator, PL&SM Coordinator and Traditional Owner Rangers, AQIS	As required
Investigate training options for rangers and outstation residents in safe and effective chemical handling.	CEO, PL&SM Coordinator	On-going
Identify areas of cultural and natural significance which are damaged or at risk of damage by feral animals, and develop specific plans and site monitoring to protect these.	PL&SM Coordinator	On-going
Assist traditional owners in protecting these at risk areas.	PL&SM Coordinator and Traditional Owner Rangers	Ongoing
Seek funding and assistance from NGOs and Government agencies to target weeds of national significance (Parkinsonia and Rubber Vine) and those of priority for Traditional Owners.	CEO, PL&SM Coordinator	On-going
Plan and prioritise weed management strategies in collaboration with rangers, TO's, NGOs and Government agencies and calendar an agreed work program.	CEO, PL&SM Coordinator	On-going
Hectares of risk areas identified treated and monitored.	CEO, PL&SM Coordinator	On-going
Monitor outcomes of weed work program and review annually.	CEO, PL&SM Coordinator	Annually

Current situation:

Most people in the Pormpuraaw Community are not aware of the negative long-term impacts of pests.

Many visitors to the Pormpuraaw Aboriginal Shire are unaware of the negative long-term impacts of pests.

STRATEGIES / ACTIONS	WHO	WHEN
Rangers to provide regular presentation about the negative impact of pest animals and pest plants to school children.	PL&SM Coordinator and Traditional Owner Rangers, CYNRM, Pormpuraaw Primary School	On-going - on a regular basis
Rangers to undertake regular pest animal and pest plant awareness raising activities with Thaayorre and Mungkan Traditional Owners and other Community members.	PL&SM Coordinator and Traditional Owner Rangers, CYNRM	On-going - on a regular basis
Weedbuster Week promoted with Pormpuraaw State Primary School	PL&SM Coordinator and Traditional Owner Rangers, CYNRM, CEO, Pormpuraaw Primary School	Annually
Develop and deliver regular Weed ID exercises for Rangers, Traditional Owners and other Community members.	PL&SM Coordinator and Traditional Owner Rangers, CYNRM, Biosecurity Qld (Biosecurity Queensland)	On-going - on a regular basis
Provide information posters/ pest facts on weed impacts for distribution and display in the Pormpuraaw Community.	PL&SM Coordinator and Traditional Owner Rangers	On-going
Develop pest animal and pest plant posters specific to the Pormpuraaw Community.	PL&SM Coordinator and Traditional Owner Rangers	On-going

Objective 4: Preventing and Controlling The Spread of Pests

Develop strategies to prevent the spread of pests into and out of the Pormpuraaw Aboriginal Shire.

STRATEGIES / ACTIONS	WHO	WHEN
Council and PL&SM promote to Community and visitors weed seed hygiene measures for existing Council plant equipment.	CEO, Council workers, PL&SM Coordinator and Traditional Owner Rangers	Refer to PL&SM Rangers annual workplan
Develop appropriate signage to raise public awareness of weed seed hygiene, including use of washdown facilities.	PL&SM Coordinator and Traditional Owner Rangers	
Include pest fact brochure material with camping permits.	PL&SM Coordinator and Traditional Owner Rangers, Biosecurity Qld (Biosecurity Queensland)	
Lobby Department of Main Roads to erect pest message signage on the Peninsula Development Road.	CEO, Main Roads, Cook Shire	

Objective 5: Community Capacity For Effective Pest Management

Develop community capacity to undertake effective pest management with permanent, full-time, professionally trained and committed employees, and to provide training opportunities for the wider Pormpuraaw Community.

Current Situation: Pormpuraaw has a dedicated Land and Sea Management operation, re-established in May 2006 after a period of dormancy due in large part to a distinct lack of external investment. Pormpuraaw Land and Sea Management (PL&SM) and its Traditional Owner Ranger program is a community priority, however currently without a stand-alone Land & Sea Management operations base. Office space and equipment for GIS mapping of declared weeds and marine debris recovery data are the main Council contribution to date.

The Pormpuraaw Community is highly supportive of the Land and Sea Management program; PL&SM Rangers have good working relationship with the Traditional Owners (Rangers are Traditional Owners themselves); and formal and informal lines of communication with stakeholders function well.

In 2007 the Council received long term commitment for Ranger funding from the Queensland Government via the Wild River Rangers program, enabling Council to appoint full time Traditional Owner Rangers. Despite a historical lack of continuity, considerable local knowledge has been maintained regarding land and sea management issues, cultural and natural resource management (including monitoring and surveying), management of budgets and staff and remote area operational logistics.

Key PL&SM projects undertaken to date include:

- ▶ Declared pest weed mapping and weed control (focus on Parkinsonia and Rubber Vine);
- ▶ Feral animal control (feral pig predation of marine turtle rookeries; wild dogs, feral horses, cattle);
- ▶ Involvement in marine debris removal (Ghost Nets Australia program);
- ▶ Tourism and visitor management; and
- ▶ Ranger related accredited training.

