

**PDZ1. MARLOES AND ST BRIDES PENINSULA:**



**St Ann's Head to Borough Head, including the Islands of Skokholm and Skomer.**

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Shoreline Management Plan Sub Cell 8  
 Baseline Location Map  
 Policy Development Zone 1 - Marloes and St Brides Peninsula





## 1 Local Description

The zone covers the coast between St Ann's Head, at the entrance to Milford Haven, and Borough Head, just to the west of Little Haven within St Bride's Bay. Effectively, the zone covers the whole of the Marloes and St Brides Peninsula. The southwest facing section of the coastline comprises high Old Red Sandstone (ORS) cliffs, with weaker geology allowing development of the bays of Westdale and Marloes Sands. Gateholm Island runs out as a ridge of ORS forming the northern limit of Marloes Sands.

On the end of St Ann's Head is the Trinity House Lighthouse, together with the Old Lighthouse, Coastguard Cottages and Heli-pad. The road to the Lighthouse runs close to the crest of the cliff. The St Ann's Headland is separated from the rest of the Peninsula by a valley between the West Dale, on the exposed coast, and Dale village, within the Haven. The valley is infilled and at its highest point is well above sea level.



There are several SAMs identified along this frontage with pre-historic enclosures and forts on many of the headlands, typical of much of the west Pembrokeshire coastline. The island of Gateholm contains a Monastery enclosed settlement which comprised a series of huts. The principal landuse of the area is agriculture with farm buildings set back from the crest of the cliff. Behind Marloes Sands is a disused Airfield. The Pembrokeshire Coastal Path runs along the crest of the cliffs over the whole length of this frontage and, indeed over the along the rest of the zone. The frontage is popular for more energetic recreational use and enjoyment of the remote naturalness of the coastline and beaches. There are no defences along this section of the coast.

Offshore of this frontage is the Island of Skokholm. This island is a much folded ORS outcrop, rising some 30m above sea level. The Island houses a Lighthouse, which is a listed building, and there is also a Heli-pad. These features are at the southern end of the Island. The main part of the island is an important bird reserve and, together with Skomer to the north, forms part of the SPA in the area. The Island also has important archaeological value. Access to the island, apart from the Heli-pad, is via the small quay at South Haven towards the north of the island, on the southeast facing coast.

From Marloes Sands, the main coastline continues north comprising a craggy hard rock promontory, as the underlying nature of the geology changes from ORS to the igneous extrusion forming the Anvil and Wooltack Point Headland and continuing across Jack Sound to Midland Isle and Skomer Island.

The main landing point for the island is within North Haven bay, formed between the main island and the small headland of the Neck. The island is an important bird and nature reserve (SPA) and is also an important tourist attraction to the whole region. The Island contains many archaeological sites of old settlements. The Island as a whole is designated as a Historic Landscape Area.



**Martins Haven**

Access to the island at the mainland is from the landing stage at Martins Haven. This area, together with much of the Wooltack Point Headland falls within the ownership of the National Trust. Martins Haven is a small bay within harder rock headlands. The landing stage is developed over rock and there is a narrow access road down to a typical shingle storm beach.

An important component of the geological feature of the SSSI lies directly under the existing embarkation point for Skomer Island.

Moving east from Martins Haven, the underlying geology changes from the igneous rock of the headland to ORS, running up to and east of the headland of Nab Head. There is a short section of weaker rock at the interface of the two dominant geological structures, allowing the formation of a small bay at Musselwick Sands. The coastal slope in this area has the potential for landslips.

The typical landuse over this frontage is agricultural, with the coastal path continuing along the crest of the coastal cliffs. There are several historic headland forts at Wooltack, Tower Point, Mill Haven and Howney Stone. Most present day settlements and individual buildings are set back from the coastal edge. Only at St Bride's is the small community actually at the shoreline.

St Bride's community is established around a small cove, controlled by relatively low hard rock headlands. There are properties situated on the eastern rock headland and the main village extends to the back of the cove, where there is the historic important church and several other listed buildings. The cove has been identified as an important launching site for diving. The cove is backed by a narrow and incompletely formed



**St Bride's**

shingle storm beach, which itself is backed by a masonry wall and slipway. The village sits within the northern end of a valley that rises behind the village and links through to the much larger Pickleridge valley extending from within Milford Haven. The watershed of the two valleys is well above sea level and the northern valley through St Brides rises, initially quite steeply, to this level.

