


How to plan community development: Meeting the needs of a growing population

Key Learning Area	Unit or lesson title and main focus questions	Most appropriate level and suggested number of lessons
 Geography	How to plan community development: Meeting the needs of a growing population How is the community changing? How might Sydney Metro Northwest help solve the needs of a growing population?	Stage 5
		3-5 lessons

Teacher briefing

Students investigate changes occurring in the North West and South West Sydney Growth Centres. They understand why Sydney Metro Northwest is important to meet the needs of a growing population.

This lesson follows the previous lesson on building population pyramids and selecting and applying appropriate geographical tools to aid in the understanding of population change.

Most students should finish this task in one 50 minute lesson, depending on their familiarity with internet search techniques and their efficiency at following instructions.

Requirements for these lessons

- Activity sheet 1
- Computer with internet access.

Assessment

The answers to the questions in Activity sheet 1 are included (pages 190-192). The teacher may choose to mark students' worksheets or alternatively students can mark their own responses using the answers provided.

Key terms and vocabulary

Growth Centre, precinct planning, infrastructure planning, Local Government Areas (LGA), Business Districts, suburbanisation.

Web links



NSW Department of Planning and Environment

<https://www.planning.nsw.gov.au/Plans-for-your-area/Priority-Growth-Areas-and-Precincts>

Metropolitan Plan for Sydney 2036 PDF (17.3MB)

http://pandora.nla.gov.au/pan/124897/20110202-1450/1_METRO2036_1_INTRO.pdf

Syllabus links

Geography K-10

Geography Stage 5 – Changing places

– the management and planning of Australia’s urban future.

Environmental change and management

– the causes, extent and consequences of the environmental change (urban environments)

– management of the environmental change.

(GE5-2) explains the processes and influences that form and transform places and environments

(GE5-3) analyses the effect of interactions and connections between people, places and environments

(GE5-7) acquires and processes geographical information by selecting and using appropriate and relevant geographical tools for inquiry

(GE5-8) communicates geographical information to a range of audiences using a variety of strategies.

Learning experiences

Students work individually or in pairs on computers. The teacher can email Activity sheet 1 (page 183–189) to students or print and distribute it.

Teacher references and extension work

Students can go beyond this example and explore other precincts in the North West Growth Centre.

<https://www.planning.nsw.gov.au/Plans-for-your-area/Priority-Growth-Areas-and-Precincts/Sydney-Metro-Northwest-Urban-Renewal-Corridor>

There are a number of steps involved in developing farmland or vacant land for housing. Students can extend their study of suburbanisation by investigating this process.

Study questions

1. What is a Greenfield development site?
2. Describe the geographical processes causing the development of the Greenfield site.
3. Which level of government is responsible for the release of the land?
4. Which level of government is responsible for overseeing the development of new suburbs?

Quick answers to the above questions

1. A site on a previously non-developed area that is now being worked on.
2. The State Government releases the land for inclusion in the metropolitan development program. Before being rezoned by the local council the area is then serviced with water, power and phones. Construction can be approved and land is sub divided and put up for sale.
3. State Government.
4. Local Council in consultation with the State Government.

Activity sheet 1

CONFIDENTIAL: For Year 10's eyes only

You have been given the position as chief planner of The Hills Shire Council. You need to investigate where to plan the new suburbs in the future to accommodate the growing population and enable as many new residents as possible to have easy access to the new Sydney Metro Northwest.

Go to <https://www.planning.nsw.gov.au/Plans-for-your-area/Priority-Growth-Areas-and-Precincts>

View the video for the North West Growth area at <https://www.youtube.com/watch?v=xTUbrL2NLNY>

Read the information, explore the site and complete this task.

Passage 1

The growth areas are located in Sydney's _____ and _____ . In the North West region this will provide _____ new homes to _____ people by the year _____. There will be _____ new precincts built.

Passage 2

The NSW Government established the North West region and South West Region Growth Centres in 2005 as part of the _____ Strategy to streamline the supply of _____ land to help contain Sydney's _____ footprint and to coordinate the delivery of infrastructure through the Department of Planning and _____.

