Isle of Wight Shoreline Management Plan 2:
Appendix I - Habitats Regulations Assessment
(Stage 3: Appropriate Assessment Report)

Isle of Wight Council

December 2010
Final Report for the Final SMP2
9V8288 / 02

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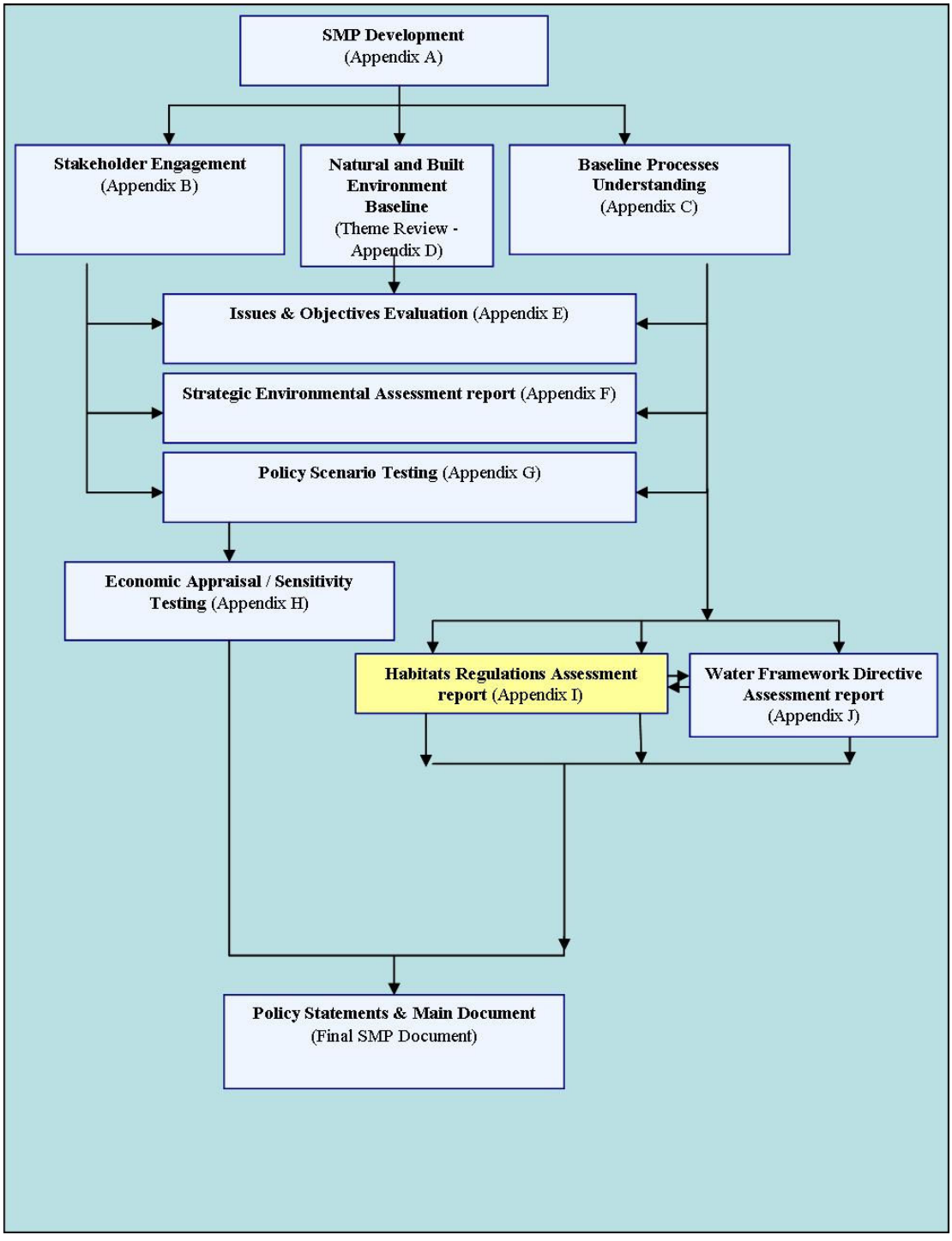
This report has been issued and amended as follows:

Version No.	Raised by	Approved by	Date of Issue	Description
Version 01 - Draft	Elizabeth Jolley	Pete Thornton	28-05-10	CSG Review
Version 02 - Final of Draft SMP2	Elizabeth Jolley	Pete Thornton	13-07-10	Public Consultation Review
Version 03 - Final of Final SMP2	Elizabeth Jolley	Pete Thornton	03-11-10	Final SMP2

SUMMARY

Royal Haskoning was appointed to undertake the Habitats Regulations Assessment (HRA) for the first review of the Shoreline Management Plan (known as SMP2). This appendix and the accompanying Annexes provide all the information required for Stage 3 of the HRA process of the Isle of Wight SMP2, and sit alongside the other supporting appendices as shown below:



International Designations around the Isle of Wight

The area covered by the Isle of Wight SMP2 supports significant assemblages of habitats and species that are protected through international nature conservation designations, which include:

- **Special Areas of Conservation (SAC)** identified through the EU Habitats Directive (Council Directive 92/43/EEC);
- **Special Protection Areas (SPA)** identified through the Birds Directive (Council Directive 2009/147/EC);
- **Ramsar sites** designated under the Ramsar Convention (1971).

SACs and SPAs are collectively termed *Natura 2000* sites. The Isle of Wight SMP2 area includes five SACs, one SPA and one Ramsar site, which are as follows:

Special Areas of Conservation (SAC)	Special Protection Areas (SPA)	Ramsar sites
Solent Maritime	Solent and Southampton Water	Solent and Southampton Water
Briddlesford Copse		
Solent and Isle of Wight Lagoons		
South Wight Maritime		
Isle of Wight Downs		

The Need and Purpose of the Habitats Regulations Assessment

The need for a Habitats Regulations Assessment arises under the requirements of *The Conservation of Habitats and Species Regulations 2010*. An Appropriate Assessment, which is Stage 3 of a Habitats Regulations Assessment, is required when a competent authority considers that a plan or project is likely to have a significant effect on a European site. As Shoreline Management Plans have the potential to influence the development of land around the coast, the Department for Environment, Food and Rural Affairs and Natural England have agreed that SMPs require an Appropriate Assessment if it is likely to have a significant effect on a European site.

The purpose of the Appropriate Assessment is to assess whether the proposed policies of the draft SMP2, which is not directly connected with the management of the European site (SPA, SAC or Ramsar site), would adversely affect the integrity of the site, either alone or in combination with other plans or projects. This Stage 3 Appropriate Assessment has quantified the significant effects on each European site and has included details of avoidance and mitigation measures to be incorporated into the plan to remove or reduce such effects where possible.

The draft SMP2 was put forward for public consultation, which was supported by the final version of the Stage 3 Appropriate Assessment and, which was carried out on the proposed policies. Following comments from this consultation period this document has since been amended to take into consideration any revised policy options in the Final SMP2 (which there have been none) and requests for further clarifications.

Results of the Stage 3 Appropriate Assessment

The findings of the assessment have determined that the Isle of Wight SMP2 will have **an adverse effect** on the integrity of **two European nature conservation designated sites** as a result of the policy at *Yarmouth Mill and Thorley (PU6C.5)*; these sites are:

- **Solent & Southampton Water SPA** - 31 hectares of coastal grazing marsh; and
- **Solent & Southampton Water Ramsar site** - 31 hectares of coastal grazing marsh.

The loss of this coastal grazing marsh will also result in the potential loss of seaward **feeding and high tide roost sites** important for internationally important wader and wildfowl bird species.

Next Stage – Stage 4 of the HRA

Since this Assessment concludes that the Final SMP2 will lead to an adverse effect on the integrity of two European designated nature conservation sites through the loss of 31 hectares of coastal grazing marsh, then **Stage 4 of the Habitats Regulations Assessment** is required to be submitted to the Secretary of the State according to Regulations 62 (5) and 64 (2) of the Habitats Regulations 2010. This is found in **Appendix 20 of this SMP2** and will be submitted by the 9th November 2010, following consideration by Natural England. This last stage assesses whether there are any alternative solutions or preventative measures to the policy (PU6C.5) that is resulting in the adverse effect, and to determine that the SMP2 should be permitted for Imperative Reasons of Overriding Public Interest. Compensatory habitat measures must therefore be secured to ensure that the overall coherence of the *Natura 2000* network is protected. Appendix 20 will also record the compensation habitat required to pass onto the Environment Agency's Southern Regional Habitat Creation Programme for delivery, which is the Government's recommended vehicle for delivering strategic habitat compensation and are funded in advance of policies that cause damage.

The key contact for the HRA is **Dr Elizabeth Jolley**. Requests for further information should be sent by email to e.jolley@royalhaskoning.com (copying in jenny.jakeways@iow.gov.uk) or to the following address:

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I1 INTRODUCTION

I1.1 Purpose

I1.1.1 This appendix is the Habitats Regulations Assessment (HRA) component of the first Isle of Wight Shoreline Management Plan review (known as SMP2), which has been prepared by Royal Haskoning for the Isle of Wight Centre for the Coastal Environment (IWCCE) on behalf of the Isle of Wight Council (the only operating authority) and the Environment Agency.

I1.1.2 European Union policy is fundamental to coastal management and decision-making. A HRA is a requirement of Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, referred to as the 'Habitats Directive'. The Habitats Directive is transposed into UK law by means of The Conservation of Habitats and Species Regulations 2010 (SI 2010 No 490). These regulations make HRA a mandatory requirement for certain plans and programmes that are likely to have significant environmental effects on International and European sites[1]. Natural England has determined that SMPs, as plans which can influence International nature conservation designations, should be subject to such assessment.

I1.1.3 This Habitats Regulations Assessment Report represents Stage 3 of the HRA process, the Appropriate Assessment, which is preceded with a summary of Stages 1 and 2 (Screening and Scoping).

I1.1.4 During the preparation of this document we have referred to, where applicable, the following guidance and supporting information:

- Assessment of plans and projects affecting *Natura* 2000 sites (European Commission, 2001);
- Planning for the Protection of European Sites: Appropriate Assessment (DCLG, 2006);
- The Assessment of Regional Spatial Strategies under the Provisions of the Habitats Regulations – Draft Guidance (Natural England, 2006);
- Southern Region Habitat Creation Programme (RHCP);
- Advice from meetings with local Natural England (NE), Environment Agency and Isle of Wight (IW) Council experts (Royal Haskoning, 2010a & b);
- Appropriate Assessment for North Solent Shoreline Management Plan (North Solent Forum, 2009);
- Appropriate Assessment of Flood Risk Management Plans Under the Habitats Regulations (Environment Agency, Draft document);
- Isle of Wight Mitigation Strategy (Isle of Wight Council, 2006); and
- North Solent Coastal Habitat Management Plan (CHaMP) (Posford Haskoning, 2003).

[1] A European site or *Natura 2000* site is either a Special Area of Conservation (SAC) or a Special Protection Area (SPA) (or identified candidate/potential sites for such designations). Government policy as outlined in the addendum to Planning Policy Statement 9 (PPS 9) (Department for Communities and Local Government (DCLG), 2005) is that wetlands of international importance designated under the Ramsar Convention ('Ramsar sites') should also be subject to the provisions of the Habitats Regulations. **Ramsar sites**, **SPAs** and **SACs**, are collectively referred to hereafter as '**International sites**'.

I1.2 Shoreline Management Plans (SMPs) and the Isle of Wight

I1.2.1 Off the south coast of England, the Isle of Wight is the largest island within the UK and is separated from Hampshire by the Solent estuary. The Isle of Wight SMP2 frontage includes the entire coastline of the Island, and is approximately 168km (104 miles), of which 60% is coastal and 40% is within the five main estuaries. The majority of the Island is undefended (64%), with 36% protected from tidal flooding and coastal erosion by variety of coastal defences (see **Figure 1.1**). The majority of the frontages are maintained by either the Isle of Wight Council (47%), private landowners (39%), or the National Trust (11%).

SMP Aims and Objectives

I1.2.2 A Shoreline Management Plan (SMP) is a non-statutory policy document that provides a consistent approach to the high level assessment of the risks over the next 100 years from flooding and coastal erosion (taking into account cliff stability). It needs to take account of existing defences and the natural and built environments, and be compatible with adjacent coastal areas. An SMP aims to manage risk by using a range of methods that reflect both national and local priorities to reduce the threat of flooding and erosion to people and their property and benefit the environment, society and the economy as far as possible. This is in line with the Government's 'sustainable development principles'.

I1.2.3 The first SMP for the Isle of Wight area was completed in 1997. This is the first review of the SMP and is referred to as SMP2. For the SMP2, sections of the coast are considered with respect to their influence on (and interaction with) other areas of the SMP, and therefore a series of seven Policy Development Zones (PDZs), as illustrated in **Figure 1.1**, have been developed which incorporate specific sections of the coast. These sections of coastline have been considered with respect to their influence on, and interaction with, other areas of the SMP. Furthermore, each PDZ has been divided into Management Units (MANs), which themselves are divided into Policy Units (PUs).

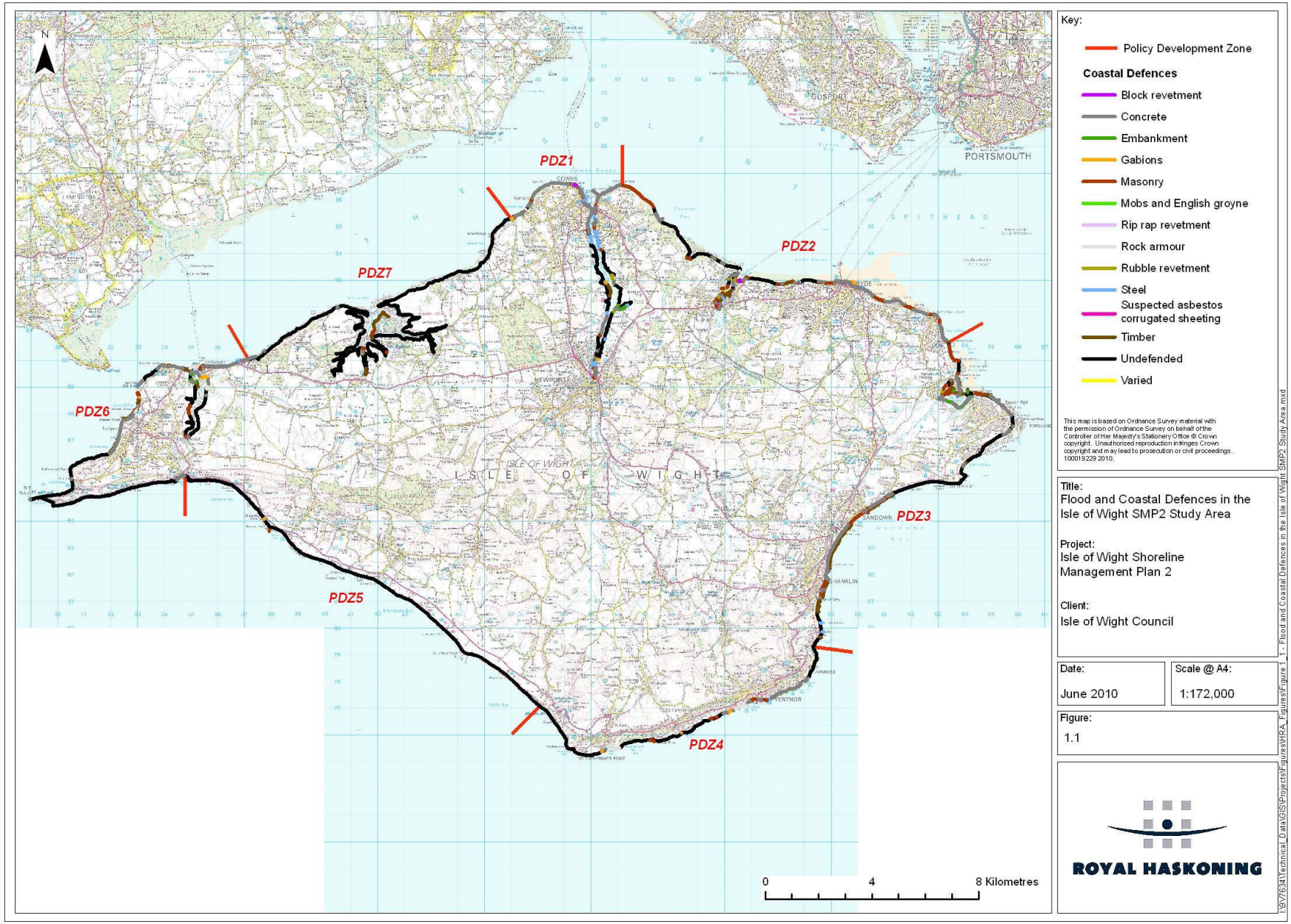
I1.2.4 The most appropriate option for shoreline management will depend on the section of coastline in question and on technical, environmental, social and economic circumstances. The four options considered for shoreline management in the second generation SMPs are presented in **Table 1.1**.

Table 1.1 Shoreline Management Policy Options (Defra, 2006)

No Active Intervention (NAI) – where there is no investment in coastal defences or operations.
Hold the existing defence Line (HTL) – by maintaining or changing the standard of protection. This policy covers those situations where work or operations are carried out in front of the existing defences (such as beach recharge, rebuilding the toe of a structure, building offshore breakwaters and so on) to improve or maintain the standard of protection provided by the existing defence line. It also includes operations to the back of existing defences (such as building secondary floodwalls) where they form an essential part of maintaining the current coastal defence system.
Managed Realignment (MR) – by allowing the shoreline to move backwards or forwards, with management to control or limit movement (such as reducing erosion or building new defences on the landward side of the original defences); and
Advance the existing defence Line (ATL) – by building new defences on the seaward side of the original defences. Using this policy should be limited to those policy units where significant land reclamation is considered

I1.2.5 Within the development of an SMP, an epoch (time periods) based approach is used for planning purposes, with the three epochs being 0 – 20 (2005 – 2025), 20 – 50 (2025 – 2055) and 50 – 100 (2055 – 2105) years hence.

Figure 1.1 Existing coastal defences around the Isle of Wight



Implications of SMP Policy on the Natural Environment

I1.2.6 Each of the SMP policies presented in **Table 1.1** has the potential to impact the natural environment in one or more ways. **Table 1.2** presents potential implications of each option.

