

STAGE 3 GEOGRAPHY: Contemporary land use issue

Focus area: Factors that shape places	
Factors that change environments	Humans shape places
Key inquiry questions <ul style="list-style-type: none">• How do people and environments influence one another?• How do people influence places and the management of spaces within them?	
Content focus <p>Students:</p> <ul style="list-style-type: none">• investigate how people change the natural environment in Australia• examine ways people influence the characteristics of places, including the management of spaces	
Outcomes <p>A student:</p> <ul style="list-style-type: none">➤ describes the diverse features and characteristics of places and environments GE3-1➤ explains interactions and connections between people, places and environments GE3-2➤ compares and contrasts influences on the management of places and environments GE3-3➤ acquires, processes and communicates geographical information using geographical tools for inquiry GE3-4	
Overview <p>The geographical inquiry process will investigate a contemporary geographical land use or planning issue as a case study at a local or regional scale. Through investigation of the issue, students will examine the geographical characteristics of the site, the interconnections between the place and a range of people with varying points of view, the role of government in the issue, and sustainability considerations. Students will also develop understanding of the decision-making processes and roles and responsibilities of the different levels of government.</p> <p>Note: The capacity of students to engage with the inquiry will be much greater in Year 6 than early in Year 5. Teachers will need to adjust and scaffold learning activities as appropriate. Teachers can choose whether the case study is undertaken by groups or as a whole class.</p>	
Assessment <p>Many of the activities require students to demonstrate their learning. These activities can be used to assess student learning at various stages throughout the inquiry process.</p>	



Factors that change environments

Students:

- investigate the ways people change the natural environment in Australia and another country, for example:
 - examination of how people, including Aboriginal and Torres Strait Islander Peoples, have influenced each country's environmental characteristics eg land clearing, use of fire
- ### Humans shape places

Students:

- investigate how people influence places, for example:
 - description of who organises and manages places eg local and state governments
 - identification of ways people influence places and contribute to sustainability eg roads and services, fire management strategies
 - examination of a local planning issue; the different views about it and a possible action in response to it

Student-centred inquiry into Porters Creek Wetland

Students work in small groups to investigate Porters Creek Wetland. They create a short presentation, providing a balanced view that discusses the positive and negative outcomes identified in the investigation.

Acquiring geographical information

Question:

What is the impact of increasing urban development on Porters Creek Wetland?

Geographical questions:

- Where is Porters Creek Wetland located?
- What was the 'country' like when the Darkinjung people lived in and around Porters Creek Wetland?
- What are the geographical features of the place today?
- Why is the Porters Creek Wetland environment important?
- How are the places surrounding Porters Creek Wetland organised and used?
- What are the impacts of land use change?
- Who will be advantaged and who will be disadvantaged by land use change?
- What actions are required to ensure the sustainability of Porters Creek Wetland?

Resources: use the Porters Creek Wetland case study in Central Coast Council's Wetlands Multi-Touch Book available on the iBookstore

Acquire data and information:

Examples of data and information sources:

- Use a range of **maps** to describe Porters Creek Wetland. Use appropriate **spatial technologies** and **visual representations**.
- Research the Darkinjung people: how they managed the land, the fresh water sources, what they planted, harvested and hunted to meet their needs. Consider whether Porters Creek Wetland had seasonal or ceremonial significance?
- Study current **photographs** of Porters Creek Wetland and identify the main geographical features.
- Fieldwork**: visit Porters Creek Wetland. Draw and label the geographical features in a **field sketch**. Use other fieldwork techniques such as recording human uses through **photographs**, conducting **biodiversity surveys**, assessing vegetation distribution, **water quality testing**, **mapping** land uses and **observing** impacts. For assistance contact Central Coast Council or Rumbalara Environmental Education Centre.
- Source appropriate **data** and other **statistical information** relating to the issue, e.g. population growth forecasts. See <http://profile.id.com.au/wyong/home>
- Develop a **role play** activity to represent the perceptions of different community members on the impact of urban development around Porters Creek Wetland on people, flora and



	<p>fauna and water quality (developer, neighbour, environmentalist).</p> <ul style="list-style-type: none"> – Determine the role of government in planning, developing or managing the place. Use the Porters Creek Wetland Case Study in Central Coast Council’s Wetlands Multi-Touch Book. <p>Processing geographical information</p> <p>Use geographical tools to collate and review the data and information collected and evaluate for its usefulness, for example:</p> <ul style="list-style-type: none"> – On a topographic map or satellite image as a base map, use mapping overlays to describe geographical features of Porters Creek Wetland and its surroundings. Analyse changes, spatial distributions and patterns. Use aerial photos in the Porters Creek Wetland Case Study in Central Coast Council’s Wetlands Multi-Touch Book. – Use photographs and research information to construct a table representing past, present and future uses of Porters Creek Wetland. Analyse the changes over time and make predictions for the future. – Assemble and annotate photographs to provide a visual representation of Porters Creek Wetland. Analyse and label interconnections. – Develop consequences charts to explain predicted impacts (positive and negative). – Construct graphs to represent diversity of flora and fauna (biodiversity), and a précis map showing vegetation type and land use. Analyse and interpret the data. – Use a T-chart to represent data on perceived positive and negative impacts gathered through surveys. Interpret patterns and trends. – Construct a flow chart or concept map to explain the role of government, and other major stakeholders, in the role of wetland management and urban development. – Ensure students have developed their understanding of ways humans influence Porters Creek Wetland and the different perceptions about its management. <p>Discussion questions:</p> <ul style="list-style-type: none"> ○ Does the information relate to the inquiry questions used to shape the investigation? ○ Has the investigation examined the perspectives of different people? ○ Can conclusions be drawn about positive and negative aspects related to the investigation? ○ Has sustainability been considered? <p>Communicating geographical information</p> <p>Communicate:</p> <p>Students work in small groups to develop a short presentation to</p>
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convey their knowledge and understanding resulting from the investigation. Students may put forward arguments and opinions, support a specific course of action and explain the impact of this action on the environment.

