

# **District Information Pack**

Illawarra 2024/2025

# 1. District Details

The area covered by the Illawarra Rural Fire District includes the Wollongong, Shellharbour and Kiama Local Government Areas. It is located 45 kms south of Sydney, stretching from Helensburgh in the north to Gerringong and Gerroa in the south; and covering an area of 112,700ha (1,127sq Km) with a population of just over 292,000 residents.

The Illawarra area has on average 760 bush fires per year, of which 4-5 on average can be considered to be major fires.

The nominated Incident Management Facility is the Illawarra Sutherland District Fire Control Centre located at 37 Airport Road, Albion Park Rail NSW 2527. The Primary Local Emergency Operations Centre is also located at the Illawarra Sutherland District Fire Control Centre at Albion Park Rail.

The Illawarra District forms the Illawarra Weather Forecast District and falls within the Illawarra/Shoalhaven (5) Fire Weather District.

Fires generally travel in an easterly direction under the influence of westerly winds. Southerly and/or easterly winds also have the potential to intensify wildfire burning on or along the escarpment.

The main sources of ignition in the Illawarra area are:

- Arson and incendiarism
- Car dumping
- Lightning
- Electrical power lines
- Escapes from legal burning
- Illegal burning activities

Hazard reduction burning is usually conducted during the cooler months, between March-October, but may be extended beyond this period if desirable conditions exist. Desirable weather conditions for prescribed burning include high humidity and low temperatures which are common to this period in the year.

Smoke attributed to bush fire can have a major impact on various infrastructures, facilities and the environment. These include major transportation routes for road and rail, ventilation shafts for mines, tourism operations, urban interface areas and the hospitals, in particular the Garrawarra Centre. Wind direction, fuel moisture contents and lighting techniques are considered and managed to reduce the likelihood of smoke issues. The Illawarra area is also subject to 'No Burn Days' administered by the Environment Protection Authority.

With almost 1 million visitors to or passing through the Illawarra per year contributing to seasonal population numbers, it is important to note that this has the potential impact on the ability of certain sections of the community to prepare for bush fire.

The Illawarra and Sutherland Districts have been merged. Please refer to the Sutherland District Information Pack for details relevant to the Sutherland Local Government Area.

## 1.1. Contact Information

| District Office Address:    | 37 Airport Road, Albion Park Rail NSW 2527                    |
|-----------------------------|---|
| District Office Phone:      | 02 4230 8200  |
| After Hours Contact:        | via State Operations on 02 8741 5400                          |
| A PSN Radio Channel:        | 118 ILLAW A - Primary Dispatch Channel                        |
| B PSN Radio Channel:        | 218 ILLAW B   |
| PMR Channel:                | N/A   |
| ESO Conversion:             | Please see file in folder for relevant conversion information |
| Fire Weather Forecast Area: | Illawarra/Shoalhaven  |
| Local Government Area:      | Wollongong, Shellharbour, Kiama                               |

## 1.2. Topography

The region consists of a coastal plain, narrow in the north and wider in the south, bounded by the Tasman Sea on the east and a steep sandstone precipice known as the Illawarra Escarpment to the west. North of Wollongong the plain narrows to a small coastal strip of land between the coast and the escarpment containing many hills including the foothills of the escarpment's lower slopes. To the south it widens, and becomes increasingly hillier before reaching Stockyard Mountain.

The western part of the District holds Water NSW Catchment Land, and there are several lakes throughout the Illawarra District. The largest lake is known as Lake Illawarra in the Albion Park area. Lake Cordeaux, Lake Cataract, Lake Woronora and Lake Avon are Water NSW managed lakes.

Substantial outcrops of basalt are exposed in the Dunmore area and this form of geology exists on the coast at Bass Point and along the coastline and intruding inland in the Kiama LGA. The vegetation type within the area is predominately made up of grass, dry/wet sclerophyll, and heathland.

# 1.3. Vegetation

**Heathland** - generally contain a relatively high proportion of fire prone species. Fuel loads are typically continuous from ground to canopy. Potential fire intensities are generally related to the height of the heath.

**Dry sclerophyll forests** – generally have a dry understorey of grasses and shrubs, which burn readily under a much broader range of conditions than other forest types. Very high to extreme fuel levels

(up to 25 t/ha) and relatively open canopies allow sunlight and wind to quickly dry available fuels, giving these forests the potential to support high intensity bush fires.

### 1.4. Climate

The typical/average climate in the Illawarra area is humid temperate, with a rainfall average of 1329 mm annually. The start of normal fire seasons coincides with fresh to strong south west to north west winds which prevail during August and September. The majority of bush fires can occur from this period until the onset of summer rains or coastal showers. Longer fire seasons are experienced when rainfall is lower than average extending the bush fire season through summer to early autumn. Extreme fire danger days are usually experienced due to strong west to north westerly winds, particularly where the drought indices are low.

Summer temperatures average a high of 25°C and a low of 19°C. Rainfall is evenly distributed throughout the year with typically 94 days of rain, for an annual average of 1200 mm.