Table 1.2 Potential Generic Implications of Each SMP Option in the natural environment

SMP Option	Positive Impacts	Negative Impacts
Hold the line (HTL)	• Protection of habitat landward of defences. • Provides stability to areas of coastline, within a wider management context.	**Coastal squeeze (with sea level rise):** • Reduction in the extent of coastal habitat. • Change in physical and biological characteristics and thus functionality of habitat. **Change / interruption of coastal processes:** • Change in physical and biological characteristics and thus functionality of coastal and marine habitats. • May increase/decrease rate of coastal erosion either side of the advanced line. **Restriction of cliff coastal erosion** • Alteration to cliff succession and associated habitats and species. • Change in physical and biological characteristics. • May increase/decrease rate of coastal erosion either side of the defended toe.
Advance the line (ATL)	• Protection of habitat landward of defences.	
Managed realignment (MR)	• Coastal habitats allowed to move landwards under rising sea levels. • Habitat created for juvenile fish and other aquatic organisms (benefits to environment and fishing communities). • Promotes natural coastal processes. • Contributes towards a more natural management of the coast. • Creation of high tide roosts and feeding areas.	**Saline intrusion:** • Causes a change in nature of habitat originally landward of defences. • Change in physical and biological characteristics. • Reduction in extent of terrestrial habitats. • Loss of wader roost habitat. **Change / interruption of coastal processes:** • Change in physical and biological characteristics and thus functionality of coastal and marine habitats. • May increase/decrease rate of coastal erosion either side of the advanced line.
No active intervention (NAI)	• Coastal habitats allowed to move landwards under rising sea levels. • Promotes natural coastal processes. • Contributes towards a more natural management of the coast.	**Saline intrusion:** • Increased risk of inundation to landward habitats under rising sea levels. • Loss of wader roost habitat.

I1.3 Requirement for a Habitats Regulations Assessment for the Isle of Wight SMP2

I1.3.1 The Island supports a wide variety of nationally and internationally important ecological systems, habitats and species. The special qualities of these natural habitats around the coast are recognised in the number of International, European and national designations (see **Figure 1.2** for the sites considered within this report). The diverse range of coastal habitats includes maritime cliffs and slopes, coastal saltmarsh, coastal saline lagoons, intertidal mudflats and seagrass, grazing marshes, intertidal and subtidal rocky reefs, estuaries and coastal woodland. The vast majority of the Isle of Wight defences are fronted and/or backed by internationally-designated sites. Therefore, the Isle of Wight SMP2 policies are likely to have some form of significant effect upon these designated habitats, whether these defences are held or re-aligned, thereby triggering the requirement for an Appropriate Assessment.

I1.3.2 The need for Appropriate Assessment (AA) arises under the requirements of The Conservation of Habitats and Species Regulations (see **paragraph I1.1.2**). On the 20th October 2005, the European Court of Justice (ECJ) ruled that the UK had not transposed Articles 6(3) and (4) of the EC Habitats Directive fully into UK law. As such, a new amendment came into force in August 2007 to implement the ECJ judgement. The amendment included the addition of Part IVa to the Regulations entitled "AA for Land Use Plans in England and Wales". Articles 6 (3) and 6 (4) of the Habitats Directive, implemented through Regulation 61(1), states that detailed assessment is required for "*any plan or project, which either alone or in combination with other plans or projects, is likely to have a significant effect on a European site and is not directly connected with or necessary for the management of the site*". The process under this requirement is referred to as HRA. Commission Guidance on the Habitats Directive sets out four distinct stages for HRAs, of which AA is the third stage (see **Section I2.2**).

I1.3.3 The HRA process and the outcomes of the AA allows the 'Competent Authority' to determine whether the proposed plan will have an adverse effect on the integrity of any International site. Office of the Deputy Prime Minister (ODPM)'s 2005 Government Circular on Biodiversity and Geological Conservation defines a site's integrity as the *coherence of the site's ecological structure and function, across its whole area, or the habitats, complex of habitats and/or population of the species for which the site is classified*. *An adverse effect on integrity is likely to be one that prevents the site from maintaining the same contribution to favourable status for the relevant feature(s), as it did when the site was designated*.

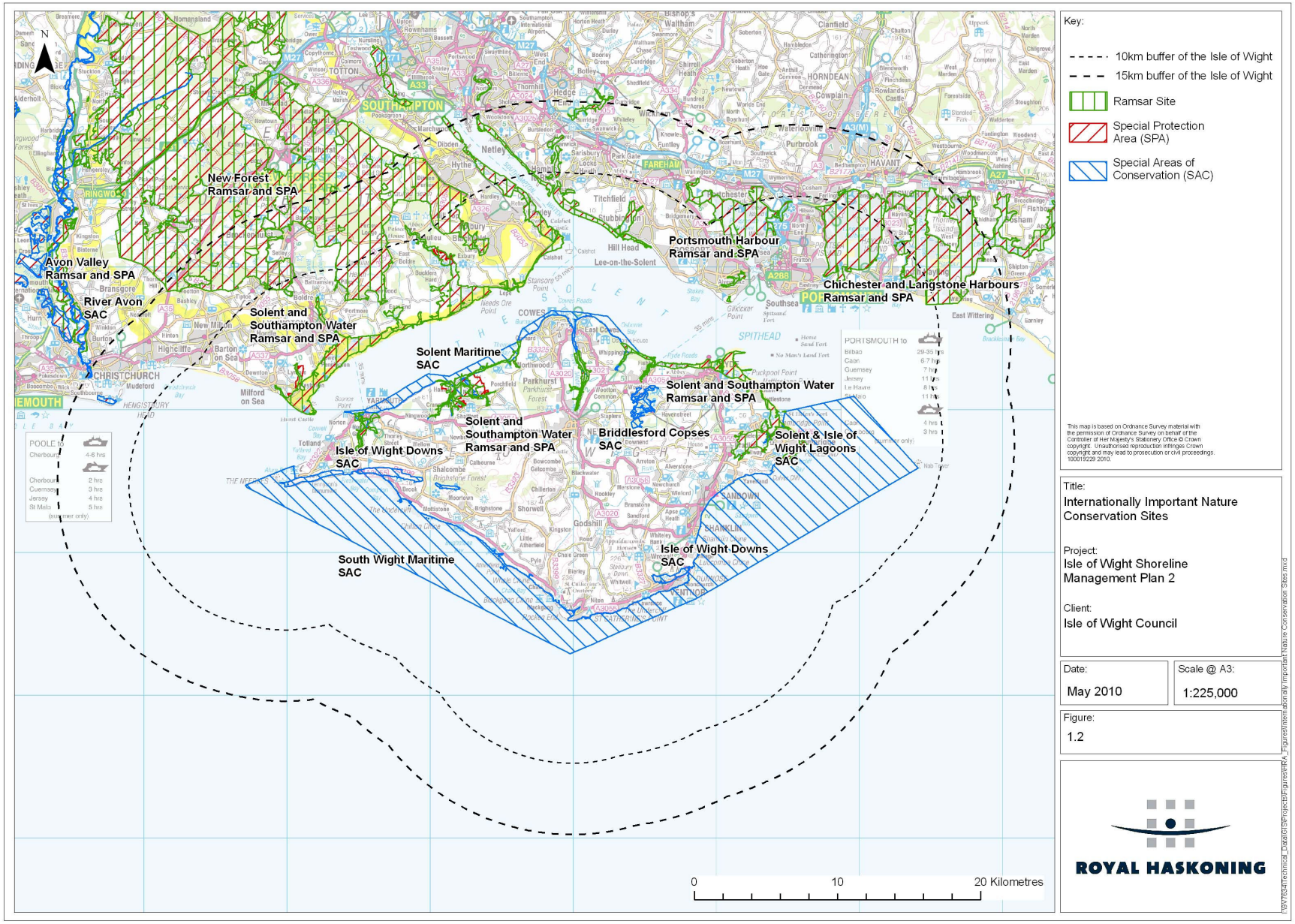
I1.4 Report Structure

I1.4.1 This report is composed of eleven sections which provide a staged approach to the HRA Process for the Isle of Wight SMP2. This introduction forms **Section 1**. The remainder of the report is structured as follows:

- **Section 2** HRA Assessment Methodology
- **Section 3** Baseline Summary of the Relevant International Sites;
- **Section 4** Consideration of Other Plans and Projects;
- **Section 5** The 'Alone' Assessment of SMP Policy;
- **Section 6** Cumulative Summary of the Whole SMP
- **Section 7** In-Combination and Cumulative Assessment;
- **Section 8** Next Stage: Where to from here?
- **Section 9** References;

- **Section 10** Glossary; and
- **Section 11** Abbreviations

Figure 1.2 Internationally designated nature conservation sites on and within 15km of the Isle of Wight



I2 HRA ASSESSMENT METHODOLOGY

I2.1 Development of Assessment Areas – Policy Development Zones

I2.1.1 The assessment is being provided at PDZ level, in the same way as that used in the Strategic Environmental Assessment (SEA). Details of these PDZs can be found in **Section 3 of the main SMP document**. The seven PDZs within the Isle of Wight SMP2 have been defined as (clockwise from the north around the Island):

- PDZ 1 – Cowes and Medina Estuary;
- PDZ 2 – Ryde and the North-east Coastline;
- PDZ 3 – Bembridge and Sandown Bay;
- PDZ 4 – Ventnor and the Undercliff;
- PDZ 5 – South-west Coastline;
- PDZ 6 – West Wight; and
- PDZ 7 – North-west Coastline.

I2.1.2 The development of policy within this SMP has been devised in response to a consideration of the environmental, social and economic features of the Isle of Wight and of the coastal processes and systems which shape the coast. Each PDZ has been defined to offer the most appropriate spatial breakdown of the coast, where processes can be managed (as appropriate) at a scale which is driven by wider management objectives. Essentially, the PDZ is the level at which the SMP 'makes sense' when establishing the intent of management. It therefore follows that an assessment of SMP policy is undertaken at the PDZ scale.

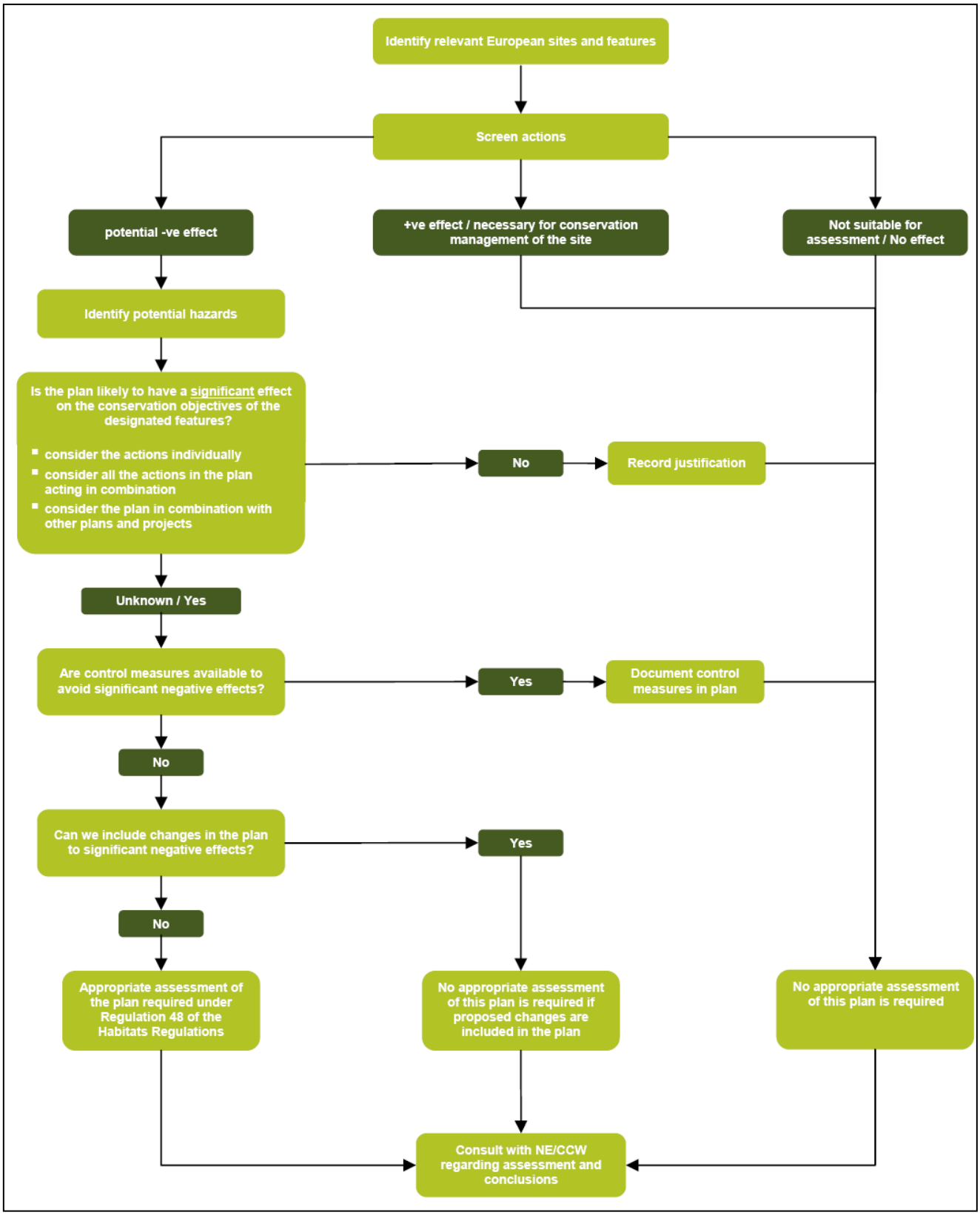
I2.2 HRA Process

I2.2.1 The HRA process follows a number of steps which are illustrated in **Figure 2.1** and can be grouped into four key stages, as set out by Commission Guidance on the Habitats Directive and shown in **Table 2.1** below. The key stages for the HRA are discussed below.

Table 2.1 The Four Stages of the Habitats Regulations Assessment

Stage		Task
1 & 2	**Screening and Scoping**	• Determine whether the SMP is necessary for site management; • Identify all International and European sites that are likely to be significantly affected by the SMP and acquire conservation objectives for each site; • Agree method and level of detail for Appropriate Assessment; and • Assess likely significant effect of SMP policies.
3	**Appropriate Assessment**	• Assess and quantify the significant effects of the SMP policies; • Determine whether the SMP will have an adverse effect on the integrity of a European site either alone or in combination; • Assess possible adverse effects and consider mitigation measures; and • Test for Alternative Solutions (based on alternative policy options – Appendix G of SMP document)
4	**Approval or refusal of plan**	• Determine Overriding Public Interest where there are no viable alternatives; and • Quantify compensation if needed and secure through the Southern RHCP.

Figure 2.1 A summary of the Stages 2 and 3 of the HRA process



I2.3 Stages 1 and 2: Combined Screening and Scoping

I2.3.1 A combined Screening and Scoping Report was drafted to identify the extent and availability of information about the designated sites that were considered likely to be significantly affected by the SMP, as well as identifying the methodology for the Stage 3: AA (Royal Haskoning, April 2010a, b).

I2.3.2 Information on the International sites that were within 15km of the Isle of Wight coastline was collected to provide a baseline against which the likely significant effects of the SMP could be measured and assessed (refer to **Annex I-I** for the location of designated sites within each PDZ). The baseline data identifies the primary reasons for their designation, the factors influencing the condition of the sites, and the sites' conservation objectives (where available) and sensitivities. The baseline that was in the HRA Scoping report can be found in **Annex I-II** of this document.

I2.3.3 These sites and their features have been identified by gathering relevant information from the following sources, as well as consultation with key organisations:

- JNCC website for protected sites;
- *Natura 2000* standard data forms;
- Information sheets on Ramsar wetlands (JNCC, 2010);
- Regulation 33 advice on the Solent European Marine Site (Natural England, 2001a);
- Regulation 33 advice on the South Wight Maritime European Marine Site (Natural England, 2001b); and
- Site of Special Scientific Interest (SSSI) conservation objectives.

I2.3.4 The study area for the HRA of the SMP2 consists of the Isle of Wight and those International sites within 15km of the island's coastline; these are illustrated on **Figure 1.2** and in **Table 2.2**. There are six *Natura 2000* sites (SACs and SPAs) designated under the Birds and Habitats Directives on the Isle of Wight (along or near the coastline), and one site designated under the Ramsar Convention. There are also five *Natura 2000* sites and four Ramsar sites that are within 15km of the Island that could be affected by the Isle of Wight SMP2 policies.

Table 2.2 International sites of nature conservation interest within 15km of the Isle of Wight

Sites on the Isle of Wight	Sites within 15km of the Isle of Wight coast
Special Areas of Conservation (SAC) - designated under the EU Habitats Directive (92/43/EEC)	
• Solent Maritime; • Briddlesford Copse; • Solent and Isle of Wight Lagoons; • South Wight Maritime; and • Isle of Wight Downs.	• River Avon (within 15km radius)
Special Protection Areas (SPA) - designated under the Birds Directive (2009/147/EC)	
• Solent and Southampton Water	• Portsmouth Harbour (within 10km); • Chichester and Langstone Harbours (within 10km); • New Forest (within 15km); and • Avon Valley (within 15km).
Ramsar sites - Wetlands of International importance designated under the Ramsar Convention	
• Solent and Southampton Water	• Portsmouth Harbour (within 10km); • Chichester and Langstone Harbours (within 10km); • New Forest (within 15km); and • Avon Valley (within 15km).

I2.3.5 The HRA Scoping Report was submitted to the Client Steering Group (CSG)[2] and specifically to Natural England and the Environment Agency for comment in relation to scoping in or out of *Natura 2000* sites depending on a number of physical factors (distance, lack of pathway from source to site, etc). Comments received and discussions on the HRA draft Scoping Report with Natural England, the Environment Agency and the Isle of Wight's Senior Ecologist were used to structure this assessment and report. The scoping responses and HRA topic group meeting minutes have been collated and are presented in **Annex I-II**.

Assessment of Likely Significant Effect

I2.3.6 The 'Likely Significant Effect' (LSE) of the SMP2 policy options on the integrity of potentially affected International sites was assessed during the scoping stage, so as to identify which sites would be carried through to the Stage 3: AA phase. Following this assessment, a number of sites were scoped out of the HRA, as there is no likelihood of significant effects occurring on these sites. A summary of the LSE of the Isle of Wight SMP2 on all the International sites within 15km is illustrated in **Table 2.3**. Furthermore, there are some interest features that have been scoped out for sites that have been scoped in, since these features either do not occur on the Isle of Wight or are not at risk from coastal management. For example, only one of the Annex I species in the Solent and Southampton SPA occurs on the Isle of Wight, this is the Mediterranean gull; these species or habitats are also given in **Table 2.3** below.

