



An outline of prescribed fire in Southern Pine plantations in Queensland

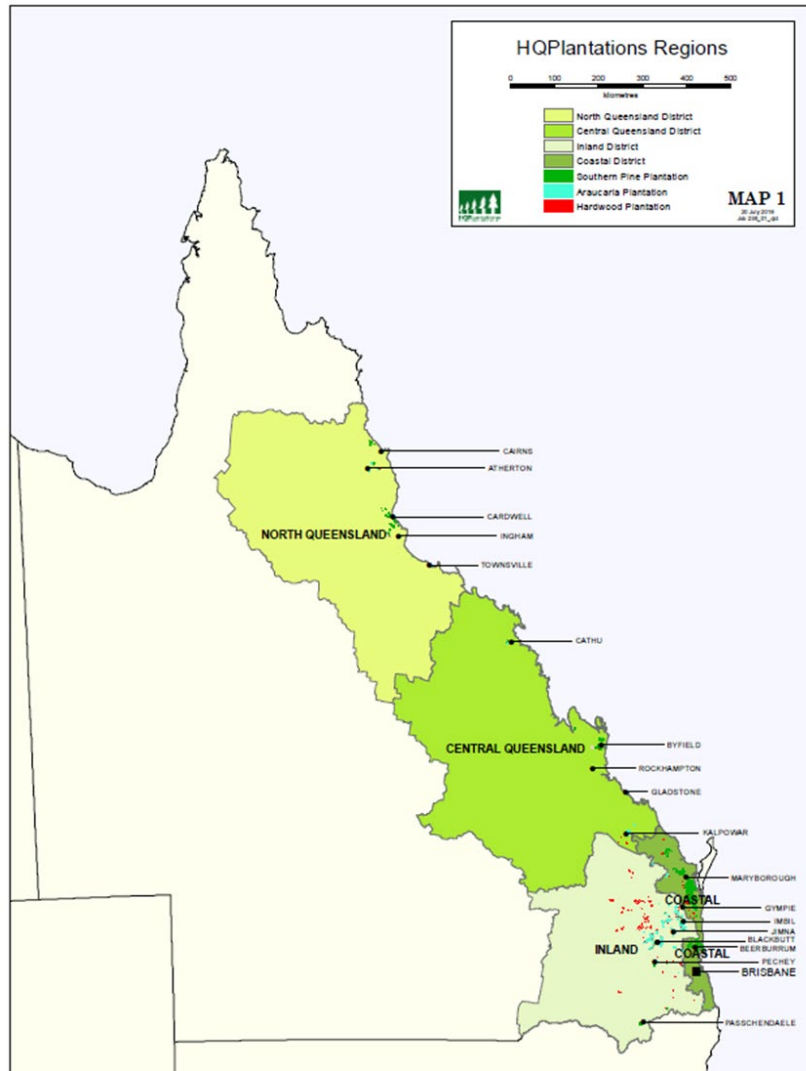
*Session # 3 Wednesday 26 June 2024
Tom Clapson*



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Introduction to HQPlantations



- HQP is Queensland's predominant plantation grower
- Manage 300,000ha of land, of which about 200,000ha is plantation – 40,000ha of native Araucaria and 160,000ha of Southern Pine
- Managed under a Plantation Licence with the State
- Primary fire management responsibility is with HQP
- Registered Plantation Rural Fire Brigade
- 300 trained fire fighters, 60% of which are contractors
- HQP obtains an annual fire permit with conditions.
- Prescribed burning occurs both native forest buffers and southern pine plantations, but not Araucaria plantations.
- Autumn – winter program
- Aim to burn between 5 to 10% of the flammable estate annually

Fire Management Principles

HQP *Fire Management Policy and Corporate Fire Standard 1.1:*

- **Principle 1** – The health and safety of our people is our highest priority
- **Principle 2** – Protect our assets through sound risk and commercial management practices
- **Principle 3** – Fire management is primarily based on prevention, early wildfire detection, and weighted suppression
- **Principle 4** – Foster key partnerships and work collaboratively with all stakeholders in fire management



Types of Southern Pine Plantation Prescribed Burns

First Burns

- Age 8-10 when trees have reached an average predominant height of 10 metres.
- May be pushed out to 11-12 years in areas with heavy fuel types or stands are slow growing.
- Primary aim is to change the fuel structure viz reduce ladder fuels.

