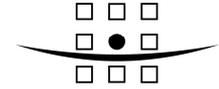


ROYAL HASKONING

Appendix E

Issues and Objective Evaluation



ROYAL HASKONING

Appendix E Issues and Objective Evaluation

E1	Introduction.....	1
E2	Methodology.....	2
E2.1	Identification of Features, Issues and Objectives.....	2
E2.2	Objective Evaluation.....	2
E3	Issues and Objectives Table.....	3

E1 Introduction

This Appendix summarises the features and issues identified along the coast between the River Tyne and Flamborough Head, and outlines the procedure for setting and evaluation of objectives.

E2 Methodology

E2.1 Identification of Features, Issues and Objectives

The features and issues in the Issues Table were populated using information from the theme reviews and also input from the Project Management Group and Stakeholders through consultation (refer Appendix B for further detail).

Objectives were interpreted from the features and issues, then reviewed and confirmed by the Project Management Group and the Stakeholders.

E2.2 Objective Evaluation

The relative importance of the objectives was then evaluated, through answering a series of questions:

- At what scale is the benefit important?
- How important are these benefits to the people who use them?
- Is there enough of this benefit? / Is this benefit rare?
- Can the benefit be substituted?

This process assisted in characterising of different sections of the coast, creating an overall context from within which various objectives could be evaluated. Because of the nature of the coast; its high diversity of interests and in many ways the importance of local issues, a simple prioritisation or ranking based strictly on the above factors would not be representative of the aims associated with each area.

Certain overarching principles were defined and are reported in the main text. More local essential attributes were further considered in the development of policy. These only aimed to provide a synopsis of the actual issues raised and the objectives agreed. In practice all objectives within any area were taken into account, with the intent as far as possible to achieve objectives over the whole range of themes, rather than achieving objectives within one sector at the expense of others. This approach reflects the very clear interdependencies found between themes. To maintain commercial interests at the expense of the natural environment or heritage would devalue much of the commercial interest itself, to maintain the recreational values at the expense of other human activity could result in a loss of the very communities which benefit from that recreational value.

In this context the factors presented at the beginning of this section are useful in providing an understanding of what and how issues need to be taken into account. In finally evaluating the success of the preferred plan (Appendix G), however, a simple cumulative approach has been taken with each objective given equal weighting.

E3 Issues and Objectives Table

Location: MA01 – RIVER TYNE TO SOUTH PIER									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/ sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Saltmarsh upstream in Rr Tyne	Saltmarsh provides inter-tidal habitats that would potentially be lost with out protection of the main piers	Yes	environmental value - Identified as a priority habitat in the Durham Biodiversity Action Plan	Regional	E	Change in conditions resulting from loss of structures at harbour mouth	No	No	To ensure that shoreline management does not have a detrimental impact on saltmarsh habitat.
River Tyne fishing resource	Poor water quality due to TBT levels in estuary may affect salmon, sea trout, herring nursery areas, and lobster and edible crabs	No							
Tynemouth Port	A navigable entrance channel is required to be maintained at all times for port activities. Dredging is currently required to maintain entrance depth.	Yes	Commercial international port of economic importance to the regional community	National	HA	Loss of south groyne or south pier	No	No	To maintain navigable channel for port operations in River Tyne. For shoreline management not to have a detrimental impact on port operations.
South Groyne	Will fail if not maintained	Yes	Listed Structure of historical importance.	Regional	H	Inappropriate maintenance	No	No	To maintain listed structure

Location: MA01 – RIVER TYNE TO SOUTH PIER									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/ sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
South Groyne	Will fail if not maintained	Yes	Northern control structure for Littlehaven beach and backshore area.	Local	HA	Inappropriate maintenance	No	Yes	To maintain navigable channel for port operations in River Tyne
Sea Road	Loss of transport link due to erosion and/or flooding	Yes	Transport link River Tyne and main beaches	Regional	HA	Loss of beach and beach facilities	No	No	To maintain transport links to Littlehaven and Sand Haven beaches
Littlehaven Beach	Loss due to erosion. Beach levels are known to fluctuate seasonally and with storm events.	Yes	Tourism value, recreational value	Local	R	Loss of south groyne or south pier	No	No	To maintain a beach suitable for recreation purposes
Hotel	Loss due to erosion	Yes	Value to local economy, tourism value	Local	HA	Loss of asset and loss of setting	No	Yes	To retain or protect existing assets for economic and amenity reasons
Car parks	Loss due to erosion	Yes	Value to local economy, tourism value, recreation value	Local	R	Loss of asset	No	No	To retain or protect existing assets for economic and amenity reasons
Harbour Drive (between River Tyne and South Pier)	Weak defence of seawall causing break-up of old Harbour Drive and carpark. Superficial repair is planned for the new financial year.	Yes	Emergency access for people on the beaches.	Local	R	Loss of beach	No	Yes	To ensure emergency access to beach

Location: MA01 – RIVER TYNE TO SOUTH PIER									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/ sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
South Pier	The pier is at risk if the structure is not maintained. It is a popular location for recreational fishing and walking when open.	Yes	South pier is of 'Archeaological Interest'. Site of lighthouse is a Listed Building of historical significance.	Regional	H	Inappropriate maintenance	No	No	To maintain listed structure
South Pier	The pier is at risk if the structure is not maintained. It is a popular location for recreational fishing and walking when open.	Yes	Essential for function of port activities.	National	HA	Inappropriate maintenance	No	No	To maintain shelter for port operations
South Pier	The pier is at risk if the structure is not maintained. It is a popular location for recreational fishing and walking when open.	Yes	Important recreational facility for fishing interests.	Local	R	Inappropriate maintenance	No	No	To maintain facilities for recreational fishing
South Pier	The pier is at risk if the structure is not maintained. It is a popular location for recreational fishing and walking when open.	Yes	Important structure for recreational watersports.	Local	R	Inappropriate maintenance	No	No	To maintain access to sheltered waters for recreational watersports

Location: MA01 – RIVER TYNE TO SOUTH PIER									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/ sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
South Pier	The pier is at risk if the structure is not maintained. It is a popular location for recreational fishing and walking when open.	Yes	Part of Durham Coast SSSI. This SSSI unit is important for ornithology, particularly Purple Sandpiper. Also part of the Coast SPA/Ramsar site.	European	E	Loss of South Pier and South Groyne. Erosion of Beach.	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
South Pier	The pier is at risk if the structure is not maintained. It is a popular location for recreational fishing and walking when open.	Yes	Southern control structure for Littlehaven and northern control structure for Sand Haven beaches.	Local	HA		No	Yes	To allow sustainable management of beaches.

Location: MA02 – HERD SAND									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Sandhaven Beach	Beach erosion is of concern.	Yes	The beach is a designated bathing beach under EU Directive and is therefore important for tourism, employment and the local economy. Also of educational value for school children.	Regional	R	Loss of facilities, loss of South Pier	No	No	To maintain a bathing beach suitable for recreation purposes
Sandhaven Beach	The dune system and parts of the promenade are possibly constructed using unknown fill materials. Exposure of these materials is of concern.	Yes	The beach is a designated bathing beach under EU Directive and is therefore important for tourism, employment and the local economy. Also of educational value for school children.	Regional	I	Loss of facilities, loss of South Pier	No	No	To minimise the potential impact of pollution
Commercial development	Loss due to erosion	Yes	Value to local economy	Local	HA	Loss of beach or transport links or car parking, loss of South Pier	No	No	To retain or protect existing commercial property for economic reasons
Car parks	Loss due to erosion	Yes	Value to local economy, tourism value, recreation value	Local	R	Loss of asset, loss of South Pier	No	No	To retain or protect existing assets for economic and amenity reasons

Location: MA02 – HERD SAND									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Promenade and facilities	Loss due to erosion	Yes	Value to local economy, tourism value, recreation value	Local	R	Loss of beach or transport links or car parking, loss of South Pier	No	No	To maintain recreational facilities
Car parks	Loss due to erosion	Yes	Value to local economy, tourism value, recreation value	Local	R	Loss of asset, loss of South Pier	No	No	To retain or protect existing assets for economic and amenity reasons
Herd Sand Dunes	Loss due to erosion	Yes	Natural heritage value. Dunes are a UK BAP Priority Habitat. Herd sand dunes are not within the SSSI	National	E	Loss of South Pier, trampling, loss of beach	No	No	To avoid any interruption to sources of sediment supply to the dunes and to maintain or restore natural or semi-natural localised levels of accretion or erosion
Lifeguard Station	Loss due to erosion	Yes	The South Shields Volunteer Lifeguard Club is a training facility for Lifeguards and is therefore an important community facility for the youth in the area.	Local	R	Loss of beach	No	Yes	To maintain lifeguard and training facility
Gypsies Green Sports Ground	Loss due to erosion	Yes	Recreation value	Local	R	Loss of asset	No	Yes	To retain or protect existing assets for recreation reasons

Location: MA02 – HERD SAND									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Car parks	Loss due to erosion	Yes	Value to local economy, tourism value, recreation value	Local	R	Loss of asset			To retain or protect existing assets for economic and amenity reasons
Trow Lea Sands	Loss due to erosion	Yes	Recreational value - zoned for watersports, tourism value	Local	R	Loss of car park and lifeguard station	No	No	To maintain watersports facility/area

Location: MA03 - TROW									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Coastal footpath	Footpath in close proximity to cliff line is threatened by cliff erosion	Yes	Recreational value	Regional	R	Discontinuity of path	No	Yes	To maintain the ability to walk the coastline
Durham Coast SSSI (South Shields to Hart Warren)	Potential loss due to shoreline recession	Yes	Designated SSSI of considerable biological, geological and physiographic interest, and contains most of the paramaritime Magnesian Limestone vegetation in Britain, as well as a species rich dune system. Important landscape value to locals. Parts of the site are also designated as being of European value under the Birds Directive, Habitats Directive and the Ramsar Convention.	European	E	Potential pollution from exposure of material in Trow Quarry, battering, buttressing, grading or seeding of geological exposures and cuttings	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
Floating Gun Platform, Trow Point	Potential loss due to shoreline recession	Yes	Listed building of historical significance	Regional	H		No	No	To maintain listed structure

Location: MA03 - TROW									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Trow Point to Whitburn Steel Magnesian Limestone cliffs SSSI	Loss due to erosion	Yes	SSSI is superseded by the larger Durham Coast SSSI which, as identified above contains sites of European biodiversity value.	National	E	Reduction in exposure of geological features due to inappropriate coastal defence	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
Harton Downhill SSSI	Loss of sea cliffs backed by Magnesian Limestone plateau due to erosion (cave development) - This site is over 400m from the cliffline.	Yes	Designated SSSI, SNCI (for spotted orchids), important habitat and species which are identified as priority species and habitats in the Durham Biodiversity Action Plan	National	E	Changes in land management practices	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
Trow Quarry	Ongoing exposure of potentially contaminated landfill material in old quarry due to cliff erosion.	Yes	Significant potential impact on a wide area of the coast due to exposure of potentially contaminated material.	National and regional	I	Long term sustainability of any future defence	No	Yes	To minimise the potential impact of pollution but also to minimise reliance on maintenance of future defences
The open space of the Leas (Trow Lea, Frenchman's Lea and Marsden Lea)	Potential loss of safe access and good vantage points for tourism	Yes	Tourism value, recreational value and botanical value. Also forms the finish of the annual Great North Run	Regional	R		Yes	No	To maintain safe use and character of the Leas.

Location: MA03 - TROW									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
The open space of the Leas (Trow Lea, Frenchman's Lea and Marsden Lea)	Loss of footpath due to cliff erosion.	Yes	Footpath is important for recreation and tourism. Walking for health is a policy of South Tyneside Council and the Health Authorities.	Regional	R	Discontinuity of path	No	Yes	To maintain the ability to walk the coastline
The open space of the Leas (Trow Lea, Frenchman's Lea and Marsden Lea)	Changing the character of the cliffs. The destruction of rocks, cliffs and structures that were deemed hazardous has dramatically changed the visual impact of the coast and may also cause too rapid a change for wildlife. There is also a loss of local history and identity. It was assumed that the rocks were a hazard, though this may not be the case.	no	Local history and identity value.	Local	E	Safety	No	No	Not defined at SMP level

Location: MA04 – FRENCHMANS BAY TO LIZART PT.									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Marsden Bay Lifeguard Station	Potentially threatened by undercutting at base of structure caused by wave action.	Yes	Provides canoe rescue service for recreational users of the waterway.	Regional	R	Reduced use of beach	No	Yes	To maintain the function of the lifeguard station
Coast road A183	Coastal erosion threatens the main coastal road between South Shields and Sunderland. Road is within 30m of the cliffline and may be threatened by coastal recession at some time in the future. There is an alternative route further inland though this involves going through more built up areas.	Yes	transport link between Sth Shields, Marsden Bay and Whitburn	Regional	HA		No	Yes	To maintain transport linkage between South Shields and Whitburn and access to Marsden Bay
Marsden Grotto car park	Elongated carpark is on seaward side of the coast road A183 and is potentially threatened by coastal erosion particularly at the south-eastern corner	Yes	Recreation value	Local	R	closure of coast road	No	Yes	To maintain car parking for Leas and Marsden Bay
Marsden Grotto Café	Loss due to erosion	Yes	Recreational value, tourism value, value to local economy	Local	R	closure of coast road and car park	No	No	To maintain recreational facilities

Location: MA04 – FRENCHMANS BAY TO LIZART PT.									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Residential properties	Properties landward of the A183 may be threatened by coastal recession in the future	Yes	Homes for people	Local	HA	closure of coast road	No	Yes	To prevent loss of residential property to erosion
Marsden Limekilns	Currently approx. 65m from cliff line, on the landward side of the A183, this Scheduled Ancient Monument may be threatened by coastal recession in the future	Yes	Scheduled Ancient Monument of historical importance. Important sea bird cliffs - part of notified SSSI interest.	National	H	closure of coast road	No	No	To maintain heritage value
Marsden Bay Beaches	Loss of beach due to erosion. Concern regarding quality of the beach amenity. Marsden beach used to be a major attraction it now has no sand, it was a deep sandy beach.	Yes	EU designated bathing beaches of recreational value and tourism value	Regional	R	closure of coast road	No	No	To maintain bathing beach for recreational use
Lizard Point access road and car park	Potentially threatened by cliff erosion. Car park is only 1.5m from cliff on the southern side and road is approx. 5m from the road. The carpark is currently undercut by cave formation.	Yes	The road provides access to an important local vantage point and car park from which people walk the coastal path or visit nearby Souter Lighthouse. Therefore of recreational and tourist value.	Regional	R	closure of coast road	No	Yes	To maintain car parking for coast and Souter lighthouse

Location: MA05 – LIZARD POINT TO SOUTER POINT									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Souter Point Lighthouse	Potentially threatened by future coastal recession.the closest point to the cliffline is the foghorn building at approximately 85m.	Yes	Heritage and tourist value	Regional	H	closure of coast road	No	No	To maintain lighthouse and associated structures
Souter Point (and coastline to the south)	The dumping and capping of waste materials (toxic) from the dredging of the River Tyne. This method of disposal has been tried off South Carolina and was found to be ineffective. Alternative means of disposing of this toxic waste has not been made public. This is of concern because it destroys the ecological balance of the sea and causes knock-on effects to the shore and human use/pleasure.	no							
Old Harbour Quarry Engineered	Potential exposure of contaminated landfill material	Yes	Contents of quarry may be contaminated and outwash of this	Regional	I		No	Yes	To minimise the potential impact of pollution but also to

Location: MA05 – LIZARD POINT TO SOUTER POINT									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Structure	from quarry.		material could result in deposition in Marsden Bay and Whitburn Sands (EU Designated Beaches) affecting the health & safety of swimmers and the aesthetic appeal of these bays.						minimise reliance on maintenance of future defence minimising
MOD Firing Range	Loss due to erosion. Site in use by the Military as an active firing range.	Yes	Site is needed for training purposes. Potential risk of exposure of unexploded ordnance.	regional	HA		No	Yes	To maintain MOD facility