Table 2.3 Summary of the Likely Significant Effect (LSE) Scoping Exercise

Designation	Name	Distance	Reason for Effect
Negative LSE			
SAC	Solent Maritime	Includes a large stretch of marine and intertidal areas around the coast of the Isle of Wight in PDZs 1, 2 and 7.	Potential for the SMP policy options to directly affect some of the interest features of the site. [3]Desmoulin's whorl snail *Vertigo moulinsiana* does not occur on the Isle of Wight so is not included in the assessment.
	Briddlesford Copse	Landward (within 500m) of PDZ 2 boundary.	A proportion of the site lies within the tidal flood zone.
	Solent and Isle of Wight Lagoons	Immediately landward of defences in PDZ 3.	The Isle of Wight lagoons are retained by coastal defence structures – so their status depends on the management of these defences; other lagoons within the designation (within Keyhaven, Chichester Harbour & Gosport) and their features will not be.
	South Wight Maritime	Includes a large stretch of marine, intertidal and terrestrial areas of the Isle of Wight in PDZs 3, 4, 5 and 6.	Potential for the SMP policy options to directly affect some or all of the interest features of the site.
	Isle of Wight Downs	Some cliff areas	Potential for the SMP policy options to directly affect the

[2] The **Client Steering Group (CSG)** includes representatives of the operating authorities, neighbouring SMPs, statutory authorities, and key interest organisations.

[3] The North Solent SMP is assessing the impact of their policies on the integrity of the Solent Maritime SAC, Solent and Isle of Wight Lagoons SAC and the Solent and Southampton Water SPA and Ramsar sites. Between the North Solent and Isle of Wight SMPs the designated sites across the Solent area are being divided, yet 'dove-tailed' together, whilst both the affects are being fed into the Southern RHCP for securing the necessary compensatory habitat.

Designation	Name	Distance	Reason for Effect
		within PDZs 4, 5 and 6 of the SMP study area.	interest feature "vegetated sea cliffs of the Atlantic & Baltic coasts" of this site, but not "European dry heaths", "semi-natural dry grasslands and scrubland facies" or "Early Gentian".
SPA/Ramsar	Solent and Southampton Water	Includes large areas of coastal habitats around the coast of the Island in PDZs 1, 2, 3, 6 and 7.	Potential for the SMP policy options to directly affect some of the interest features of the site. The only Annex I species to occur on the island is the Mediterranean gull, so the others can be scoped out, as well as the habitats that are not used by this species i.e. vegetated shingle, unvegetated shingle and shallow sub-tidal. The designated areas on the mainland have been scoped out as it is not likely that the coastal management of the Island would affect the coastal processes to such degree that the interest features of the SPA will be affected.
No LSE[4]			
SAC	River Avon	part of site within 10 – 15 km	It is not likely that the coastal management of the Isle of Wight would affect the coastal processes to such a degree that the interest features of this SAC would be affected (i.e. habitats).
SPA / Ramsar	Portsmouth Harbour	majority of site within 10km	The LSE assessment determined that the coastal management of the Island is not likely to affect the coastal processes to such a degree that the coastal habitats that support the bird species within these SPAs will be affected.
	Chichester and Langstone Harbours	part of site within 10 km	
	Avon Valley	part of site within 10 – 15 km	
	New Forest	part of site within 10 km	These inland sites support terrestrial interest features and will not be influenced by coastal management decisions on the Isle of Wight.

I2.3.7 A summary of the International sites and the relevant interest features that have been scoped as likely to be affected by the SMP policies is presented in **Section I3**.

I2.4 SMP Habitat Groupings for Stage 3: Appropriate Assessment

I2.4.1 Through discussions with Natural England, the Environment Agency and the Isle of Wight's Senior Ecologist it is considered that SMP policy will only affect species by affecting a change to their habitat. As such a habitat group-focused assessment has been adopted as has been done by the North Solent SMP. Therefore it has been agreed that it would be appropriate to use 'SMP habitat groupings' to assess the impact of the SMP2 on the conservation objectives of each International site (see HRA Topic Group Minutes 230210 (Royal Haskoning, 2010a) in **Annex I-III of this document**).

I2.4.2 A generic assessment of what impacts are caused by each of the four SMP policies, and how this could affect the conservation objectives of internationally designated coastal and marine habitats is given in **Table 1.1**. As advised by Natural England, specific impacts that are more relevant at scheme or project level have not been assessed (Isle of Wight Council,

[4] The North Solent SMP is assessing the integrity of the coastal SPA/SACs that have been scoped out of the Isle of Wight SMP (i.e. River Avon SAC, Portsmouth Harbour, Chichester and Langstone Harbours, Avon Valley and New Forest SPAs).

2008; see **Annex I-III** - Royal Haskoning, 2010a). Therefore the impacts for this plan have been limited to:

- coastal squeeze[5];
- changes in coastal processes;
- saline intrusion of freshwater sites (i.e. as defences are overtopped, within the epochs, or realigned); and
- restriction of coastal erosion (i.e. defences at the toe of cliffs to stabilise them thus not allowing them to be naturally disturbed by erosion and subsequently slumping, cause an alternation to cliff succession).

I2.4.3 The above impacts have been assessed against the habitat groupings which they might affect for each of the designated sites and recorded in **Tables 2.4** (SACs), **2.5** (SPAs) and **2.6** (Ramsar sites).

Table 2.4 **List of interest features that are likely to be significantly affected by the SMP policy for each of the five SACs (*signifies Annex I habitats) the SMP habitat groups and generic impacts**

Impacts	Code	Interest Features	SMP Habitat Groups
Solent Maritime			
Coastal Squeeze / Coastal Processes	1310	*Salicornia* and other annuals colonising mud and sand	**Coastal saltmarsh**
	1320	*Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)	
	1330	*Spartina swards (*Spartinion maritimae*)	
	1140	Mudflats and sandflats - not submerged at low tide	**Intertidal sediments**
	1110	Sandbanks - slightly covered by sea water all the time	
	2120	Shifting white dunes along the shoreline with *Ammophila arenaria*	
	1130	*Estuaries	
	1210	Annual vegetation drift lines	
	1220	Perennial vegetation of stony banks	
	1130	*Estuaries	**Estuaries**
Saline intrusion	1150	Coastal lagoons. *Priority feature	**Saline lagoons**
Briddlesford Copse			
Saline intrusion	1323	*Bechstein's Bat	**Woodland**
Solent IOW Lagoons			
Saline intrusion	1150	*Coastal lagoons. *Priority feature	**Saline Lagoons**
South Wight Maritime			
Restriction of coastal erosion	1230	*Vegetated sea cliffs of the Atlantic & Baltic coasts	**Vegetated sea cliffs**
Coastal squeeze / Coastal	8330	*Submerged and partially submerged sea caves	**Intertidal and subtidal rocky**
	1170	*Reefs	

[5] **Natural England's definition of coastal squeeze as an impact on intertidal habitats**: this impact can occur against any hard defence, whether flood defence or coast protection. Natural England recognise that by far the greatest impact affecting Solent soft sediment sites is squeeze against flood defences with extensive low-lying land behind them. On the Isle of Wight coastal squeeze is mostly against coast protection with rising land behind, which contrasts to that found on the north side of the Solent. Therefore, it is predicted that coastal squeeze habitat losses on the north coast of the Island will be small compared to losses for the same Natura 2000 sites on the North Solent, and the quantity requiring mitigation / compensation will be increased by a few hectares.

Impacts	Code	Interest Features	SMP Habitat Groups
processes			**habitats**
Isle of Wight Downs			
Restriction of coastal erosion	1230	*Vegetated sea cliffs of the Atlantic & Baltic coasts	**Vegetated sea cliffs**

Table 2.5 **List of the interest features, functional habitats, habitat use (F = feeding, N = Nesting, R = roosting), SMP habitat groupings and impacts for Solent and Southampton Water SPA**

Impacts	Interest Features	Functional Habitat	Habitat Use			SMP Habitat Groups
			F	N	R	
Coastal squeeze / Coastal processes	**Annex I species** (Mediterranean gull)	Intertidal saltmarsh		✓	✓	**Coastal saltmarsh**
		Intertidal mudflat & sand (at high water)	✓			**Intertidal sediments**
Saline intrusion		Saline lagoons	✓			**Saline lagoons**
Coastal squeeze / Coastal processes	**Migratory species** (Black-tailed Godwit, Dark-bellied Brent goose, Teal, Ringed plover) and **Waterfowl assemblage**	Intertidal saltmarsh	✓		✓	**Coastal saltmarsh**
		Intertidal mudflat	✓		✓	**Intertidal sediments**
		Intertidal mixed sediment shores	✓		✓	
		Intertidal sand flats	✓		✓	
		Vegetated shingle			✓	
		Unvegetated shingle			✓	
Coastal processes		Shallow sub-tidal	✓			**Shallow sub-tidal**
Saline intrusion		Freshwater habitats	✓		✓	**Freshwater habitats**
		Fresh marshes & open water	✓			
		Coastal grazing marsh	✓		✓	**Coastal grazing marsh**
		Terrestrial grasslands (wet and dry)	✓		✓	**Freshwater habitats /Coastal grazing marsh**

Table 2.6 **List of the interest features, SMP habitat groupings and impacts for Solent and Southampton Water Ramsar site**

Impact	Interest Features		SMP Habitat Groups
	Code	Ramsar Wetland Types	
Saline intrusion	J	Coastal brackish/saline lagoons	**Saline lagoons**
	Sp	Permanent saline/brackish/alkaline marshes/pools	**Coastal grazing marsh**
	Tp	Permanent freshwater marshes/pools	**Freshwater habitat (ponds, reedbeds & woodland)**
	Xf	Freshwater, tree dominated wetlands	
Coastal squeeze / Coastal processes	H	Intertidal marshes	**Coastal saltmarsh**
	G	Intertidal mud, sand or salt flats	**Intertidal sediments**
	E	Sand, shingle or pebble shores	
	F	Estuarine waters	**Estuaries**
Coastal processes	B	Marine subtidal aquatic beds	**Marine Aquatic Beds**
	D	Rocky marine shores	**Intertidal and Subtidal Rocky Shores**

I2.4.4 Overall, 12 SMP habitat groupings have been identified; these are illustrated against the four generic impacts for each of the International designations in the table below (**Table 2.7**).

Table 2.7 **SMP Habitats types present for each of the designations and the relevant impact type**

SMP Habitat Grouping	Solent Maritime SAC	Briddlesford Copse SAC	Solent IOW Lagoons	South Wight Maritime	Isle of Wight Downs	Solent & Southampton SPA	Solent & Southampton Ramsar	Main Impact Type
Intertidal sediments	✓					✓	✓	**Coastal Squeeze / Coastal Processes**
Coastal saltmarsh	✓					✓	✓	
Estuaries	✓						✓	
Intertidal and Subtidal Rocky Habitats				✓			✓	
Vegetated sea cliffs				✓	✓			**Restriction of coastal erosion**
Saline lagoons	✓		✓			✓	✓	**Saline Intrusion**
Coastal grazing marsh						✓	✓	
Freshwater habitats (including ponds, reedbeds & wet woodland)						✓	✓	
Woodland		✓						
Intertidal and Subtidal Rocky Habitats				✓			✓	**Coastal Processes**
Shallow Subtidal						✓		
Marine Aquatic Beds							✓	

Feeding and High Tide Roost Sites

I2.4.5 The location of the designated and non-designated wader and wildfowl high water roost sites was obtained from the Brent Goose and Wader Roost Strategies courtesy of the Hampshire and Isle of Wight Wildlife Trust (e.g. Liley & Sharp, 2010). The North Solent SMP has carried out extensive work on the importance of the feeding and high tide roost network across the Solent (North Solent Forum, 2009). Furthermore, the key finding from Cox (2009b) was that the network of roost sites within the SPA/Ramsar site is important, not individual roost sites. Any loss of designated or non-designated wader and wildfowl high water roost sites, as a result of the SMP policies (though not where there is an NAI policy where the coastline is undefended) will be identified as requiring replacement function for each SPA/Ramsar site.

There are six areas across the north coast of the Isle of Wight where there are feeding and high tide roost sites of varying importance, mainly around the main estuaries on the island. These sites are given in **Table 2.8** below.

Table 2.8 SMP Habitats types present for each of the designations and the relevant impact type

Area (PDZ)	Specific Site Location	Policy Unit (Policy)	Importance of Brent Geese feeding sites	Importance of Wader high tide roost sites
Western Yar Estuary (PDZ 6)	West side (south of Norton)	PU6C.2 (NAI)	Local data/information confirms this is an **important feeding site**[6].	Local data confirms this is an **important roost site.**
Western Yar Estuary (PDZ 6)	East side (around Thorley and Barnsfield Streams)	PU6C.5 (HTL/MR/NAI)	**An important site** for feeding by waders and wildfowl using the coastal grazing marsh[6].	**An important site** for high tide roosts within the coastal grazing marsh[6].
Newtown Estuary (PDZ 7)	Over 10 locations within the estuary	PU7.2 (NAI)	**An important site**, particularly between Shalfleet Lake and Causeway Lake.	**An important site**, particularly including on the eastern spit.
Thorness Bay (PDZ 7)	Four locations on the coast near Little Thorness	PU7.3 (NAI)	**An important site** for feeding.	Five uncertain areas for roosting within this site.
Medina Estuary (PDZ 1)	Central medina – west side (Werrar Farm)	PU1B.1 (NAI)	**One important area** on the Werrar Marsh saltmarsh and a number of uncertain locations landward of this.	**Two important areas** (saltmarsh bank landward of Werrar Farm). Two uncertain areas within this site.
	Central medina – east side	PU1B.5 (NAI)	**Large area of importance** between the Marina and Medina Park (south of the Folly Works industrial site). Two uncertain areas – the marina and near North Fairlee Farm	No important areas. Three uncertain areas (same as Brent Geese feeding sites).
Ryde Sands (PDZ 2)	Ryde East Sands and along the	PU2C.1 (HTL) and PU2C.2 (HTL)	**Large important area** for wader and waterfowl	Minimal value as a roosting site.

[6] Refer to communications (09/07/10) with Colin Pope (IoW Council Senior Ecologist) found on page 145 (**Annex I-III**)

Area (PDZ)	Specific Site Location	Policy Unit (Policy)	Importance of Brent Geese feeding sites	Importance of Wader high tide roost sites
	Appley, Puckpool and Spring Vale frontage		feeding. Two uncertain areas at The Duver and Woodlands Vale.	
Eastern Yar (PDZ 3)	Eastery Yar (landward of Embankment Road)	PU3A.4 (HTL)	**An important area** for wader and waterfowl feeding, particularly around Home Farm.	**An important area** for wader and waterfowl feeding, particularly around Home Farm.

I2.5 Stage 3: Appropriate Assessment Methodology

I2.5.1 The AA is the main stage of the whole HRA process (illustrated in **Figure 2.1**). Its objective is to ascertain that the SMP will not have an adverse effect on the integrity of the International sites, either alone or in combination with other plans and projects, or to quantify any adverse effect arising from the plan. The adverse effects of the Isle of Wight SMP on the International sites affected have been described, including mitigation measures to offset the adverse impacts.

I2.5.2 As stated in **Section I1.3** above, an adverse effect on site integrity is likely to be one that prevents the site from reaching or maintaining favourable status for the relevant feature(s). Favourable conservation status of an International site is defined by Article 1 of the Habitats Directive and it is through this definition that the site's conservation objectives can be identified. The effects of a plan or project on the International sites concerned must be assessed against these conservation objectives.

I2.5.3 The methodology for the detailed assessment of the effects of the proposed SMP policies on *Natura 2000* sites has been developed in accordance with the guidance of the Department for Communities and Local Government (DCLG) and Natural England, as well as utilising the RSPB guidance. Additionally, AA methodologies devised for large scale developments have been evaluated to ensure that the approach provided here is based on actual practical implementation of The Conservation of Habitats and Species Regulations. The approach developed has also been tailored to ensure that the requirements of these Regulations and supporting guidance are met. The need to ensure that the assessment is actually 'appropriate' to the evaluation of policies relating to shoreline management activities has also been recognised.

I2.5.4 Significant effects have been screened using the RSPB guidance (2007) which states that a significant effect is triggered when:

- There is the ***probability or a risk*** of a plan or project having a significant effect on a International Site;
- The plan is ***likely to undermine*** the site's conservation objectives; and
- A significant effect ***cannot be excluded*** on the basis of objective information.

I2.5.5 The Stage 3 assessment of the SMP policies is supported by a tabulated account. Tables provided in the Scoping Report show the SMP habitat groupings of the site, the attributes relevant to such features, the identified management targets for the site and known sensitivities or management issues. The assessment will evaluate and tabulate the policies (over three epochs) against each SMP habitat grouping within each designation. This will record the potential impacts of the policies and any preventative and mitigation measures (or opportunities where the measures have not been secured for this SMP) that could be taken to avoid any adverse impact identified within the site habitat groupings and targets. This

exercise will be recorded at the PDZ level, although within each of these all MANs and their PUs will be assessed with regard to the possible impacts on the designated features. The PDZs have been devised to provide discrete, spatial areas for policy application, however, if a policy may affect a neighbouring PDZ, this will be included in the assessment. The level of assessment has been provided at an 'appropriate' level for a policy based assessment and in recognition of the fact that further assessment would be provided when an actual scheme for the works is developed (under Land drainage and/or Town and Country planning application procedures). Paragraph 1.7.1 of the Natural England Guidance document (Natural England, 2006) acknowledges the need to provide a level of assessment that is 'appropriate' and refers to the ECJ ruling where the Advocate General's opinion was that the assessment for policy should be as rigorous an assessment as can reasonably be undertaken.

I2.5.6 On the basis of this exercise, an assessment can then be provided in regard to the overall impacts of the SMP on the overall integrity of the International sites. The Stage 3: AA methodology described here will only be applied to **preferred policy options**. This does not preclude consideration of other policy options in terms of the Regulations and it is anticipated that preferred options will be developed with the likely acceptability of these in terms of the Regulations as a key consideration.