The Zone ends at Borough Head, with high cliffs comprising a major ingenious intrusion, forming the southern limit of the backshore to St Bride's Bay.

## 2 Coastal Processes

The southern section of the zone is exposed to the full force of the Atlantic swell, with only the islands providing shelter. Even over the northerly section the dominant wave energy is from the southwest and west, although there is considerably greater shelter provided by the peninsula. The shoreline is naturally divided into relatively small bays and smaller coves with sediment trapped within each compartment of the shore. There is little, if any, significant sediment transport along the shoreline between bays.

Within the smaller coves, such as Martins Haven and St Bride's, the backshore comprises swash aligned shingle storm beaches. Marloes and Musselwick Sands are the only significant sand beach and these bays are still eroding back as a slow process of cliff instability combined with erosion at the toe of the slope.

On the Islands, similarly, the geomorphology is of hard rock cliffs with local coves, backed, where deeply indented between the rock, by local storm beaches.

The whole process of the area is characterised as one of very slow erosion of the hard rock cliffs.

### POTENTIAL BASELINE EROSION RATES

A distinction is made between basic erosion of the shoreline and cliff recession, affecting the crest of cliffs and coastal slopes. This is noted in the table below together with other relevant factors. In assessing erosion and recession in the future allowance has been made for Sea Level Rise and this is discussed in Appendix C.

While within local bays, Sea Level Rise (SLR) will be a significant factor in future development of the shoreline, over much of the zone the very slow erosion of the main hard cliffs would be little affected. Where there are softer cliffs or shorelines suffering erosion, the rate of erosion is likely to increase with SLR. This might be by a factor of 1.7 to 2.5 times the existing base erosion rate, over the 100 years. Where there are more stable features, such as fully developed storm beaches there would be a natural roll back of the beach, potentially in the order of 10m to 40m, depending of the nature of beach and the coast behind. As beaches, protecting at present relatively stable coastal slopes, erode or roll back, this could result in re-activating landslides and slope instability.

Location	NAI Base Rate (m/yr)	Notes	100yr. Erosion range (m)
St Ann's Head	0.05	Slow erosion of hard rock cliff	5 - 16
Marloes	0.3	Erosion and cliff instability	20 - 100
Musselwick	0.2	Erosion and cliff instability	16 - 55
St Brides	0.05	Slow erosion of hard rock cliff	5 - 40

**Base rates have been assessed from monitoring and historical data. The range of potential erosion is assessed in terms of variation from the base rate and sensitivity in potential Sea Level Rise. Further detail on erosion rates together with erosion maps are provided in Appendix C.**

### FLOODING

Coastal flooding is not an issue within this zone, apart from, potentially very locally, at St Bride's.

#### EXISTING DEFENCES

Only at St Bride's are there any significant defences, and then only locally. These comprise a stretch of masonry wall to the back of the small bay, together with smaller



sections of very local defence, patching up where sections of the low cliff and bank have eroded. There is a steep slipway associated with the main wall. They are in moderate to poor condition and are being undermined with only some areas fronted by a natural beach. In other areas of the zone there are minor works associated with the ferry landing stages on Skokholm, Skomer and St Martins Haven.

#### UNCONSTRAINED SCENARIO

In this zone there are no major defences in place and the coast will erode back slowly. At St Bride's there would be relatively minor set back of the coast with the opportunity for the natural beach to develop some 20m to 30m back. The access road to the properties on the eastern headland would be lost.

#### KEY INTERACTION WITH DEFENCES

At present the defence at St Bride's stops the potential for the bay to develop a natural beach and it has been suggested during consultation that sections of the wall increase wave reflection and overall wave activity within the bay. This is considered a realistic observation and the impact will increase with Sea Level Rise. The other local man made structures are not considered to have a significant impact on coastal processes, even at the local scale.

### 3 Management Scenarios

- 3.1 No Active Intervention – Baseline Scenario 1. All the coast would continue to erode, or, where there are well developed beaches, roll back. The only interruption of this process would be at St Brides, where initially the existing defence would provide some form of erosion protection for possibly the next 20 to 30 years.

Over much of the frontage where there is highly resistant rock this erosion would be limited. The best estimates are potentially within some 5m erosion loss over the next 100 years. No property is expected to be lost over these frontages, although the access road to properties on St Ann's Head could be affected. There may also be the potential loss of the existing landing stages to the Islands over the 100 years.

