



Fire management on Elsey Station

Elsey Station experiences wildfires almost every year. The late hot fires can damage important habitats and station infrastructure. They also threaten cattle production through the loss of important feed reserves.

Elsey Station is owned by the Mangarrayi Aboriginal Land Trust, and managed by Max Gorringe and his family. The station covers an area of 5334 square kilometres, of which 2200 km² is fenced. Of the total area, approximately 10 per cent of the station is river country, 15 per cent black soil, 60 per cent red sandy country and 15 per cent made up of ridges. Elsey currently runs 7000 breeders, with a total of 13,000 head.

Fire-management practices

Aerial Control Burn (ACB) lines are burnt early/mid dry season every year as a means of reducing fuel along and within boundaries to reduce the risk of late dry season fires moving onto the station late dry.

Much time is spent grading and maintaining fire breaks and fencelines, especially in the bush paddocks south of the Roper Highway. There are two cuts graded around southern fencelines every year, with fencelines along highway graded every few years.

A grader driver is employed full time throughout the duration of the dry season. Half of the time the grader is in operation is spent on grading fire breaks, the other half is maintaining and upgrading fencelines (which serve also as fire breaks).

Strategic and controlled burning is also carried out throughout the year to reduce fuel loads and reduce woody tree and shrub growth.

Traditional Owner Billy Fullton carries out strategic burning along the road and boundaries when fuel conditions are optimal for sustaining small patchy fires to reduce fuel loads. This burning is carried out from vehicle and only requires matches and a 4WD.

Max opportunistically burns in the wet

season to remove old dry growth within paddocks. This involves approximately 20 hours/year burning from the air with capsules. Preventitive back burns are carried out along graded fencelines and breaks when time allows. This type of burning requires a continuous line of fire to penetrate the paddock to create a wide enough break to reduce spread of wildfires over the breaks later in the year. Toyotas, slip on units and drip torches are required for this more intensive controlled burning.

Source of wildfires

A majority of wildfires penetrating the Elsey boundaries come from the Eastern side from Hodgson Downs. Many fires are sourced from parking bays along the Roper Highway and are caused by careless use of fire by people passing through to Roper Bar. The Stuart Highway and old Elsey cemetery are also the source of many wildfires. The Mataranka Shire council is responsible for the fires burnt at the old cemetery and this area has been burnt seven times over the last seven years. Most wildfires occur between August and October.

Yearly costs for wildfire prevention (see o'leaf for 1999 costs)

Grading 2 cuts along Roper & Stuart Hwy's. Sthn fence and boundary (Grader \$100/hr) 7 days/week for 3 weeks, 8 hours/day (1 grader = 168 hours)	\$16,800
Back burning off sthn fenceline (9 hrs) then follow-up patrol and mop-up (35 hrs) Landcruiser and 2 people \$75/hr. One person for mop-up @ \$25/hr	\$1,550
Opportunistic burning within paddocks from the air	\$6,240
Capsules (600 used per year)—Capsule plus Glycol @ 25 cents each	\$150
Opportunistic patch burning boundaries & fencelines (1 drum of diesel)	\$110
Aerial Control Burning 1.4 hrs burning time, ferry, wages & equipment	\$1,500
Total \$ spent on wildfire prevention	\$26,350

Yearly grading costs

Grading breaks & fencelines within paddocks.
Fuel 6000 litres/year @ 80cents/litre
Labor costs to employ grader driver 6 months/year, 6 days/week @ \$90/day

Total: \$17,760

Fire-fighting equipment

- One Capsule thrower
- Two slip-on units;
- One grader;
- Four 4WDs;
- Three drip torches;
- One ultra light plane;
- UHF radios in two 4WDs;
- Three hand-held radios.

Future fire management

Plans to develop more country on Elsey will involve fencing the far northern portion of Elsey and the area south west of the Roper highway. Fire control in these areas will get much easier with more developed infrastructure, as access will improve and new fencelines will serve as breaks. Fencing will increase carrying capacity within paddocks and will consequently lead to reduction in fuel loads due to more efficient grazing regimes.

Costs for fire-fighting, 1999

Grader (2) & vehicle maintenance, tyres, fuel & oil	\$31,000
Replacement of damaged infrastructure (replacement of 1 4WD)	\$32,000
Aircraft running costs	\$7200
Labor (six men for four weeks—fire fighting and moving stock)	\$12,400
Mustering costs after the fire 12 chopper hours @ \$312/hr/wet	\$3744
Total costs 1999	\$86,344

In 1999 two-thirds of Elsey station was burnt between August and October. Costs were astronomical compared to the usual yearly expenses.

For more information about land-management issues in northern Australia, go to the Savanna Explorer section of our website at <http://savanna.ntu.edu.au/>

For information about the Centre's extensive research program go to our research section.

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