

Fire severity in harvested areas

This summary report presents statistics on the area of forest burnt in the 2019-2020 fires in each of four severity classes: low, medium, high and extreme, across the three main tenures burnt: national parks, State forests and private forests. It also presents statistics on fire severity within harvested areas in State forests, to investigate whether harvested areas influence fire severity at the landscape scale.

Burnt forest by tenure

National parks accounted for 54.5% of the total forest area burnt, State forests 18.6%, and private forests 24.6%. As a proportion of the state's total forested area, approximately 38% of national parks, 36% of State forests and 13% of private forests were burnt.

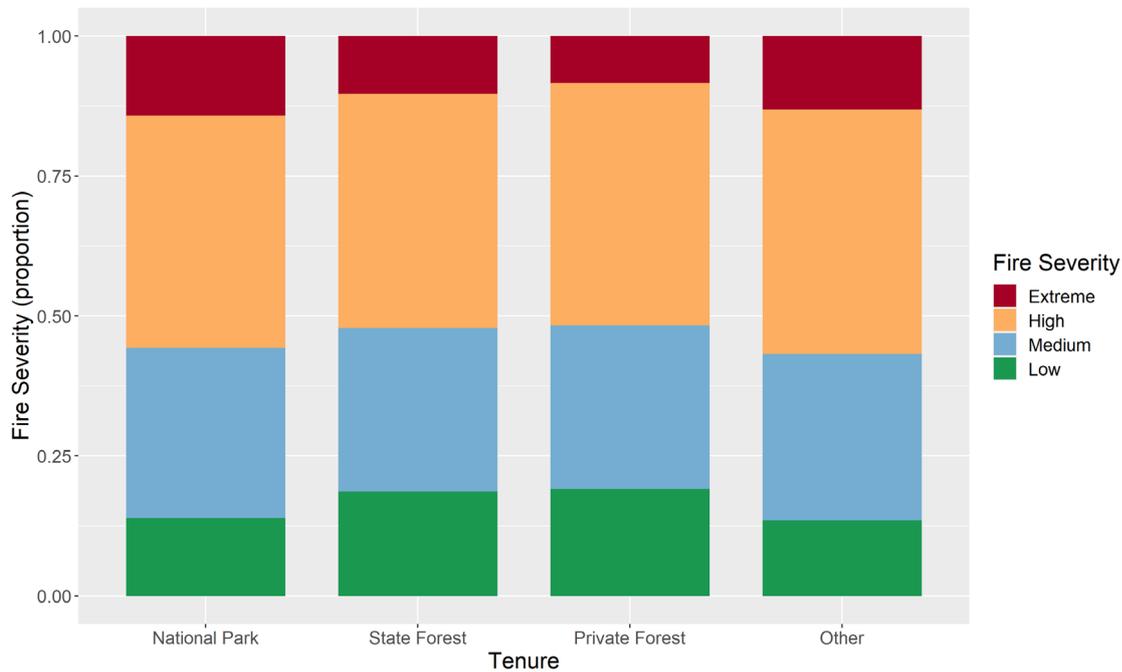
	National Park	Private Forest	State Forest	Other	Total
Area (ha)	2,233,810	1,008,087	763,089	92,136	4,097,123
Proportion (%)	54.5	24.6	18.6	2.2	

How this was calculated

Areas classified as low severity and greater in NSW's Fire Extent and Severity Mapping (FESM) product (<https://datasets.seed.nsw.gov.au/dataset/fire-extent-and-severity-mapping-fesm>) were intersected with the National Forest and Sparse Woody Vegetation forest data (<https://data.gov.au/data/dataset/national-forest-and-sparse-woody-vegetation-data-version-3-2018-release>) and grouped by tenure. Note that these statistics may be slightly different than other reported figures, as they only include forested areas that were burnt at low severity or greater, according to the FESM product, which is a modelled surface based on satellite remote sensing.