STRATEGIES / ACTIONS	WHO	WHEN
Undertake training needs assessment of requirements for Council and PL&SM to undertake effective pest animal and pest plant management.	PL&SM Coordinator	Refer to PL&SM Rangers annual workplan
Conduct informal training in all aspects of pest animal and pest plant management (eg: pig trap management techniques) for the wider Pormpuraaw Community including Homelands residents.	PL&SM Coordinator, CYNRM, Biosecurity Qld (Biosecurity Queensland), Wild River Ranger programme, SEWPaC	
Investigate funding sources to allow Land & Sea Centres to continue operating for the longer term.	Council and PL&SM	

Key Performance Indicator:

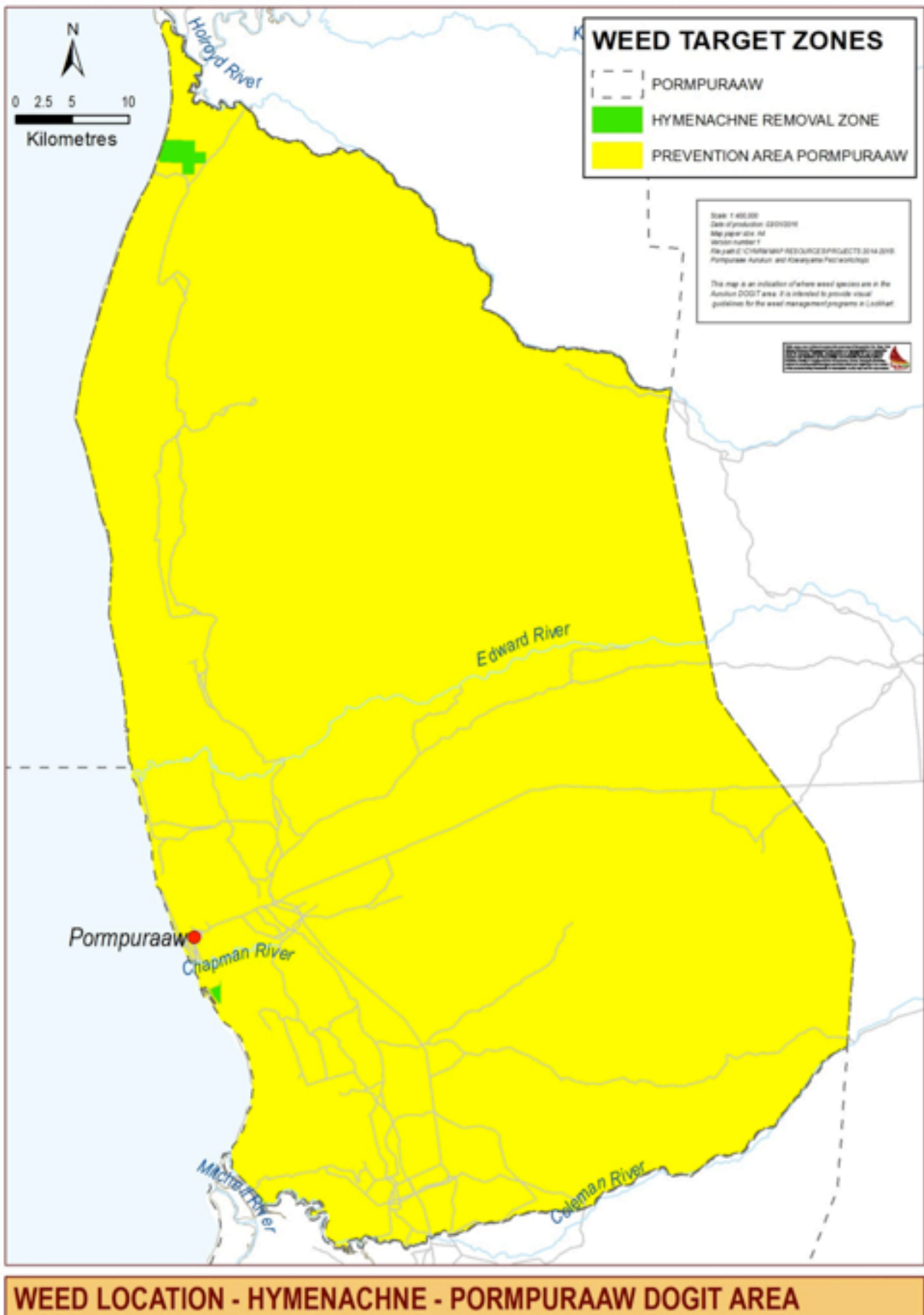
Accredited and other training of Ranger staff and community contributors. Secured longer term funding for PL&SM. Effective and positive collaboration between PL&SM and Council to deliver professional pest management services across Pormpuraaw Aboriginal lands and waters. Informal training days held for Community members and Homelands residents.

