

Sydney's Urban Future

This article is based on a workshop session delivered by Louise Swanson at the GTANSW Conference, held on Monday 9 and Tuesday 10 April 2018

Overview



This resource will examine strategies being implemented by the NSW State Government to address housing needs and transportation issues associated with population forecasts and future growth in Sydney's Inner West. The economic, social and environmental sustainability of these strategies will be examined, along with actions of individuals and communities to contribute to the development of a sustainable future.

Background concepts



- Urbanization
- Urban settlement patterns
- Population growth
- Population forecasting
- International migration
- Rural-to-urban migration
- Liveability
- Sustainability

Key Inquiry Questions



- How does urbanisation change environments and places?
- What strategies are used to manage environmental change in urban places to enhance sustainability?



Syllabus Links

Stage 5 – Changing Places

Investigate the management and planning of Australia's urban future, for example:

- description of Australia's projected population growth
- discussion of the implication of population forecasts for the future growth and sustainability of urban places
- explanation of strategies used to create economically, socially and environmentally sustainable urban places
- proposal of ways for individuals and communities to contribute to a sustainable urban future.

Australia's Projected Population Growth

Australia's Population

Australia's population is continuing to become more urban and the population structure is aging. As Australia's population grows, this will have implications for how Australian cities will continue to grow and how sustainable they will be. Issues of sustainability include access to water, affordability of food and the distance food travels to get on the plate, loss of habitat areas and species diversity and greenhouse gas emissions. Planning for Australia's urban future, involves strategically planning for equitable and affordable access to services and infrastructure. It is imperative that we develop resilient communities that can cope with and manage changes in the future.

Sydney

The population of Greater Sydney (including the Blue Mountains and Central Coast) reached 5 million in June 2016. Last year, Sydney had the largest population growth of the capital cities.

Inner West

For the purposes of this unit of work, the "Inner West" will be defined as the suburbs which are part of the Inner West Council. However, the Inner West is a very loosely defined term, which can be used to describe a much broader range of suburbs.

According to the 2016 census, the Inner West of Sydney had a population of approximately 192,000, and a population density of approximately 55 persons per hectare.

Graphs and Statistics: Population growth

Population Growth in Sydney

Conduct your own research on population growth in Sydney. Create a summary including the location of the highest growth areas and the impact of migration on growth in Sydney. Use data tables, column graphs and/or line graphs to present your information.

Visual representations: Population

Population Growth and Transport in Sydney

In groups of 2-3 examine the current population projections for Sydney and consider the effectiveness of current transport infrastructure, taking into account commute times and traffic congestion. Suggest strategies to address transport issues in Sydney, including the pros and cons of each strategy. Devise a plan that you would put in place if you were Premier. Present it to the class (include annotated maps, descriptions justifying your choices, references to economic, social and environmental sustainability of your choices).

Sydney's Inner West

Use the Inner West Council Community Profile website: <https://profile.id.com.au/inner-west>

Create an infographic that presents the main characteristics of the Inner West. You might include information about age, ethnicity, income, etc.



Geographical Inquiry:

Develop a set of questions to study change in Sydney's Inner West. Your questions should encompass the issues of new transport infrastructure, population growth and increase in population density.

Identify the geographical concepts that are relevant to your geographical inquiry.

Identify fieldwork techniques that will be appropriate for your geographical inquiry.

Outline the steps that you will undertake to complete your geographical inquiry. Set a schedule with dates by which to complete each part of the geographical inquiry.

Visual representations: Population

Population Growth

Visit <https://www.populationpyramid.net/population-density/australia/2016/>

Compare the [population density in Australia](#) with the rest of the world.

How does Australia's population density compare with some countries in Europe?

How does Australia's population density compare with some countries in Asia?