The Growth Centres were established to sustainably prepare for and manage Sydney's growth over the next _____ years. With the Metropolitan Plan for Sydney 2036 identifying a need for 770,000 new homes in Sydney _____ and 2036 - and with up to 230,000 of these in new release areas - the government aims to supply land linked to key infrastructure, supported by essential services such as _____, medical centres, _____

and public transport. This aim is achieved through an approach called Precinct Planning which coordinates _____ and delivery of _____, wastewater, recycled water, _____, roads, transport and other services in time to service new communities.

Precinct Planning works alongside _____ and local infrastructure planning to increase the supply of land for housing and ensure jobs are closer to home. It works from a 'whole of government' perspective, ensuring _____ provision can be incorporated into wider state agency _____ and _____ so that elements like new roads, public transport, parks, water, sewer and community services are in place to meet the needs of new _____.



Northwest

Activity sheet 1

continued

The planning for the Growth Centres is subject to the following NSW laws:

Environmental Planning and Assessment Act 1979

http://www.austlii.edu.au/au/legis/nsw/consol_act/epaaa1979389

Why do you think these laws have to be followed? Their titles may provide a clue.

Go to the website <https://www.planning.nsw.gov.au/Plans-for-your-area/Priority-Growth-Areas-and-Precincts> and select 'THE GROWTH CENTRES' tab on the left.

In the space below, highlight where the Growth Centres are in the Sydney Region.

Also highlight the other seven main Business Districts.

