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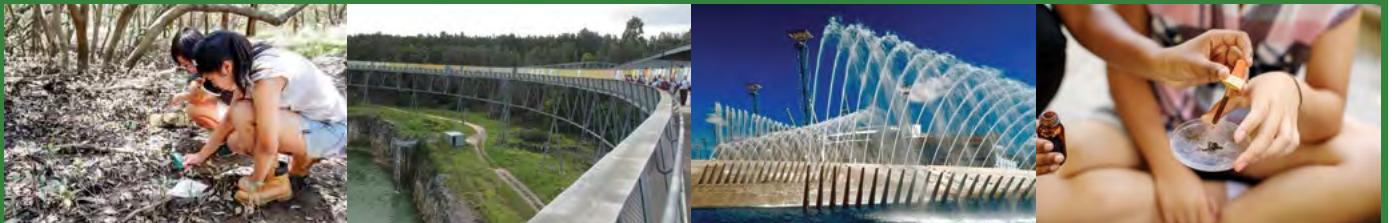
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Incorporating fieldwork references into HSC answers

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Better HSC answers integrate information obtained during fieldwork activities and from the examination stimulus booklet.

Students often forget to do this unless they have completed post fieldwork activities that require linking fieldwork data to syllabus content.

A valuable exercise is to provide templates, scaffolds, close activities or example that illustrates how this can be achieved. Gradually give students less guidance as they develop the skill of supporting written answers with fieldwork data.

Fieldwork must be seen as an essential source of topic content and therefore an important inclusion into written responses. This skill should be developed during the Preliminary HSC year. The following examples illustrate close activities, paragraphs in which fieldwork data is integrated and targeted questioning.

EXAMPLES USING PORTERS CREEK WETLAND (Ecosystem case study)

Nature and functioning of the wetland

Example 1: Biosphere and high levels of biodiversity

During fieldwork to PCW observations of the biodiversity in the wetland were made. Several species of paperbark trees (*Melaleuca*) were identified, and photographed, such as Other species of plants were observed and recorded including the Woollybut and Swamp Mahogany trees, bullrushes, vines and small floating plants called Insects, especially mosquitoes, and spiders were in abundance, while dip netting showed a small amount of aquatic biodiversity including and

Observations of canopy cover and tree height were used to classify the vegetation community as a forest.

Example 2: Interactions between biosphere, hydrosphere

A transect constructed in the wetland during fieldwork activities revealed the changes in vegetation communities in response to the hydrology in different parts of the of the wetland. In the drier, outer sections

species such as were observed while in the sections where water covered the surface, plants such as mosses, (floating plants) and ferns were abundant under a canopy of mainly paperbark trees.

Example 3: Lithosphere

A dumpy level was used to determine the gradient of the wetland. The result showed a very low gradient moving inland from the perimeter confirming the description of the site as a shallow basin. The land dropped only over a distance of

Soil testing revealed a high clay content which increased moving deeper into the basin. Fine sediments such as clay are transported during flood times and deposited on the floor of the wetland helping to create an impervious lining that holds water, an important function of wetlands such as PCW.

Example 4: Post fieldwork photo interpretation

Examine each photograph. Students answer the questions:

What did we do here?

What fieldwork technique or equipment did we use?

What did I learn?

I could use this information when writing an answer about

Write one factual statement linked to syllabus content beginning "During a fieldtrip to"

Note: This could be organised into a table.



Collecting water samples from a constructed wetland. (Photos L Chaffer)

FIELDWORK DATA



Observation and measurement of features of a wetland ecosystem at risk. (Photos L Chaffer)

Human impacts

Example 5: Human interactions

Water testing carried out at Fishburn drain, a stormwater outlet at Watanobbi, a suburb adjacent to the wetland, revealed high levels of phosphorus, Nitrogen and suspended sediment. (Readings included compare to normal readings). High nutrient levels and excess water entering PCW at this site are thought to be responsible for the dieback of Woollybut trees observed near the testing site. Woollybut trees like conditions that are dry for part of the year and stormwater runoff changes the natural hydrology. If species are lost, biodiversity decreases, as does resilience.