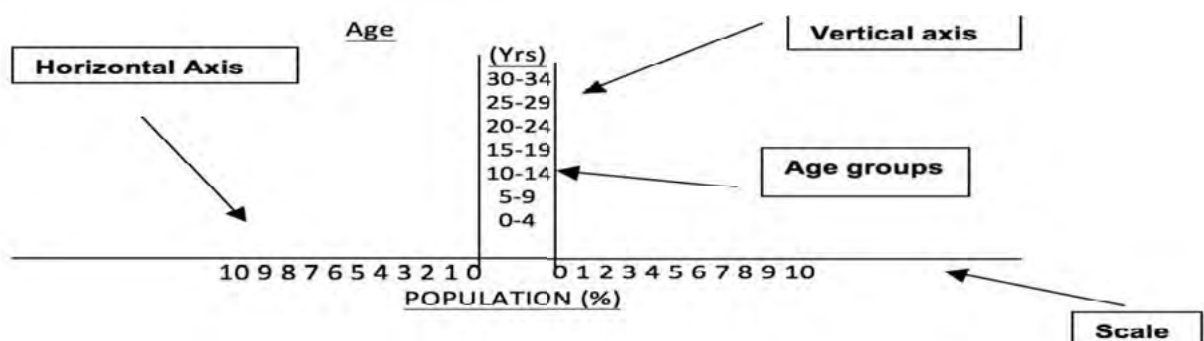
List countries that have a similar population density to Australia.

Graphs and Statistics: Population pyramids

Population pyramids show the age and gender structure of a population. They can be used to predict what will happen in the future and predict what services may be needed.

How to draw a population pyramid:

1. Draw a horizontal axis and add the scale. Remember to start in the middle with your scale and represent the males on the left and the females on the right.
2. Draw two lines in the centre of the graph as your vertical axis. Label the age groups starting with 0-4 years and then increasing in 5 year age groups up the graph.
3. Using the data plot the bars with data for males on the left and data for females on the right. Don't forget to label your graph!



Implications for Future Growth and Sustainability

Population forecasts for continued and accelerating growth of urban areas have a range of implications for sustainability.

Sustainability is development that meets the needs of the present population without endangering the capacity of future generations to meet their needs. Indicators of sustainability in urban areas include air and water quality, biodiversity, integration of green building initiatives, health and well being measures, employment rates, transport infrastructure and access to employment.

Implications of growth of urban areas include loss of agricultural land, habitat areas and open space, increased pressure on transport infrastructure resulting in heavy flows of commuter traffic and traffic congestion.

Planning for the future growth of urban centres in Australia needs to address the provision of:

- public transport,
- more efficient use and upgrading of existing infrastructure and the provision of additional infrastructure,
- land-use and infrastructure planning which takes into consideration equitable access and reduction in carbon emissions,
- provision of green and public space,
- creation and support of employment centres

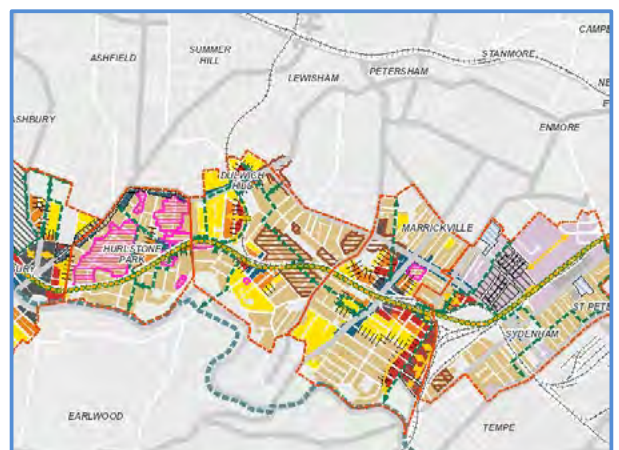
Priority Precincts and increased density

An increase in density of urban areas creates more compact, “efficient” urban areas. This allows for services and infrastructure to be provided for a greater number of people and can allow residents to access public transport more easily and become less reliant on cars. The State Government’s Priority Precinct Program encourages population growth and increased density in specified areas. The Sydenham to Bankstown Urban Renewal Corridor includes the Inner West suburbs of St Peters, Sydenham, Tempe, Marrickville, Dulwich Hill and Hurlstone Park. For further reading click:

<http://www.urbangrowth.nsw.gov.au/assets/Living-Cities/CfS-Discussion-Paper-Making-Great-Places-Density-Done-Well.pdf>

Connectivity and Infrastructure

Public infrastructure such as hospital, police centres, schools, trains, buses and roads is required for cities to function effectively. Upgrades of schools include Ashfield Boys, Ashbury Public, Croydon Public, and the construction of NSW School of Languages at Petersham. An ambulance super centre is being built at Haberfield. Transport infrastructure includes the construction of the Metroline and the M4 East extension, M5 extension and the M4-5 link.



