
Queensberry Track gorse control program — 2005/2006

Queensberry Track

The Queensberry Track is located in the Mount Dundas Regional Reserve. The track diverges from the Henty Road approximately ten kilometres south of Zeehan (Fig. 1). It covers approximately nine kilometres, winding through button grass plain, heathland and myrtle rainforest, before ending at an old mine, complete with adits and mining equipment. Further evidence of its mining history is the gorse growing along the track and at the mine.



Figure 1: Location of the Queensberry Track with the main gorse infestation indicated by a red box

Gorse, *Ulex europaeus*, is a perennial evergreen shrub endemic to western Europe. It was introduced to Australia approximately 150 years ago, and is now a common plant in Tasmania, growing in most environmental conditions from dry coastal heath to damp sclerophyll forest. It is especially invasive in areas of disturbed and/or infertile ground.

Gorse is designated as a weed of National Significance in the National Weed Strategy, and is a “Secondary Weed” under the Noxious Weeds Act 1964.

Anecdotal evidence suggests gorse was introduced to the Queensberry Track by heavy machinery during mining operations in the 1980’s. Since its introduction the gorse has flourished in localised areas along the track and at the mine.

Gorse eradication was initially conducted by Mineral Resources Tasmania (MRT) in 1995 and 1996 by direct cutting of mature plants, but no chemical control of regrowth, then in 2000 by spraying the trackside gorse with Grazon DS. The Parks and Wildlife Service (PWS) took over the active management of the gorse infestation in 2001 utilising an annual budget of \$5000 from the *Rehabilitation of Mining Lands Trust Fund*.

Parks and Wildlife Service Strategic Queensberry Track Gorse management program

There are five objectives for the PWS Queensberry Track gorse control project. These are:

1. remove the mature gorse and thereby limit seed production and improve site access;
2. minimise off target impacts when controlling gorse;
3. reduce the transport of gorse seeds along the track;
4. control gorse regrowth; and,
5. assist native vegetation regrowth.

To enable the objectives of the project to be met a strategic plan for the control of gorse was developed that divided the Queensberry Track and mine into seven zones based on topography, gorse growth and location. Each zone has a different management regime (Fig. 2 and Table 1).

Gorse Infestation at the Queensberry Mine Site

Following the previous years’ gorse control, the visible mature gorse infestation has been removed from the mine site so consequently the majority of this year’s effort was concentrated on removing the gorse from the access track linking the Strahan–Zeehan road to the mine.

