


Changes in land use in the North West region

Key Learning Area	Unit or lesson title and main focus questions	Most appropriate level and suggested number of lessons
 Geography	Changes in land use in the North West region	Stage 5
	What are the most important land uses in the North West region today? How has land use changed over time?	2–3 lessons

Teacher briefing

Students gather land-use information from the aerial photographic land use maps of each of the station locations along the Sydney Metro Northwest. They compare these maps to the 1943 land use images, in the NSW Government GIS SixViewer. This activity provides an understanding of land use change around the station precincts over time, in addition to refining students' mapping and GIS skills.

Many stations in Sydney are already significant areas of change with older single-storey dwellings giving way to high-rise apartments, as more people seek to live close to public transport. Students will be able to discuss how these changes may happen around the planned station precincts of the Sydney Metro Northwest.

Focus questions:

- What is the current land use along the Sydney Metro Northwest alignment?
- What has changed over time?
- What effects do you think Sydney Metro Northwest will have on land use patterns?
- What might the area look like in 20 years?

Requirements for these lessons

- Computers
- Internet connection
- Printer, paper, sticky tape
- Acetate tracing sheets
- Coloured highlight pens
- Bookmarked websites (see web links).

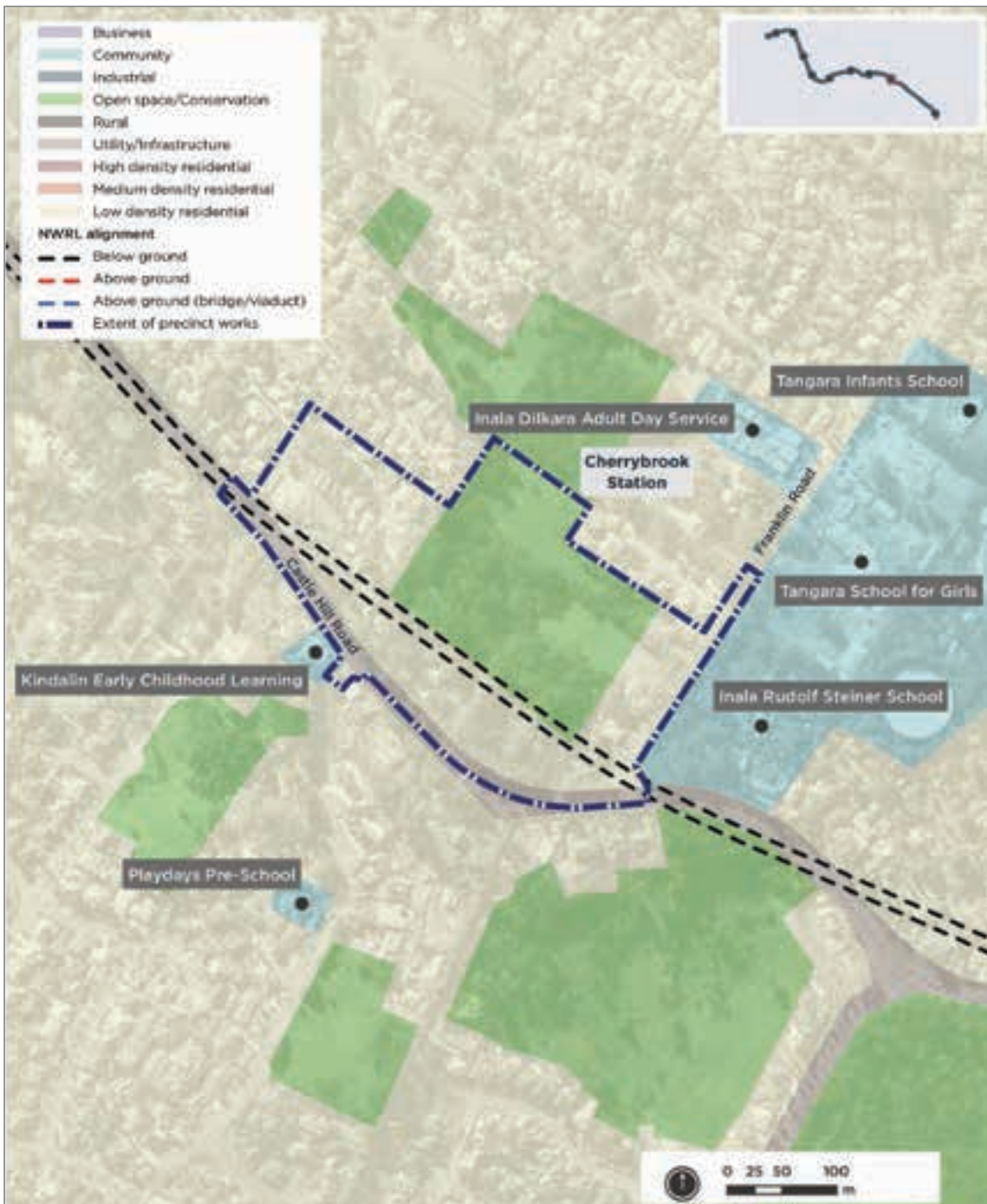


Figure 13: Today, the Cherrybrook locality is characterised by generally large, low-density dwellings predominantly built within the last 30 years, surrounded by established vegetation, green open spaces and natural corridors across the undulating topography. At the station location, the population density is currently low with only 1–25 people per hectare. How might this change over the next 20 years?