Location: MA06 – SOUTER PT TO SUNDERLAND HARBOUR									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Residential Properties, Elm Drive	Housing estates may be threatened by cliff recession in the future.	Yes	Homes for people	local	HA		No	Yes	To prevent loss of residential property to erosion
Whitburn Comprehensive	Educational property may be at risk from erosion.	Yes	Educational resource	regional	HA		No	Yes	To prevent loss of school property to erosion
Northumbrian Water water/ sewerage infrastructure	Damage to outfall structures and storm sewerage pumping facility due to cliff erosion undermining foundations	Yes	Sewage infrastructure	regional	HA		No	Yes	To maintain local sewage infrastructure
Archaeology on coastline	Loss of shoreline due to erosion	Yes	Shoreline is an area of 'Potential Archaeological Importance', also designated Wildlife Corridor						
Residential properties at The Bents	Loss of residential property due to erosion including residential value of Fishermens Cottages	Yes	Homes for people	Local	HA		No	Yes	To prevent loss of residential property to erosion
Fishermens Cottages, Whitburn Bents	Loss due to erosion	Yes	Fishermens Cottages are registered in English Heritage's list of parks and gardens of special historic interest under the National Heritage Act of 1983, and thus are important cultural heritage	national	H		No	No	To prevent loss of heritage value due to erosion

Location: MA06 – SOUTER PT TO SUNDERLAND HARBOUR									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Whitburn Steel SNCI	Loss due to erosion	Yes	Designated SNCI with rare spotted orchid and important geological exposures of the Upper Permian Concretionary Limestone	Regional	E	Change in site use, loss due to erosion	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
Whitburn Bay Bathing Beach	Lowering of beach may reduce amenity and appeal of bathing beach.	Yes	EU designated Bathing Beach of recreational and tourism value	Regional	R	Possible pollution from dredged material from the River Tyne that is apparently dumped off Souter Point and would be transported southwards with the net southerly drift.	No	No	To maintain bathing beach for recreational use
Whitburn Bay Bathing Beach	Lowering of beach may reduce amenity of beach for local fishing fleet who are dependent upon suitable beach levels for beaching and launching of boats.	Yes	Recreational value, economic value of local fishing fleet (40 boats)	Local	C	Poor timing of certain works sensitive to periods of spawning. Sand winning for beach nourishment. Creation of marine obstructions. Contamination of marine environment with refuse, garbage, chemicals, waste	Yes	Yes	Maintain access to the sea for fishing boats. Maintain safe access for anglers .

Location: MA06 – SOUTER PT TO SUNDERLAND HARBOUR									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Whitburn Rd	Potential flooding of coastal road due to inundation or loss due to coastal erosion.	Yes	Road provides important transport link to north and south.	Local	HA		No	No	To maintain transport link along sea front
Seaburn foreshore promenade	Potential loss due to erosion	Yes	Recreation amenity, tourism value, value to local economy	Regional	R	loss of coast road, loss of beach amenity	No	No	To maintain promenade
Residential properties	Potential loss of residential properties due to erosion and/ or inundation	Yes	Homes for people	Local	HA		No	Yes	To prevent loss of residential property to erosion
Commercial properties	Potential loss of businesses on seafront due to erosion and/or inundation.	Yes	Economic value, tourist value	Regional	HA	loss of coast road, loss of beach amenity	No	Yes	To prevent loss of commercial property to erosion
Roker cliffs and Parsons Rocks	Potential loss due to erosion	Yes	Roker Cliffs and Parsons Rocks are designated RIGS and SNCI are of great geological interest with its Magnesian Limestone cliffs and “Cannonball Limestone”. This headland is also the southern anchor for Whitburn Sands.	National	E	Failure to allow natural exposures of geological features to evolve and to be studied	No	No	To maintain or restore natural or semi-natural levels of accretion or erosion in the locality of the site.
Roker Cliff Park	Potential loss of open area and promenade due to erosion	Yes	Recreational value of open area, tourism value	Regional	R		No	No	To maintain recreational value of open area

Location: MA06 – SOUTER PT TO SUNDERLAND HARBOUR									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Roker Seafront including lower promenade	Potential loss due to erosion and deterioration of defences	Yes	Roker Seafront is registered in English Heritage's list of parks and gardens of special historic interest under the National Heritage Act of 1983, and is therefore an important part of the areas cultural heritage	National	H		No	No	To prevent loss of heritage value due to erosion
Roker Seafront including lower promenade	Sea defence on promenade. Potential impact of sea defences. The size and position of any future sea defences are of great interest to local residents and business owners.	Yes	commercial value, tourist value, recreational value	Local	R		No	No	To maintain appropriate nature of promenade to sustain commercial, tourist and recreational value.
Roker Beach	Potential loss of beach due to erosion	Yes	EU designated Bathing Beach of recreational and tourism value.	Regional	R	Safe recreational use of beaches is important particularly with regard to health issues from mine water.	No	No	To maintain bathing beach for recreational use
Properties	Potential loss of residential properties due to erosion	Yes	Homes for people	Local	HA		No	Yes	To prevent loss of residential property to erosion

Location: MA06 – SOUTER PT TO SUNDERLAND HARBOUR									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Properties	Potential loss of commercial properties due to erosion	Yes	Local economic value, tourist value.	Regional	HA	loss of road, loss of beach amenity	No	No	To prevent loss of commercial property to erosion
Roker Pier	Loss due to erosion and deterioration of defence	Yes	Listed structure of historical significance.	Regional	H	Inappropriate maintenance	No	No	To maintain listed structure

Location: MA07 – SUNDERLAND HARBOUR									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
IRB Station	Loss due to erosion	Yes	Community safety	Regional	R		No	Yes	To maintain IRB station function
Roker Pier	Loss due to erosion and deterioration of defence	Yes	Provides protection to Sunderland Harbour and Port operations	National	HA	Inappropriate maintenance	No	No	To maintain shelter for port operations
Roker Pier	Loss due to erosion and deterioration of defence	Yes	Popular location for recreational angling.	Local	R	Inappropriate maintenance	No	No	To maintain facilities for recreational fishing
Roker Pier	Loss due to erosion and deterioration of defence	Yes	Important structure for recreational watersports.	Local	R	Inappropriate maintenance	No	No	To maintain access to sheltered waters for recreational watersports
Roker Pier	Loss due to erosion and deterioration of defence	Yes	Southern control structure for Roker beaches.	Local	HA	Inappropriate maintenance	No	Yes	To allow sustainable management of beaches.
North Pier	Loss due to erosion/deterioration of structure.	Yes	Area of Potential Archaeological Interest.	Local	H	Inappropriate maintenance	No	No	To maintain archaeological value of structure
North Pier	Loss due to erosion/deterioration of structure.	Yes	Popular fishing location of recreation value.	Local	R	Inappropriate maintenance	Yes	Yes	To maintain fishing facility
New South Pier	Loss due to erosion/neglect	Yes	Pier is a Scheduled Ancient Monument	National	H	Loss of Pier	No	No	To maintain archaeological value of structure
New South Pier	Loss due to erosion/neglect	Yes	Recreational angling from Pier is popular	Local	R	Loss of Pier	Yes	Yes	To maintain fishing facility

Location: MA07 – SUNDERLAND HARBOUR									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Wear River Mouth	A navigable channel is required at the mouth of the river for port and recreational reasons.	Yes	River is a visitor attraction and transport artery, and the port is a source of employment and industrial activity - depth of the River mouth will influence further industrial development.	Regional	C	loss of harbour structures (piers)	No	No	To maintain adequate depth at the river mouth for operational use of the river
Sunderland Harbour	Potential loss due to erosion and deterioration of defences	Yes	Important for recreational watersports, local economic value, tourist value	Regional	R		No	No	To maintain a sheltered harbour for recreational watersports

Location: MA08 – SUNDERLAND HARBOUR TO PINCUSHION									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Sunderland Port/ Docks	Loss due to erosion/neglect of defence structures including north east pier and south west breakwater. Need to consider Alteration No. 2 Central Area Framework (UDP) - Port Proposals.	Yes	Contribute to national and local economy, local employment value. Provides protected area for recreational watersports. Docks are site of potential archaeological significance.	National	HA	Loss of harbour structures (piers)	No	No	To prevent loss of commercial property in Docks area due to erosion or loss of structures
Sunderland Port/ Docks	Loss of potential archaeological interest due to erosion	Yes	Area of Potential Archaeological Interest	Local	H	Loss of harbour structures (piers)	No	No	To maintain opportunities for educational awareness of historical features and research.
North Dock Tufa RIGS	Potential loss due to erosion.	Yes	North Dock Tufa RIGS contains a geological tufa dome which represents the best example of such a structure within the area	Regional	E	Interruption of natural physical processes	No	No	To maintain or restore natural or semi-natural levels of accretion or erosion in the locality of the site.
Hendon Sewage Treatment Works	Potential loss of Northumbrian Water Ltd's assets due to erosion. Hendon STW has had protection work done in conjunction with Sunderland City Council.	Yes	Economic and environmental value	Regional	HA		No	Yes	To maintain sewage treatment infrastructure for Sunderland

Location: MA08 – SUNDERLAND HARBOUR TO PINCUSHION									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Hendon Sewage Treatment Works	Pollution of seawater and foreshore from untreated sewage due to inadequate capacity of Hendon treatment works and other untreated discharges from unconnected pipes along the coast.	no							
Industrial property (Oil depot etc)	Loss due to erosion/deterioration of defence structures	Yes	Economic value	Regional	HA		No	Yes	To prevent loss of commercial property due to erosion or loss of structures and to prevent potential pollution
Hendon Railway	Potential loss due to erosion of cliffs (particularly at southern end of defences)	Yes	Hendon Railway SNCI is valued for its geological exposures of the Upper Permian Concretionary Limestone						
Hendon Railway	Loss due to erosion	Yes	Transport link to docks	Regional	HA		No	No	To maintain rail transport link to docks

Location: MA08 – SUNDERLAND HARBOUR TO PINCUSHION									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Hendon and Grangetown Beach and Promenade areas	Loss due to erosion	Yes	Important to local residents in providing limited coastal amenity. Regeneration of these areas would improve both the environment and the lifestyle/quality of life for residents of the area. Need to have regard to Urban Development Plan proposals and emerging policy SA27.11 Improvements to open space at Hendon Cliffs.	local	R		No	No	To create appropriate quality recreational coastal amenity area
Hendon and Grangetown Beach and Promenade areas	Poor access to foreshore due to defence works. Amenity of beach reduced by defences.	Yes	access and use of beach for recreational and amenity value,	local	R		No	No	To provide better access for recreational use of the beach
Hendon outfall	Potential loss due to erosion. Hendon outfall has suffered from beach erosion and has had some protected works done.	Yes	Infrastructure for prevention of pollution. Economic and environmental value.	Regional	HA		No	Yes	To maintain sewerage infrastructure for Sunderland

Location: MA08 – SUNDERLAND HARBOUR TO PINCUSHION									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Hendon Cliffs SNCI	Potential loss of cliffs due to erosion. Potentially increased recession rate due to past mining activities (subsidence) and focussing of wave energy south of hard defence (promenade).	Yes	Hendon Cliffs SNCI for its geological exposures of the Upper Permian Concretionary Limestone	local	E		Yes	Yes	
Southern Radial Route at Ryhope	Route of proposed new road is seaward of the existing railway line. Potential loss due to erosion. Need to consider Urban Development Plan proposal/emerging policy SA50.5.	Yes	Proposed new road transport link between Sunderland and Seaham, bypassing Ryhope.	Regional	HA		No	Yes	To maintain the route of the proposed Southern radial route over its design life.
Grangetown residential properties	Potential loss of village in close proximity to eroding cliffs	Yes	Homes for people	Local	HA	Loss of transport links	No	No	To prevent loss of residential property to erosion
Grangetown residential properties	Potential loss of village in close proximity to eroding cliffs	Yes	local community identity	Regional	H	Loss of setting	No	No	To prevent loss of community to erosion

Location: MA08 – SUNDERLAND HARBOUR TO PINCUSHION									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Railway line	Loss due to erosion. Any new railway station should be sited an appropriate distance from the coast.	Yes	Important local transport link. Also forms part of the Trans-European Network (TENS) as a diversion route for the freight network of the East Coast Main Line.	International	HA	Change in port use	No	Yes	To maintain rail transport link
Cliff top footpaths	Loss of footpath between Ryhope and Hendon due to erosion. The UDP 1998 includes SA49: 'New or improved strategic Footpath Links will be provided in the following locations....(2) from Hendon Cliff top to Ryhope Dene via the coastline.' SA49 further states that the footpath 'will pass through proposed Hendon Cliffs local park.... and form part of the Durham Coastal footpath' Protection of access corridor (footpaths) near edge of eroding cliffs.	Yes	Recreational value to locals and visitors. Important pedestrian transport link between Ryhope and Hendon in line with UDP.	Regional	R	Discontinuity of path	No	Yes	To maintain pedestrian access along cliff line.

Location: MA08 – SUNDERLAND HARBOUR TO PINCUSHION									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Ryhope cliffs (quarry)	Some of the entrance to a 1960's quarry is now exposed on the cliff face. The quarry surface has also sunk and contents of the quarry are now visible on the surface of the farmers field on top of the cliff.	Yes	Reduction of pollution of coastline	Local	I		No	Yes	To minimise the potential impact of pollution but also to minimise reliance on maintenance of future defences
Area of Potential Archaeological Importance	Loss due to erosion	Yes	Educational/research value	Local	H		No	No	To maintain archaeological value of area and access to these interests
Proposed new railway station at Ryhope	Loss due to erosion. Need to consider Urban Development Plan proposal/emerging policy SA43.2	Yes	Proposed new rail transport amenity for improved rail service to Ryhope community.	Local	HA	Closure of railway line	No	No	To maintain opportunity for new railway station
Ryhope village	Potential loss of village in close proximity to eroding cliffs	Yes	Homes for people	Local	HA	Loss of transport links	No	No	To prevent loss of residential property to erosion
Ryhope village	Potential loss of village in close proximity to eroding cliffs	Yes	local community identity	Regional	H	Loss of setting	No	No	To prevent loss of community to erosion

Location: MA08 – SUNDERLAND HARBOUR TO PINCUSHION									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Halliwell Banks SNCI	Protection of SNCI	Yes	Halliwell Banks SNCI where the Magnesian Limestone cliffs are over-burdened by thick deposits of slumped boulder clays	Local	E	Interruption of natural physical processes	No	No	To maintain or restore natural or semi-natural levels of accretion or erosion in the locality of the site.
Ryhope Village Conservation Area	Potential loss due to coastal recession	Yes	Ryhope Village Conservation Area is registered in English Heritage's list of parks and gardens of special historic interest under the National Heritage Act of 1983, and is therefore an important part of the areas cultural heritage	National	H		No	No	To prevent loss of heritage value due to erosion
Area of Special Landscape value	Potential loss due to erosion	Yes	Environmental, recreational value	Local	R	Loss of pathway/access. Inappropriate defence.	No	No	To maintain the Special Landscape Value of the area.

LOCATION: MA09 – PINCUSHION TO CHOURDON POINT									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Ryhope Dene Railway Cutting SNCI	Protection of SNCI (and possibly listed on EC's Habitat Directive)	Yes	Railway cutting of particular botanical interest supporting short rabbit grazed areas of Magnesian Limestone grassland with associated hawthorn/gorse scrub	Local	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
Hendon to Seaham shoreline	Cultural use of shoreline. Loss of use of shoreline due to potential loss of access and coastal squeeze.	Yes	Recreational value to local community	Local	R	Loss of local community. Contamination.	No	No	To maintain traditional access and use of foreshore and denes.
Ryhope Denemouth SNCI	Protection of SNCI	Yes	An area of herb rich Magnesian Limestone grassland	Local	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
Ryhope beach sea cliffs (RIGS)	Lack of access for observational/ educational visits to RIGS area.	Yes	Ryhope Beach RIGS sea cliffs exhibit several erosional features of interest as well as four different geological and geomorphological rock types.	Regional	E	Any prevention of erosion eg due to defences.	No	No	To maintain the educational and observational value of the exposed cliffs.