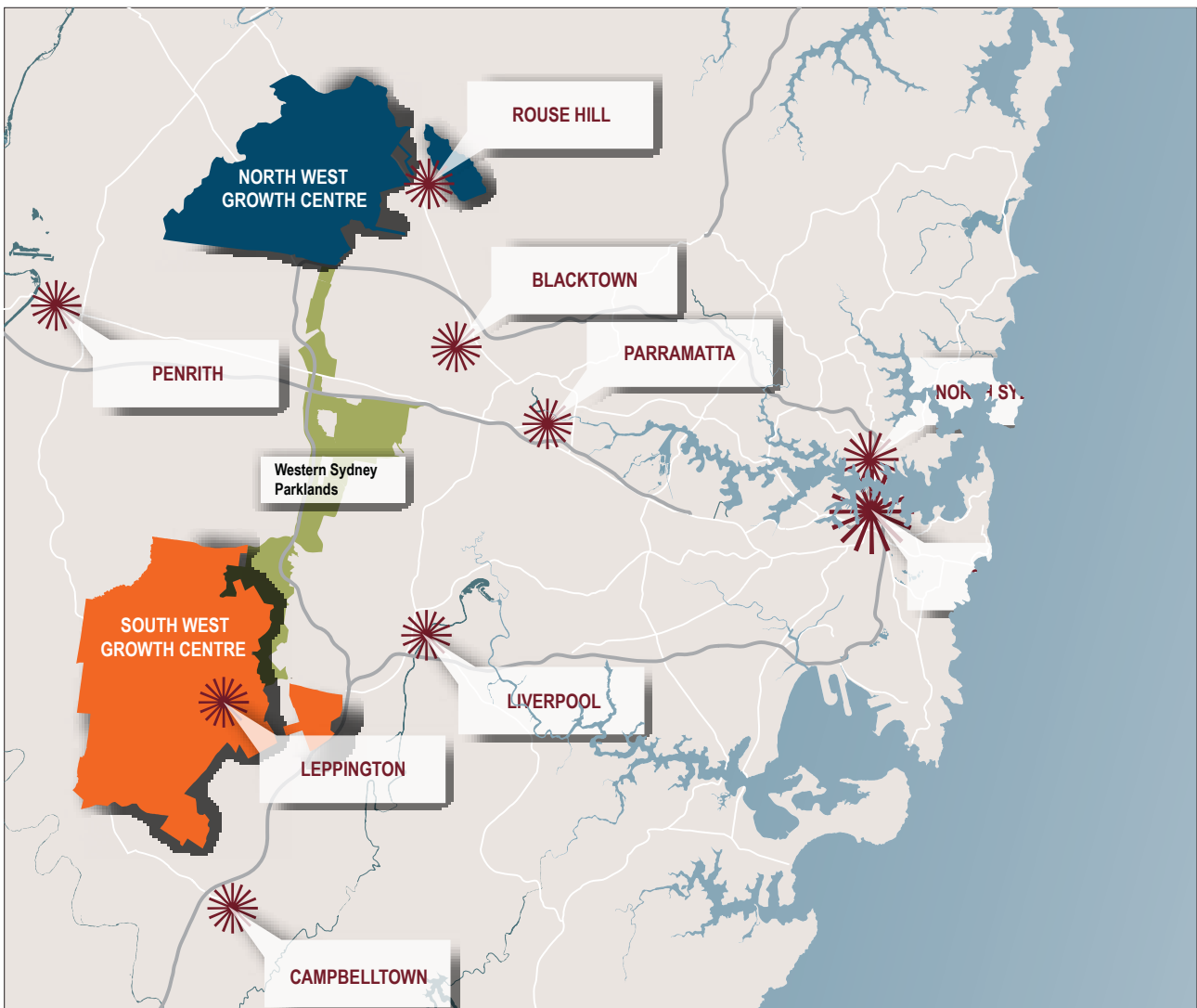


Figure 12: The North West region and South West region Growth Centres in the context of the Sydney region.
Source: NSW Department of Planning and Environment.



Northwest

Activity sheet 1

continued

Passage 3

The North West Growth Centre is approximately 10,200 _____ - the size of Wellington, New Zealand. Within the Local Government Areas boundaries of The Hills, Blacktown and _____, it will be supported by a Major Centre at _____ and will contain about 90,000 _____ dwellings over the next 30-40 years. It is made up of 16 'Precincts', which are areas that will be progressively released over the next 30 years.

The South West Growth Centre is within the LGA boundaries of _____, Camden and Campbelltown and will be around the same size as Canberra. Comprising 18 _____, it is approximately 17,000 hectares and will _____ on the _____ centre of Leppington, be serviced by the South West Rail Link and has capacity for around 110,000 new dwellings.

Now click on the 'scroll down to view priority growth areas and precincts' and go to the links below to find out more about the Precincts released for development so far:

North Kellyville

<https://www.planning.nsw.gov.au/northkellyville>

Alex Avenue

<https://www.planning.nsw.gov.au/alexave>

Riverstone

<https://www.planning.nsw.gov.au/riverstone>

Riverstone West

<https://www.planning.nsw.gov.au/riverstonewest>

Colebee

<https://www.planning.nsw.gov.au/colebee>

Marsden Park Industrial

<https://www.planning.nsw.gov.au/marsdenparkindustrial>

Box Hill

<https://www.planning.nsw.gov.au/Plans-for-your-area/Priority-Growth-Areas-and-Precincts/North-West-Growth-Area/Box-Hill-and-Box-Hill-Industrial>

Schofields

<https://www.planning.nsw.gov.au/schofields>

Marsden Park

<https://www.planning.nsw.gov.au/Plans-for-your-area/Priority-Growth-Areas-and-Precincts/North-West-Growth-Area/Marsden-Park>