Economically, socially and environmentally sustainable places.



Above: WestConnex brochures to engage with the community.

Below: The construction site at Haberfield.



Maps: WestConnex and Sustainability

Create a series of maps showing where the WestConnex project is located and the changes to landuse along the corridor (for example, acquisitions and demolitions, new open spaces).

Examine the WestConnex development from a range of different perspectives. Develop a criteria to assess the project for economic, social and environmental sustainability. What might you change to improve the economic, social and environmental sustainability of the project?

Consider the following:

- What is the overall cost of development (economic, social, environmental)?
- What kind of Sydney do we really want?
- Do the benefits to the city/commuters outweigh the costs to others?
- Will the project really relieve traffic?

WestConnex

Stage 1 (M4 East)

Stage 1 of the WestConnex project involves the widening of the M4, a connection between Parramatta Road and the City West Link and new connections at Concord Road. A tunnel will run from the end of the current M4 to the City West Link.

Ashfield and Haberfield

A section of Ashfield along Parramatta Road was acquired and demolished for WestConnex. The exit to the M4 tunnel will be near the crossroads of Frederick St/ City West Link and Parramatta Road. A large sections of Haberfield has been acquired to allow the WestConnex to link directly with the City West Link.

Stage 2 (New M5)

Stage 2 of the WestConnex project involves the construction of a tunnel between St Peters and Kingsgrove.

St Peters, Alexandria and Newtown

A traffic interchange is under construction next to Sydney Park. This will feed traffic into Edgeware and Enmore Roads and King Street, Newtown. Campbell Street and Euston Road will be widened.

Stage 3 (M4-M5 Link)

Stage 3 will involve an underground tunnel from Victoria Rd, east of the Iron Cove Bridge to St Peters.

Balmain and Rozelle

While Stage 3 of WestConnex is being finalized , recent announcements suggested that the former Balmain Tigers Club on Victoria Rd at Rozelle, will be used as a dive site. Further details have not yet been released.



Above: New development in the Sydenham-Bankstown Precinct.

Consolidation - Planned Precincts and Growth Areas

The NSW Government has released a revised Sydenham to Bankstown Urban Renewal Strategy for public comment. The strategy will be implemented over 20 years and sees plans for urban consolidation and retail opportunities along the a new metro line which will replace the existing train line and link with the Metroline being built in Sydney's north west. It includes the creation of over 35,000 new homes.

Planned Precincts are areas where development will be concentrated. Developments in these areas will include buildings up to 25 storeys high. Marrickville will have an increase in homes of 84%, while Canterbury will increase by 208%. Some suburbs such as Dulwich Hill and Hurlstone Park have had a reduction in the number of new dwellings proposed compared to the previous plan released, but will still have substantial increases.

Lesson Idea: Planned Precincts

Define the terms low-density, medium-density and high-density. Describe the advantages and disadvantages of each type of housing.

Examine:

<http://www.planning.nsw.gov.au/Plans-for-your-area/Priority-Growth-Areas-and-Precincts/Sydenham-to-Bankstown-Urban-Renewal-Corridor/Map>

Outline the changes that will occur in each Inner West suburb as a result of the Sydenham to Bankstown Planned Precinct.

Assess how the new Metroline will support population growth in the Urban Activation Precincts.

Below: New high-rise residential buildings in Summer Hill.



Light Rail Extension

A key issue in sustainability is its car-dependence. Every improvement in public transport is a step towards improving Sydney's sustainability. The 2013 Inner West Light Rail Extension involved utilising former freight lines to extend light rail services from Lilyfield to Dulwich Hill. The light rail now extends from Lilyfield into the CBD, and commuters can also connect to the Inner West rail line at Summer Hill or Stanmore. The extension of the light rail line through the Inner West involved a 5.6 km line extension and the construction of stops at Leichhardt North, Hawthorne, Marion, Taverners Hill, Lewisham West, Waratah Mills, Arlington, Dulwich Grove and Dulwich Hill Interchange.

