

Mt Dundas Regional Reserve

Gorse control program for the Queensbury Mine Track - 2001/2002

Queensbury Mine Track

The Queensbury Mine Track is located in Mt Dundas Regional Reserve, a reserve declared in 1999 as part of the Regional Forest Agreement. The track commences on the southern side of the Henty Road approximately ten kilometres from Zeehan.

Queensbury Mine has a long history of mining, with adits and old mining equipment still evident at the site. Further evidence of the mining history of the site is the gorse plants growing along the track and at the mine site.

Gorse Infestation at the Queensbury Mine Site

Gorse, *Ulex europaeus*, is a perennial evergreen shrub endemic to western Europe. Gorse was introduced to Australia 150 years ago. It is now a very 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 declared a "Secondary Weed" under the Noxious Weeds Act 1964.

2001/2002 pre-control inspection

An inspection undertaken by David Gatehouse (Mineral Resources Tasmania) and Ben Hill (Ranger – Parks and Wildlife Service) on the 27th February 2002 found that the gorse kill rate from the previous years spraying was high. However, there was high incidental damage to the surrounding native vegetation, and in addition not all gorse along the QMT, and at the mine site was treated.

Juvenile gorse (<30cm) was detected growing in those areas where adult gorse from the previous year was treated. The inspection also detected pockets of untreated gorse bordering the southern end of the QMT (last 6.5 kilometres), increasing in density towards the mine. The infestation at the mine covers an area of 0.75 hectares.



Fig 1: Gorse infestation in the eastern section of the Queensbury Mine site



Fig 2: dead gorse from previous years spraying



Fig 3: Gorse infestation in the western section of the Queensbury Mine site.



Fig 4: Juvenile gorse plants amongst the previous years dead gorse.

2001/2002 control program

The gorse control program was broken into two elements: (1) the clearing of access tracks into the gorse infestation and (2) the spraying of the gorse infestation.

It was decided due to the location of the gorse infestation adjacent to the river to use the more environmentally friendly, but less effective herbicide; Weedmaster Duo. Freeway Gold was added to the herbicide as a penetrant to improve its efficacy.

Site Preparation

Paths were cut into the gorse infestation using chainsaws and brushhooks. The paths were necessary to allow the treatment of the full gorse infestation. The plants once cut were painted with a Weedmaster Duo/Freeway Gold herbicide mix within 15 seconds of the cut being made.

The clearing of paths (Fig 5) took two days for two people and was undertaken in clear weather conditions in mid March while the plants were actively growing.



Fig 5: Site preparation



Fig 6: Site preparation

Gorse Control

After site preparation the site was revisited and the gorse thoroughly coated with a Weedmaster Duo/ Freeway gold herbicide mix using a Quickmaster spray unit mounted on a four wheel drive. In order to reach the full gorse infestation approximately seventy metres of hose line was attached.

The spraying took two people two days, and was undertaken in fine weather on the 9-10th of April.

Results of the 2001/2002 gorse control program

An inspection of the gorse infestation at the Queensbury Mine site on the 12th May 2002 discovered gorse plants with a mixture of herbicide affected and green foliage (Fig 7 to 9).

Gorse branches cut eight weeks prior to the inspection are still green (Figure 10), suggesting it may be too early to determine the efficacy of the gorse control program. This is supported by the literature, which suggest that full brown-out may take upwards of six months to achieve. It is therefore important to conduct an inspection of the site in October/December 2002 to determine the effectiveness of the 2001/2002 gorse control program. From this inspection a choice of herbicide can be determined for the 2002/2003 control program.



Fig 7: Gorse infestation on the Queensbury Mine Track post-herbicide treatment



Fig 8: Gorse infestation on the Queensbury Mine Track post-herbicide treatment



Fig 9: Gorse bush on the Queensbury Mine Track still showing some green foliage 8 weeks after being sprayed



Fig 10: Gorse branch still green 8 weeks after being cut

2002/2003 gorse control program

Based on a site inspection the 2002/2003 program could include the following components:

Option 1 - Weedmaster found to be an effective herbicide for Gorse

| Task | Cost |
|---|--------|
| <ul style="list-style-type: none"> Cut and pile the gorse killed during the 2000-2002 programs in the pondage area adjacent to Lode Creek for burning in 2004. This would take 2 people five days and cost approximately | \$2500 |
| <ul style="list-style-type: none"> Spray the remaining gorse using Weedmaster. This option would take 2 people 2 days and would cost approximately | \$1000 |
| | \$3500 |

Option 2 - Weedmaster found to be an in-effective herbicide for Gorse

| Task | Cost |
|--|-------------|
| <ul style="list-style-type: none">• Cut and pile the gorse killed during the 2000-2002 programs in the pondage area adjacent to Lode Creek for burning in 2004. This would take 2 people two days. | \$1000 |
| <ul style="list-style-type: none">• Further selective clearing of the gorse to create buffers between the creek and the gorse. This would take 2 people 1 day. | \$500 |
| <ul style="list-style-type: none">• Further spraying of the site using a more toxic herbicide, most probably Garlon. This option will have cause greater collateral damage to the native vegetation, however as the 2000/2001 program illustrated it has a good kill rate for gorse. This option would take 2 people 2 days. | \$2000 |
| | \$3000 |