LOCATION: MA09 – PINCUSHION TO CHOURDON POINT									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
NEDL/ YEDL Manor House Penshaw Electrical supply assets at risk from erosion/flooding.	Potential loss of essential electricity supplies and associated safety issues. Any investment of capital needs to be in the right place given the coastal erosion occurring.	Yes	Electrical infrastructure to communities	Local	HA	Loss of users	No	Yes	To maintain electrical services to communities
Seaham Beach	Designated Bathing Beach	Yes	recreational value, tourism value	Regional	R	loss of promenade	No	No	To maintain bathing beach for recreational use
Seaham coastal footpath	Loss of safe footpath access and transport link due to cliff erosion	Yes	recreational value, pedestrian transport linkage	Regional	R	Discontinuity of path	No	Yes	To maintain the ability to walk the coastline
North Road B1287	Road potentially threatened by eroding cliffline	Yes	transport linkage	Local	HA		No	No	To maintain seafront road
Residential properties	Potential loss of properties on cliffline north of harbour due to erosion	Yes	Homes for people	Local	HA	Loss of transport links	No	No	To prevent loss of residential property to erosion
Residential properties	Potential loss of properties on cliffline north of harbour due to erosion		Key element of regeneration of Seaham area	Regional	HA	Loss of transport links	No	No	To prevent loss of residential property to erosion
Listed buildings on Terrace Green	Potential loss due to erosion	Yes	Heritage value	Regional	H		No	No	To maintain listed structure

LOCATION: MA09 – PINCUSHION TO CHOURDON POINT									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
War Memorial carpark	Potential loss due to erosion	Yes	Recreational value, tourism value	Regional	R		No	No	To maintain carpark and amenity area.
Seaham Port	Potential loss due to deterioration of defence structures. Work areas and warehouses are at risk from erosion/flooding.	Yes	Important for national and international trade; a fishing fleet operates from the harbour	National	HA	Loss of harbour structures (piers)	No	No	To prevent loss of commercial property in port area due to erosion or loss of structures
Durham Coast SSSI	Potential loss or damage	Yes	Environmental value	National	E	Interruption to coastal processes, obscuring geological features, damage to coastal habitats	No	No	Subject to natural processes to maintain the integrity of the designated habitats and species
Seaham Harbour	Potential loss due to deterioration of defence structures.	Yes	Angling is important locally; various watersports use the harbour.	Regional	R		No	No	To maintain facility for recreational watersport activities
Port access and commercial area	Potential loss of port access, commercial area and new road due to erosion	Yes	Important fo regional economy and local regeneration	Regional	HA		No	No	To maintain regional commercial port activity.
Chemical beach	Potential erosion of contaminated land	Yes	Reduction of pollution of coastline	Local	I		No	Yes	To minimise the potential impact of pollution but also to minimise reliance on maintenance of future defences.

LOCATION: MA09 – PINCUSHION TO CHOURDON POINT									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Magnesian Limestone grassland SAC	Continued erosion could result in the 'squeeze' of coastal Magnesian Limestone grassland habitat on the cliff edges, especially if there is no suitable replacement land to enable the habitat to roll back". Location of Horden Sewage treatment works could affect the retreat of coastal Magnesian Limestone grassland. Encourage restoration of coastal agricultural land to magnesian grassland, and creation of a wider coastal strip width for nature conservation.	Yes	Area has international designation of Special Area of Conservation (SAC).	European	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
WW II Pillbox on Blast Beach	Heritage asset at risk from coastal erosion	Yes	historical value	Local	H		No	No	To record heritage value.
Hawthorn Quarry SSSI	Potential loss due to erosion	Yes	A SSSI designated for its paramagnesian limestone grasses, scrub and woodland.	National	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system

LOCATION: MA09 – PINCUSHION TO CHOURDON POINT									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Hawthorn Dene SSSI	Potential loss due to erosion	Yes	Hawthorn Dene is a SSSI designated for its woodland. Also a LWC	National	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system

Location : MA10 – CHOURDON PT TO BLACKHALL ROCKS									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Hawthorn Conservation Area	Potential loss due to erosion	Yes		Local	H		No	No	
Hawthorn Viaduct	Railway viaduct threatened by coastal erosion	Yes	Grade III listed building	Regional	H		No	No	To maintain listed structure.
Hawthorn Viaduct	Railway viaduct threatened by coastal erosion	Yes	Important local transport link. Also forms part of the Trans-European Network (TENS) as a diversion route for the freight network of the East Coast Main Line.	International	H	Loss (discontinuity) of railway.	No	No	To maintain rail transport link.
Kinley Hill Tower	Concern over coastal erosion - not considered at risk	no	Grade II listed building of historical value						
Area of Landscape Value	Potential loss due to erosion.	Yes	Environmental value, recreational value	Local	E	Inappropriate defence.	No	No	To maintain integrity and extent of Area of Landscape Value.
Teesmouth and Cleveland Coast IBA	Potential loss due to erosion	Yes	Designated IBA with ornithological value.	Local	E	Interruption of natural physical processes	No	Possibly	To ensure that viable populations of nesting bird species are maintained, within the context of a dynamic coastal system

Location : MA10 – CHOURDON PT TO BLACKHALL ROCKS									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Shippersea Bay Railway Bridge	Railway bridge threatened by coastal erosion	Yes	Important local transport link. Also forms part of the Trans-European Network (TENS) as a diversion route for the freight network of the East Coast Main Line.	International	HA	Loss (discontinuity) of railway.	No	No	To maintain rail transport link.
Agricultural land	Threat to agricultural land from coastal erosion	Yes	Agricultural production of benefit to local economy	Local	C		Yes	Yes	To protect agricultural land
Horden Dene	Sea level rise and continued erosion could affect the freshwater habitat of Horden Dene particularly in the area of the interface between these two habitat types.	Yes	Environmental value, critical habitat	Local	E	Inappropriate defence.	Yes	Yes	To maintain integrity and extent of freshwater habitats.
Warren House Gill grassland	Loss due to erosion	Yes	Designated a CWS	Local	E	Inappropriate defence.	No	No	To maintain integrity and extent of wildlife site.
Castle Eden Dene	Sea level rise and continued erosion could affect the freshwater habitat of Castle Eden Dene particularly in the area of the interface between these two habitat types.	Yes	Designated a NNR and is biologically richest of the denes, also a proposed SAC and a LWC.	*National /Potential European	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
Castle Eden Dene	Beach access need to be considered to ensure legitimate access	Yes	Local access for recreation	Local	R	Interruption of natural physical processes	No	Yes	To maintain access and assist with appropriate management.

Location: MA11 – BLACKHALL ROCKS TO HEUGH BREAKWATER									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Blackhall Rock SSSI	Designated geological site (SSSI) at Blackhall Rock requires continual erosion to maintain the form and visibility of the interest features	Yes	educational resource, scientific value, landscape value	National	E	Interruption of natural physical processes	No	No	To maintain or restore natural or semi-natural levels of accretion or erosion in the locality of the site.
Blackhall Rock SSSI	Collapse of caves due to erosion and potential threat to public safety.	Yes	educational resource, scientific value, landscape value	Local	R	Interruption of natural physical processes	No	Yes	To address public safety issues.
Crimdon Park Caravan Site	Continued erosion could result in loss of part of the caravan site in Crimdon Park area.	Yes	Recreational value, tourist value	Regional	C		No	Yes	To maintain the integrity of the caravan park.
Carpark	Potential loss due to erosion	Yes	recreation value	Local	R		No	No	To maintain car parking area.
Road	Potential loss due to erosion	Yes	local beach access road	Local	HA	Loss of carpark	No	No	To maintain access road to beach and carpark.
Durham Coast NNR	Loss due to erosion	Yes	Environmental value - intertidal habitat for the marine flora and fauna particularly the colony of breeding little terns at Crimdon.	National	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system

Location: MA11 – BLACKHALL ROCKS TO HEUGH BREAKWATER									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Durham Coast SAC	Loss due to erosion	Yes	Environmental value - intertidal habitat for the marine flora and fauna particularly the colony of breeding little terns at Crimdon.	European	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
Teesmouth and Cleveland SPA and Northumbria SPA	Loss due to erosion	Yes	Environmental value - intertidal habitat for the marine flora and fauna particularly the colony of breeding little terns at Crimdon.	European	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
Northumbria Coast Ramsar	Loss due to erosion	Yes	Environmental value - intertidal habitat for the marine flora and fauna particularly the colony of breeding little terns at Crimdon.	International	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
Ponyworld and Sandhurst Bungalow, Crimdon Dene	Potential loss of sports facility and residential property due to erosion	Yes	Recreational value, tourism value, home for people.	Local	HA		No	Yes	To prevent loss of residential property and sports facility due to erosion.
Trunk Sewer	Loss due to erosion	Yes							
Hesleden-Crimdon Dene Complex	Loss due to erosion/flooding	Yes	Designated a CWS	Local	E	Inappropriate defence.	No	No	To maintain integrity and extent of wildlife site.
Hesleden-Crimdon Dene Complex	Sea level rise and continued erosion could affect the freshwater habitat of the Dene complex particularly in area of the interface between these two habitat types.	Yes	environmental value, critical habitat	Local	E	Inappropriate defence.	Yes	Yes	To maintain integrity and extent of freshwater habitats.

Location: MA11 – BLACKHALL ROCKS TO HEUGH BREAKWATER									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Crimdon Park to North Sands Bathing Beach	Water quality and amenity quality are important	Yes	EU Designated bathing beach of recreational and tourism value	Regional	R	Contamination from pollution. Old industrial and domestic landfill site at Spion Kop at southern end of the Britmag works which has eroded exposing the contaminated landfill material.	No	No	To maintain bathing beach for recreational use.
Crimdon Park to North Sands Bathing Beach	Loss due to erosion. Historical sand extraction on North Sands and the significant affect it has had on the beach and the dune system.	Yes	Recreational value, environmental interest as the entire system is potentially disturbed by loss of dune system.	Local	R	Contamination from pollution. Old industrial and domestic landfill site at Spion Kop at southern end of the Britmag works which has eroded exposing the contaminated landfill material.	No	No	To maintain the beach system.

Location: MA11 – BLACKHALL ROCKS TO HEUGH BREAKWATER									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Hart Warren Dunes SSSI	Potential loss due to erosion (particularly at northern end)	Yes	Designated SSSI, habitat for Little Tern	National	E	old industrial and domestic landfill site at Spion Kop at southern end of the Britmag works which has eroded exposing the contaminated landfill material	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
Hart Warren Golf Links	Potential loss due to erosion	Yes	recreation value	Local	R		No	No	To maintain integrity of golf links.
Hart Warren Farm	Loss of residential property due to erosion	Yes	Homes for people	Local	HA		Yes	Yes	To prevent loss of residential property to erosion
WWII Pill boxes	Potential loss due to erosion	Yes	Historical value	Local	H		No	No	To record heritage value.
Hartlepool Heritage Areas	Potential loss due to erosion due to lack of vegetation and invasion of buckthorn.	Yes	Environmental value	Local	E	Inappropriate defence.	No	No	To maintain appropriately vegetated area.
Britmag (CJC Chemical) works site	Potential loss of hard assets due to erosion.	Yes	value to local economy	Regional	HA		No	No	To maintain protection of commercial activity whilst in operation.
Britmag (CJC Chemical) works site	Potential risk to possible future development of site, due to erosion.	Yes	value to local economy	Regional	HA		No	No	To maintain potential for development.

Location: MA11 – BLACKHALL ROCKS TO HEUGH BREAKWATER									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Tees and Hartlepool Foreshore and Wetlands SSSI	Potential loss due to erosion	Yes	Designated SSSI	National	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
Spion Kop Landfill	There is an old industrial and domestic landfill site at Spion Kop at southern end of the Britmag works which has eroded exposing the contaminated landfill material. The spread of this material may affect wildlife, the Crimdon SSSI to the north and public health and safety.	Yes	Reduction of pollution of the coastline	Local	I		No	Yes	To minimise the potential impact of pollution but also to minimise reliance on maintenance of future defences.
Spion Kop Cemetery Local Nature Reserve	Potential loss due to erosion	Yes	People are buried here. Historical interest LNR	Regional	H		No	Yes	To protect or appropriately remove bodies.
Spion Kop Cemetery Local Nature Reserve	Potential loss due to erosion	Yes	The cemetery has become the sixth Local Nature Reserve in Hartlepool and it is felt that its existence is threatened by this erosion.	Local	E		No	Yes	To maintain historical and natural value of the Local Nature Reserve.
Hartlepool agricultural land	Potential loss due to flooding.	Yes	Agricultural production of benefit to local economy	Local	C		Yes	Yes	To protect agricultural land.

Location: MA11 – BLACKHALL ROCKS TO HEUGH BREAKWATER									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Coastal cycleway/ walkway along Spion Kop cemetery frontage	Potential loss due to erosion	Yes	recreational value, local pedestrian transport linkage	Local	R		No	Yes	To maintain pedestrian/cycle transport link.
Hartlepool Headland SSSI	Loss due to erosion/ inappropriate construction of defences	Yes	Nature conservation interests of foreshore communities	National	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
Hartlepool Headland Ramsar	Loss due to erosion/ inappropriate construction of defences	Yes	Nature conservation interests of birdlife on Ramsar Wetland	International	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
Hartlepool Headland SPA	Loss due to erosion/ inappropriate construction of defences	Yes	Nature conservation interests of Natura 2000 site	European	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
Hartlepool Headland Conservation Area	Loss due to erosion	Yes	Heritage value	regional	H		No	No	To maintain heritage value of Conservation Area.
Residential properties	Loss due to erosion	Yes	Homes for people	Local	HA		No	No	To protect residential properties from loss due to erosion.
Commercial properties	Loss due to erosion	Yes	Value to local economy	Local	HA		No	No	To protect commercial properties from loss due to erosion.

Location: MA11 – BLACKHALL ROCKS TO HEUGH BREAKWATER									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Hartlepool Headland Listed buildings	Loss due to erosion	Yes	Heritage value	regional	H		No	No	To protect listed buildings.

Location : MA12 – HARTLEPOOL BAY									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Heugh Breakwater	The potential impact on safe navigation of small craft into the Victoria Harbour/The Marina and other headland defences such as the Town Wall due to the loss of the breakwater structure.	Yes	Coastal protection value, historical/heritage value, tourism value of the fishing fleet at Victoria Harbour, value to local economy of marina and harbour	Local	HA		No	Yes	To maintain function of breakwater as a control structure. Coastal management associated with the Heugh Breakwater should not result in deterioration of navigation of small craft to Victoria Harbour.
Heugh Breakwater	The generally under-utilised potential of piers as recreational assets.	no	Recreational, tourism value						
Hartlepool Docks and Harbour SNCI	Potential loss due to erosion and deterioration of defence structures. The Port is dredged for navigation.	Yes	Port activities include general cargo and trade is international. Also a major fishing port.	Local	E	Interruption of natural physical processes	No	No	Maintenance of natural physical processes which support key habitat and species within context of a heavily modified coast
Hartlepool Town Wall and Sandwell Gate	Potential loss due to erosion and deterioration of defence structures. A concern is that the suction dredging of the harbour may have possible draw-down effects moving material fronting the Town Wall and Sandwell Gate now that groynes at the base of	Yes	Designated Scheduled Ancient Monument of significant historic value. Provides coastal protection.	National	H		No	No	To protect the Scheduled Ancient Monument of the Town Wall.

