

Kelling to Lowestoft Ness Shoreline Management Plan

Policy Appraisal

February 2004



Halcrow Group Limited

Halcrow

Contents

1	Introduction	1
1.1	<i>Background</i>	1
1.2	<i>Role of Stakeholders</i>	1
2	Policy Appraisal Table	2
2.1	<i>Explanation of the Table</i>	2
2.2	<i>Glossary of Terms used in the Table</i>	2

Appendix – Policy Appraisal Table

1 Introduction

1.1 Background

The aim of the SMP is “*to promote sustainable management policies, for a coastline for the 22nd century, which achieve objectives without committing to unsustainable defences*”. Policy will be set for 3 time periods (epochs): 0 to 20, 20 to 50 and 50 to 100.

Key to developing robust and sustainable management policy has been the identification of issues and objectives for the SMP coast. These objectives were presented at the last Extended Steering Group (ESG) workshop on 5th November 2003, which brought together key stakeholders. This workshop allowed discussion of future shoreline management policies, through bringing together an understanding of the issues, the risks, and an appreciation of each other’s viewpoints.

From this workshop it was possible to define a scenario for each of the three epochs, using the ‘Key Drivers’ and balance of objectives identified:

- Scenario A - Balanced objectives (as identified at the ESG meeting)

For the 0-20 year epoch, there appeared to be general agreement at the ESG meeting to continue present management practices at most locations; however possible variations were identified for the medium and longer term. Therefore, as a sensitive test, variations on scenario A have also been assessed. These alternatives are based upon the following principles:

- Scenario B - Key Drivers plus a more naturally functioning coast at year 100
- Scenario C - Key Drivers plus other areas where present economic criteria *may* be satisfied.

All three scenarios have been tested to assess coastal response and determine how well objectives are met.

Any policy along the coast has to be set within existing legislation, and other, constraints, therefore in addition to the objectives identified through consultation, four *Overarching Objectives* must also be considered across the whole of the SMP area:

Framework Objective:	Shoreline management policies should comply with the current flood and coastal defence management framework where public funding would be required for their implementation.
Technical Objective:	Shoreline management policies should seek to have no adverse effect on any physical processes that benefits rely upon.
Environmental Objective:	Shoreline management policies should take due consideration of biodiversity and seek to achieve Biodiversity Action Plan targets.
Socio-economic Objective:	Shoreline management policies should consider current regional development agency objectives and statutory planning policies.

1.2 Role of Stakeholders

The role of the stakeholder is to **steer** policy decisions and feedback from the next ESG workshop will influence the policy presented at the public consultation. It is therefore important that the implications of each policy decision are fully appreciated by members of the ESG.

2 Policy Appraisal Table

2.1 Explanation of the Table

The table sets out the objectives identified at each location along the coast, with a brief description of implications of each of the 3 policy scenarios (A, B and C), together with the implications of a No Active Intervention scenario (NAI). The assessment has been undertaken for the 3 epochs: 0 to 20 years, 20 to 50 years and 50 to 100 years.

For each scenario an assumption (in italics) has been made of the management practice or change in protection provided.

The first three columns of the Table are taken directly from the Issues Table:

Feature:	Something tangible that provides a service to society in one form or another or, more simply, benefits certain aspects of society by its very existence.
Issues associated with Feature:	Issues will occur where either the aspirations of Stakeholders conflict or where a feature is at risk from flooding or erosion.
Objective:	Identifies the objective associated with the feature/benefit.

2.2 Glossary of Terms used in the Table

Abbreviation	Term in Full	Definition
AONB	Area of Outstanding Natural Beauty	Designated by the Countryside Commission. The purpose of the AONB designation is to identify areas of national importance and to promote the conservation and enhancement of natural beauty. This includes protecting its flora, fauna, geological and landscape features. This is a statutory designation.
cSAC	Special Area of Conservation (SAC)	This designation aims to protect habitats or species of European importance and can include Marine Areas. SACs are designated under the EC Habitats Directive (92/43/EEC) and will form part of the Natura 2000 site network. All SACs sites are also protected as SSSI, except those in the marine environment below the Mean Low Water (MLW).
Feature		Something tangible. This will be of a specific geographical location and specific to the SMP.
Issue		All issues and aspirations related to flood and coastal defence.
LNR	Local Nature Reserves	These are established by local authorities in consultation with English Nature. These sites are generally of local significance and also provide important opportunities for public enjoyment, recreation and interpretation. This is a statutory designation.
Location		A discrete point on the coast or a length of coastline between two defined points.
NAI	No Active Intervention	Where there is no investment in coastal defence assets or operations, i.e. no shoreline management activity (as defined by 2001 SMP Guidance).

Abbreviation	Term in Full	Definition
NNR	National Nature Reserves	Designated by English Nature. These represent some of the most important natural and semi-natural ecosystems in Great Britain, and are managed to protect the conservation value of the habitats that occur on these sites. This is a statutory designation.
RNLI	Royal National Lifeboat Institution	Organisation providing a search and rescue service.
SMP	Shoreline Management Plan	Document that provides a large-scale assessment of the risks associated with coastal processes and presents a policy framework to reduce these risks to people and the developed, historic and natural environment in a sustainable manner.
SPA	Special Protection Area (SPA)	Internationally important sites, being set up to establish a network of protected areas of birds.
SSSI	Sites of Special Scientific Interest	These sites, notified by English Nature, represent some of the best examples of Britain's natural features including flora, fauna, and geology. This is a statutory designation.

APPENDIX: POLICY APPRAISAL TABLES

Kelling Hard to Sheringham

			0 – 20 (up to 2025)		20 – 50 (up to 2055)				50 – 100 (up to 2105)			
			NAI	A, B, C	NAI	A	B	C	NAI	A	B	C
Feature	Issues associated with Feature	Objective	<i>The short length of palisade along the shingle ridge fails in the first half of period.</i>	<i>No defences (apart from low timber/ steel palisade at Weybourne retained to prevent breach and flooding).</i>	<i>No defences (Natural shingle bank at Weybourne)</i>	<i>No defences. (Natural shingle bank at Weybourne)</i>	<i>(As A)</i>	<i>(As A)</i>	<i>No defences.</i>	<i>No defences. (Natural shingle bank at Weybourne)</i>	<i>(As A)</i>	<i>(As A)</i>
Cliff top residential properties at Weybourne	<ul style="list-style-type: none"> Potential loss of housing through erosion Devaluation of neighbouring property Anxiety and stress to owners and occupiers facing loss 	Prevent loss of residential properties to erosion	Loss of most seaward Coastguard cottages	Loss of most seaward Coastguard cottage	Loss of half of area covered by Coastguard cottages	Loss of half of area covered by Coastguard cottages	(As A)	(As A)	Total loss of Coastguard cottages	Total loss of Coastguard cottages	(As A)	(As A)
Weybourne Priory	<ul style="list-style-type: none"> Loss of the Priory to It is considered that there are unexcavated remains alongside the Priory and these will be at risk through continuing erosion 	Prevent loss of Weybourne Priory to erosion	No loss	No loss	No loss	No loss	(As A)	(As A)	No loss	No loss	(As A)	(As A)
Heritage sites	<ul style="list-style-type: none"> Loss of a number of monument sites of high importance 	Prevent loss of heritage sites	Some sites lost	Some sites lost	Further sites lost	Further sites lost	(As A)	(As A)	Further sites lost	Further sites lost	(As A)	(As A)
Agricultural land	<ul style="list-style-type: none"> Potential loss of Grade 3 land through erosion. Much of National Trust land is in Stewardship/set aside 	Prevent loss of farmland to erosion	Loss of farm land	Loss of farm land	Loss of farm land	Loss of farm land	(As A)	(As A)	Loss of farmland	Loss of farmland	(As A)	(As A)
Weybourne Cliffs SSSI	<ul style="list-style-type: none"> Continual erosion of cliffs necessary to maintain a clear face for geological study 	Continued erosion of cliffs to maintain exposures	Continued erosion therefore exposures maintained	Continued erosion therefore exposures maintained	Continued erosion therefore exposures maintained	Continued erosion therefore exposures maintained	(As A)	(As A)	Continued erosion therefore exposures maintained	Continued erosion therefore exposures maintained	(As A)	(As A)
Kelling Hard County Wildlife Site	<ul style="list-style-type: none"> Loss of CWS site designated as unimproved, slightly calcareous and neutral grassland 	Maintain the existing habitats	Minimum loss of Kelling Hard CWS	Minimum loss of Kelling Hard CWS	Less than 50% loss of Kelling Hard CWS	Less than 50% loss of Kelling Hard CWS	(As A)	(As A)	Partial loss of Kelling Hard CWS	Partial loss of Kelling Hard CWS	(As A)	(As A)

Beach Lane County Wildlife Site	<ul style="list-style-type: none"> Loss of shingle beach which protects areas of grassland, reedswamp and brackish lagoons which have County Wildlife Status 	Maintain the existing shingle habitats whilst allowing shingle ridge to roll back	Minimum loss of Beach Lane CWS but shingle ridge allowed to roll back	Minimum loss of Beach Lane CWS but shingle ridge allowed to roll back	Some loss of CWS but shingle ridge allowed to roll back	Some loss of CWS but shingle ridge allowed to roll back	(As A)	(As A)	Some loss of CWS but shingle ridge allowed to roll back	Some loss of CWS but shingle ridge allowed to roll back	(As A)	(As A)
Beach and Foreshore	<ul style="list-style-type: none"> Dredging of offshore banks for aggregate – concern about potential impact on beach levels (<i>Non-policy issue</i>) Concern over beach condition 	Maintain a beach suitable for recreation purposes	Beach similar to present	Beach similar to present	Beach similar to present	Beach similar to present	(As A)	(As A)	Beach present	Beach present	(As A)	(As A)
Car park and beach access at Beach Lane	<ul style="list-style-type: none"> Potential loss of car park 	Maintain car park facilities	Minimum loss	Minimum loss	50% car park lost, but low lying land therefore car park could be moved landwards	50% car park lost, but low lying land therefore car park could be moved landwards	(As A)	(As A)	Total loss of car park, but could be relocated	Total loss of car park, but could be relocated	(As A)	(As A)
	<ul style="list-style-type: none"> Potential loss of access to beach 	Maintain access to the beach	No loss of beach access	No loss of beach access	No loss of beach access	No loss of beach access	(As A)	(As A)	No loss of beach access	No loss of beach access	(As A)	(As A)
Sheringham Golf Links	<ul style="list-style-type: none"> Loss of golf course through erosion 	Prevent loss of golf course to erosion	Loss of golf course land	Loss of golf course land	Further loss of golf course land	Further loss of golf course land	(As A)	(As A)	Further loss of golf course land	Further loss of golf course land	(As A)	(As A)
National Trail	<ul style="list-style-type: none"> Potential loss of Trail through erosion 	Maintain Trail throughout frontage	Loss of parts of Peddlers Way & Norfolk Coast path but could be relocated	Loss of parts of Peddlers Way & Norfolk Coast path but could be relocated	Further loss of parts of Peddlers Way & Norfolk Coast path but could be relocated	Further loss of parts of Peddlers Way & Norfolk Coast path but could be relocated	(As A)	(As A)	Further loss of parts of Peddlers Way & Norfolk Coast path but could be relocated	Further loss of parts of Peddlers Way & Norfolk Coast path but could be relocated	(As A)	(As A)
AONB	<ul style="list-style-type: none"> The way in which the coastline is managed may have an adverse effect on the landscape which contributes to this status 	Maintain landscape quality	Landscape maintained through natural cliff erosion	Landscape maintained through natural cliff erosion	Landscape maintained through natural cliff erosion	Landscape maintained through natural cliff erosion	(As A)	(As A)	Landscape maintained through natural cliff erosion	Landscape maintained through natural cliff erosion	(As A)	(As A)

Sheringham

			0 – 20 (up to 2025)		20 – 50 (up to 2055)				50 – 100 (up to 2105)			
			NAI	A, B, C	NAI	A	B	C	NAI	A	B	C
Feature	Issues associated with Feature	Objective	<i>The timber groynes will fail during this period, as will the seawalls to the west and east. In front of the town the seawall and rock groynes will remain in place.</i>	<i>Seawall and groynes maintained to prevent any erosion.</i>	<i>The central seawall and rock groynes will remain for most of this period.</i>	<i>Seawall and groynes maintained to prevent any erosion.</i>	<i>(As A)</i>	<i>(As A)</i>	<i>The central seawall and rock groynes will fail at the start of this period.</i>	<i>Seawall and groynes maintained to prevent any erosion.</i>	<i>(As A)</i>	<i>(As A)</i>
Residential properties	<ul style="list-style-type: none"> Potential loss of housing through erosion Devaluation of neighbouring property Anxiety and stress to owners and occupiers facing loss 	Prevent loss of residential properties to erosion	No loss	No loss	No loss of main town, but loss of properties along Beeston Regis	No loss	(As A)	(As A)	Loss of residential properties	No loss	(As A)	(As A)
Commercial properties	<ul style="list-style-type: none"> Potential loss of businesses through erosion 	Prevent loss of commercial properties to erosion	No loss	No loss	No loss	No loss	(As A)	(As A)	Loss of commercial properties	No loss	(As A)	(As A)
Community facilities	<ul style="list-style-type: none"> Potential loss of community facilities through erosion 	Prevent loss of community facilities to erosion	No loss	No loss	No loss	No loss	(As A)	(As A)	Loss of main town streets and town centre car parks	No loss	(As A)	(As A)
Heritage sites	<ul style="list-style-type: none"> Loss of heritage sites including The Lees and Beeston Regis Hill, which are of high importance 	Prevent loss of heritage sites to erosion	Loss of one Beeston Regis and other monument sites	No loss	No further loss	No loss	(As A)	(As A)	No further loss	No loss	(As A)	(As A)
Recreational and tourist facilities	<ul style="list-style-type: none"> Potential loss of tourist and recreation sites, accommodation and activities including major attractions, shops, public open space, holiday amenities, and promenade 	Prevent loss of tourist facilities to erosion	No loss	No loss	No loss but promenade properties more exposed	No loss but promenade properties more exposed	(As A)	(As A)	Loss of promenade and seafront shops and amenities	No loss but promenade properties more exposed	(As A)	(As A)
Infrastructure	<ul style="list-style-type: none"> Potential loss of or damage to services and roads through erosion 	Maintain services to properties	No loss	No loss	No loss	No loss	(As A)	(As A)	Loss of services associated with property loss	No loss	(As A)	(As A)

		Maintain communication link within Sheringham	No loss	No loss	No loss	No loss	(As A)	(As A)	Loss of various roads within the town centre	No loss	(As A)	(As A)
Lifeboat Station	<ul style="list-style-type: none"> Potential loss of access Potential loss of building 	Maintain Lifeboat Station in the town	No loss and slipway functional	No loss and slipway functional	No loss and slipway functional	No loss and slipway functional	(As A)	(As A)	Loss of promenade and therefore existing Lifeboat Station	Building at increased risk of being overtopped. Slipway will be functional.	(As A)	(As A)
Beeston Cliffs SSSI	<ul style="list-style-type: none"> Continual erosion of cliffs necessary to maintain a clear face for geological study 	Continued erosion of cliffs to maintain exposures	Cliff erosion, meaning increased SSSI exposure	No cliff erosion therefore poor SSSI exposure	Cliff erosion, meaning increased SSSI exposure	No cliff erosion therefore poor SSSI exposure	(As A)	(As A)	Cliff erosion, meaning increased SSSI exposure	No cliff erosion therefore poor SSSI exposure	(As A)	(As A)
	<ul style="list-style-type: none"> Erosion or regrading could reduce the area of unimproved grassland on the cliff-top, which is also part of the SSSI through its characteristic plant species 	Maintain the existing habitats	Small loss but habitat likely to be able to remain landward	Cliff top grassland preserved	Loss of cliff top grasslands. Possible recreation inland	Cliff top grassland preserved	(As A)	(As A)	Loss of cliff top grasslands. Possible recreation inland	Cliff top grassland preserved	(As A)	(As A)
Beach and foreshore	<ul style="list-style-type: none"> Potential deterioration in condition and appearance of the Blue Flag beach Potential health and safety hazard caused by deteriorating defences at foot of cliffs Dredging of offshore banks for aggregate – concern about potential impact on beach levels (<i>Non-policy issue</i>) 	Maintain a beach suitable for recreation purposes	Similar beach to today	Similar beach to today	Little or no beach along main frontage. Beach maintained at Beeston Regis	Little or no beach	(As A)	(As A)	Beach present in a retreated position	No beach	(As A)	(As A)
National Trail	<ul style="list-style-type: none"> Potential loss of Trail through erosion 	Maintain Trail throughout frontage	No change in trail location along main frontage	No change in trail location	No change in trail location along main frontage	No change in trail location	(As A)	(As A)	Loss of present trail	No change in trail location	(As A)	(As A)
Access to beach	<ul style="list-style-type: none"> Potential loss of access to beach 	Maintain access to the beach	Beach access as today	Beach access as today	Beach access as today	Beach access as today	(As A)	(As A)	Access lost as seawall and promenade fails	Beach access possible, but no beach	(As A)	(As A)

