

Case Study 1

Inverleigh winning the fight against prickly acacia

1.1 Introduction

Southern Gulf NRM Ltd (SG NRM) is the Natural Resource Management (NRM) group operating in the Southern Gulf of Carpentaria region. All properties in the lower Gulf sub-region, which for Southern Gulf's purposes comprises Burke and Carpentaria Shires, are involved in the prickly acacia management program with the exception of a handful of properties which manage any infestations on their own.

Of the 20 lower Gulf properties involved, and many have been involved for up to 10-12 years, great achievements have been made on around 75% of them. Five or so still have a considerable amount of work ahead of them but from the examples of the properties approaching successful outcomes, the combination of perseverance, hard work, continuity and consistency of funding and in-kind contributions do bring rewards in the fight against prickly acacia and its propensity to transform natural grasslands into thorny scrub thickets and present a major threat to biodiversity let alone its interference to mustering, movement of stock and access to water.

There are a number of properties which could be showcased for their fight. **Inverleigh** has been selected for this case study largely because of the integration of techniques and the adaptive management practices employed since 2007.

Inverleigh, a Heslin family-owned 147 000 hectare cattle station situated on the shores of the Gulf about 40 km southwest of Normanton has been a recipient of funding through this program in 2013-2016, both directly and indirectly through a partnership arrangement between SG NRM and Carpentaria Land Council Aboriginal Corporation (CLCAC) Normanton ranger team.

1.2 Project inputs and outputs

History of prickly acacia treatment on Inverleigh - Prior to first funding in 2008, Inverleigh used their own resources to commence tackling prickly acacia in Goosey's Paddock, then a huge 10,000 ha plus in the west of the property abutting Inverleigh West from where the original infestation allegedly invaded. Originally confined to Goosey's Paddock, the spread of prickly acacia seed to other parts of the property unfortunately occurred by stock movement so treatment has become widespread with a variety of techniques applied. The photos from 2008 show the nature of the infestation at that time. High rainfall wet seasons in 2009-10 and 2010-11 exacerbated the problem by causing an "explosion" in germination and density. Australian and Queensland government funding from 2008 through to 2016 is around \$227,000 and the property has made in-kind contributions of the order of \$360,000.

Types of weed management activities - Contract basal bark spraying for the first 4-5 years focused on Goosey's Paddock where the inevitable regrowth kept on coming, then into paddocks north towards the coast. Station labour concentrated on scattered prickly acacia on sand ridges near the coast, on paddocks in the east of the property, along roads and fence lines and around water points.

The Normanton Land & Sea Ranger team have been largely basal bark spraying prickly acacia on Inverleigh since 2011 through a very successful arrangement.

In November 2014, this arrangement went further when Carpentaria Land Council (CLCAC) funds from Southern Gulf and the Qld Government's NRM Investment program were channeled into the ranger team managing the deployment of Cloncurry Mustering's helicopter-mounted Weed Sniper peelt applying device. Over 50 hours, the Sniper with pin point accuracy targeted individual scattered prickly acacia with *tebuthiuron* pellets (Graslan[®]) over an area of 28,770 ha in paddocks west of L Creek south of the Savannah Way and paddocks northeast of the Savannah Way east of Goosey's Paddock. Inspired by the success of the Weed Sniper, a further 20 hours of treatment followed in the south of the property in May 2015.

In January 2016, 75 hours of Weed Sniper operation occurred mainly to complete both the southern and northern paddocks (65,626 ha total), 50 hours from CLCAC funding and 25 hours at property expense. This was complemented by paddock ground work by the ranger team and extensive work along roads and fence lines and around dams and watering points by station staff throughout 2015, the ground work covering 3,848 ha.

Maps 1, 2, 3 show the areas plotted by the helicopter and Weed Sniper in Nov 2014 and Jan 2016 as well as the recent ground work by the rangers and station staff.

1.3 Outcomes

The on-ground works activities and capacity building associated with the “**Inverleigh winning the fight against prickly acacia**” project have achieved the following outcomes:

