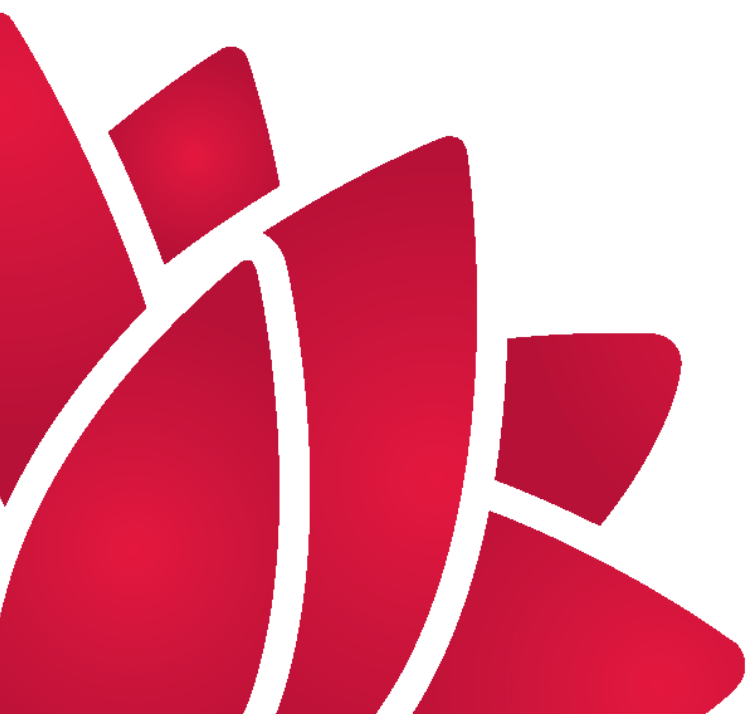


Hawkesbury City Council
Local Emergency
Management Plan
October 2017



Part 1 – Administration

Authority

The Hawkesbury City Council Local Emergency Management Plan (EMPLAN) has been prepared by the Hawkesbury City Council Local Emergency Management Committee in compliance with the State Emergency & Rescue Management Act 1989.

APPROVED

.....

Chair

Hawkesbury City Council Local Emergency Management Committee

Dated:

ENDORSED

.....

Chair

North West Metropolitan Regional Emergency Management Committee

Dated:

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Purpose

Details arrangements for, prevention of, preparation for, response to and recovery from emergencies within the Local Government Area(s) covered by this plan.

It encompasses arrangements for:

- emergencies controlled by combat agencies;
- emergencies controlled by combat agencies and supported by the Local Emergency Operations Controller (LEOCON);
- emergency operations for which there is no combat agency; and
- circumstances where a combat agency has passed control to the LEOCON.

Objectives

The objectives of this plan are to:

- define participating organisation and Functional Area roles and responsibilities in preparation for, response to and recovery from emergencies;
- set out the control, co-ordination and liaison arrangements at the Local level;
- detail activation and alerting arrangements for involved agencies; and
- detail arrangements for the acquisition and co-ordination of resources.

Scope

The plan describes the arrangements at Local level to prevent, prepare for, respond to and recover from emergencies and also provides policy direction for the preparation of Sub Plans and Supporting Plans:

- Arrangements detailed in this plan are based on the assumption that the resources upon which the plan relies are available when required; and
- The effectiveness of arrangements detailed in this plan are dependent upon all involved agencies preparing, testing and maintaining appropriate internal instructions, and/or standing operating procedures.

Principles

The following principles are applied in this plan:

- a) The Emergency Risk Management (ERM) process is to be used as the basis for emergency planning in New South Wales. This methodical approach to the planning process is to be applied by Emergency Management Committees at all levels.
- b) Responsibility for preparation, response and recovery rests initially at Local level. If Local agencies and available resources are not sufficient they are augmented by those at Regional level.
- c) Control of emergency response and recovery operations is conducted at the lowest effective level.
- d) Agencies may deploy their own resources from their own service from outside the affected Local area or Region if they are needed.
- e) The Local Emergency Operations Controller (LEOCON) is responsible, when requested by a combat agency, to co-ordinate the provision of resources support. EOCs would not normally assume control from a combat agency unless the situation can no longer be contained. Where necessary, this should only be done after consultation with the Regional Emergency Operations Controller (REOCON) and agreement of the combat agency and the appropriate level of control.
- f) Emergency preparation, response and recovery operations should be conducted with all agencies carrying out their normal functions wherever possible.
- g) Prevention measures remain the responsibility of authorities/agencies charged by statute with the responsibility.

