

1 Study Fig. 1 which shows data from an environmental impact survey of a proposed new bypass around the village of Ponteland in Northumberland.

Fig. 2 is an Ordnance Survey map extract showing the location of the proposed new route.

(a) Using Fig. 1, state which of the construction features has the largest environmental impact on local business.

- Workforce has an impact score of 3 (moderate impact) [2]

(b) Using Fig. 1, contrast the impact of site vehicles on the environment with that of traffic.

Credit any relevant contrast at 1 mk for each complete contrast. A simple list would gain a max of 1 mk. Points which might be made are:

- Site vehicles always have the same or greater impact than traffic
- On water (or fauna and flora), traffic has no impact whereas site vehicles have a very low impact
- Site vehicles have a high impact on aesthetic appeal, traffic has only a moderate impact
- On local residents site traffic has a moderate impact, traffic has a low impact [4]

(c) For different land uses shown on Fig. 2, suggest impacts which the proposed by-pass may have.

There are a range of land uses shown on the map which might be affected. A number of these land uses along with possible impacts are required for good marks.

e.g. farmland – noise and air pollution

e.g. the golf course – the by-pass would separate the clubhouse from the course

e.g. residential areas – possible noise and visual pollution

e.g. the Police HQ – noise and visual pollution

e.g. taking possible custom away from the Post Office in the centre of the village

e.g. the A696 would have less traffic in the village centre

L3 (5–6 marks)

Considers possible impacts on land uses near the by-pass and those in the village

L2 (3–4 marks)

Some awareness of a range of relevant impacts, perhaps only direct impacts on land uses near the by-pass

L1 (0–2 marks)

Little attempt to address the question; simple identification of land uses

Data support inaccurate or lacking

[6]

- (d) The local residents in Ponteland have set up a committee to argue against the new bypass on the grounds of environmental conservation.**

Assess the value of Figs 1 and 2 in helping this committee to support their case.

Environmental conservation in this instance refers to the impact a new road will have on the natural environment. This includes impacts on noise, air, water, land, visual and wildlife acting at a range of scales.

Accept any valid approach. One might be for candidates to consider the pros and cons of each of the resources, perhaps considering what other information may be useful. For example, Fig. 1 covers a range of impacts, but the environmental impact score is subjective – what exactly is the difference between a very low impact and a low impact for instance?

Information on the types of flora and fauna affected would be a useful addition, along with details of how exactly they are affected (loss of habitat or noise for example?)

Good candidates would then go on to make a judgement as to the usefulness of Figs 1 and 2 to the committee in terms of supporting their case.

L3 (6-8 marks)

A clear understanding of the value (or otherwise) of the resources, along with suggestions for other information which would be of use. The answer is clearly focused on the evaluative requirement of the question.

L2 (3-5 marks)

Attempts a judgement as to the value of the resources, but the argument is partial or may be supported only to a limited extent. Little grasp of other information which might be appropriate.

L1 (0-2 marks)

Probably descriptive with little understanding of the value of the resources.

[8]

2)

- (a) **Study Fig. 3 which shows discharge of nitrogen into Scottish marine areas from industry, sewage treatment works and rivers from 2000 to 2005.**

Using Fig. 3, compare the trend of nitrogen discharge from industry with that from rivers between 2000 and 2005.

Credit any valid comparisons supported with data from the graph, for example:

- The discharge from rivers is always less than from industry, 2005 twice as much from industry as from rivers
- 2000 to 2003 – rivers show decline (3 kt to 1.5 kt); industry shows slow increase (1 kt to 1.25 kt)
- Both trends are variable – minimum for industry in 2001, minimum for rivers in 2003.

L3 (4-5 marks)

Clear and detailed comparison of the trends .. Data from the resource is well used to support the comparisons made.

L2 (2-3 marks)

A valid attempt to compare. Data is used to support the points made. Less importance placed on the trends.

L1 (0-1 marks)

Limited ability to interpret the graph. May simply describe. Use of data is inaccurate or lacking.

[5]

- (b) **'Successful conservation must focus on preventing change rather than reacting to change which has already occurred.'**

From your wider study of conservation, to what extent do you agree with this statement?

A number of valid approaches are possible, ranging from no (or only limited) agreement up to complete agreement with the statement. Much will depend on the examples chosen, but the best responses will frame an answer in terms of addressing the focus of the question and will support the points made with relevant examples drawn from the wider topic.

L3 (8-10 marks)

The judgemental aspect of the question is to the fore with appropriate exemplar support. There is a sophisticated understanding of conservation management. The answer is well founded on evidence.

L2 (5-7 marks)

A clear focus on the question. Sound knowledge and understanding, but lacking depth in places. May be limited in range or in support.

[10]

L1 (0-4 marks)

The approach is largely descriptive and superficial with little or no attempt to address the question. Little exemplar support.