Location : MA12 – HARTLEPOOL BAY									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
	the town wall have deteriorated and are ineffective.								
Victoria Harbour	Loss due to deterioration of structures	Yes	Value to local economy, recreational value, heritage value. Port activities include general cargo and trade is international. Also a major fishing port.	Regional	C		No	No	To maintain commercial harbour facility.
Middleton jetty to North Pier	Potential loss due to erosion. Tourism potential as part of coastal walkway/ cycleway including lockgate to Middleton Beach.	Yes	Tourism value, recreational value	regional	R		No	No	Provide opportunity to improve coastal walkway/ cycleway.
West Harbour and North Pier	Protection of Tees and Hartlepool Yacht club interests - many members requiring access to the sea.	Yes	Recreation value	Local	R		No	No	To maintain the interests and access to the sea of Tees and Hartlepool Yacht Club.
Commercial properties at risk of flooding	Commercial properties at risk of flooding	Yes	Value to local economy	Regional	HA		No	No	To protect commercial property from loss due to flooding
Residential properties at risk of flooding	Residential properties at risk of flooding	Yes	Homes for people	Local	HA		No	No	To protect residential property from loss due to flooding

Location : MA12 – HARTLEPOOL BAY									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Hartlepool Marina and Harbour	Potential loss due to erosion and deterioration of defence structures. Foundations of North Pier are visible - water inside the Bay is now deeper than outside.	Yes	Recreational value, tourism value	regional	C		No	No	To maintain regeneration and commercial interests of Hartlepool.
Middleton Pier	Potential loss due to deterioration of structure.	Yes	Provides protection to Middleton Harbour a major recreational facility	Regional	R		No	Yes	To maintain pier.
Network Railway line	Local pinch point. The railway line is within 100m of the MHWM just north of Newburn Bridge and may be threatened by erosion in the future.	Yes	Important local transport link. Also forms part of the Trans-European Network (TENS) as a diversion route for the freight network of the East Coast Main Line.	International	HA	Discontinuity of railway line	No	No	To maintain rail transport link.
Residential properties	Residential properties at risk of flooding	Yes	Homes for people	Local	HA		No	No	To protect residential property from loss due to flooding
Coast Road A178	Potential loss due to erosion. Potential inundation.	Yes	main coast road and transport link	Local	HA		No	Yes	To maintain road transport link.

Location : MA12 – HARTLEPOOL BAY									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Carr House Sands (South Pier to Little Scar)	Public access - concrete armour units ("Star Blocks") comprising revetment south of the south pier have impacted on public access - need to provide suitable entry points to the beach.	Yes	Recreation value, tourism value.	Local	R		No	Yes	To improve access to beach
Carr House Sands (South Pier to Little Scar)	Potential loss due to erosion	Yes	Designated CWS, recreation value, tourism value, environmental value.	Local	E		No	No	To maintain integrity of CWS.
Long Scar rock platform	Potential loss/damage due to coastal processes/ defence works	Yes	Designated RIGS	Regional	E		No	No	To maintain integrity and extent of RIGS.
Residential properties at risk of flooding	Residential properties at risk of flooding	Yes	Homes for people	Local	HA		No	No	To protect residential property from loss due to flooding

Location: MA13 – TEES BAY									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Little Scar	Potential loss/damage due to coastal processes/ defence works	Yes	Designated RIGS	Regional	E		No	No	To maintain integrity and extent of RIGS.
Seaton Carew ship wreck	Potential loss/damage due to coastal processes/ defence works	Yes	Designated Wreck site of historical value	National	H		No	No	To avoid damage to Designated Wreck.
Hartlepool Submerged Forest SSSI	The key principle of English Nature's 'views about the management' of the SSSI is to maintain exposure of the geological interest by allowing natural processes to proceed freely. Inappropriate construction of defences can conceal geological exposures and result in the effective loss of the geological interest. Dredging, renourishment and excessive collecting of geological specimens in the area would all be detrimental activities to this SSSI.	Yes	Designated SSSI of earth science interest/value. Educational resource and scientific value.	National	E	Dredging, renourishment and excessive collecting of geological specimens in the area would all be detrimental activities to this SSSI. Inappropriate construction of defences can conceal geological exposures and result in the effective loss of the geological interest.	No	No	To maintain or restore natural or semi-natural levels of accretion or erosion in the locality of the site. To maintain and record exposure of the geological interest by allowing natural processes to proceed freely.

Location: MA13 – TEES BAY									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Residential properties	Town of Seaton Carew lies close to the shoreline. Potential loss due to erosion. Potential inundation.	Yes	Homes for people	Local	HA		No	No	To prevent loss of residential properties due to erosion.
Commercial properties	Town of Seaton Carew lies close to the shoreline. Potential loss due to erosion. Potential inundation.	Yes	Value to local economy, tourism value, recreational value	regional	HA		No	No	To prevent loss of commercial properties due to erosion.
Seaton Sands Beach	Potential loss due to erosion or reduction of amenity/appearance from future coastal defences	Yes	Designated Bathing Beach, recreational and tourism value	regional	R	Loss of North Gare breakwater.	No	No	To maintain bathing beach for recreational use
Seaton Sands Beach	The importance of the changing/dynamic nature of the coastline and the need for access to the coastline to observe these changes.	Yes	Recreational value, educational value, scientific interest.	Local	E	Loss of North Gare breakwater.	No	No	To maintain the dynamic nature of the coastline and access for observation.
Hartlepool- Billingham	Concern about the use of industry along the coastline, and the effect on environment and people.	no							

Location: MA13 – TEES BAY									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Seaton Dunes and Common SSSI	Potential loss due to erosion	Yes	Environmental value for its flora, invertebrate fauna and bird life.	National	E	Interruption of natural physical processes. Loss of North Gare breakwater.	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
Seaton Dunes	Potential loss due to erosion	Yes	Designated LNR	Local	E	Loss of North Gare breakwater.	No	No	To maintain integrity of local designated area.
North Gare Bathing Beach	Potential loss due to erosion or reduction of amenity/appearance due to removal of sand, coastal erosion or possible future coastal defences.	Yes	Designated Bathing Beach and RIGS, recreational and tourism value	regional	R	Loss of North Gare breakwater.	No	No	To maintain bathing beach for recreational use
Seaton Carew Golf Course	Golf Club: concern about erosion along the shoreline of the golf course.	Yes	recreation value	Local	R		No	Yes	To maintain golf course.
North Gare Breakwater	Loss due to erosion and deterioration of defence	Yes	Control structure for beach to the north and mouth of River Tees.	National	HA		No	Yes	To maintain function of breakwater as a control structure.
Residential properties at risk of flooding	Potential loss due to flooding.	Yes	Homes for people	Local	HA		Yes	Yes	To prevent loss of residential properties due to erosion.
Commercial properties at risk of flooding	Potential loss due to flooding.	Yes	Value to local economy	Local	HA		No	No	To prevent loss of commercial properties due to erosion.

Location: MA13 – TEES BAY									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Agricultural land at risk of flooding	Potential loss due to flooding.	Yes	Value to local economy	Local	C		Yes	Yes	To prevent loss of agricultural land due to erosion.
Hartlepool Power Station	Potential loss due to erosion	Yes	Power supply infrastructure for national grid	National	HA		No	No	To prevent loss of Power Station due to erosion.
Seal Sands SSSI	Potential loss due to erosion	Yes	Designated SSSI of ornithological interest/value.	National	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
Cowpen Marsh SSSI	Potential loss due to erosion	Yes	Designated SSSI of ornithological interest/value.	National	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
Teesmouth NNR	Potential damage to integrity	Yes	Environmental value	National	E	Changes to natural processes leading to variations in sediment deposition and movement	No	No	Management aims to maximize populations of key waterfowl and seal species by retaining all intertidal areas, maintaining the quality of these habitats, minimizing pollution threats and reducing disturbance. Supplementary feeding and roosting sites have been created for waterfowl. Terrestrial habitats and species benefit from sand dune and grazing

Location: MA13 – TEES BAY									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
									management. Visitors are welcomed, and observation hides, leaflets, interpretive panels have all been provided.
Mouth of the River Tees	Loss of intertidal habitats and coastal wetlands due to development.	Yes	environmental value, conservation value	International					
Mouth of the River Tees	A navigable entrance channel is required to be maintained at all times for port activities. Dredging is currently required to maintain entrance depth.	Yes	Commercial international port of economic importance to the regional community	National	HA	Loss of North Gare or South Gare breakwaters	No	No	To maintain navigable channel for port operations in River Tees. Shoreline management not to have a detrimental impact on port operations.
South Gare Lighthouse	Potential loss due to deterioration of defences.	Yes	Listed building of historical value	Regional	H		No	No	To maintain listed structure.
South Gare Breakwater	Potential loss due to deterioration of defences.	Yes	Control structure for beach to the south and mouth of River Tees.	National	HA		No	Yes	To maintain function of breakwater as a control structure.
Lifeboat Station	Potential loss due to deterioration of defences.	Yes	Important for community safety	regional	R		No	Yes	To maintain function of lifeboat station.
Teeside Port & associated industrial property	Potential loss due to erosion/accretion or flooding	Yes	Significant international trading centre. Commercial fishing interests.	National	C		No	No	To ensure that management of the open coast does not have detrimental impact on the operation and protection of Teeside Port.

Location: MA13 – TEES BAY									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Coatham Sands/ South Gare Bathing beach	Loss due to erosion (used to have large sand dunes but has eroded dramatically in the last 8 to 10 years and has lost some 50m of sand dune). It is perceived that the dredging of the Tees has reduced the sediment supply to the Redcar beaches. Concern that although the beach levels fluctuate they appear to be progressively dropping as the recovery never matches the erosion.	Yes	Designated Bathing Waters, recreational value, tourist value.	regional	R	Loss of North Gare breakwater.	No	No	To maintain bathing beach for recreational use
South Gare and Coatham Sands SSSI	Loss of habitat and breeding ground for little terns (rare species) due to dune erosion (used to have large sand dunes but has eroded dramatically in the last 8 to 10 years and has lost some 50m of sand dune). Potential coastal squeeze between golf course and car park infrastructure.	Yes	environmental value as habitat for rare species of Little Tern	National	E	Interruption of natural physical processes. Short term management vision (i.e. future coastal squeeze)	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system

Location: MA13 – TEES BAY									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Redcar Rocks SSSI	Potential loss/damage due to coastal squeeze/ defence works	Yes	Designated geological SSSI	National	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
Teesmouth and Cleveland Coast SPA	Potential loss/damage due to coastal squeeze/ defence works	Yes	<p>Teesmouth and Cleveland Coast SPA includes a range of coastal habitats – sand- and mud-flats, rocky shore, saltmarsh, freshwater marsh and sand dunes – on and around an estuary considerably modified by human activities. These habitats provide feeding and roosting opportunities for important numbers of waterbirds in winter and during passage periods. In summer Little Tern breed on beaches within the site, while Sandwich Tern are abundant on passage.</p>	European	E	Interruption to coastal processes, inappropriate hard defences, coastal squeeze	No	No	<p>The natural incursion of coarse marine sediments into the estuary and the eutrophication of sheltered mudflats leading to the spread of dense Enteromorpha beds may impact on invertebrate density and abundance, and hence on waterfowl numbers. Indications are that the observed sediment changes derive from the reassertion of natural coastal processes within the context of an estuary much modified by human activity. The future development of port facilities in areas adjacent to the site, and in particular of deep water frontages with associated capital dredging, has the potential to cause adverse</p>

Location: MA13 – TEES BAY									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
									effect; these issues will be addressed through the planning system/Habitats Regulations, as will incompatible coastal defence schemes. Other issues on this relatively robust site include scrub encroachment on dunes.
Teesmouth and Cleveland Coast Ramsar	Potential loss/damage due to coastal processes/ defence works	Yes	Designated Ramsar - see SPA reasons	International	E	Interruption to coastal processes, inappropriate hard defences, coastal squeeze	No	No	See SPA reasons

Location: MA14 - COATHAM AND REDCAR									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Redcar Bathing Beach (near Redcar Rocks)	Loss due to erosion.	Yes	Recreational value, tourism value. Designated bathing beach.	regional	R		No	No	To maintain recreational value of bathing beach.
Commercial Property & Residential Property - Redcar Esplanade and Borough Road	Commercial property potentially subject to flooding and inundation. Part of frontage is included in an 'Area Covered by Flood Warning' designated by the Environment Agency.	Yes	Tourist and value to local economy.	local	HA		No	No	To maintain recreational value of bathing beach.
Commercial Property & Residential Property - Redcar Esplanade and Borough Road	Residential property potentially subject to flooding and inundation. Insurance problems in some areas	Yes	Homes for people	local	HA		No	No	To maintain recreational value of bathing beach.
Residential properties and schools at risk from flooding	Potential loss due to flooding.	Yes	Homes for people.	local	HA		No	Yes	To prevent loss or damage to residential property and schools due to flooding.

Location: MA14 - COATHAM AND REDCAR									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Residential property behind The Stray	Loss due to erosion. Poor condition of groynes. There is concern that beach levels appear to be dropping and this may result increased flooding risk to seafront properties. Anecdotal evidence that beach is significantly lower than it was in the 1950's.	Yes	Homes for people.	local	HA		No	Yes	To prevent loss or damage to residential property and schools due to flooding.
Redcar Promenade - The Stray	Potential loss/damage due to erosion.	Yes	Recreational value, tourism value.	local	R		No	No	To maintain recreational value of promenade.

Location: MA15 – MARSKE AND SALTBURN SANDS									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Redcar Sands Bathing Beach	Loss due to erosion and resulting loss of amenity value of beach and The Stray. Anecdotal evidence that beach is significantly lower than it was in the 1950's.	Yes	Recreational value, tourism value. Designated bathing beach.	regional	R		No	No	To maintain recreational value of bathing beach.
Strategic Wildlife corridor - Redcar to Saltburn	Potential loss/damage due to coastal processes/ defence works	Yes	environmental value	Regional	E	Interruption of natural physical processes	No	Possibly	To maintain the connectivity of the wildlife corridor
Fox Covert SNCI	Potential loss due to erosion	Yes	Environmental value for coastal cover for migrating birds	Local	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
Redcar windfarm (proposed)	Potential habitat disturbance. May alter sedimentation patterns. Impact on bird populations. Visual and noise disturbance.	No							
Cliff House	Potential loss/damage due to coastal processes/ defence works	Yes	Listed Building	regional	H		No	No	To maintain listed structure.

Location: MA15 – MARSKE AND SALTBURN SANDS									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Residential Properties	Properties are situated close to the cliff edge. Potential loss due to erosion.	Yes	Homes for people	local	HA		No	Yes	To prevent loss of residential properties due to erosion.
St Germain's churchyard	Potential loss due to erosion. Churchyard adjoins the shoreline and contains listed remains of the former parish church and various headstones of importance.	Yes	Historic value.	regional	H		No	No	To maintain listed structure.
Marske Sands Bathing Beach	Potential loss due to erosion and potential loss of amenity or appeal due to poorly designed defences	Yes	Designated Bathing Waters	regional	R		No	No	To maintain recreational value of bathing beach.
Agricultural land	Potential loss due to erosion	Yes	Value to local economy	Local	C		Yes	Yes	To prevent loss of agricultural land due to erosion.
Hazel Grove SSSI	Potential loss due to erosion	yes	Environmental value for mixed woodland	Local	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
Beach Huts (1-20) on the lower promenade	Potential loss due to erosion and deterioration of defences and structures	Yes	Listed Structure of historical importance, tourist value.	regional	H		No	No	To maintain listed structure.

