District Information Pack - Canobolas

Canobolas

The Canobolas Zone is located in the Central Ranges of NSW, and includes the Local Government Areas (LGA's) of Blayney, Cabonne, Cowra and Orange which spans 1,062,081ha. At the last census there are 32,325 of homes in the Canobolas Zone area with an approximate population of 73,447. The area has a high level of agriculture and tourism, a moderate level of mining, a high level of industry and a high level of local business and opportunities for employment. The last major bush fire happened in the 2017/2018 Bushfire Season with 1,671ha burned.

There are three National Parks located within the area, being Goobang, Nangar and Conimbla with additional SRA's, SCA's and Nature Reserves covering an area of 45,287ha. Forest Corporation NSW also manages an area of 25,269ha mainly softwood pine plantation with eucalypt forest areas within the plantations for management of biodiversity.

The Canobolas Zone area has approximately 34% bushland and 66% grassland. A bush or grass fire can happen at any time of the year, but the risk is higher during the warmer months, when vegetation is drier.

Prevailing weather conditions associated with the bush fire season in the Canobolas area are north-westerly winds accompanied by high daytime temperatures and low relative humidity. There are also frequent dry lightning storms occurring during the bush fire season.

The Canobolas area has on average 300 to 500 incidents per year. Of these incidents approximately 200 bush and grass fires. All these have the potential to be major fires and 95% are usually contained to less than 10 hectares. Approximately 10 fires each year are considered major fires based on their potential and the fire danger rating applicable on the day.

General community apathy that fires will not happen to them (this is evidenced by the low percentage of the population that have Bush Fire Survival Plans) and the ageing of the population with fewer young people volunteering to protect their community than has occurred during previous generations, has been identified as potentially impacting on the ability of certain sections of the community to prepare themselves for bush fire:

The main sources of ignition in the Canobolas area are:

- Lightning strikes
- Electrical infrastructure failures
- Arson
- Machinery
- Vehicles and welding/grinding activities

The bush fire season runs from October to March each year with the main danger period occurring between December and February.

1.1. Contact Information

District Office Address:	1385 Forest Road Orange NSW 2800
District Office Phone:	02 6363 6666
After Hours Contact:	Via State Operations on 02 8741 5400
A PSN Radio Channel:	103 CANOB A
B PSN Radio Channel:	203 CANOB B
PMR Channel:	2203 CANOB P– **Primary Dispatch Channel**
ESO Conversion Chart:	Please see file in folder for relevant conversion information
Fire Weather Forecast Area:	Central Ranges
Local Government Area:	Blayney, Orange, Cabonne, Cowra

1.2. Topography

The area is divided into two main geographic areas, the Central Tablelands and Central Western Slopes and Plains. The division occurs between Orange and Molong in the north and between Carcoar and Mandurama in the south.

The Central Tablelands are comprised of several plateaux. Mt Canobolas is 1,398m, the highest peak in the area. On the Central Western Slopes and Plains, the terrain becomes more undulating in the catchment areas of the Belubula and Lachlan River systems. Large alluvial areas also occur on the Lachlan River and its tributaries around Cowra and towards Canowindra.

Harveys, Nangar and Mandagery Ranges which occur to the west and Wyangala Dam catchment area to the south-west have rolling to steep hills with escarpments and cliffs up to 740m above sea level.

The region is drained by a number of inland rivers, these include the Macquarie River and its tributaries, the Bell and Molong Rivers to the west. In the south the Lachlan River is the main river draining west with the Belubula River one of its main tributaries.

1.3. Vegetation

Three main types of vegetative communities dominate the Canobolas Zone – dry sclerophyll forests, sub-alpine (Mt Canobolas) and grassy woodlands.

The dominate species NE of Orange is red box, mountain gum on Mount Canobolas and broad-leaved peppermint south of Blayney.

Savannah woodlands cover most of the western area but are not generally found above 750m elevation. Tree layers are discontinuous, but there are continuous herbaceous strata with few shrubs. The main species that species that occur are white box, grey box and yellow box.

Small areas of dry sclerophyll forest grow in the west on the Hervey Range, Killonbutta and Gumble State Forests. White box and tumbledown red gum are the dominant species.

Much of the region has been cleared for agricultural purposes. The flatter areas to the west were cleared for cropping, while those steeper lands to the east underwent clearing to increase stock carrying capacities. There are still steep slopes and ridges and many watercourses that support small areas of native vegetation

1.4. Climate

The average annual rainfall for climatic zone 10A (Orange / Molong) ranges from 702mm at Molong to 809mm at Orange.

Rainfall is at a maximum between June and August, with each month averaging 70 to 80mm. February and March are the driest months, each receiving approx. 40 mm. Rainfall is most reliable in winter and early spring and most variable during late summer and early autumn.

Soil moisture profiles are at their lowest in the summer and not usually limiting in the winter rainfall exceeds evaporation. Low winter temperatures restrict plant growth from May until September so that plant growth is most active during the spring and autumn. Mt Canobolas, due to its higher elevation, experiences a greater annual rainfall (averaging 1,127mm) with much lower temperatures throughout the year and can experience regular snowfalls in winter.

Climatic zone 2C (Cowra) has an average annual rainfall ranges from 540 to 650mm and is highly variable. The highest rainfall occurs in winter, with June being the wettest month averaging around 50mm. February is the driest month and averages around 30mm. Soil moisture profiles are adequate for the period from June to October with April, May and November having few limitations on moisture. Plant growth rates are limited in the winter due to low temperatures.