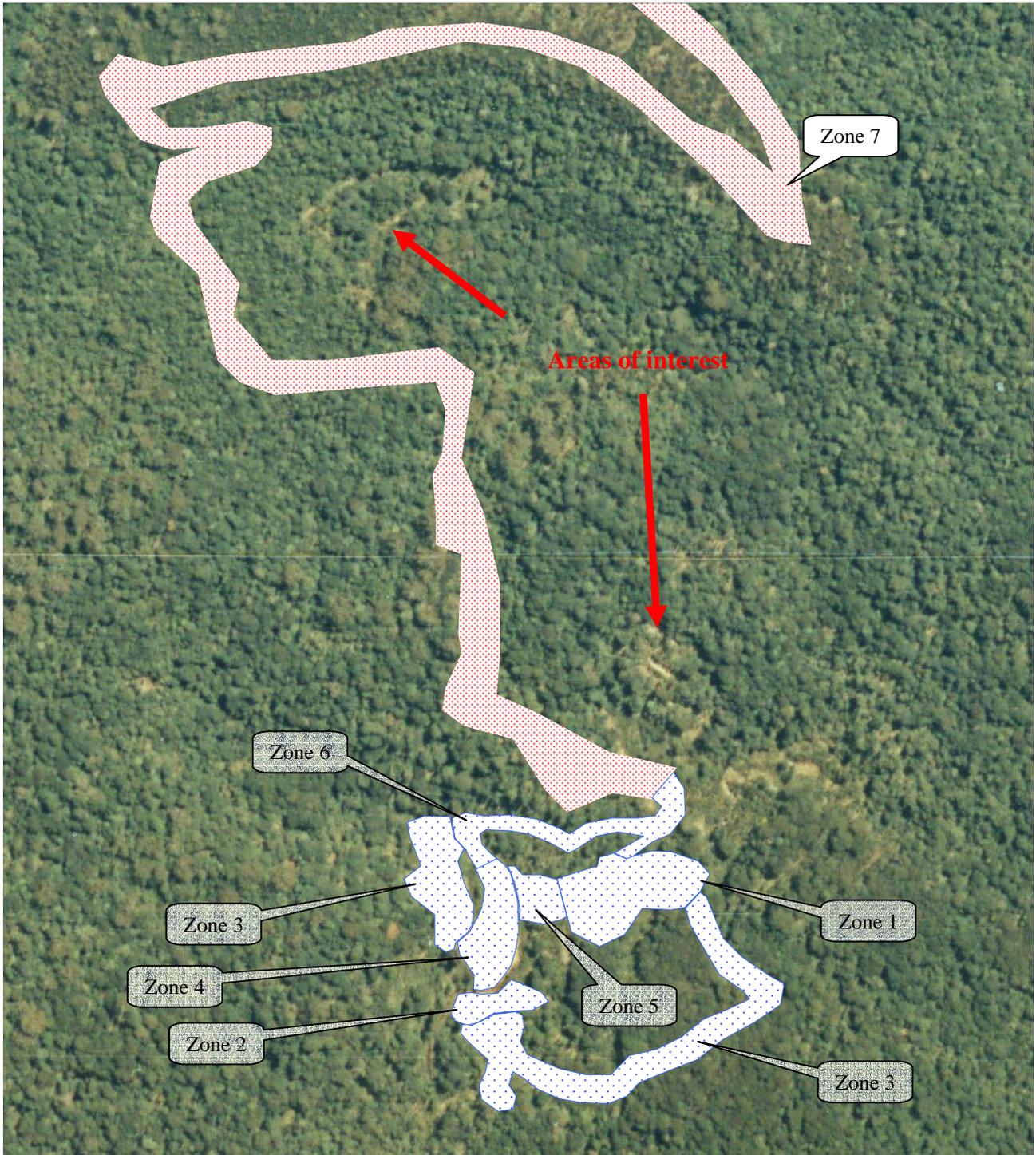


Figure 2: Gorse management zones on the Queensberry track and mine site

Table 1: Proposed management regime for the Queensberry Track gorse control zones

Zone	Description	Past Control (¹ yrs)							
		00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08
1	Area of land on the southern side of the river in the eastern block cleared for mining that extends from the river up to the rainforest. The cleared land occurs on two distinct contours. An old mining track extends to the east and west.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Area of land on the southern side of the river between the river and the rainforest	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	Old mining track on the southern side of the river approximately 15m wide extending into the rainforest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	Area of raised land