Second Burns

- 3 years after the first burn.
- Primary aim is to reinforce first burn and reduce fuel loads.

Later Age Burns

- Primary aim is to reduce the fuel load and provide additional protection in high-risk areas

Aim – Burn is conducted safely, approx. 75% consumption of fine fuels with retention of duff layer. Minimum 60 to 80% area burnt in a mosaic pattern. Severe scorch not to exceed 1%, moderate scorch does not exceed 5%. Fire is contained to planned boundary.

Burn preparation & conditions

- Detailed preparation & planning is critical
- Environmental conditions considered
- Patrolled in field & monitored from fire control room



First Burn Outcome Examples



Second Burn Outcome Examples



Later age burn examples



Three-year tactical burn plan

A rolling three-year tactical burn plan enables an enhanced view on future risk based on current fuel levels and previous burning undertaken.

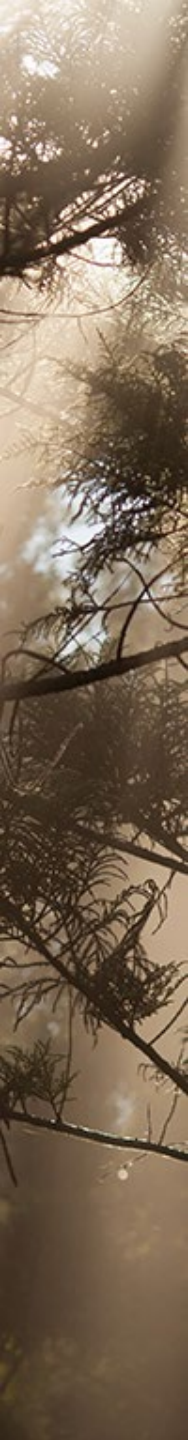
Factors considered:-

- Area of scheduled burning (HQP and other stakeholders);
- Recent wildfire events that have contributed to a reduction in risk profile;
- Risk to and from adjoining land uses;
- Areas of high frequency arson;
- Respective fuel load and type;
- Strategic break-up of the estate;
- Protection of infrastructure;