In other areas there would be greater retreat of the shoreline and recession of the crest of the cliffs to in land, where the underlying geology is weaker. The most obvious areas would be along Marloes and Musselwick Sands but also more locally within some of the smaller bays. There would be loss of existing access steps to Marloes Sands and there is the potential for loss of historic features such as Greatmire Mill and the Lime Kiln within Mill Haven (SAM), this together with more general risk to areas of the several headland forts over the area.

At Martins Haven the storm beach would tend to roll back and this would impact on the access road.

At St Bride's the existing sea walls would fail with erosion or set back of the beach some 20m to 30m, but no significant loss of properties. Potentially there could be loss of the road access to the properties on the headland. The loss of the rear sea wall is likely to result in the ability for a better developed storm beach profile which could reduce wave activity within the bay. While NAI would also result in loss of the slipway, a more natural beach may provide better boat launch access. There is at present some minor flood risk to the properties on the headland, this would increase slightly over time during next 100 years.

#### Impact of different Sea Level Rise Scenarios

Management of the landing stages to and on the Islands would clearly be affected purely from the point of view of use. Under a 2m SLR, there would be significant need to adjust the level of the quays and jetties.

Erosion rates at Marloes and Musselwick Sands, together with the potential for land instability, would increase under a 2m SLR. This would not, however, impact on any greater number of features identified.

Under a 2m SLR, flood risk to the number of properties at St Brides would not increase but the properties at the headland could be subject flooding on a 1:10 year event.

3.2 With Present Management – Baseline Scenario 2.

The following table sets out current policy and management approach for the Zone.

SMP 1			Subsequent Management Approach
No.	Unit	Policy	
North Pembrokeshire. (Note policy was developed for short term and long term over the 50 year period.)			
17SAH/A	Annes Head to Great Castle Head	DN/DN	
17MAR	Great Castle Head to Gateholm Stack	DN/DN	
17MH/B	Gateholm Stack to Wooltack Point	DN/DN	
17ISL	Skomer and Skokholm Islands	DN/DN	
18STB/MH	Wooltack Point to Little Haven	DN/DN	

The Pembrokeshire and Ceredigion Rivers CFMP Draft Plan does not specifically make reference to this Zone.

The SMP1 policy is for Do Nothing or No Active Intervention. This With Present Management scenario is, therefore, as baseline scenario 1.



#### 4 Summary Comparison and Assessment of Baseline scenarios.

**Table 1. Economic Assessment**

The following table provides a brief summary of erosion damages determined by the SMP2 MDSF analysis for the whole PDZ. Further details are provided in Appendix H. Where further, more detailed information is provided by studies, this is highlighted. The table aims to provide an initial high level assessment of potential damages occurring under the two baseline scenarios.

**ASSESSMENT OF EROSION DAMAGES**

Epoch	0 -20 year		20 – 50 years			50 – 100 years		50 – 100 years (2m SLR)				
No Active Intervention	No. of properties:		Value x £k	No. of properties:		Value x £k	No. of properties:		Value x £k	No. of properties		PV Damages (£x1000)
Location	Res.	Com.		Res.	Com.		Res.	Com.		Res.	Com.	
No erosion loss of property												
<b>Total for PDZ1</b>												
With Present Management	No. of properties		Value x £k	No. of properties		Value x £k	No. of properties		Value x £k	No. of properties		PV Damages (£x1000)
Location	Res.	Com.		Res.	Com.		Res.	Com.		Res.	Com.	
No erosion loss of property												
<b>Total for PDZ1</b>												
Notes: PVD determined for 1m SLR in 100 yrs.												
Other information:												

The following flood damages have been determined through use of MDSF. These figures are aimed to indicate the level and impact of flood risk rather than being a detailed economic appraisal. In many areas substantial numbers of properties would be liable to flooding on the more frequent events both under NAI and WPM, a nominal write off value has been allowed in the table for properties at frequent risk; this generally excludes values at risk at present on a 1:1 year event, in 50 years time for the 1:10 year event and in 100 year time the 1:50 year event.

