

SELECTING CASE STUDIES



The diverse nature of our continent including our vibrant cities, sometimes overshadows the hidden gems of the rural locations we have on offer to help inform our studies.

Here's a shout out to one rural town that is going through a population decline and how you could use Broken Hill in Wilyakali country throughout the HSC course as a unique case study.

ECOSYSTEMS AT RISK – ARID ZONES

About the ecosystem

The bioregion in which Broken Hill sits is known as the Barrier Range and is characterised by its low average rainfall of 259mm. It is often a hostile location, however in 2020 has seen major downpours causing vegetation levels to spike and usually dry riverbeds to flow again. The arid nature of the Barrier Range region means that decomposition and nutrient cycling is slow, however is aided by large predator birds such as the wedge-tailed eagle and rain events as well.

Many of the dominant native vegetations in this area are known to be endangered or vulnerable, while the invasive species are classed as destructive to natural ecosystems. There are recorded to be 195 bird species, 58 reptile species and 37 species of mammals including the yellow-footed rock-wallaby.

Management and protection

A 2,400-ha conservation area known as the Living Desert was created in 1994 to help with conservation efforts with protection of the native flora and fauna and also provide an area for passive recreation. This

area includes spaces for walking tracks which highlight natural vegetation, some fauna and the Living Desert sculptures as a major tourist drawcard to the region.

Reserves also encircle the township to aid in mitigating the impacts of mining and grazing. Regeneration – mostly using saltbush – helps to reduce the large amounts of dust that blow through the town which are eroded from the local sand dunes.

Stresses on the Barrier Ranges

Human impacts centre around the goat and sheep grazing which has over the years caused many of the native species to contract. Saltbush dominates the landscape around the town and means there is a lowering of diversity in many areas around Broken Hill of native species. Predator birds are similarly affected by human activity with hot spots of easy prey found on the sides of roads. This means their range and function throughout the local ecosystem has been skewed to coincide with human activities.



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Environment / ecosystem characteristics

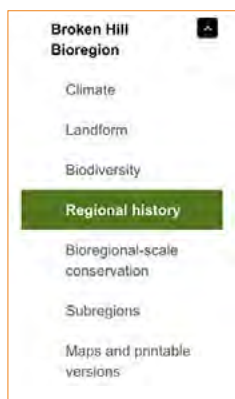
Typical arid vegetation communities



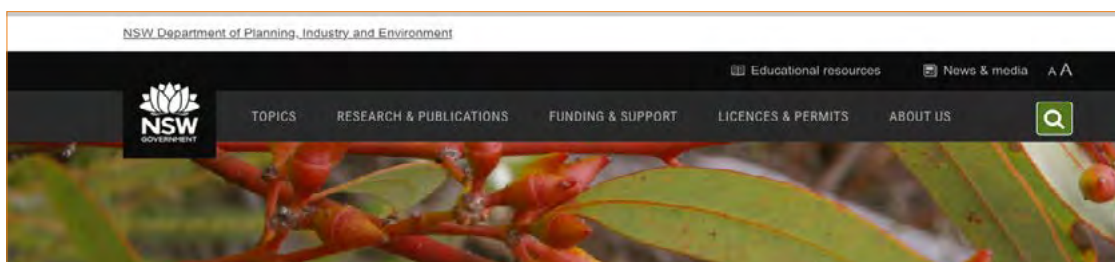
Source: Shutterstock



Source: Shutterstock



Information on the Broken Hill Bioregion can be found on the NSW Dept of Infrastructure and Planning website: <https://www.environment.nsw.gov.au/bioregions/BrokenHillComplex-RegionalHistory.htm>



Natural environment / natural history and Aboriginal heritage



Source: <https://destinationbrokenhill.com.au/broken-hill/history/>

Dust storm approaching



Source: David Proctor

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Arid ecosystem



Source: David Proctor

URBAN PLACES – URBAN DECAY

Urban history

The city of Broken Hill has been placed on the National Heritage List due to its significant contribution to the history of Australia. It was formed as a mining town and has remained so for its entire life, with expansion into other industries. The architecture of the town reflects the history and administration, with many nods to the close ties the city has to South Australia. The houses resemble the style found in many rural areas of SA, while other large buildings have a Sydney/Melbourne colonial feel about them. Many of the original buildings are made from the local rocks and help with the extremes in weather.

Newer dwellings have followed the style of the original, however, made use of modern materials such as iron and other metal cladding being the most popular.

View down the main street



Source: Shutterstock

Causes and effects of decay

Broken Hill continued to see a boom in mining over the years leading to an associated peak in the population in the 1970s, when the town had the largest High School in the southern hemisphere at the time. This led to an expansion of the town and its facilities. This was not the trend for the population after the 70s. Many of the mines have since scaled back on their operations and miners who follow the work have left town. Houses were left vacant and savvy locals were able to snap up homes for as little as \$12,000.

Trades Hall building



Source: David Proctor

Decay and traditional colours



New motel built in similar style to nearby buildings



Source: David Proctor

The decline of the population was also mirrored in the quality of housing stock in the city with decay setting in for homes across the city without regular maintenance over the years. Many homes have since been left to rot with salt damp a major issue. The lack of attention to some homes has seen them sit for sale for years, with no one interested in buying them, or even empty lots which dot the city's landscape. The population today of Broken Hill is around 17,000 and this has a chance of bouncing with the announcement of future mines opening.

The positive note is that where there is renewal in Broken Hill it is done with sympathy. Many of the stores, pubs and motels are done up with the heritage architecture and colours kept in mind.

