

Archived: Thursday, 23 January 2020 4:12:00 PM

From: s22

Sent: boundary="_011_SYCPR01MB4320AE28897BBDCB56E34BDDA360SYCPR01MB4320ausp_"MIME

To:

Cc: s22

Subject: Australian Exposure Information Platform [SEC=OFFICIAL]

Sensitivity: Normal

Attachments:

Australian Exposure Information Platform - background for Minister Andrews 16 Jan 2020.docx; Attachment A - Example AEIP exposure report 16 Jan 2020.pdf;

Hi s22

Please find attached some background information on the Australian Exposure Information Platform, following your request to s22 after yesterday's Bushfire Science Roundtable.

If you have any questions or need more information, please let me know.

Kind regards

s22

s22

Executive Officer to the CEO

t s22

www.ga.gov.au



Geoscience Australia acknowledges the Traditional Custodians of Country throughout Australia and recognises the continuing connection to lands, waters and communities. We pay our respects to Aboriginal and Torres Strait Islanders Cultures: and to elders past, present and emerging.





Australian Government
Geoscience Australia

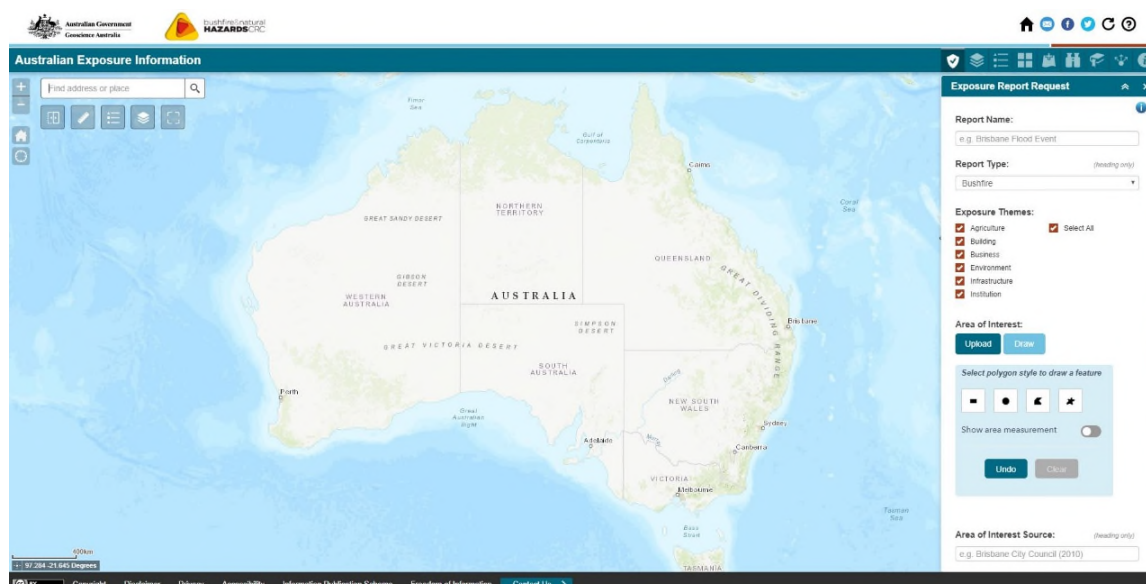


Australian Exposure Information Platform

16 January 2020

What is the Australian Exposure Information Platform?

The [Australian Exposure Information Platform](#) (AEIP) is an interactive mapping tool developed by Geoscience Australia, in partnership with the Bushfire and Natural Hazards CRC. The AEIP overlays information about population, businesses, infrastructure, agricultural commodities and environmental holdings across Australia, to provide information about exposure to hazard risk.



Users can select any area of Australia, or select a specific hazard event such as a bushfire or flood, and generate a report of the people, assets and businesses exposed to hazard events, such as bushfires, floods or cyclones.

The reports give a detailed statistical summary of exposure: the number of people, dwellings, other buildings and structures, and agricultural and environmental assets that are within a threat area or hazard event.

These reports provide decision-makers with critical information for managing risk before, during and after hazard events.

