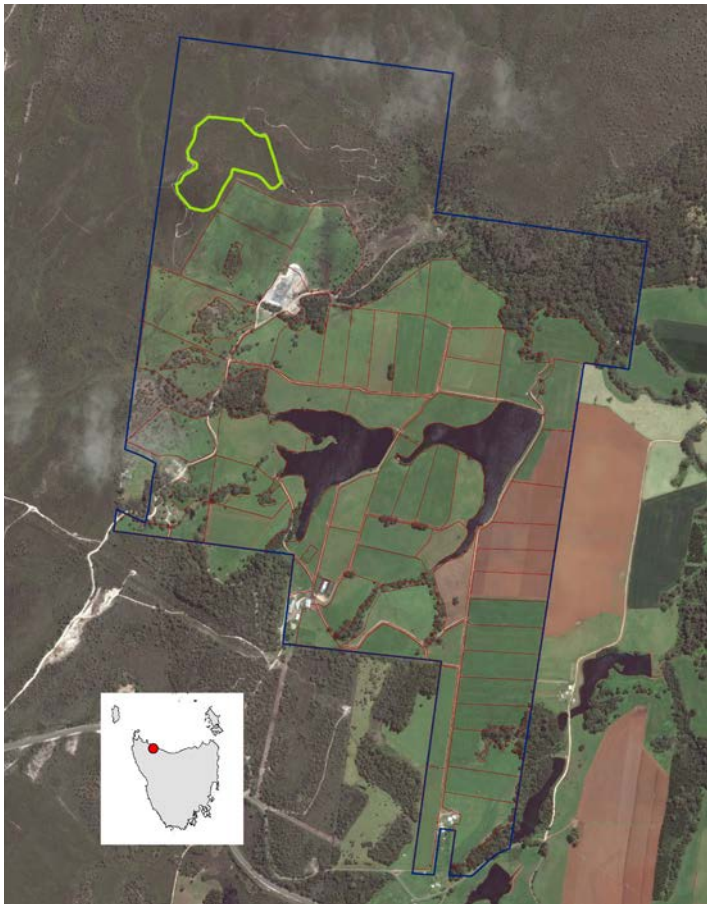
A collaborative planned burn.

Richard Duniam, Glenwood, Sisters Hills and Parks and Wildlife Service North West Region.



Aim of the burn

To improve biodiversity and reduce fuel hazards.

Background

6ha heathland located near the northern boundary of Glenwood, with Rocky Cape National Park to the north and west.

The burn unit was surrounded by rough 4WD tracks on all sides (in some cases overgrown), with similar heathland vegetation on the other side of the track. Some sections of track were noted as being hazardous (refer to lighting plan).

Parts of this unit were burnt in April/May 2005, however the overall fuel hazard rating across the unit (prior to this burn) was high to extreme and the vegetation (button grass and meleleauca) highly flammable.

The unit was situated on steep slopes (up to 70%), sloping up to the hill top on the western side of the unit.

Due to the close proximity with Rocky Cape National Park, Parks and Wildlife Service were approached for assistance in conducting this burn. The location of this burn unit was strategic for PWS and so they were able to provide support for the burn.

The window for suitable conditions for this burn was very tight and getting them proved difficult (and took 2 years).

> "PWS is a strong supporter of the Statewide Fuel Reduction project and as such we will always endeavour to provide skilled bush fire fighting resource for burns across all tenures."
>
> *Linda Walker, Fire Operations Officer, PWS*

Considerations or burning:

- Southerly wind would make boundary control difficult (northerly preferred);
- Vegetation highly flammable, so fuel moisture could not be too dry;
- Need some soil moisture to prevent soils (high in organic matter) burning;
- Tracks would become undriveable if too moist;
- Spring burn not preferred at this site due to the tight window for suitable conditions;
- Boundaries not secure;
- Resources additional to those on the farm needed.

Patrol overgrown boundaries after the edge has been lit

Burn day - 10 April 2015

5-6 days prior to the burn the unit received some light rains (5-10mm). 3-4 days prior to the burn a stable high pressure system was influencing the weather pattern, with sunny warm days.

The forecast for the day of the burn was not promising, with scattered showers in the afternoon, light winds, 19°C and 60% RH. The forecast for the few days following the burn was for showers, which was ideal. Given arrangements were in place for PWS and Tasmania Fire Service to provide additional resources, it was decided to proceed.