Sheringham to Cromer

			0 – 20 (up to 2025)		20 – 50 (up to 2055)				50 – 100 (up to 2105)			
			NAI	A, B, C	NAI	A	B	C	NAI	A	B	C
Feature	Issues associated with Feature	Objective	<i>Timber revetment will fail early during this period, with failure of timber groynes towards the end of the period. Masonry walls at Gaps will start to fail.</i>	<i>Timber groynes between Sheringham and West Runton allowed to fail. Two short stretches of masonry wall at Gaps maintained.</i>	<i>No defences</i>	<i>Short stretches of masonry wall at Gaps allowed to fail.</i>	<i>(As A)</i>	<i>(As A)</i>	<i>No defences</i>	<i>No defences</i>	<i>(As A)</i>	<i>(As A)</i>
Cliff top properties at East Runton	<ul style="list-style-type: none"> Potential loss of housing through erosion Devaluation of neighbouring property Anxiety and stress to owners and occupiers facing loss 	Prevent loss of residential properties to erosion	No properties lost but potential loss of land	No properties lost but potential loss of land	Most-seaward properties lost	Most-seaward properties lost	(As A)	(As A)	Properties lost	Properties lost	(As A)	(As A)
Cliff top caravan parks	<ul style="list-style-type: none"> Loss of cliff-top caravan parks sited on eroding cliffs Loss of investment on part of local businesses 	Prevent loss of tourist accommodation to erosion	Partial loss of caravan park land	Partial loss of caravan park land	Further loss of caravan park land	Further loss of caravan park land	(As A)	(As A)	Further loss of caravan park land	Further loss of caravan park land	(As A)	(As A)
Heritage sites	<ul style="list-style-type: none"> Loss of heritage sites including a couple identified as of high importance 	Prevent loss of heritage sites to erosion	No loss of sites identified as high importance	No loss of sites identified as high importance	Loss of one site of high importance and other sites	Loss of one site of high importance and other sites	(As A)	(As A)	No further loss of sites	No further loss of sites	(As A)	(As A)
Agricultural land	<ul style="list-style-type: none"> Potential loss of Grade 3 land through erosion 	Prevent loss of farmland to erosion	Loss of farmland	Loss of farmland	Further loss of farmland	Further loss of farmland	(As A)	(As A)	Further loss of farmland	Further loss of farmland	(As A)	(As A)
Cliffs at West Runton and East Runton	<ul style="list-style-type: none"> Continual erosion of the SSSI designated cliffs necessary to maintain a clear face for geological study and re-sampling 	Continued erosion of cliffs to maintain exposures	Continued exposure therefore improved exposure	Continued exposure, except Gaps, therefore improved exposure	Continued exposure therefore improved exposure	Continued exposure therefore improved exposure	(As A)	(As A)	Continued exposure therefore improved exposure	Continued exposure therefore improved exposure	(As A)	(As A)
Car park and beach access	<ul style="list-style-type: none"> Potential loss of car park 	Maintain car park facilities	Loss of car park at West Runton (but possible relocation). Loss of section of East Runton car park	Loss of car park at West Runton (but possible relocation). Loss of section of East Runton car park	Loss of car park at East Runton	Loss of car park at East Runton	(As A)	(As A)	(Car park lost 20-50)	(Car park lost 20-50)	(As A)	(As A)

	<ul style="list-style-type: none"> Potential loss of access to beach 	Maintain access to the beach	Access at East and West Runton lost	Beach access at Runton gaps maintained	(Access lost 0-20 but possible relocation)	Access lost due to outflanking, but possible relocation	(As A)	(As A)	(Access lost 20-50 but possible relocation)	(Access lost 20-50 but possible relocation)	(As A)	(As A)
Beach and Foreshore	<ul style="list-style-type: none"> Loss of County Wildlife site 	Maintain the existing habitats	Similar beach to today	Similar beach to today	Similar beach to today	Similar beach to today	(As A)	(As A)	Beach present	Beach present	(As A)	(As A)
	<ul style="list-style-type: none"> Dredging of offshore banks for aggregate – potential impact on beach level (<i>Non-policy issue</i>) Potential deterioration in condition/ appearance of beach Continuing maintenance necessary for existing concrete defences at foot of cliffs Potential health and safety hazard caused by deteriorating defences at foot of cliffs 	Maintain a beach suitable for recreation purposes	Similar beach to today	Similar beach to today	Similar beach to today	Similar beach to today	(As A)	(As A)	Beach present	Beach present	(As A)	(As A)
	<ul style="list-style-type: none"> West Runton SSSI includes the foreshore - designation requires continued erosion to keep the exposures clean 	Retain foreshore to maintain the marine study value of the site	Continued erosion keeps exposures clean	Natural processes allowed and increased exposure	Continued erosion keeps exposures clean	Slight improvement once Gaps allowed to erode	(As A)	(As A)	Continued erosion keeps exposures clean	Continued erosion keeps exposures clean	(As A)	(As A)

Cromer

			0 – 20 (up to 2025)		20 – 50 (up to 2055)				50 – 100 (up to 2105)			
			NAI	A, B, C	NAI	A	B	C	NAI	A	B	C
Feature	Issues associated with Feature	Objective	<i>Along most of the frontage the seawall will remain in place for this period. The groynes will fail towards the end of the period.</i>	<i>Seawall and groynes maintained to prevent any erosion.</i>	<i>Complete failure of the seawall at the start of this period.</i>	<i>Seawall and groynes maintained to prevent any erosion.</i>	<i>(As A)</i>	<i>(As A)</i>	<i>No defences.</i>	<i>Seawall and groynes maintained to prevent any erosion.</i>	<i>(As A)</i>	<i>(As A)</i>
Residential properties	<ul style="list-style-type: none"> Potential loss of housing through erosion Devaluation of neighbouring property Anxiety and stress to owners and occupiers facing loss 	Prevent loss of residential properties to erosion	No loss	No loss	Loss of residential properties	No loss	(As A)	(As A)	Further loss of residential properties	No loss	(As A)	(As A)
Commercial properties	<ul style="list-style-type: none"> Potential loss of businesses through erosion Loss of investment on part of individual business owners 	Prevent loss of commercial properties due to erosion	No loss	No loss	Loss of commercial seafront properties	No loss	(As A)	(As A)	Further loss of commercial properties in main town	No loss	(As A)	(As A)
Commercial properties on the promenade	<ul style="list-style-type: none"> Potential loss of businesses through erosion or repeated flooding 	Prevent damage to/loss of commercial properties due to erosion	Promenade maintained	No loss	Loss of promenade and associated properties	No loss, but increased risk of overtopping (and no beach)	(As A)	(As A)	(Promenade lost 20-50)	No loss, but increased risk of overtopping (and no beach)	(As A)	(As A)
Heritage sites	<ul style="list-style-type: none"> Potential loss of important monuments and Grade II listed properties of Cromer Baptist Church and 'The Gangway' 	Prevent loss of heritage sites to erosion	No loss	No loss	Loss of Grade II properties, and important monument sites	No loss	(As A)	(As A)	Further loss of heritage sites	No loss	(As A)	(As A)
	<ul style="list-style-type: none"> Grade 1 Cromer Church 	Prevent loss of church to erosion	No loss	No loss	Loss of church	No loss	(As A)	(As A)	Church lost in years 20-50.	No loss	(As A)	(As A)
Community facilities	<ul style="list-style-type: none"> Potential loss of community facilities through erosion 	Prevent loss of community facilities to erosion	No loss	No loss	Loss of Post Office and museum	No loss	(As A)	(As A)	Further loss of facilities	No loss	(As A)	(As A)

Recreational and tourist facilities	<ul style="list-style-type: none"> Potential loss of tourist and recreation sites, accommodation and activities including major attractions, shops, holiday amenities, public open space and promenade 	Prevent loss of tourist facilities to erosion	No loss	No loss	Loss of seafront properties, promenade and other facilities	No loss	(As A)	(As A)	Loss of main town seafront	No loss	(As A)	(As A)
Pier	<ul style="list-style-type: none"> Inappropriate management of beach and nearshore zone could jeopardise stability of pier and/or access to the pier 	Prevent loss of recreational facility	No loss	No loss	Structural integrity of pier threatened once promenade lost	Structural integrity of pier threatened by sea level rise and dropping beach levels	(As A)	(As A)	Promenade lost and retreat of coast behind, therefore loss of pier	Structural integrity of pier threatened by sea level rise and dropping beach levels	(As A)	(As A)
		Prevent loss of historical pier	No loss	No loss	Structural integrity of pier threatened once promenade lost	Structural integrity of pier threatened by sea level rise and dropping beach levels	(As A)	(As A)	Promenade lost and retreat of coast behind, therefore loss of pier	Structural integrity of pier threatened by sea level rise and dropping beach levels	(As A)	(As A)
Lifeboat Station	<ul style="list-style-type: none"> Potential loss of access Potential loss of building 	Maintain Lifeboat Station in the town	No loss	No loss	Station is located at end of pier, therefore loss of station	Station is located at end of pier, therefore structural integrity may be threatened	(As A)	(As A)	(Station lost 20-50)	Station is located at end of pier, therefore structural integrity may be threatened	(As A)	(As A)
Infrastructure	<ul style="list-style-type: none"> Potential loss of or damage to services and roads through erosion Promenade contains sewage pumping station 	Maintain services to properties	No loss	No loss	Loss associated with property loss	No loss	(As A)	(As A)	Loss associated with property loss	No loss	(As A)	(As A)
		Maintain pumping station	No loss	No loss	Loss	Possible structural/maintenance problems	(As A)	(As A)	Loss	Possible structural/maintenance problems	(As A)	(As A)
Main Road at Cromer (A149)	<ul style="list-style-type: none"> Potential loss of main A road through erosion 	Maintain communication links within Cromer	No loss	No loss	Many links roads lost	No loss	(As A)	(As A)	Further loss of town centre roads	No loss	(As A)	(As A)
		Maintain major communication link between Cromer and settlements to the east	No loss	No loss	Loss of section of A149	No loss	(As A)	(As A)	Further loss of A149	No loss	(As A)	(As A)
Sea Wall	<ul style="list-style-type: none"> Conserving the sea wall as a Grade II listed structure, which may restrict the options for its maintenance, repair or replacement. 	Prevent loss of historical seawall	No loss	No loss	Loss of seawall	Work required to maintain structural integrity, which may threaten listing	(As A)	(As A)	(Seawall lost 20-50)	Work required to maintain structural integrity, which may threaten listing	(As A)	(As A)

Beach and foreshore	<ul style="list-style-type: none"> ▪ Potential deterioration in condition and appearance of the Blue Flag beach ▪ Potential health and safety hazard caused by deteriorating defences at foot of cliffs ▪ Dredging of off-shore banks for aggregate – concern about potential impact on beach levels (<i>Non-policy issue</i>) 	Maintain a beach suitable for recreation purposes	Narrower beach	Narrower beach	Beach in retreated position	Little or no beach	(As A)	(As A)	Beach in retreated position	No beach	(As A)	(As A)
Access to beach	<ul style="list-style-type: none"> ▪ Potential loss of access to beach 	Maintain access to beach	No loss	No loss	Access lost with promenade	Access to promenade, but no beach	(As A)	(As A)	(Access lost with promenade 20-50)	Access to promenade, but no beach		

Cromer to Overstrand

			0 – 20 (up to 2025)		20 – 50 (up to 2055)				50 – 100 (up to 2105)			
			NAI	A, B, C	NAI	A	B	C	NAI	A	B	C
Feature	Issues associated with Feature	Objective	<i>Timber revetments continue to fail over period, with failure of timber groynes in the first half of the period.</i>	<i>Revetments and timber groynes allowed to fail.</i>	<i>No defences.</i>	<i>No defences.</i>	<i>(As A)</i>	<i>(As A)</i>	<i>No defences.</i>	<i>No defences.</i>	<i>(As A)</i>	<i>(As A)</i>
Royal Cromer Golf Course	<ul style="list-style-type: none"> Potential loss of golf course through erosion 	Prevent loss of golf course to erosion	Loss of coastal strip of golf course	Loss of coastal strip of golf course	Loss of part of golf course	Loss of part of golf course	(As A)	(As A)	Further loss of golf course	Further loss of golf course	(As A)	(As A)
Cliffs	<ul style="list-style-type: none"> Loss of SAC designated site Continued erosion of cliffs necessary to maintain habitats 	Maintain the existing habitats	Designated as unprotected therefore continued erosion supports this	Designated as unprotected therefore continued erosion supports this	Designated as unprotected therefore continued erosion supports this	Designated as unprotected therefore continued erosion supports this	(As A)	(As A)	Designated as unprotected therefore continued erosion supports this	Designated as unprotected therefore continued erosion supports this	(As A)	(As A)
Cliff-top footpath	<ul style="list-style-type: none"> Potential loss of footpath through erosion 	Maintain footpath throughout frontage	Paston footpath lost, but possibility for re-routing	Paston footpath lost, but possibility for re-routing	Paston footpath lost, but possibility for re-routing	Paston footpath lost, but possibility for re-routing	(As A)	(As A)	Paston footpath lost, but possibility for re-routing	Paston footpath lost, but possibility for re-routing	(As A)	(As A)
Beach and foreshore	<ul style="list-style-type: none"> Potential deterioration in condition and appearance of the beach Dredging of off-shore banks for aggregate – concern about potential impact on beach levels (<i>Non-policy issue</i>) 	Maintain a beach suitable for recreation purposes	Beach present	Beach present	Beach present, but possible access issues	Beach present, but possible access issues	(As A)	(As A)	Beach present, but possible access issues	Beach present, but possible access issues	(As A)	(As A)
AONB	<ul style="list-style-type: none"> The way in which the coastline is managed may have an adverse effect on the landscape which contributes to this status 	Maintain landscape quality	Landscape maintained through natural cliff erosion	Landscape maintained through natural cliff erosion	Landscape maintained through natural cliff erosion	Landscape maintained through natural cliff erosion	(As A)	(As A)	Landscape maintained through natural cliff erosion	Landscape maintained through natural cliff erosion	(As A)	(As A)