Sources of data include the Australian Bureau of Statistics, including Census statistics, the Australian Business Register, and the Department of the Environment and Energy.

An example AEIP exposure report from a bushfire event in south-east Queensland is at [Attachment A](#).

Who uses the AEIP?

- The AEIP was created to support Commonwealth and state government emergency management agencies. However, since its release in 2019, AEIP users have expanded beyond government to industry and the general public.
- To date, there are nearly 450 individual users of the AEIP throughout government, industry and the general public. These users have generated over 14 000 exposure reports, the vast majority having been created for bushfire-related events in the past three months.
- Prior to the AEIP release in 2019, hazard exposure reports were created manually, on request, by Geoscience Australia and could take hours or days to produce. The AEIP enables any user or disaster manager to generate their own reports in minutes, when and where needed.

What are the current gaps or limitations?

- AEIP does not report on impact, i.e. what has been destroyed after a hazard event like a bushfire, nor can it estimate impact, for example, it cannot provide a spatial representation of a bushfire scar. The AEIP reports provide a detailed statistical summary of **exposure only**, i.e. people and assets likely to be impacted.
- The current version of the AEIP can only produce reports within a single state or territory. The next version due to be released later this year will be able to generate an exposure report for an area of interest that crosses one or more jurisdictional boundaries.
- At present, users must create or upload the boundary they want to use in the report. In the next version it will be possible for users to generate an AEIP report by selecting existing boundaries such as an electorate or local government area.
- At present, users cannot see the currency of the data in an AEIP report, which varies. This will be available in the next version of the AEIP.

What are the potential future applications of the AEIP?

- Automate real-time impact information, using data collected post-hazard event impact assessment teams. This could make it possible to get a trusted national picture of post-disaster impact.
- Automate access to state and territory data that underpins the AEIP to improve data reliability and currency in the system. Currently AEIP data is collected manually and incorporated into the AEIP.
- Develop a live dashboard approach where decision-makers can look around in a digital mapping interface and the exposure information is dynamically updated in real-time. Such a dashboard could be used directly in operational centres for better planning and response.
- The AEIP presents real opportunities for all levels of government to collaborate and share information in a single platform. Currently, AEIP is used by Geoscience Australia to develop hazard impact and risk assessments. Such assessments have been conducted collaboratively with the jurisdictions (WA and QLD specifically) to understand the risk of selected communities to hazards such as tropical cyclone, flood and earthquakes. There is potential to expand the depth and breadth of this type of cross-jurisdictional collaboration.

Geoscience Australia - Exposure Report

Event name: Sarabah-Beechmont and Canungra Fires

Event type: Bushfire

Report Date: 16-01-2020 10:45:28 (AEST)



