

Section 87 states that:

(1) A person who lights a fire on land for the purpose of land clearance or for burning any fire break during a bush fire danger period that applies to the land is guilty of an offence unless the person:

- (a) is authorised to do so by a fire permit issued by the appropriate authority and the person complies with any conditions set out in the fire permit, and*
- (b) has given notice in accordance with section 86.*

Maximum penalty: 50 penalty units or imprisonment for 12 months, or both.

(2) Nothing in this section requires an authorised officer of a fire fighting authority who lights a fire for the purpose of back burning to be authorised to do so by a fire permit or to give any notice before lighting such a fire.

4 Information relating to Bushfire Risk

4.1 Vegetation

The vegetation within the site consists largely of grassland used for pasture with scattered paperbark and regrowth rainforest species on the southern slopes. In the northern part of the site an area of SEPP 14 wetland is bordered by open swamp sclerophyll/brushbox forest. The site is also surrounded by patches of eucalypt forest. (See Flora and Fauna Assessment prepared by James Warren & Associates for further information regarding vegetation species.)

The vegetation can be classified as:

- SEPP 14 Coastal Wetland – Trees 10-30m high; 30-70% (or greater) foliage cover
- Open Forest - Trees 10-30m high; 30-70% foliage cover; understorey of sclerophyllous low trees and tall shrubs or grass; dominated by eucalypts
- Woodland – Trees 10-30m high; 10-30% foliage cover; foliage cover dominated by eucalypts; understorey low trees to tall shrubs
- Grassland (pasture) – usually dominated by introduced grass species but may include bladey grass dominated grasslands.

Refer to Appendix C for photographs of the vegetation.

4.2 Slope of the land

Slope is an important dynamic when assessing bush fire risk and probable fire behaviour.

The proposed subdivision site is situated on the eastern slope of a ridgeline which runs along the western boundary. The southern and western portions of the site comprise minor ridges off the principal ridge to the west, and associated side slopes. Steeper slopes are found in the southern portion of the site, with the northern portion of the site being relatively level (refer to Concept Plan for contour information).

In accordance with Planning for Bushfire Protection (2001), an assessment of the slope over an approximate distance of 100m in all directions from the proposed building line on the development site was undertaken. Details of these slopes can be seen in Tables 1-3 in Section 5.1 of this report.

4.3 Fire History

According to the Tweed Bush Fire Risk Management Plan (2002), the Tweed does not possess large tracts of unmanaged land and indiscriminate burning, together with carelessness or vandalism, are the greatest problems in the Tweed.

The main areas of fire activity are the fast growing Tweed Coast and Cudgen areas and those areas to the west of the shire that have evolved from grazing properties to multiple occupancy sites and hobby farms such as Byrrill Creek, Kunghur and Rowlands Creek.

The Tweed experiences almost identical fire incidences every year. Fires are usually lit by arsonists on the western boundaries of Pottsville village and in the surrounding wetlands. These fires often spread rapidly presenting a direct threat to the village of Pottsville. Fires are also lit by arsonists in pine plantations behind Kingscliff and Cudgen and these fires almost always threaten small intensive farming and residential communities. In the western parts of the shire fires are more often the result of mis-managed burn offs which run through multiple occupancies and grazing properties where proper access, availability of water and household fire prevention are not well planned or executed.

Reliable fire history has only been kept in the Tweed Shire since 1990.

4.4 Bush Fire Season

The start of the bush fire season coincides with the arrival of strong north-west to westerly winds in late winter or spring. The majority of serious bushfires occur from this period until the onset of summer rains which normally start from December and continue through to autumn. Longer fire seasons are experienced when summer rainfall is lower than normal, with the bush fire season extending through summer to early autumn.

4.5 Climate and Weather

The Tweed Shire has a subtropical climate with the moist air and sea breezes having a noticeable effect on summer temperatures, particularly along the coastal strip. The Border Ranges to the north and west of the Tweed Shire have a strong orographic effect, contributing to the mean annual rainfall of 1500-2000mm. There is a distinct wet season over summer and autumn, with winter and spring generally being drier. February to March is the wettest period and August to September are on average the driest months, receiving only 3% of the average annual rainfall.

By definition, the most extreme fire weather conditions will involve all the following conditions:-

- 40° C temperature
- Relative humidity of around 15%
- Average wind speed of 55 km/h
- Extended drought for 6 - 8 weeks
- Unstable atmospheric conditions
- Abundant and well distributed fuel

In general, bushfires occurring outside these critical times are much less likely to get out of control.

Analyses of the frequency of high bush fire danger days in the Tweed suggest that very high or extreme fire weather conditions are rare. The analysis (over the past 13 years) suggests that on average there were less than three days per year with a sufficient combination of high temperature and low humidity to support such fire danger ratings.

4.6 Threatened Species, Population Communities or Ecological Communities within the Site

Flora and fauna matters are addressed in detail in the assessment prepared by James Warren & Associates. The assessment concludes that the proposed development will not have a significant impact on matters of National Environmental Significance.

The proposed development will result in the loss of a single specimen of rough-shelled Queensland nut. At least 10 seedlings are recommended to be propagated from this tree prior to removal and replaced on the site. Two stinking cryptocaryas located near the SEPP 14 wetland will be retained within the proposed 50m buffer.

Impacts on threatened fauna will be minimal and will consist of loss of foraging habitat for the grey-headed flying-fox, eastern long-eared bat and little bent-wing bat.

The establishment of Asset Protection Zones, as detailed in Section 5.1 of this report, should not have any additional impact on threatened flora and fauna identified by the James Warren report.

4.7 Aboriginal and European Heritage

An assessment prepared by Adrian Piper in 2000 analysed the site for potential value as a culturally significant site and archaeological significant site for indigenous peoples. An analysis was also undertaken to determine if the site retained any European heritage values. The assessment indicated that no evidence or record exists that indicates the site contains any significant heritage values. Therefore, the establishment of Asset Protection Zones, as detailed in Section 5.1 of this report, should not have any impact on Aboriginal or European heritage within the site.