Location: MA15 – MARSKE AND SALTBURN SANDS									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Residential properties	Properties on Marine Parade at top of cliff may potentially be lost due to erosion	Yes	Homes for people	Local	HA		No	Yes	To prevent loss of residential properties due to erosion.
The Inclined Tramway (upper and lower buildings)	Potential loss due to erosion and deterioration of defences and structures	Yes	Listed Structure of historical importance, tourist value.	regional	H		No	No	To maintain listed structure.
Watersports Centre	Potential loss due to erosion	Yes	recreational value, tourism value	Local	R		No	Yes	To retain watersports facility.
The Saltburn Pier and entrance	Potential loss due to erosion and deterioration of defences and structures	Yes	Listed Structure of historical importance, tourist value.	regional	H		No	No	To maintain listed structure.
Fishing fleet	Potential loss of access, storage and sea room due to deterioration of defences or construction of inappropriate defences.	Yes	Value to local economy, cultural identity/heritage value.	local	C		No	No	To maintain facility for fishing fleet.
Car Park adjacent to park along Saltburn Beck	Potential loss due to erosion and deterioration of defences.	Yes	recreational value, tourism value.	local	R	Loss of A174 coast road.	No	Yes	To maintain parking facility.
Saltburn Gill SSSI and SNCI	Potential loss due to erosion.	Yes	Designated SSSI for its mixed woodland and understorey plant communities	National	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system

Location: MA15 – MARSKE AND SALTBURN SANDS									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
A174 Coast Road	Potential loss due to erosion.	Yes	Important transport link	regional	HA		No	Yes	To maintain the road transport link along the coast.
Saltburn Sands Beach	Concern over loss of beach resulting from erosion and potential supply from Redcar. Loss of access to beach.	Yes	Designated Bathing Water. Important recreational beach for windsurfing, surfing and recreational boating and sea angling.	regional	R		No	No	To maintain recreational value of bathing beach and access to beach.
Saltburn Sands Beach	Treatment of the redundant sections of sewage outfall pipe and the implications for coastal defences for frontage properties.	No							
Old Saltburn Conservation Area	Potential loss due to erosion and deterioration of defences.	Yes	Protection of the town and its distinct Victorian character.	regional	H		No	No	To maintain integrity and extent of Conservation Area.

Location: MA16 - HUNTCLIFFE									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Ship Inn and (Coastguard??) cottages	Currently vulnerable to loss due to erosion. The wall directly in front of the Ship Inn has been subject to extensive damage and wash out.	Yes	Listed buildings of historical and community value	regional	H		No	No	To maintain listed structure and function of Inn.
Cleveland Way	Potential loss of sections of path due to erosion	Yes	Recreation value, tourism value, educational value	National	R	Discontinuity of the path.	No	Yes	To maintain the ability to walk the coast.
SSSI at Huntcliff and Boulby Cliffs	Potential loss due to erosion.	Yes	Designated a SSSI for its importance for nesting seabirds	National	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
Huntcliff Roman Signal Station	Potential loss due to erosion of cliffs.	Yes	Dating back to the 4th century this is of historical significance & value.	regional	H		No	No	To record historical significance of structure.
Mineral Railway (private)	The Railway line serves British Steel (Skinningrove) and the Cleveland Potash mine (Boulby) and loops close to the cliff edge. Protection of the rail line from loss due to erosion. Any future planning therefore needs to take into consideration the probable	Yes	These industries are of importance to the regional economy.	regional	HA		No	Yes	To maintain function of rail transport link.

Location: MA16 - HUNTCLIFFE									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
	life span of the mine.								
National Trust Land - part of the cliff and a section of Warsett Hill	Potential loss due to erosion of cliffs. This land is under a Countryside Stewardship scheme designed to promote a more sensitive system of agricultural management. Possible extension of the Countryside Stewardship initiatives to safeguard an ecologically sensitive corridor of semi-natural vegetation.	Yes	Environmental value	regional	E	Coastal squeeze through poor planning removing the ability of coastal habitats in the land to retreat from the eroding coastline.	no	potentially yes	Maintain coastal habitats and ensure space for retreat. National Trust policy favours adaptation, to allow time and space to change with the coast and work with the forces of nature.
The Guibal Fan House	Potential loss due to erosion of cliffs.	Yes	A designated Scheduled Ancient Monument that was built to ventilate the extensive ironstone mine workings and would benefit from additional interpretation.	National	H		No	No	To maintain Scheduled Ancient Monument.
Residential properties and surrounding open space	Concern that coastal erosion at Huntcliff may lead to collapse of the cavernous cliffs (from past mining works) in the future which could affect residential properties and public safety.	Yes	Homes for people, public safety	Local	R		No	No	To manage erosion of cliffs in a safe manner.

Location: MA16 - HUNTCLIFFE									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Potential coastal mining area, Saltburn to Sandsend	Mineral and mining rights in the coastal zone and the impact of shoreline management on these rights.	Yes	The UK's only Potash mine which is a valuable raw material for production of fertilisers, in addition a valuable by-product of the operation is the production of salt for deicing roads. £2 billion economic activity, over 20 years continued employment for 800 persons, £500 million in wages over 20 years to local economy, £500 million goods and services in north east to Yorkshire and Humber regions	regional	C	Potential restrictions resulting from shoreline management concerns.	No	No	To maintain operation of mine within mining rights.
Potential coastal mining area, Saltburn to Sandsend	Potential impact of historical and current mining activities on coastal processes	Yes	The UK's only Potash mine. Significant historical mining activities identified. Significance in terms of historical value not fully recorded.	regional	C	Potential restrictions resulting from shoreline management concerns.	No	Yes	To take into account potential impact of historical and current mining operations in planning defence strategies.
Farm House, Huntcliff	Potential loss due to erosion of cliffs.	Yes	Listed buildings of historical and community value	regional	H		No	No	To maintain listed structure.

Location: MA17 – SKINNINGROVE (CATTERSTY SANDS TO HUMMERSEA SCAR)									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Cattersty Ponds SNCI	Potential loss due to erosion.	Yes	Environmental value	Local	E		No	No	To maintain integrity and extent of Local Wildlife Trust Reserve.
North Yorkshire and Cleveland Heritage Coast (now extended to include Skinningrove foreshore)	Heritage Coast extends between FEAT211 - 270 and between FEAT286 - 321. Protect the landscape and character of the largely undeveloped coast within the framework of Heritage coast objectives aiming to enhance conservation, recreation, beach and water quality and community interests.	Yes	environmental value, heritage value	Regional	E	Provision of coastal development out of keeping with natural character of the coast	No	No	To ensure that development, including coastal defence structures does no compromise the landscape value or character of the Heritage Coast. To ensure that the biodiversity if the Heritage Coast is not threatened or lost due to Interruption of natural physical processes within the framework of Heritage coast objectives aiming to enhance conservation, recreation, beach and water quality and community interests.
Cattersty Sands dune system SNCI	Loss due to erosion	Yes	Only major sand dune system on Heritage coast with important recreational & flora and fauna value.	regional	E	Loss of jetty. Interruption of natural physical processes	No	No	To maintain integrity and extent of sand dune system within the context of a dynamic coastal system.

Location: MA17 – SKINNINGROVE (CATTERSTY SANDS TO HUMMERSEA SCAR)									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Skinningrove Jetty	Loss due to deterioration of structure	Yes	Provides protection from flooding/inundation to the residential area of Skinningrove	local	HA		No	Yes	To maintain protection provided by jetty structure.
Skinningrove Jetty	Condition of jetty. Future development proposals have been identified. These proposals include potential use of pier for small shipping activities.	Yes	Value to local economy	local	HA		No	No	Not to preclude potential future development for commercial activities or other appropriate development.
Industrial Heritage area including the jetty, slag cliffs and inclined plan area	Opportunities for increased interpretation	No	heritage value, tourist value, educational value.						
Industrial Heritage area including the jetty, slag cliffs and inclined plan area	Potential pollution due to erosion.	Yes	Significant potential impact on a wide area of the coast due to exposure of potentially contaminated material.	local	I		No	No	To minimise the potential impact of pollution
Car Park adjacent to park along Skinningrove Beck	Loss due to erosion	Yes	Recreational value.	Local	R		No	No	To maintain car parking facility.
Skinningrove Village	Loss due to landslip erosion, flooding and deterioration of defence structures	Yes	Homes for people	local	HA		No	Yes	To prevent loss of residential properties due to erosion.

Location: MA17 – SKINNINGROVE (CATTERSTY SANDS TO HUMMERSEA SCAR)									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Skinningrove Village	Loss due to landslip erosion, flooding and deterioration of defence structures	Yes	6 listed buildings of heritage value	regional	H		No	No	To maintain listed structures.
Skinningrove Village	Loss due to landslip erosion, flooding and deterioration of defence structures	Yes	A no. of sites of Potential Archaeological Interest, historical value.	regional	H		No	No	To maintain Areas of Potential Archaeological Interest.
Commercial fishing area	Loss of operating area due to erosion. Five vessels (<10m) operate out of Skinningrove with an additional 6-8 boats in summer.	Yes	Value to local economy, peoples livelihoods and community identity value.	regional	C		No	Yes	To maintain commercial operations.
Hummersea Farm and Warsett Farm residential properties	Loss due to erosion	Yes	Homes for people	local	HA		No	Yes	To prevent loss of residential properties due to erosion.
Hummersea Beach	Loss of access to shingle beach due to deterioration	Yes	Recreational value	Local	R		No	Yes	To maintain access to beach.

Location: MA17 – SKINNINGROVE (CATTERSTY SANDS TO HUMMERSEA SCAR)									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
National Trust Land	Loss due to erosion. Possible extension of the Countryside Stewardship initiatives to safeguard an ecologically sensitive corridor of semi-natural vegetation.	Yes	environmental value, heritage value	Local	E	Provision of coastal development out of keeping with natural character of the coast	No	No	To ensure that development, including coastal defence structures, does not compromise the landscape value or character of the coast. To ensure that the biodiversity of the coast is not threatened or lost due to interruption of natural physical processes. National Trust policy favours adaptation rather than hard defence, to allow time and space to change with the coast and work with the forces of nature.

Location: MA18 – BOULBY									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Boulby Alum Quarry site and works (disused), SAM	Loss due to erosion	Yes	Scheduled Ancient Monument	National	H		No	No	To maintain historic value of SAM.
Boulby Quarry SSSI	Loss due to erosion	Yes	Designated SSSI for its geological exposures and unique fossil reptiles	National	E	Interruption of natural physical processes	No	No	To maintain or restore natural or semi-natural levels of accretion or erosion in the locality of the site.
Proposed SSSI at Hunt and Boulby cliffs	Loss due to erosion	Yes	Proposed SSSI designation for its breeding sea bird colonies	National	E	Interruption of natural physical processes	No	Dependent on scope for landward migration of soft cliff	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
Boulby Barns Cottages	Loss due to erosion. Studies indicate lateral translation of landslide activity associated with the alum works	Yes	Homes for people	local	HA		No	Yes	To prevent loss of residential properties due to erosion.
Boulby Grange	Loss due to erosion	Yes	Listed building/structure of historical value	regional	H		No	No	To maintain listed structures.
Boulby Grange	Loss due to erosion	Yes	Homes for people	Local	HA		No	Yes	To prevent loss of residential properties due to erosion.
Coastguard Station	Potential loss due to deterioration.	Yes	Recreational value, safety value	Regional	R		No	Yes	To maintain the function of the coastguard station.

Location: MA19 – COWBAR AND STAITHES									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Cowbar Lane	Loss due to erosion. Present erosion at toe of Cowbar cliffs could cause loss of access to Cowbar properties and life boat station.	Yes	Access road to Cowbar and inshore lifeboat station	local	HA		No	Yes	To maintain vehicle access to Cowbar cottages and Cowbar side of Staithes village.
Cowbar Cottages	Loss due to erosion	Yes	Homes for people	local	HA	Loss of Cowbar Lane	No	Yes	To prevent loss of residential properties due to erosion.
Staithes harbour	Loss due to erosion and deterioration of structures.	Yes	Recreational value, important for fishing and lifeboats.	Local	R		No	No	To maintain harbour facility for recreational use.
Staithes harbour	Maintenance of a safe navigation channel out of Staithes harbour, particularly at low water, for fishing vessels. Harbour is currently silting up and fishermen have difficulty mooring vessels in the harbour at low tide. Depth of harbour needs to be maintained for effective use as a harbour.	Yes	Value to local economy, fishing is of heritage/community value	regional	H	Continuation of marine and Staithes Beck erosional processes may cause a problem to Cowbar cliff. Cliff instability could also have a potentially adverse impact on the harbour.	No	No	To maintain harbour facility for commercial fishing use.

Location: MA19 – COWBAR AND STAITHES									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Staithes harbour	Maintenance of a safe navigation passage out of Staithes harbour, particularly at low water, for the lifeboat. Harbour is currently silting up and Lifeboat cannot be launched at low tide.	Yes	Public safety provided by RNLI service.	Local	R	Continuation of marine and Staithes Beck erosional processes may cause a problem to Cowbar cliff. Cliff instability could also have a potentially adverse impact on the harbour.	No	No	To maintain harbour facility for lifeboat use.
Staithes village	Loss of residential properties due to erosion	Yes	Homes for people.	local	HA		No	Yes	To prevent loss of residential properties due to erosion.
Staithes village	Loss of listed buildings and Designated Conservation Area.	Yes	Designated a Conservation Area, tourist value, heritage value.	regional	H		No	No	To maintain integrity of Designated Area and individual listed structures.
Staithes Beach	Loss due to erosion.	Yes	Recreational value, tourism value.	Local	R		No	No	To maintain recreational value of the beach.
Hartie Loup	Loss of safe access to beach.	Yes	Scientific and educational importance reflected by the numerous visits made to study geology, ecology and history in the area.	regional	E		No	No	To maintain access for observation of scientific and educational interest.

Location: MA20 STAITHES TO RUNSWICK BAY									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
North York Moors IBA	Loss due to erosion.	Yes	Designated IBA of ornithological importance.	Local	E	Interruption of natural physical processes	No	Possibly	To ensure that viable populations of nesting bird species are maintained, within the context of a dynamic coastal system
Staithes to Port Mulgrave SSSI	Loss due to erosion. There is a need to manage access and avoid over exploitation of the fossil beds in the SSSI.	Yes	Designated SSSI for its geological and fossil interests.	National	E	Interruption of natural physical processes	No	No	To maintain or restore natural or semi-natural levels of accretion or erosion in the locality of the site.
No. of sites of recorded or potential archaeological interest	Loss due to erosion		Historical/heritage value.						
Tumulus - Beacon Hill	Loss due to slippage/erosion of the cliff.	Yes	A Scheduled Ancient Monument	National	H	Interruption of natural physical processes	No	No	To protect Scheduled Ancient Monument.

Location: MA20 STAITHES TO RUNSWICK BAY									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Residential properties adjacent to the current cliff or slip slope top (including Far Rosedale, The Bungalows and Long Row)	Loss due to slippage/erosion of the cliff.	Yes	Homes for people.	local	HA		No	Yes	To prevent loss of residential properties due to erosion.
Remains of Port Mulgrave ironstone mine	Operated from 1855 to 1930 with the harbour remaining in use until 1917. The breakwater was destroyed by the Royal Engineers in WWII to prevent its use as a German landing point. National Park archaeologist considers the site to be of particular importance and that it would benefit from improved interpretation and management.	Yes	Historical value.	local	H		No	No	To facilitate through coastal management improved interpretation and management.

Location: MA20 STAITHES TO RUNSWICK BAY									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Port Mulgrave Harbour	The extensive slumped area at Twixt Hills (1995) has caused a significant siltation problem to the Port Mulgrave Harbour interfering with its use as an anchorage for small fishing craft. Breakwater structure is in poor condition, though the area it now protects is relatively small since harbour silted up.	Yes	Recreational and commercial value for fishing.	local	C		No	No	For shoreline management not to worsen the situation with the use of the harbour.
Freshwater artificial ponds adjacent to the Cleveland Way	Loss due to erosion. These ponds are part of the Victoria Iron works that was destroyed by land instability which has not stopped.	Yes	Important for Great Crested Newt (BAP species and protected under W&CA as amended. Scarborough Council have commissioned an amphibian survey of the whole county - results available soon)	regional	E	physical loss due to erosion or construction of defences	Yes	yes	Improve resource of freshwater ponds suitable for gcn breeding
Rosedale cliffs - National Trust Land	Loss due to slippage/erosion of the cliff. Loss of access to recreational land.	Yes	Owned by National Trust.	local	E	physical loss and coastal squeeze	no	no	To allow natural processes to function and resources to retreat as necessary. National Trust policy favours adaptation, to allow time and space to change with the coast and work with the forces of nature.

Location: MA20 STAITHES TO RUNSWICK BAY									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Lingrow Howe site, Staithes	Loss due to erosion	Yes	Historical value.	local	H		No	No	To record historic value of site.