Specific Strategies to Address High Priority Pests

OLIVE HYMENACHNE - *Hymenachne amplexicaulis*



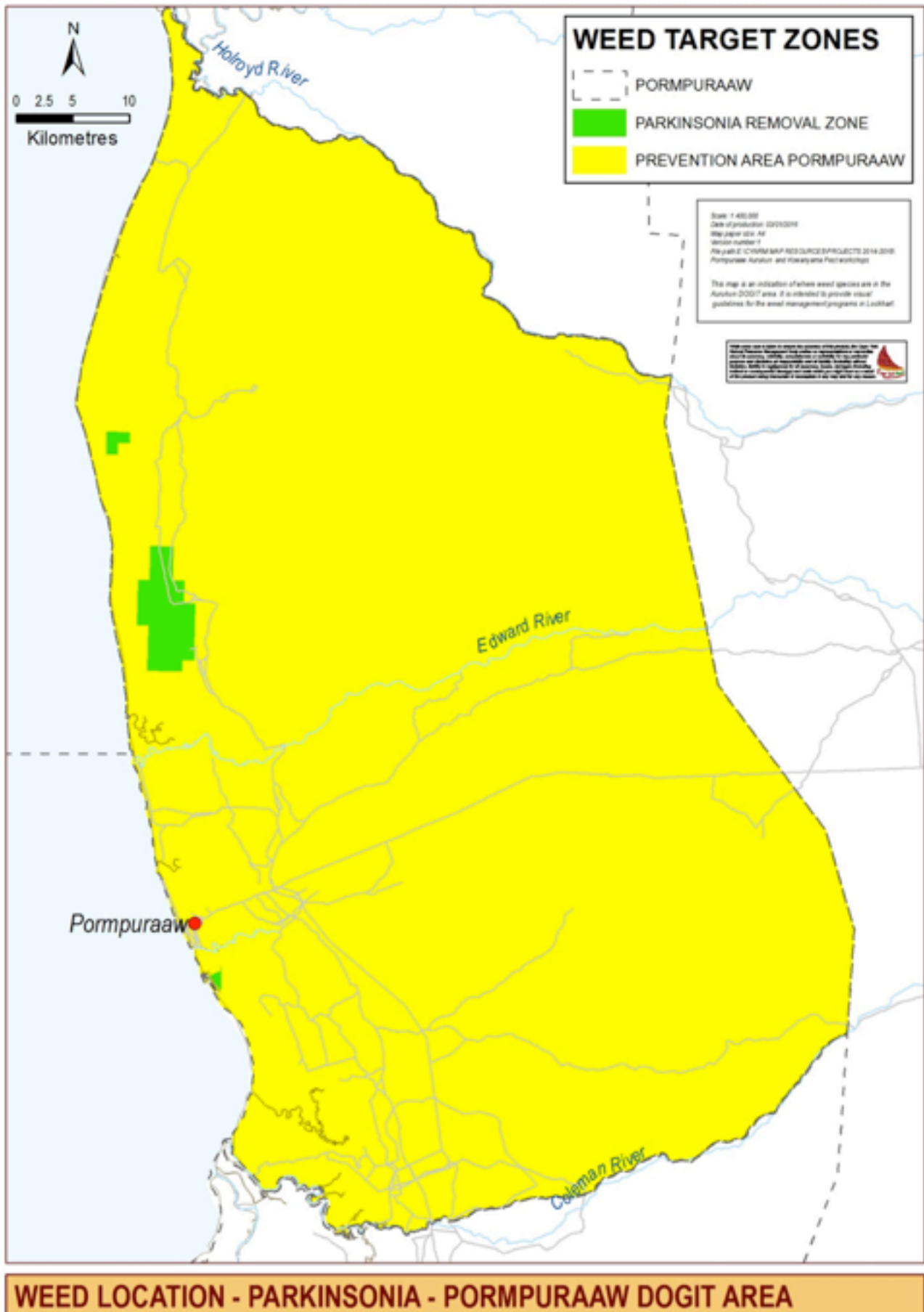
Strategic Importance	Achievability	Priority
1	2	HIGH
Background: Olive Hymenachne is an invasive, perennial, semi-aquatic grass that has potential to spread across much of northern Australia choking high conservation valued wetlands, waterways and low lying crops. Originally release for grazing and use in pondage pasture infrastructure this weed continues to spread in areas of Northern New South Wales, coastal Queensland and Northern Territory. Priority management areas have been identified for Queensland and New South Wales. Stakeholders, including Pormpuraaw Land & Sea Management, have assisted development of integrated control by implementing projects that have at least matched and supported much needed funds. These have targeted early detection, strategic control, research and awareness component of management.		
Goal: To eradicate existing infestations and prevent new outbreaks or infestations.	Performance Indicators: Area of Olive Hymenachne is reduced and no new plants established. Monitoring of all known sites and all potential new wetland sites.	
Obstacles: Community lack of awareness. Having the required control eradication resources.		
ACTIONS	WHO	WHEN
To investigate further funding to undertake control work, and to continue to collaborate with regional agencies and neighbours to seek funds for future priority control work.	CEO, PL&SM Coordinator, CYNRM, neighbours	Refer to PL&SM Rangers annual workplan
Undertake programmed control work for the period of this PMP in co-operation with CYNRM and neighbours, including follow-up work and controlling all new outbreaks. Control activities should take place every year before production of seeds.	CEO, PL&SM Coordinator, CYNRM, neighbours	
Continue to map and record all controlled infestations.	PL&SM Coordinator and Traditional Owner Rangers, CYNRM	
Map all new outbreaks of Olive Hymenachne at Pormpuraaw.	PL&SM Coordinator and Traditional Owner Rangers, CYNRM	
Investigate additional funding options to purchase equipment (including drones) for monitoring wetlands susceptible to Olive Hymenachne invasion.	PL&SM Coordinator, CYNRM,	
Continue to implement control measures and options with partners	PL&SM Coordinator, CYNRM, Biosecurity Qld (Biosecurity Queensland)	
Pest Monitoring Process: Visual inspection of sites and resurvey. Record reports from visitors, residents and staff at the Council or Pormpuraaw Land & Sea Management.		
RESOURCES NEEDED		
Permanent, professionally trained Staff	Equipment	
Operating Funds - multiyear, fee for service	Vehicle, Helicopter for aerial control in remote areas	