Metroline

The existing rail line between Sydenham to Bankstown will be converted to a Metro line. During construction the rail line will not be in operation. It is anticipated that once completed, it will reduce wait times and travel times to the city. However, the existing rail line allows commuters to connect with the existing CityRail network and travel to locations such as Chester Hill, Villawood, Cabramatta and Liverpool, without having to change trains. Commuters can then change trains to connect with the rest of the CityRail network. It is unclear at this stage how the Metro line will interact with the existing City Rail and light rail networks.

Below: Images of the Light Rail construction from 2013, and the completed line in 2018.



Lesson Activity:

Determine the advantages and disadvantages of replacing the existing train line with the Metroline.



Spatial Technologies: Geographic Information Systems (GIS)

Geographic Information Systems are software that help us to collect, record, organize and analyse geographic information. The information (or data) that is stored in the program is presented spatially on a map, so GIS presents information as well as the location of where the information was collected. A map of a location is provided with different layers of information that can be overlaid on top of the map. We use GIS regularly when we use Google Maps, and observe different layers of information. GIS can be used to help investigate issues and devise solutions to problems.

Go to the NSW Planning website and examine the map for the Sydenham to Bankstown Urban Renewal Corridor.

<http://www.planning.nsw.gov.au/Plans-for-your-area/Priority-Growth-Areas-and-Precincts/Sydenham-to-Bankstown-Urban-Renewal-Corridor/Map>

You can see that you have been provided with a base map. In the left hand column, there are different layers of information that you can click. When you click on a selection, it provides another layer of information on top of the map.

As an introduction, just click on a few different layers of information to see how the map changes dependent on what is clicked in the left hand column.

- Click on “View map full screen”.
- Zoom into the map so that it only shows suburb categorise as being in the Inner West. At the west you should see Ashfield and Ashbury, and at the east of the map you should see St Peters and Sydenham.
- Click all the boxes except “Sydney-Bankstown Urban Renewal Corridor” to remove all layers of information.
- Click on “Land Use Implementation Plans”.

Describe the spatial distribution of medium and medium-high rise housing in the suburbs of the Inner West.

- Click on “Special Infrastructure Contribution”.
- Describe the extra infrastructure that is going to be provided to cater for the Urban Renewal Corridor in the Inner West section or the corridor.

Sustainability

- Click on “New and Enhanced Connections”, “Walking Catchment” and “Open Space”.

How will the new cycle and pedestrian routes contribute to the sustainability of the Inner West?

Examine the location of Open Space, and describe its location in relation to the areas that are likely to be most densely populated.

Assess whether these provisions will be adequate for the proposed increase in the population.

Evaluate whether the Sydenham-Bankstown Urban Renewal Corridor will create an economically, socially and environmentally sustainable urban place for the Inner West.

Deindustrialisation

Sydney's Inner West is still experiencing deindustrialization as industrial land users continue to move further west. Zoning for high density residential developments has exacerbated the increase in land values of industrial properties in Inner West suburbs. As a result some of the last remnants of the suburbs' blue collar, industrial working class history are being redeveloped. Old waterfront industrial sites such as Rozelle Bay and White Bay have already been rezoned as part of the Bays Precinct urban renewal initiative. Recent rezoning for high density residential housing in suburbs such as Marrickville and Dulwich Hill will see a decline in small industries in coming years.

Fieldwork:

See the "Fieldwork – Marrickville" handout.

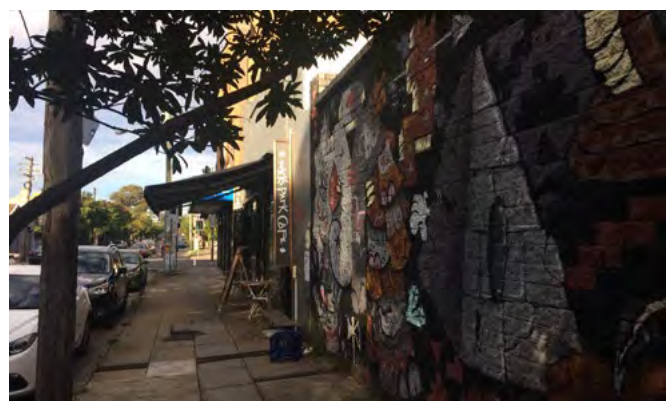
Draw two different field sketches of Marrickville – one that shows evidence of the heritage of the suburb and one that shows evidence of change taking place.