#### ASSESSMENT OF POTENTIAL FLOOD RISK

No Active Intervention	Flood risk tidal 2010			Flood risk tidal 2060			Flood risk tidal 2110			tidal risk 2m SLR		PVD (£x1000)
	No. of properties		AAD x £k	No. of properties		AAD x £k	No. of properties		AAD x £k	No. of properties		
	<1:10 yr.	>1:10 yr.		<1:10 yr.	>1:10 yr.		<1:10 yr.	>1:10 yr.		<1:10 yr.	>1:10 yr.	
Location												
St Bride's	0	0	0	0	0	0	0	1	.04	1	0	0.14
<b>Total for PDZ1</b>											0.14	
With Present Management	No. of properties		AAD x £k	No. of properties		AAD x £k	No. of properties		AAD x £k	No. of properties		PVD (£x1000)
	<1:10 yr.	>1:10 yr.		<1:10 yr.	>1:10 yr.		<1:10 yr.	>1:10 yr.		<1:10 yr.	>1:10 yr.	
	Location											
St Bride's	0	0	0	0	0	0	1	.04	1	0	0.14	
<b>Total for PDZ1</b>											0.14	

**Table 2. General Assessment of Objectives**

The following table provides an overall assessment of how the two baseline scenarios impact upon the overall objectives. Specific objectives are set out in more detail within Appendix E. The table aims to provide an initial high level assessment of the two baseline scenarios, highlighting potential issues of conflict. These issues are discussed in the following section, examining alternative management scenarios from which SMP2 policy is then derived.

STAKEHOLDER OBJECTIVE	NAI			WPM		
	Fails	Neutral	Acceptable	Fails	Neutral	Acceptable
Reduce risk to life.						
Protect properties from flood and erosion loss.						
Minimise the need for increasing effort and management of coastal defences.						
Avoid reliance on defence particularly where there is a risk of catastrophic failure.						
Maintain access to the coast including car parking and facilities.						
Maintain access for boat use and associated diving activity.						
Maintain access to the Islands.						
Maintain character and integrity of coastal communities.						
Identify risk and reduce risk of loss of heritage features where possible.						
Maintain historic landscape.						
Prevent disturbance or deterioration to historic sites and their setting.						
Maintain or enhance the condition or integrity of the international (SAC, SPA) designated sites and interest features within the context of a dynamic coastal system.						
Maintain or enhance the condition or integrity of the national (SSSI) designated sites and interest features within the context of a dynamic coastal system.						
Maintain and enhance educational and scientific understanding of geology and geomorphology.						
Avoid damage to and enhance the natural landscape.						
Maintain the human landscape and character of communities.						

## 5 Discussion and Detailed Policy Development

The two baseline scenarios are effectively the same and in general, meet the objective set for the Zone; to maintain the important natural character of the area. There are issues associated with the gradual loss of heritage features. It would not be appropriate to attempt to reduce or stop this loss without significant works that would reduce the overall natural function of the shoreline. The SMP sets out in Appendix C maps showing the potential erosion lines for the area and from this it would be possible to assess where further recording of features may be appropriate. It is recognised that there may be substantial cost entailed with the mitigation process and that even through this mitigation, with respect to specific features, there may be no effective mitigation for historic landscapes.

There could be increased risk of flooding to property on the St Bride rock headland as sea level rises. Even with the higher Sea Level Rise Scenario this is likely to be manageable over the 100 year period of the SMP. There may also be a risk to the access to these properties. In both cases, local management of the risk would not be precluded by the continuing policy of No Active Intervention, subject to normal consultation.

There are again local issues with respect to access, particularly at the ferry landing stages, access to Marloes Sands and in terms of boat launching at St Bride's. In each case although a No Active Intervention policy would not preclude local management of these issues, this should be in the context of undertaking works that would minimise interaction with the natural development of the shoreline. In particular, local works to sustain the landing stage at St Martins Haven should have due regard to the important geological features in this area.

At St Bride's it was suggested in consultation that the wall at the back of the bay could be removed. The SMP would support such an action as one that would allow a more natural development of the bay. This may also act to reduce wave reflection, encourage the development of a natural storm beach and potentially improve the use of the bay and improve access. The detail of such a change falls outside the remit of the SMP and would need to be developed with the community. However, the SMP through the intent of No Active Intervention would not recommend action to maintain the backshore defences.

## 6 Management Summary

The management intent of the plan is to maintain an approach of minimising the impact of shoreline management on the natural development of the coast. This continues the policy set out in SMP1. The plan reduces the number of policy units to three; all within one Management Area.