Test and Review Process

The Hawkesbury City Council Local Emergency Management Committee (LEMC) will review this Plan every three (3) years, or following any:

- activation of the Plan in response to an emergency;
- legislative changes affecting the Plan; and
- exercises conducted to test all or part of the Plan.

Part 2 – Community Context

Annexure A – Community Profile

General

Hawkesbury City is located at the north-western fringe of the Sydney metropolitan area - about 50 kilometres from the Sydney GPO. Hawkesbury City is bounded by the Singleton Council area and Cessnock City in the north, Gosford City and The Hills Shire in the east, Blacktown, Penrith and Blue Mountains Cities in the south, and Lithgow City in the west.

Suburbs/localities include:

Agnes Banks	Hobartville	Richmond Lowlands
Berambing	Kurmond	Riverstone
Bilpin	Kurrajong	Scheyville
Blaxlands Ridge	Kurrajong Heights	South Windsor
Bligh Park	Kurrajong Hills	St Albans
Bowen Mountain	Leets Vale	Ten Mile Hollow
Bucketty	Lower MacDonald	The Devils Wilderness
Cattai	Lower Portland	The Slopes
Central Colo	Maraylya	Upper Colo
Central MacDonald	McGraths Hill	Upper Macdonald
Clarendon	Mellong	Vineyard
Colo	Mogo Creek	Webbs Creek
Colo Heights	Mountain Lagoon	Wheeny Creek
Cornwallis	Mulgrave	Wilberforce
Cumberland Reach	Oakville	Windsor
Ebenezer	Perrys Crossing	Windsor Downs
Fernaces	Pitt Town	Wisemans Ferry
Freemans Reach	Pitt Town Bottoms	Womerah
Grose Wold	Putty	Wrights Creek
Higher MacDonald	Richmond	Yarramundi

Hawkesbury City includes:

- 225kms of sealed urban roads, 511kms of sealed rural roads, approximately 300kms of gravel/unsealed roads, 56 concrete/steel bridges and major culverts and 7 timber bridges
- 215 parks and reserves made up of general community use, parks, sportsgrounds and bushland
- 219 buildings including community facilities and public amenities/buildings

Landform and Topography

Hawkesbury City is predominantly comprised of national and state parks, with some residential, commercial, industrial and military land use. The City encompasses a total land area of about 2,800 square kilometres, of which more than 70% is National Park. The Hawkesbury is divided by 5 river systems; the Nepean, Hawkesbury, Grose, Colo and MacDonal rivers. The main population centres are Windsor and Richmond, with urban areas also in many small townships and localities. The majority of the population live in the south-eastern section of the City.

