

Geography B

General Certificate of Secondary Education

Unit **B561/02**: Sustainable Decision Making (SDM) (Higher Tier)

Mark Scheme for June 2011

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Question			Expected Answer	Mark	Rationale/Additional Guidance
1	(a)		Wooden and rock groynes reduce longshore drift. Describe how groynes reduce longshore drift. <ul style="list-style-type: none"> • They trap sediment/sand (on one side) (LM) • They act as barriers to sediment/sand moving along the coast/cannot travel further down/along beach • They keep the sediment/sand within a limited area of the coastline. 	[2]	Point Marked. Any two appropriate points on how groynes reduce longshore drift. Does not need development. Max 1 mark for lifted material (LM). 1 mark for trapping sand (LM). 1 mark for stopping movement.
	(b)		Explain why wooden and rock groynes have a different life span. <ul style="list-style-type: none"> • Wood is softer or weaker than rock/rock is harder or stronger than wood • Water rots/wears away the wood, water erodes the rock • Water rots/wears away the wood (more) quickly, water erodes the rock (more) slowly • Etc. 	[2]	Point Marked. 2 x 1 point Any 2 out of the 3 ideas. Do not credit opposite statements. Do not accept 'lasts longer'. 1 mark for comparison of characteristic. 1 mark for comparison of speed. 1 mark for comparison of process. Must show comparison between materials and speed of processes.

Question	Expected Answer	Mark	Rationale/Additional Guidance
2	<p>Describe and explain the differences in the amount of erosion at Happisburgh between X and Y from 1999 to 2006. Include figures in your answer.</p> <p>Level 3 (5–6 marks) A full description and explanation of the difference in the amount of erosion between X and Y. Explanation of protection process for either revetments and/or groynes with accurate figures used to support answer. Written work is legible and spelling, grammar and punctuation are accurate. Meaning is communicated very clearly.</p> <p>Level 2 (3–4 marks) A description and brief explanation of why there is more erosion at Y than X. Reference made to protection role of groynes and/or wooden revetments. Comparative figures may be used to support answer. Written work is legible and spelling, grammar and punctuation are mostly accurate. Meaning is communicated with limited clarity.</p> <p>Level 1 (1–2 marks) Simple statement describing which site has more erosion and/or little or no attempt to explain the differences between X and Y. May include figures. Written work contains mistakes in spelling, grammar and punctuation, which sometimes hinder communication.</p>	[6]	<p>Examiners are reminded Quality of Written Communication is integrated with the level descriptors. QWC will reflect how clearly ideas and concepts are expressed, but should not restrict candidates from reaching L2 & L3.</p> <p>Level marked</p> <p>X = 30 – 40</p> <p>Y = 65 – 75</p> <p>Level 2 answer could include a reason for protection of land at X/ no protection at Y.</p> <p>If no reference to protection measures credit can be given for other ideas. L2 max 3 marks.</p> <p>Other ideas for protection could include</p> <ul style="list-style-type: none"> • Geology • Land value • Built up area / farmland. <p>Level to be put at end of answer on right hand side.</p>

Question	Expected Answer	Mark	Rationale/Additional Guidance
3	<p>Coastal erosion happens at Happisburgh. Stakeholders have different opinions on coastal protection. Identify <u>one</u> stakeholder who is in favour of coastal protection and <u>one</u> who is against it. Explain their reasons in your own words.</p> <p>Level 3 (5–6 marks) One stakeholder ‘in favour’ and one stakeholder ‘against’ identified with developed reasons given in candidate’s own words. Evidence could be used from Resources 3 and/or 4. Written work is legible and spelling, grammar and punctuation are accurate. Meaning is communicated very clearly.</p> <p>Level 2 (3–4 marks) One stakeholder ‘in favour’ and one stakeholder ‘against’ identified and their reasons explained partly in candidate’s own words. Use of evidence from Resources 3 and/or 4. Written work is legible and spelling, grammar and punctuation are mostly accurate. Meaning is communicated with limited clarity.</p> <p>Level 1 (1–2 marks) Simple statement(s)/material lifted from Resources 3 and/or 4. Opinions of stakeholders(s) can be in favour and/or against. Written work contains mistakes in spelling, grammar and punctuation, which sometimes hinder communication.</p>	[6]	<p>Examiners are reminded Quality of Written Communication is integrated with the level descriptors. QWC will reflect how clearly ideas and concepts are expressed, but should not restrict candidates from reaching L2 & L3.</p> <p>Level marked</p> <p>No credit for identifying stakeholders alone.</p> <p>Stakeholders with expected For and Against opinions.</p> <p>For Local Councillor Beach Road Resident Local Historian Local Farmer Local Holiday Park Owner.</p> <p>Against Sea Palling Resident Environment Manager in the Norfolk Broads Stalham Resident.</p> <p>Level to be put at end of answer on right hand side.</p>