Overstrand

			0 – 20 (up to 2025)		20 – 50 (up to 2055)				50 – 100 (up to 2105)			
			NAI	A, B, C	NAI	A	B	C	NAI	A	B	C
Feature	Issues associated with Feature	Objective	<i>The seawall will fail during this period, together with the timber revetment and groynes.</i>	<i>Seawall, timber revetment and groynes maintained.</i>	<i>No defences.</i>	<i>Seawall, timber revetment and groynes allowed to deteriorate.</i>	<i>(As A)</i>	<i>Seawall maintained to prevent any erosion. Timber revetment replaced by seawall to the south</i>	<i>No defences.</i>	<i>No defences.</i>	<i>(As A)</i>	<i>Seawall maintained.</i>
Residential properties	<ul style="list-style-type: none"> Potential loss of housing within the village through Devaluation of neighbouring property Anxiety and stress to owners and occupiers facing loss 	Prevent loss of residential properties to erosion	Loss of housing	Some housing lost to the south of Overstrand	Further loss of housing	Loss of seafront houses	(As A)	No loss	Further loss of housing within village	Further loss of housing within village	(As A)	No loss
Commercial properties	<ul style="list-style-type: none"> Potential loss of businesses through erosion 	Prevent loss of commercial properties to erosion	Loss of seafront commercial property	No loss	Loss of commercial property	Loss of part of High Street	(As A)	No loss	Loss of commercial property	Loss of commercial property	(As A)	No loss
Heritage sites	<ul style="list-style-type: none"> Potential loss of heritage sites including 2 Grade II properties: 'The Pleasance' and 'Sea Marge' 	Prevent loss of heritage sites to erosion	Loss of 'Sea Marge'	No loss	No further loss in this epoch.	Loss of 'Sea Marge'	(As A)	No loss	Loss of 'The Pleasance'	Loss of 'The Pleasance'	(As A)	No loss
Community facilities	<ul style="list-style-type: none"> Potential loss of community facilities through erosion, 	Prevent loss of community facilities to erosion	Loss of school	No Loss	Further loss of community facilities	Loss of school	(As A)	No loss	Further loss of community facilities	Loss of community facilities, buildings and land	(As A)	No loss
Tourist facilities including the promenade	<ul style="list-style-type: none"> Potential loss of recreation sites, including Jubilee Playground, and amenities 	Prevent loss of tourist amenities to erosion	Loss of Jubilee Ground, promenade and seafront facilities	Loss of Jubilee Ground but promenade remains	Further loss of tourist facilities along Overstrand seafront	Loss of promenade and other tourist facilities along Overstrand seafront	(As A)	No loss	Further loss of tourist facilities along Overstrand seafront	Further loss of tourist facilities along Overstrand seafront	(As A)	No loss
Infrastructure	<ul style="list-style-type: none"> Potential loss of or damage to services and roads through erosion 	Maintain services to properties	Services lost with properties	Services lost at southern end	Services lost with properties	Services lost with properties	(As A)	No loss	Services lost with properties	Services lost with properties	(As A)	No loss
		Maintain communication links within Overstrand	Loss of link roads within Overstrand	Only access roads to houses lost, not link roads	Further loss of link roads within Overstrand	Road linkages within village lost with properties	(As A)	No loss	Loss of link roads within Overstrand	Some road linkages within village lost with properties	(As A)	No loss

	<ul style="list-style-type: none"> Pumping Station and sewers 	Maintain pumping station and sewers	High possibility for pumping station being lost	Sewers lost with properties at southern end of village	Pumping station lost	Pumping station lost	(As A)	No loss	(Pumping station lost 20-50)	(Pumping station lost 20-50)	(As A)	No loss
Overstrand Sea Front County Wildlife Site	<ul style="list-style-type: none"> Potential loss of habitat 	Maintain the existing habitats	Ecological interest associated with slumped cliff, therefore status could improve with cliff erosion	No change from present	Ecological interest associated with slumped cliff, therefore status could improve with cliff erosion	Ecological interest associated with slumped cliff, therefore status could improve with cliff erosion	(As A)	No loss of area but not naturally active and slumping	Ecological interest associated with slumped cliff, therefore status could improve with cliff erosion	Ecological interest associated with slumped cliff, therefore status could improve with cliff erosion	(As A)	No loss of area but not naturally active and slumping
Access to beach	<ul style="list-style-type: none"> Potential loss of access to beach 	Maintain access to beach	Beach access at Overstrand lost	No change in beach access from present	No beach access	Beach access at Overstrand lost	(As A)	No change in beach access	No beach access	No beach access	(As A)	No change in beach access
Car park on cliff top	<ul style="list-style-type: none"> Potential loss of car park 	Maintain car park facilities	Car park lost	Car park partly lost	No car park	Car park lost	(As A)	No loss of car park	No car park	No car park	(As A)	No loss of car park

Overstrand to Mundesley

			0 – 20 (up to 2025)		20 – 50 (up to 2055)				50 – 100 (up to 2105)			
			NAI	A, B, C	NAI	A	B	C	NAI	A	B	C
Feature	Issues associated with Feature	Objective	<i>Continued failure of any existing timber revetment and groynes</i>	<i>Timber revetment and groynes to North of Beach Vale Rd allowed to fail. To south Timber revetment and groynes maintained/ replaced.</i>	<i>No defences.</i>	<i>Timber revetment and groynes allowed to deteriorate and fail.</i>	<i>(As A)</i>	<i>(As A)</i>	<i>No defences.</i>	<i>No defences.</i>	<i>(As A)</i>	<i>(As A)</i>
Residential properties in Sidestrand	<ul style="list-style-type: none"> Potential loss of housing through erosion Devaluation of neighbouring property Anxiety and stress to owners and occupiers facing loss 	Prevent loss of residential properties to erosion	No loss	No loss	Some property loss to north of Sidestrand	Some property loss to north of Sidestrand	(As A)	As A but greater loss of housing in this period	Some property loss in Sidestrand	Some property loss in Sidestrand	(As A)	(As A)
Residential properties in Trimingham	<ul style="list-style-type: none"> Potential loss of housing through erosion Devaluation of neighbouring property Anxiety and stress to owners and occupiers facing loss 	Prevent loss of residential properties to erosion	Some loss	Some loss	Some loss	Some loss	(As A)	(As A)	Some loss	Some loss	(As A)	(As A)
Community facilities	<ul style="list-style-type: none"> Potential loss of Trimingham church through erosion 	Prevent loss of community facilities to erosion	No loss	No loss	No loss	No loss	(As A)	(As A)	Church lost	Church lost	(As A)	(As A)
MOD communications facility	<ul style="list-style-type: none"> Potential loss of MOD mobile communications facility 	Prevent loss of MOD communications facility	No loss of MoD facility	No loss of MoD facility	No loss of MoD facility	No loss of MoD facility	(As A)	(As A)	Loss of MoD facility (but could be relocated)	Loss of MoD facility (but could be relocated)	(As A)	(As A)
Coastal Road at Trimingham	<ul style="list-style-type: none"> Loss of coastal road through erosion 	Maintain communication link within Trimingham	Loss of minor access roads	Loss of minor access roads	Loss of section of main coast road	Loss of section of main coast road	(As A)	(As A)	Further loss of main coast road	Further loss of main coast road	(As A)	(As A)
		Maintain major communication link between Trimingham and adjacent towns and villages	Loss of local access roads only	Loss of local access roads only	Loss of section of main coast road	Loss of section of main coast road	(As A)	(As A)	Further loss of main coast road	Further loss of main coast road	(As A)	(As A)
Agricultural land	<ul style="list-style-type: none"> Potential loss of Grade 3 land through erosion 	Prevent loss of farmland to erosion	Loss of farmland	Loss of farmland	Further loss of farmland	Further loss of farmland	(As A)	(As A)	Further loss of farmland	Further loss of farmland	(As A)	(As A)

Cliffs	<ul style="list-style-type: none"> Continual erosion of SSSI designated cliffs necessary to sustain habitats and exposures 	Retain clean exposure of cliff face to maintain the geological study value of the site	Continued erosion maintain geological exposure	Continued erosion maintain geological exposure	Continued erosion maintain geological exposure	Continued erosion maintain geological exposure	(As A)	(As A)	Continued erosion maintain geological exposure	Continued erosion maintain geological exposure	(As A)	(As A)
	<ul style="list-style-type: none"> Continued cliff movements to support cliff face habitat types listed within SSSI designation 	Maintain the existing habitats	Invertebrates associated with crevices and fallen debris therefore erosion should improve status	Invertebrates associated with crevices and fallen debris therefore erosion should improve status	Invertebrates associated with crevices and fallen debris therefore erosion should improve status	Invertebrates associated with crevices and fallen debris therefore erosion should improve status	(As A)	(As A)	Invertebrates associated with crevices and fallen debris therefore erosion should improve status	Invertebrates associated with crevices and fallen debris therefore erosion should improve status	(As A)	(As A)
	<ul style="list-style-type: none"> Potential loss of CWS cliff and cliff top habitats 	Maintain the existing habitats	Possible loss of cliff top habitats due to coastal squeeze	Possible loss of cliff top habitats due to coastal squeeze	Possible loss of cliff top habitats due to coastal squeeze	Possible loss of cliff top habitats due to coastal squeeze	(As A)	(As A)	Possible loss of cliff top habitats due to coastal squeeze	Possible loss of cliff top habitats due to coastal squeeze	(As A)	(As A)
Beach and Foreshore	<ul style="list-style-type: none"> Potential deterioration in condition and appearance of the beach Potential health and safety hazard caused by deteriorating defences at foot of cliffs Dredging of offshore banks for aggregate – concern about potential impact on beach levels (<i>Non-policy issue</i>) 	Maintain a beach suitable for recreation purposes	Beach present	Beach present	Beach present (but limited access)	Beach present (but limited access)	(As A)	(As A)	Beach present (but limited access)	Beach present (but limited access)	(As A)	(As A)
Access to beach	<ul style="list-style-type: none"> Potential loss of access to beach 	Maintain access to beach	Beach access at Vale Rd will remain but works may be required	Beach access at Vale Rd will remain but works may be required	Access lost	Access lost	(As A)	(As A)	No access	No access	(As A)	(As A)
Cliff-top caravan park at Vale Road and Mundesley Cliffs North	<ul style="list-style-type: none"> Loss of cliff-top caravan parks sited on eroding cliffs Loss of considerable investment on part of local businesses 	Prevent loss of tourist accommodation to erosion	Some loss of caravan parks	Some loss of caravan parks	Total loss of caravan parks	Total loss of caravan parks	(As A)	(As A)	(Lost in 20-50)	(Lost in 20-50)	(As A)	(As A)
AONB	<ul style="list-style-type: none"> The way in which the coastline is managed may have an adverse effect on the landscape which contributes to this status 	Maintain landscape quality	Landscape maintained through natural cliff erosion	Landscape maintained through natural cliff erosion	Landscape maintained through natural cliff erosion	Landscape maintained through natural cliff erosion	(As A)	(As A)	Landscape maintained through natural cliff erosion	Landscape maintained through natural cliff erosion	(As A)	(As A)

Mundesley

			0 – 20 (up to 2025)		20 – 50 (up to 2055)				50 – 100 (up to 2105)			
			NAI	A, B, C	NAI	A	B	C	NAI	A	B	C
Feature	Issues associated with Feature	Objective	<i>Defences will mostly remain effective until the end of the period.</i>	<i>Seawall and groynes maintained.</i>	<i>The seawall will fail at the start of this period.</i>	<i>Seawall (and groynes until redundant) maintained.</i>	<i>Timber revetment, seawall and groynes allowed to fail</i>	<i>Seawall (and groynes until redundant) maintained and extended to south (c. 200m).</i>	<i>No defences.</i>	<i>Seawall allowed to fail.</i>	<i>No defences.</i>	<i>Seawall maintained.</i>
Residential properties	<ul style="list-style-type: none"> Potential loss of housing through erosion Devaluation of neighbouring property Anxiety and stress to owners and occupiers facing loss 	Prevent loss of residential properties to erosion	No loss along main frontage, but loss of houses to north	No loss	Loss of housing	No loss	Loss of housing	No loss	Loss of housing	Loss of housing	Loss of housing	No loss
Commercial properties	<ul style="list-style-type: none"> Potential loss of businesses through erosion 	Prevent loss of commercial properties to erosion	No loss along main frontage, but loss of to north	No loss	Loss of commercial properties	No loss	Loss of commercial properties	No loss	Loss of commercial properties	Loss of commercial properties	Loss of commercial properties	No loss
Heritage Sites	<ul style="list-style-type: none"> Potential loss of important monument sites and Grade II listed buildings 	Prevent loss of heritage sites to erosion	No loss	No loss	All Saint's Church and an important monument site lost	No loss	All Saint's Church and an important monument site lost	No loss	Loss of Brick Kiln Grade II building and important monument site	Loss of heritage sites	Loss of Brick Kiln Grade II building and important monument site	Loss of Brick Kiln Grade II site
Community facilities	<ul style="list-style-type: none"> Potential loss of community facilities, including Mundesley library and Maritime Museum, through erosion 	Prevent loss of community facilities to erosion	Loss of library, but Maritime Museum will remain	No loss	Loss of Museum and other seafront facilities	No loss	Loss of library and museum	No loss	Loss of other facilities	Some loss of community facilities	Loss of other facilities	No loss
Infrastructure	<ul style="list-style-type: none"> Potential loss of or damage to services and amenities through erosion. Of particular concern are the AW outfall Need to maintain access to outfall screens for Mundesley Beck 	Maintain services to properties, outfall headworks and access to outfall screens	Services lost with properties	No loss	Services lost with properties	No loss	Services lost with properties	No loss	Services lost with properties	Services lost with properties	Services lost with properties	No loss
B1159 at Mundesley	<ul style="list-style-type: none"> Potential loss of the road, which is the main thoroughfare in the town and forms the main coast road linking villages between Cromer and Caister 	Maintain communication link within Mundesley	No loss	No loss	Loss of section of road in town centre	No loss	Loss of road	No loss	Further loss of road	Loss of main links	Loss of main links	No loss

	<ul style="list-style-type: none"> Loss of the cliff top section of road would require significant diversions around the town 	Maintain major communication link between Mundesley and adjacent towns and villages	No loss	No loss	Loss of section of road in town centre	No loss	Loss of road	No loss	Further road loss	Loss of main links	Loss of main links	No loss
Mundesley IRB station	<ul style="list-style-type: none"> Potential impact on launching of the lifeboat 	Maintain effective launching site for lifeboat	Lifeboat station will remain	Lifeboat station will remain	Lifeboat station lost	Lifeboat station will remain, but increased risk of overtopping	Loss of Lifeboat Station	No loss, but possible issue due to narrowing beaches	(Lifeboat station lost 20-50)	Lifeboat station will remain but possible issue with launching due to drop in beach levels	(Lifeboat station lost 20-50)	No loss, but possible issue due to narrowing beaches
Beach and foreshore	<ul style="list-style-type: none"> The way in which the coastline is managed may have an adverse effect on the condition and appearance of the Blue Flag beach Dredging of off-shore banks for aggregate – concern about potential impact on beach levels (<i>Non-policy issue</i>) 	Maintain a beach suitable for recreation purposes	Narrower beach	Narrower beach	Beach in retreated position	No beach	Beach could be present in retreated position	No beach by end of period	Beach in retreated position	Beach in retreated position	Beach in retreated position	No beach