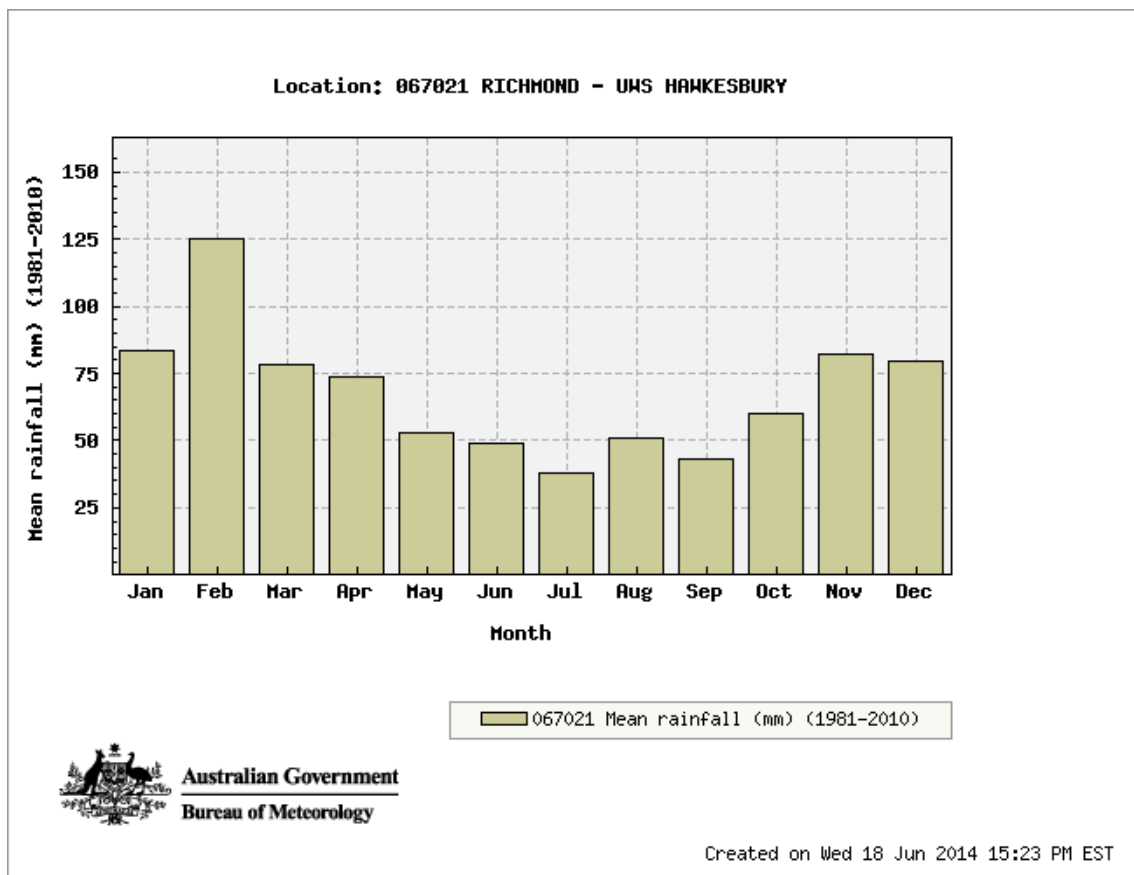
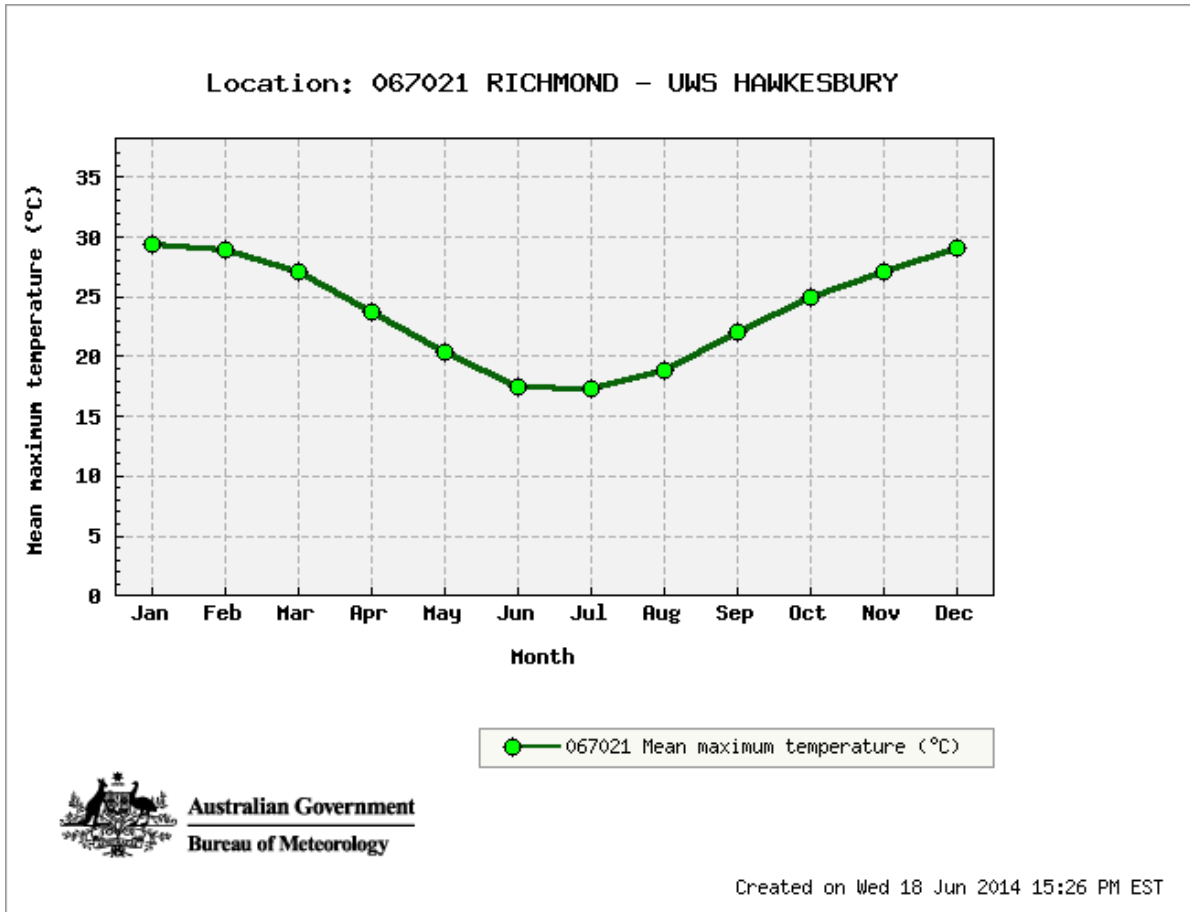
Hawkesbury LEMC area is substantially affected by major to catastrophic flood risk with significant areas inundated to high levels for prolonged periods. There is substantial height increase for the period which may flood over previous flood planning levels. In this regard this is a unique floodplain compared to others.