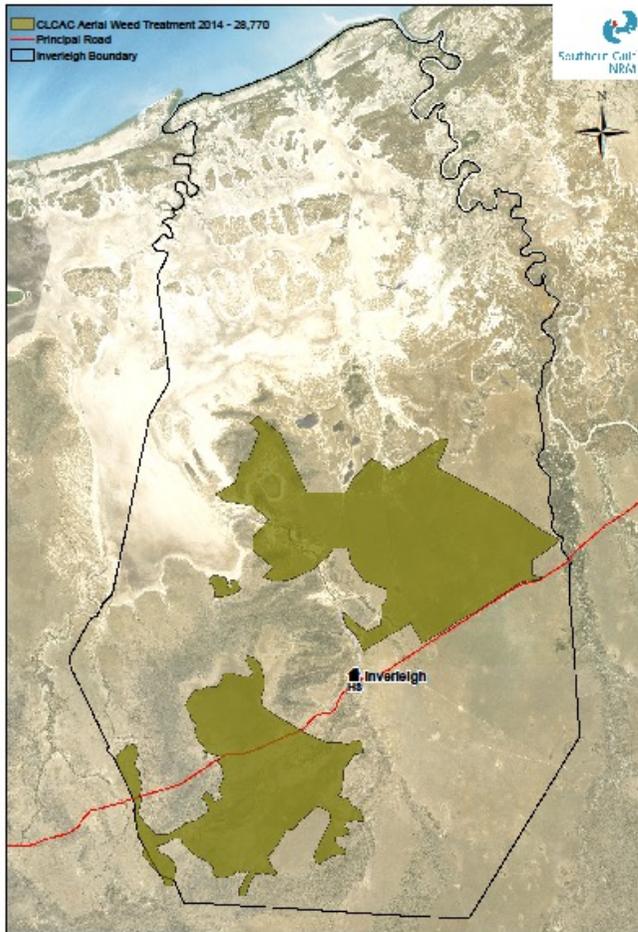
- improved understanding by project partners and participants regarding the health of the biodiversity of the system and the associated management issues;
- improved understanding by participants of the importance of consistent and persistent integrated weed management operations;
- acknowledgement by property management of the need to prevent spread of prickly acacia into uninfested paddocks by stock exclusion and restriction on movement of vehicles and machinery contaminated with seed;
- An area of the order of 80,000 hectares of the property of 147,000 ha was covered as this was the extent of scattered prickly acacia on the property;
- clear understanding by all participants of the need to carry out follow-up operations over all previously treated areas.

1.4 Conclusion

A monitoring and assessment survey on Inverleigh has indicated just how successful these consistent and persistent integrated operations have been over the past 8-9 years. It costs a lot of money and time and resources but success can be achieved in the battle against the prickly acacia invasion of valuable grazing lands.



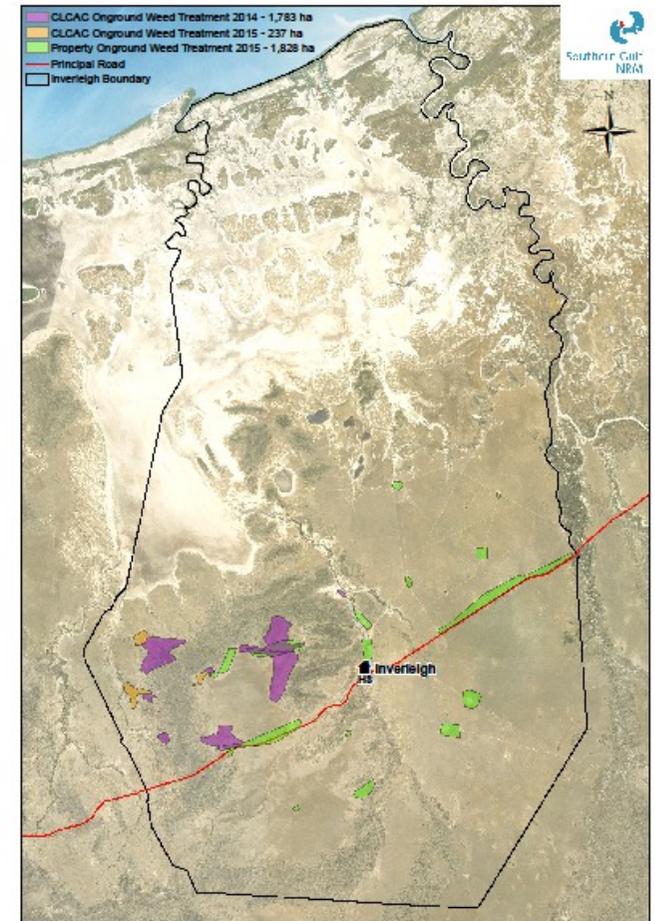
Photos 1 & 2. Prickly acacia on Inverleigh in 2008 – scattered and spreading across the vast paddocks



Map 1. Inverleigh – area of aerial treatment in Nov 2014 of scattered prickly acacia by Weed Sniper application 28,770 ha



Map 2. Inverleigh – area of follow-up aerial treatment in Jan 2016 of prickly acacia by Weed Sniper application 65,626 ha



Map 3. Inverleigh – area of on-ground prickly acacia treatment in 2014-15 by CLCAC rangers and station labour 3,848 ha