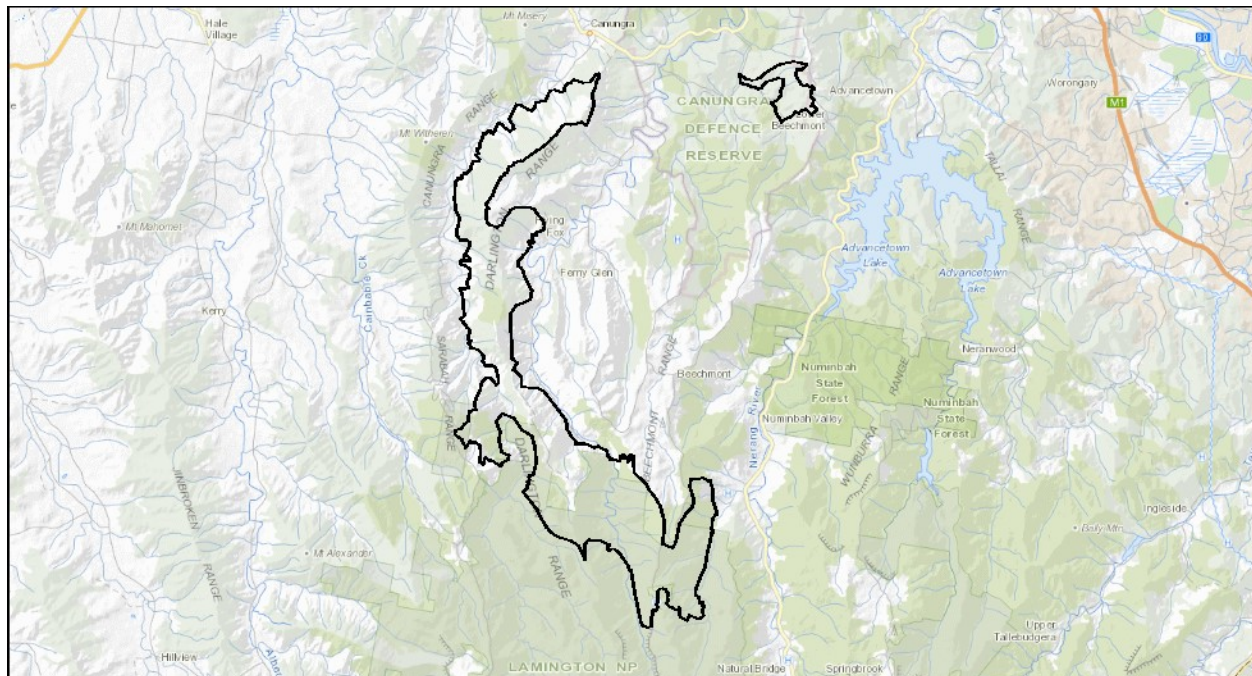
Australian Government

Geoscience Australia

LGAs within the event footprint: Scenic Rim (R) (1.0%), Gold Coast (C) (0.6%)

Localities within the event footprint: Lower Beechmont (L)

Footprint data source: QFES (2019)



Building Exposure, V10 January 2019		Dwelling estimates where residents:		
Residential	Event	Demographic*	Event	QLD(Av)
Population count	63	Are all aged 65 or over	15.4%	17%
Dwelling count*	29	Includes persons aged 14 years and under	26.4%	26.5%
Building count	29	Includes an Indigenous person	2.4%	5.4%
Pre 1980 construction count	5	Are a single parent family	8.4%	7.5%
Pre 1990 probable asbestos containing products**	23	Are in need of assistance for self-care activities	9.2%	11.1%
Reconstruction value	\$14,870,000	Include persons not proficient in English	0%	0.6%
Contents value	\$1,930,000	Do not have access to a motor vehicle	0%	7.9%
Commercial		No one has completed Year 12 or higher	14.2%	16.9%
Building count	-	Moved to the region in the last 1 year	7.4%	14.4%
Reconstruction value	\$-	Moved to the region in the last 5 years	24.2%	36.3%
Industrial		Top 5 employing industry*:		
Building count	-	Accommodation Food Services, Health Care Social Assistance, Construction, Education Training, Professional Scientific Technical Services		
Reconstruction value	\$-			
2016 SEIFA IRSAD*		Economic*	Event	QLD (Av)
Dwellings in area with a SEIFA decile 10 score (most advantaged)	-	Are low income (\$1-\$499/week)	24.9%	24.3%
Dwellings in area with a SEIFA decile 9 score	-	Are medium income (\$500-\$1,499/week)	55.6%	55.9%
Dwellings in area with a SEIFA decile 8 score	-	Are high income (\$1,500+/week)	18.6%	20.9%
Dwellings in area with a SEIFA decile 7 score	-	Are in public housing	0%	6.1%
Dwellings in area with a SEIFA decile 6 score	9	Are all unemployed	0%	2.1%
Dwellings in area with a SEIFA decile 5 score	20	* Demographic information is based on 2016 Census. Residential demographic and economic information is not provided for dwelling counts less than 20 or when the population count is zero		
Dwellings in area with a SEIFA decile 4 score	-			
Dwellings in area with a SEIFA decile 3 score	-	**Buildings may contain asbestos cement materials, especially in the eaves, internal and external wall cladding, ceilings (particularly in wet areas such as bathrooms and laundries), corrugated products (roofing and cladding) and fences		
Dwellings in area with a SEIFA decile 2 score	-			
Dwellings in area with a SEIFA decile 1 score (most disadvantaged)	-			
Dwellings in area without a SEIFA score	-			