Climate

The Hawkesbury is entirely within a temperate climate zone which results in the climate being generally mild and mostly free from extremes of heat and cold.

The following charts show:

- The average monthly temperature for all years of data since 1881, as recorded at Western Sydney University, Richmond.
- The average monthly rainfall from 1981 to 2010, as recorded at Western Sydney University, Richmond.



Land Use

The land use in the Hawkesbury is not typical of most LGA's with the predominate usage being national parks and bushland which occupy almost 70% of the land area. The next highest allocation is that of rural lands/environmental protection land. The two larger urban centres of Windsor and Richmond are located in the south eastern corner of the LGA as are the smaller centres of Pitt Town, McGraths Hill, South Windsor and Wilberforce.

Rural lands/environmental protection are mentioned as the second highest land zoning, and that such land uses are unusual for (Sydney Metro) LGAs.

Productive rural lands in total comprise almost 47,000 ha (17% of the LEMC). Common agricultural land uses include; cattle and equine breeding and grazing as well as more intensive poultry meat and eggs, commercial vegetable production, turf growing and orchards. The area also includes important livestock processing facilities and key transport links for agriculture.

The concentration in Hawkesbury is highly significant for the Metropolitan region's food supplies and hence resilience. The mix of peri urban small lifestyle lots with more intensive agricultural land uses, the transport links and diverse cultural backgrounds within the LEMC jointly contribute to potential Biosecurity (plant and animal) emergency risks and consequences. The concentration of agricultural land uses on floodplain areas also contributes significantly to emergency hazards and management requirements.

The details of the areas zoned for specific purposes are identified in the table below.

<i>Land Use Zone / Type / Classification</i>	<i>Area (ha)</i>	<i>% of LGA</i>
RU1 Primary Production	21410.997	7.712%
RU2 Rural Landscape	11465.119	4.130%
RU4 Primary Production Small Lots	13784.270	4.967%
RU5 Villages	225.172	0.081%
R1 General Residential	21.697	0.008%
R2 Low Density Residential	1530.249	0.551%
R3 Medium Density Residential	289.066	0.104%
R5 Large Lot Residential	943.073	0.340%
B1 Neighbourhood Centres	30.800	0.011%
B2 Local Centres	46.903	0.017%
B5 Business Development	32.182	0.012%
B6 Enterprise Corridors	7.676	0.003%
IN1 General Industrial	173.698	0.063%
IN2 Light Industrial	51.979	0.019%
SP1 Special Activities	1886.830	0.680%
SP2 Infrastructure	1062.633	0.383%
RE1 Public Recreation	432.022	0.156%
RE2 Private Recreation	206.497	0.074%
E1 National Parks and Nature Reserves	201105.886	72.446%
E2 Environmental Conservation	441.126	0.159%
E3 Environmental Management	488.651	0.176%
E4 Environmental Living	20973.197	7.555%
W1 Natural Waterways	313.996	0.113%
W2 Recreational Waterways	670.216	0.241%

Population and People

Hawkesbury City's 'usual resident' population at the time of the 2011 Census was 62,352¹. This population profile shows two peaks, with one for people aged between 10 and 19 and the other for those aged between 40 and 50. The population falls away for people over 55, and for those between the ages of 20 and 35, the latter reflecting young people leaving after school for work, education or 'life experience'. This trend is expected to continue with increasing growth of the aging population forecast over the next 20 years.

The official population is based on the ABS Estimated Resident Population series. This has grown from 62,032 in 2004 to 62,527 in June 2014. Over the 5 years to June 2009 the growth rate averaged 0.5% per annum, and it averaged 0.6% per annum in the next five years to June 2014.