Location: MA21 - RUNSWICK BAY TO SANDSEND NESS									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Residential/ holiday homes directly above Runswick Bay	Loss due to erosion	Yes	Homes for people, tourism value, value to local economy	local	HA		No	Yes	To prevent loss of property due to erosion.
North York Moors National Park Village Conservation Area, Runswick Bay	Loss due to erosion. Potential for value of area to be compromised by inappropriate development (controlled by National Park planning department).	Yes	Architectural and historic value.	regional	H		No	No	To maintain integrity and extent of Conservation Area.
Victoria iron works, Runswick Bay	Conservation, management and increased interpretation required.	Yes	Historical value, educational value	local	H		No	No	To facilitate management and increased interpretation of site.
Slipway, Runswick Bay	Loss due to erosion and deterioration of structures	Yes	Important for inshore lifeboat and commercial fishing (8 vessels (<10m)), recreational vessels, sailing and surfing, sub aqua and windsurfing activities.	regional	R		No	No	To maintain facility to enable vessels to be launched.
Runswick Bay SSSI	Loss due to erosion - but continuation of natural processes on the site important to the maintenance of the SSSI features	Yes	SSSI designated for geological interest.	National	E	Interruption of natural physical processes	No	No	To maintain or restore natural or semi-natural levels of accretion or erosion in the locality of the site.

Location: MA21 - RUNSWICK BAY TO SANDSEND NESS									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Coastal woodland /scrub area	Loss due to erosion. Would benefit from improved management.	Yes	environmental value, heritage value	local	E		No	No	To maintain integrity and extent value of woodland area.
WWII pillbox	Conservation, management and increased interpretation required.	Yes	Historical value, educational value	local	H		No	No	To record historic value of site.
Runswick Sands Beach	Loss due to erosion and access problems due to excessive seaweed and mud flow.	Yes	Recreational value, tourism value	local	R		No	No	To maintain access to beach and recreational value of beach.
Kettleless Alum works, Deepgrove, Ness End and Gaytress quarries	Loss due to erosion. Increased interpretation would be beneficial. Access to the Kettleless alum works is dangerous as a result of cliff slippage in 2001. Advised by owners (Mulgrave Estates) not to access here.	Yes	Scheduled Ancient Monument. The importance of the mining, quarrying and alum processing industry in the area once led to the creation of a village and works at Kettleless. In 1829 however, the whole hamlet disappeared in a cliff fall.	National	H		No	No	To maintain SAMs.
Residential properties and Coastguard station at Kettleless Farm	Loss due to erosion/slippage of cliff. (Recent slips evident in aerial photography)	Yes	Homes for people	regional	HA		No	Yes	To prevent loss of residential properties due to erosion. Maintain function of coastguard station.

Location: MA22 – SANDSEND WYKE									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Dismantled railway line (route of Cleveland Way and cycle route)	Loss due to erosion. Very close to the cliff in places.	Yes	Identified as route for Sustrans cycle route in 2002 through tunnels to the north.	regional	R		No	Yes	To maintain recreational value of walkway/cycleway.
Car Park	Loss due to erosion/outflanking at northern end and deterioration of defences.	Yes	Recreational value, tourism value	regional	R		No	Yes	To maintain car parking facility.
Slipway onto beach	Loss due to erosion	Yes	Recreational value for watersports such as sailing, surfing, rowing and windsurfing.	local	R		No	Yes	To maintain facility for launching vessels.
SNCI	Loss due to erosion	Yes	Environmental value	Local	E	Interruption of natural physical processes	No	Possibly	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
Sandsend Beckside residential properties.	Erosion due to wave action with in the beck threatening local properties and access.	Yes	Homes for people	local	HA		No	Yes	To prevent loss of residential properties due to erosion.

Location: MA22 – SANDSEND WYKE									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
A174 Coast road, Sandsend and East Row Bridges	The public highway (owned and maintained by the Highway Authority) is cantilevered over the seawall along the Sandsend frontage. Erosion at this location could result in loss of the road. Overtopping of seawall onto road also occurs occasionally. The bridges are subject to erosion/scouring. Stability of the slip slopes on each side of the A174 at the former railway embankment toe protection at Raven Hill and at Raithwaite Gill.	Yes	Important transport link between Sandsend and Whitby	regional	HA		No	No	To maintain road transport link.
A174 Coast road, Sandsend and East Row Bridges	Potential deterioration of road (A174) due to Raithwaite historical Ironstone mine works under the road.	Yes	Important transport link between Sandsend and Whitby	regional	HA		No	No	To maintain road transport link.
Sandsend Beach	Loss due to erosion and resulting deterioration of the amenity and visual appeal of the beach. Concerns regarding beach access.	Yes	Recreational value, tourism value. Blue Flag beach	regional	R		No	No	To maintain recreational and amenity value of the bathing beach.

Location: MA22 – SANDSEND WYKE									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Sandsend village	Loss of residential property due to erosion and deterioration of seawall defence	Yes	Homes for people	local	HA		No	Yes	To prevent loss of residential properties due to erosion.
Sandsend village	Loss of shops and hotels due to erosion and deterioration of seawall defence	Yes	Value to local economy	local	HA		No	Yes	To prevent loss of commercial properties due to erosion.
Sandsend village	Loss of Conservation Area due to erosion.	Yes	Heritage value	regional	H		No	No	To maintain Conservation Area.
Foul sewer in beach	Exposure and possible damage to foul sewer.	Yes	Provision of sewage infrastructure to local community	local	HA		No	Yes	To maintain sewerage to community.
Whitby Golf Course	Loss due to erosion. Erosion occurring at edges of new defences.	Yes	Recreational value, tourism value.	local	R		No	Yes	To maintain recreational value of the golf course.

Location: MA23 – WHITBY									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
SNCI	Loss due to erosion	Yes	Environmental value	Local	E	Interruption of natural physical processes	No	Possibly	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
Properties on West Cliff frontage - hotels & guesthouses	Loss of commercial properties due to erosion. Coastal slope stability issues (ground water).	Yes	Value to the local economy, tourism value	Regional	HA		No	No	To prevent loss of commercial property due to erosion.
Properties on West Cliff frontage - hotels & guesthouses	Loss of residential properties due to erosion.	Yes	Homes for people.	local	HA		No	Yes	To prevent loss of residential property due to erosion.
Whitby Sands Bathing Beach	Preservation of the high amenity value of the beach, particularly with respect to cleanliness and water quality. Retention and regeneration of tourist facilities along the Whitby Sands frontage.	Yes	Designated bathing beach. Important recreational resource used for wind surfing, sailing, surfing and diving. Tourism value	Regional	R	Loss of West Pier	No	No	To maintain recreational value of bathing beach.

Location: MA23 – WHITBY									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Whitby Sands Bathing Beach	Impact of changes in bathymetry on inshore fishing. Due to changes in defences and removal of groynes in 1985, the beach moves more rapidly and is vulnerable to sudden change in levels. Sand now builds as a nearshore bar causing safety problems to inshore fishing.	Yes	Value to the local economy.	Regional	C	Loss of West Pier	No	No	To ensure that defence policy does not impact detrimentally on inshore fishing.
West Pier	Loss due to erosion and deterioration of structures resulting in loss of Whitby Sands.	Yes	Control structure for Whitby Sands.	local	HA		No	Yes	To maintain function of West Pier as a control structure for Whitby Sands.
West Pier	Loss due to erosion and deterioration of structures resulting in loss of navigable harbour channel and sheltered harbour area.	Yes	Provision of protection to shipping harbour. Value to local economy. Recreational value of sheltered waters.	Regional	HA		No	No	To maintain function of West Pier as a control structure for Whitby Harbour.
East Pier	Loss due to erosion and deterioration of structure.	Yes	Potential tourism and local economy benefit - opportunity to improve access to Pier under the Abbey Headland Initiative.	local	R		No	Yes	To maintain opportunity for improved recreational and tourism use of Pier.

Location: MA23 – WHITBY									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
East Pier	Loss due to erosion and deterioration of structures resulting in loss of navigable harbour channel and sheltered harbour area.	Yes	Provision of protection to shipping harbour. Value to local economy. Recreational value of sheltered waters.	Regional	HA		No	No	To maintain function of West Pier as a control structure for Whitby Harbour.
Whitby Harbour	Construction of a lock across the river may provide additional moorings upstream of the harbour. The river is an important salmon and other migratory fish run and this would need to be considered in any design. Redevelopment and enhancement of the harbour frontage.	Yes	Recreational value, tourism value.	Regional	R	Loss of harbour piers. Impact of proposed harbour works on coastal processes and shoreline management.	No	No	To assess potential impact of proposed harbour works on shoreline management.
Whitby Harbour	Potential impact of shoreline management on the operation of the harbour.	Yes	Sustained operation of the harbour	Regional	C	Loss of harbour piers.	No	No	That shoreline management policy should not have a detrimental impact on harbour operations.

Location: MA23 – WHITBY									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Esk estuary	Change to current balance and ecosystem as a result of any coastal changes.	Yes	Esk estuary contains estuarine muds that are important for wading birds and some saltmarsh BAP habitat (further upstream). Also contains the only saltmarsh in North Yorkshire and needs recognition and management.	Regional (depends on BAP features)	E	Interruption of natural process of erosion. Changes to physical or biological conditions as a result of development within the system	No	Possibly	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
Esk estuary	Flooding of sections of the frontage, particularly when high tides combine with peak flows in the River Esk. Environment Agency have proposals to upgrade flood defences on River Esk.	Yes	Flood management	Regional	HA		No	Yes	To avoid increased flood risk due to shoreline management policy.
Tate Hill Sands and pier	Loss of spending beach in harbour due to erosion and deterioration of pier.	Yes	Reduced wave climate within harbour for harbour users.	Regional	C	Loss of harbour piers.	No	Yes	To maintain function of spending beach within harbour.
Residential properties behind Tate Hill Sands	Loss due to erosion, flooding or deterioration of defences.	Yes	Homes for people. Important for tourists and residents for historical value.	Regional	HA	Loss of harbour piers.	No	Yes	To prevent loss of residential properties due to erosion.
Whitby to Saltwick SSSI	Loss due to erosion	Yes	Designated SSSI for its geological interest, particularly fossil reptiles	National	E	Interruption of natural physical processes and loss of scientific resource	No	No	To maintain or restore natural or semi-natural levels of accretion or erosion in the locality of the site.

Location: MA23 – WHITBY									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Whitby Abbey cliffs	Rock falls pose safety threat to public.	Yes	Public safety.	local	R		No	No	To address public safety threat from falling rocks.
Television mast	Loss due to erosion. This area is currently being monitored.	Yes	Television reception.	local	HA		No	Yes	To maintain service currently provided by television mast.
Coastguard lookout	Loss due to erosion	Yes	Provision of public safety service.	Regional	R		No	Yes	To maintain service currently provided by Coastguard lookout.
Whitby Abbey, St Mary's Church and associated grounds	Cliff erosion threatens the existence of the Whitby Abbey which is important to the Heritage of Whitby. Opportunity for environmental enhancement and increased interpretation of the Abbey.	Yes	Scheduled Ancient Monument of historical significance. Tourism value. Value to local economy.	National	H		No	No	To maintain Whitby Abbey SAM.

Location: MA24 – WHITBY TO SALTWICK NAB									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
National Trust land (Saltwick Nab Headland)	Loss due to erosion	Yes	Environmental value, recreational value.	Regional	R	Loss of access path (FEAT288)	No	No	To facilitate safe management of access to the land. National Trust policy favours adaptation, to allow time and space to change with the coast and work with the forces of nature.

Location: MA25 – SALTWICK NAB TO HUNDALE POINT (ROBIN HOOD'S BAY)									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Saltwick Bay Beach access path	Access from Whitby Holiday Park was damaged in by slippage in 2001 (though not a public right of way) and has never been repaired/reinstated.	Yes	Recreational value, tourism value.	local	R		No	Yes	To maintain safe access to the beach from the Holiday Park.
Saltwick Alum works	Loss due to erosion. Opportunity for increased archaeological interpretation.	Yes	Historical value, archaeological value.	local	H		No	No	To maintain historical value of Alum works and provide opportunity for increased interpretation.
Whitby High Light Lighthouse and fog signal properties	Loss due to erosion	Yes	Homes for people.	Local	HA		No	Yes	To prevent loss of residential property due to erosion.
Robin Hoods Bay: Maw Wyke to Beast Cliff SSSI	Features require natural processes to continue unimpeded to maintain favourable condition. Loss of habitats may occur due to erosion but this is only problematic where coastal squeeze (i.e. no 'space' for features to retreat).	Yes	Designated SSSI for its geological, geomorphological, intertidal and vegetation interest	National	E	Interruption of natural physical processes and loss of habitats directly under hard defence structures	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system

Location: MA25 – SALTWICK NAB TO HUNDALE POINT (ROBIN HOOD'S BAY)									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Robin Hoods Bay Special Area of Conservation	Loss of natural processes maintaining favourable condition of vegetated cliffs. Also loss of cliff habitats through coastal squeeze.	Yes	Special Area of Conservation (SAC) for its coastal vegetated sea cliffs. This includes woodland, heath and calcareous flushes. The SAC forms part of the above SSSI.	European	E	Interruption of natural physical processes and loss of habitats directly under hard defence structures	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
National Trust land (Limekiln Slack, Bottom House, Raindale and Rocket Post Field)	Loss due to erosion	Yes	Environmental value, heritage value, recreational value.	Regional	H		No	No	National Trust policy favours adaptation, to allow time and space to change with the coast and work with the forces of nature.
Railway line (dismantled)/ cyclepath	Loss due to erosion. Potential environmental enhancement.	Yes	The Scarborough (Falsgrave) to Whitby West Cliff line (including earthworks and bridges) is of historical significance (operating between 1885-1965). Now also part of Sustrans national walkway/cycleway network and is heavily used by local people.	Regional	R		No	No	To maintain character and function of path.

Location: MA25 – SALTWICK NAB TO HUNDALE POINT (ROBIN HOOD'S BAY)									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Robin Hoods Bay Sensitive Marine Area	Loss of intertidal or immediate littoral habitats as a result of coastal engineering	Yes	Identified as a Sensitive Marine Area because of its range of relatively sheltered habitats supporting a rich and diverse plant and animal intertidal community	National	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
Residential properties on cliff top at northern end of Robin Hood's Bay	At northern end of RHB where there are no hard defences (as required by English Nature to allow geology to be observed). Erosion is occurring behind the defences further south and may lead to loss of houses and destabilisation of cliff.	Yes	Homes for people	local	HA		No	Yes	To prevent loss of residential properties due to erosion.
Victoria Hotel	Loss due to erosion. Coastal erosion and stability problems associated with the cliff top boulder clay, particularly in relation to the Victoria Hotel.	Yes	Historical value, cultural value.	local	H		No	No	To maintain heritage value of Victoria Hotel.

Location: MA25 – SALTWICK NAB TO HUNDALE POINT (ROBIN HOOD'S BAY)									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Robin Hood's Bay Village Conservation Area and access road	Loss due to erosion.	Yes	The historic and architectural merit of Robin Hoods Bay is recognised in its inclusion in the National Park Village Conservation Area. There are numerous listed buildings within the village. The location is also a premier tourist destination of significant economic value.	Regional	H		No	No	To maintain heritage value of Robin Hoods Bay Conservation Area.
The Quarterdeck	Potential outflanking of existing defences and continued erosion of the slope behind.	Yes	Heritage value. Significant aspect of RHB Village Conservation Area.	Regional	H		No	No	To recognise the need for appropriate transition between defended and undefended areas.
The Sands Bathing Beach	Loss due to erosion	Yes	Designated Bathing Beach. The beach up to Boggle Hole is well used by bathers and tourists looking for fossils.	Regional	R		No	No	To maintain recreational value of bathing beach.
Youth Hostel at Boggle Hole	Loss due to erosion - the hostel is located at sea level and may therefore be at risk from flooding/inundation. Access to hostel is via road to beach.	Yes	Tourism value, public safety.	local	HA		No	Yes	To prevent loss of commercial properties due to erosion.