Fire severity by tenure

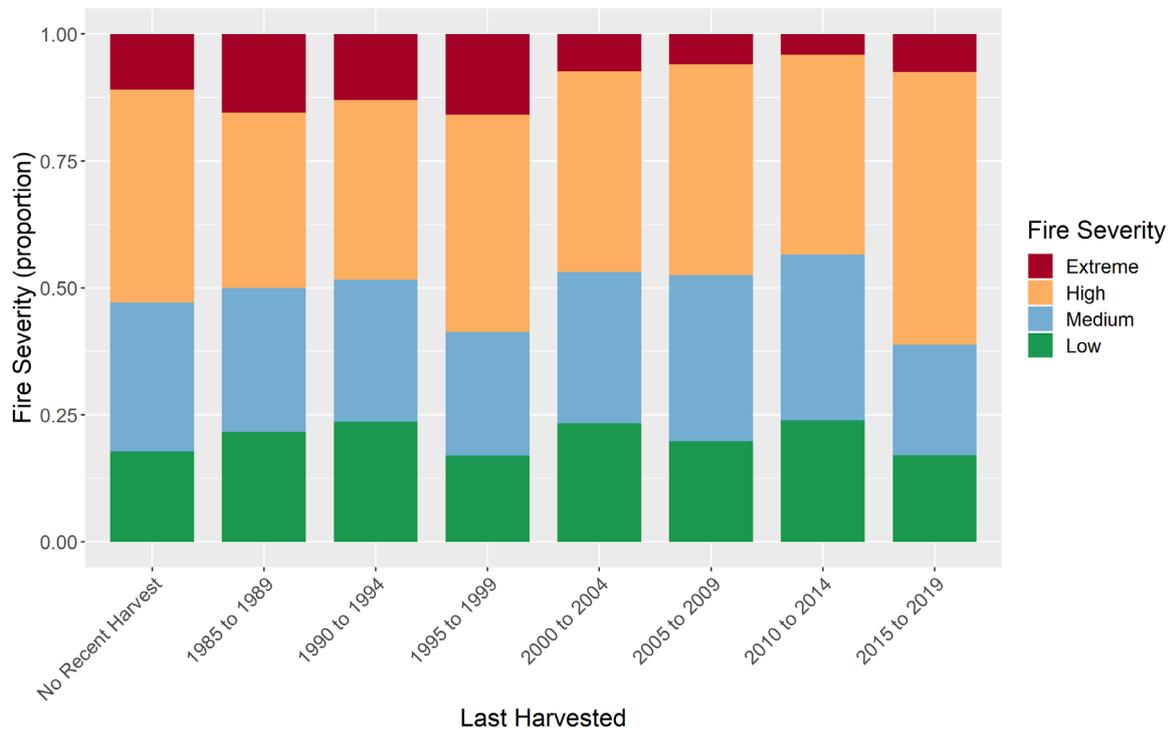
The following chart shows fire severity proportions in each tenure. Severity was found to be much the same regardless of tenure. If anything, it was slightly higher in national parks.



Fire severity in State Forests

Of the 763,000 hectares of State forests burnt, 210,000 ha (27.6%) has had some form of harvesting activity in the last 35 years, according to Forestry Corporation NSW records.

The following chart shows fire severity proportions in harvested areas according to when they were last harvested, with the first bar representing areas where no harvesting has occurred in the last 35 years. Areas harvested in the last five years had a slightly greater proportion burnt at high severity than areas with no recent harvesting, however the proportion burnt at extreme severity was less. In general, there is little indication that harvesting affected fire severity at a landscape scale.



How this was calculated

Areas mapped as harvested in Forestry Corporation NSW records were grouped into five-year periods, according to when harvesting last occurred. These were then intersected with the FESM product to calculate the proportion of burnt area in each class. Note that these areas represent generalised locations where harvesting at differing intensities has taken place ('gross' areas, as opposed to 'net' areas). In many cases, harvesting consists of low intensity single tree selection.

Conclusion

These results indicate that, at the landscape scale, fire severity was much the same regardless of tenure and in State forests was not influenced by harvesting.

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