Estimated Resident Population

	2004	2009	2014
ERP	62,032	63,618	65,527
5-year growth rate (% pa)		0.5%	0.6%

Source: ABS Estimated Resident Population, Cat No 3218.0

¹ This is slightly lower than estimations made by the ABS 'estimated resident population' figure as the ABS recognises that the Census figures tend to undercount the actual resident population. The 'official' population of Hawkesbury LGA in mid-2014 was 65,527 –the ABS estimated resident population for that time.

Age structure - Service age groups

Hawkesbury City - Total persons (Usual residence)	2011			2006			Change 2006 to 2011
	Number	%	Greater Sydney %	Number	%	Greater Sydney %	
Service age group (years)							
Babies and pre-schoolers (0 to 4)	4,249	6.8	6.8	4,328	7.1	6.6	-79
Primary schoolers (5 to 11)	6,212	10.0	8.7	6,675	11.0	9.1	-463
Secondary schoolers (12 to 17)	5,771	9.3	7.4	5,989	9.9	7.9	-218
Tertiary education and independence (18 to 24)	6,285	10.1	9.5	5,858	9.7	9.9	+427
Young workforce (25 to 34)	7,349	11.8	15.4	7,666	12.7	15.3	-317
Parents and homebuilders (35 to 49)	13,631	21.9	21.9	14,053	23.2	22.5	-422
Older workers and pre-retirees (50 to 59)	8,176	13.1	12.2	7,515	12.4	12.2	+661
Empty nesters and retirees (60 to 69)	5,932	9.5	9.0	4,487	7.4	7.8	+1,445
Seniors (70 to 84)	3,889	6.2	7.2	3,297	5.4	7.3	+592
Elderly aged (85 and over)	859	1.4	1.8	681	1.1	1.6	+178
Total population	62,353	100.0	100.0	60,549	100.0	100.0	+1,804

Age structure - Five year age groups

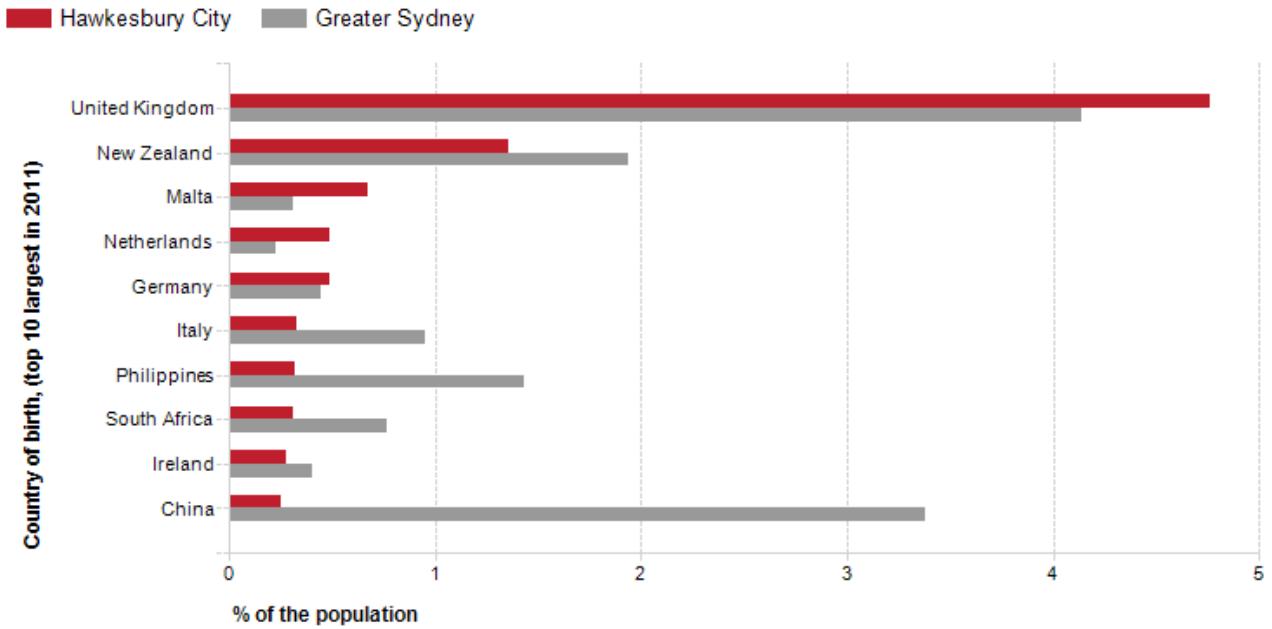
Hawkesbury City - Total persons (Usual residence)	2011			2006			Change
Five year age groups (years)	Number	%	Greater Sydney %	Number	%	Greater Sydney %	2006 to 2011
0 to 4	4,249	6.8	6.8	4,328	7.1	6.6	-79
5 to 9	4,359	7.0	6.3	4,706	7.8	6.5	-347
10 to 14	4,759	7.6	6.1	4,978	8.2	6.5	-219
15 to 19	4,724	7.6	6.3	4,759	7.9	6.6	-35
20 to 24	4,426	7.1	7.0	4,079	6.7	7.2	+347
25 to 29	3,749	6.0	7.8	3,576	5.9	7.4	+173
30 to 34	3,600	5.8	7.7	4,090	6.8	7.9	-490
35 to 39	4,118	6.6	7.6	4,705	7.8	7.7	-587
40 to 44	4,800	7.7	7.3	4,757	7.9	7.6	+43
45 to 49	4,713	7.6	7.0	4,591	7.6	7.2	+122
50 to 54	4,479	7.2	6.5	3,923	6.5	6.3	+556
55 to 59	3,697	5.9	5.7	3,592	5.9	5.8	+105
60 to 64	3,441	5.5	5.1	2,607	4.3	4.4	+834
65 to 69	2,491	4.0	3.8	1,880	3.1	3.4	+611
70 to 74	1,800	2.9	2.9	1,339	2.2	2.8	+461
75 to 79	1,163	1.9	2.3	1,158	1.9	2.5	+5
80 to 84	926	1.5	1.9	800	1.3	2.0	+126
85 and over	859	1.4	1.8	690	1.1	1.6	+169
Total	62,353	100.0	100.0	60,558	100.0	100.0	+1,795