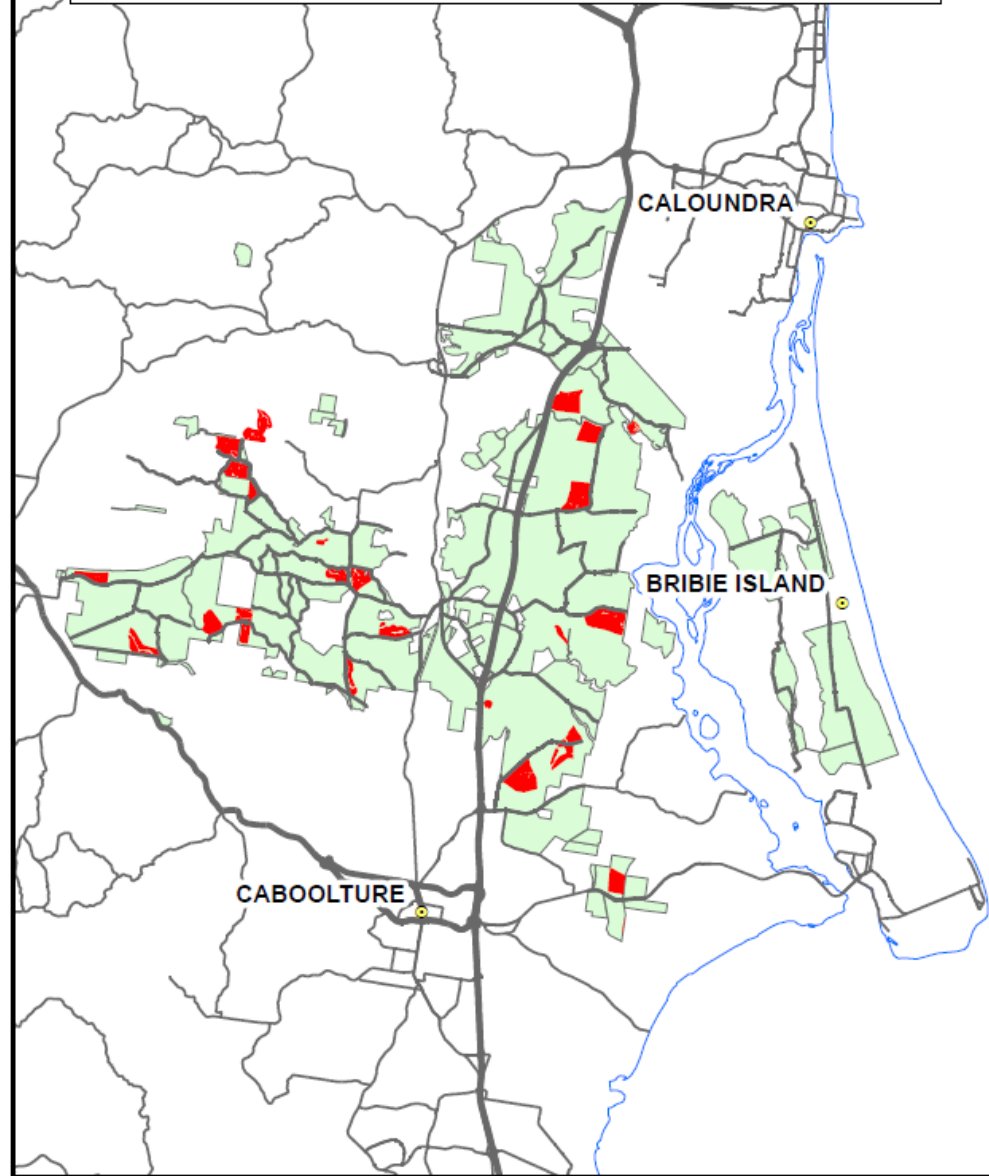




Coastal Region tactical 3-year fuel reduction plan

Activity Type	Calendar Year		
	2022 Ha	2023 Ha	2024 Ha
1st burns	2,046	1,464	4,135
2nd burns	3,286	2,861	1,764
Later Age burns	4,164	3,527	5,131
	9,495	7,852	11,030
Coop burn	2,041	2,594	2,933
Chemical app	56	159	
Mechanical application	719	1,522	
Native Forest burns	4,264	3,786	5,556
	16,576	15,912	19,519