Location: MA25 – SALTWICK NAB TO HUNDALE POINT (ROBIN HOOD'S BAY)									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Stoupe Bank Farm - residential property	Loss due to erosion - located close to cliff edge which in this particular area is eroding rapidly.	Yes	Homes for people	local	HA		No	Yes	To prevent loss of residential properties due to erosion. Maintain access to the beach.
Beach at Stoupe Brow	Loss of access to beach due to erosion.	Yes	Recreational value	local	R		No	Yes	Maintain access to the beach.
Stoupebrow Cottage Farm - residential property	Loss due to erosion.	Yes	Homes for people	local	HA		No	Yes	To prevent loss of residential properties due to erosion.
National Trust landholding and component archaeological sites (cliff top fields around Boggle Hole, the Low Peak Alum Works site, quarries and farmland, Coastal Wardens property at Peakeside, an information centre shop and fields)	Loss due to erosion or coastal squeeze	Yes	Stoup Brow Quarry and Alum Works and Peak Quarry are of archaeological importance. Possibly be scheduled in the near future in accordance with Monuments Protection Programme of 1993. Maintaining an assemblage or properties and archaeological features.	National	H		No	No	To maintain integrity and value of heritage assemblage and opportunity for recording historical value. National Trust policy favours adaptation, to allow time and space to change with the coast and work with the forces of nature.

Location: MA25 – SALTWICK NAB TO HUNDALE POINT (ROBIN HOOD'S BAY)									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Raven Hall Hotel golf course	Currently being lost due to erosion	Yes	Tourism value, recreational value, public safety	local	R		No	Yes	To maintain recreational golf course facility .
Raven Hall Hotel	Access to the beach is being threatened by erosion	Yes	Tourism value, recreational value, public safety	local	HA		No	Yes	To prevent loss of commercial properties due to erosion.
Raven Hall Hotel	Los due to erosion. Roman Signal Station site is now the site of the Raven Hall Hotel (built 1774). The site also contains a WWII radar station considered of particular interest by the National Park archaeologist.	Yes	Historical value	local	H		No	No	To prevent loss of historically significant features.
Boggle Hole bridge	Potential loss due to erosion or deterioration of structure and subsequently discontinuity of Cleveland Way path.	Yes	Bridge is part of Cleveland Way footpath of recreational and educational value.	National	R		No	Yes	To maintain the ability to walk the coast.
Stoupe Beck bridge	Potential loss due to erosion or deterioration of structure and subsequently discontinuity of Cleveland Way path.	Yes	Bridge is part of Cleveland Way footpath of recreational and educational value.	National	R		No	Yes	To maintain the ability to walk the coast.
Scalby Beck bridge	Potential loss due to erosion or deterioration of structure and subsequently discontinuity of	Yes	Bridge is part of Cleveland Way footpath of recreational and educational value.	National	R		No	Yes	To maintain the ability to walk the coast.

Location: MA25 – SALTWICK NAB TO HUNDALE POINT (ROBIN HOOD'S BAY)									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
	Cleveland Way path.								
Coastguard Station	Potential loss due to deterioration.	Yes	Recreational value, safety value	Regional	R		No	Yes	To maintain the function of the coastguard station.
Ravenscar vantage point	Potential inappropriate management affecting natural beauty of landscape.	Yes	Natural beauty of the area is the main visitor attraction, with panoramic views afforded around the bay from the car park area.	Regional	E		No	No	To maintain the natural beauty of the landscape and access to appropriate vantage points.
Burnt Howe	Loss due to erosion	Yes	Scheduled Ancient Monuments	National	H		No	No	To maintain the SAM.
Walkway/cycleway along disused railway line.	Loss due to erosion.	Yes	Recreational value, tourism value.	Regional	R		No	Yes	To maintain pedestrian/cycleway function.
Bent Rigg coastguard lookout and WW2 nissen huts	Loss due to erosion. Located close to cliff edge.	Yes	Historical value.	local	H		No	No	To maintain function of coastguard lookout and record historical value.
Coastguard Station	Potential loss due to deterioration.	Yes	Recreational value, safety value	Regional	R		No	Yes	To maintain the function of the coastguard station.

Location: MA25 – SALTWICK NAB TO HUNDALE POINT (ROBIN HOOD'S BAY)									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Hayburn Wyke SSSI	Features require natural processes to continue unimpeded to maintain favourable condition. Loss of habitats may occur due to erosion but this is only problematic where coastal squeeze (i.e. no 'space' for features to retreat).	Yes	Designated SSSI for its biological (woodland) and geological interests	National	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
National Trust Land (coastal woodlands from Hayburn Wyke to Iron Scar)	Loss due to erosion	Yes	environmental value (sites are also SSSIs)	National	E	Interruption to coastal processes changing succession processes. Also obscuring or destruction of habitat as result of defence construction	no	no	Maintain functioning woodlands and access to the resources. National Trust policy favours adaptation, to allow time and space to change with the coast and work with the forces of nature.
Iron Scar and Hundale Point to Scalby Ness SSSI	Loss due to erosion - but continuation of natural processes on the site important to the maintenance of the SSSI features. Site influenced by historical foreshore iron quarry (1865).	Yes	Designated SSSI for its geological interests, particularly its Jurassic fossil beds	National	E	Interruption of natural physical processes	No	No	To maintain or restore natural or semi-natural levels of accretion or erosion in the locality of the site.

Location: MA25 – SALTWICK NAB TO HUNDALE POINT (ROBIN HOOD'S BAY)									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Cloughton Salt Pans carpark	Potential loss of parking area at cliff top and access to beach.	Yes	Recreational value	local	R		No	Yes	To maintain car parking facilities and access at Cloughton Salt Pan.

Location: MA26 – HUNDALE POINT TO SCALBY NESS									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Coastguard lookout, Creek Point	Loss due to erosion	Yes	Public safety	Regional	R		No	Yes	To maintain function of coastguard lookout.
Cliff Top House, Field Lane Burniston	Loss due to erosion - located some distance inland from cliff	Yes	Listed Building, home for people	Regional	H		No	No	To maintain listed structure.
Crook Ness carpark	Potential loss of parking area at cliff top and access to beach.	Yes	Recreational value	local	R		No	Yes	To maintain car parking facilities and access at Crook Ness.
Agricultural land	Small scale erosion of farmland near Burniston.	Yes	Value to local economy and land owner.	local	C		No	Yes	To minimise impact on agricultural industry.
Sewage Works	Loss due to erosion. Significant erosion during 2000/2001 when groundwater table was high.	Yes	Important infrastructure for local community	local	HA		No	Yes	To maintain function of sewage infrastructure.
Residential property	Loss due to toe erosion in beck and instability of slope	Yes	Homes for people	local	HA		No	Yes	To prevent loss of residential properties due to erosion.
Sea Life Centre access road and carpark	Potential loss of access road and carpark due to erosion.	Yes	Tourism value, recreational value	Regional	R		No	Yes	To maintain access and car parking facility to seafront amenities.
Sites of archaeological interest	Loss due to erosion and deterioration of defences.	Yes	Scientific value, educational value						

Location: MA26 – HUNDALE POINT TO SCALBY NESS									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Sea Life Centre	Loss due to erosion and deterioration of defences.	Yes	Tourism value, recreational value, educational value.	Regional	R		No	Yes	To maintain recreational value of Sea Life Centre.
North Cliff Golf Course and clubhouse	Loss due to erosion and deterioration of defences.	Yes	Tourism value, recreational value	local	R		No	Yes	To maintain recreational value of golf course.
North Bay Promenade	Loss due to erosion.	Yes	Important tourist and local car park for viewing and sea angling and access to beach.	local	R		No	No	To maintain the recreational amenity of the seafront promenade.
North Sands Bathing Beach	Loss due to erosion and deterioration of defences. Preservation of the high amenity value of the beach, by protection of water quality and improved access to the beach and through the former garden areas.	Yes	Designated Bathing Beach. Tourism value, recreational value - used for swimming, surfing, windsurfing, jetskis and diving.	Regional	R		No	No	To maintain the recreational value of the bathing beach.
North Bay to South Toll House cliff SSSI	Loss due to erosion and deterioration of defences. Cliff stability issues relating to groundwater. Loss of interest features from continued cliff stabilisation works. Disturbance to nesting birds during coastal defence works.	Yes	Designated SSSI for its geological interests	National	E	Interruption of natural physical processes	No	No	To maintain or restore natural or semi-natural levels of accretion or erosion in the locality of the site.

Location : MA27 – SCARBOROUGH NORTH BAY AND CASTLE CLIFFS									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
SNCI	Loss due to erosion and deterioration of defences.	Yes	Designated for its grassland communities and nesting sea birds.	Local	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
Alexandra and Clarence Garden area	The environmental enhancement based on ecologically sensitive management principles, of the cliffs and former gardens. The promotion of economic and environmental regeneration within the area as part of the Castle Pride Initiative whilst retaining the built conservation assets of the area.	Yes	Tourism value, recreational value, environmental value	local	R	Over-development	No	No	To maintain opportunity for environmental enhancement.
Properties behind Clarence Gardens	Loss of residential properties due to erosion and deterioration of defences.	Yes	Homes for people	local	HA		No	Yes	To prevent loss of residential properties due to erosion.
Properties behind Clarence Gardens	Loss of Commercial properties due to erosion and deterioration of defences. Cliff stability issues related to groundwater.	Yes	Tourism value, value to local economy	Regional	HA		No	Yes	To prevent loss of commercial properties due to erosion.

Location : MA27 – SCARBOROUGH NORTH BAY AND CASTLE CLIFFS									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Royal Albert Rd and Marine Drive coast roads	Loss due to erosion and deterioration of defences. Closure due to overtopping. Large section of defences upgraded in 2003-5. New sea defences should significantly reduce the frequency of closure of Marine Drive.	Yes	Important local transport link between Scarborough and Scalby Ness. Important tourist and local car park for viewing and sea angling.	Regional	HA		No	Yes	To maintain road transport link.
Castle & walls	Loss due to erosion and deterioration of defences.	Yes	Scheduled Ancient Monuments	National	H		No	No	To maintain the SAM.
Beacon site	Loss due to erosion and deterioration of defences.	Yes	Scheduled Ancient Monument	National	H		No	No	To maintain the SAM.
St Marys Church	Loss due to erosion and deterioration of defences.	Yes	Scheduled Ancient Monument	National	H		No	No	To maintain the SAM.
Roman Signal Station	Loss due to erosion and deterioration of defences.	Yes	Scheduled Ancient Monument	National	H		No	No	To maintain the SAM.
Iron age settlement site	Loss due to erosion and deterioration of defences.	Yes	Scheduled Ancient Monument	National	H		No	No	To maintain the SAM.
Scarborough Borough Council Conservation Area	Loss due to erosion and deterioration of defences.	Yes	Historical and cultural significance of the harbour, its jetties and infrastructure, and the inland heritage.	Regional	H		No	No	To maintain the heritage value of the Conservation Area.

Location: MA28 – CASTLE CLIFF TO WHITE NAB									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Harbour & infrastructure	Loss due to erosion and deterioration of defences. Contamination within the harbour and associated impact on water quality at bathing beach in South Bay. Improved facilities required - in line with Castle Pride Initiative. Wave/tidal climate and affects on harbour entrance.	Yes	13 commercial fishing vessels and some 200 pleasure boats operate out of the harbour	Regional	C		No	No	To ensure shoreline management does not have an adverse affect on the operation of the harbour.
East Pier	Loss due to erosion and deterioration of the structure.	Yes	Control structure for South Bay	local	HA		No	Yes	To maintain function of pier as control structure for South Bay.
Scarborough RNLI Lifeboat Station	Lifeboat station and launching zones are vulnerable and historically Scarborough lifeboat station has flooded. Need to maintain access for lifeboat.	Yes	Community safety, tourism value, recreational value. Important to fishing industry.	Regional	R		No	Yes	To maintain function of lifeboat station.
Foreshore Road	Closure due to erosion and deterioration of defences, aeolian (wind blown) sand movement on to road or tidal flooding of road.	Yes	Transport link, tourism and recreational value	Regional	HA		No	Yes	To maintain road transport link.

Location: MA28 – CASTLE CLIFF TO WHITE NAB									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
South Sands Bathing Beach	Loss due to erosion and deterioration of defences.	Yes	Tourism value, recreational value. Extremely important to the local economy. Designated Bathing Beach.	Regional	R		No	No	To maintain recreational value of the bathing beach.
Commercial properties	Loss due to erosion and deterioration of defences.	Yes	Tourism value, local economy value, essential services for community	Regional	HA		No	No	To prevent loss of commercial properties due to erosion.
Tourism infrastructure/ development (theatre etc)	Loss due to erosion and deterioration of defences.	Yes	Significant tourism value, local economy value all year round.	Regional	R		No	No	To prevent loss of recreational amenity of tourist infrastructure due to erosion.
Scarborough Borough Council Conservation Area	Loss due to erosion and deterioration of defences.	Yes	Historical and cultural significance of architecture of the clifftop and townscape eg. The Rotunda Museum, The Crescent and Londesborough Lodge Area and the Cliff Bridge.	Regional	H		No	No	To maintain the heritage value of the Conservation Area.
Spa Complex, cliff railway and promenade	Loss due to erosion and deterioration of defences. The stability of the slopes behind the Spa Complex is of concern particularly in relation to the adjacent Holbeck slip site.	Yes	The architectural merit, recreational value, tourism value, heritage value and value to local economy of the conference centre facilities.	Regional	H		No	No	To maintain the character and function of the Spa Complex.

Location: MA28 – CASTLE CLIFF TO WHITE NAB									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Spa Road widening	Potential widening of Spa Road may cause increased siltation of harbour and sediment deposits in the bay which will effect safe navigation of vessels entering the port in bad weather. Reflection of wave energy off the seawall at Spa at present effects shipping movements. The flood tide flows around headland and reflects off the Spa seawall creating a circulation with a velocity of 1 to 1.5 knots. This flow appears to be transporting sediment north to the west pier. SBC are currently trucking sand from the west Pier back towards Spa. Widening of the Spa Road may exacerbate this sediment transport.	Yes	Potential significant impact on other coastal features eg harbour	Regional	I		No		To assess potential impact of proposed Spa Road widening works on shoreline management.

Location: MA28 – CASTLE CLIFF TO WHITE NAB									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Scarborough South Bay Beach - Valley Bridge southwards towards Holbeck and Cornelian	From Valley southwards, important to preserve a relatively peaceful beach area for holiday makers, away from traffic and commercialism. Rockpools are educational for children. Also peaceful location for birds and other wildlife.	Yes	Landscape value, recreational value, educational value.	local	R		No	No	To maintain characteristic value of the beach.
SINC	Loss due to erosion and deterioration of defences.	Y	Designated SNCI for Nat Cons interest	Local	E	Interruption of natural physical processes	No	Possibly	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
The Grand Hotel	Loss due to erosion and deterioration of defences.	Yes	The architectural merit, recreational value, tourism value and heritage value	local	H		No	No	To prevent loss of the heritage structure due to erosion.
Residential properties at South Cliff	Loss due to erosion and deterioration of defences.	Yes	Homes for people	local	HA		No	Yes	To prevent loss of residential properties due to erosion.
South Cliff Golf Course	Loss due to erosion and deterioration of defences.	Yes	Tourism value, recreational value	local	R		No	Yes	To maintain recreational value of golf course.
Walking path on seaward edge of golf course	Public path on cliffline is being eroded and walkers are pushed closer to the golf course.	Yes	Tourism value, recreational value	local	R		No	Yes	To maintain ability to walk the coast.

Location: MA28 – CASTLE CLIFF TO WHITE NAB									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Yorkshire Water Sewage Pumping station, overflow pipeline out to sea and McCains pipeline out to sea.	Loss due to erosion. Both pipelines have recently been exposed due to coastal slope instability/erosion/watercourse.	Yes	Important infrastructure for local community	local	HA		No	Yes	To maintain sewerage service to community.