Household type

Hawkesbury City	2011			2006			Change
Households by type	Number	%	Greater Sydney %	Number	%	Greater Sydney %	2006 to 2011
Couples with children	8,119	37.3	34.8	8,136	38.5	34.1	-17
Couples without children	5,076	23.3	22.6	4,849	22.9	22.0	+227
One parent families	2,721	12.5	10.8	2,443	11.6	10.6	+278
Other families	168	0.8	1.4	152	0.7	1.4	+16
Group household	496	2.3	4.1	515	2.4	3.9	-19
Lone person	4,261	19.6	21.5	3,905	18.5	21.6	+356
Other not classifiable household	754	3.5	4.1	881	4.2	5.6	-127
Visitor only households	148	0.7	0.9	260	1.2	0.8	-112
Total households	21,743	100.0	100.0	21,141	100.0	100.0	+602

Country of Birth

Birthplace, 2011



Source: Australian Bureau of Statistics, Census of Population and Housing, 2011 (Usual residence data)
Compiled and presented in profile.id by .id, the population experts.



Aboriginality

Culture and ethnicity

Hawkesbury City	2011			2006			Change 2006 to 2011
	Number	%	Greater Sydney %	Number	%	Greater Sydney %	
Aboriginal and Torres Strait Islander population	1,607	2.6	1.2	1,164	1.9	1.1	+443

Transport Routes and Facilities

Hawkesbury City is served by Bells Line of Road, Singleton Road, Wollombi Road, Richmond-Blacktown Road, and the main western railway line.

Major Transport Routes - Roads

- Windsor Road
- Richmond Road
- Hawkesbury Valley Way
- Kurrajong Road
- Bells Line of Road

Major Transport Routes - Rail

Train line within Hawkesbury LGA runs through the following suburbs:

- Mulgrave
- Windsor Clarendon
- East Richmond
- Richmond

Major Transport Routes - Aircraft

- RAAF Base - Dight Street, Richmond

Vehicular Ferry Locations

- Sackville
- Webbs Creek
- Wisemans Ferry
- Lower Portland

Major Bridges

- Windsor
- North Richmond
- Yarramundi

Economy and Industry

The Hawkesbury contains a variety of business and industry types including retail, health care, professional services, manufacturing and construction as well as agricultural industries such as wholesale nurseries and market gardens.

The main businesses within the Hawkesbury are located in the town centres of Windsor, Richmond and North Richmond.

In 2011, the workforce in the Hawkesbury was made up 43.5% of people who both lived in and are employed in the local area. Workforce statistics reveal how the characteristics of the workforce in the Hawkesbury vary between each industry sector and indicates specific industry sector workforce requirements and employment opportunities.