Source: Sydney Metro Northwest *Environmental Impact Statement 2*, Chapter 14 Land Use and Community Facilities.

Web links



Sydney Metro Northwest *Environmental Impact Statement 2*, Chapter 14 Land Use and Community Facilities

https://www.sydneymetro.info/sites/default/files/16_Ch_14_Landuse_and_Community_Facilities.pdf%3Fext%3D.pdf

Spatial Information Exchange, the NSW Government Geographic Information System

<https://six.nsw.gov.au/wps/portal>

SixViewer

<https://maps.six.nsw.gov.au>

Google Maps

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



Figure 14: Aerial image of Cherrybrook Sports Ground, as shown in SixViewer.



Figure 15: Aerial image showing the same location of the Cherrybrook Sports Ground in 1943.

Source: <https://maps.six.nsw.gov.au>

Syllabus links

Geography K-10

Geography Stage 5 – changing places

- the causes and consequences of urbanisation
- urban settlement patterns in Australia
- the management and planning of Australia's urban future.

Environmental change and management

- human-induced environmental changes across a range of scales
- the causes, extent and consequences of the environmental change (selected urban environment).

(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

Step 1

Students use Google Maps to create their own map of the station precincts along the Sydney Metro Northwest alignment.

Students zoom in to the correct scale and print off the maps or screen capture them, with about 500 m on either side. They will need to join several maps together.

Step 2

Students shade in the land uses around the planned Sydney Metro Northwest stations using information from the Sydney Metro Northwest *Environmental Impact Statement 2*, Chapter 14, Land Use and Community Facilities. Use the colour key shown in Figure 16 below. Figure 16 provides an example of what your final map should look like.