Assessment of Impacts over Different SMP Epochs

I2.5.7 The complications of applying the 2010 Habitats and Species Regulations at the policy level are further enhanced by the different timescales or epochs over which they apply (20 years, 50 years and 100 years). The epochs extend from 2005 to 2025 (Epoch 1), then to 2055 (Epoch 2), then to 2105 (Epoch 3). The possibility exists that SMPs or their policies will result in short-term adverse impacts, but that in the longer term the SMP will enable site integrity to be maintained.

I2.6 Provision of an 'In Combination' and 'Cumulative' Assessment

I2.6.1 The Habitats Regulations provide the requirement for an 'in-combination' assessment. The in-combination assessment builds on the assessment of the SMP alone and considers the impacts of the SMP policy in combination with other plans and projects.

I2.6.2 It will consider the impacts of SMP policy in combination with all other policies or approved projects yet to be implemented. The specific focus of this stage will relate to the consideration of those plans and projects that are likely to have the same effect as the policies of the SMP2. In the context of the SMP2, this is likely to relate to other plans or projects, which may have effects on coastal habitats or processes that support habitat or species. The plans and projects considered to be the most relevant to this study are discussed in **Section I4** of this appendix. An assessment for each SMP2 PDZ will be provided which accounts for the 'in combination' effects of other plans or projects (from the list provided in **Section I5**) that have similar impacts to that of the specific policy within a Management or Policy Unit. An accompanying rationale will be provided to support this.

I2.6.3 It will also be necessary to carry out a 'cumulative assessment' with the North Solent SMP due to the extent and location of the Solent Maritime SAC, Solent and IOW Lagoons SAC and Solent and Southampton Water SPA and Ramsar sites. This will assess the cumulative cross-Solent implications at a strategic SMP level. The results will provide the Environment Agency with a totalled amount of losses and gains, and the required compensation that will need to be sought through the Southern RHCP.

I2.7 Levels of Assessment of Adverse Effect on the International Sites

I2.7.1 The assessment provided will offer a simple breakdown of PDZs containing policy that:

- have **No Adverse Effect on the Integrity' (NAEOI)** of International sites;
- **cannot be concluded that there is not an adverse effect** (i.e. assume adverse effect as a precaution), (particularly if it is dependant on the details at scheme/project level or securing mitigation measures); and
- have **'an Adverse Effect on the Integrity (AEOI)'** of International sites.

I2.7.2 This classification has been provided for effects that are either due to the policies within the PDZ alone, or in combination with other policy, plans or projects.

I2.7.3 If it has been concluded that all of the SMP2 policies alone or 'in combination' with other plans or projects, would not have an adverse effect on the International sites in question, then the assessment would be concluded at this stage, with a recommendation that the SMP2 be implemented in its current form. If at the conclusion of the above stages, policies remain where it cannot be shown that the impacts of policy would not have an adverse effect on the integrity of any of the International sites, consideration will then need to be given to how such effects could be compensated for.

I2.7.4 Guidance, case studies and examples of best practice would form the basis of the assessment to suggest measures that would need to be taken, to enable policy adoption not to affect site integrity. At this stage, the determination of feasible measures would be refined in consultation with the SMP2 Client Steering Group (CSG) to ensure that suggested measures are acceptable in the shoreline management context and in regard to the impacts of policy. Following this collaborative process, a series of measures would be specified which would clearly demonstrate how adverse impacts have been avoided or mitigated for each relevant policy. Where mitigation measures are identified as being necessary for determining no adverse effect on site integrity, these measures will need to be incorporated as part of the SMP2. If policies remain for which mitigation measures cannot be established, then they will be taken forward for further consideration.

I2.8 Stage 4: Approval or Refusal of the Plan – Appendix 20 of the SMP2

I2.8.1 Only where the plan or project can be determined as not having an adverse effect on any International site can it be approved by the Competent Authority. Where it is not possible to determine that a plan or project under consideration will not have an adverse effect on an International site (s) following mitigation measures, then alternative solutions which avoid harming site integrity must be sought. An investigation into alternative solutions will consider whether the objectives of the plan can be achieved in an alternative way to avoid adverse effects on the International sites. In order to comply with Article 6(4) of the Habitats Directive, if there are alternatives, the option put forward for approval must be the least damaging for habitats, for species and for the integrity of the *Natura 2000* site, regardless of economic considerations, and no other feasible alternative must exist that would not affect the integrity of the site.

I2.8.2 This consideration follows a two stage process. Firstly, the assessment of preferred policy option needs to be considered – "*can the policy in question be replaced by a policy that will meet the requirements of the wider SMP2 and yet avoids any impacts on International sites?*" The consideration of policy alternatives will require the combined efforts of the HRA and SMP2 project teams and the SMP2 CSG. If the SMP2 is found to lack any viable

alternative policy options, the matter of whether the policy is required in the 'interests of overriding public interest' (IROPI) will need to be considered.

I2.8.3 This is the last stage in the HRA process, and is founding Appendix 20 of the SMP2 and is only reached if the assessment of the SMP as a whole, results in negative impacts to the integrity of an International site, and no alternative solutions or mitigation measures are available. Claims for policy adoption on the grounds of IROPI need to be carefully considered with regard to Regulations 62 and 64 of The Conservation of Habitats and Species Regulations 2010. The procedure for pursuing policy on the grounds of IROPI is well defined in the 2010 Regulations and in guidance. The particulars will depend on the actual reasons for the IROPI claim (for example, is the policy required on the grounds of social or economic factors, or is it a public health and safety issue?) and the priority attached to the species or habitat in question. Finally claims for IROPI need to be submitted to the Secretary of State with clear reasoning provided.

I2.8.4 Provision of compensatory measures under Regulation 64 is a necessary element in undertaking policies on the basis of IROPI. The availability of acceptable compensatory measures under Regulation 64 will need to be provided alongside presentation of the case for IROPI, so that the case can be fully considered. Suitable compensatory measures must be in place prior to any damage resulting from the plan or project such that the overall coherence of the Natura 2000 network is maintained.

Identification of acceptable **compensatory sites** would enable '*no adverse effect on integrity of the European sites*' to be determined at the plan level. However, at the SMP2 implementation stage, the ultimate HRA would need to determine adverse effect on integrity, no alternative solutions, IROPI, and formally identify the offset land as compensatory habitat under Regulation 66. Potential sources of mitigation (SMP2 level) or compensation (specific proposal level) have been identified within the **North Solent Coastal Habitat Management Plan** (CHaMP) (Posford Haskoning, 2003), the **Isle of Wight Mitigation Strategy** (Atkins, 2006). The **Southern Region Habitat Creation Programme (RHCP)** (Environment Agency) will be using information gathered from the South East SMP HRAs to identify loss and potential areas for compensation. This will then enable 'strategic land acquisition' against a known future requirement to compensate for coastal squeeze on a regional scale, and provide opportunities for compensatory habitat under The Conservation of Habitats and Species Regulations 2010.

I2.9 Roles of Organisations in the HRA Process

Competent Authority

I2.9.1 One of the first steps in addressing SMPs under The Conservation of Habitats and Species Regulations 2010 is identification of the Competent Authority. In this instance, Royal Haskoning is undertaking the technical analysis that forms the basis of the HRA, but the ultimate responsibility for signing off the Appropriate Assessment, if necessary, and ensuring compliance with the Regulations falls to the Competent Authority. In this instance, **the Competent Authority is the Local Authority within the SMP2 Study Area, the Isle of Wight Council**.

I2.9.2 The Competent authority is responsible for ensuring an AA is carried out before deciding to undertake, or give any consent, permission or other authorisation, for a plan or project likely to have a significant effect on an International site, either alone or in combination with other plans and projects. They are also responsible for consulting the appropriate nature conservation body for the purposes of the assessment, and having regard to its representations.

Natural England

I2.9.3 In England, the 'appropriate nature conservation body' under the Habitats and Species Regulations 2010 is Natural England. On behalf of the Government, Natural England provides advice and guidance on implementing international conventions, EC Directives and national legislation on nature conservation; this includes The Conservation of Habitats and Species Regulations 2010, as follows:

- Provide advice on whether plans and programme are likely to have a significant effect [either alone or in combination with other plans and projects] when requested to do so;
- Advise competent authorities whether a plan or programme is necessary for the management of the site;
- Comment on Appropriate Assessment;
- Provide advice on the ecological requirements of any compensatory measures; and
- Provide advice on the suitability of any proposed compensatory measures.

Environment Agency

I2.9.4 The Environment Agency is responsible, along with the Isle of Wight Council, for coastal risk management on the Isle of Wight. As such, they play a key role in the development of the SMP. The Environment Agency also takes a strategic overview of all sea flooding and coastal erosion risk management and is an important consultee in the HRA process. Furthermore, the Environment Agency regulates and consents a range of activities which have the potential to affect the integrity of internationally designated nature conservation sites (refer to **Section I4.8** for further details). The Environment Agency also has a programme to plan habitat creation in a strategic way to comply with both legal (Habitats Regulations, 2010) and policy drivers (Defra targets for creating UK Biodiversity Action Plan habitats). This programme is known as the Regional Habitats Creation Programme (RHCP). The outcome of the HRA for the Isle of Wight SMP2 will need to notify the Southern RHCP of the losses and gains that will occur as a result, so that the losses that cannot be mitigated for can be secured for compensatory requirements, and the gains can be identified for securing habitat for other SMPs (e.g. North Solent SMP2) or for creating BAP habitats.

Secretary of State

I2.9.5 The Secretary of State is responsible for:

- Ensuring that if there is a negative assessment of a plan or project, agreement to that plan or project is only given if there are no alternative solutions, if it is for Imperative Reasons of Overriding Public Interest (IROPI), and where any compensatory measures that may be required are secured;
- Directing the plan-making authority not to give effect to a plan that may have an adverse affect on site integrity;
- Securing any necessary compensatory measures to ensure that the overall coherence of *Natura 2000* network is protected;
- Confirming that any compensatory measures are sufficient to maintain the coherence of *Natura 2000* network; and
- Informing the Commission of the measures adopted.

I2.10 Consultation

I2.10.1 An HRA Scoping Report was sent out to a variety of consultees, who sit on the Client Steering Group (CSG), as well as other relevant land owners such as the RSPB and the National Trust. The CSG includes statutory consultees such as the Natural England and the Environment Agency.

I2.10.2 The consultation period ran for 4 weeks from 26th March 2010, and consultees were posed a number of key questions in order to prompt structured, written responses; these were:

1. Do you consider that the Scoping Report has included all the potential European and international sites that could be affected by the SMP policies?

2. Do you agree with the generic potential impacts on the SMP habitat groupings and European sites from the four SMP2 management options?

3. Do you agree with the Stage 3: Appropriate Assessment methodology?

4. Are there any other plans and projects that you think have been omitted?

I2.10.3 Comments received have informed the AA stage of the HRA (refer to **Annex I-III** for the stakeholder comments).

I2.10.4 Furthermore, the CSG reviewed the draft HRA Stage 3: AA report prior to Public Consultation. The comments from this consultation have been included in **Annex I-III** alongside the comments following 3 months Public Consultation.

I3 BASELINE SUMMARY OF THE RELEVANT INTERNATIONAL SITES

I3.1 Conservation Objectives

I3.1.1 The favourable conservation status of the site is defined through the site's conservation objectives and it is against these objectives that the effects of the plan or project must be assessed. Conservation objectives set out the physical, chemical and biological thresholds, and the limits of anthropogenic activity and disturbance which are required to be met to maintain the integrity of the site. Conservation objectives serve both as criteria against which site condition can be assessed and reported against, and also as a basis for assessing plans or projects that may affect the site.

I3.1.2 Conservation objectives for European Marine Sites are set out in the Relevant Regulation 33 documents (so called as their production is a requirement of Regulation 33 (2) of the 1994 Habitats Regulations) for each site. For English European Marine Sites these are the responsibility of Natural England.

I3.1.3 For qualifying **species**, the conservation objectives can be generalised, so as to avoid deterioration of the Habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained, and to ensure for the qualifying species that the following are maintained in the long term:

- populations of the species as a viable component of the site;
- distribution of the species within site;
- distribution and extent of habitats supporting the species;
- structure, function and supporting processes of habitats;
- supporting the species; and
- no significant disturbance of the species.

I3.1.4 For qualifying **habitats** the conservation objectives can be generalised to ensure the following aspects of the qualifying habitats are maintained in the long term:

- extent of habitat on the site;
- distribution of habitat within site;
- structure and function of habitat;
- processes supporting the habitat;
- distribution of typical species of the habitat;
- viability of typical species as components of the habitat; and
- no significant disturbance of typical species of habitat.

I3.2 Summary of the Relevant International Sites

I3.2.1 **Tables 3.1 to 3.7** below summarise the sites and their relevant interest features that will be considered with regards to the potential impacts from the SMP2 policy options in Stage 3: Appropriate Assessment. An account of the sites is given in the following sub-sections, which identifies the primary reasons for their designation, the factors influencing the condition of the sites, and the sites' conservation objectives (where available) and relevant sensitivities related to the SMP. Further details are presented in **Annex I-II** along with details of the sites and features that have been scoped out.

Table 3.1	Solent Maritime SAC
Relevant Area & Location	• Intertidal and shallow subtidal areas along the north and north-west coastline (Sconce Point to Osborne Bay). • PDZs 1, 2 and 7.
Relevant Interest Features (*Annex I Habitats)	• *Estuaries (saltmarsh, intertidal mudflat, sandflat and mixed sediment communities, and subtidal sediment communities). • *Cordgrass swards. • *Atlantic salt meadows.
Conservation Objectives	• To maintain the estuaries, cordgrass swards, and Atlantic salt meadows in 'favourable condition', taking account of natural change.
Relevant Key Sensitivities	• Existing and new flood defence and coast protection works, can result in both changes of natural processes and physical loss, reduction or smothering of the primary habitat extent and degradation of physical characteristics of the habitats. • Most estuarine communities are not considered highly sensitive to siltation, however, on the north coast of the Island, areas of sand and gravel are present and the marine communities are sensitive to excessive inputs of fine material. • Physical loss from development pressures including ports, marinas and jetties, which also often involve capital/ maintenance dredging to provide/ improve deep water access, and land-claim of coastal habitats. • The intertidal habitats are at risk of coastal squeeze resulting from sea level rise.

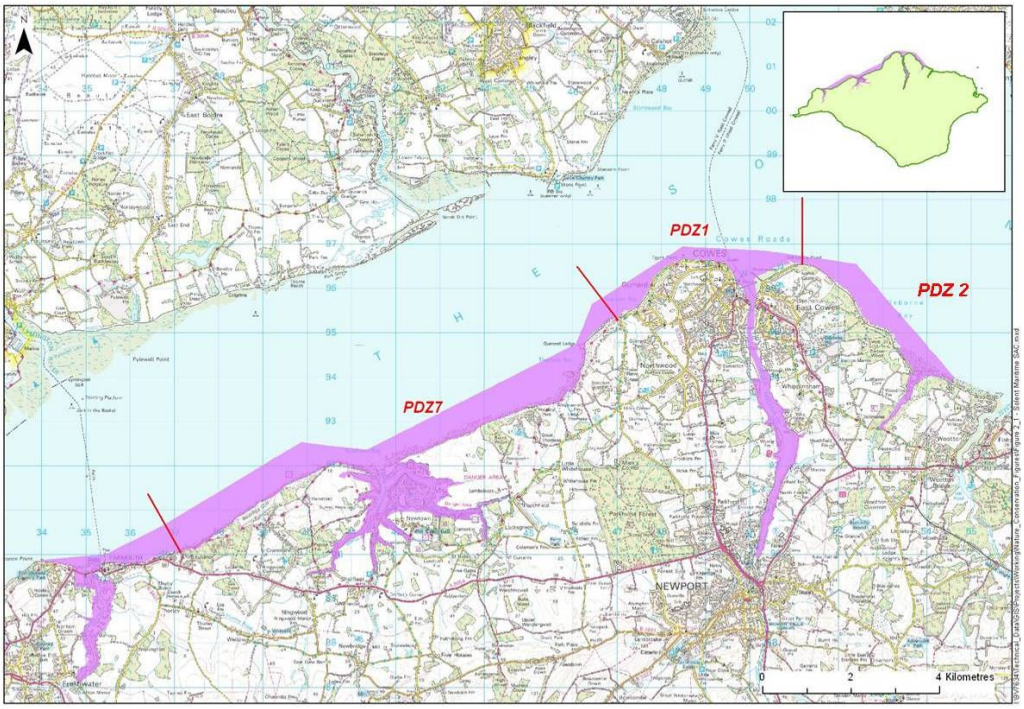


Table 3.2	Briddlesford Copse SAC
Relevant area & location	• 167 ha broad leaved woodland inland of Wootton Creek on north-east coast of the Isle of Wight. • PDZ 2.
Relevant Interest Features (*Annex I Habitats)	• Woodland habitat that supports Annex II species - Bechstein's bat *Myotis bechsteinii* (UK BAP species).
Conservation Objectives	• The conservation objectives of the site are to maintain, in favourable condition, subject to natural change, the supporting woodland habitat for the populations of the tree-dwelling bat Bechstein's bat. • Since this species is also a UK BAP species there is an Isle of Wight Species Action Plan for Woodland Bats. This aims to protect and, where possible, increase distribution and population of woodland bats, in particular Bechstein's bat.
Relevant Key Sensitivities	• Changes to the water levels and salinity of the Wootton Creek/Mill Pond that borders the designated woodland area. The water level management/sluice maintenance, if not managed, could be affected by sea-level rise, resulting in saline waters extending beyond Wootton Bridge into the Mill Pond.