Employment location of residents

Hawkesbury City	2011	
	Number	%
Live and work in the area	13,565	43.5
Live in the area, but work outside	13,276	42.6
Work location unknown	4,332	13.9
Total employed residents	31,173	100.0

Source: Australian Bureau of Statistics, Census of Population and Housing 2011. Compiled and presented in economy.id by .id , the population experts.

Industry sector of
employment

 Hawkesbury City - (Usual
residence)

Industry sector	2011			2006			Change 2006 to 2011
	Number	%	Greater Sydney %	Number	%	Greater Sydney %	
Total employed persons aged 15+	31,177	100.0	100.0	29,768	100.0	100.0	+1,409
Health Care and Social Assistance	2,883	9.2	10.9	2,581	8.7	10.0	+302
Retail Trade	3,253	10.4	9.8	3,107	10.4	10.5	+146
Professional, Scientific and Technical Services	1,410	4.5	9.6	1,407	4.7	8.9	+3
Manufacturing	3,367	10.8	8.5	3,351	11.3	9.7	+16
Education and Training	2,548	8.2	7.6	2,303	7.7	7.2	+245
Construction	3,926	12.6	7.1	3,443	11.6	7.1	+483
Financial and Insurance Services	732	2.3	6.6	723	2.4	6.4	+9
Accommodation and Food Services	1,599	5.1	6.2	1,555	5.2	6.0	+44
Public Administration and Safety	2,618	8.4	5.6	2,616	8.8	5.6	+2
Transport, Postal and Warehousing	1,510	4.8	5.3	1,517	5.1	5.4	-7
Wholesale trade	1,524	4.9	5.3	1,484	5.0	5.6	+40
Other Services	1,508	4.8	3.7	1,378	4.6	3.7	+130
Administrative and Support Services	814	2.6	3.5	739	2.5	3.4	+75
Information Media and Telecommunications	504	1.6	3.0	539	1.8	3.0	-35
Inadequately described or not stated	728	2.3	2.6	813	2.7	2.8	-85
Rental, Hiring and Real Estate Services	464	1.5	1.8	473	1.6	1.9	-9
Arts and Recreation Services	483	1.5	1.6	421	1.4	1.4	+62
Electricity, Gas, Water and Waste Services	377	1.2	0.9	310	1.0	0.8	+67
Agriculture, Forestry and Fishing	846	2.7	0.4	938	3.2	0.4	-92
Mining	83	0.3	0.2	70	0.2	0.2	+13

Source: Australian Bureau of Statistics, Census of Population and Housing 2006 and 2011. Compiled and presented by .id , the population experts.

Annexure B – Hazards and Risks Summary

A Local Emergency Risk Management (ERM) Study has been undertaken by the Hawkesbury City Council Local Emergency Management Committee identifying the following hazards as having risk of causing loss of life, property, utilities, services and/or the community’s ability to function within its normal capacity. These hazards have been identified as having the potential to create an emergency. The Hawkesbury Emergency Risk Management Study should be referenced to identify the complete list of consequences and risk descriptions. Risk priority is based on Australian Emergency Manual Series - Manual 5 - Emergency Applications Guide.

Hazard	Risk Description	Likelihood Rating	Consequence Rating	Risk Priority	Combat / Responsible Agency
Biosecurity Emergencies (Plant/Animal)	An agriculture/horticulture incident that results, or has potential to result, in the spread of a communicable disease or infestation, including aquatic pests and disease that might threaten native plants/animals.	Possible	Major	Extreme	Department of Primary Industries
Bridge Collapse	Failure of a major bridge structure with or without warning owing to structural failure or as a result of external/ internal events or other hazards/ incidents.	Rare	Major	High	SEOCON
Building Collapse	Collapse of building owing to structural failure or impact from external/internal event of other hazards /incidents.	Rare	Major	High	FRNSW (USAR) SEOCON

Hazard	Risk Description	Likelihood Rating	Consequence Rating	Risk Priority	Combat / Responsible Agency
Communicable Disease (Human)	Pandemic illness that affects, or has potential to affect, large portions of the human population	Possible	Major	Extreme	NSW Health
Dam Failure	A dam is compromised that results in localised or widespread flooding.	Rare	Catastrophic	High	Dam Owners NSW SES
Earthquake	Earthquake of significant strength that results in localised or widespread damage.	Rare	Major	High	LEOCON
Explosion	Sudden release of large amounts of energy in a destructive manner; a result of powders, mists, or gases undergoing instantaneous ignition, or liquids or solids undergoing sudden decomposition, or a pressurised vessel undergoing overpressure rupture with such force as to generate tremendous heat, cause severe structural damage, occasionally generating a shock wave and propelling shrapnel.	Rare	Low	High	FRNSW
Fire (Bush or Grass)	Major fires in areas of bush or grasslands.	Almost Certain	Minor	High	NSW RFS FRNSW