OR create a small table with a reference

Table 1 shows

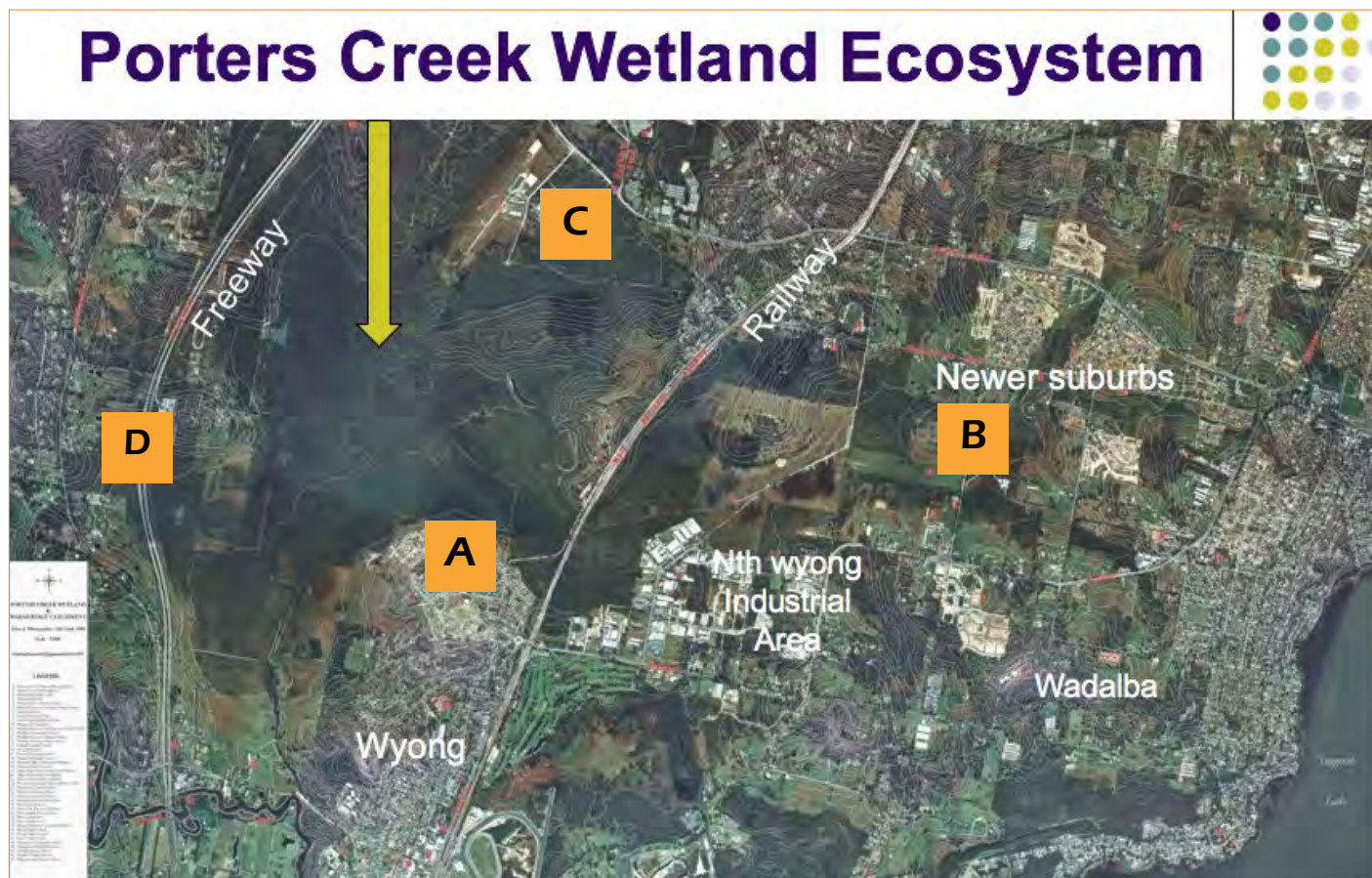
Table 1: Water Quality Testing at PCW

Component	PCW	Acceptable level

Example 6: Location map identifying fieldwork activities.

When locating a study area using a map or photograph, have students add information that can be referred to later in an answer using the reference "Refer to Map 1" or "...as identified in Map 1."

Map 1: Location of PCW showing the location of surrounding developments and fieldwork sites



FIELDWORK DATA

Information relating to the fieldwork can be part of the legend of the map OR be referred to in the body of an answer, for example:

Human impacts on PCW observed during fieldwork activities can be seen in Map 1 (Sites A, B, C & D). At A ...

Sample map legend:

A – Water quality testing at Fishburn drain and observation of tree dieback

B – Rapid suburbanisation increasing hard surfaces and runoff / constructed wetlands to slow runoff and improve water quality

C & D – Car and plane fumes, noise (Decibel metre readings), runoff (water infiltration test on different surfaces)

NOTE: When diagrams, maps or tables & graphs are included in student answers reference must be made in the text. Careful labelling eg Map 1, Table 2 etc makes referencing easier.

Underlining or highlighting the word **fieldwork** in an answer draws a markers attention to the fact students

have made this reference. The same applies to the use of the stimulus booklet.

A variety of fieldwork activities

Apply the same activities to fieldwork on Urban places and People and Economic Activity

Change the scaffolds or questions to suit the nature of the fieldwork and activities undertaken

The following examples of fieldwork activities focus on observation, recording qualitative data and interviews. It is equally important to refer to fieldwork data for these topics as it is when integrating statistics and data obtained using fieldwork equipment.

It is important that throughout Stage 6 students undertake a variety of fieldwork activities that build skills and develop the ability to use fieldwork equipment. This will increase the opportunities for answering skills questions based on fieldwork and applying knowledge and understanding of fieldwork methods to different scenarios and examples in an examination paper or assessment task.



Left: Urban change at Millers Point and Barrangaroo (Photos L Chaffer)



Above: Whale watching – an Economic Enterprise
Economic activity – tourism / ecotourism (Photos L Chaffer)

Example 7: Reference to observations and interviews

An interview with one of the last remaining residents at Millers Point conducted during a fieldwork visit highlighted

During a whale watching fieldwork activity at Port Stevens were observed.

When whales appeared strategies to ensure boats complied with maritime regulations regarding distances from boats were explained by the skipper and seen first hand as tour boats frequently moved their locations.