Fire suppression resources:
Key considerations in resourcing this burn:

- no secure boundaries.
- limited fall back lines, if it escaped.
- proximity of townships.
- condition of tracks.
- likelihood of escape and potential risks if it was to burn outside boundaries.

Richard monitors the burn progress using the ATV

"It was a good opportunity to see things from PWS point of view, and to start building a relationship with them. They are after all my neighbours! The help they have given me in doing this burn will work both ways – I am keen to help them out too in the future."

Richard Duniam, Glenwood, Sisters Hills and Parks and Wildlife Service North West Region

Hence the burn was "over-resourced" to ensure that escapes didn't happen:

- 4 x 400L slip-on foam inducted units each manned by two people
- Water refill point from paddock (through 5 min drive across paddock)
- ATV bike
- UHF hand held and vehicle radios

Lighting teams

2x lighting teams each with 1 drip torch and a fire fighting unit putting out wetlines ahead of the lighting team.

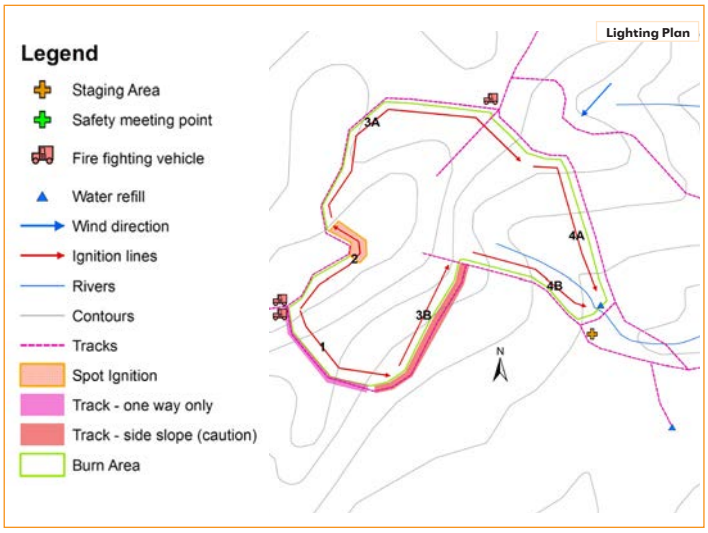
Patrol and mop up

Additional resources were on patrol and mop up. The ATV was used to monitior the burn boundaries after ignition due to the condition of the tracks. It proved to be an asset in regard to providing timely intelligence and keeping the track in reasonable condition compared to using 4WD vehicles.

The south westerly aspect of the burn unit, showing steep slopes and heathy vegetation

Once boundaries are secured use slope and wind to carry the fire

Allow time for the fire to build after lighting, and watch how it's going. Use this information to decide how to proceed with lighting (e.g. spots vs lines)



The burn plan

Secure vulnerable boundaries, and monitor fire behaviour to determine lighting pattern for remainder (if burning well, no infill required).

The tight corner on ignition line 2 (see map) had potential for escapes (fire from the two sides of the corner could draw together, over the unit boundary). This section was spot lit at 10m spacing to reduce intensity and prevent this happening.

Lit from remaining boundaries and let uphill slope and northerly wind carry the fire to areas already burnt (no internal strip lighting was required).

Apart from ignition line 2, conditions were suitable for this burn to be safely lit using lines of fire. The burn was started at 12.00 (after registering with TFS 1800 00699) and was finished by 2.15.

Weather conditions during the burn

Weather conditions were monitored regularly before and during the burn.

Time	RH	Wind	Temp
12.00	67%	NE@5-10km/hr	19°C
1.00	66%	NNW@15km/hr	19.8°C
2.15	78%	N@15km/hr	17°C

Key learnings

- Neighbours collaborating on planned burns can be beneficial for both parties. Working together creates trust and familiarity, as well as an understanding of issues specific to the burn area.
- It is hoped that this burn can set the scene for future cross tenure collaboration in planned burning. PWS may be able to use this unit as a boundary for burns they conduct in Rocky Cape National Park. A number of burn units have been burnt in the Sisters Beach and Rocky Cape areas over the past two years with more planned for the future.
- Over-resource rather than under resource where boundaries are not secure and escapes are a risk.
- ATV bike invaluable for the burn boss to quickly travel the rough tracks and monitor progress.

This case study has been prepared as part of the Red Hot Tips project delivered by Macquarie Franklin and funded by the Tasmanian Government. For more information please contact Leanne Sherriff by emailing lsherrif@macfrank.com.au or visit www.sfmc.tas.gov.au/red-hot-tips