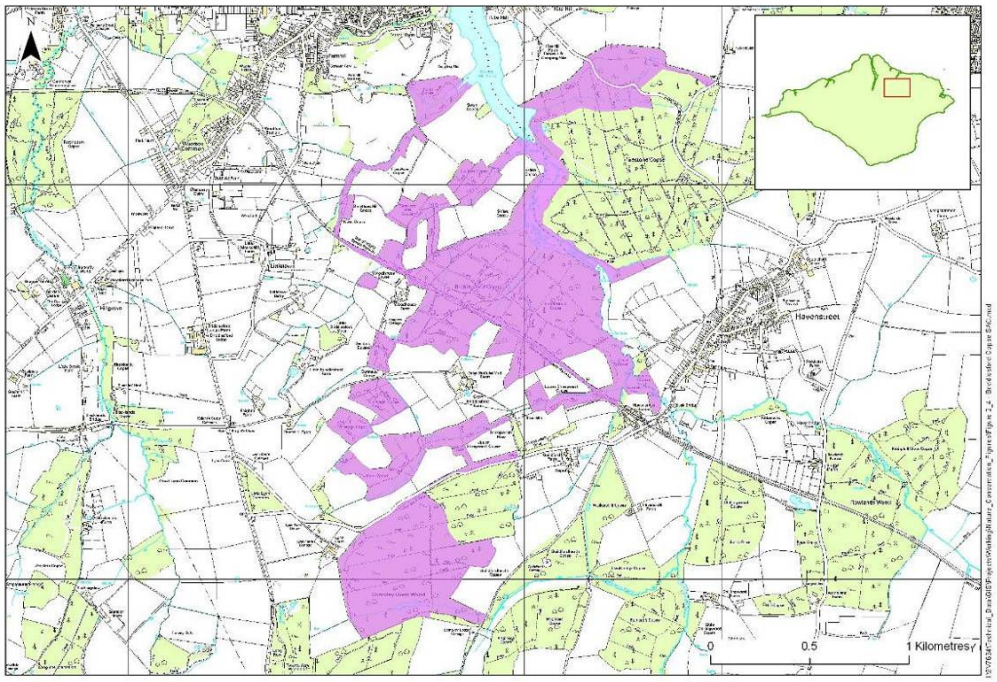


Table 3.3	Solent and Isle of Wight Lagoons SAC
Relevant area & location	• The saline lagoons on the Isle of Wight only cover a small area - 36 ha. (10% of the whole designated area). • Located behind the sea-wall at Bembridge Harbour. • PDZ 3.
Relevant Interest Features (*Annex I Habitats)	• *Coastal lagoons (a priority habitat).
Conservation Objectives	• The conservation objectives of the site are to maintain the coastal lagoons in favourable condition, subject to natural change.
Relevant Key Sensitivities	• Change in SMP policy where saline lagoons area protected behind coastal defences. • Changes in water quality due to diffuse pollution, but unlikely to be due to industrial waste disposal/landfill/discharges. • Water level management/sluice maintenance could affect the salinity and water levels of the lagoons, if not managed the effects of sea-level rise could result in more saline habitats, whilst the presence of coastal defences could result in reduced saline intrusion.

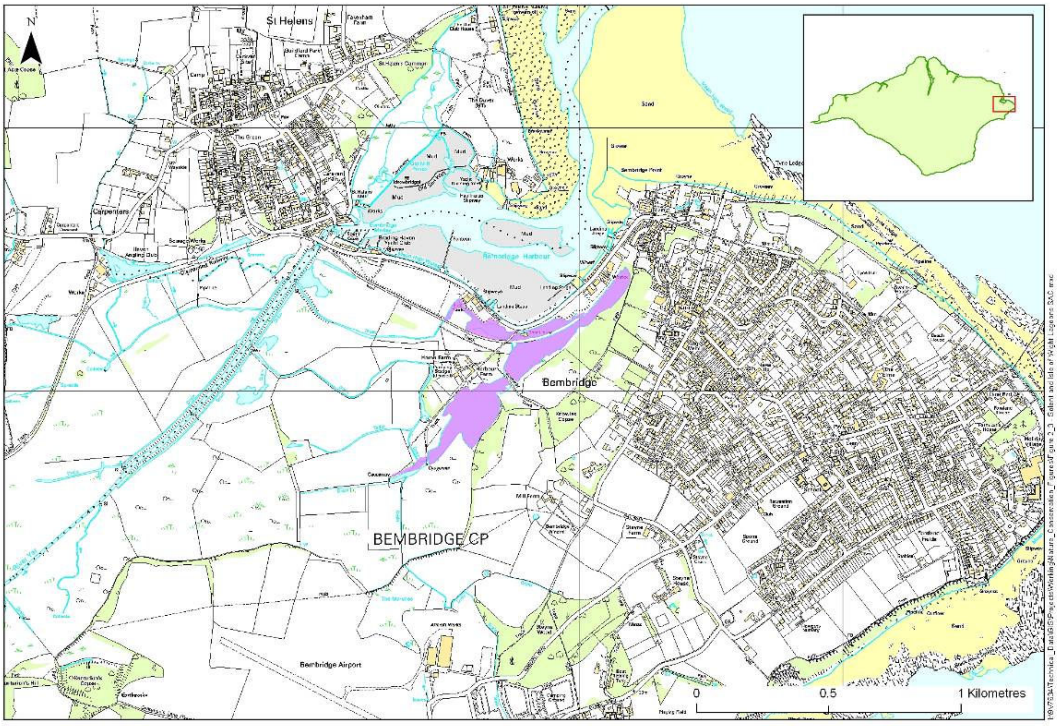


Table 3.4	South Wight Maritime SAC
Relevant area & location	• A large expanse (19,863ha) of intertidal and subtidal habitats along the south-east and south-west coastline of the Island. • From Bembridge Point in the east to Hatherwood Point north of the Needles in the west. • PDZs 3, 4, 5 and 6.
Relevant Interest Features (*Annex I Habitats)	• *Reefs. • *Vegetated sea cliffs of the Atlantic and Baltic coasts. • *Submerged and partially submerged sea caves.
Conservation Objectives	• Maintain the reefs in 'favourable condition', in particular the rocky shore, kelp forest, subtidal red algae, subtidal faunal turf (e.g. sponges, hydroids, anemones and sea squirts) and sea cave communities. • Maintain vegetated sea cliffs of the Atlantic and Baltic coasts in 'favourable' condition are identified within Natural England's conservation objectives for the relevant SSSIs within the SAC boundary. They are not contained within the Regulation 33 report as they sit above the high water mark.
Relevant Key Sensitivities	• Physical loss and damage of interest features through removal and/or smothering. This could be caused from changes in natural coastal processes because of existing and/or new flood defence and coast protection works, coastal development and land claim thus resulting in coastal erosion, siltation and/or abrasion. • Reefs and sea caves can also be sensitive to changes in nutrient loading, organic loading and turbidity from a variety of discharges. • The vegetated cliffs are particularly sensitive to disruption to ecological processes linked to coastal erosion, coastal squeeze, and development in the intertidal and subtidal.

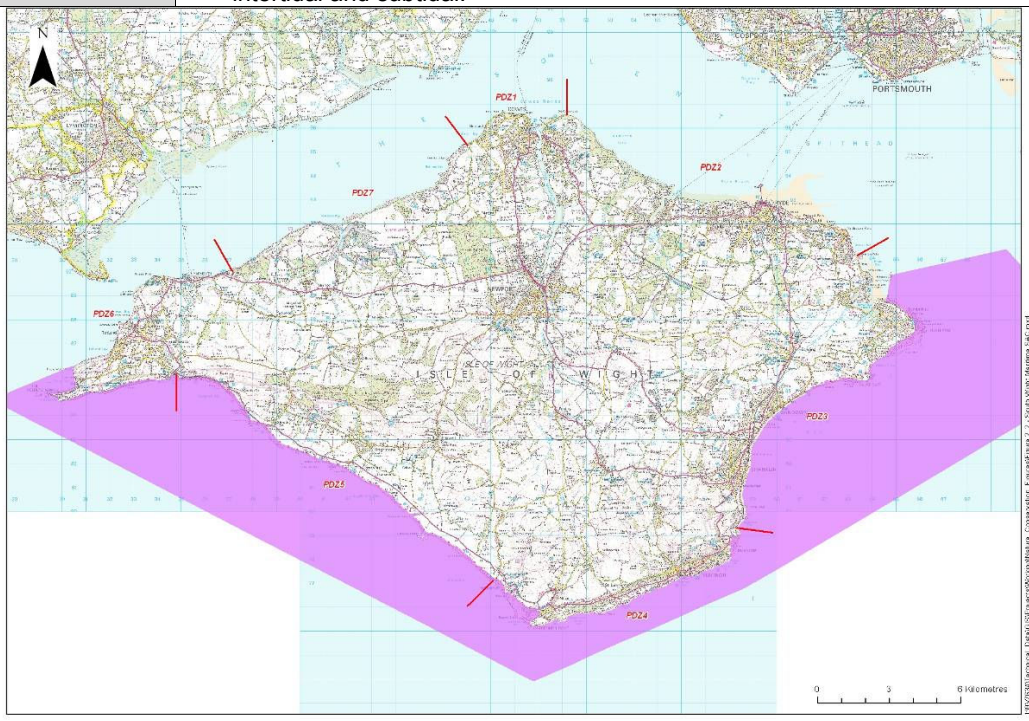


Table 3.5	Isle of Wight Downs SAC
Relevant area & location	• 462 ha over four locations on the south side of the Isle of Wight: – Cliffs at Ventnor (103ha). – Small area inland of Brighstone Bay, bordering Brighstone Forest (33ha). – An elongated area (185ha) which borders the coast along Compton Chine. – Cliff tops of Tennyson Down from Freshwater Bay to the Needles (137ha). • PDZs 4, 5 and 6.
Relevant Interest Features (*Annex I Habitats)	• *vegetated sea cliffs of the Atlantic and Baltic coasts.
Conservation Objectives	• Though there are no conservation objectives available for this site, it is recommended that subject to natural change, those features for which the site is designated (i.e. vegetated sea cliffs) should be maintained in favourable condition.
Relevant Key Sensitivities	• Vulnerability to cliff stabilisation schemes.

Table 3.6	Solent and Southampton Water SPA
Relevant area & location	• The site runs across five locations on the northern side of the Isle of Wight. • The designated areas are all around the main estuaries of the Island – the Western Yar Estuary at Yarmouth, Newtown Estuary, Medina Estuary, Wootton Creek (and Ryde Bay) and the Eastern Yar Estuary at Bembridge. • PDZs 1, 2, 3, 6 and 7.
Relevant Interest Features (*Annex I Habitats)	• Article 4.1 of Birds Directive - Mediterranean gull. • Article 4.2 - black-tailed godwit, dark-bellied Brent Goose, ringed plover, teal and at least 20,000 waterfowl. • Based on the SSSI components of the Solent and Southampton Water SPA on the Island the overall condition of the SPA is unfavourable. • A variety of factors are influencing the condition of the site though not poor coastal management.
Conservation Objectives	• Maintain, in favourable condition, subject to natural change, the habitats for supporting the internationally important populations of regularly occurring: – Annex I bird species of European importance, with particular reference to saltmarsh and intertidal mudflats and sandflats. – Migratory species and waterfowl, with particular reference to saltmarsh, intertidal mudflats and sandflats, boulder and cobble shores, and mixed sediment shores.
Relevant Key Sensitivities	• New and maintained coastal protection works, land claim and dredging activities within the Solent result in changes in natural processes and physical loss or reduction in primary habitat extent, and degradation of physical characteristics of the habitats. • Changes in natural processes can increase sedimentation and any areas of sand and gravel, such as those found on the north coast of the Isle of Wight, are highly sensitive to smothering from fine material. • Development may impact upon bird populations through using previously arable areas that are used for feeding, impacting upon high water wader roosts and could further exacerbate flood risk. • Toxic and non-toxic contaminants. • Non-physical disturbance (e.g. noise). • Changes in turbidity. • Water abstraction. • Changes in salinity.

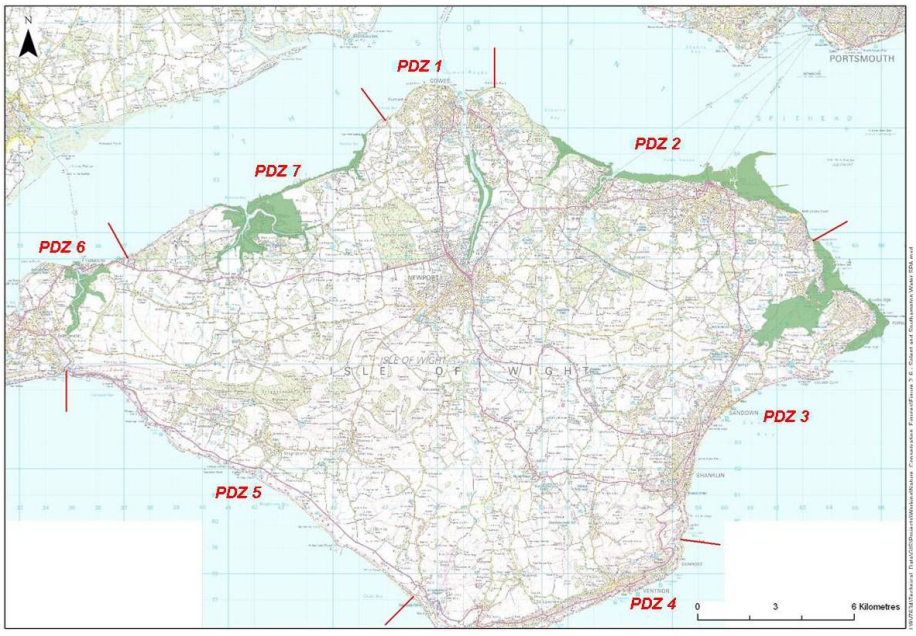
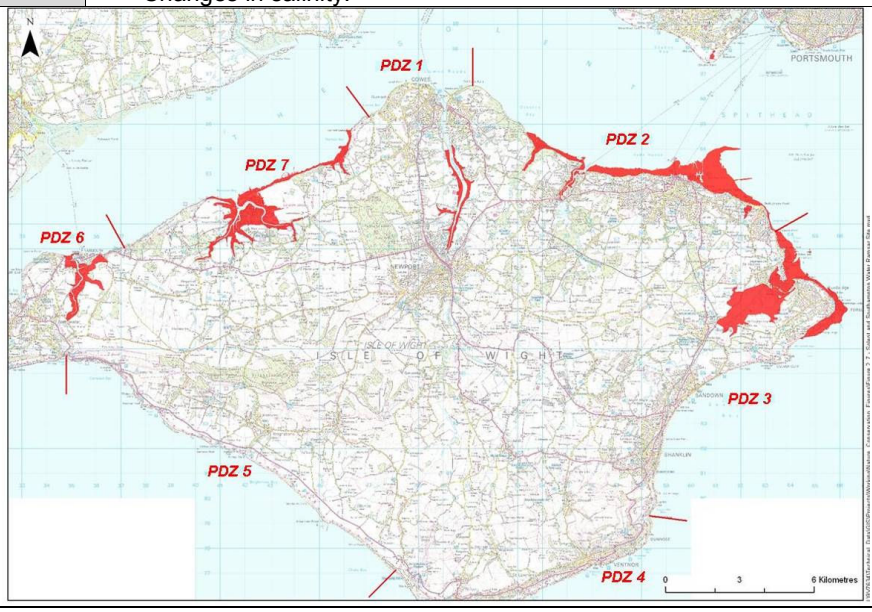


Table 3.7	Solent and Southampton Water Ramsar
Relevant area & location	• Similar though marginally smaller area to that of the corresponding SPA. • Same mainland areas on the northern side of the Isle of Wight as the SPA, though the extent of protection is less in some areas, in particular around Newtown Estuary. • PDZs 1, 2, 3, 6 and 7.
Relevant Interest Features (*Annex I Habitats)	• Qualifies as wetland areas under Criteria 1, 2, 5 and 6. • Wetland areas, in particular saline lagoons, saltmarshes, estuaries and intertidal reefs are of importance, since they support important assemblages of rare plants, invertebrates and internationally important wintering waterfowl (e.g. ringed plover, dark-bellied Brent goose, teal and black-tailed godwit).
Conservation Objectives	• Maintain in favourable condition, subject to natural change: – the internationally important wetland characteristic of the Atlantic biogeographical region (**Criterion 1: habitats**), in particular, estuaries, saline lagoons, saltmarsh, intertidal reefs and damp woodland. – The wetland hosting an assemblage of rare, vulnerable or endangered species (**Criterion 2: species**), in particular, saline lagoons, saltmarsh and cordgrass swards (Spartina sp.). – The wetland regularly supporting 20,000 waterfowl species (**Criterion 5: birds**), in particular, saltmarshes, intertidal mudflats and sandflats, boulder and cobble shores and mixed sediment shores. – The wetland regularly supporting 1% or more of the individuals in a population of waterfowl species (**Criterion 6: birds**), in particular, saltmarshes, sand and shingle, shallow coastal waters, intertidal mudflats and sandflats, boulder and cobble shores and mixed sediment shores.
Relevant Key Sensitivities	• New and maintained coastal protection works, land claim and dredging activities within the Solent resulting in changes in natural processes, physical loss, reduction and/or physical damage in the extent of the wetland, which all contribute to the degradation of physical characteristics of the habitats. • Any changes in natural processes can increase sedimentation and smothering by fine materials of sensitive habitats, such as sand and gravel shores, that are found on the north coast of the Isle of Wight. • Toxic and non-toxic contaminants. • Changes in turbidity. • Changes in salinity.
	

I4 CONSIDERATION OF OTHER PLANS AND PROJECTS

I4.1 Introduction

I4.1.1 The Habitats Regulations provide the requirement for an 'in combination' assessment to determine the likely significant effects of a plan or project, alone or in-combination with other plans or projects. Natural England (in its Habitats Regulations Guidance Notes), its Draft Guidance on The Assessment of Regional Spatial Strategies (RSS) and Sub-Regional Strategies and the DCLG (then ODPM) in Circular 6/2005 have provided guidance in regard to the manner in which 'in combination' assessments should be provided and the scope to which other plans or projects should be considered within this. In regard to the plans and projects which will need to be considered 'in combination' with the SMP, there is a clear need to provide an appropriate scope to ensure that the overall assessment is manageable and effective and meets with the terms of the Habitats Regulations. In order to provide a focus to determine which plans and project, will be included within this assessment, the following criteria have been applied:

- Projects which have been given consent, but which have not yet been implemented (this could include unimplemented large scale housing developments or proposals for port developments);
- Ongoing projects subject to regulatory reviews (such as capital dredging, port or harbour development);
- Other plans which contain policies which may trigger development which may impacts on the sites identified as being relevant to this assessment; and
- Non-statutory plans which may influence development.

I4.1.2 On the basis of the above criteria, a review of policy within the plan area has been evaluated to determine the policy which needs to be included within the 'in combination' assessment. Clearly, the policies which will be relevant in the context of the HRA are quite specific. Such policies will relate to the allocation of development (spatially defined) which will have an equivalent effect on sites when compared with SMP policy. For example, one of the key mechanism relating to impacts on the International sites has been identified as habitat loss as a result of coastal squeeze, and accordingly, policies which have the same effect have been included within the 'in combination' assessment. Key policy areas will therefore relate to development allocation within the coastal zone and coastal zone flood risk management. There is also the potential for SMP policy to have an effect which in-combination with an entirely different effect from another plan or project. The assessment of differing effects is considered to be extremely complex, given the uncertainties at the policy stage assessment. It is therefore considered to be more appropriate for differing effects to be considered at the proposal stage.