at the end of the track leading to the western cleared area plus the land between the track and the creek	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5	Small stretch of thick vegetation between the eastern and western cleared areas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Track side vegetation between the eastern and western cleared areas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	Queensberry Mine Track from the mine to Strahan-Zeehan Rd	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

¹ Years are 2000, 2001, etc

Removal of mature gorse in Zone 7 by modified excavator

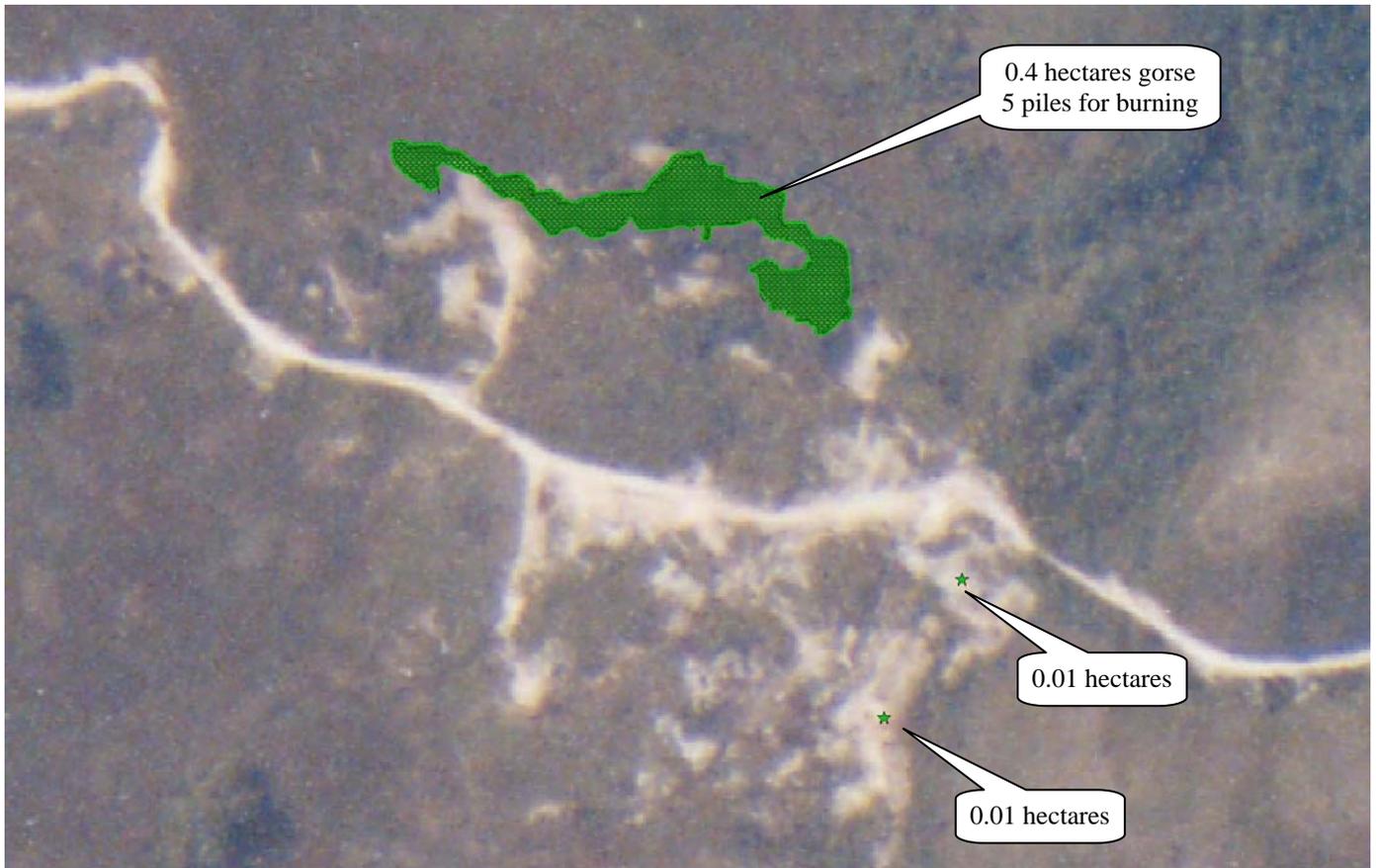
The large gorse infestations near the start of the track at the base of Professor Plateau were removed using a modified excavator (Fig. 3–5), and the gorse piled for later burning (Fig. 6–7). Approximately 0.42 hectares of mature gorse were removed.