PARKINSONIA - *Parkinsonia aculeata*



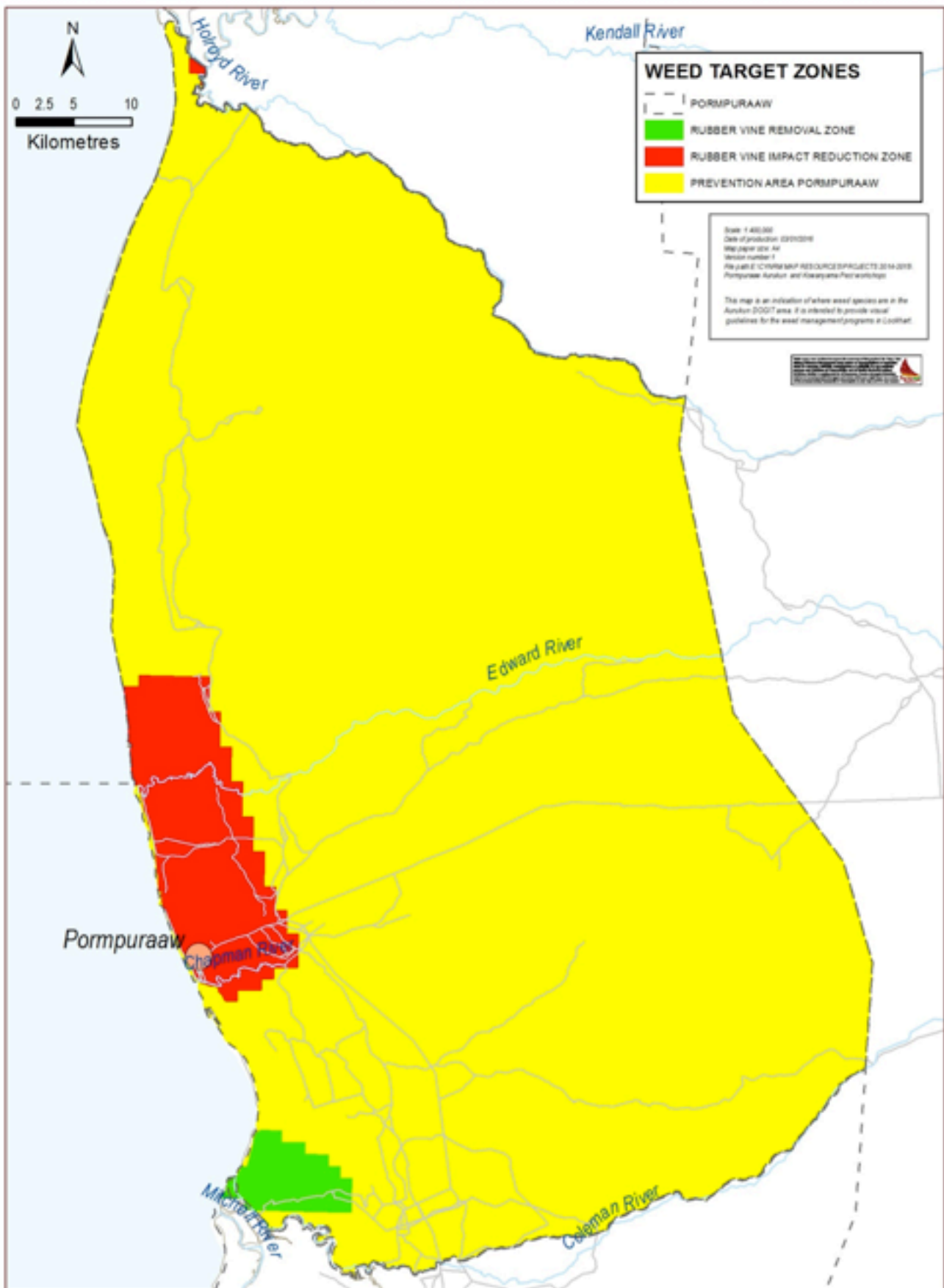
Strategic Importance	Achievability	Priority
1	2	HIGH
Background: Parkinsonia is thought to be a native of tropical America but has been spread around the world as an ornamental and shade tree. Parkinsonia has the potential to form dense stands along watercourses and bore drains. The seed's ability to float enhances its spread throughout the Pormpuraaw Aboriginal Shire over the Wet Season. The seeds have a thick and hard coat and remain viable for a number of years making control of this plant difficult. The area of Parkinsonia on Pormpuraaw Aboriginal lands and waters - while relatively small -has the potential to spread rapidly if left unchecked.		
Goal: To reduce existing infestations and prevent new outbreaks or infestations.	Performance Indicators: Area of Parkinsonia is reduced and no new plants established	
Obstacles: Community lack of awareness. Having the required control eradication resources.		
ACTIONS	WHO	WHEN
To investigate further funding to undertake control work, and to continue to collaborate with regional agencies and neighbours to seek funds for future priority control work.	CEO, PL&SM Coordinator, CYNRM, Neighbours	Refer to PL&SM Rangers annual workplan
Undertake programmed control work for the period of this PMP in co-operation with CYNRM and neighbours, including follow-up work and controlling all new outbreaks. Control activities should take place every year before production of seeds.	CEO, PL&SM Coordinator, CYNRM, neighbours	
Continue to map and record all controlled infestations.	PL&SM Coordinator and Traditional Owner Rangers, CYNRM	
Map all new outbreaks of Parkinsonia at Pormpuraaw.	PL&SM Coordinator and Traditional Owner Rangers, CYNRM	
Investigate additional funding options to purchase fencing material to construct cattle and pig exclusion zone.	PL&SM Coordinator, CYNRM,	
Continue to investigate bio-control options with partners	PL&SM Coordinator, CYNRM, Biosecurity Qld (Biosecurity Queensland)	
Pest Monitoring Process: Visual inspection of sites and resurvey. Record reports from visitors, residents and staff at the Council or Pormpuraaw Land & Sea Management.		
RESOURCES NEEDED		
Permanent, professionally trained Staff	Equipment	
Operating Funds - multiyear, fee for service	Vehicle	