Location: MA29 – WHITE NAB TO CAYTON BAY									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Coast Road A165	Potential loss of transport link due to erosion.	Yes	Important transport link between Scarborough and Filey.	Regional	HA		No	Yes	To maintain road transport link.
Cayton, Cornelian and South Bays SSSI	Features require natural processes to continue unimpeded to maintain favourable condition. Loss of habitats may occur due to erosion but this is only problematic where coastal squeeze (i.e. no 'space' for features to retreat). Specific threat to cliff top housing that has uncertain planning permission history. Note that the Coastal Strategy for this area recommends change to previous no intervention policy in original SMP. This is V important to measure our approach to such variations as a result of updated knowledge. EN, Nat Trust and SBC work being done by Halcrow to come up with minor surface water	Yes	Designated for geological and biological interest	National	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system

Location: MA29 – WHITE NAB TO CAYTON BAY									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
	management scheme in SSSI that will reduce overall slippage risk without causing SSSI to become unfavourable. In this section the Wheatcroft sewage pumping station has ad-hoc gabion defences from coastal and fluvial scour and erosion.								
Cayton, Cornelian and South Bays SSSI	Pollution caused by sewage pumping at Cornelian Bay.	No							
WWII pillbox	Loss due to erosion	Yes	Historical value	local	H		No	No	To record heritage value.
Residential properties at Knipe Point and Osgodby	Loss due to erosion. Stability of coastal slopes and land drainage issues.	Yes	Homes for people	local	HA		No	Yes	To prevent loss of residential properties due to erosion.
National Trust Land (Osgodby/Knipe Points)	Loss due to erosion and deterioration of defences. This is SSSI and NT working closely with EN to ensure favourable status remains. NT land is subject to Royal charter???	Yes	Contentious locations - land is SSSI but also highly mobile with residential homes atop cliff.	National	E	Interruption to slippage and coastal processes through stabilisation works.	No	No	Maintain integrity of heritage features, access to site and also ensure health and safety issues are addressed.

Location: MA29 – WHITE NAB TO CAYTON BAY									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Cayton Sands Bathing Beach and associated surf shop	Loss due to erosion. Access to the beach is regularly affected.	Yes	Important recreational value and tourism value. Designated Bathing Beach	Regional	R		No	No	To maintain recreational value of bathing beach and suitable access.
The Beach House (Old Pump House)	Potential loss due to erosion and deterioration of defences.	Yes	Home for people	Local	HA		No	Yes	To prevent loss of residential property due to erosion.
Cayton Village Caravan Park	Loss due to erosion - there is evidence of major cliff movements in this area in the past, although these areas appear to have now restabilised. Currently erosion makes access unsafe at the Caravan Park.	Yes	Tourism value, value to local economy	local	C		No	Yes	To maintain integrity of caravan park and access to beach.
Residential properties behind Killerby Cliff	Loss due to erosion - there is evidence of major cliff movements in this area in the past, although these areas appear to have now restabilised.	Yes	Homes (6 no.) for people	local	HA		No	Yes	To prevent loss of residential properties due to erosion.
WWII pillbox	Loss due to erosion	Yes	Historical value	local	H		No	No	To record heritage value.

Location: MA30 – CAYTON BAY TO FILEY BRIGG									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Gristhorpe Bay and Red Cliff SSSI	Features require natural processes to continue unimpeded to maintain favourable condition. Loss of habitats/ geology may occur due to erosion but this is only problematic where coastal squeeze (i.e. no 'space' for features to retreat).	Yes	Designated SSSI for its geological interest, particularly fossil plant beds.	National	E	Interruption of natural physical processes	No	No	To maintain or restore natural or semi-natural levels of accretion or erosion in the locality of the site.
Gristhorpe Cliffs holiday parks	Loss due to erosion - seaward caravan park is very close to the cliff line which currently has an overhang due to erosion lower down the cliff face. Important to protect the tourism, especially between Cayton Bay and Filey. Important to manage erosion.	Yes	Tourism value	Regional	C		No	Yes	To maintain integrity of caravan park facility and safely manage continued erosion.
Gristhorpe Cliffs holiday parks	Reduction, if possible, of the visual dominance of the existing holiday facilities.	No							

Location: MA30 – CAYTON BAY TO FILEY BRIGG									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
National Trust Land (cliff top field at Newbiggin Farm)	Loss due to erosion or coastal squeeze	Yes	Environmental value	local	R	Inability for the clifftop grasslands to retreat in front of eroding coastline due to fixed structures (coastal squeeze)	no	Yes	Ensure clifftop grasslands are able to retreat and are not lost under defence structures
Coastal footpath	Loss of pedestrian access to Filey Brigg due to erosion and presence of ponds. Potential public safety issue if visitors on Brigg get cut off. Promotion of a coastal footpath around Filey Bay to link the Brigg to Flamborough Head	Yes	Tourism, recreational value and educational value.	local	R		No	Yes	To maintain ability to safely walk the coast.
Filey Brigg (SSSI)	Features require natural processes to continue unimpeded to maintain favourable condition. Loss of habitats/ geology may occur due to erosion but this is only problematic where coastal squeeze (i.e. no 'space' for features to retreat).	Yes	Designated SSSI for its biological and geological interest. Of ornithological interest and scientific and educational value. Also provides significant protection to the coast to the south including Filey town.	National	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system

Location: MA30 – CAYTON BAY TO FILEY BRIGG									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Filey Brigg (SSSI)	Potential loss of pedestrian access to the Brigg - currently considered acceptable by North Yorkshrie County Council. Promotion of a coastal footpath around Filey Bay to link the Brigg to Flamborough Head	Yes	Biological, geological and ornithological interest and scientific and educational value.	Regional	R	Erosion of footpath	No	For discussion	To ensure continued access to the site in a sustainable manner

Location : MA31 – FILEY BRIGG TO MUSTON SANDS									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
SNCI	Loss due to erosion	Yes	Nature conservation value	Local	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
Roman Signal Station	Loss due to erosion. Significant area already lost.	Yes	Historical value - Scheduled Ancient Monument	National	H		No	No	To maintain the SAM.
Filey Brigg Ponds (Countryside Stewardship Scheme for Wildlife)	Ponds may contribute to erosion of cliff. Erosion will cut off pedestrian access to Filey Brigg.	Yes		Local	E		No	Yes	To maintain pond habitat for wildlife.
Sailing Club	Loss due to erosion - may require relocation	Yes	Recreational value	local	R		No	Yes	To maintain facility for recreational sailing.
Filey Sands Beach	Loss of beach amenity due to erosion. The combination of bad weather from the north and a southerly 'set' or current flow extending from Reighton to Filey Brigg presents the most erosive scenario particularly for the shoreline between Primrose Valley and Reighton.	Yes	Designated bathing beach for tourism and recreation including sailing, windsurfing, diving, surfing and fishing.	Regional	R		No	No	To maintain recreational value of the bathing beach.

Location : MA31 – FILEY BRIGG TO MUSTON SANDS									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Filey Sands Beach	Concern was expressed over any possible future dredging for aggregates within Filey Bay and the potential impacts this would have on the erosion of the beach and cliffs.	Yes	Designated bathing beach for tourism and recreation including sailing, windsurfing, diving, surfing and fishing.	Regional	I		No	No	To assess impact of loss of sand from Filey Bay system.
Filey Sands Beach	Concern was expressed about sewerage from caravan parks polluting bathing beach and potential need to limit number of caravans.	No							
Miniature Golf Course	Loss due to erosion	Yes	Recreational value	local	R		No	Yes	To maintain miniature golf recreational facility.
Cobles Landing	Loss of boat launching facility due to erosion or deterioration of structure	Yes	Boat launching facility	local	C		No	Yes	To maintain boat hardstand and launching facility.
Cobles Landing	Loss due to erosion and deterioration of structure	Yes	Important heritage feature of area.	Regional	H		No	No	To maintain heritage value of Coble Landing.
Northcliffe Lodge, Mitford Street	Loss due to erosion	Yes	Listed building of historical significance	Regional	H		No	No	To maintain listed structure.
The Lodge and Coach House, Clifford Street	Loss due to erosion	Yes	Listed building of historical significance	Regional	H		No	No	To maintain listed structure.

Location : MA31 – FILEY BRIGG TO MUSTON SANDS									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
SBC Conservation Area	Loss due to erosion. There is a risk of landslips. Cliffs are protected by a seawall. The stability of the seawall is dependant on a stable beach.	Yes	Elegant Victorian architecture of the spa town is of historical value.	Regional	H		No	No	To maintain heritage value of conservation area.
Residential properties on The Crescent	Loss due to erosion	Yes	Homes (6 no.) for people	local	HA		No	Yes	To prevent loss of residential properties due to erosion.
Commercial properties on The Beach Road	Loss due to erosion. Currently protected by seawall.	Yes	Tourism value, value to local economy, essential services for local community	Regional	HA		No	Yes	To prevent loss of commercial properties due to erosion.
Foul sewer within the beach, currently buried	Potential exposure and damage due to erosion.	Yes	Provision of sewage service community. Designated bathing beach for tourism and recreation including sailing, windsurfing, diving, surfing and fishing.	local	HA	Loss of community	No	Yes	To maintain sewerage services to community.

Location: MA32 – MUSTON SANDS TO SPEETON									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Filey Golf Course	Loss due to erosion	Yes	Recreational value	local	R		No	Yes	To maintain the recreational value of the golf course.
Leisure Complex and Caravan Park Flat Cliff	Loss due to erosion	Yes	Tourism value	Regional	C		Yes	Yes	To maintain integrity of caravan park facility and safely manage continued erosion.
Leisure Complex and Caravan Park Flat Cliff	Appropriate redevelopment on this highly visible section of coast. Development is to be set back.	Yes	Tourism value, landscape value, environmental value	local	E		No	No	To advise on recession rates for development planning.
Great Crested Newt Habitat	A specifically designed substitute habitat for the Great Crested Newt was created by Bourne Leisure. Concern that this habitat may be damaged/altered by shoreline management.	Yes	Habitat for Great Crested Newt	Regional	E		No	Yes	To maintain habitat for Great Crested Newt.

Location: MA32 – MUSTON SANDS TO SPEETON									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Residential properties at Flat Cliff and access road	Potential loss of property (36 properties and 2500 caravans) - need to defend. Residents are very concerned about the potential for loss of property due to cliff erosion or slippage particularly with drainage affects of the caravan park behind them and the additional drainage affects of increasing development of other sites (eg former Butlin site) behind Flat Cliffs. They would like the area to be defended by a rock revetment.	Yes	Homes for people. Historical value as location of first aeroplane take off in early 1900's.	local	HA		No	Yes	To prevent loss of residential properties due to erosion/slippage. To maintain safe access to residential properties.
Yorkshire Water Pumping Station	Sustainability of the pumping station that currently serves local community including Primrose Valley Caravan Park (over 1800 static vans) and leisure complex.	Yes	Services infrastructure for community.	local	HA		No	Yes	Define risk to pumping station and address sustainability issues.

Location: MA32 – MUSTON SANDS TO SPEETON									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Flat Cliffs Sewer infrastructure	Breakage of main sewer pipeline due to marine erosion/cliff slippage. Also water pumping station in Flat Cliffs and pipe along beach.	Yes	Sewerage infrastructure for community	local	HA	Loss of community	No	Yes	To maintain sewerage service to community.
Hunmanby Sands Beach	Loss of beach amenity due to erosion. The combination of bad weather from the north and a southerly 'set' or current flow extending from Reighton to Filey Brigg presents the most erosive scenario particularly for the shoreline between Primrose Valley and Reighton.	Yes	Designated bathing beach for tourism and recreation including sailing, windsurfing, diving, surfing and fishing.	Regional	R		No	No	To maintain recreational value of the bathing beach.
Hunmanby Sands Beach	Concern was expressed over any possible future dredging for aggregates within Filey Bay and the potential impacts this would have on the erosion of the beach and cliffs.	Yes	Designated bathing beach for tourism and recreation including sailing, windsurfing, diving, surfing and fishing.	Regional	I		No	No	To assess impact of loss of sand from Filey Bay system.
Hunmanby Sands Beach	Access to the beach needs to be maintained. Lack of safe access to the beach from the Bourne Leisure Caravan Park.	Yes	Recreational value	local	R		No	Yes	To maintain safe access to the beach.

Location: MA32 – MUSTON SANDS TO SPEETON									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Residential properties at Hunmanby Gap (Gap Road)	Loss due to erosion	Yes	Homes for people	local	HA		No	Yes	To prevent loss of residential properties due to erosion.
SNCI	Loss due to erosion	Yes	Nature conservation value	Local	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system
Reighton Sands Holiday Park	Loss due to erosion	Yes	Tourism value	Regional	C		No	Yes	To maintain integrity of caravan park.

Location: MA32 – MUSTON SANDS TO SPEETON									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Reighton Sands Bathing Beach	Loss due to erosion. Previous sand extraction at Reighton in the 1960's stripped the beach and recovery of the beach since the cessation of the extraction in 1968 has been very slow. A study of the sediment transport in the area was carried out by Professor J Pethick of the University of Hull. He suggested that the sediment budget was currently balanced 'on a knife edge' and could not withstand any major interference or losses. It was noted that the beach is actually very thin with boulder clay underlying the beach sands. After easterly gales the sand is washed offshore forming a bank creating short seas.	Yes	Designated bathing beach of recreational and tourism value	Regional	R		No	No	To maintain recreational value of bathing beach.
Coastal path	Public access to cliff tops and beaches. Access along cliff paths where slippage has occurred.	Yes	Important tourism and heritage value.	Regional	R		No	Yes	To maintain ability to walk coast.

Location: MA33 – SPEETON TO FLAMBOROUGH HEAD									
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives
Danes Dyke	Loss due to erosion	Yes	Scheduled Ancient Monument	National	H		No	No	To maintain the SAM.
Beach access to Thornwick Bay	Loss of access to beach due to erosion	Yes	Recreational value	local	R		No	Yes	To maintain safe access to beach.
North Landing	Loss of commercial fishing facility due to erosion.	Yes	Commercial fishing area. Value to local economy.	Regional	C		No	Yes	To maintain ability for commercial fishing activities to continue.
North Landing	Loss of bathing beach due to erosion.	Yes	Bathing Beach, recreational and economic value.	Regional	R		No	No	To maintain recreational value of bathing beach.
Golf Course	Loss due to erosion	Yes	Recreational value	local	R		No	Yes	To maintain recreational value of golf course.
Old lighthouse and associated buildings at Flamborough Head	Loss due to erosion	Yes	The old lighthouse is a Scheduled Ancient Monument - the oldest tower in England, erected in 1674. The lighthouse, Keepers House/Office and old lighthouse are also listed buildings.	National	H		No	No	To maintain the SAM.
Flamborough Head SSSI	Features require natural processes to continue unimpeded to maintain favourable condition. Loss of habitats/ geology may occur due to erosion but this is only	Yes	Designated SSSI for its biological, geological and geomorphological interest.	European	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system

Location: MA33 – SPEETON TO FLAMBOROUGH HEAD										
Feature	Issue associated with Feature	Affect Policy ?	Benefits / Why is issue important?	Scale	Issue Type / Theme	What could affect its value/sustainability? (Threats)	Is there enough of this benefit?	Potential for substitution	Objectives	
Flamborough Head cSAC	problematic where coastal squeeze (i.e. no 'space' for features to retreat). Continuation of natural processes on the site important to the maintenance of the cSAC features.	Yes	Internationally important site designated as cSAC for its sea cliff plant communities (vegetated sea cliffs of the Atlantic and Baltic coasts), sea caves and reef communities	European	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system	
Special Protection Area - Flamborough Head and Bampton Cliffs	Loss due to erosion, but continuation of natural processes on the site important to the maintenance of the cSAC features.	Yes	Designated SPA because of its importance for supporting internationally important numbers of breeding sea birds.	European	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system	
SNCI	Loss due to erosion	Yes	Nature conservation value	Local	E	Interruption of natural physical processes	No	No	To maintain or enhance the condition or integrity of the site within the context of a dynamic coastal system	