Figure 3: Modified excavator used to extract mature gorse from Zone 7 of the Queensberry Track



Figures 4-5: Modified excavator claw used to extract whole mature gorse plants



Figures 6-7: Queensberry Track Gorse removal using a modified excavator - 2006

Removal of gorse in Zone 7 by hand pulling

The gorse located in the centre of the Queensberry Track had been previously sprayed for mixed results; the gorse browns off, but re-sprouts. Due to the poor results achieved from spraying, the gorse in the centre of the track was either hand pulled or cut and painted.

Proposed 2006/2007 Gorse Control Program

The gorse control program for the following year can be divided into two key areas; control and investigation.

Cut and paint mature gorse at the excavator site in zone 7

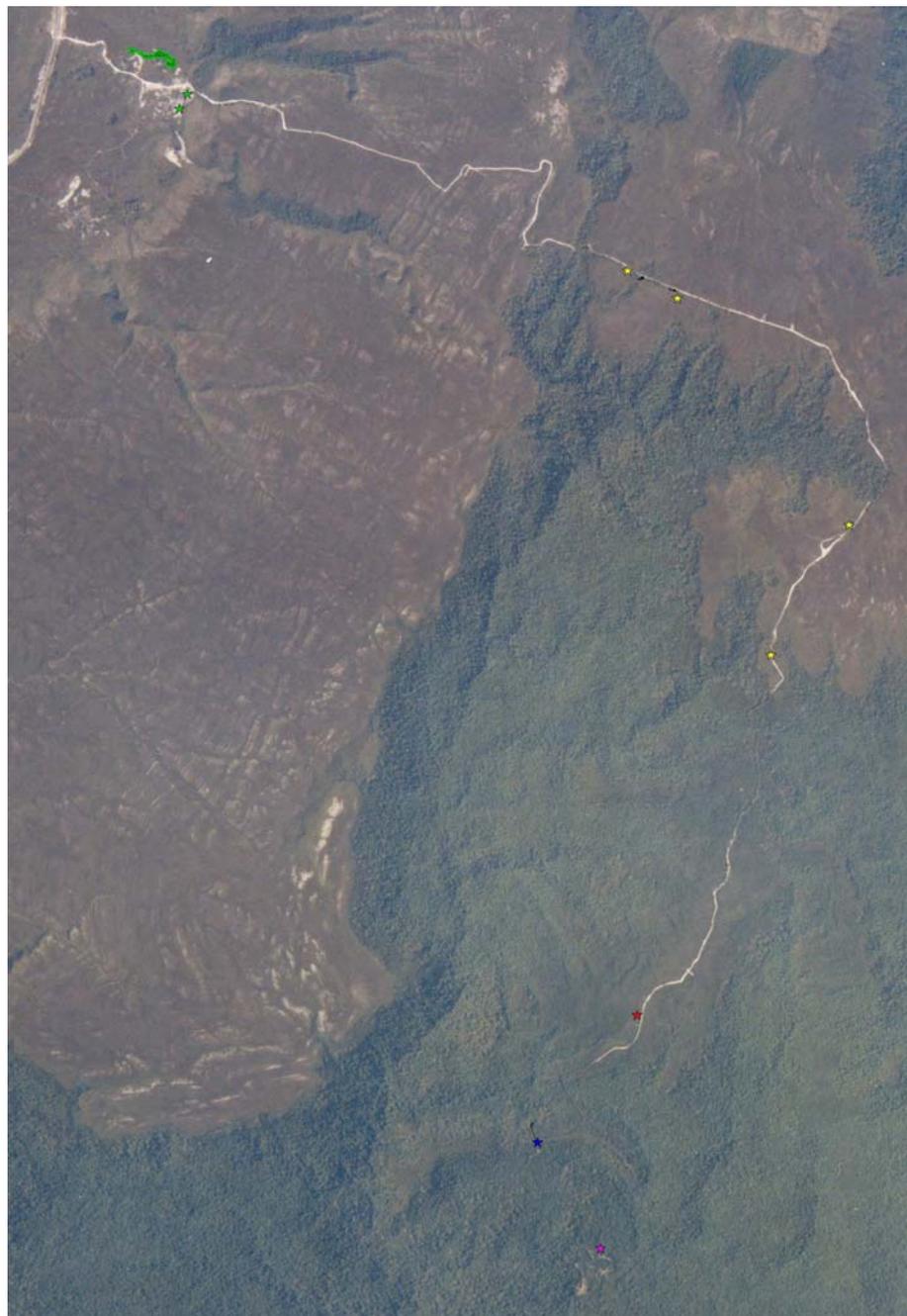
While the excavator was an extremely efficient and valuable tool for removing large amounts of gorse in a short amount of time, due to its large size there were numerous pockets of gorse nestled amongst native vegetation stands that couldn't be accessed by the excavator.

The gorse on the fringes of the excavator clearing should be removed by cut and paint technique and the resultant plants added to the piles of dead gorse.

In consultation with the Fire Management Unit, the piles of dead gorse should be burned.

Control trackside gorse in Zone 7

The gorse along the side of the track in Zone 7 should be removed by a combination of hand pulling or cut/paint techniques. The gorse should be controlled at the locations indicated by yellow, blue and pink stars on Figure 8.



Green star

(364978 / 5349970 to 364944 / 5349913)

Mature gorse removed by excavator

Yellow star

(367272 / 5347586 to 367604 / 5348108)

(366937 / 5349061 to 366738 / 5349181)

Isolated patches of gorse on edges of track. Should be hand pulled or cut/painted.

Red star (366687 / 5346128)

Illegal clearing on the western side of the track of approximately 5 x 20m. Reeds and small saplings removed and five pallets placed on site. Needs to be monitored to determine significance.

Blue star (366267 / 5345622)

Large mature gorse infestation on the eastern side of the track. Still requires treatment. Trackside gorse extends from this location back to the mine.

Pink star (366509 / 5345177)

Controlled mature gorse infestation on eastern side of road extends back 30 metres. Some re-growth

Figure 8: Queensberry Trackside gorse requiring treatment.

Spray gorse in zones 2 & 4

The gorse seedlings in these zones are at a stage where they need to be removed before they start to produce seeds. The gorse should be removed using a vehicle mounted spray unit and Roundup Bi-active (frog friendly herbicide). Care should be taken around Lode Creek to reduce off target spray entering the creek. Another consideration when controlling gorse at this location is that bee hives will be located onsite during the warmer months of the year. The bees need to be considered both from an OH&S and honey production standpoint when controlling the gorse.



Figure 9: Gorse seedling re-growth in zones 2 & 4 at the Queensberry mine

Investigate potential gorse infestation sites

As indicated in the aerial photograph of the mine site taken in 1984 (Figure 2) in addition to the gorse infestations detected and controlled by this program, there are several areas that were cleared by heavy machinery that have not to date been included in the control program. Those areas, labelled “areas of interest” should be investigated as potential gorse infestation zones.

The banks of Lode Creek should be investigated for gorse infestations downstream from the mine site on the supposition that gorse seeds and cuttings have been transported by water down the creek. A brief investigation in 2006 of the banks approximately 100 metres from the mine found mature gorse on a shingle bank. Further investigation is required.

[B. Hill]