Complete an environmental survey on the main street of Marrickville.

Complete a landuse survey of Marrickville.

Complete a survey of residents asking about their perceptions of the changes occurring in their neighbourhood.

From top: Industrial sites in Marrickville, the redeveloped Flour Mill at Summer Hill and the café culture in Marrickville.



Maps: Deindustrialisation

Choose one suburb that will be changed by the Planned Precinct. Create a digital map that shows the existing density of the suburb, and another map which shows the proposed density of the suburb. Use Google Maps to help you create your map.

Visual Representations: Deindustrialisation

Use flowcharts and mind maps to visually represent the changes that are occurring in Sydney's Inner West. You may choose to group your ideas around specific suburbs or developments.



GreenWay

Community groups lobbied for the continuation of a Greenway Trail along the light rail corridor to link up with the Cooks River cycleway.

The Cooks River to Iron Cove GreenWay is a green corridor following the route of the Rozelle to Dulwich Hill light rail line. It is shared pedestrian and cycleway that links the Cooks River Cycleway and the Iron Cove BayRun. The combination of both light rail and the Greenway encourages public transport use and cycling/walking both for recreation and commuting, reducing some of the car dependence in this part of Sydney.

In addition to providing opportunities for residents to choose cycling and walking as an alternative to car travel, it also provides a habitat corridor, linking several bushcare sites in the Inner West.

Above: the GreenWay. Below: GreenWay signage



Fieldwork:

Visit a site along the GreenWay. Walk along the greenway and choose 3 separate locations to complete a quick environmental survey. Photograph any wildlife you see along the Greenway. See the "Fieldwork: GreenWay (Waratah Mills)" handout.

WestConnex

WestConnex – a case study in "Changing Places"



01 M4 EXTENSION

WestConnex involves an extension of the M4 Motorway and the creation of new interchanges at Homebush Bay Drive, Concord Rd, Haberfield and Parramatta Road.

02 NEW M5

The new M5 will be built between Beverley Hills and St Peters and will include a major interchange at St Peters and links to the Airport precinct.

Visual Representations: WestConnex

Interpret a cartoon

Google "WestConnex cartoon" and click images. Choose one cartoon. Describe what the cartoon is showing, and explain what the cartoon says about how WestConnex contributes to an economically, socially and environmentally sustainable urban place.

Create an infographic

Above is part of an infographic about the WestConnex.

See the complete infographic at:

<http://changingplaces.hsieteachers.com/visual-representations-westconnex-infographic.html>

Create your own infographic using Picktochart or a similar program. Your infographic should be on the topic of change in Sydney's Inner West. It should include themes such as transport, green space, housing, and land uses.

Individuals contributing to a sustainable urban future

Individuals' personal actions can contribute to a more sustainable urban future and facilitate a gradual move towards policy development and institutional change to address sustainability. Some possible ways that individuals can contribute to a sustainable urban future:

Commuting

Reducing car dependence and using alternate forms of travel is one way to be more sustainable. A measure of this is census data on travel to work. In 2016 in Greater Sydney 52.7% of residents drove to work while 3.9% travelled by car as a passenger. 16.9% travelled by train, 6.1% travelled by bus and 0.4% travelled by ferry or tram. 0.7% of residents of Greater Sydney cycled, while 4.0% walked to work. In Sydney's Inner West in 2016, 35.4% travelled by car to work (2.6% as a passenger), 24.9% travelled to work by train, 10.9% by bus, 2.2% by ferry or tram, 2.6% cycled and 5.2% walked to work. Residents in the Inner West were more likely to travel to work by train, bus and bicycle than in Greater Sydney as a whole. They were also less likely to drive to work. The greater use of public transport by Inner West residents contributes to the sustainability of the area. (Statistics taken from: <https://profile.id.com.au/inner-west/travel-to-work>)

Responsible consumption and production

An important aspect of creating a sustainable urban future is the decisions consumers make when they purchase goods and services. This can range from the types of shops people visit to the shares people choose to buy. In relation to food, people may choose to purchase produce which has been grown locally in urban farms, and purchase ethically sourced and cruelty free products. Free range chickens and eggs and grass fed beef are examples where people who consume meat can reduce their environmental impact. Vegetarianism and veganism are choices some may make to reduce their impact on the environment even further.