Institution Exposure			
Education	Event	Government Facilities	Event
School - Pre/Primary	-	Federal Court	-
School - Secondary	-	Medicare Office	-
School - Tertiary	-	Centrelink Office	-
School - Other (Combined, Special)	-	Diplomatic Facility	-
Health and Welfare		Consulate Facility	-
Hospital - Public	-	Major Defence Facility	1
Hospital - Private	-	Correctional Facility	-
Nursing Home	-	Immigration Detention Facility	-
Retirement Home	-	Local Government Offices	-
Emergency Services			
Police Station	-		
Fire Station	-		
Ambulance Station	-		
SES Facility	-		
Emergency Management Facilities	-		
Infrastructure Exposure			
Utility/Energy	Event	Transport	Event
Power Station - Major Renewable	-	Airport - Major Areas	-
Power Station - Major Fossil Fuel	-	Airport - Major Terminals	-
Transmission - Substation	-	Airport - Landing Grounds	-
Transmission - Electricity Lines (km)	-	Road - Major (km)	-
Liquid Fuel - Refineries	-	Road - Arterial and Sub-arterial (km)	4
Liquid Fuel - Terminals	-	Railway - Station	-
Liquid Fuel - Depots	-	Railway - Tracks (km)	-
Liquid Fuel - Petrol Stations	-	Maritime - Major Port	-
Gas Pipeline (km)	-	Maritime - Ferry Terminal	-
Oil Pipeline (km)	-		
Off-shore Extraction Platform	-		
Waste Management Site	-		
Waste Water Treatment Plant	-		
Major Dam Walls	-		
Telephone Exchange	-		
Broadcasting Studios (Radio and TV)	-		
Business Exposure, ABR 2018			
Number of businesses	45	Number of Registered Charity Organisations:	-
Accommodation and Food Services	1		
Administrative and Support Services	2	Number of Primary Producers*	-
Agriculture, Forestry and Fishing	4	Agriculture and Fishing Support Services	-
Arts and Recreation Services	-	Aquaculture	-
Construction	10	Dairy Cattle Farming	-
Education and Training	2	Deer Farming	-
Electricity, Gas, Water and Waste Services	-	Fishing	-
Financial and Insurance Services	1	Forestry and Logging	-
Health Care and Social Services	3	Forestry Support Services	-
Information Media and Telecommunications	1	Fruit and Tree Nut Growing	-
Manufacturing	-	Hunting and Trapping	-
Mining	-	Mushroom and Vegetable Growing	-
Other Services	4	Nursery and Floriculture Production	-
Professional, Scientific and Technical Services	9	Other Crop Growing	-
Public Administration and Safety	-	Other Livestock Farming	-
Rental, Hiring and Real Estate Services	4	Poultry Farming	-
Retail Trade	1	Sheep, Beef Cattle and Grain Farming	-
Transport, Postal and Warehousing	1	*Primary producer information not provided for counts less than 5	
Wholesale Trade	-		
Unclassified businesses	2		
Agricultural Exposure			
		Event	QLD (Prop)
Agriculture Commodity Estimated Value 2016:		\$275,000	0.0%
Estimated Agricultural Area (Ha):		1,367	0.0%
Commodities include: Avocados, Beehives, Dairy cattle, Meat cattle, Other livestock, Sheep lambs, Sugar cane			
Environmental Exposure			