1.5. Average Weather Data

Summary of major climate statistics recorded at Orange Airport AWS recorded by the BoM (last updated 25 July 2024)

Element (Mean)	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Max Temp (°C)	18.3	21.7	24.8	27.4	26.0	23.0	18.6	14.0	10.8	9.9	11.3	14.9
Min Temp (°C)	5.7	8.4	10.5	13.0	12.5	9.9	5.6	2.6	1.3	0.6	0.9	3.2
Rainfall (mm)	73.2	94.9	83.6	67.9	80.0	77.9	50.6	50.0	79.7	75.0	85.2	78.8
3pm Temp (°C)	16.5	19.9	23.0	25.3	24.1	21.6	17.1	13.0	9.6	8.4	9.9	13.5
3pm wind (km/h)	21.9	19.3	19.5	18.8	18.6	18.0	17.0	17.3	18.6	18.6	20.8	21.5
3pm RH (%)	52	50	40	41	48	47	51	60	69	70	62	57

Summary of major climate statistics recorded at Cowra Airport AWS recorded by the BoM (last updated 25 July 2024)

Element (Mean)	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Max Temp (°C)	24.4	27.6	30.7	33.6	31.6	28.5	23.8	18.7	14.9	14.2	15.9	19.9
Min Temp (°C)	7.4	11.5	14.2	17.2	16.1	13.7	8.8	4.8	3.6	2.4	2.6	4.1
Rainfall (mm)	46.2	74.7	59.7	48.9	54.2	59.8	41.3	33.0	52.6	44.0	41.3	46.2
3pm Temp (°C)	No data available											
3pm wind (km/h)												
3pm RH (%)												

1.6. Known Radio Comms Blackspots

- Millamolong Road area Mandurama
- Wyangala Dam, Quart Pot & Oaky Creek Road area
- Long Point Road; Mullion Creek area - Dixons Long Point Crossing
- Gowan - Freemantle Nature Reserve; NW to Girralang Nature Reserve
- Neila Creek area; south east to Bennett Springs Road, Mount Collins area
- Chaucer Creek/Cranky Rock Road area; east to Black Rock Range and south east to Mandurama

1.7. Hazards

1.7.1. Mining and Quarrying

These activities occupy small areas but are scattered over much of the region. Gravel pits are scattered through the area especially along roads on granites, coarse-grained intermediate rocks (syenite) and shale-like rocks. Some old gold diggings have been reopened at Junction Reefs. Cadia is home to the largest underground gold and copper mine in the southern hemisphere and is a significant landholder and employer in the area.

Regis Resources have recently been approved to commence operations for a new Gold Mine site east of Blayney at Kings Plains and this will develop into a significant operation during the next 5 years to 2028.

1.7.2. Agriculture/Viticulture

Land clearing carried out in the early part of 1900/1920s has provided opportunities for both grazing and cropping. More recently the development of orchards and vineyards has played a significant part in the area's industry base and tourism industry.

Cereal Crops are a significant part of agribusiness across the Canobolas Zone where the production of Wheat, Barley, Oats, Sorguhm and Canola is significant. The village of Manildra hosts Australia's largest Flour Mill complex which is a major employer within the District. Manildra is also home to a large Canola processing plant and a Graincorp storage facility which create a major focus on the town as a hub for cereal processing.

1.7.3. Renewable Energy

Solar

Manildra is home to a 120 hectares solar farm that a capacity of 56MWto power the equivalent of 14,000 NSW homes per year and utilises single axis tracking technology to maximise the output. The system displaces 91,000 tons of CO2 emissions annually.

The Solar Farm some 5kms east of Molong has a 39MW capacity and is sited adjacent to Transgrids 132KV Terminal station on the Euchareena Road.

Wind

Wind turbines have long been sited close to Blayney north and East of the town. The Flyers Creek wind farm project is nearing completion south of Cadia and west of Blayney and is planned to produce 145MW of power sufficient to power 80,000 homes. The power infrastructure for this project is significant and areas through softwood pine plantation for transmission lines have been cleared. Whilst the installations provide a heightened fire risk from that of traditional agriculture, the formation of access roads to each turbine has provided an advantage in accessibility to the project landscape.

1.7.4. Aviation

Orange Airport located at Spring Hill is a Regional Airport serviced by daily commercial passenger services to multiple locations throughout Australia. It is also the base for a Regional Aeromedical retrieval service operated by NSW Ambulance.

Cowra Airport is a recreation and business based aviation hub hosting a wide variety of aviation businesses and flight schools. Cowra is a significant base for a fixed wing firebombing operator and has infrastructure in place to support an RFS SEAT Base.

1.8. land management authorities

Land Manager	% of Area
National Parks & Wildlife Service	4.22
Forestry Corporation of NSW	2.37
Department of Lands	0.37
Local Government	0.24
Private	92.76
State Rail	0.03
Roads and Maritime Services	0.001

For more specific data on the Canobolas Zone, please follow the link to the Canobolas Bush Fire Risk Management Plan here.

Note: This link will only work with internet coverage.

For further information regarding the Canobolas District Information pack, please contact the Operational Improvement team via **email at operational.improvement@rfs.nsw.gov.au**