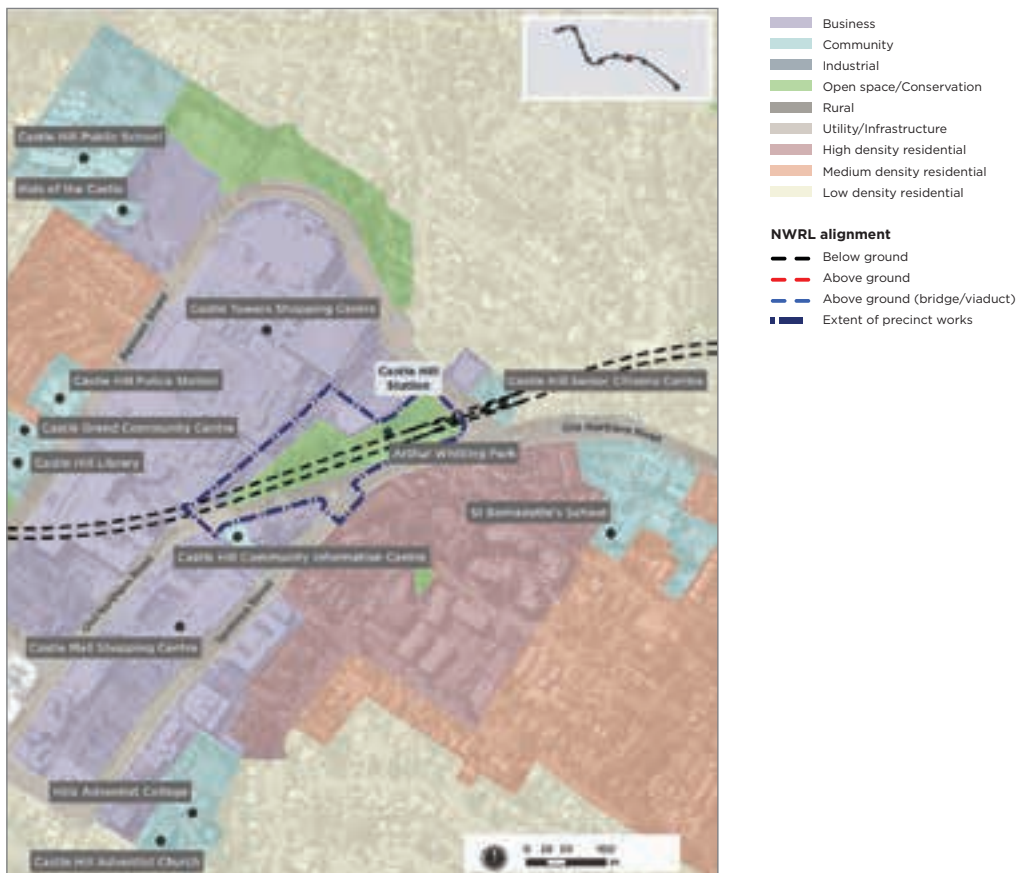


Figure 16: This example diagram from Sydney Metro Northwest *Environmental Impact Statement 2*, Chapter 14 Land Use and Community Facilities, shows the area around Castle Hill Station and the land use.

Step 3 – Open SixViewer

Instruct the class to type the name of a suburb (e.g. Cherrybrook) into the search box and adjust the zoom until it is close to the scale of the maps students have printed from Google Maps.

Starting from Epping and moving towards Rouse Hill, students mark in the land use along that route and for about 500 m either side of the line.

Step 4

Students then describe the land use pattern they see, making estimates of the proportions of land given over to each land use.

Step 5 – Instructions to the class

On the right of the SixViewer there are two boxes, one containing the image you are looking at, the other images from 1943. Adjust the slider bar so that you can see the old image clearly superimposed over the contemporary one (see Figures 14 and 15, aerial images of Cherrybrook, page 66).

Put a sheet of tracing film or acetate over the map and trace on, where possible, the land use in 1943. Describe the land use pattern and compare with the contemporary one.

Discuss the following questions:

- What changes have occurred?
- What do you notice about the differences in land use 70 years apart?

Step 6

Ask students to predict what further changes in land use might occur in the future.

Teacher references and extension work

Many students find this exercise fascinating and may want to use Google Maps and SixViewer's 1943 imagery to explore the changes over 70 years around the station precincts in more detail and also around their own homes.

The detailed plans of the station precincts included in the corridor documents will assist students to make comparisons and predictions about future changes to land use along the alignment.

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



Topic One:
A railway for Sydney's
North West region