Hazard	Risk Description	Likelihood Rating	Consequence Rating	Risk Priority	Combat / Responsible Agency
Fire (Industrial)	Serious industrial fire in office complexes and/or warehouses within industrial estates.	Rare	Major	High	FRNSW NSW RFS
Fire (Commercial)	Serious commercial fires in shopping centres, aged persons units, nursing homes and hospitals.	Rare	Major	High	FRNSW NSW RFS
Fire (Residential)	Serious residential fire in medium/high rise apartments.	Rare	Major	High	FRNSW NSW RFS
Flood (Flash)	Heavy rainfall causes excessive localised flooding with minimal warning time	Possible	Minor	Medium	NSW SES
Flood (Riverine)	River flows exceed the capacity of normal river systems resulting in flood waters escaping and inundating river plains	Likely	Minor	High	NSW SES
Hazardous Release	Hazardous material released as a result of an incident or accident.	Possible	Major	High	FRNSW
Heatwave	A sequence of abnormally hot conditions having the potential to affect a community adversely.	Possible	Major	Extreme	SEOCN

Hazard	Risk Description	Likelihood Rating	Consequence Rating	Risk Priority	Combat / Responsible Agency
Landslip	Landslip/landslide resulting in localised or widespread damage.	Unlikely	Minor	Low	LEOCON
Mass Gathering	Large numbers of people in a confined location in relation to the size of the location.	Unlikely	Low	Moderate	LEOCON
Storm	Severe storm with accompanying lightning, hail, wind, and/or rain that causes severe damage and/or localised flooding.(includes tornado)	Possible	Moderate	High	NSW SES
Terrorism	The calculated use of violence or the threat of violence to attain goals that are political, religious or ideological in nature. This can be done through intimidation, coercion, or instilling fear. Terrorism includes a criminal act against persons or property that is intended to influence an audience beyond the immediate victims.	Possible	Major	Extreme	LEOCON
Transport Emergency (Rail)	Train derailment, collision between trains or between a train and other object, fire on a train or impacting on a train, fire in or impacting on a rail corridor. Disruption to train services other than industrial action.	Unlikely	Moderate	Moderate	LEOCON

Hazard	Risk Description	Likelihood Rating	Consequence Rating	Risk Priority	Combat / Responsible Agency
Transport Emergency (Air)	Aircraft crashes in LGA resulting in large number of fatalities, injuries and/or damage to property.	Unlikely	Major	High	LEOCON
Transport Emergency (Road)	A major vehicle accident that disrupts one or more major transport routes that can result in risk to people trapped in traffic jams, restrict supply routes and/or protracted loss of access to or from the area.	Unlikely	Major	High	LEOCON
Transport Emergency (Sea)	A major accident that results in environmental damage and major recovery operation	Rare	Major	High	Relevant Port / Maritime
Tsunami	A tsunami wave of magnitude that presents a risk to land and marine elements.	Rare	Minor	Low	NSW SES
Utilities Failure	Major failure of essential utility for unreasonable periods of time as a result of a natural or man-made occurrence.	Unlikely	Minor	Low	LEOCON

Annexure C – Local Sub Plans, Supporting Plans and Policies

Responsibility for the preparation and maintenance of appropriate sub and supporting plans rest with the relevant Combat Agency Controller or the relevant Functional Area Coordinator.

The sub/supporting plans are developed in consultation with the Hawkesbury City Council LEMC and the community.

The plans listed below are supplementary to this EMPLAN. The sub/supporting plans have been endorsed by the LEMC and are determined as compliant and complementary to the arrangements listed in this EMPLAN.

These plans are retained by the LEMO on behalf of the LEMC and public release versions are available on the Council Website.

Plan/Policy	Purpose	Combat / Responsible Agency
Hawkesbury City Local Flood Plan	This plan covers the preparedness measures, the conduct of response operations and the co-ordination of immediate recovery measures for all levels of flooding on the Hawkesbury River and its tributaries within the boundaries of the Hawkesbury City.	NSW State Emergency Service