RUBBER VINE - *Cryptostegia grandiflora*



Strategic Importance		Achievability	Priority
1		3 - 4	HIGH
Background: Rubber Vine first invades creeks and river systems where it smothers other vegetation to form dense impenetrable thickets. It then spreads over hillsides and through pastures. Rubber Vine has the potential to invade much of the Pormpuraaw Aboriginal Shire. Its impacts include: <ul style="list-style-type: none">• Smothering sites and restricting access to culturally significant places• Invasion and replacement of native flora and wildlife habitat• Prevention of cattle accessing watering points along rivers and creeks• Prevention of mustering, as cattle hide in thick infestations and are impossible to move• Poisonous to stock, and reducing access to fishing holes and camping areas			
Goal: To reduce existing infestations at Pormpuraaw and to prevent new outbreaks.		Performance Indicators: Rubber Vine is reduced on the Pormpuraaw Aboriginal Shire and no new outbreaks occur.	
Obstacles: Floods spread seed. Difficult to get enough fuel for a fire to burn. Many seeds per seedpod. Wide spread and intensity of the invasion. Having the required control and eradication resources.			
ACTIONS		WHO	WHEN
Investigate funding options to purchase fencing material to construct cattle and pig exclusion zone. This will allow fuel loads to build up so hot fire can be used as a tool of control.		PL&SM Coordinator, CEO	Refer to PL&SM Rangers annual workplan
Continue to collaborate with CYNRM to seek funds for future control activities and cooperative approaches under the WONS scheme.		CEO, PL&SM Coordinator, CYNRM,	
Continue with control efforts and follow-up work, map all controlled areas.		PL&SM Coordinator, Traditional Owner Rangers	
Map all new infestations at Pormpuraaw.		PL&SM Coordinator, Traditional Owner Rangers	
Continue to investigate bio-control options, including use of rust.		CEO, PL&SM Coordinator, CYNRM, Biosecurity Qld (Biosecurity Queensland)	
Pest Monitoring Process: Visual inspections.			
RESOURCES NEEDED			
Permanent, professionally trained Staff		Equipment	
Operating Funds - multiyear, fee for service		Vehicle	



WEED LOCATION - RUBBERVINE - PORMPURAAW DOGIT AREA



FERAL CATS
Felis catus

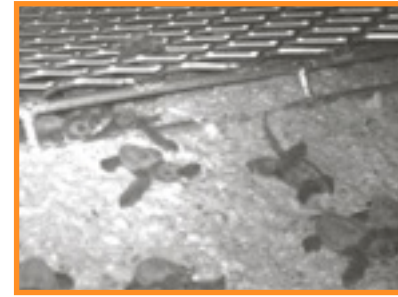
Strategic Importance	Achievability	Priority
1 (Natural areas) 2 (Agriculture areas) 2 (Town, Outstation and camp areas)	3	HIGH
<p>Background: Cats kill many different species of wildlife in large numbers. The domestic cat population continually replenishes and increases the feral cat population. Roaming pet cats also prey on native wildlife, especially birds and ground-dwelling mammals and reptiles.</p> <p>In the community, stray, feral and roaming pet cats can all have the following additional impacts: excessive noise; fighting and spread of disease both between cats and potentially to humans and odor / diggings in gardens.</p> <p>In the Pormpuraaw community there are few domestic cats however we need to ensure that these cats are managed.</p>		
<p>Goal: To reduce feral cat numbers by controlling the domestic cat population in town area</p>		
ACTIONS	WHO	WHEN
<p>Work with Council to develop and introduce by-laws to ensure domestic cats are registered and de-sexed. Develop community awareness program to promote responsible cat ownership – i.e. de-sexing; using a collared bell.</p> <p>If funding can be sourced, and Ranger Work Plans permit, work with Council to develop a domestic cat management program including consideration of registration / compulsory registration, community engagement and a trap / de-sex / release program.</p> <p>If resourcing and time permits, consider a feral cat monitoring program to measure feral cat impacts on vulnerable native species (e.g. finches)</p>	PL&SM Coordinator and Traditional Owner Rangers together with Council CEO	Refer to Council's Animal Health annual workplan
RESOURCES NEEDED		
Permanent, professionally trained Staff	Equipment	
Operating Funds - multiyear, fee for service	Vehicle	