### M.A.1 SOUTH WEST PENINSULA AND ISLANDS: From St Ann's Head to Borough Head

Policy Unit		Policy Plan			Comment
		2025	2055	2105	
1.1	Mainland	NAI	NAI	NAI	Local access issues.
1.2	St Bride's	NAI	NAI	NAI	Management of loss of wall and access
1.3	Skokholm and Skomer	NAI	NAI	NAI	Access issues
Key: HTL - Hold The Line, A - Advance the Line, NAI – No Active Intervention MR – Managed Realignment					



**PDZ1**

**Management Area Statements**

**South West Peninsula and Islands**

*ST ANN'S HEAD TO BOROUGH HEAD*

<b>Location reference:</b>	<b>South West Peninsula and Islands</b>
<b>Management Area reference:</b>	<b>MA 1</b>
<b>Policy Development Zone:</b>	PDZ1


\*



Note: Predicted shoreline mapping is based on a combination of monitoring data, analysis of historical maps and geomorphological assessment with allowance for sea level rise. Due to inherent uncertainties in predicting future change, these predictions are necessarily indicative. For use beyond the purpose of the shoreline management plan, reference should be made to the baseline data.

The following descriptions are provided to assist interpretation of the map shown overleaf.

### 100 year shoreline position:

The following maps aim to summarise the anticipated position of the shoreline in 100 years under the two scenarios of “With Present Management” and under the “Draft Preferred Policy” being put forward through the Shoreline Management Plan.

-  In some areas the preferred policy does not change from that under the existing management approach. In some areas where there are hard defences this can be accurately identified. In other areas there is greater uncertainty. Even so, where the shoreline is likely to be quite clearly defined by a change such as the crest of a cliff the estimated position is shown as a single line.
- Where there is a difference between With Present Management and the Draft Preferred Policy this distinction is made in showing two different lines:

-  With Present Management.
-  Draft Preferred Policy.

### Flood Risk Zones



General Flood Risk Zones. The explanation of these zones is provided on the Environment Agency’s web site [www.environment-agency.gov.uk](http://www.environment-agency.gov.uk). The maps within this Draft SMP document show where SMP policy might influence the management of flood risk.



Indicate areas where the intent of the SMP draft policy is to continue to manage this risk.



Indicate where over the 100 years the policy would allow increased risk of flooding.

The maps should be read in conjunction with the text within the Draft SMP document.

Shoreline Management Plan Sub Cell 10  
Baseline Location Map  
Management Area 1

- Management Area
- Policy Unit
- Scheduled Monument
- Policy Development Zone



Key		100 Year Shoreline Position:	
<span style="display: inline-block; width: 15px; border-bottom: 2px dashed red; margin-right: 5px;"></span>	Preferred Policy would be the same as With Present Management	<span style="display: inline-block; width: 15px; height: 10px; background-color: #FFD700; border: 1px solid black; margin-right: 5px;"></span>	Ramsar
<span style="display: inline-block; width: 15px; border-bottom: 2px solid orange; margin-right: 5px;"></span>	With Present Management where this differs from the Preferred Policy	<span style="display: inline-block; width: 15px; height: 10px; background-color: #90EE90; border: 1px solid black; margin-right: 5px;"></span>	SAC
<span style="display: inline-block; width: 15px; border-bottom: 2px dashed purple; margin-right: 5px;"></span>	Preferred Policy where this differs from the With Present Management	<span style="display: inline-block; width: 15px; height: 10px; background-color: #ADD8E6; border: 1px solid black; margin-right: 5px;"></span>	SPA
		<span style="display: inline-block; width: 15px; height: 10px; background-color: #FFD700; border: 1px solid black; margin-right: 5px;"></span>	SSSI
		<span style="display: inline-block; width: 15px; height: 10px; background-color: #90EE90; border: 1px solid black; margin-right: 5px;"></span>	NNR
		<span style="display: inline-block; width: 15px; height: 10px; background-color: #ADD8E6; border: 1px solid black; margin-right: 5px;"></span>	Existing Indicative EA Flood Zone 3
		<span style="display: inline-block; width: 15px; height: 10px; background-color: #ADD8E6; border: 1px solid black; margin-right: 5px;"></span>	EA Flood Risk Zone 2 where under the SMP policy there would be increased probability of flooding



## SUMMARY OF PREFERRED PLAN RECOMMENDATION AND JUSTIFICATION

### INTENT OF THE PLAN:

Maintaining the essential naturalness of this area is the key driver. The management intent of the plan is, therefore not to intervene in the natural processes. There is the small community of St Brides, where there could be longer term risk to properties. This is seen as being manageable at a local scale. However, the plan recommends considering the removal of the wall along the back of this small bay to allow the development of a natural beach. Other issues arise in terms of access to the islands. The overall intent of No Active intervention would not prevent local improvement to the landing areas to ensure future use with sea level rise. This needs to take due account of the important geological feature associated with the landing stage at St Martins Haven. There is a risk to historic sites and these are identified in further detail in Appendix E.