Mundesley to Bacton

			0 – 20 (up to 2025)		20 – 50 (up to 2055)				50 – 100 (up to 2105)			
			NAI	A, B, C	NAI	A	B	C	NAI	A	B	C
Feature	Issues associated with Feature	Objective	<i>Both the groynes and timber revetment will fail during this period.</i>	<i>Timber revetment and groynes allowed to fail.</i>	<i>No defences.</i>	<i>No defences.</i>	<i>(As A)</i>	<i>(As A)</i>	<i>No defences.</i>	<i>No defences.</i>	<i>(As A)</i>	<i>(As A)</i>
Mundesley Holiday Camp and Hillside Chalet Park	<ul style="list-style-type: none"> Potential loss of tourist accommodation due to erosion Loss of considerable investment on part of local businesses 	Prevent loss of tourist accommodation to erosion	No loss of Hillside Chalet Camp, but partial loss of Mundesley Holiday Camp	No loss of Hillside Chalet Camp, but partial loss of Mundesley Holiday Camp	Camps close to cliff edge	Camps close to cliff edge	(As A)	(As A)	Camps lost	Camps lost	(As A)	(As A)
Heritage sites	<ul style="list-style-type: none"> Potential loss of Saxon Cemetery 	Prevent loss of heritage site to erosion	No loss	No loss	Loss of heritage site	Loss of heritage site	(As A)	(As A)	Heritage site lost in 20-50.	Heritage site lost in 20-50.	(As A)	(As A)
Agricultural land	<ul style="list-style-type: none"> Potential loss of Grade 1 agricultural land through erosion 	Prevent loss of farmland to erosion	Loss of farmland	Loss of farmland	Further loss of farmland	Further loss of farmland	(As A)	(As A)	Further loss of farmland	Further loss of farmland	(As A)	(As A)
Cliffs	<ul style="list-style-type: none"> Continual erosion of SSSI designated cliffs to sustain habitats and exposures 	Retain clean exposure of cliff face to maintain the geological and biological study value of the site	Continued erosion will enhance geological exposure and habitats	Continued erosion will enhance geological exposure and habitats	Continued erosion will enhance geological exposure and habitats	Continued erosion will enhance geological exposure and habitats	(As A)	(As A)	Continued erosion will enhance geological exposure and habitats	Continued erosion will enhance geological exposure and habitats	(As A)	(As A)
Beach and Foreshore	<ul style="list-style-type: none"> Potential deterioration in condition and appearance of the beach Dredging of off-shore banks for aggregate – concern about potential impact on beach levels (<i>Non-policy issue</i>) 	Maintain a beach suitable for recreation purposes	Beach similar to today	Beach similar to today	Beach similar to today	Beach similar to today	(As A)	(As A)	Beach present but possible access problems	Beach present but possible access problems	(As A)	(As A)
Paston Way footpath	<ul style="list-style-type: none"> Potential loss of footpath 	Maintain footpath throughout frontage	Loss of Paston way footpath but could be relocated	Loss of Paston way footpath but could be relocated	Loss of Paston way footpath but could be relocated	Loss of Paston way footpath but could be relocated	(As A)	(As A)	Loss of Paston way footpath but could be relocated	Loss of Paston way footpath but could be relocated	(As A)	(As A)
AONB	<ul style="list-style-type: none"> The way in which the coastline is managed may have an adverse effect on the landscape which contributes to this status 	Maintain landscape quality	Landscape maintained through natural cliff erosion	Landscape maintained through natural cliff erosion	Landscape maintained through natural cliff erosion	Landscape maintained through natural cliff erosion	(As A)	(As A)	Landscape maintained through natural cliff erosion	Landscape maintained through natural cliff erosion	(As A)	(As A)

Bacton Gas Terminal

			0 – 20 (up to 2025)		20 – 50 (up to 2055)				50 – 100 (up to 2105)			
			NAI	A, B, C	NAI	A	B	C	NAI	A	B	C
Feature	Issues associated with Feature	Objective	<i>Both the groynes and timber revetment will fail during this period.</i>	<i>Timber revetment replaced by seawall and groynes maintained.</i>	<i>No defences.</i>	<i>Seawall and timber groynes maintained.</i>	<i>Seawall and timber groynes allowed to fail.</i>	<i>(As A)</i>	<i>No defences.</i>	<i>Measures to reduce erosion rate.</i>	<i>No defences.</i>	<i>Seawall maintained.</i>
Gas Terminal	<ul style="list-style-type: none"> Potential risk of loss or damage to the site and its plant through erosion 	Prevent loss of Gas Terminal	Loss of seaward edge of terminal site	Loss of land but facility will remain	Further loss of terminal site	No loss of terminal but possible issues due to drop in beach volume	Loss of most seaward buildings	No loss	Further loss of terminal site	Loss of seaward edge of terminal site	Further loss of seaward buildings	No loss
		Prevent loss of employment	Loss of seaward edge of terminal site	Loss of land but facility will remain	Further loss of terminal site	No loss of terminal but possible issues due to drop in beach volume	Loss of most seaward buildings	No loss	Further loss of terminal site	Loss of seaward edge of terminal site	Further loss of seaward buildings	No loss
Cliffs	<ul style="list-style-type: none"> Continual erosion of SSSI designated cliffs to sustain habitats and exposures 	Retain clean exposure of cliff face to maintain the geological and biological study value of the site	Cliff erosion will enhance geological exposure and habitats	Cliff line held therefore poor exposure of geology	Cliff erosion will enhance geological exposure and habitats	Cliff line held therefore poor exposure of geology	Cliff erosion will enhance geological exposure and habitats	Cliff line held therefore poor exposure of geology	Cliff erosion will enhance geological exposure and habitats	Cliff erosion will enhance geological exposure and habitats	Cliff erosion will enhance geological exposure and habitats	Cliff line held therefore poor exposure of geology

Bacton and Walcott

			0 – 20 (up to 2025)		20 – 50 (up to 2055)				50 – 100 (up to 2105)			
			NAI	A, B, C	NAI	A	B	C	NAI	A	B	C
Feature	Issues associated with Feature	Objective	<i>The timber groynes will fail at the start of this period. The seawall along southern section will fail towards the end of the period.</i>	<i>Seawall and timber groynes maintained.</i>	<i>No defences.</i>	<i>Seawall and timber groynes allowed to deteriorate and fail.</i>	<i>(As A)</i>	<i>Seawall (and groynes until redundant) maintained to prevent any erosion.</i>	<i>No defences.</i>	<i>No defences.</i>	<i>(As A)</i>	<i>Seawall maintained.</i>
Residential properties	<ul style="list-style-type: none"> Potential damage to or loss of housing through flooding Anxiety and stress to owners and occupiers facing loss Standard of flood protection may inhibit further development 	Prevent damage to/loss of residential properties due to flooding	Properties lost at northern end of frontage	No loss	Further properties lost	Seafront properties lost	(As A)	No loss	Further properties lost	Further seafront properties lost	(As A)	No loss
Commercial properties	<ul style="list-style-type: none"> Risk of flooding to businesses along the coast road 	Prevent damage to/loss of commercial properties due to flooding	Seafront properties lost	No loss	Seafront properties lost	Properties lost	(As A)	No loss	Further seafront properties lost	Further seafront properties lost	(As A)	No loss
Cliff-top caravan parks at Bacton	<ul style="list-style-type: none"> Potential loss of cliff-top caravan parks due to erosion Loss of considerable investment on part of local businesses 	Prevent loss of tourist accommodation to erosion	Some loss of land	No loss of caravan parks	Loss of most of caravan parks	Some loss of land	(As A)	No loss	Further loss of caravan parks	Loss of most of caravan parks	(As A)	No loss
Infrastructure	<ul style="list-style-type: none"> Potential loss of or damage to services through flooding 	Maintain services to properties	Loss of services and access roads	No change from present	Loss of services and access roads	Loss of services and access roads	(As A)	No loss	Further loss of services and access roads	Further loss of services and access roads	(As A)	No loss
B 1159 at Walcott	<ul style="list-style-type: none"> Potential damage to or loss of road through erosion. 	Maintain access to Bacton Gas Terminal	Road lost at Walcott but alternative emergency route possible	No loss	Road lost at Walcott but alternative emergency route possible	Loss of access roads and high risk at Bacton (but possibility of re-routing road)	(As A)	No loss	Road lost at Walcott but alternative emergency route possible	Road lost at Walcott but alternative emergency route possible	(As A)	No loss
	<ul style="list-style-type: none"> Flooding of road through overtopping and spray 	Maintain communication links to adjacent towns and villages	Local roads lost and road between Bacton and Walcott	No loss	(Local roads lost 0-20)	Loss of access roads and high risk at Bacton (but possibility of re-routing road)	(As A)	No loss	(Local roads lost 0-20)	Road lost at Walcott	(As A)	No loss

Access to beach	<ul style="list-style-type: none"> Potential loss of access to beach 	Maintain access to beach	Access lost when sea wall fails but possibility for relocation	No loss	Access lost when sea wall fails but possibility for relocation	Access lost when sea wall fails but possibility for relocation	(As A)	No loss	Access lost when sea wall fails but possibility for relocation	Access lost but possibility for relocation	(As A)	No loss
Beach and foreshore	<ul style="list-style-type: none"> Potential deterioration in condition and appearance of the beach Dredging of offshore banks for aggregate – concern about potential impact on beach levels (<i>Non-policy issue</i>) 	Maintain a beach suitable for recreation purposes	Beach similar to present	Beach similar to present	Beach similar to present	Narrower beach	(As A)	Narrow beach	Beach similar to present	Beach similar to present	(As A)	No beach

Walcott to Happisburgh

			0 – 20 (up to 2025)		20 – 50 (up to 2055)				50 – 100 (up to 2105)			
			NAI	A, B, C	NAI	A	B	C	NAI	A	B	C
Feature	Issues associated with Feature	Objective	<i>Timber revetment and groynes will fail.</i>	<i>Timber revetment and groynes allowed to fail.</i>	<i>No defences.</i>	<i>No defences.</i>	<i>(As A)</i>	<i>(As A)</i>	<i>No defences.</i>	<i>No defences.</i>	<i>(As A)</i>	<i>(As A)</i>
Holiday and residential properties at Ostend	<ul style="list-style-type: none"> Potential loss of cliff-top properties due to erosion Loss of considerable investment on part of local businesses 	Prevent loss of tourist accommodation to erosion	Loss of some seaward properties	Loss of some seaward properties	Further loss of properties	Further loss of properties	(As A)	(As A)	Further loss of properties	Further loss of properties	(As A)	(As A)
Agricultural land	<ul style="list-style-type: none"> Potential loss of Grade 1 land through erosion 	Prevent loss of farmland to erosion	Loss of farmland	Loss of farmland	Further loss of farmland	Further loss of farmland	(As A)	(As A)	Further loss of farmland	Further loss of farmland	(As A)	(As A)
Beach and foreshore	<ul style="list-style-type: none"> Potential health and safety hazard caused by deteriorating defences at foot of cliffs Dredging of off-shore banks for aggregate – concern about potential impact on beach levels (<i>Non-policy issue</i>) Potential deterioration in condition and appearance of the beach 	Maintain a beach suitable for recreation purposes	Small beach present in retreated position	Small beach present in retreated position	Beach in retreated position	Beach in retreated position	(As A)	(As A)	Beach in retreated position (but access of possible issue)	Beach in retreated position (but access of possible issue)	(As A)	(As A)
Access to the beach	<ul style="list-style-type: none"> Loss of access to the beach at Ostend 	Maintain access to beach	Initially access, but lost with seawall	Initially access, but lost with seawall	No access	No access	(As A)	(As A)	No access	No access	(As A)	(As A)

Happisburgh

			0 – 20 (up to 2025)		20 – 50 (up to 2055)				50 – 100 (up to 2105)			
			NAI	A, B, C	NAI	A	B	C	NAI	A	B	C
Feature	Issues associated with Feature	Objective	<i>Defences will fail within next 5-10 years.</i>	<i>Rock 'bund' retained but not enhanced.</i>	<i>No defences.</i>	<i>Rock 'bund' allowed to deteriorate.</i>	<i>(As A)</i>	<i>(As A)</i>	<i>No defences.</i>	<i>No defences.</i>	<i>(As A)</i>	<i>(As A)</i>
Residential properties	<ul style="list-style-type: none"> Continued loss of housing through erosion Devaluation of neighbouring property Anxiety and stress to owners and occupiers facing loss Sustainability of the village community reduces with each property loss Difficulty in justification of scheme to protect properties. 	Prevent loss of residential properties to erosion	Loss of some seafront houses along Beach Road	Loss of some seafront houses along Beach Road	Further loss of seafront houses along Beach Road	Further loss of seafront houses along Beach Road	(As A)	(As A)	Further loss of seafront houses along Beach Road	Further loss of seafront houses along Beach Road	(As A)	(As A)
Cliff-top caravan park at Happisburgh	<ul style="list-style-type: none"> Loss of cliff-top caravan parks sited on eroding cliffs Loss of considerable investment on part of local businesses 	Prevent loss of tourist accommodation to erosion	Loss of caravan park	Loss of caravan park	(Park lost in 0-20)	(Park lost in 0-20)	(As A)	(As A)	(Park lost in 0-20)	(Park lost in 0-20)	(As A)	(As A)
Listed buildings	<ul style="list-style-type: none"> Potential threat to grade I St Mary's Church and the Grade II Manor House and Hill House Hotel 	Prevent loss of heritage sites to erosion	No loss to building but loss of seafront land	No loss to building but loss of seafront land	Buildings at high risk of erosion	Buildings at high risk of erosion	(As A)	(As A)	Loss of buildings	Loss of buildings	(As A)	(As A)
Cliffs	<ul style="list-style-type: none"> Continual erosion of SSSI designated cliffs necessary to maintain a clear face for geological study 	Continued erosion of cliffs to maintain exposures	Continued erosion will allow exposure of geology	Continued erosion will allow exposure of geology	Continued erosion will allow exposure of geology	Continued erosion will allow exposure of geology	(As A)	(As A)	Continued erosion will allow exposure of geology	Continued erosion will allow exposure of geology	(As A)	(As A)
	<ul style="list-style-type: none"> Erosion of cliffs may lead to outflanking of flood defences to the south 	(Not policy)	-	-	-	-			-	-		
Access to beach	<ul style="list-style-type: none"> Re-establishment of access to beach following its collapse in early 2003 	Maintain access to the beach	Access likely to be difficult	Access likely to be difficult	No access	No access	(As A)	(As A)	No access	No access	(As A)	(As A)
HM Coastguard Rescue facility	<ul style="list-style-type: none"> Potential loss of building through erosion 	Maintain facility.	Loss of building and no access	Loss of building and no access	Loss of building	Loss of building	(As A)	(As A)	Loss of building	Loss of building	(As A)	(As A)

Lifeboat access	<ul style="list-style-type: none"> ▪ Ramp at Happisburgh now derelict forcing RNLI crew to launch at Cart Gap 	Create and maintain a launching facility in the vicinity that meets the needs of the lifeboat crew	No lifeboat access	No lifeboat access	No access	No access	(As A)	(As A)	No access	No access	(As A)	(As A)
Beach and foreshore	<ul style="list-style-type: none"> ▪ Potential health and safety hazard caused by deteriorating defences at foot of cliffs ▪ Dredging of off-shore banks for aggregate – concern about potential impact on beach levels (<i>Non-policy issue</i>) ▪ Potential deterioration in condition and appearance of the beach 	Maintain a beach suitable for recreation purposes	Narrow beach	Narrow beach	Beach, but access issues	Beach, but access issues	(As A)	(As A)	Beach, but access issues	Beach, but access issues	(As A)	(As A)

Happisburgh to Cart Gap (start of seawall)

			0 – 20 (up to 2025)		20 – 50 (up to 2055)				50 – 100 (up to 2105)			
			NAI	A, B, C	NAI	A	B	C	NAI	A	B	C
Feature	Issues associated with Feature	Objective	<i>No defences.</i>	No defences.	<i>No defences.</i>	No defences.	(As A)	(As A)	<i>No defences.</i>	No defences.	(As A)	(As A)
Agricultural land	<ul style="list-style-type: none"> Potential loss of Grade 1 land through erosion 	Prevent loss of farmland to erosion	The seawall and groynes will remain effective along most the frontage.	Loss of farmland	Loss of farmland	Loss of farmland	(As A)	(As A)	Loss of farmland	Loss of farmland	(As A)	(As A)