Northwest

Activity sheet 1

continued

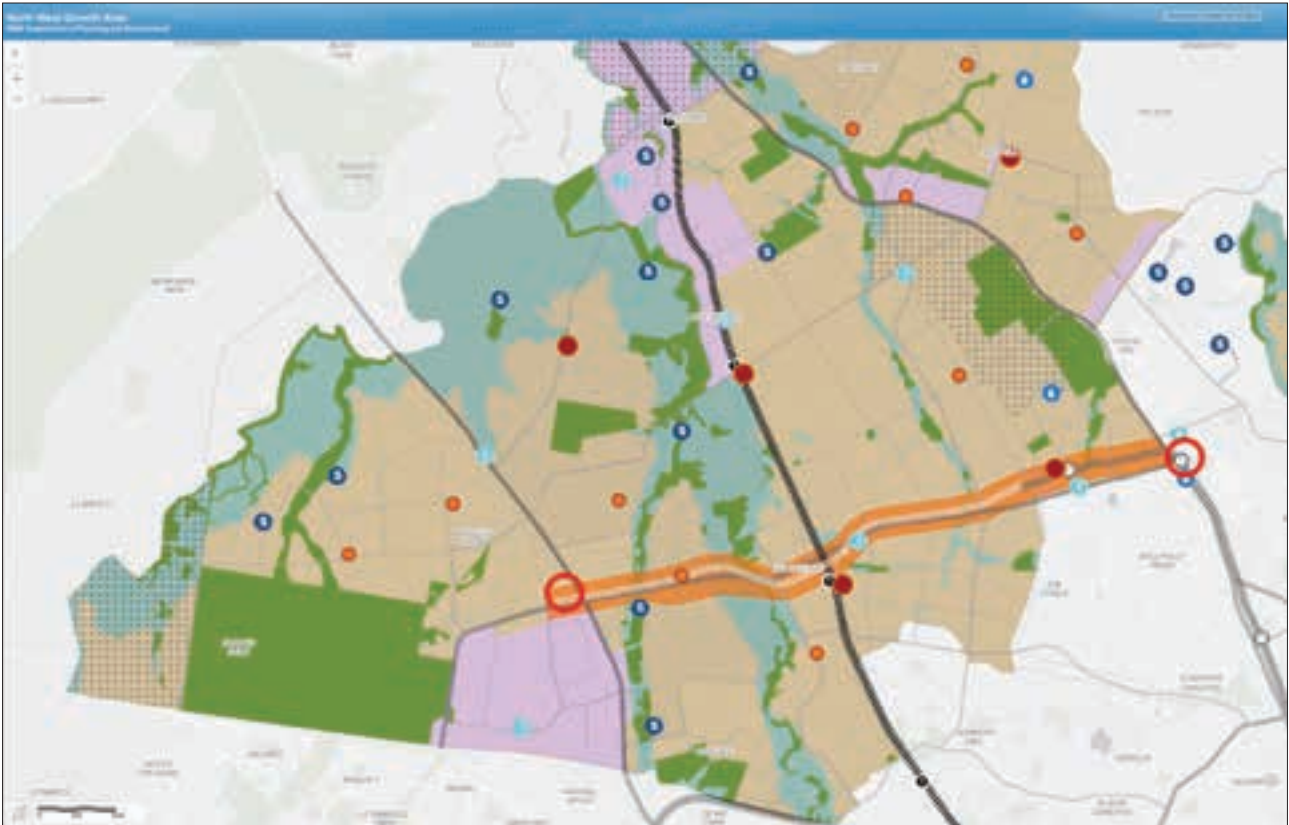


Figure 13: 3 August 2017: The North West Growth Area Land Use Plan has been updated to reflect a revised transport corridor alignment provided by Transport for New South Wales (TfNSW). The update confirms the alignment of the transit corridor north of Schofields Road in the West Schofields precinct.

Click on the North Kellyville Precinct

North Kellyville was rezoned in December _____. (This means previously it was zoned for large five acre properties, but now owners can divide their land into small blocks for large scale residential housing). It was one of the _____ release Precincts in the Growth Centres and the first in the North West Growth Centre to be placed on exhibition via the Precinct _____ process.

The North Kellyville Precinct is approximately 707 _____ and is bounded by Smalls Creek to the west, Cattai Creek along the east and north, and Samantha Riley Drive to the south.

The Precinct will accommodate a _____ of 4500 dwellings. North Kellyville benefits from being _____ to existing residential areas and the new Rouse Hill Town Centre.

Click on the Riverstone Precinct

The Riverstone Precinct was rezoned for _____ in May 2010.

The _____-hectare Precinct will deliver capacity for more than 9000 new dwellings to accommodate almost 27,000 residents.



Northwest

Activity sheet 1

continued

It will also feature:

- 58 hectares of open space
- 57 hectares of conservation reserves
- 14 hectares of _____ land
- Three new primary schools and a new K-12 school
- Rail duplication
- A new railway station at _____ with a commuter car park
- Neighbourhood centres at Vineyard and Schofields
- A new community services hub at Riverstone
- Upgrades to major roads
- Walking and cycle paths along major roads and open space corridors.