## 1.5. Average Weather Data

Summary of major climate statistics for Bellambi AWS (Wollongong) recorded by the BoM (Last updated 4 July 2024)

| <u>ipaatea 4 July 20</u> | 124) |      |      |      |       |       |       |      |       |      |      |      |
|--------------------------|------|------|------|------|-------|-------|-------|------|-------|------|------|------|
| Element (Mean)           | Oct  | Nov  | Dec  | Jan  | Feb   | Mar   | Apr   | May  | Jun   | Jul  | Aug  | Sep  |
| Max Temp (°C)            | 21.6 | 22.3 | 24.0 | 25.0 | 24.8  | 24.1  | 22.3  | 19.9 | 17.7  | 17.2 | 18.1 | 20.2 |
| Min Temp (°C)            | 14.1 | 15.8 | 17.5 | 19.2 | 19.2  | 18.1  | 15.6  | 13.1 | 11.1  | 10.2 | 10.7 | 12.4 |
| Rainfall (mm)            | 80.6 | 98.5 | 79.0 | 85.3 | 154.6 | 121.4 | 104.0 | 81.0 | 115.1 | 88.3 | 91.2 | 60.1 |
| 3pm Temp (°C)            | 19.1 | 20.3 | 22.2 | 23.2 | 23.3  | 22.6  | 20.7  | 18.5 | 16.5  | 15.8 | 16.7 | 18.1 |
| 3pm wind (km/h)          | 24.7 | 24.6 | 25.4 | 24.5 | 23.9  | 23.7  | 22.0  | 20.9 | 21.0  | 20.7 | 23.6 | 24.8 |
| 3pm RH (%)               | 64   | 70   | 69   | 72   | 74    | 70    | 67    | 61   | 59    | 56   | 54   | 61   |

Summary of major climate statistics for Albion Park (Shellharbour Airport) recorded by the BoM (Last updated 4 July 2024)

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|-----------------------------|----------|-------|------|------|-------|-------|------|------|------|------|------|------|
| Element (Mean)              | Oct      | Nov   | Dec  | Jan  | Feb   | Mar   | Apr  | May  | Jun  | Jul  | Aug  | Sep  |
| Max Temp (°C)               | 23.0     | 24.0  | 25.5 | 27.0 | 26.3  | 25.3  | 23.3 | 20.6 | 18.1 | 17.9 | 18.9 | 21.4 |
| Min Temp (°C)               | 11.0     | 13.5  | 15.3 | 17.2 | 17.2  | 15.7  | 12.2 | 9.0  | 7.3  | 6.4  | 6.6  | 8.6  |
| Rainfall (mm)               | 73.9     | 86.2  | 69.0 | 81.6 | 149.2 | 148.0 | 82.6 | 72.4 | 87.6 | 70.6 | 58.0 | 45.1 |
| 3pm Temp (°C)               | 20.4     | 21.6  | 23.5 | 24.8 | 24.5  | 23.5  | 21.3 | 18.8 | 16.7 | 16.2 | 17.3 | 19.3 |
| 3pm wind (km/h)             | 20.9     | 20.9  | 21.5 | 21.6 | 20.0  | 18.9  | 17.7 | 17.1 | 17.6 | 18.1 | 21.8 | 22.6 |
| 3pm RH (%)                  | 58       | 63    | 61   | 63   | 67    | 64    | 61   | 58   | 57   | 54   | 49   | 53   |

# 1.6. Known Radio Comms Blackspots

Overall radio reception across the Illawarra is good with few black spots. Issues can occur in:

## Wollongong LGA

 Lady Wakehurst Dr Royal National Park area has black spots and patchy radio reception. (steep valley areas within RNP)

#### Kiama LGA

Areas around Kiama bends have patchy radio reception

#### Shellharbour LGA

Illawarra Highway Macquarie Pass between Clover Hill road & Tourist road has patchy radio reception

## 1.7. Hazards

#### 1.7.1. Transportation

The M1 Princes Motorway is a dual carriageway freeway that has moderate to heavy traffic 24hrs a day with the night time consisting of mainly semi-trailers moving various cargo loads of all types between the Docks and Sydney. Ethanol Fuel is transported by road though to Sydney. The Princes Hwy provides road access to the south coast for holiday and commercial users from Sydney. The Southern Highlands are linked to this coastal Highway by the major arterial roads, Picton Road, Appin Road and the Illawarra Highway.

The rail line is known as the south coast rail line and operates passenger services and some freight from the Illawarra area. Railway transport is used by local Coal Mines daily to deliver goods to the Coal Loader and steel Works. Grain is transported to Port Kembla shipping terminal.

#### 1.7.2. Human Settlement

The main towns of the Illawarra Region have many industries from heavy to light industrial, hotels and motels as well as multiple service stations. There are many schools, a large University campus and a TAFE college.

The smaller towns have some light industry, hotels and motels, a few service stations and at least one school. There is usually a small commercial/retail area usually consisting of shops on the main street.

The farming localities contain many farms with attached sheds, fuel storage and machinery

### 1.7.3. High Risk Facilities

Tallawarra Power Station is located to the west of Lake Illawarra. There are various electricity substations around Illawarra with many transformers and high voltage power lines around the area.

There are Coal Mines and some industry in the towns, air intake vents are located in the area that need to be protected. There are Hospitals and Nursing Homes located throughout the District, the aged care facility at Garawarra has a high bushfire risk. There are several water treatment plants within the area. Illawarra Airport is located at Albion Park Rail, commercial aircraft use this airport daily.

# 1.8. Land Management Authorities

| Land Manager                      | % of Area |  |  |  |  |  |
|-----------------------------------|-----------|--|--|--|--|--|
| National Parks & Wildlife Service | 12.48     |  |  |  |  |  |
| Department of Lands               | 2.75      |  |  |  |  |  |
| Local Government                  | 5.37      |  |  |  |  |  |
| Private                           | 51.5      |  |  |  |  |  |
| All Other                         | 27.90     |  |  |  |  |  |

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

Note: This link will only work with internet coverage.

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