I4.1.3 **Section I7** provides an account of how this in-combination assessment has been provided in the context of the plans identified below and the broader assessment of SMP policy.

I4.2 Plans and Projects within the SMP Area

Local Development Framework

I4.2.1 Local Development Frameworks (LDFs) are produced by local authorities to replace Unitary Development Plans (UDPs), and set out the broad framework for planning and development in the local authority area through a series of Local Development Documents (LDDs). The area potentially affected by the Isle of Wight SMP2 policies is covered by one local authority, the Isle of Wight Council. At present, the Isle of Wight UDP is being replaced by a LDF,

which is known as the Island Plan and will comprise of a number of LDDs (e.g. Core Strategy Development Plan Document).

I4.2.2 The main issue for LDFs (or UDP) in the context of shoreline management plans and their compatibility with The Conservation of Habitats and Species Regulations 2010 is where land is allocated for housing, employment or other uses, development of which may prejudice SMP2 policies. For example, housing allocations in areas currently prevented from flooding by flood defence structures or practices would make it more difficult to undertake managed retreat or abandon existing defences. Managed realignment or no active intervention options may be preferred, or necessary in response to coastal squeeze, which may be adversely affecting International sites. The following policies from the Core Strategy have the potential to have an in-combination effect:

I4.2.3 Planning Policy Statement (PPS) 25 sets out government policy on development in relation to flood risk. Broadly speaking this seeks to avoid development in flood prone areas, or undertaking development which will enhance flood risk. PPS 25 requires local authorities to undertake Strategic Flood Risk Assessments (SFRAs) to assist in developing local plans such that they achieve these objectives.

I4.2.4 Adherence to PPS 25 guidance will ensure that the likelihood of development occurring which will prejudice SMP2 policies, is minimised. It does not however completely preclude these possibilities, and individual local plans thus need to be examined to identify any constraints which may act "in combination" with SMP2 policies.

I4.2.5 The site specific allocations of the local authority have been used for the assessment of in-combination impacts of local development policy and are shown in **Table 4.1**.

Table 4.1 Relevant policies within the Local Development Framework

Policy	Policy Summary	In-combination Effects
CSP4: Flood Risk	Developments will be expected to comply with the requirements of national policy PPS25 and the RSS. The Council will adopt a sustainable and practicable approach to coastal protection and flood defence for the built-up areas to a level consistent with predicted sea level rise and increased water flows arising from climate change and will also identify opportunities for managed retreat of the coastline where defence is no longer economic within its Shoreline Management Plan. Flood protection measures will be expected to minimize damage to nature conservation and biodiversity interests. No locations identified within the policy.	Potential
CSP10: Spatial Strategy for the Medina Valley	This Spatial Strategy provides guidance for development within the Medina Valley; this includes for specific activities. The Medina Valley Key Regeneration Area includes the triangle of settlements and land between Newport, Cowes and East Cowes. Those policies of relevance include: • Policy 6 - Developing houses on sites through the Medina Valley area. • Policy 25 - Improve the access to the frontage at Cowes and East Cowes from Gurnard to East Cowes Esplanade. • Policy 26 - Support and develop proposals to regenerate the Newport Harbour area together with improved harbour facilities. • Policy 29 - Upgrade existing footpaths to create a footpath/cycleway on the Eastern Bank of the River Medina.	Potential

Policy	Policy Summary	In-combination Effects
CSP11: Spatial Strategy for Ryde	This Spatial Strategy provides guidance for development within the Ryde area; this includes for specific activities. The Ryde Key Regeneration area includes the town of Ryde reaching from Binstead in the west to Appley in the East, and includes Ashey and Smallbrook to the south. Those of relevance include: • Policy 2 – Protect Natura 2000 sites and safeguard and improve sites of biodiversity interest and encourage integrated habitat creation and management which supports the Biodiversity Action Plan. • Policy 7 - Developing houses on sites through the Ryde area. • Policy 21 - Improve and enhance the Esplanade and promenade from west of the Pier to Appley Park. • Policy 25 - Develop the transport Interchange at Ryde Pier.	Potential
CSP12: Spatial Strategy for The Bay	This Spatial Strategy provides guidance for development within The Bay area; this includes for specific activities. The Bay Key Regeneration Area includes the coastal resorts of Sandown, Lake and Shanklin. Those policies of relevance include: • Policy 6 - Developing houses on sites through The Bay area and the potential re-use, where appropriate, sites which are no longer economically viable as tourism sites. • Policy 19 – Improve and enhance the Sandown Esplanade area, including the Culver Parade area to create biodiversity enhancements within the flood plain area; a range of tourist accommodation and facilities within the town which provide for the needs of the local community. • Policy 20 – Develop an holistic approach to developments and public realm along Shanklin Esplanade, centred on the Spa Site.	Potential
CSP13: Spatial Strategy for the Smaller Regeneration Areas	This Spatial Strategy provides guidance for development within the Smaller Regeneration areas; these include the coastal settlements and resorts of Freshwater and Totland (West Wight) and Ventnor. Those policies of relevance include: • Policy 2 - Protect Natura 2000 sites and safeguard and improve sites of biodiversity interest and encourage integrated habitat creation and management which supports the Biodiversity Action Plan. • Policy 3 - Encourage the provision of green spaces and habitat and landscape enhancement and creation in line with the Green Infrastructure Strategy. • Policy 5 - Protect and enhance the ecological, geological and archaeological character of the landscape and particular rare species identified within the West Wight Landscape Strategy. • Policy 7 - Developing houses on sites through The Smaller Regeneration areas, and the potential re-use, where appropriate, sites which are no longer economically viable as tourism sites. • Policy 24 - Seek to provide a cycle route from Newport to Yarmouth. • Policy 25 - Maintain the key gateway access point at Yarmouth as a strategic gateway for the West Wight and the Island.	Potential

Policy	Policy Summary	In-combination Effects
CSP6: High Quality Tourism, Leisure and Recreation	"Support will be given to sustainable proposal which improve the quality and diversity of existing tourist facilities, accommodation and infrastructure." "The improvement and upgrading of 4* and 5* accommodation across the Island will be supported. Proposals involving the loss of such sites will be resisted"	Potential

Coastal Defence Strategies

I4.2.6 There are three Coastal Defence Strategy Studies within the SMP2 study area that provide a more detailed assessment of particular frontages, these are:

- West Wight Strategy (draft) –north-west and south-west coasts;
- North-East Strategy (2005) – north-east coast; and
- Sandown Bay and the Undercliff Strategy (draft) – south-west coast.

I4.2.7 These strategies identify the most suitable type of coastal defence schemes that may be required to fulfil the agreed shoreline management policy (SMP1), or to develop other coastal defence options along the length of coast concerned. The North-East Strategy was completed and approved in 2005 and sets out the works for the next five years. There are a few progressive schemes within this strategy with possible further works at Seagrove Bay, Seaview and a beach management scheme for Bembridge frontage. Information from the completed North-East strategy will be used to inform the Stage 3 Appropriate Assessment in-combination assessment.

I4.2.8 The other two strategies are incomplete and are expected to be finalised after the completion of the Isle of Wight SMP2 (i.e. post 2012). They will therefore support the SMP2 objectives and are expected to implement but not further act in-combination with the SMP2.

Flood and Erosion Risk Management Strategies

I4.2.9 The preferred options for the Eastern Yar Flood and Erosion Management Strategy have recently been consulted on with the public (30 November 2009 – 5 March 2010) and is expected to be submitted for approval to the EA in the autumn 2010. This study has investigated managing flood and coastal erosion risk within the Eastern Yar Valley and Bembridge Harbour. Since the lower Yar River and Bembridge are of international importance, and there are complicated natural physical processes, the investigation aims to find the best long-term option for managing the river and coastal flood risk. This strategy will be considered within the in-combination AA analysis (see **Section I7**).

Estuary Management Plans

I4.2.10 Estuaries included in the SMP study area are the Western Yar, Medina and the Eastern Yar and the existing Estuary Management Plans (EMPs) for the Western Yar (WYEMP, 2004) and Medina (MEMP, 2000) are varied and dependant on factors at individual sites. These two EMPs, along with the Eastern Yar Flood and Erosion Management Strategy will be used to help identify those activities along these estuaries that need to be assessed in-

combination with the SMP2 and how this will impact upon the internationally designated sites.

Capital and Maintenance Dredging

I4.2.11 Given the number of harbours and navigational channels for both recreational and commercial vessels within the Solent, there is a need on occasion to capital dredge areas of the Solent, as well as to carry out maintenance dredging programmes. The Marine Management Organisation (MMO) is presently responsible for administering licences for maintenance dredging under the Food and Environmental Protection Act (FEPA) (1985).

Fisheries and Aquaculture

I4.2.12 The Southern Sea Fisheries District Committee (SSFDC), Cowes Harbour Commissioners (CHC) and the Environment Agency are responsible for consenting and regulating fisheries activities around the Isle of Wight coast and whilst fishing and aquaculture does occur within the Isle of Wight SMP2 study area, it is not a significant cause of unfavourability for habitats around the coast.

Activities Regulated and Consented by the Environment Agency

I4.2.13 The Environment Agency regulates and consents a range of activities that have the potential to affect site integrity. Relevant consents include discharge and abstraction consents, Integrated Pollution and Prevention Control (IPPC) licences and waste licences. Although most new applications received by the Environment Agency for these licences are reviewed under Regulation 61 of The Conservation of Habitats and Species Regulations 2010, many of these applications are granted in perpetuity, for continuously operated activities. In order to ensure that such activities are compatible with the requirements of the 2010 Habitats and Species Regulations, specifically to ensure that these can be determined as having no adverse effect on integrity, the EA is in the process of reviewing consents through the Regulation 63 Review of Consents (RoC) Project.

I5 THE 'ALONE' ASSESSMENT OF SMP POLICY

I5.1.1 This assessment is based on a consideration of the SMP habitat groupings for each of the designations within or around the Isle of Wight, the sensitivity of these habitats, the effects of policy and the need for mitigation measures / opportunities. This transparent approach to the assessment ensures that the actual level of assessment remains appropriate and that the assessment is critically focussed on the effects of policy on the integrity of the sites (and not on wider ecological considerations unrelated to designated features).

I5.1.2 The level of assessment is intended to provide a level of detail commensurate with the nature of SMP policy. SMP policy is relatively abstract (relating to a simple statement of intent for areas) and the actual level of impact and effects will be largely determined by the particulars of subsequent strategies, schemes and projects. It is at this stage that extremely detailed levels of assessment are possible and required.

I5.1.3 The assessment has been provided in detailed assessment tables in **Annex I-IV**. The first stage of the assessment provided an initial appraisal of SMP policy on the relevant SMP habitat groups, with a view to establish where shoreline policy would demonstrably not have a significant effect on International sites. The assessment of effects on International sites follows the 'reverse burden of proof paradigm', where if any doubt exists as to the effect of policy, then "no adverse effect on integrity" (NAEOI) cannot be concluded. As such, only those sites where NAEOI can definitely be proved, or where the basis of established expert opinion discounts any adverse effect, can be assessed as "passing" the appropriate assessment test.

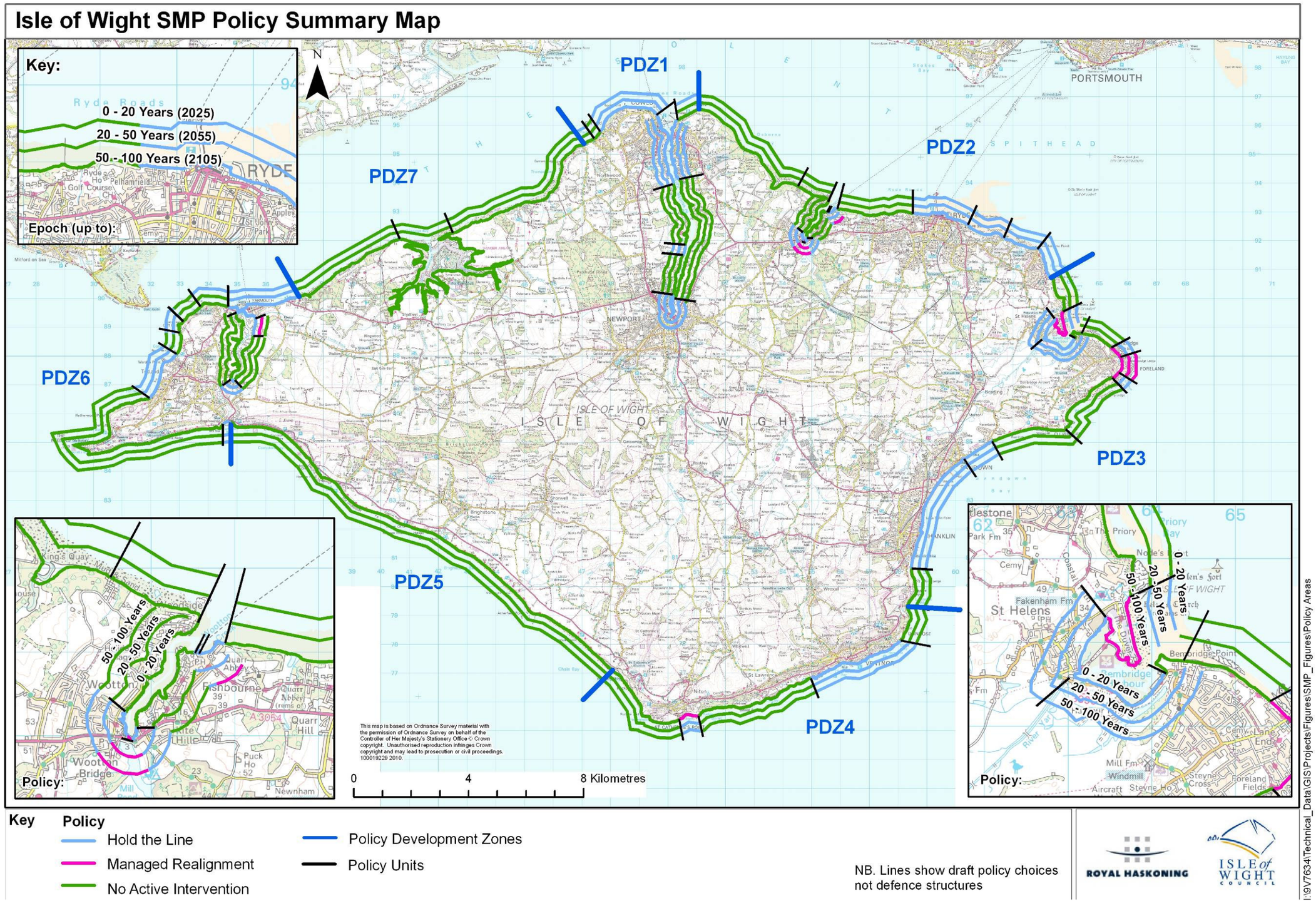
I5.2 Summary of Isle of Wight SMP Policy Under Assessment

I5.2.1 For a detailed description of the policy for each PDZ, and the context for such management, the SMP should be referred to. A summary of SMP policies in each PDZ to affect the International designations is given in **Table 5.1** and illustrated in **Figure 5.1**.

Table 5.1 Preferred Policy for the Isle of Wight SMP2

Policy Development Zone		Policy Plan			
		Now - 2025	2025 - 2055	2055 – 2105	International Designations
1	Cowes and the Medina Estuary	HTL or NAI	HTL or NAI	HTL or NAI	• Solent Maritime SAC • Solent and Southampton Water SPA and Ramsar
2	Ryde and the North-est Coastline	NAI / HTL / MR	NAI / HTL / MR	NAI / HTL / MR	• Solent Maritime SAC, • Briddlesford Copse SAC, • Solent and Southampton Water SPA and Ramsar
3	Bembridge and Sandown Bay	NAI / HTL / MR	NAI / HTL / MR	NAI / HTL / MR	• Solent and Isle of Wight Lagoons SAC, • South Wight Maritime SAC, • Solent and Southampton Water SPA and Ramsar
4	Ventnor and the Undercliff	HTL or NAI	HTL or NAI	NAI / HTL / MR	• South Wight Maritime SAC, • Isle of Wight Downs SAC
5	South-west Coastline	NAI	NAI	NAI	• South Wight Maritime SAC, • Isle of Wight Downs SAC
6	West Wight	HTL or NAI	HTL or NAI	HTL or NAI	• South Wight Maritime SAC, • Isle of Wight Downs SAC, • Solent and Southampton Water SPA and Ramsar
7	North-West Coastline	NAI	NAI	NAI	• Solent Maritime SAC, • Solent and Southampton Water SPA and Ramsar

Figure 5.1 Summary of the Isle of Wight Policies over the life of the Shoreline Management Plan



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I5.3 Information to Inform the Stage 3: Appropriate Assessment

I5.3.1 In order to undertake the Stage 3 AA of the preferred policy options, details of the physical changes to the environment are required. In the context of the SMP this should include details of changes to the tidal range and average sea levels, as well as the likely physical effects of the preferred policies. At this strategic level it is rare for absolute data to be available, predominantly as the policies are there to provide a range of possible actions (that then are developed to ascertain which is the most appropriate). Consequently, it must be understood and accepted that the data and scenarios used in this assessment are themselves 'high level' in terms of the simplistic tools that are used, and based on many assumptions.

I5.3.2 Where no previous detailed modelling studies, or other studies into the long-term physical processes and how they will change, are available for particular units (specifically PDZ 1), we have used information provided by GIS. As a result, not all of the assessment can be purely quantitative in nature, but based on qualitative understandings of what the change to the physical environment will be and, subsequently, how that interacts and affects the natural environment.

I5.3.3 On the other hand, there have been a number of studies and strategies that have looked at the coastal environment and future change. These have been examined in detail to determine their suitability for the informing the Habitats Regulations Assessment. Two key documents that have been used in this assessment (as recommended by Natural England – see **Annex I-III**) are the *Solent Coastal Habitat Management Plan* (CHaMP; Posford Haskoning, 2003) and the *Isle of Wight Mitigation Strategy* (Atkins, 2006). These identify and quantify the changes in coastal habitats up to 2100 as a result of coastal management on the Isle of Wight, and importantly they also identify and assess for possible locations of compensatory habitat.