Beerburrum Prescribed Burns Completed 2023



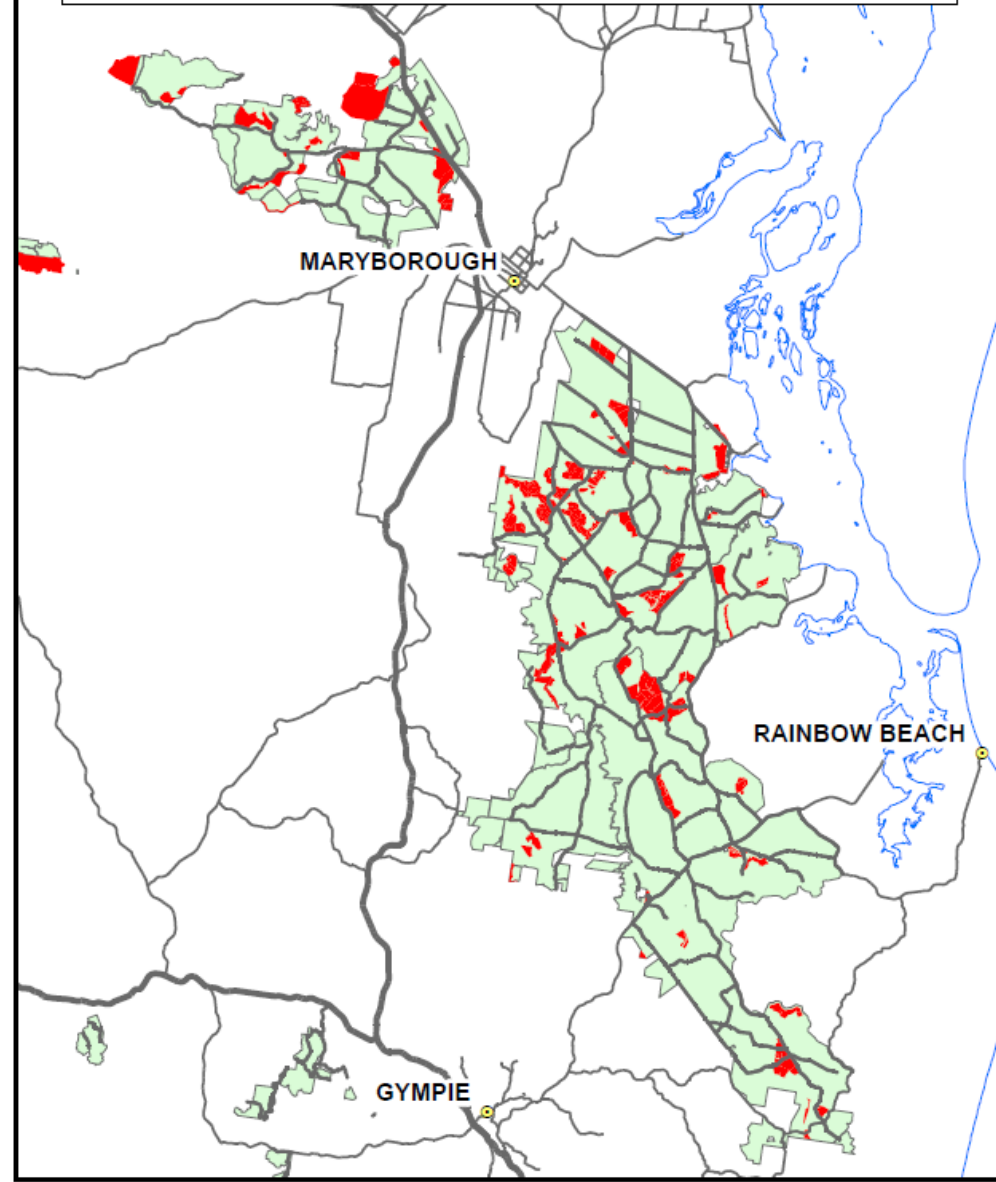
 

■ Prescribed Burns Completed 2023
— Roads
■ HQP Plantation Licence Area

0 5 10 15 20 Kilometers 1:220,000

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Fraser Coast Prescribed Burns Completed 2023



■ Prescribed Burns Completed 2023
— Roads
■ HQP Plantation Licence Area

0 10 20 30 40 Kilometers 1:420,000

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Risks with Southern Pine Prescribed Burning

- Reduction in the commercial value of the stand due to reduced growth and potentially timber quality, particularly resin defect by burning too intensely.
- Relights in plantations and unburnt swamps during more extreme weather conditions necessitating suppression.
- Fire escaping to adjoining plantations, native forest or adjoining property.
- Causing annoyance, health or safety issues from generated smoke.
- Carbon emissions

However: The greatest risk is associated with not burning.

In many areas, if we don't burn, someone else will



1:58 pm



Llott River

132.54° / 0.09° 1.1X W

In Summary

Managing fire in plantations in Queensland contributes to more than business asset protection - it has wider reaching social and environmental benefits.

Land occupiers are obligated to undertake appropriate fire prevention actions on their land. Prescribed burning is one of the best strategies for achieving this.

A carefully planned and managed fuel reduction program will help reduce the incidence of landscape scale fires that impact everyone.



Questions?



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