Cart Gap to Winterton Dunes

			0 – 20 (up to 2025)		20 – 50 (up to 2055)				50 – 100 (up to 2105)			
			NAI	A, B, C	NAI	A	B	C	NAI	A	B	C
Feature	Issues associated with Feature	Objective	<i>The seawall, reefs and groynes will remain effective.</i>	<i>Offshore breakwaters and seawall maintained, groynes replaced and continued beach recharge.</i>	<i>Along Sea Palling, reefs and seawall will remain, but to south seawall and groynes will fail at start of the period.</i>	<i>Offshore reefs maintained, seawall maintained throughout frontage, groynes replaced and continued beach recharge.</i>	<i>Retired defence line constructed (3 possible location options to be considered), and reefs, seawall and groynes allowed to deteriorate/ fail.</i>	<i>Seawall maintained to prevent flooding.</i>	<i>No defence to south but reefs will probably remain.</i>	<i>Retired defence line constructed (3 possible location options to be considered), and reefs, seawall and groynes allowed to deteriorate/ fail.</i>	<i>Retired defence line (3 possible location options to be considered).</i>	<i>Seawall maintained to prevent flooding.</i>
The Bush Estate, Eccles	<ul style="list-style-type: none"> Potential damage/ loss of housing– concern of outflanking of concrete defences Anxiety and stress to owners and occupiers facing loss Loss of local unadopted road system EA embargo on any further development of the Bush Estate 	Prevent loss of/damage to properties due to flooding	No loss	No loss	No loss	No loss	Loss (or partial loss) under 3 scenarios	No loss	Loss of Bush Estate	Loss (or partial loss) under 3 scenarios	Loss (or partial loss) under 3 scenarios	No loss
Car parks at Cart Gap	<ul style="list-style-type: none"> Loss of or damage to car park as a result of erosion or flooding 	Maintain car parking facilities	No loss	No loss	No loss	No loss	Loss under 3 scenarios	No loss	Loss	Loss under 3 scenarios	Loss under 3 scenarios	No loss
Car parks at Sea Palling and Horsey Gap.	<ul style="list-style-type: none"> Loss of or damage to car parks as a result of erosion or flooding 	Maintain car parking facilities	No loss	No loss	No loss	No loss	Loss	No loss	Loss	Loss	Loss	No loss
Marram Hills CWS and Waxham Sands Holiday Park CWS	<ul style="list-style-type: none"> Potential loss of or damage to habitats 	Maintain the existing habitats	No loss of dunes behind the seawall and reefs will help maintain a beach in front	No loss of dunes behind the seawall and reefs, together with recharge will help maintain a beach and embryo dunes in front	No loss of dunes along the Sea Palling stretch, but risk of breach of dunes to south, once seawall fails	No loss of dunes behind the seawall and reefs, together with recharge will help maintain a beach and embryo dunes in front	Potential recreation of beach-dune system in retreated position, but net loss of dune volume expected	No loss of dunes behind the seawall but, without recharge, beach would narrow and unlikely to sustain dune in front of seawall.	Potential recreation of beach-dune system in retreated position, but net loss of dune volume expected	Potential recreation of beach-dune system in retreated position, but net loss of dune volume expected	Potential recreation of beach-dune system in retreated position	No loss of dunes behind the seawall but, without recharge, it would be difficult to hold a beach in front of the seawall.
Access to the beach	<ul style="list-style-type: none"> Potential loss of access through erosion or management measures 	Maintain access to beach	No change to access	No change to access	No change to access	No change to access	Present access lost, but possible relocation	No loss	Present access lost, but possible relocation	Present access lost, but possible relocation	Present access lost, but possible relocation	No loss

	<ul style="list-style-type: none">▪ Informal accesses through dune system reduce their effectiveness											
Residential properties at Sea Palling	<ul style="list-style-type: none">▪ Potential loss/damage to housing through flooding▪ Loss of community through inundation if existing defences are allowed to deteriorate▪ Anxiety and stress to owners and occupiers facing loss▪ Standard of flood protection may inhibit further development	Prevent damage to/loss of residential properties due to flooding	No loss	No loss	No loss	No loss	Lost under retired lines 2 and 3 (*possibly retained under retired line 1)	No loss	Loos/damage to housing through flooding	Lost under retired lines 2 and 3 (*possibly retained under retired line 1)	Lost under retired lines 2 and 3 (*possibly retained under retired line 1)	No loss
Commercial properties at Sea Palling	<ul style="list-style-type: none">▪ Potential damage to or loss of businesses through flooding	Prevent damage to/loss of commercial properties due to flooding	No loss	No loss	No loss	No loss	Lost under retired lines 2 and 3 (*possibly retained under retired line 1)	No loss	Loss/damage to properties through uncontrolled flooding	Lost under retired lines 2 and 3 (*possibly retained under retired line 1)	Lost under retired lines 2 and 3 (*possibly retained under retired line 1)	No loss
Infrastructure at Sea Palling	<ul style="list-style-type: none">▪ Potential for damage to or loss of services and amenities through flooding	Maintain services to properties	No loss	No loss	No loss	No loss	Lost under retired lines 2 and 3 (*possibly retained under retired line 1)	No loss	Loss/damage to services through uncontrolled flooding	Lost under retired lines 2 and 3 (*possibly retained under retired line 1)	Lost under retired lines 2 and 3 (*possibly retained under retired line 1)	No loss
Sea Palling IRB station	<ul style="list-style-type: none">▪ Potential impact on launching of the lifeboat	Maintain effective launching site for lifeboat	No loss	No loss	No loss	No loss	Loss under 3 scenarios	No loss	Unlikely to be maintained in current position	Loss under 3 scenarios	(Lost under 3 scenarios 20-50)	No loss
Beach and Foreshore	<ul style="list-style-type: none">▪ Dredging of off-shore banks for aggregate – concern about potential impact on beach levels (<i>Non-policy issue</i>)▪ Potential deterioration in condition and appearance of the beach▪ Potential loss of Blue Flag award	Maintain a beach suitable for recreation purposes	Narrowing beach	Beach present (With recharge)	Narrowing beach	Beach present (With recharge)	Loss under 3 scenarios – potential for beach in a retreated position, but different form	Without recharge beach would narrow	Beach likely in some form, but different from today	Loss under 3 scenarios – potential for beach in a retreated position, but different form to today	Potential for beach in a retreated position, but different form	More difficult to hold beach
Residential properties at Waxham	<ul style="list-style-type: none">▪ Potential damage/ loss of housing through flooding▪ Anxiety and stress to owners and occupiers facing loss▪ Loss of community	Prevent damage to/loss of residential properties due to flooding	No loss	No loss	High risk of damage to/ loss of properties due to uncontrolled flooding	No loss	Loss under 3 scenarios	No loss	Damage to/ loss of properties due to flooding	Loss under 3 scenarios	(Lost under 3 scenarios 20-50)	No loss

	<ul style="list-style-type: none"> Standard of flood protection may inhibit further development 											
Community facilities at Waxham	<ul style="list-style-type: none"> Potential loss of Waxham church through erosion 	Prevent loss of church to erosion	No loss	No loss	Damage to/ loss of properties due to flooding	No loss	Loss under 3 scenarios	No loss	Damage to/ loss of properties due to flooding	Loss under 3 scenarios	(Lost under 3 scenarios 20-50)	No loss
Waxham Barn	<ul style="list-style-type: none"> Potential risk to Grade 1 listed building 	Prevent damage to/loss of Waxham Barn due to flooding	No loss	No loss	Damage to/ loss of property due to flooding	No loss	Loss under 3 scenarios	No loss	Damage to/ loss of property due to flooding	Loss under 3 scenarios	(Lost under 3 scenarios 20-50)	No loss
Winterton Dunes and Ness	<ul style="list-style-type: none"> Potential loss of dune and coastal habitats due to coastal squeeze (candidate SAC site) Site is a SSSI geomorphological site and as such is dependent on coastal processes continuing. The integrity of the ness is dependent on a continuing flow of sediment from the north 	Maintain the existing habitats	Potential reduction in dune area both due to natural ness fluctuations and reduced sediment feed	Potential loss of dune area due to ness fluctuation, but sediment supply via recharge	Dune erosion likely due to breaching to north	Potential loss of dune area due to ness fluctuation, but sediment supply via recharge to the north at Sea Palling	High risk of breach and erosion along the narrowest sections once seawall is removed, but may allow roll back of dunes	The short stretch of seawall will prevent dune rollback but at the end of the wall there may be scour and risk of breach in the case of a storm	Dune erosion likely due to breaching to north	High risk of breach and erosion	High risk of breach and erosion	The short stretch of seawall will prevent dune rollback but at the end of the wall there may be scour and risk of breach in the case of a storm. Without recharge to the north there would be a limited input to the dune system and therefore erosion is a high risk.
	<ul style="list-style-type: none"> Loss of County Wildlife Site and NNR Loss of unique landscape Interpretation of coastal processes assumed in preparing the CHaMP for Winterton Ness 	Maintain natural geomorphological processes	Natural processes allowed to take place	Natural processes allowed to take place	Natural processes allowed to take place	Natural processes allowed to take place	Natural processes allowed to take place	The short stretch of seawall will restrict the natural response of the dunes and the system as a whole will not be a naturally functioning one	(see Happisburgh to Winterton Dunes)	Natural processes allowed to take place	Natural processes allowed to take place	The short stretch of seawall will restrict the natural response of the dunes and the system as a whole will not be a naturally functioning one
AONB	<ul style="list-style-type: none"> The way in which the coastline is managed may have an adverse effect on the landscape which contributes to this status 	Maintain landscape quality	No change from present condition	No change from present condition	Uncontrolled flooding may be detrimental to landscape	No change from present condition	Once retired line option constructed a more naturally functioning coast will develop	No change from present condition	Uncontrolled flooding may be detrimental to landscape	Once retired line option constructed a more naturally functioning coast will develop	More naturally functioning coast	No change from present condition, but narrowing beach and possible need for increased defences

Happisburgh to Winterton Broadlands

			0 – 20 (up to 2025)		20 – 50 (up to 2055)				50 – 100 (up to 2105)			
			NAI	A, B, C	NAI	A	B	C	NAI	A	B	C
Feature	Issues associated with Feature	Objective	(see Happisburgh to Winterton Dunes)	(see Happisburgh to Winterton Dunes)	(see Happisburgh to Winterton Dunes)	(see Happisburgh to Winterton Dunes)	(see Happisburgh to Winterton Dunes)	(see Happisburgh to Winterton Dunes)	(see Happisburgh to Winterton Dunes)	(see Happisburgh to Winterton Dunes)	(see Happisburgh to Winterton Dunes)	(see Happisburgh to Winterton Dunes)
Residential properties (including Villages of Hickling, Horsey, Potter Heigham, West Somerton)	<ul style="list-style-type: none"> Potential damage/ loss of housing through flooding Anxiety and stress to owners and occupiers facing loss Standard of flood protection may inhibit further development 	Prevent damage to/loss of residential properties due to flooding	No loss	No loss	High risk of flooding and uncontrolled inundation	No loss	Loss varies under 3 scenarios, but proposed that Hickling, Potter Heigham and West Somerton probably would be protected	No loss	High risk of flooding	Loss varies under 3 scenarios, but proposed that Hickling, Potter Heigham and West Somerton probably would be protected	Loss varies under 3 scenarios, but proposed that Hickling, Potter Heigham and West Somerton probably would be protected	No loss
Commercial properties (including Villages of Hickling, Horsey, Potter Heigham, West Somerton)	<ul style="list-style-type: none"> Potential loss/damage to commercial properties and community facilities due to inundation 	Prevent damage to/loss of commercial properties due to flooding	No loss	No loss	High risk of flooding and uncontrolled inundation	No loss	Loss varies under 3 scenarios, but proposed that Hickling, Potter Heigham and West Somerton probably would be protected	No loss	High risk of flooding	Loss varies under 3 scenarios, but proposed that Hickling, Potter Heigham and West Somerton probably would be protected	Loss varies under 3 scenarios, but proposed that Hickling, Potter Heigham and West Somerton probably would be protected	No loss
Broadland Habitats	<ul style="list-style-type: none"> Potential saltwater penetration of this otherwise freshwater area Loss/damage to nationally important wetland area for recreation and conservation due to wide-scale inundation of this area Changes in coastal processes resulting in biological issues on cSAC Drainage of the land and deep-water seepage are increasing the salinity of run-off into River Thurne 	Maintain the existing habitats	No change from present	No change from present	Total change in habitats –potential for increased biodiversity	No change from present	Total change in habitats –potential for increased biodiversity (varies under 3 scenarios)	No loss	Total change in habitats –potential for increased biodiversity	Total change in habitats –potential for increased biodiversity (varies under 3 scenarios)	Total change in habitats –potential for increased biodiversity (varies under 3 scenarios)	No loss

Agricultural land	<ul style="list-style-type: none"> Potential damage to or ultimate loss of land through flooding 	Prevent damage to/loss of farmland due to flooding	No loss	No loss	High risk of flooding and uncontrolled inundation	No loss	Loss varies under 3 scenarios	No loss	High risk of flooding	Loss varies under 3 scenarios	Loss varies under 3 scenarios	No loss
Tourist related property and facilities	<ul style="list-style-type: none"> Unrestricted flooding of the Broads area would lead to a decimation of the tourism economy of the area with loss of pubs, restaurants, boatyards 	Prevent damage to/ loss of tourist facilities due to flooding	No loss	No loss	High risk of flooding and uncontrolled inundation	No loss	Loss varies under 3 scenarios, but Hickling, Potter Heigham and West Somerton would be protected	No loss	High risk of flooding	Loss varies under 3 scenarios, but Hickling, Potter Heigham and West Somerton would be protected	Loss varies under 3 scenarios, but Hickling, Potter Heigham and West Somerton would be protected	No loss
Windmills and other historic buildings/ heritage sites	<ul style="list-style-type: none"> Loss/ damage to historic properties/ heritage sites due to inundation including Grade II and II* properties and monuments of high importance 	Prevent damage to/loss of historical buildings/ Heritage sites due to flooding	No loss	No loss	High risk of flooding and uncontrolled inundation	No loss	Loss varies under 3 scenarios	No loss	High risk of flooding	Loss varies under 3 scenarios	Loss varies under 3 scenarios	No loss
Infrastructure	<ul style="list-style-type: none"> Potential loss of or damage to services and roads through erosion 	Maintain services to properties	No loss	No loss	High risk of flooding and uncontrolled inundation	No loss	Loss varies under 3 scenarios, but Hickling, Potter Heigham and West Somerton would be protected	No loss	High risk of flooding	Loss varies under 3 scenarios, but Hickling, Potter Heigham and West Somerton would be protected	Loss varies under 3 scenarios, but Hickling, Potter Heigham and West Somerton would be protected	No loss
B1159 Coast road	<ul style="list-style-type: none"> Potential loss of road through inundation 	Maintain communication link for villages between Happisburgh and Winterton	No loss	No loss	High risk of flooding and uncontrolled inundation	No loss	Loss varies under 3 scenarios	No loss	High risk of flooding	Loss varies under 3 scenarios	Loss varies under 3 scenarios	No loss
AONB	<ul style="list-style-type: none"> The way in which the coastline is managed may have an adverse effect on the landscape which contributes to this status 	Maintain landscape quality	No change from present condition	No change from present condition	Uncontrolled flooding may be detrimental to landscape	No change from present condition	Once retired line option constructed a more naturally functioning coast will develop	No change from present condition	Uncontrolled flooding may be detrimental to landscape	Once retired line option constructed a more naturally functioning coast will develop	More naturally functioning coast	No change from present condition, but narrowing beach and possible need for increased defences

Winterton

			0 – 20 (up to 2025)		20 – 50 (up to 2055)				50 – 100 (up to 2105)			
			NAI	A, B, C	NAI	A	B	C	NAI	A	B	C
Feature	Issues associated with Feature	Objective	No shoreline defences	Seawall not maintained, but possible construction of flood embankment just behind dune belt (in event of seawall breach) and dune management.	No shoreline defences	Flood embankment maintained, (if required) to prevent flooding, and dune management.	Flood defences as part of retired defence line to north.	(As A)	No defences	Flood defences as part of retired defence line to north.	Flood defences as part of retired defence line to north.	Flood embankment maintained (if required) to prevent flooding and dune management.
Residential properties	<ul style="list-style-type: none"> Potential damage to or loss of housing through flooding Concern over reduced protection due to eroding Anxiety and stress to owners and occupiers facing loss Impact on sustainability of the village community Standard of flood protection may inhibit further development Complaints from residents that windblown sand is migrating onto property (<i>Non-policy issue</i>) 	Prevent damage to/loss of residential properties due to flooding	No loss – protection provided by natural dune defence	No loss – protection provided by natural dune defence	No loss – protection provided by natural dune defence	No loss – protection provided by natural dune defence	No loss – protection provided by natural dune defence. Flood protection provided under 3 scenarios	(As A)	No loss – protection provided by natural dune defence	No loss – protection provided by natural dune defence. Flood protection provided under 3 scenarios	Area protected under 3 scenarios	No loss – protection provided by natural dune defence, although dune width may be reduced in front of village.
Recreation and Tourist facilities	<ul style="list-style-type: none"> Potential damage to or loss of shops, cafes, pub and holiday accommodation through flooding 	Prevent loss of or damage to tourist facilities due to flooding	No loss – protection provided by natural dune defence	No loss – protection provided by natural dune defence	No loss – protection provided by natural dune defence	No loss – protection provided by natural dune defence	No loss – protection provided by natural dune defence. Flood protection provided under 3 scenarios	(As A)	No loss – protection provided by natural dune defence	No loss – protection provided by natural dune defence. Flood protection provided under 3 scenarios	No loss – protection provided by natural dune defence. Flood protection provided under 3 scenarios	No loss – protection provided by natural dune defence, although dune width may be reduced in front of village.
CWSs	<ul style="list-style-type: none"> Potential damage if coastal defences breached 	Maintain the existing habitats	No change from present	No change from present	Probably lost	Probably lost	(As A)	(As A)	Lost	Lost	(As A)	(As A)