The suburb of Newtown is known colloquially as the vegetarian capital of Sydney, and was home to Australia's first vegetarian butcher, a vegan gelateria, and a vegan pizzeria among others. While the Red Lion Hotel in Rozelle sells only vegan meals and wines. In Glebe (on the edge of what is considered as the Inner West), The Cruelty Free Shop sells vegan cleaning products, pet supplies and snacks.

Waste

Managing waste effectively reduces the raw materials needed to make products and reduces the amount of rubbish the ends up in landfill. The mantra Reduce, Reuse and Recycle encourages individuals to rethink and manage how they dispose of their waste. New Return and Earn vending machines have monetised recycling to encourage more people to actively recycle. Rotting food waste contributes methane gas into the atmosphere. Composting and worm farms can process this food waste so that it can be productive waste, adding nutrients to soil to help grow more food.

Energy usage

Individuals can reduce their energy usage by installing energy efficient light bulbs, purchasing products with a high energy rating, switching appliances off at the powerpoint, hanging clothes on a line instead of using a dryer, using a gas hot water system instead of an electric one.

Biodiversity

To encourage native bird species, residents can plant native plants in their garden. Providing a pond can encourage frogs. Depending on local council regulations, individuals can remove the grass on council verges (the part between the footpath and the road) and replace it with native shrubs and grasses. Some part of Marrickville such as Tamar Street and Neville Street are part of the Marrickville Sustainable Streets Program and have converted their verges into native plantings.

Bushcare programs are run by community volunteers and involve weeding, reinforcing sites and planting native species. An example of a bushcare site in Sydney's Inner West is on the grounds of Sydney Secondary College, Balmain Campus. This is one of the last remaining remnants of native bush land on the Balmain peninsula.



Communities contributing to a sustainable urban future

Community Gardens

Community gardens allow local residents who don't have access to suitable land to participate with other members of the community to plant vegetables and ornamental plants in a shared space. Community members can access food grown locally, can make connections with other locals and connect with nature. Examples of community gardens in the Inner West are in Ashfield Park, Taringa St Ashfield, Mort Bay and Punch Park in Balmain, Denison Rd Playground in Dulwich Hill, Francis St in Enmore, in the grounds of Haberfield Library, Turtle Lane in Newtown, Wilkins Green (within Wilkins Public School), Addison Rd in Marrickville, as well as many others.

Biodiversity volunteers

A range of different community and volunteer groups contribute to the environmental sustainability of Sydney's Inner West. Examples include the Inner West Microbat Monitors, the Tempe Birdos, the Mudcrabs Cooks River Eco Volunteers and the GreenWay Birdos.

Social Movements

Social movements can provide residents of a community with a means of influencing their local environment. They provide a way for residents to communicate opinions to the formal planning structures and organisations, and to intervene in the formal political system. Activities of social movements can include letter-writing campaigns, protest meetings, and media campaigns.

Social movements can be important agents of urban change and can empower local communities. An example of a social movement is the urban cycling movement which aims to reduce car dependence and improve sustainability of transport, increase safety on roads for cyclists and encourage a collective increase in personal health and wellbeing through exercise.

Lesson Idea: Individual and community action

Examine the ways that individuals and communities have contributed to the political process and discussions about the WestConnex project. Write a paragraph about 5 actions taken by individuals and communities. Do you think these have been effective? Do you think these actions are justified? What other actions could individuals or communities take?

Fieldwork: Questionnaire

Conduct a questionnaire on residents that live in the Inner West of Sydney. Design 8-10 questions to ask. Some examples:

- Do you have concerns about the WestConnex development (or a another development)?
- What might be the benefits of WestConnex (or another development)?

Tabulate and analyse the results of your survey. What do the findings tell you about perceptions of WestConnex (or another development) in the Inner West.