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FERAL PIGS

Sus Scrofa



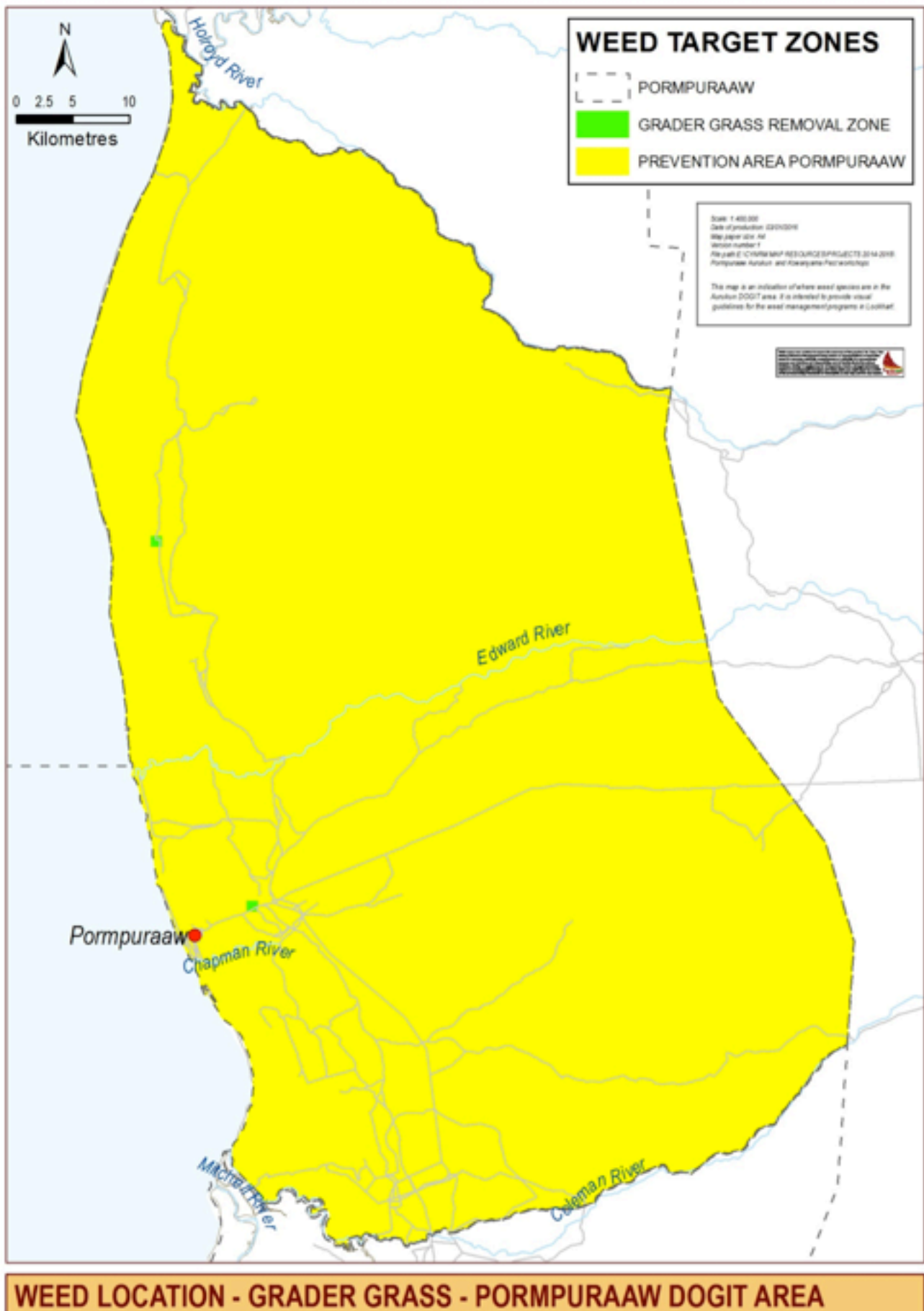
Strategic Importance	Achievability	Priority
1	2	HIGH
<p>Background: Feral pigs damage crops, stock, property, natural habitat through trampling, rooting and wallowing. Pigs also negatively impact on native wildlife by eating eggs as well as competing with or disturbing a range of animal habitats including marine turtles.</p> <p>One of the main potential problems is that pigs transmit disease and could spread exotic diseases such as foot and mouth disease if this was introduced to Australia through Cape York Peninsula.</p> <p>In the Pormpuraaw area a main concern is the impact on ground nesting bird habitat and marine turtle egg laying areas.</p>		
<p>Goal: To reduce feral pig population.</p>		<p>Performance Indicators: Evidence of feral pig damage is reduced. Predation of turtle nests is reduced.</p>
<p>Obstacles: Community attitude as pigs are considered a food source. Lack of required control resources.</p>		
<p>Pest Monitoring Process: Refer to PL&SM Rangers annual workplan for details of feral pig control program and turtle monitoring activities. Visual inspection of key areas, including turtle nests and lagoons for pig damage.</p>		
<p>Identify areas for strategic control for 1080 baiting to occur.</p> <p>Conduct informal pig trap training techniques for Homelands communities.</p> <p>Identify areas damaged or at risk of damage by feral pigs, and develop specific plans and site monitoring for priority areas.</p> <p>Monitor species composition and abundances and record changes with respect to mitigation activities, feral pig control.</p> <p>Seek advice and both technical and manual support from relevant NGOs and Government agencies in monitoring and controlling feral pigs in identified areas.</p> <p>Establish pig trapping program for the collection of epidemiological (disease) and ecological data and sell carcasses to the Crocodile Farm.</p> <p>Work with Government and NGOs in mitigating the threat of feral animals.</p> <p>Identify number of pigs required to provide sufficient income to employ 1-2 Rangers seasonally for this task.</p>	<p>CEO/ Land managers</p> <p>PL&SM Coordinator CYNRM</p> <p>PL&SM Coordinator, Traditional Owner Rangers, CEO</p> <p>PL&SM Coordinator, Traditional Owner Rangers</p> <p>PL&SM Coordinator</p> <p>PL&SM Coordinator</p> <p>PL&SM Coordinator</p> <p>PL&SM Coordinator</p>	<p>Refer to PL&SM Rangers annual workplan</p>
<p>RESOURCES NEEDED</p>		
Permanent, professionally trained Staff	Equipment	
Operating Funds - multiyear, fee for service	Vehicle	