Community facilities	<ul style="list-style-type: none"> Potential loss of community facilities through erosion 	Prevent loss of community facilities to erosion	No loss – protection provided by natural dune defence	No loss – protection provided by natural dune defence	No loss – protection provided by natural dune defence	No loss – protection provided by natural dune defence	No loss – protection provided by natural dune defence. Flood protection provided under 3 scenarios	(As A)	No loss – protection provided by natural dune defence	No loss – protection provided by natural dune defence. Flood protection provided under 3 scenarios	No loss – protection provided by natural dune defence. Flood protection provided under 3 scenarios	No loss – protection provided by natural dune defence, although dune width may be reduced in front of village.
Coastguard Station	<ul style="list-style-type: none"> Mass movement of the Ness or beach erosion could have an adverse effect on the Station 	Removed Winter 2003/4	-	-	-	-	-	-	-	-	-	-
Infrastructure	<ul style="list-style-type: none"> Potential loss of or damage to services and amenities through erosion Loss of a number of submarine telecommunications cables Loss or damage to local infrastructure 	Maintain services to properties	No loss – protection provided by natural dune defence	No loss – protection provided by natural dune defence	No loss – protection provided by natural dune defence	No loss – protection provided by natural dune defence	No loss – protection provided by natural dune defence. Flood protection provided under 3 scenarios	(As A)	No loss – protection provided by natural dune defence	No loss – protection provided by natural dune defence. Flood protection provided under 3 scenarios	No loss – protection provided by natural dune defence. Flood protection provided under 3 scenarios	No loss – protection provided by natural dune defence, although dune width may be reduced in front of village.
		Prevent loss of /damage to cable landing site	No loss to site, but possible damage to cables due to dune erosion	No loss to site, but possible damage to cables due to dune erosion	No loss to site, but possible damage to cables due to dune erosion	No loss to site, but possible damage to cables due to dune erosion	No loss to site, but possible damage to cables due to dune erosion	No loss to site, but possible damage to cables due to dune erosion	No loss to site, but possible damage to cables due to dune erosion	No loss to site, but possible damage to cables due to dune erosion	No loss to site, but possible damage to cables due to dune erosion	No loss to site, but possible damage to cables due to dune erosion
Beach and foreshore	<ul style="list-style-type: none"> Dredging of off-shore banks for aggregate – concern about potential impact on beach levels (<i>Non-policy issue</i>) Potential deterioration in condition and appearance of the beach 	Maintain a beach suitable for recreation purposes	Beach present	Beach present	Beach present	Beach present	Beach present	(As A)	Beach present	Beach present	Beach present	Beach present
Access to beach	<ul style="list-style-type: none"> Loss of access to beach through erosion, flood damage or management measures 	Maintain access to beach	Access possible	Access possible	Possible loss of access due to dune erosion, but provision of alternative	Possible loss of access due to dune erosion, but provision of alternative	Possible loss of access due to dune erosion, but provision of alternative	Possible loss of access due to dune erosion, but provision of alternative	Possible loss of access due to dune erosion, but provision of alternative	Possible loss of access due to dune erosion, but provision of alternative	Possible loss of access due to dune erosion, but provision of alternative	Possible loss of access due to dune erosion, but provision of alternative

Winterton to Newport

			0 – 20 (up to 2025)		20 – 50 (up to 2055)				50 – 100 (up to 2105)			
			NAI	A, B, C	NAI	A	B	C	NAI	A	B	C
Feature	Issues associated with Feature	Objective	No defences	No defences	No defences	No defences	(As A)	(As A)	No defences	No defences	(As A)	(As A)
Winterton Valley Estate	<ul style="list-style-type: none"> Potential loss of tourist accommodation through erosion 	Prevent loss of tourist accommodation to erosion	No loss – protection provided by natural dune defence	No loss – protection provided by natural dune defence	No loss – protection provided by natural dune defence	No loss – protection provided by natural dune defence	(As A)	(As A)	Low risk of loss – protection provided by natural dune defence	Low risk of loss – protection provided by natural dune defence	(As A)	(As A)
Holiday development at Hemsby	<ul style="list-style-type: none"> Potential erosion of Hemsby Marrams which provides natural protection to the village 	Prevent loss of tourist facilities to erosion	No loss of holiday development	No loss of holiday development	Some loss of seafront developments	Some loss of seafront developments	(As A)	(As A)	Further loss of seafront developments	Further loss of seafront developments	(As A)	(As A)
Hemsby Marrams	<ul style="list-style-type: none"> Potential erosion of dunes and loss of habitat 	Maintain the existing habitats	Erosion of dunes will continue	Erosion of dunes will continue	Possible loss of dunes	Possible loss of dunes	(As A)	(As A)	Loss of dunes and potential reactivation of sand cliffs	Loss of dunes and potential reactivation of sand cliffs	(As A)	(As A)
Beach and foreshore	<ul style="list-style-type: none"> Dredging of off-shore banks for aggregate – concern about potential impact on beach levels (<i>Non-policy issue</i>) Potential deterioration in condition and appearance of the beach 	Maintain a beach suitable for recreation purposes	Beach present	Beach present	Beaches likely to be similar to today	Beaches likely to be similar to today	(As A)	(As A)	Beaches likely to be similar to today	Beaches likely to be similar to today	(As A)	(As A)

Hemsby to California

			0 – 20 (up to 2025)		20 – 50 (up to 2055)				50 – 100 (up to 2105)			
			NAI	A, B, C	NAI	A	B	C	NAI	A	B	C
Feature	Issues associated with Feature	Objective	No defences	No defences	No defences	No defences	(As A)	(As A)	No defences	No defences	(As A)	(As A)
Residential properties	<ul style="list-style-type: none"> Loss of cliff top properties through erosion Devaluation of neighbouring property Anxiety and stress to owners and occupiers facing loss Sustainability of continued protection 	Prevent loss of residential properties to erosion	Houses should not be affected by erosion	Houses should not be affected by erosion	Most seaward houses lost	Most seaward houses lost	(As A)	(As A)	Further houses lost	Further houses lost	(As A)	(As A)
Tourism related property and facilities	<ul style="list-style-type: none"> Potential loss of cliff top amenities and businesses through erosion 	Prevent loss of tourist facilities to erosion	No loss	No loss	Some loss of property	Some loss of property	(As A)	(As A)	Further loss of property	Further loss of property	(As A)	(As A)
Community facilities	<ul style="list-style-type: none"> Potential loss of community facilities through erosion 	Prevent loss of community facilities to erosion	No loss	No loss	Some loss but majority is tourist related facilities	Some loss but majority is tourist related facilities	(As A)	(As A)	Further loss	Further loss	(As A)	(As A)
Infrastructure	<ul style="list-style-type: none"> Potential loss of or damage to services and amenities through erosion 	Maintain services to properties	Losses related to holiday village	Losses related to holiday village	Losses related to holiday village	Losses related to holiday village	(As A)	(As A)	Further losses related to holiday village	Further losses related to holiday village	(As A)	(As A)
		Maintain communication link within Newport	Main linkages not lost, only access roads	Main linkages not lost, only access roads	Some loss of linkage roads	Some loss of linkage roads	(As A)	(As A)	Further loss of linkage roads	Further loss of linkage roads	(As A)	(As A)
Access to beach	<ul style="list-style-type: none"> Potential loss of access to beach 	Maintain access to beach	Access to beach should remain	Access to beach should remain	Access lost, but could be relocated	Access lost, but could be relocated	(As A)	(As A)	Access lost, but could be relocated	Access lost, but could be relocated	(As A)	(As A)

California

			0 – 20 (up to 2025)		20 – 50 (up to 2055)				50 – 100 (up to 2105)			
			NAI	A, B, C	NAI	A	B	C	NAI	A	B	C
Feature	Issues associated with Feature	Objective	<i>Rock berm will remain in place.</i>	<i>Rock bund maintained.</i>	<i>The rock berm will remain for much of this period</i>	<i>Rock bund allowed to deteriorate.</i>	<i>(As A)</i>	<i>(As A)</i>	<i>No defences</i>	<i>Rock bund allowed to deteriorate.</i>	<i>(As A)</i>	<i>(As A)</i>
Residential properties at California	<ul style="list-style-type: none"> Loss of cliff top properties through erosion Devaluation of neighbouring property Anxiety and stress to owners and occupiers facing loss Sustainability of continued protection 	Prevent loss of residential properties to erosion	Risk of loss of most seaward properties	Risk of loss of most seaward properties	Further loss of seafront properties	Further loss of seafront properties	(As A)	(As A)	Further loss of seafront properties	Further loss of seafront properties	(As A)	(As A)
Holiday Developments at California	<ul style="list-style-type: none"> Potential loss of tourist accommodation and supporting infrastructure through erosion 	Prevent loss of tourist accommodation to erosion	Some land lost, but not main sites	Some land lost, but not main sites	Loss of some sites	Loss of some sites	(As A)	(As A)	Further loss of some sites	Further loss of some sites	(As A)	(As A)
Recreational and Tourist facilities	<ul style="list-style-type: none"> Potential loss of cliff top amenities and businesses through erosion 	Prevent loss of tourist facilities to erosion	Facilities should not be affected	Facilities should not be affected	Loss of some sites and facilities	Loss of some sites and facilities	(As A)	(As A)	Loss of some sites and facilities	Loss of some sites and facilities	(As A)	(As A)
County Wildlife Site (CWS)	<ul style="list-style-type: none"> Potential risk of damage through erosion to heath land along cliff top 	Maintain the existing habitats	Minimum loss of CWS site	Minimum loss of CWS site	Some loss of northern end of site, but no loss to south	Some loss of northern end of site, but no loss to south	(As A)	(As A)	Loss of site	Loss of site	(As A)	(As A)
Infrastructure	<ul style="list-style-type: none"> Potential loss of, or damage to, services and amenities through erosion Loss of the promenade which houses a sewage pumping station 	Maintain services to properties	No loss	No loss	Loss of services associated with property loss	Loss of services associated with property loss	(As A)	(As A)	Loss of services associated with property loss	Loss of services associated with property loss	(As A)	(As A)
	<ul style="list-style-type: none"> Potential loss of local link roads 	Maintain communication link between Scratby and California	Loss of section of road between Scratby and California	Loss of section of road between Scratby and California	Loss of road	Loss of road	(As A)	(As A)	Road lost	Road lost	(As A)	(As A)
Beach and foreshore	<ul style="list-style-type: none"> Dredging of off-shore banks for aggregate – concern about the impact on beach levels (<i>Non-policy issue</i>) 	Maintain a beach suitable for recreation purposes	Beach present	Beach present	Beach present	Beach present	(As A)	(As A)	Beach present in retreated position	Beach present in retreated position	(As A)	(As A)

	<ul style="list-style-type: none"> Potential deterioration in condition and appearance of the beach 											
Access to beach at California Gap	<ul style="list-style-type: none"> Loss of access to beach through erosion or management measures 	Maintain access to beach	Access likely to remain	Access maintained	Loss of access, but alternative could be provided	Loss of access, but alternative could be provided	(As A)	(As A)	Loss of access, but alternative could be provided	Loss of access, but alternative could be provided	(As A)	(As A)

Caister North

			0 – 20 (up to 2025)		20 – 50 (up to 2055)				50 – 100 (up to 2105)			
			NAI	A, B, C	NAI	A	B	C	NAI	A	B	C
Feature	Issues associated with Feature	Objective	Seawall, rock reefs and groynes will remain.	Seawall, reefs and groynes maintained.	Seawall will fail by the end of this period, but rock groynes and reefs will remain.	Seawall, reefs and groynes maintained.	Seawall, reefs and groynes allowed to fail.	(As A)	Rock reefs and groynes deteriorate.	Seawall, reefs and groynes allowed to deteriorate.	No defences.	Seawall, reefs and groynes maintained.
Residential properties	<ul style="list-style-type: none"> Loss of properties through erosion Devaluation of neighbouring property Anxiety and stress to owners and occupiers facing loss Sustainability of continued protection 	Prevent loss of residential properties to erosion	No loss	No loss	Loss of properties in North Caister	No loss	Loss of properties in North Caister by the end of the period	No loss	Loss of properties	Loss of properties at northern end of the frontage	Further loss of properties along the northern section	No loss
Community facilities	<ul style="list-style-type: none"> Potential loss of community facilities through erosion 	Prevent loss of community facilities to erosion	No loss	No loss	Loss of some properties but not in main part of town	No loss	Loss of some properties along the seafront but not in main part of town	No loss	Loss of some properties but not in main part of town	Loss of some properties but not in main part of town	Loss of some properties but not in main part of town	No loss
Seafront holiday centres and caravan parks at Caister	<ul style="list-style-type: none"> Potential loss of sites through erosion, including holiday properties in private ownership 	Prevent loss of tourist accommodation to erosion	No loss	No loss	Loss of properties	No loss	Loss of seafront properties	No loss	Loss of seafront properties	Loss of a number of caravan parks	Further loss of seafront properties	No loss
Beach and foreshore	<ul style="list-style-type: none"> Potential deterioration in condition and appearance of the beach Dredging of off-shore banks for aggregate – concern about potential impact on beach levels (<i>Non-policy issue</i>) 	Maintain a beach suitable for recreation purposes	Beach present	Beach present	Beach present	Beach present	Beach present	Beach present	Beach present in retreated position.	Beach present – although initially more narrow once reefs and groynes reduce in trapping-efficiency.	Beach present	Beach present
Access to beach	<ul style="list-style-type: none"> Loss of access to beach through erosion or management measures 	Maintain access to beach	Access will remain	Access will remain	Access lost but provision of alternative	Access will remain	Access lost but provision of alternative	Access will remain	Access lost but provision of alternative	Access will remain – or provision of alternative	Access lost but provision of alternative	Access will remain

Caister and Great Yarmouth North Denes

			0 – 20 (up to 2025)		20 – 50 (up to 2055)				50 – 100 (up to 2105)			
			NAI	A, B, C	NAI	A	B	C	NAI	A	B	C
Feature	Issues associated with Feature	Objective	<i>Seawall will remain.</i>	<i>Set-back concrete wall retained.</i>	<i>Seawall will remain.</i>	<i>Set-back concrete wall retained.</i>	<i>(As A)</i>	<i>(As A)</i>	<i>Seawall reaches end of residual life.</i>	<i>Set-back concrete wall retained but reaches end of residual life. Possible secondary flood defence at 'Gt. Yarmouth and Caister' golf course</i>	<i>Set-back concrete wall allowed to fail to North of CG Station. Possible secondary flood defence at Gt. Yarmouth and Caister golf course.</i>	<i>(As A)</i>
Residential properties	<ul style="list-style-type: none"> Loss of properties through erosion Devaluation of neighbouring property Anxiety and stress to owners and occupiers facing loss Sustainability of continued protection 	Prevent loss of residential properties to erosion	No loss	No loss	No loss	No loss	(As A)	(As A)	Area of uncertainty due to fluctuation of sea level. High risk of breach and erosion should the wall be exposed and fail.	Area of uncertainty due to fluctuation of sea level. High risk of dune erosion should the wall be exposed and fail.	Area of uncertainty due to fluctuation of sea level. Once wall fails there will be some loss of seafront properties along the northern section where dunes are narrowest.	(As A)
Community facilities	<ul style="list-style-type: none"> Potential loss of community facilities through erosion 	Prevent loss of community facilities to erosion	No loss	No loss	No loss	No loss	(As A)	(As A)	Area of uncertainty due to fluctuation of sea level. High risk of breach and erosion should the wall be exposed and fail.	Area of uncertainty due to fluctuation of sea level. High risk of dune erosion should the wall be exposed and fail.	Area of uncertainty due to fluctuation of sea level. Once wall fails there will be some loss of seafront properties along the northern section where	(As A)