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Population change, Broken Hill

Annual change in Estimated Resident Population (ERP)									
	Broken Hill City			New South Wales			Australia		
Year (ending June 30)	Number	Change in number	Change in percent	Number	Change in number	Change in percent	Number	Change in number	Change in percent
2019	17,479	-236	-1.33	8,089,817	+109,649	+1.37	25,365,571	+382,883	+1.53
2018	17,715	-168	-0.94	7,980,168	+112,232	+1.43	24,982,688	+380,828	+1.55
2017	17,883	-231	-1.28	7,867,936	+135,078	+1.75	24,601,860	+410,953	+1.70
2016	18,114	-246	-1.34	7,732,858	+105,440	+1.38	24,190,907	+340,123	+1.43
2015	18,360	-267	-1.43	7,627,418	+110,223	+1.47	23,850,784	+346,646	+1.47
2014	18,627	-175	-0.93	7,517,195	+108,113	+1.46	23,504,138	+358,237	+1.55
2013	18,802	-183	-0.96	7,409,082	+100,877	+1.38	23,145,901	+403,426	+1.77
2012	18,985	-166	-0.87	7,308,205	+89,676	+1.24	22,742,475	+402,451	+1.80
2011	19,151	-116	-0.60	7,218,529	+74,237	+1.04	22,340,024	+308,274	+1.40
2010	19,267	-154	-0.79	7,144,292	+90,537	+1.28	22,031,750	+340,097	+1.57
2009	19,421			7,053,755			21,691,653		

Source: .id the population experts <https://economy.id.com.au/broken-hill/population/>

powered by **.id** the population experts
Powered by .id - the population experts for Broken Hill City



PEOPLE AND ECONOMIC ACTIVITY – MINING/TOURISM

Mining

Broken Hill has a rich history in its mining, and it is no surprise the BHP is where it all began. Lead, zinc and silver ore are the main minerals and metals found in Broken Hill. BHP has been replaced by other operations in the city with two new operations recently being announced this year. An effect of this has been many homes for sale suddenly being taken off the market with buyers eager to snap up a bargain before prices rise.

\$100 billion of wealth is said to have been generated from Broken Hill so far and it looks as if this is to continue if mining operators continue to see viability. Currently exploration occurs and blasting is felt daily. Depending on how deep the blasting occurs you can feel the ground (and often your house) shake at 6:45am and pm. Another bit of mining trivia: there are more traffic lights underground than above in Broken Hill.

The town has certainly come to life because of mining and is one of the major employers in town (about 10% of

the workforce). However, there are efforts being made in areas of tourism and entertainment to see that it doesn't die if mining does. One of the big impacts of the decline in the mining workforce over the years has been the number of older people who have remained in the city in retirement. This, along with other factors, has led to a greater need for social and medical support services.

Line of Lode dominating the city skyline



Source: David Proctor

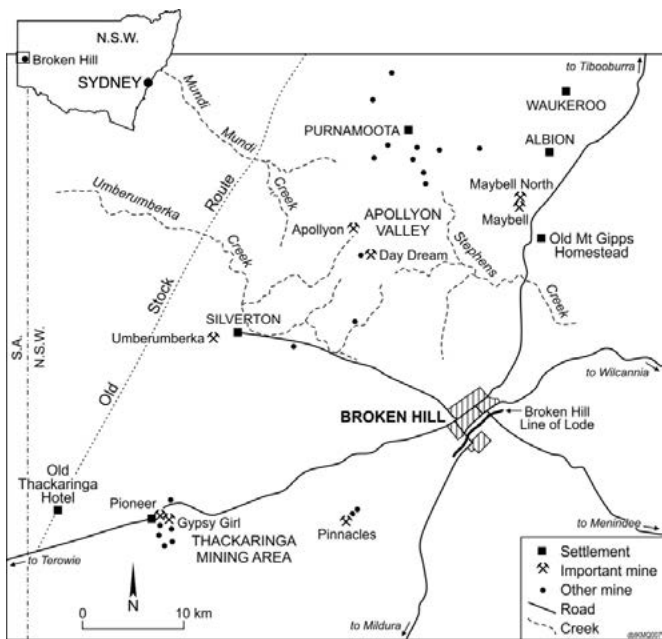
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Tourism

COVID-19 has hurt towns like Broken Hill. There has always been a greater affinity with Adelaide (distance and sharing the same time zone) and the border restrictions with South Australia and the only other major centre nearby, Mildura in Victoria, have seen visitor numbers decrease this year. The relaxing of the borders has seen a change though in town in recent weeks, along with the recent NSW school holidays seeing a major boost to tourism. Sadly, festivals and celebrations have much like other locations been called off including the famous Broken Heel festival which attracts people from around Australia to celebrate LGBTQ+ people.

The influx of tourists has seen stronger trade in all sectors of the tourism and hospitality economy in the last few weeks according to local business owners, many of whom had staff on job keeper payments and no prospects of a bright future. The droughts which frequently hit Broken Hill and the decline in mining, have also played a role in the decline in local tourism and spending in town.

Location of Broken Hill in NSW and historical mine map



Source: McQueen, Kenneth. (2016). 'Tackaringa': First step to Broken Hill. *Journal of Australasian Mining History*. 14. 77–98.

Mad Max Museum



Source: Shutterstock

Line of Lode Miners Memorial



Source: Shutterstock

The strategic plan for tourism has some highlights that show a strong focus on tourism as revenue stream for the city and wider outback with a focus on promotion, use of technology including apps and prizes (buried silver bars), and encouraging filming in town – the latest is a mini-series based on the Royal Flying Doctors service which has been filming throughout the last few months in town.

Popular tourist destinations include natural and cultural places of interest including Living Desert Sculptures, Living Desert Flora and Fauna Sanctuary, Mutawintji National Park, Mundi Mundi Plains, Outback Astronomy, Original Silverton Hotel and Mad Max Museum.

Living Desert sculpture and surrounding plains



Source: David Proctor

Story poles in the Living Desert