Question	Expected Answer	Mark	Rationale/Additional Guidance
4	<p>Suggest why there are different coastal management plans for different locations along the North Norfolk coast and why these plans may vary over time.</p> <p>Level 3 (7–8 marks)</p> <ul style="list-style-type: none"> Well developed ideas of at least two different plans along the coastline with implicit comparative detailed reference made between locations and possible change(s) over time Written work is legible and spelling, grammar and punctuation are accurate. Meaning is communicated very clearly. <p>Level 2 (4–6 marks)</p> <ul style="list-style-type: none"> Developed ideas of at least two different plans along the coastline with some reference made to location and/or change over time Written work is legible and spelling, grammar and punctuation are mostly accurate. Meaning is communicated with limited clarity. <p>Level 1 (1–3 marks)</p> <ul style="list-style-type: none"> Simple ideas about plan(s) along the coastline. Weak reference made to location(s) and/or change over time Written work contains mistakes in spelling, grammar and punctuation, which sometimes hinder communication. 	[8]	<p>Examiners are reminded Quality of Written Communication is integrated with the level descriptors. QWC will reflect how clearly ideas and concepts are expressed, but should not restrict candidates from reaching L2 & L3.</p> <p>Reasons include:</p> <ul style="list-style-type: none"> Settlement size Location of key infrastructure point (Bacton) Economic Importance (tourism). <p>Allow other appropriate ideas.</p> <p>Answer that does not reference locations or plans from resource 7 should gain no credit.</p> <p>Answer with no development cannot go above L1.</p> <p>Level to be put at end of answer on right hand side.</p>

Question	Expected Answer	Mark	Rationale/Additional Guidance
5	<p>Explain which option you think would offer the council the most sustainable way to manage the coastline at Happisburgh.</p> <p>In your answer you should:</p> <ul style="list-style-type: none"> • State your chosen option • Explain why you think your chosen option is more sustainable than each of the other options • Explain any disadvantages of your chosen option • Give one possible advantage of each of your rejected options. <p>Level 4 (13–16 marks)</p> <ul style="list-style-type: none"> • Well-developed reasons given as to why chosen option is more sustainable than each of the other options with a clear understanding of the term • Well-developed reasons given for disadvantages of chosen option • Well-developed reasons given for advantage of each of the rejected options • Written work is legible and spelling, grammar and punctuation are very accurate and meaning very clearly communicated. Good use of geographical terminology. <p>Level 3 (9–12 marks)</p> <ul style="list-style-type: none"> • Developed reason(s) given as to why chosen option is more sustainable than each of the other options with understanding of the term shown • Developed reason(s) given for disadvantages of chosen option • Developed reason given for advantage of each of the rejected options • Written work is legible and spelling, grammar and punctuation are accurate. Meaning is communicated clearly. Use of appropriate geographical terminology. 	[16]	<p>Examiners are reminded Quality of Written Communication is integrated with the level descriptors. QWC will reflect how clearly ideas and concepts are expressed, but should not restrict candidates from reaching L2 & L3.</p> <p>There are NO wrong options – any option with appropriate explanation is acceptable.</p> <p>For suggested content see table on page 7.</p> <p>Level to be put at end of answer on right hand side.</p>

Question			Expected Answer	Mark	Rationale/Additional Guidance
			<p>Level 2 (5–8 marks)</p> <ul style="list-style-type: none"> • Mention made why chosen option is more sustainable than the other options but with limited understanding of the term • One or two simple reasons given for disadvantage of chosen option • Simple reason given as advantage of each of rejected options • Work is legible and spelling, grammar and punctuation are mostly accurate. Meaning is communicated with limited clarity. <p>Level 1 (1–4 marks)</p> <ul style="list-style-type: none"> • Limited reference made to why chosen option is more sustainable than other options • Disadvantage of chosen option covered in a limited way • Advantage of rejected options covered in a limited way • Written work contains mistakes in spelling, grammar and punctuation, which sometimes hinder communication. 		
			Total	[40]	

	ADVANTAGES	DISADVANTAGES
Indicative content (credit other valid responses)		
OPTION 1 Build a sea wall and use rip-rap and rock armour at the base of the cliff	<ul style="list-style-type: none"> Protects cliff-line at its present position Protects people's homes, farm land and livelihoods. Will protect beach and so tourists will still visit and town will still make money from tourist industry Etc 	<ul style="list-style-type: none"> High cost of hard engineering methods Need for constant maintenance and extra cost of this Ugly – may put people off visiting and so town won't make income from tourists Etc
OPTION 2 Use beach replenishment and repair and maintain the existing groynes and revetment	<ul style="list-style-type: none"> Much less invasive than just hard engineering methods Allows beach to build up – forming a natural defence against wave damage A bigger beach, that looks natural, may attract more tourists, increasing income from the tourist industry Etc 	<ul style="list-style-type: none"> Need constant and costly maintenance Soft engineering processes don't always work – beach material may be removed by winter storms and have to start all over again, so costly High cost of maintenance of existing defences and on-going costs of beach replenishment Etc
OPTION 3 Use managed retreat of the coast and compensate people for their losses.	<ul style="list-style-type: none"> People who live on the shore line are able to buy a new home, away from area likely to erode. Dangerous buildings can then be removed, making the beach a safer place for tourists. Managed retreat would allow the cliff line to erode to a point of equilibrium Etc 	<ul style="list-style-type: none"> High cost of compensation/Who should get the compensation Much of this region is made of similar material and may erode – who knows where the coast will have eroded to before equilibrium is achieved? Loss of beach material will affect tourist industry Etc

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