Seafront holiday centres and caravan parks at Caister	<ul style="list-style-type: none"> Potential loss of sites through erosion, including holiday properties in private ownership 	Prevent loss of tourist accommodation to erosion	No loss	No loss	No loss	No loss	(As A)	(As A)	Area of uncertainty due to fluctuation of ness feature. High risk of breach and erosion should the wall be exposed and fail.	Area of uncertainty due to fluctuation of ness feature. High risk of dune erosion should the wall be exposed and fail.	Area of uncertainty due to fluctuation of ness feature. Once wall fails there will be loss of seafront caravan parks along the northern section	(As A)
Recreational and tourist facilities	<ul style="list-style-type: none"> Potential loss of amenities and businesses through erosion 	Prevent loss of tourist facilities to erosion	No loss	No loss	No loss	No loss	(As A)	(As A)	Area of uncertainty due to fluctuation of ness feature. High risk of breach and erosion should the wall be exposed and fail.	Area of uncertainty due to fluctuation of ness feature. High risk of dune erosion should the wall be exposed and fail.	Area of uncertainty due to fluctuation of ness feature. Once wall fails there will be loss of seafront facilities along the northern section	(As A)
Caister Point County Wildlife Site	<ul style="list-style-type: none"> Potential risk of damage through erosion to heath land at Caister Point County Wildlife Site along the cliff top 	Maintain the existing habitats	Minimum loss of CWS site	Minimum loss of CWS site	Some loss at northern end of site, but integrity of site maintained	Some loss at northern end of site, but integrity of site maintained	(As A)	(As A)	Loss of CWS site likely	Loss of CWS site likely	Loss of CWS site likely	(As A)
Caister Volunteer Rescue Service	<ul style="list-style-type: none"> Potential impact on launching of the lifeboat 	Maintain effective launching site for lifeboat	Natural fluctuation of dunes, but no loss expected to building or access.	Natural fluctuation of dunes, but no loss expected to building or access.	Natural fluctuation of dunes, but no loss expected to building or access.	Natural fluctuation of dunes, but no loss expected to building or access.	Natural fluctuation of dunes, but no loss expected to building or access.	Natural fluctuation of dunes, but no loss expected to building or access.	Natural fluctuation of dunes, but beach expected to remain healthy.	Natural fluctuation of dunes, but beach expected to remain healthy.	Natural fluctuation of dunes, but beach expected to remain healthy.	Natural fluctuation of dunes, but beach expected to remain healthy.

North Denes SSSI/SPA	<ul style="list-style-type: none"> Integrity of the North Denes SSSI/SPA and impact of any future management regime - high vulnerability to any disturbance by works for coastal defence 	Maintain the existing habitats	Beach present	Beach present	Beach present – no disturbance from defence works	Beach present – no disturbance from defence works	(As A)	(As A)	Beach present, but narrower along northern end.	Beach present, but narrower along northern end. Subject to natural fluctuations, but input of sediment from allowing defences to fail further north. Possible impact of constructing flood defence.	Beach present, but narrower along northern end. Subject to natural fluctuations, but input of sediment from allowing defences to fail further north. Possible impact of constructing flood defence.	(As A)
Beach and foreshore	<ul style="list-style-type: none"> Potential deterioration in condition and appearance of the beach Dredging of off-shore banks for aggregate – concern about potential impact on beach levels (<i>Non-policy issue</i>) Continued accretion of dune system which can not migrate landwards because of development 	Maintain a beach suitable for recreation purposes	Beach present	Beach present	Beach present although narrower	Beach present although narrower	(As A)	(As A)	Beach present along most of frontage, but narrower at northern end	Beach present along most of frontage, but narrower at northern end	Beach present	(As A)
Access to beach	<ul style="list-style-type: none"> Loss of access to beach through erosion or management measures 	Maintain access to beach	No loss	No loss	No loss	No loss	(As A)	(As A)	No loss	No loss	Northern access may need to be relocated	(As A)
Caravan parks at North Denes	<ul style="list-style-type: none"> Loss of caravan parks Loss of investment on part of local businesses 	Prevent loss of tourist accommodation to erosion	No loss	No loss	No loss	No loss	(As A)	(As A)	No loss	No loss	(As A)	(As A)
Great Yarmouth and Caister Golf Club	<ul style="list-style-type: none"> Loss of golf course through erosion 	Prevent loss of golf course to erosion	No loss	No loss	No loss	No loss	(As A)	(As A)	No loss	No loss	(As A)	(As A)
Great Yarmouth Race Course	<ul style="list-style-type: none"> Loss of the race course through erosion 	Prevent loss of race course to erosion	No loss	No loss	No loss	No loss	(As A)	(As A)	No loss	No loss	(As A)	(As A)

Great Yarmouth

			0 – 20 (up to 2025)		20 – 50 (up to 2055)				50 – 100 (up to 2105)			
			NAI	A, B, C	NAI	A	B	C	NAI	A	B	C
Feature	Issues associated with Feature	Objective	Seawall and groynes will remain. Harbour Arm will remain as a port structure.	Seawall, Harbour arm (and groynes until redundant) maintained to prevent erosion.	Seawall and groynes fail towards the start of this period. Harbour Arm will remain as a port structure.	Seawall, Harbour arm (and groynes until redundant) maintained to prevent erosion.	(As A)	(As A)	Harbour Arm will remain as a port structure.	Seawall and Harbour arm maintained to prevent erosion.	(As A)	(As A)
Residential properties	<ul style="list-style-type: none"> Potential loss of or damage to housing through erosion or flooding 	Prevent damage to/loss of residential properties due to flooding	No loss	No loss	Increasing risk of erosion and flooding to seafront properties	No loss	(As A)	(As A)	High risk of erosion and flooding to seafront properties	No loss	(As A)	(As A)
Commercial properties	<ul style="list-style-type: none"> Potential loss of or damage to businesses through erosion 	Prevent damage to/loss of commercial properties due to flooding	No loss	No loss	Increasing risk of erosion and flooding to seafront properties	No loss	(As A)	(As A)	High risk of erosion and flooding to seafront properties	No loss, but increased risk of overtopping	(As A)	(As A)
Heritage sites	<ul style="list-style-type: none"> Potential loss of heritage sites including monuments of high importance and Grade I, II* and II properties 	Prevent loss of heritage sites to erosion	No loss	No loss	Loss of some seafront heritage sites	No loss	(As A)	(As A)	Further loss of seafront heritage sites	No loss	(As A)	(As A)
Industrial units at South Denes	<ul style="list-style-type: none"> Viability of continued use of this part of the frontage Will form an important hinterland to the proposed East Port development 	Protect land to allow for development potential. Once developed, prevent damage/loss of commercial properties due to flooding	No loss	No loss	Risk of erosion and flooding	No loss	(As A)	(As A)	High risk of erosion and flooding	No loss, but increased risk of overtopping	(As A)	(As A)
Existing Port	<ul style="list-style-type: none"> Need to continue to operate Flooding causes operational problems 	Ensure port can continue to operate	No issue with port operation with respect to defences	No issue with port operation with respect to defences	No issue with port operation with respect to defences	No issue with port operation with respect to defences	(As A)	(As A)	No issue with port operation with respect to defences	No issue with port operation with respect to defences	(As A)	(As A)
Recreational and tourist facilities	<ul style="list-style-type: none"> Potential loss of tourist and recreation sites, accommodation and activities 	Prevent loss of tourist facilities to erosion	No loss	No loss	Risk of erosion and flooding to seafront facilities	No loss	(As A)	(As A)	Increased risk of erosion and flooding to seafront facilities	No loss, but increased risk of overtopping for properties on promenade	(As A)	(As A)
Infrastructure	<ul style="list-style-type: none"> Potential loss of or damage to services and amenities through erosion 	Maintain services to properties	No loss	No loss	Risk of erosion and flooding	No loss	(As A)	(As A)	Increased risk of erosion and flooding	No loss	(As A)	(As A)

	<ul style="list-style-type: none"> Potential loss of beach road 	Prevent loss of communication link along the beach frontage	No loss	No loss	Risk of erosion and flooding to beach road	No loss	(As A)	(As A)	Increased risk of erosion and flooding to beach road	No loss	(As A)	(As A)
Beach and foreshore	<ul style="list-style-type: none"> Potential deterioration in condition and appearance of the beach which has a seaside Dredging of off-shore banks for marine aggregate (<i>Non-policy issue</i>) 	Maintain a beach suitable for recreation purposes	Deterioration of dunes and beach loss at southern end	Deterioration of dunes and beach loss at southern end	Further deterioration of dunes and beach loss at southern end	Further deterioration of dunes and beach loss at southern end	(As A)	(As A)	Loss of beach along the southern section and narrowing along the northern section	Loss of beach along the southern section and narrowing along the northern section	(As A)	(As A)
Proposed Great Yarmouth Outer Harbour	<ul style="list-style-type: none"> Potential for economic regeneration of the area and long-term implications of this feature for the area Impact on coastal processes - perceived increased risk of erosion at Gorleston, Hopton and Corton Maintenance dredging implications (<i>Non-policy issue</i>) 	<i>To be considered at policy stage as a sensitivity test</i>										

Gorleston

			0 – 20 (up to 2025)		20 – 50 (up to 2055)				50 – 100 (up to 2105)			
			NAI	A, B, C	NAI	A	B	C	NAI	A	B	C
Feature	Issues associated with Feature	Objective	<i>Seawall will remain, but groynes fail during this period. Harbour Arm will remain as a port structure.</i>	<i>Seawall, Harbour arm and reefs maintained, with recharge, to prevent erosion.</i>	<i>Seawall will fail towards the start of the period. Harbour Arm will remain as a port structure.</i>	<i>Seawall, Harbour arm and reefs maintained to prevent erosion.</i>	<i>(As A)</i>	<i>(As A)</i>	<i>Harbour Arm will remain as a port structure.</i>	<i>Seawall and Harbour arm maintained to prevent erosion. Reefs will remain.</i>	<i>(As A)</i>	<i>(As A)</i>
Port Entrance	<ul style="list-style-type: none"> Need to protect structures 	Maintain an entrance to the port	No issue with port operation with respect to defences	No issue with port operation with respect to defences	No issue with port operation with respect to defences	No issue with port operation with respect to defences	(As A)	(As A)	No issue with port operation with respect to defences	No issue with port operation with respect to defences	(As A)	(As A)
Residential properties	<ul style="list-style-type: none"> Potential loss/damage to housing through flooding Loss of community through inundation if existing defences are allowed to deteriorate Anxiety and stress to owners and occupiers facing loss 	Prevent loss of/damage to properties due to flooding	No loss	No loss	Loss of most seaward properties	No loss	(As A)	(As A)	Further loss of most seaward properties	No loss	(As A)	(As A)
Commercial properties	<ul style="list-style-type: none"> Potential loss of, or damage to, businesses through erosion 	Prevent loss of commercial properties to erosion	No loss	No loss	No loss to main town, but potential loss of properties near pier	No loss	(As A)	(As A)	No loss to main town, but further loss of properties near pier	No loss	(As A)	(As A)
Gorleston Pavilion and other heritage sites	<ul style="list-style-type: none"> Potential loss of, or damage to, heritage sites, including Grade II Pavilion and Gorleston Old Lighthouse, due to erosion 	Prevent loss of heritage sites to erosion	No loss	No loss	No loss	No loss	(As A)	(As A)	Loss of Pavilion	No loss	(As A)	(As A)
Community facilities	<ul style="list-style-type: none"> Potential loss of community facilities through erosion 	Prevent loss of community facilities to erosion	No loss	No loss	No loss to main town, but potential loss of facilities near pier	No loss	(As A)	(As A)	No loss to main town, but further loss of facilities near pier	No loss	(As A)	(As A)
Recreational and tourist facilities	<ul style="list-style-type: none"> Potential loss of tourist and recreation sites accommodation and activities including major attractions, shops, holiday amenities, public open space and promenade 	Prevent loss of tourist facilities to erosion	No loss	No loss	No loss to main town, but potential loss along seafront	No loss and reefs will help maintain beaches	(As A)	(As A)	No loss to main town, but potential loss near pier	No loss but risk of overtopping particularly along the southern section	(As A)	(As A)

Infrastructure	<ul style="list-style-type: none"> Potential loss of or damage to services and amenities through erosion including Pumping station and sewer 	Maintain services to properties	No loss	No loss	Loss of services associated with property loss	No loss	(As A)	(As A)	Further loss of services associated with property loss	No loss	(As A)	(As A)
		Maintain pumping station	No loss	No loss	Loss	No loss	(As A)	(As A)	Loss	No loss, but may require works to maintain outlet to sea	(As A)	(As A)
Beach and foreshore	<ul style="list-style-type: none"> Potential deterioration in condition and appearance of the beach which has a Blue Flag award Dredging of off-shore banks for marine aggregate (<i>Non-policy issue</i>) 	Maintain a beach suitable for recreation purposes	No change in beach	Beach present and maintained through recharge	Beach present but may narrow along southern section	Beach present but may narrow along southern section	(As A)	(As A)	Narrow beach maintained	Narrower beach, particularly along southern section	(As A)	(As A)

Gorleston to Hopton

			0 – 20 (up to 2025)		20 – 50 (up to 2055)				50 – 100 (up to 2105)			
			NAI	A, B, C	NAI	A	B	C	NAI	A	B	C
Feature	Issues associated with Feature	Objective	<i>Timber revetment and groynes will fail by the end of the period.</i>	<i>Timber revetment and groynes maintained until failure.</i>	<i>No defences.</i>	<i>Timber revetment and groynes allowed to deteriorate and fail.</i>	<i>(As A)</i>	<i>(As A)</i>	<i>No defences.</i>	<i>No defences.</i>	<i>(As A)</i>	<i>(As A)</i>
Gorleston Golf Course	<ul style="list-style-type: none"> Loss of golf course through erosion 	Prevent loss of golf course to erosion	Loss of golf course land, including holes	Loss of golf course land, including holes	Further loss of golf course land	Further loss of golf course land	(As A)	(As A)	Further loss of golf course land	Further loss of golf course land	(As A)	(As A)

Hopton

			0 – 20 (up to 2025)		20 – 50 (up to 2055)				50 – 100 (up to 2105)			
			NAI	A, B, C	NAI	A	B	C	NAI	A	B	C
Feature	Issues associated with Feature	Objective	<i>Seawall will start to fail by the end of the period.</i>	<i>Timber revetment and groynes to north maintained until failure. Seawall and groynes maintained.</i>	<i>No defences.</i>	<i>Timber revetment, seawall and groynes allowed to deteriorate and fail.</i>	<i>(As A)</i>	<i>(As A)</i>	<i>No defences.</i>	<i>No defences.</i>	<i>(As A)</i>	<i>(As A)</i>
Residential properties	<ul style="list-style-type: none"> Potential loss of housing through erosion Devaluation of neighbouring property Anxiety and stress to owners and occupiers facing loss Viability of protecting Hopton in the longer-term 	Prevent loss of residential properties to erosion	Loss of seafront houses along Beach Road, once sea wall fails	No loss	Further loss of seafront houses in Beach Road area	Loss of seafront houses along Beach Road, once sea wall fails	(As A)	(As A)	Further loss of seafront houses in Beach Road area	Further loss of seafront houses in Beach Road area	(As A)	(As A)
Commercial properties	<ul style="list-style-type: none"> Potential damage to or loss of businesses through flooding or erosion 	Prevent loss of commercial properties to erosion	No loss	No loss	No loss of non-tourist facilities	No loss of non-tourist facilities	(As A)	(As A)	No loss of non-tourist facilities	No loss of non-tourist facilities	(As A)	(As A)
Community facilities	<ul style="list-style-type: none"> Potential loss of community facilities through erosion 	Prevent loss of community facilities to erosion	No loss – heart of village not affected by erosion	No loss	No loss – heart of village not affected by erosion	No loss – heart of village not affected by erosion	(As A)	(As A)	No loss – heart of village not affected by erosion	No loss – heart of village not affected by erosion	(As A)	(As A)
Hopton Holiday Village	<ul style="list-style-type: none"> Potential loss of tourist accommodation through erosion 	Prevent loss of tourist accommodation to erosion	Loss of seafront tourist accommodation	Loss of seafront tourist accommodation	Loss of seafront tourist accommodation	Loss of seafront tourist accommodation	(As A)	(As A)	Loss of seafront tourist accommodation	Loss of seafront tourist accommodation	(As A)	(As A)
Recreational and tourist facilities	<ul style="list-style-type: none"> Protection of tourist and recreation sites, accommodation and activities including major attractions, shops, holiday amenities, public open space and promenade 	Prevent loss of tourist facilities to erosion	No loss	No loss	Loss of facilities associated with Holiday Village and playing field and miniature golf course lost to south	Loss of facilities associated with Holiday Village and playing field and miniature golf course lost to south	(As A)	(As A)	Further loss of facilities along the coastal strip	Further loss of facilities along the coastal strip	(As A)	(As A)