Specific Strategies to Address Medium Priority Pests

Grader Grass - *Themeda quadrivalvis*



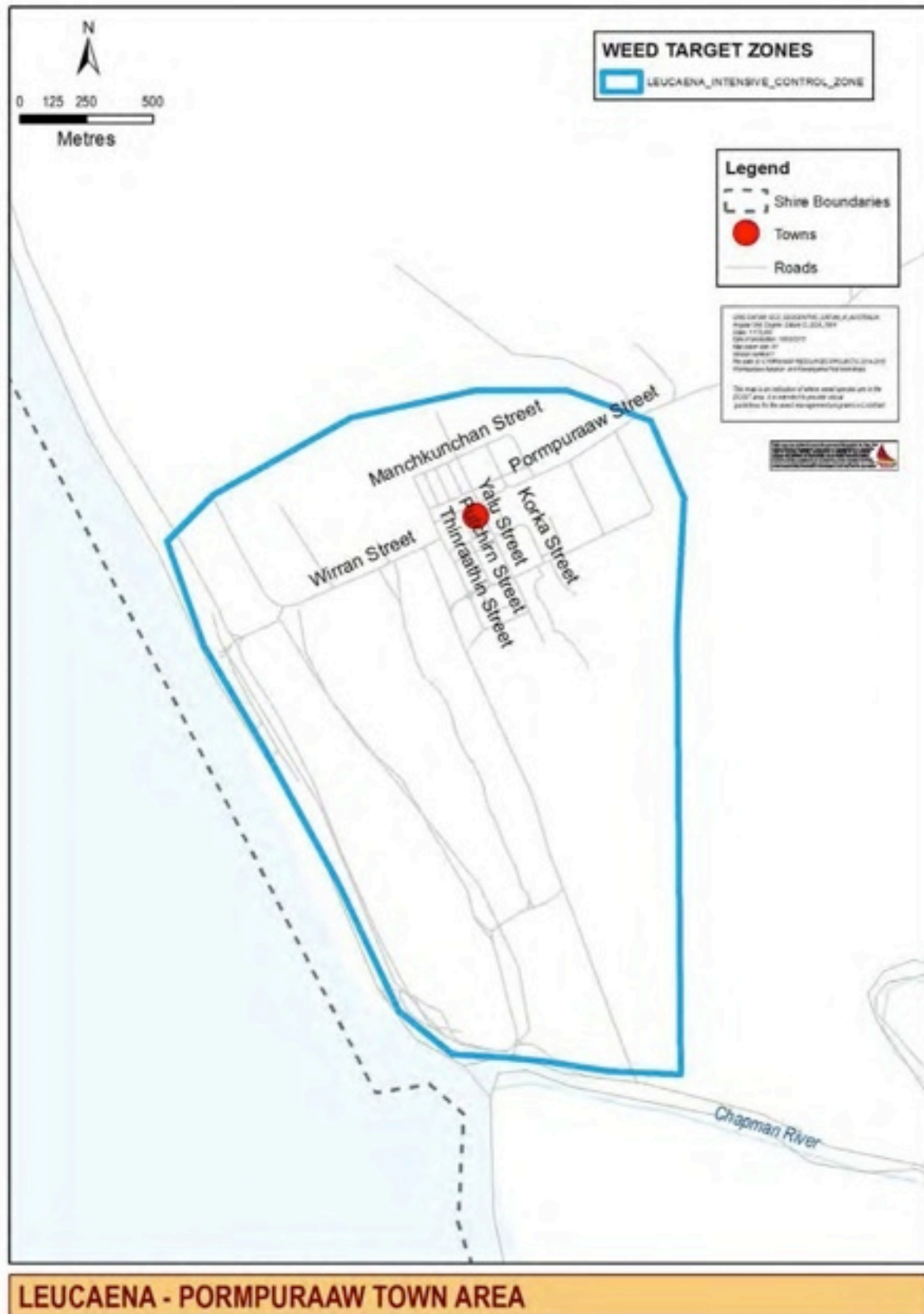
Strategic Importance	Achievability	Priority
2	2	HIGH
Background: A tufted annual grass that grows straight and can be up to 2 metres tall. Grader Grass flowers in summer and has a loose seed-head with a massed cluster of spiky seeds. Seeds can be fertile all year round given light and moisture. Grader Grass is an introduced non-native grass now widespread across northern Australia. It was originally bought in for use as a tropical cattle pasture and can invade native grasslands and other natural clearings, where it takes over areas, replacing native plants. Generally found alongside roads and in other disturbed areas. Seeds can remain fertile for up to 4 years in soil. Seed is spread by vehicles, machinery, on animals and on clothing. As the name suggests graders can also spread the seed when moving soil. Can be easily confused with native kangaroo grasses. There is a small localized infestation at Police Lagoon Ridge in the Pormpuraaw Aboriginal Shire.		
Goal: To eradicate all existing infestations and to monitor regularly to prevent any new outbreaks or infestations.	Performance Indicators: Area of Grader Grass is reduced and no new infestations established. Monitoring of all known sites, along major or other well-used roadways.	
Obstacles: Community lack of awareness. Having the required control eradication resources.		
ACTIONS	WHO	WHEN
To investigate regular funding to undertake control work, and to continue to collaborate with Council and community to secure control funds.	CEO, PL&SM Coordinator	Refer to PL&SM Rangers annual workplan
Undertake programmed control work for the period of this PMP in co-operation with Council and Traditional Land Owners, including follow-up work and controlling all new outbreaks.	CEO, PL&SM Coordinator, Traditional Land Owners	
Continue to map and record all controlled infestations.	PL&SM Coordinator and Traditional Owner Rangers	
Map all new outbreaks of Grader Grass at Pormpuraaw.	PL&SM Coordinator and Traditional Owner Rangers	
Collaborate at regional scale to ensure strategic control approach is taken at the CYP regional level	PL&SM Coordinator and Pormpuraaw Aboriginal Shire Council	
Pest Monitoring Process: Visual inspection of sites and resurvey. Record reports from visitors, residents and staff at the Council or Pormpuraaw Land & Sea Management.		
RESOURCES NEEDED		
Permanent, professionally trained Staff	Equipment	
Operating Funds - multiyear, fee for service	Vehicles	