### KEY ISSUES/RISK AND UNCERTAINTY:

Local management at St Brides.  
Adapt landing stages in line with sea level rise.

### ACTIONS:

ACTION	PARTNERS
Develop local plan for St Brides	<b>Community PCC</b> <b>PNP</b>
Assess in detail potential impact on historic environment	



## DELIVERY OF THE PLAN

### SUMMARY OF SPECIFIC POLICIES

Policy Unit		Policy Plan			Comment
		2025	2055	2105	
1.1	Mainland	NAI	NAI	NAI	Local access issues.
1.2	St Bride's	NAI	NAI	NAI	Management of loss of wall and access
1.3	Skokholm and Skomer	NAI	NAI	NAI	Access issues
Key: HTL - Hold The Line, A - Advance the Line, NAI – No Active Intervention MR – Managed Realignment					

PREFERRED POLICY TO IMPLEMENT PLAN:	
<b>From present day</b>	No Active Intervention
<b>Medium term</b>	No Active Intervention
<b>Long term</b>	No Active Intervention

## IMPLICATIONS OF THE PLAN

### CHANGES FROM PRESENT MANAGEMENT

There is no significant change in management of this area.

### ECONOMIC SUMMARY

Economics (£k PV)	by 2025	by 2055	by 2105	Total £k PV
Potential NAI Damages	0.0	0.0	0.1	0.1
Preferred Plan Damages	0.0	0.0	0.1	0.1
Benefits	0.0	0.0	0.0	0.0
Costs of Implementing plan	0.0	0.0	0.0	0.0

### FLOOD AND EROSION RISK MANAGEMENT

#### POTENTIAL LOSS

There is some risk to properties at St Brides. This will become more significant with sea level rise.

#### BENEFITS OF THE PLAN

There is no economic justification for increasing defence.

**SUMMARY OF STRATEGIC ENVIRONMENTAL ASSESSMENT (INCLUDING HRA)**

PDZ 1				
SEA Objective	Impact of Preferred Policy for each Epoch			
	1	2	3	Mitigation
<b>Policy Unit 1.1 to 1.3</b>				
To support natural processes, maintain and enhance the integrity of internationally designated nature conservation sites. Maintain / achieve favourable condition of their interest features (habitats and species).				
To avoid adverse impacts on, conserve and where practical enhance the designated interest of nationally designated nature conservation sites. Maintain/achieve favourable condition.				
To avoid adverse impacts on, conserve and where practical enhance national and local BAP habitats.				
To support natural processes and maintain geological exposures throughout nationally designated geological sites.				
To conserve and enhance nationally designated landscapes in relation to risks from coastal flooding and erosion and avoid conflict with AONB and National Park Management Plan Objectives.				
To minimise coastal flood and erosion risk to scheduled and other internationally and nationally important cultural heritage assets, sites and their setting.				Excavation and recording
To minimise the impact of policies on marine operations and activities.				
To minimise coastal flood and erosion risk to critical infrastructure and maintain critical services.				Relocation or realignment
To minimise coastal flood and erosion risk to agricultural land and horticultural activities.				
To minimise coastal flood and erosion risk to people and residential property.				
To minimise coastal flood and erosion risk to key community, recreational and amenity facilities.				Relocation
To minimise coastal flood and erosion risk to industrial, commercial, economic and tourism assets and activities.				

Mitigation associated with the impacted features of the historic environment may include excavation and recording and monitoring of erosion rates.

**This table provides a summary of the SEA (appendix E) and reference should be made to the Appendix for full details of the assessment.**

**These next two sections provide a headline summary of the findings of the HRA (Appendix G) and the WFA (Appendix H). Reference should be made as appropriate to these Appendices for full details.**

#### **HRA SUMMARY**

The policy of NAI will enable the vegetated sea cliffs, an interest feature of the South Pembrokeshire Marine SAC, to develop in response to the wider coastal processes and will continue to provide a supply of sediment to intertidal and marine areas. The NAI will not affect the intertidal and subtidal rocky habitats (sea caves and reefs).



**SUMMARY CONCLUSION FROM THE WATER FRAMEWORK ASSESSMENT**

This area was scoped out of the assessment.