I5.3.4 The CHaMP used a mean sea level rise scenario of 19 to 79 cm (according to low and high emissions) by 2080s, which is not far off that used in this SMP review (i.e. to 2105 with 0.93m of sea level rise). The habitat area losses and gains are presented in ranges rather than as single values as there are so many uncertainties in the baseline knowledge. Furthermore, the values are given for Habitat Units, i.e. north-east and north-west of the Isle of Wight rather than for smaller areas that could be used more easily for this assessment. The upper ranges of these values do however provide an idea of the worst case scenarios of habitat loss and gain.

I5.3.5 It should be noted that due to a number of key points it is considered that the information on losses and gains in the IW Mitigation Strategy are under-represented. The IW Mitigation Strategy used the GIS Isle of Wight EMS model, which was based on the following basic parameters:

- Do nothing; no maintenance of any existing defences;
- 50 year time frame; and
- Sea level rise of 6mm/year^{-1}.

I5.3.6 One of the problems was the estuarine margins are not included and losses are, therefore under-represented. Secondly, the figures only represent losses of existing intertidal habitats and in no way accounts for transition of habitats associated with sea level rise such as migration of saltmarshes and mudflats, or terrestrial habitats. That said, it is assumed that any losses of intertidal habitats within the International sites are therefore attributable to losses of those habitats that would be most at risk from sea level rise and the impacts of coastal squeeze. Therefore, the figures on habitat loss and gain provided in this assessment

should be taken as a minimum based on the precautionary principle approach. Finally, as stated within the IW Mitigation Strategy, though the losses of intertidal habitats along estuaries could be significant, the requirement for compensation habitat will not necessarily rise proportionately to habitat lost, as in many areas, topography, not coastal defences will be the principle constraint to the expansion of these features. Under such a scenario, this is considered natural change and thus not subject to assessment under the Habitats Regulations. Of note, the IW Mitigation Strategy calculations do not discern between natural losses due to, for example, coastal squeeze with steep sided valleys, and losses against coastal defence structures. Therefore, in places the values may be over precautionary, for example, in the Medina Estuary where much of the habitat will be lost due to natural change.

I5.3.7 Where the SMP2 policy is of MR or NAI where previously the policy has been HTL, the gains and losses of habitats have been calculated by using our GIS capabilities to calculate the losses and gains, since we have spatial information on the habitat types, flooding levels for all three epochs (from 1 in 10 year flood to 1 in 1000 year) and lidar data. This was carried out since the CHaMP calculations have been based on existing defences, as well as previously some areas have not been included in these calculations, such as the Medina Estuary.

I5.3.8 Where quantities of habitat loss and gain have been quoted (whether these are from calculations using our GIS resources, the IW Mitigation Strategy or the CHaMPs) the figures have been quoted to the nearest 0.05 hectare. It is difficult to calculate more precisely, as our understanding of the ongoing coastal sedimentary processes and sediment budgets, particularly in the second and third epochs, is uncertain with higher sea level rise.

I5.4 PDZs considered to have 'No Adverse Effect on Integrity (NAEOI)' of International Sites

I5.4.1 The nature of the Isle of Wight coast means that final SMP2 policies in all PDZs has the potential to affect International sites, as the entire length of the coastline is designated one way or another as SAC, SPA or Ramsar sites (or indeed, all of these designations). As such, an appraisal was undertaken at policy unit level (refer to Annex I-IV) and concluded at PDZ level for all seven PDZs within Isle of Wight SMP area. **Section I6: Cumulative Summary of The Plan** presents the overall cumulative results of the final SMP2 on the International designated sites around the island.

I5.4.2 The following PDZs have resulted in it being concluded that there is 'No Adverse Effect on Integrity' (NAEOI) of the European sites:

PDZs deemed to have No Adverse Effect on Integrity (NAEOI):

PDZ 1, 2, 3, 4, 5 and 7

I5.4.3 For further information relating to the appraisal of these assessment units, please refer to **Annex I-IV of this document**. A summary of the factors leading to the assessment of these PDZs is, however, provided below.

PDZ 1 (Cowes and Medina Estuary)

I5.4.4 SMP policy in this PDZ provides for a combination of either HTL or NAI for all three epochs to protect the communities of Cowes, East Cowes and Newport, whilst allowing as much natural development of the central estuary as is possible. There are three International sites that could be affected by the SMP policy in this PDZ; these are:

- **Solent Maritime SAC** (habitat groups - estuaries, intertidal sediments (mud and sandflats) and coastal saltmarsh);
- **Solent and Southampton Water SPA** (habitat groups - intertidal sediments (mud and sandflats) and coastal saltmarsh); and
- **Solent and Southampton Water Ramsar** site (habitat groups - intertidal sediments (mud and sandflats) and coastal saltmarsh).

I5.4.5 There is the potential for loss of some of the silt, gravel, and boulder littered foreshore along the Gurnard frontage and around the mouth of the Medina estuary, however, the interest features for the Solent Maritime SAC are the subtidal mudflats and sandflats, and maintaining the defences will not affect the integrity of the three International sites.

I5.4.6 In the central and inner parts of the Medina Estuary, there is potential for a small degree of loss of important intertidal mudflats (that are important feeding habitats for the Mediterranean gull (Annex I species), Brent Geese and migratory waterfowl), in the medium to long term. This would occur through coastal squeeze, which would be due to sea level rise and defences preventing the migration of habitats landwards. The designated SAC intertidal sediments within the Medina Estuary only apply to management area MAN1B, since in MAN1A (where the policy is HTL) the designation only extends to the Mean Low Water Mark (MLWM) and not the Mean High Water Mark (MHWM), therefore not protecting the intertidal sediments. It should be noted that the Medina Estuary has developed within a relatively steep sided valley so that landward migration of saltmarshes and mudflat would be naturally constrained in many places by the topography even without the presence of defences (where this occurs it would not be classified as coastal squeeze). There are two important Brent Geese feeding and high tide wader roost areas within the Medina, however these are both in areas that are currently undefended and will continue to be undefended for the three epochs. For example, the Werrar Marsh, this will erode naturally under a policy of NAI, and allow other features to form over time. All the saltmarsh habitats within the estuary are within areas that have a policy of NAI and will therefore be able to adapt naturally to sea level rise with the only constraint being the naturally topography.

I5.4.7 The Solent CHaMP (2003) predicted that the North-West Unit of the Isle of Wight would experience a 10% loss in intertidal mudflat in the next 50 years (though this figure included for natural coastal squeeze i.e. restriction by topography). Therefore, it was roughly calculated that the approximate length of the inner estuary (i.e. within MAN1B) is 11km with 93 hectares of mudflat. Approximately 1.8% of the area that is defended is designated mudflat habitat, which equates to a raw estimation of a **1.7 hectare loss of intertidal mudflats over 100 years** being subject to coastal squeeze in the long term. In more detail, this equates to the maximum loss of intertidal sediments within the Medina Estuary (due to HTL policy causing coastal squeeze) being 0.5ha of SAC and Ramsar mudflat landward of the defences within PU1B.2, and 1.2ha of SAC and Ramsar mudflat landward of defences within PU1B.4. It should be noted that these areas are the total areas of mudflat in front of the defences rather than what will actually be lost over the next 100 years due to sea level rise as this has not been calculated. The 1.7ha loss of mudflat in the context of the amount of estuarine mudflat habitat within the SAC and the net increase in ca. 142 hectare of mudflats elsewhere in the SAC over the 100 year period (which will also have a similar habitat function in that they will be estuarine mudflats e.g. the gain within the Lymington estuary) means that the loss is not significant. Furthermore, the maximum loss of 1.7ha of mudflat is over 100 years (ca. 0.017 ha per year over the 100 year SMP2 period) and it would be difficult to discern this from the natural year round variation in tides, which could mask any potentially negligible loss, as well as from the natural changes that will occur in this estuary due to its steep topography and sea level rise. Therefore, it has been concluded that

there will be **no adverse effect** on the integrity of the **Solent Maritime SAC** and **Solent and Southampton Water Ramsar** site. Any loss of intertidal mudflats has the potential to affect the integrity of important feeding habitats for the Annex I species, such as the Mediterranean gull, as well as Brent Geese and migratory bird species such as black-tailed godwit and teal. However, the amount of loss will be small and indiscernible from the natural variations within the estuary that the birds already experience. Furthermore, the areas that have HTL policies have not been identified as being important feeding areas for waders and waterfowl species (see **Table 2.8** of the HRA). Additional habitat is also being created outside of the SPA (i.e. through the MR of Wootton Creek) which could provide additional nearby feeding habitats. It is therefore also been concluded that there will **no adverse effect** on the **Solent and Southampton Water SPA**. Of note, Natural England recently recorded that the Medina Estuary SSSI component of the International designated sites is currently not suffering from coastal squeeze and is presently in 100% favourable condition (Natural England, 2010).

I5.4.8 ***Summary of the potential impacts of policy:*** Generally the policy combination allows for much of the inner and central estuary to be dynamic and retain flexibility to respond to sea level rise and the associated changes in physical features. There will also be areas of intertidal habitat lost naturally because roll-back will be restricted by the natural rising topography. It has been concluded that there will be **no adverse effect** on the integrity of the **Solent Maritime SAC, Solent and Southampton Water SPA and Ramsar site**, as the small loss of mudflat habitat (a potential maximum loss of 1.7 ha over 100 years) will be indiscernible from the natural fluctuations of the estuarine environment, and will not affect the available feeding habitat for SPA bird features, particularly as the areas affect are not important feeding areas for waders and waterfowl species as they are too close to houses and disturbance from domestic animals. The anticipated habitat losses per epoch are given in **Table 5.4** below.

Table 5.2 Anticipated Habitat Losses in PDZ 1 as a result of SMP2 Policy

Designated Site	PU	Habitat Type	Extent of Losses (-) & Gains (+) of Habitat (ha)				Conclude No Adverse Effect on Integrity of Site?
			Epoch 1	Epoch 2	Epoch 3	Total	
Solent Maritime SAC	1B.2	Mudflat	-0.17	-0.17	-0.17	**-0.5**	**Yes**
	1B.4	Mudflat	-0.40	-0.40	-0.40	**-1.2**	**Yes**
Solent and Southampton Water SPA	1B.2	Mudflat	-0.17	-0.17	-0.17	**-0.5**	**Yes**
	1B.4	Mudflat	-0.40	-0.40	-0.40	**-1.2**	**Yes**
Solent and Southampton Water Ramsar site	1B.2	Mudflat	-0.17	-0.17	-0.17	**-0.5**	**Yes**
	1B.4	Mudflat	-0.40	-0.40	-0.40	**-1.2**	**Yes**

I5.4.9 ***Mitigation opportunities:*** There is a possibility for realigning small areas of the estuary banks that are within the boundaries of the International sites (e.g. north of Werrar Marsh), so as to mitigate for coastal squeeze of mudflats within the estuary. However, this has not been investigated or secured and is something that could be considered in the future, particularly for saltmarsh creation possibilities for the mitigation of the North Solent SMP2 saltmarsh losses. This finding is in agreement with the Solent CHaMPs, which identified a possible 15 ha along four locations on the west bank of the Medina Estuary – some (ca.

40%) is within the SPA/Ramsar boundaries, which would count as mitigation, and some outside (including the SAC), which would count as compensation.

I5.4.10 ***PDZ 1 - Implications for the integrity of the site:*** There will be **no adverse effect** on the **Solent Maritime SAC**, and the **Solent and Southampton Water SPA** and **Ramsar** sites.

Designation	SMP Habitat Grouping	Habitat Function	Conclude No Adverse Affect?
Solent Maritime SAC	Estuaries (Medina Estuary)	Mudflats and Coastal Saltmarsh	**Yes**
	Intertidal sediments (mudflat and sandflat)		
	Coastal saltmarsh		
Solent and Southampton Water SPA / Ramsar	Coastal Saltmarsh	High tide refuge, breeding sites	
	Intertidal sediments (mudflat and sandflat)	Feeding habitat for bird species (e.g. waders, gulls and terns)	

PDZ 2 (Ryde and the North-East Coast)

I5.4.11 SMP policy in this PDZ provides for a combination of HTL, NAI and MR for all three epochs within three Management Units (MANs). There are four International sites which have the potential to be affected by this PDZ are:

- **Solent Maritime SAC** (habitat groups - estuaries, intertidal sediments (mud and sandflats, sand banks and vegetated shingle) and coastal saltmarsh);
- **Solent and Southampton Water SPA** (same habitat groups as the SAC, as well as subtidal marine habitats, saline lagoons and coastal grazing marsh);
- **Solent and Southampton Water Ramsar** site (same habitats as the SAC & SPA); and
- **Briddlesford Copse SAC** (woodland).

MAN2A (Osborne Bay to Woodside)

I5.4.12 The SMP policy for Osborne Bay to Woodside (**MAN2A**) is NAI for all three epochs, with the intent to maintain the nature conservation interests of the Solent Maritime SAC, and the Solent and Southampton Water SPA and Ramsar sites, as well as the geological and landscape quality of the area. This will allow the frontage to respond to sea level rise by migrating landwards, ensuring there is no loss of mudflats, sandflats, saltmarsh or vegetated shingle from sea level rise, since there will be no defences to constrain their migration. There will also be cliff sediment release to recharge the foreshores. Not only can it can be concluded that there will be **no adverse effect** on the integrity of the **Solent Maritime SAC** and the **Solent and Southampton SPA** and **Ramsar** sites for this Management Unit, but there will be a gain in mudflat/saltmarsh habitat within Kings Quay (**ca. 9.5 ha**) Creek from an NAI policy.

MAN2B (Wootton Creek to Pelhamfield)

I5.4.13 SMP policy for Wootton Creek to Pelhamfield (**MAN2B**) is a combination of NAI, HTL and MR. This Management Unit falls within three International sites: the Solent and Southampton Water SPA and Ramsar sites, and Briddlesford Copse SAC (refer to Table 2 of **Annex I-I** for a figurative illustration).

I5.4.14 The intent is to protect Fishbourne ferry terminal and the communities of Wootton, Wootton Bridge and Fishbourne with a HTL policy, whilst allowing the central areas of the creek and the Old Mill Pond to adapt to a more natural state through NAI and MR. HTL policy will result in a very small loss of intertidal mudflats within Wootton Creek in the long term as the view is to allow the central areas of the creek to adapt, though this precludes the maintenance of private defences[7]. The IW Mitigation Strategy estimated a minimum of 0.5 ha (maximum of 1 ha) loss of intertidal mudflats designated within the Solent and Southampton Water Ramsar site, though this was estimated for the area when a HTL policy was for the entire of Wootton Creek, when now the only areas are policy units 2B.2, 2B.4, 2B.6 and 2B.7, which equates to about 30% of the entire Creek. Furthermore, PU2B.2 is fronted by designated mudflat, PU2B.4 by mudflat though only 11% of this unit is designated, PU2B.6 only has <50m stretch of designated mudflat since it is the ferry port, whilst only ca. 60% of PU2B.7 is designated, with ca. 40% mudflat habitat. Overall therefore, the loss of mudflat due to HTL policy within this management unit is likely to be significantly less than 0.5 ha and this loss, which will mainly be within PU2B.2, will be difficult to discern from both the natural loss due to the steep topography of this small estuary with sea level rise and the natural fluctuations of the system over the 100 year period. Therefore, it can be concluded that there will be **no adverse effect** on the integrity of the important wetland habitat of the mudflats that support internationally important wader species for the **Solent and Southampton Water Ramsar site**. Wootton Creek is used as a feeding ground by some internationally designated wader and waterfowl bird species protected by the **Solent and Southampton Water SPA**, though they are in this location, they do not occur in numbers of international importance. The combination of the loss of less than 0.5 ha mudflat within the Creek over 100 years (which is too small a rate of loss to affect bird populations), the creation of 15ha of improved feeding habitat in the vicinity as a result of the MR at Wootton Bridge (PU2B.3), and the increase in intertidal mud of 125ha more widely in the SPA, it is therefore very unlikely to affect the feeding of these bird species and thus it can be concluded to have **no adverse effect** on the integrity of the **Solent and Southampton Water SPA**.

I5.4.15 The MR policy at Wootton Bridge provides an opportunity to improve the currently declining mudflats and saltmarsh within the Old Mill Pond by increasing the saline intrusion and water levels into the Old Mill Pond in the medium to long term. This would improve the condition of 15ha intertidal mudflats and saltmarsh, particularly saltmarsh and upper saltmarsh (Solent CHaMPS, 2003). The MR of the Old Mill Pond would not provide mitigation for any intertidal habitats within Wootton Creek, since it lies outside the SPA and Ramsar site boundaries. It could therefore act as compensatory habitat should it be needed for the SMP2. The Briddlesford Copse SAC surrounds parts of the freshwater end of the Old Mill Pond and could be affected by changes in the salinity of the wetland. However, it is unlikely that there will be a significant effect on the surrounding woodland (i.e. die-off from saline inundation), which is used by Bechstein's Bat for roosting (the interest feature for which the SAC is designated). Particularly, as there are parts of Briddlesford Copse SSSI where the saltmarsh (ca. 3.74ha) and mudflat (ca. 2.99ha) are presently in unfavourable declining condition because of the reduced saline influence, resulting from inappropriate culvert management at Wootton Bridge. Therefore, it can be concluded that there will be **no adverse effect** on the integrity of the **Briddlesford Copse SAC** for this Management Unit.

I5.4.16 The coastline from Fishbourne to Pelhamfield is NAI and will be allowed to migrate naturally inland ensuring that there is no loss to the extensive mud and sandflats that currently support

[7] This HRA is assessing the impact of the SMP policies on the International sites not whether the private defences have an effect on the integrity of these sites. It is worth noting that there is potential for some private defences (particularly in Wootton Creek) to have an effect on the International sites.

feeding birds, or the vegetated shingle along parts of the upper foreshore. Old defences will continue to break down.