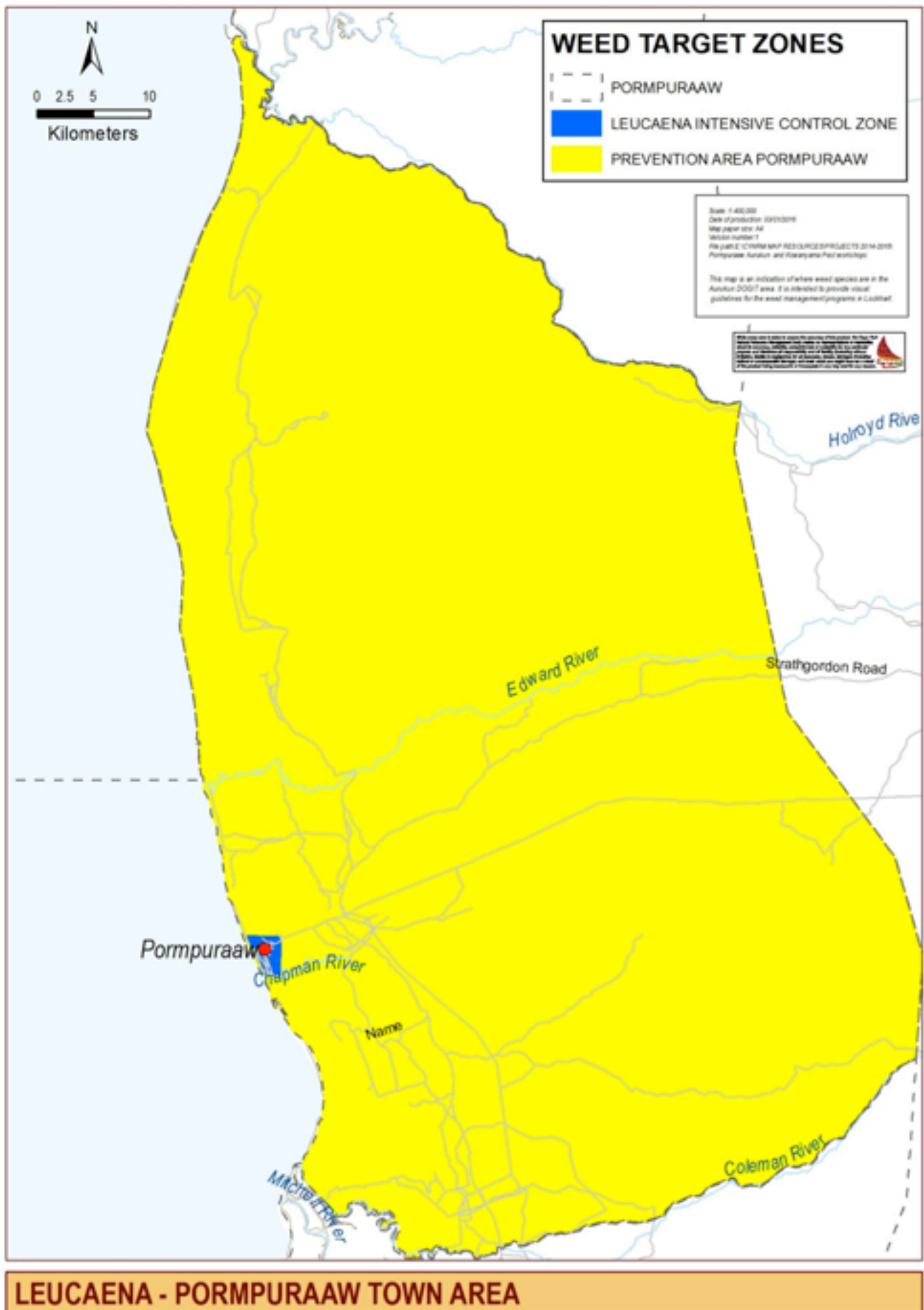


Leucaena - Leucaena leucucephala



Strategic Importance	Achievability	Priority
2	2	HIGH
Background: A small tree originally native to Central and South America, introduced into tropical areas of Australia as a fodder tree for stock. This tree grows to about 6 metres, with ball-shaped creamy yellow flowers and flat brown seed pods that grow in dense clusters. Seed pods contain about 20 glossy brown seeds, which are scattered when the ripe pods open on the tree. Leucaena flowers and fruits all year round. Forms very dense thickets that hinder the movement of wildlife and crowds out native seedlings. Found in disturbed areas or on the edges of waterways. Very rapidly invades areas where no control or grazing is taking place. Seeds spread by wind, water, cattle or machinery. Recommended removal is basal barking, cut and paint with a suitable herbicide, and hand-pulling smaller seedlings.		
Goal: To eradicate all existing infestations and to monitor regularly to prevent any new outbreaks or infestations.	Performance Indicators: Area of Leucaena is reduced and no new infestations established. Monitoring of all known sites, along roads, tracks and waterways.	
Obstacles: Community lack of awareness. Having the required control eradication resources.		
ACTIONS	WHO	WHEN
To investigate more funding to undertake control work, and continue to collaborate with Council and community to secure control funds.	CEO, PL&SM Coordinator	Refer to PL&SM Rangers annual workplan
Undertake programmed control work for the period of this PMP in co-operation with Council and Traditional Land Owners, including follow-up work and controlling all new outbreaks.	CEO, PL&SM Coordinator, Traditional Land Owners	
Continue to map and record all controlled infestations.	PL&SM Coordinator and Traditional Owner Rangers	
Map all new outbreaks of Leucaena at Pormpuraaw.	PL&SM Coordinator and Traditional Owner Rangers	
Collaborate at regional scale to ensure strategic control approach is taken at the CYP regional level	PL&SM Coordinator and Pormpuraaw Aboriginal Shire Council	
Pest Monitoring Process: Visual inspection of sites and resurvey. Record reports from visitors, residents and staff at the Council or Pormpuraaw Land & Sea Management.		
RESOURCES NEEDED		
Permanent, professionally trained Staff	Equipment	
Operating Funds - multiyear, fee for service	Vehicles	





Strategies for Low Priority Pests

WEED NAME	ACTIONS	WHO	WHEN
<i>Candle bush</i>	Encourage residents to contain candle bush plants within their yards. Control in areas outside garden areas, particularly along water courses.	Council & PL&SM, Traditional Owner Rangers, local residents	Annually
<i>Hyptis</i>	Spray annually in areas where impacting on social values e.g. parks, town common areas.	Council & PL&SM, Traditional Owner Rangers, local residents	Annually
<i>Sida</i>	Spray annually in areas where impacting on social values e.g. parks, town common areas.	Council & PL&SM, Traditional Owner Rangers, local residents	Annually
PEST ANIMALS			
<i>Feral cattle</i>	Encourage annual musters.	Land Managers (lessees, sub leases and Homelands)	Annually
<i>Feral horses</i>	Discuss management options with the community.	Council & PL&SM, Traditional Owner Rangers	On-going
<i>Stray domestic dogs</i>	Encourage responsible dog ownership – Council already has incentive scheme in place.	Council & PL&SM, Traditional Owner Rangers	On-going



Calotrope (Calotropis procera) - This non-native plant could be declared a pest weed by Pormpuraaw Aboriginal Shire Council. It is not currently declared at state or national levels. Invasive pest plant on grazed areas.