Environmental Exposure	
World Heritage List, 2018:	
Declared property:	Total Area: 0ha
No features within the nominated boundary	
Buffer zone:	Total Area: 0ha
No features within the nominated boundary	
National Heritage List, 2016: (Status = Listed places and Within listed place only)	
Historic:	Total Area: 0ha
No features within the nominated boundary	
Indigenous:	Total Area: 0ha
No features within the nominated boundary	
Natural:	Total Area: 1,596ha
Gondwana Rainforests of Australia (1,595.5ha, 2.7%)	
Commonwealth Heritage List, 2017: (Status = Listed places and Within listed place only)	
Historic:	Total Area: 0ha
No features within the nominated boundary	
Indigenous:	Total Area: 0ha
No features within the nominated boundary	
Natural:	Total Area: 200ha
Canungra Land Warfare Centre Training Area (part) (200.3ha, 3.5%)	
Collaborative Australian Protected Areas Database (CAPAD), 2016. IUCN Protected Area Management Categories:	
Ia - Strict Nature Reserve:	Total Area: 0ha
No features within the nominated boundary	
Ib - Wilderness Area:	Total Area: 0ha
No features within the nominated boundary	
II - National Park:	Total Area: 1,708ha
Lamington (1,708.1ha, 8.1%)	
III - Natural Monument or Feature:	Total Area: 0ha
No features within the nominated boundary	
IV - Habitat/Species Management Area:	Total Area: 0ha
No features within the nominated boundary	
V - Protected Landscape/Seascape:	Total Area: 0ha
No features within the nominated boundary	
VI - Protected area with sustainable use of natural resources:	Total Area: 0ha
No features within the nominated boundary	
Wetlands of International Importance (Ramsar Sites), 2016:	Total Area: 0ha
No features within the nominated boundary	
Interim Biogeographic Regionalisation for Australia (IBRA), Version 7 Regions:	Total Area: 4,961ha
South Eastern Queensland (4,961.1ha, 0.1%)	
Natural Resource Managements (NRM), 2016 Regions:	Total Area: 4,961ha
(4,961.1ha, 0.2%)	

Exposure Report Job ID: 70692

This report is a summary of exposure information within the area of interest requested.

The exposure information in this report is sourced from:

Agricultural Exposure: The list of agricultural commodities and estimated value is based on the Australian Bureau of Statistics (ABS) Value of Agricultural Commodities Produced (VACP) 2016, and Agricultural Commodity Estimates by Region 2016.
www.ga.gov.au/metadata-gateway/metadata/record/gcat_82222

Building Exposure: Residential, Commercial and Industrial exposure information is collated from a variety of best and publicly available data. Building reconstruction and contents values are adjusted to June 2018 costings.
www.ga.gov.au/metadata-gateway/metadata/record/gcat_82220

Business Exposure: The Australian Business Register is a comprehensive database of identity information provided by businesses and other organisations when they register for an Australian Business Number (ABN). It provides information on the type of businesses, type of primary producers and not-for-profit organisations by ANZSIC Classifications. The data is based on the main business location of the registration.
<https://abr.gov.au/About-us/Our-work/The-ABR-explained/>

Demographic Exposure: Demographic exposure applies the ABS 2016 Census statistics and ABS 2016 Social-economic Indexes For Areas-Index of Relative Socio-economic Advantage and Disadvantage (SEIFA IRSAD) to a NEXIS building location. Some areas cannot be assigned a score because the population is too small or the quality of the data is not good enough.

Institution Exposure: Institution asset data is collected through a variety of best available data. This data is either not available publicly because they are government departmental data and or commercially available data products.

Infrastructure Exposure: Infrastructure asset data is collected through a variety of best and publicly available data.
www.ga.gov.au/scientific-topics/national-location-information/built-environment-and-exposure

Environmental Exposure: Environmental data is sourced from the Department of Environment and Energy, and represents the most recently released publicly available data.
www.environment.gov.au

The ABS Australian Statistical Geography Standard (ASGS) provides an approximation of officially gazetted Local Government Areas (LGA) 2018, as defined by each State and Territory, and Urban Centres and Localities (UCL) 2016 where population is greater than 200.

DIIS - Released under the FOI Act

Document 1

[www.abs.gov.au/websitedbs/D3310114.nsf/home/Australian+Statistical+Geography+Standard+\(ASGS\)](http://www.abs.gov.au/websitedbs/D3310114.nsf/home/Australian+Statistical+Geography+Standard+(ASGS))

For more information: www.ga.gov.au/scientific-topics/hazards/risk-impact/nexis

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