The presentation should include:

- A clear description of the investigation and some of the consequences for the environment;
- Tools such as maps, satellite images, graphs, statistics, flowcharts, labelled photographs, diagrams, illustrations and other labelled visual representations;
- Information on the traditional use of Porters Creek Wetland by the Darkinjung people;
- A description of the role of government in organising or managing Porters Creek Wetland; and,
- A description and justification of a specific point of view and/or course of action in response to the investigation.

Resources

NSW Planning and Environment websites, e.g. [Sydney's Growth Centres](#); [A Plan for Growing Sydney](#)

<http://www.planning.nsw.gov.au/Plans-for-Your-Area/Regional-Plans#>

Central Coast population forecasts:

<http://forecast.id.com.au/wyong/home>

<http://forecast.id.com.au/gosford/home>

Tuggerah Lakes animated film:

www.loveourlivinglakes.com.au

Satellite images and maps:

[SIXMaps](#)

Geographical concepts	Geographical inquiry skills	Geographical tools
<p>The following geographical concepts have been integrated into the teaching and learning sequence:</p> <p>Place: <i>the significance of places and what they are like eg characteristics of places.</i></p> <p>Space: <i>the significance of location and spatial distribution, and ways people organise and manage spaces that we live in eg; how people organise and manage spaces in their local environment.</i></p> <p>Environment: <i>the significance of the environment on human life, and the important interrelationships between humans and the environment eg how the environment influences people and places; how people influence the environment; the effect of natural disasters on the environment.</i></p> <p>Interconnection: <i>no object of geographical study can be viewed in isolation eg how environments influence where people live; ways people influence the characteristics of their environments.</i></p> <p>Scale: <i>the way that geographical phenomena and problems can be examined at different spatial levels eg environmental and human characteristics of places on local and regional scales; the effect of events on people and places locally and regionally.</i></p> <p>Sustainability: <i>the capacity of the environment to continue to support our lives and the lives of other living creatures into the future eg extent of environmental change; environmental management practices; sustainability initiatives.</i></p>	<p>The following geographical inquiry skills have been integrated into the unit:</p> <p>Acquiring geographical information</p> <ul style="list-style-type: none"> • develop geographical questions to investigate and plan an inquiry • collect and record relevant geographical data and information, using ethical protocols, from primary data and secondary information sources, for example, by observing, by interviewing, conducting surveys, or using maps, visual representations, statistical sources and reports, the media or the internet <p>Processing geographical information</p> <ul style="list-style-type: none"> • evaluate sources for their usefulness • represent data in different forms, for example plans, graphs, tables, sketches and diagrams • represent different types of geographical information by constructing maps that conform to cartographic conventions using spatial technologies as appropriate • interpret geographical data and information, using digital and spatial technologies as appropriate, and identify spatial distributions, patterns and trends, and infer relationships to draw conclusions <p>Communicating geographical information</p> <ul style="list-style-type: none"> • present findings and ideas in a range of communication forms as 	<p>The following geographical tools have been integrated into the unit.</p> <p>Examples may include:</p> <p>Maps –</p> <ul style="list-style-type: none"> • large-scale maps, small-scale maps, topographic maps, flowline maps • maps to identify location, latitude, direction, distance, map references, spatial distributions and patterns <p>Fieldwork –</p> <ul style="list-style-type: none"> • observing, measuring, collecting and recording data, conducting surveys and interviews • fieldwork instruments such as measuring devices, maps, photographs, compasses, GPS <p>Graphs and statistics –</p> <ul style="list-style-type: none"> • pictographs, data tables, column graphs, line graphs, climate graphs • multiple graphs on a geographical theme • statistics to find patterns <p>Spatial technologies –</p> <ul style="list-style-type: none"> • virtual maps, satellite images, global positioning systems (GPS) <p>Visual representations –</p> <ul style="list-style-type: none"> • photographs, aerial photographs, illustrations, flow diagrams, annotated diagrams, multimedia, web tools.



<p>Change: <i>explaining geographical phenomena by investigating how they have developed over time eg changes to environmental and human characteristics of places.</i></p>	<p>appropriate</p> <ul style="list-style-type: none"> reflect on their learning to propose individual and collective action in response to a contemporary geographical challenge and describe the expected effects of their proposal on different groups of people 	
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