Click on the final Riverstone Indicative Layout Plan from the NSW Government Department of Planning and Infrastructure:

<https://www.planning.nsw.gov.au/-/media/Files/DPE/Maps/map-riverstone-precinct-indicative-layout-plan.pdf>

Answer the following questions

1. What colour are schools zones? _____
2. How many new primary schools and high schools will be built in this new urban development? _____. Do you think this will be enough? Why? [There will be 27,000 new residents and about 30 per cent will be school age children]

3. What is the difference between medium and low density residential?

4. Why is medium density located near the blue neighbourhood shopping centres?

5. Why can't any homes be planned for the yellow zones? Explain.

6. What is the road at the top of the map of?



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Activity sheet 1

continued

Go to www.transportnsw.info

Use the trip planner to determine the approximate times it currently takes to get from Cudgegong Rd and Schofields Rd, Rouse Hill to:

- Macquarie University _____minutes
- Chatswood _____ minutes
- Wynyard station _____minutes.

What types of transport would you currently use for these trips?



The screenshot shows the 'Trip planner' interface on a blue background. It includes a 'Next departures' tab, 'From' and 'To' input fields with placeholder text 'e.g. Town Hill' and 'e.g. Wynyard', 'Leave after' dropdowns set to '15' and '30', and a date dropdown set to '15 Jun (Today)'. Below these are radio buttons for 'Train', 'Bus', 'Ferry', and 'Light Rail', a checkbox for 'Accessible services only', a 'More options' link, and a 'Go' button.

Figure 14: Plan your trip.

Source: transportnsw.info homepage.

The Riverstone and Schofields Precincts are located less than 1 kilometre from the new Tallawong Sydney Metro Northwest Station. This will give residents in this area a new travel option to the city, Chatswood and Macquarie University.

Using the Sydney Metro Northwest trip calculator located at <https://www.sydneymetro.info/> repeat the exercise above.

Travel from Rouse Hill to:

- Macquarie University _____ minutes
- Chatswood _____ minutes
- Wynyard station _____ minutes.

Activity sheet 1

continued

Based on your findings, how will Sydney Metro Northwest change travel in the North West region of Sydney?

Explain how this might influence your decision to live in North West region in the future.

Go to Google Maps

<https://maps.google.com/maps>

Type in 'Riverstone NSW'. Zoom in and describe the satellite image of the Riverstone area now. Compare it to the future for Riverstone on the Riverstone Indicative Layout Plan.

<https://www.planning.nsw.gov.au/-/media/Files/DPE/Maps/map-riverstone-precinct-indicative-layout-plan.pdf>

What are the most important differences?

Answers to Activity sheet 1

Passage 1

The two new growth areas are located in Sydney's **North West region** and **South West region**. In the North West region this will provide **33,000** new homes to **250,000** people by **2026**. There will be **16** new precincts built.

Passage 2

The NSW Government established the North West region and South West Region Growth Centres in 2005 as part of the **Metropolitan** Strategy to streamline the supply of **greenfield** land to help contain Sydney's **urban** footprint and to coordinate the delivery of infrastructure through the Department of Planning and **Environment**. The Growth Centres were established to sustainably prepare for and manage Sydney's growth over the next **25-30** years. With the Metropolitan Plan for Sydney 2036 identifying a need for 770,000 new homes in Sydney **between 2006** and 2036 – and with up to 230,000 of these in new release areas – the government aims to supply land linked to key infrastructure, supported by essential services such as **shops**, medical centres, **schools** and public transport. This aim is achieved through an approach called Precinct Planning which coordinates **planning** and delivery of **water**, wastewater, recycled water, **power**, roads, transport and other services in time to service new communities. Precinct Planning works alongside **regional** and local infrastructure planning to increase the supply of land for housing and ensure jobs are closer to home. It works from a 'whole of government' perspective, ensuring **infrastructure** provision can be incorporated into wider state agency **planning** and **budgets** so that elements like new roads, public transport, parks, water, sewer and community services are in place to meet the needs of new **residents**.