Infrastructure	<ul style="list-style-type: none"> Potential loss of or damage to services and amenities through erosion, including the promenade 	Maintain services to properties	Loss of services associated with non-holiday village properties	Loss of services associated with non-holiday village properties	Loss of services, associated with housing, and promenade lost	Loss of services, associated with housing, and promenade lost	(As A)	(As A)	Further loss of services associated with housing	Further loss of services associated with housing	(As A)	(As A)
Access to beach	<ul style="list-style-type: none"> Loss of access to beach through erosion or management measures 	Maintain access to beach	Beach access maintained, but loss of temporary/informal accesses	Beach access maintained, but loss of temporary/informal accesses	Beach access lost	Beach access lost	(As A)	(As A)	No access	No access	(As A)	(As A)
Beach and Foreshore	<ul style="list-style-type: none"> Potential deterioration in condition and appearance of the beach Potential health and safety hazard caused by deteriorating defences at foot of cliffs Dredging of off-shore banks for marine aggregate and impact on beach levels (<i>Non-policy issue</i>) 	Maintain a beach suitable for recreation purposes	Beach present but narrower until seawall fails and allows retreat	Beach present but narrower	Beach present in retreated position	Beach present in retreated position once defences have failed	(As A)	(As A)	Beach present, but possible access problems	Beach present, but possible access problems	(As A)	(As A)

Hopton to Corton

			0 – 20 (up to 2025)		20 – 50 (up to 2055)				50 – 100 (up to 2105)			
			NAI	A, B, C	NAI	A	B	C	NAI	A	B	C
Feature	Issues associated with Feature	Objective	<i>Timber revetment will fail during this period</i>	<i>Timber revetment and groynes allowed to fail.</i>	<i>No defences.</i>	<i>No defences.</i>	<i>(As A)</i>	<i>(As A)</i>	<i>No defences.</i>	<i>No defences.</i>	<i>(As A)</i>	<i>(As A)</i>
Broadland Sands Holiday Centre	<ul style="list-style-type: none"> Potential loss of tourist accommodation through erosion 	Prevent loss of tourist accommodation to erosion	No loss to Broadland Sands (despite cliff retreat)	No loss to Broadland Sands (despite cliff retreat)	Some loss at edge of site	Some loss at edge of site	(As A)	(As A)	Loss of caravan pitches but not main resort buildings	Loss of caravan pitches but not main resort buildings	(As A)	(As A)
Agricultural land	<ul style="list-style-type: none"> Risk of loss of Grade 2 agricultural land through erosion 	Prevent loss of farmland to erosion	Loss of farmland	Loss of farmland	Loss of farmland	Loss of farmland	(As A)	(As A)	Loss of farmland	Loss of farmland	(As A)	(As A)
Beach and foreshore	<ul style="list-style-type: none"> Potential deterioration in condition and appearance of the beach Potential health and safety hazard caused by deteriorating defences at foot of cliffs Dredging of off-shore banks for marine aggregate and impact on beach levels (<i>Non-policy issue</i>) 	Maintain a beach suitable for recreation purposes	Beach present	Beach present	Beach present, but possible access issues	Beach present, but possible access issues	(As A)	(As A)	Beach present, but possible access issues	Beach present, but possible access issues	(As A)	(As A)
Access to beach at Broadland Sands	<ul style="list-style-type: none"> Potential loss of access to beach through erosion or management measures 	Maintain access to beach	Informal access lost	Informal access lost	Access lost	Access lost	(As A)	(As A)	No access	No access	(As A)	(As A)
Sewage works	<ul style="list-style-type: none"> Potential loss of works 	Prevent loss of/damage to Sewage and gas installations	No loss	No loss	No loss	No loss	(As A)	(As A)	Loss of part of site	Loss of part of site	(As A)	(As A)

Corton

			0 – 20 (up to 2025)		20 – 50 (up to 2055)				50 – 100 (up to 2105)			
			NAI	A, B, C	NAI	A	B	C	NAI	A	B	C
Feature	Issues associated with Feature	Objective	<i>Seawall and rock revetment will remain.</i>	<i>Seawall and rock revetment maintained.</i>	<i>Seawall will fail at the start of this period.</i>	<i>Seawall and rock revetment allowed to deteriorate and fail.</i>	<i>(As A)</i>	<i>Seawall and rock revetment maintained (and enhanced).</i>	<i>No defences.</i>	<i>No defences</i>	<i>(As A)</i>	<i>Seawall and rock revetment maintained (and enhanced).</i>
Residential properties	<ul style="list-style-type: none"> Potential loss of housing through erosion Devaluation of neighbouring property Anxiety and stress to owners and occupiers facing loss Potential loss of community cohesion through property loss Viability of protecting Corton in the longer-term – concern over limited life of Concern expressed by Parish Council that no compensation is payable to Concern about outflanking of defences from adjoining undefended frontages 	Prevent loss/damage to properties due to erosion	No loss	No loss	Loss of properties	Some property loss, but at a later stage than NAI	(As A)	No loss	Further loss of properties	Further loss of properties	(As A)	No loss
Commercial properties	<ul style="list-style-type: none"> Potential loss of businesses through erosion Viability of protecting Corton in the longer-term – concern over limited life of new defences 	Prevent damage/loss of commercial properties due to erosion	No loss	No loss	Loss of properties	Some property loss	(As A)	No loss	Loss of properties	Loss of main street and associated properties	(As A)	No loss
Community facilities	<ul style="list-style-type: none"> Potential loss of community facilities through erosion, including Common land at Bakers Score 	Prevent loss of community facilities to erosion	No loss	No loss	Some loss of seafront facilities possible	Some loss of seafront facilities possible	(As A)	No loss	Loss of school and main road through village	Loss of school and main road through village	(As A)	No loss
Heritage sites	<ul style="list-style-type: none"> Potential loss of area of high archaeological interest seaward of Corton Church 	Prevent loss of site of high archaeological interest	No loss	No loss	Some loss of site	Some loss of site	(As A)	No loss	Further loss of site	Further loss of site	(As A)	No loss
Tourist facilities	<ul style="list-style-type: none"> Protection of tourist and recreation sites, accommodation and activities 	Prevent loss of tourist and recreational facilities	No loss	No loss	Loss of seafront caravan sites/ holiday camps	Loss of seafront caravan sites/ holiday camps	(As A)	No loss	Further loss of caravan sites/ holiday camps	Further loss of caravan sites/ holiday camps	(As A)	No loss

Infrastructure	<ul style="list-style-type: none"> Potential loss of or damage to services and roads through erosion, including the main village street and mains drainage 	Maintain services to properties	No loss	No loss	Loss of services associated with holiday camps	Loss of services associated with holiday camps	(As A)	No loss	Loss of services associated with properties	Loss of services associated with properties	(As A)	No loss
		Maintain communication link to adjacent towns	No loss	No loss	Loss of section of main road through village	Loss of section of main road through village	(As A)	No loss	Loss of main road 'The Street'	Loss of main road 'The Street'	(As A)	No loss
Cliffs	<ul style="list-style-type: none"> Erosion of cliff face needs to continue to maintain clean exposures and retain SSSI designation 	Retain clean exposure of cliff face to maintain the geological study value of the site	Standard of protection sufficient to allow acceptable exposure of cliffs	Standard of protection sufficient to allow acceptable exposure of cliffs	Increased cliff erosion resulting in improved exposure of geology	Increased cliff erosion resulting in improved exposure of geology	(As A)	Cliff protected so reduced erosion and exposure	Increased erosion resulting in continued exposure of geology	Increased erosion resulting in continued exposure of geology	(As A)	Cliff protected so reduced erosion and exposure
Beach and foreshore	<ul style="list-style-type: none"> Dredging of off-shore banks for marine aggregate (<i>Non-policy issue</i>) Impact of Great Yarmouth Outer Harbour and Gorleston Reefs projects on future beach levels in front of the village Retention of specialist recreation facility Potential health and safety hazard caused by deteriorating defences at foot of cliffs Public notion that lowering beach levels in front of the village could be improved by restoring the failed groynes 	Maintain a beach suitable for recreation purposes	Beach narrowing therefore little/ no beach	Beach narrowing therefore little/ no beach	Beach present in retreated position once sea wall fails	Beach present in retreated position once sea wall fails	(As A)	No beach due to increased exposure of site	Narrow beach, but access issues	Narrow beach, but access issues	(As A)	No beach due to increased exposure of site
Access to beach at Bakers Score and Tibbenham's Score	<ul style="list-style-type: none"> Loss of access through erosion or management measures 	Maintain access to beach	No change in access	No change in access	Loss of access	Loss of access	(As A)	No change in beach access, but no beach	Loss of access	Loss of access	(As A)	No change in beach access, but no beach

Corton to Lowestoft

			0 – 20 (up to 2025)		20 – 50 (up to 2055)				50 – 100 (up to 2105)			
			NAI	A, B, C	NAI	A	B	C	NAI	A	B	C
Feature	Issues associated with Feature	Objective	<i>Timber groynes will fail.</i>	<i>Timber groynes allowed to fail.</i>	<i>No defences.</i>	<i>No defences.</i>	<i>(As A)</i>	<i>(As A)</i>	<i>No defences.</i>	<i>No defences.</i>	<i>(As A)</i>	<i>(As A)</i>
Infrastructure	<ul style="list-style-type: none"> Rising mains to Corton Sewage Treatment works and treated water return cross the site of Gunton Warren 	Prevent loss of/damage to sewage and treated water mains	Possible damage to works through erosion	Possible damage to works through erosion	Increased risk of damage to works through erosion	Increased risk of damage to works through erosion	(As A)	(As A)	Damage to works through erosion	Damage to works through erosion	(As A)	(As A)
Gunton Warren	<ul style="list-style-type: none"> Loss of beach will threaten future of designated LNR/County Wildlife site 	Maintain the existing habitats	Deterioration and loss of dunes likely, so some loss of CWS	Deterioration and loss of dunes likely, so some loss of CWS	Loss of dunes (and therefore CWS), but naturally functioning system	Loss of dunes (and therefore CWS), but naturally functioning system	(As A)	(As A)	Exposure of sand cliffs (possible habitat creation?)	Exposure of sand cliffs (possible habitat creation?)	(As A)	(As A)
	<ul style="list-style-type: none"> Open Space indicated in Local Plan as needing protection 	Prevent loss of public open space to erosion	Loss of open space through erosion	Loss of open space through erosion	Loss of open space through erosion	Loss of open space through erosion	(As A)	(As A)	Further loss of open space through erosion	Further loss of open space through erosion	(As A)	(As A)
Beach and foreshore	<ul style="list-style-type: none"> Potential deterioration in condition and appearance of the beach Potential health and safety hazard caused by deteriorating groyne field Dredging of off-shore banks for marine aggregate – concern about the potential impact on beach levels (<i>Non-policy issue</i>) 	Maintain a beach suitable for recreation purposes	Beach present	Beach present	Beach present	Beach present	(As A)	(As A)	Beach present in retreated position	Beach present in retreated position	(As A)	(As A)
	<ul style="list-style-type: none"> Potential contamination from Elani V oil dump 	Prevent exposure of oil dump	Risk of old dump exposure	Risk of old dump exposure	High risk of old dump exposure as much of dunes will erode	High risk of old dump exposure as much of dunes will erode	(As A)	(As A)	Much of dunes eroded therefore exposure of dump probably occurred years 2050	Much of dunes eroded therefore exposure of dump probably occurred years 2050	(As A)	(As A)
Access to beach at Tramps Alley	<ul style="list-style-type: none"> Potential loss of access through erosion or management measures Lack of beach access points along this section of coast 	Maintain vehicular access to beach	Access possible	Access possible	Access lost	Access lost	(As A)	(As A)	No access	No access	(As A)	(As A)

Lowestoft North (to Lowestoft Ness Point)

			0 – 20 (up to 2025)		20 – 50 (up to 2055)				50 – 100 (up to 2105)			
			NAI	A, B, C	NAI	A	B	C	NAI	A	B	C
Feature	Issues associated with Feature	Objective	<i>Seawall will remain.</i>	<i>Seawall maintained to prevent erosion.</i>	<i>Seawall will remain.</i>	<i>Seawall maintained to prevent erosion.</i>	<i>(As A)</i>	<i>(As A)</i>	<i>Failure of seawall.</i>	<i>Seawall maintained to prevent erosion.</i>	<i>(As A)</i>	<i>(As A)</i>
Lowestoft commercial properties	<ul style="list-style-type: none"> Potential loss of important industrial land and associated assets 	Prevent loss of commercial properties to erosion	No loss	No loss	No loss	No loss	(As A)	(As A)	Loss of properties due to flooding and erosion	No loss	(As A)	(As A)
Infrastructure	<ul style="list-style-type: none"> Protection of sewage pumping station and headworks. Sewage rising mains and treated water return Gas mains and gas holder at Ness Point 	Prevent loss of/damage to Sewage and gas installations	No loss	No loss	No loss	No loss	(As A)	(As A)	High risk to infrastructure	No loss	(As A)	(As A)
	<ul style="list-style-type: none"> Potential loss or damage to local road network 	Maintain communication links within Lowestoft	No loss	No loss	No loss	No loss	(As A)	(As A)	Loss of link roads only	No loss	(As A)	(As A)
Recreational and tourist facilities	<ul style="list-style-type: none"> Potential loss of tourist and recreation sites, accommodation and activities 	Prevent loss of tourist facilities to erosion	No loss	No loss	No loss	No loss, but promenade more exposed to overtopping	(As A)	(As A)	Flood and erosion risk to recreation ground and promenade	No loss, but promenade more exposed to overtopping	(As A)	(As A)
Lowestoft North Denes	<ul style="list-style-type: none"> Preservation of fishing nets heritage site 	Prevent loss of heritage site to erosion	No loss	No loss	No loss	No loss	(As A)	(As A)	Loss/ damage due to flooding	No loss	(As A)	(As A)
	<ul style="list-style-type: none"> Open space indicated in Local Plan as needing protection 	Prevent loss of public open space to erosion	No loss	No loss	No loss	No loss	(As A)	(As A)	Loss/ damage due to flooding	No loss	(As A)	(As A)
	<ul style="list-style-type: none"> Potential exposure of former household waste tip 	Prevent exposure of household waste tip	No risk of exposure	No risk of exposure	No risk of exposure	No risk of exposure	(As A)	(As A)	Risk of exposure	No risk of exposure	(As A)	(As A)
Lowestoft Ness Point	<ul style="list-style-type: none"> Maintaining the area as mainland Britain's most easterly point 	Prevent loss of Ness Point as cardinal point	No loss	No loss	No loss	No loss, but increased works required	(As A)	(As A)	Loss of Euroscope marking position of most easterly point	No loss, but increased works required	(As A)	(As A)
Beach and foreshore	<ul style="list-style-type: none"> Potential deterioration in condition and appearance of the beach Potential health and safety hazard caused by deteriorating groyne field Dredging of offshore banks for aggregate (<i>Non-policy issue</i>) 	Maintain a beach suitable for recreation purposes	Little/no beach particularly at southern end	Little/no beach particularly at southern end	No beach	No beach	(As A)	(As A)	Narrow beach possible	No beach	(As A)	(As A)