Resident Action Groups

Resident Action Groups are a form of social movement at a smaller scale, and usually involve issues of a short term nature. RAGs often tend to be localized and single-focused. Although these groups are usually designed to force significant changes in society as a whole, they can at times bring about change at a smaller scale. Unlike social movements more generally, RAGs are more obviously limited and can be interpreted as having NIMBY (not in my backyard) motives. Recent transport infrastructure development and proposals for high density throughout the Inner West of Sydney have created an increase in the number of RAGs and concentrated the patterns of RAGs around development sites. There are currently a large number of Resident Action Groups in the Inner West of Sydney protesting and lobbying against WestConnex and increased development. Examples include Rozelle Against WestConnex, Save Dully, and Newtown WestConnex Action Group.





Rozelle Against WestConnex

The Rozelle Against WestConnex group lobbies against WestConnex in general, but more specifically the Rozelle Interchange in the vicinity of the Rozelle Goods Yard, as well as the tunnels running below Denison and Darling Streets. This will involve acquisition and demolition of homes and businesses and creation of 12-metre high, unfiltered smoke stacks.

Save Dully

The Save Dulwich Hill Community Group promotes issues related to the redevelopment of the suburbs and lobbies the government to preserve the heritage of suburb. Visit the Save Dully website to read more about their actions. Dulwich Hill experienced growth in the late 1800s following the introduction of the tram line, and as a result contains buildings with heritage architecture, particularly Federation architecture. The Sydenham to Bankstown Urban Renewal Strategy, encompasses the suburb of Dulwich Hill, rezoning for higher density and redevelopment of older buildings. Save Dully is lobbying to ensure that the historic and diverse nature of Dulwich Hill is preserved.

Newtown WestConnex Action Group

The M4-M5 link tunnels will run underneath Newtown. Many Newtown business owners have begun protesting the development, worried that congestion and bottlenecks will negatively impact retail businesses, or alternatively that clearways along King St will kill business. The Newtown WestConnex Action Group has been formed. In Alexandria a new bridge is being constructed over the canal to allow movement of traffic from the St Peters interchange.

Visual Representations: Resident Action

Examine a video of a council meeting about WestConnex (try a simple search on Youtube). Consider how the different groups and individuals perceive how WestConnex impacts their community and/or environment. Choose a persona from one of the following: local resident, local councilor, construction worker, urban planner. Write a series of tweets that you might compose to tell your feelings and opinions about the issue.

Take photographs of a site that will be or has been affected by WestConnex. You may use Google Street View if you are not close by to a relevant site. Annotate the photographs showing how features of the environment have changed or will change as a result of the WestConnex development.

Assess how the changes to the site will impact on its environmental quality.

Obtain aerial photographs of the Inner West of Sydney (these may be screen shots from Google Maps). Visually represent the changes that are taking place in the area. Annotate the aerial photographs showing locations affected by Planned Precincts, WestConnex and the Metroline. Include detail about the types of changes that are going to take place.

Geographical Inquiry

Throughout this unit you have designed a geographical inquiry, examined secondary sources and completed fieldwork.

Refer back to the planning you completed at the beginning of the unit.

Review and process geographical information

Review the sources of information you have used. Is each source reliable? Are some of the sources influenced by bias? Are all of the sources useful? Make judgements about which information you will use to complete your geographic inquiry.

You have already processed geographical information throughout this unit. Examples of some of the activities you have already completed are:

- represented the spatial distribution of geographic phenomena on maps
- used spatial technologies to examine changing places
- used geographical information systems to analyse geographical data and make predictions.

Collate all of your work that relates to your inquiry question.

Communicate geographical information

Consider: How will you present this information?

Present your findings, arguments and explanations that address your inquiry question.

Propose action that can be taken to ensure environmental, economic and social sustainability. What might be the outcomes and consequences of the action you are proposing?

Edit your work:

- have you used correct capitalisation, punctuation and grammar?
- have you used a range of geographic terminology?
- is your inquiry well set out and easy to follow?

Activities in this resource have been colour coded according to the type of Geographic Tool being used.

Maps – can take many forms including digital and non-digital

Fieldwork – facilitates an understanding of geographical processes and inquiry

Graphs and Statistics - used to collate, organize, illustrate summarise information

Spatial Technologies – software or hardware that interacts with real world locations.

Visual representations – display, visualize, analyse and communication information.



This resource has been created by
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www.changingplaces.hsieteachers.com