Passage 3

The North West Growth Centre is approximately 10,200 **hectares** – the size of Wellington, New Zealand. Within the Local Government Areas boundaries of The Hills, Blacktown and **Hawkesbury**, it will be supported by a Major Centre at **Rouse Hill** and will contain about 90,000 **new** dwellings over the next 30-40 years. It is made up of 16 'Precincts', which are areas that will be progressively released over the next 30 years.

The South West Growth Centre is within the LGA boundaries of **Liverpool**, Camden and Campbelltown and will be around the same size as Canberra. Comprising 18 **precincts**, it is approximately 17,000 hectares and will **focus** on the **major** centre of Leppington, be serviced by the South West Rail Link and has capacity for around 110,000 new dwellings.

North Kellyville

North Kellyville was rezoned in December **2008**. (This means previously it was zoned for large five acre properties, but now owners can divide their land into small blocks for large scale residential housing) It was one of the **first** release Precincts in the Growth Centres and the first in the North West Growth Centre to be placed on exhibition via the Precinct **Planning** process.

The North Kellyville Precinct is approximately 707 **hectares** and is bounded by Smalls Creek to the west, Cattai Creek along the east and north, and Samantha Riley Drive to the south. The Precinct will accommodate a **minimum** of 4500 dwellings. North Kellyville benefits from being **close** to existing residential areas and the new Rouse Hill Town Centre.



Northwest

Answers to Activity sheet 1

Riverstone

The Riverstone Precinct was rezoned for **urban development** in May 2010. The **975**-hectare Precinct will deliver capacity for more than 9000 new dwellings to accommodate almost 27,000 residents.

It will also feature:

- 58 hectares of open space
- 57 hectares of conservation reserves
- 14 hectares of **employment** land
- Three new primary schools and a new K-12 school
- Rail duplication
- A new railway station at **Vineyard** with a commuter car park
- Neighbourhood centres at Vineyard and Schofields
- A new community services hub at Riverstone
- Upgrades to major roads
- Walking and cycle paths along major roads and open space corridors.

The Riverstone Indicative Layout Plan

Answer the following questions

1. What colour are schools zones? **Purple.**
2. How many new primary schools and high schools will be built in this new urban development? Do you think this will be enough? Why? [There will be 27,000 new residents and about 30 per cent will be school age children].

Example: “There are four new schools in the area. I think there are enough for the amount of people coming in. This is because each school could take a lot of people and they are spread out evenly across the development.”

3. What is the difference between medium and low density residential?

Example: “The amount of residential people living in the area. Low density would have not many and medium would have more people in the same space living there.”

4. Why is medium density located near the blue Neighbourhood shopping centres?

Example: “Because more people would like to live near the main shopping centre and it would be a more popular place to live as it is just a quick walk from the shops.”

5. Why can't any homes be planned for the yellow zones? Explain.

Example: “Because these areas are controlling the drainage for the new development so they can't have houses situated on them.”

6. What is the road at the top of the map? **Windsor Road**



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Answers to Activity sheet 1

Go to www.transportnsw.info

Use the trip planner to determine the approximate times it currently takes to get from Cudgegong Rd and Schofields Rd, Rouse Hill to:

- Macquarie University **99** minutes
- Chatswood **113** minutes
- Wynyard station **91** minutes.

What types of transport would you currently use for these trips?

A combination of bus and train

The Riverstone and Schofields Precincts are located less than 1 km from the new Cudgegong Road Sydney Metro Northwest station. This will give residents in this area a new travel option to the city, Chatswood and Macquarie University.

Using Sydney Metro Northwest trip calculator located at <https://www.sydneymetro.info/> repeat the exercise above.

Travel from Rouse Hill to:

- Macquarie University **24** minutes
- Chatswood **35** minutes
- Wynyard station **55** minutes.

Based on your findings, how will Sydney Metro Northwest change travel in the North West region of Sydney?



Northwest



Topic Three:
Planning, designing
and building a railway