MAN2C (Ryde to Seagrove Bay)

I5.4.17 The SMP policy for the Ryde frontage (**MAN2C**) is HTL for all three epochs from east of Pelhamfield to Seagrove Bay. The intent is to protect the core residential, commercial and heritage centre of Ryde and the surrounding communities, which is a regionally and nationally important economical area. The coastline mainly consists of a vast expanse of exposed sand and shingle at low tide, with a large seagrass bed on the eastern edge of the spit. There is a small area of rocky shore at Nettlestone Point, followed by sandy beach area that is in unfavourable declining condition because of the construction of the esplanade and is now suffering from coastal squeeze. The HTL policy will result in there being losses of intertidal rocky shore (an internationally important wetland under Ramsar Criterion 1) and the sandy area of Seagrove bay due to coastal squeeze in the medium to long term. The IW Mitigation Strategy predicted there to be ca. 0.02 ha loss of intertidal rocky shore over the 100 year period at Nettlestone Point as a result of coastal squeeze. Therefore, it has been considered that this impact is *de minimus* and that there will be **no adverse effect** for the **Solent and Southampton Water Ramsar** site. Ryde spit is accreting and therefore coastal squeeze will not be an issue providing there is no interruption in this sediment supply. There is also an area of coastal grazing marsh east of Puckpool and some small saline lagoons with coastal grazing marsh landward of these at The Duver, which have the potential to be wader and waterfowl feeding and roosting sites (see **Table 2.8**). A HTL policy (maintaining and future heightening) for these defences will ensure that these habitats do not experience unexpected increases in saline inundation from sudden overtopping by waves (during storms) and sea level rise. Therefore, their condition will not be affected meaning their integrity as a potential feeding and roosting site for internationally important birds will not be affected. It can therefore be concluded that there will be **no adverse effect** on the integrity of the **Solent and Southampton SPA** and **Ramsar** sites for this Management Unit.

I5.4.18 ***Summary of the potential impact of policy:*** The proposed policy suite for the three Management Units within this PDZ are more than likely to cause a small loss of intertidal mudflats in the long term (less than 0.5ha over 100 years) within the Solent and Southampton Ramsar site. The potential loss of 0.02ha over 100 years of rocky shore exposures due to coastal squeeze against sea defences with increasing sea level rise is considered to be '*de minimus'* for the Solent and Southampton Ramsar site. Overall, **no adverse effect** has been concluded for either the mudflat habitat or rocky intertidal that both support bird species designated within the **Solent and Southampton Ramsar site**. There will be increased saline inundation of the Old Mill Pond as a result of the MR policy at Wootton Bridge. However, this will result in **no adverse effect** on the integrity of the woodland that supports the Annex II bat species within **Briddlesford Copse SAC**. There is also **no adverse effect** on the integrity on the **Solent Maritime SAC**. The anticipated habitat losses per epoch are given in **Table 5.2** below.

Table 5.3 Anticipated Habitat Losses in PDZ 2 as a result of SMP2 Policy

Designated Site	PU	Habitat Type	Extent of Losses (-) & Gains (+) of Habitat (ha)				Conclude No Adverse Effect on Integrity of Site?
			Epoch 1	Epoch 2	Epoch 3	Total	
Solent and Southampton Water SPA site	2B.2 2B.4 2B.6 2B.7	Mudflat	< -0.17	< -0.17	< -0.17	**<-0.50**	**Yes**
Solent and Southampton Water Ramsar site	2B.2 2B.4 2B.6 2B.7	Mudflat	< -0.17	< -0.17	< -0.17	**<-0.50**	**Yes**
	2C.4	Rocky Intertidal	<-0.01	<-0.01	<-0.01	**-0.02**	**Yes**

I5.4.19 ***Mitigation opportunities:*** No mitigation measures are required. However, the continued flooding of Kings Quay creek over the 100 year period as a result of the NAI policy along this frontage will ensure more mudflat and saltmarsh habitats (ca. 9.5 ha) are created within the Solent Maritime SAC, and the Solent and Southampton Water SPA and Ramsar site. Of note, when new defences or maintenance works on the upper foreshore around Nettlestone Point are required, these should be created out of rocky material (with sufficient heterogeneity) to provide for colonisation opportunities of rocky shore communities with sea level rise.

I5.4.20 ***PDZ 2 - Implications for the integrity of the site:*** There will be **no adverse effect** on the **Solent Maritime SAC**, and the **Solent and Southampton Water SPA** and **Ramsar** site.

Designation	SMP Habitat Grouping	Habitat Function	Conclude No Adverse Effect On the Integrity?
Solent Maritime SAC	Estuaries (Kings Quay)	Mudflats and Coastal Saltmarsh	**Yes**
	Intertidal sediments (mudflat and sandflat)	-	
	Coastal saltmarsh	-	
	Intertidal sediments (vegetated shingle)	-	
Solent and Southampton Water SPA / Ramsar	Coastal Saltmarsh	High tide refuge and breeding sites for birds	
	Intertidal sediments (mudflat and sandflat)	Feeding habitat for birds (e.g. waders, gulls & terns)	
	Intertidal & subtidal marine habitats (seagrass)	Feeding habitat for birds (e.g. Brent geese)	
	Saline lagoons	Feeding habitat for birds (e.g. Mediterranean gull)	
Solent and Southampton Water Ramsar only	Subtidal marine habitats (rocky shores)	Feeding habitat for birds	
Briddlesford Copse SAC	Woodland	Roosting habitat for Bechstein's bat	

PDZ 3 (Bembridge and Sandown Bay)

I5.4.21 SMP policy in this PDZ provides for a combination of HTL, NAI and MR within three Management Units for all three epochs. There are four International sites which have the potential to be affected by this PDZ; these are:

- **Solent and Southampton Water SPA** (mudflats, saltmarsh, sand flats, coastal grazing marsh, freshwater habitats, subtidal marine habitats and saline lagoons);
- **Solent and Southampton Water Ramsar** site (same habitat groups as the SPA, as well as sand dunes);
- **Solent and Isle of Wight Lagoons SAC** (saline lagoons); and
- **South Wight Maritime SAC** (vegetated sea cliffs and subtidal marine habitats).

MAN3A (Bembridge Harbour)

I5.4.22 SMP policy for Bembridge Harbour (**MAN3A**) is a combination of NAI, HTL and MR in the first and third epochs, and NAI and HTL in the second epoch. The intent is to maintain the flood defence and freshwater habitats along the Eastern Yar provided by the embankment at the back of the harbour, the long term management and maintenance of sediment supply to the area, the maintenance of the outer face of St Helens Duver, and ensure the property at Bembridge Point is protected from flood and erosion risk. Priory Bay is to be allowed to function more naturally, allowing the current defences that are in poor condition to fail where they have not already. This will allow natural migration of the coast (intertidal sandflats and rocky shores) and for the foreshore to be replenished by the eroded littoral sediments, thus maintaining favourable condition of the component SSSI (Brading Marshes to St Helen's Ledges). Holding the defences along the St Helens frontage will not result in coastal squeeze due to the net accretion regime of Bembridge Harbour (Environment Agency, 2010). HTL at St Helen's Duver will however, cause some coastal squeeze of the intertidal sediments (sandflats), as well as preventing the dunes behind from rolling back. The sand dunes are presently being kept static by the defences either side of the spit. The study by Atkins for the Eastern Yar Flood and Erosion Management Strategy (EYS) estimated that by holding the line along The Duver will result in a **small loss of 2.84ha of intertidal sand flat habitat** due to coastal squeeze by 2055 (Environment Agency, 2010). Detailed analysis of core count and low tide count bird data since 1997 for the SPA interest features (waterfowl such as dark-bellied Brent geese and teal) using the sandflats within the SPA/Ramsar sites shows that the proportion of the overall assemblage of waterfowl whose feeding habitat would be lost by 2055 is <1% of the numbers recorded in the study area, and <0.1% of those in the SPA, which allowed this to be agreed by Natural England as a '*de minimus*' effect (Environment Agency, 2010). In the long term, a MR policy will result in a more sustainable plan to manage the spit so that it can function more naturally. Therefore, there will be **no adverse effect** on the integrity of the **Solent and Southampton SPA** and **Ramsar site.**

I5.4.23 Coastal process analysis undertaken as part of the EYS development indicated that Bembridge Harbour is an accreting system, which is supported by the need to regularly dredge the entrance and harbour (Environment Agency, 2010). There is an extensive area of saltmarsh and mudflats within the harbour, which are presently accreting. This accretion is expected to keep pace with increasing sea level rise. Therefore, it is not expected that there will be a reduction in intertidal mudflat and saltmarsh habitat due to coastal squeeze from holding the line of The Embankment (Environment Agency, 2010). The HTL policy of The Embankment also means that the saline lagoons, saltmarsh and freshwater components of the Solent and Southampton SPA/Ramsar site and Solent and Isle of Wight Lagoons SAC in the hinterland will be maintained in the first epoch without maintenance. The findings of

the EYS are that maintenance of the defences will be required after 2030 to ensure the integrity of these International designations, since this is when overtopping would occur, which would significantly change the salinity because of increased risk of overtopping (Environment Agency, 2010). It has been concluded that there will be **no adverse effect** on the integrity of the **Solent and Isle of Wight Lagoons SAC** and **Solent and Southampton SPA** and **Ramsar** site.

I5.4.24 Bembridge Point has a policy of NAI for all three epochs, which will allow the sand dunes to evolve naturally, particularly once the groyne on the end of the spit collapses (though if this were to continue to be managed using private funds this would not significantly interrupt coastal processes since the harbour is currently highly managed. Furthermore, the groyne could help retain more sediment in the system for the area south of Bembridge Harbour). The dunes will roll-back allowing successional changes that would have been prevented by holding the line. Therefore, it can be concluded that there is **no adverse effect** on the integrity of the sandflats and dunes, which are interest features of the **Solent and Southampton SPA** (sandflats only) and **Ramsar** site.

MAN3B (Bembridge Headland to Culver Cliff)

I5.4.25 SMP policy for Bembridge Headland to Culver Cliff (**MAN3B**) is a combination of NAI for two areas of coast and a HTL/MR for the remainder. The intent is to maintain the nature conservation interests along this frontage whilst providing protection from erosion in the short to medium term to the properties around the headland. The area comprises rock ledges in the foreshore (known as the 'Bembridge Ledges') backed by geologically important actively eroding low cliffs; the rocky foreshore is an interest feature of South Wight Maritime SAC and Solent and Southampton Ramsar (as well as the Whitecliff Bay and Bembridge Ledges SSSI), and providing feeding habitat for birds species that are features of the Solent and Southampton SPA. A policy of NAI around the majority of the headland allows the soft cliffs to be eroded, thus maintaining the exposure of the geological interest features and the sediment supply to the sandy shingle upper foreshore. A policy of HTL in the short to medium term for Land End and Foreland Fields, followed by MR in the long term (with MR in between these at Foreland) is to allow the dependence on hard defences to diminish and the use of soft management practices such as shingle replenishment to slow erosion. The policy suite is unlikely to cause interruption of coastal processes in the short to medium term on the short length (ca. 775m) of coastline, and therefore, there it can be concluded that there will be **no adverse effect** on the integrity of the South Wight Maritime SAC.

I5.4.26 In the short to medium term, the HTL policy around the headland of the Bembridge rocky shore ledges is predicted to hinder natural erosion processes erosion, and thus reduce the exposure of rocky foreshore. With rising sea levels rise this could cause some degree of coastal squeeze and changes in zonation. However, the area of coastal squeeze is ca. **0.88ha** (by the end of the second epoch), which is 0.004% of the South Wight Maritime SAC area. However, the exposure of these ledges is highly dynamic, particularly in the upper shore, where the movement of soft sediments changes diurnally, causing beach elevation and thus exposure of the chalk and clay bedrock to change on a regular basis (Royal Haskoning, 2009). Therefore, the area that could be constrained due to the defences and sea level rise is minimal and would not result in an adverse effect, based on the fact that it is within the natural fluctuations of this already dynamic environment. In the long term a policy of MR would allow coastal processes to resume their course and ensure that the integrity of the features of the SAC (i.e. vegetated sea cliffs and rocky intertidal and subtidal reefs) continued to be maintained, and there was **no adverse effect**.

I5.4.27 The rocky ledges and pockets of seagrass beds are also both features of the Solent and Southampton Ramsar site, as it supports international numbers of waterfowl. As discussed

above, the rocky ledges will not be adversely affected by the HTL policies in the first and second epochs. There are seagrass beds in the shallow subtidal rockpools and channels of the Bembridge ledges. These seagrass beds could be adversely affected by decreases in water clarity, and increases in turbidity that can result from changes in hydrodynamics, as well as increasing depth that could occur with sea level rise. The HTL policies in the short to medium term will not interrupt or significantly change the hydrodynamics around the ledges, and since the long term the policy around the headland is MR so that the natural environment can function more naturally it is not predicted that the seagrass beds will be adversely affected by the policies. It can therefore be concluded that there will be **no adverse effect** on the integrity of either the **South Wight Maritime SAC** or the **Solent and Southampton Ramsar site**.

MAN3C (Sandown Bay)

I5.4.28 Sandown Bay is the third management unit (**MAN3C**). The SMP policy is to HTL from Yaverland to Shanklin for all three epochs and NAI along the Culver Cliff and Red Cliff to the north-east and along the cliffs of Luccombe to the south-west. This Management Unit falls within one International designation, the South Wight Maritime SAC only (see Figure 3 in **Annex I-I**). A policy of NAI along the cliffs from the end of Whitecliff Bay to Yaverland car park means that natural erosion will maintain the sediment supply to The Bay. Natural evolution of the vegetated sea cliffs and chalk grasslands will maintain that there is **no adverse effect** on the integrity of the **South Wight Maritime SAC** in this area. The same will be true of the cliffs at Luccombe under a NAI policy for three epochs. The HTL policy for the remaining area of The Bay is to sustain the important economic and tourism value of the frontage of Sandown, Lake and Shanklin. The area is low lying in comparison to the cliffs either side and is at greater risk of both erosion and flooding from increasing wave heights and sea level rise. There are however subtidal rocky features (no intertidal features as the SAC boundary is below the Mean Low Water mark) and a narrow sandy beach on the foreshore. Allowing the cliffs either side of The Bay to erode naturally ensures the beach is supplied with sediment and that the coastal processes do not significantly change. Any changes in sediment supply and coastal process could affect the subtidal rocky reefs (for example, by causing abrasion of the colonising macroalgae). Therefore, it is predicted that there is also **no adverse effect** on the integrity of the **South Wight Maritime SAC** by continuing to HTL.

I5.4.29 ***Summary of the potential impact of policy:*** The Eastern Yar Strategy concluded that holding the line around St Helen's Duver will result in a small loss of intertidal sand flat habitat (2.84 ha) over the first 50 year period due to coastal squeeze (1.42 ha per epoch – for the first two epochs). However, it was agreed by Natural England that the effect on the bird species (<1% of birds used the area for feeding and <0.1% of the SPA) was '*de minimus*' with **no adverse effect** on the **Solent and Southampton SPA/Ramsar site**. The remainder of the policies within this PDZ have been concluded as having **no adverse effect** on the integrity of the **Solent and Isle of Wight Lagoons SAC** and **South Wight Maritime SAC**. The anticipated habitat losses per epoch are given in **Table 5.3** below.

Table 5.4 Anticipated Habitat Losses in PDZ 3 as a result of SMP2 Policy

Designated Site	PU	Habitat Type	Extent of Losses (-) & Gains (+) of Habitat (ha)				Adverse Effect on Integrity of Site
			Epoch 1	Epoch 2	Epoch 3	Total	
Solent and Southampton Water SPA site	3A.3 3A.4	Mudflats	-1.42	-1.42		**-2.84**	**No**

Designated Site	PU	Habitat Type	Extent of Losses (-) & Gains (+) of Habitat (ha)				Adverse Effect on Integrity of Site
			Epoch 1	Epoch 2	Epoch 3	Total	
Solent and Southampton Water Ramsar site	3A.3 3A.4	Mudflats	-1.42	-1.42		**-2.84**	**No**
	3B.2 3B.4	Rocky Intertidal Shore	-0.45	-0.45		**-0.9**	**No**

I5.4.30 ***Mitigation opportunities*:** None available or necessary.

I5.4.31 ***PDZ 3 - Implications for the integrity of the site:*** It is considered that the range of SMP2 policies around this section of coast will have **no adverse effect on the integrity of the four International nature conservation sites** (Solent and Isle of Wight Lagoons SAC, Solent and Southampton SPA/Ramsar site, South Wight Maritime SAC).

Designation	SMP Habitat Grouping	Habitat Function	Conclude No Adverse Effect On the Integrity?
Solent and Isle of Wight Lagoons SAC	Saline Lagoons	-	**Yes**
South Wight Maritime SAC	Vegetated Cliffs	-	
	Subtidal Marine Habitats (reefs & rocky shores)	-	
Solent and Southampton Water SPA / Ramsar	Coastal Saltmarsh	High tide refuge and breeding sites for birds (e.g. Brent geese and teal)	
	Intertidal sediments (mudflat and sandflat)	Feeding habitat for birds (e.g. waders, gulls, terns, teal and Brent geese)	
	Saline lagoons	Feeding habitat for birds (e.g. Mediterranean gull)	
Solent and Southampton Water Ramsar only	Intertidal & subtidal marine habitats (rocky shores)	Criterion 1 (wetland habitat)	
Briddlesford Copse SAC	Woodland	Roosting habitat for Bechstein's bat	

PDZ 4 (Ventnor and the Undercliff)

I5.4.32 SMP policy in this PDZ provides for a combination of HTL and NAI for the first and second epochs, followed by HTL, NAI and MR in the third epoch. The sites which have the potential to be affected by this PDZ are:

- **South Wight Maritime SAC** (vegetated sea cliffs and subtidal marine habitats); and
- **Isle of Wight Downs SAC** (vegetated sea cliffs).

I5.4.33 ***Potential impact of policy on the Isle of Wight Downs SAC:*** This SAC only covers a moderate area within this PDZ (161 ha), which is the Ventnor Downs SSSI that is above the cliffs of Ventnor and Bonchurch and consists of lowland dwarf shrub heath and calcareous

grassland. The features of this SAC were scoped out of the assessment as not having the potential to be impacted by the SMP policy.

I5.4.34 ***Summary of the potential impacts of policy on the Solent Maritime SAC:*** This SAC covers the entire length of PDZ 4. There are two relevant SMP habitats (i.e. interest features) within this International site for the PDZ, the first being the vegetated sea cliffs and second being subtidal rocky marine habitats (including sea caves). The intertidal rocky shores do not fall within the designated SAC area as the upper boundary of the maritime area is the MLW mark. The vegetated sea cliffs are found along the entire frontage of this PDZ and are also designated within the Compton Chine to Steephill Cove and Bonchurch Slips SSSIs. NAI along the majority of the PDZ frontage will allow the continued erosion and natural succession of the vegetated cliffs. However, a HTL along a total 4.25km stretch of coastline for Bonchurch, Ventnor and Castlehaven will mean that the coastal processes around these cliff areas will be interrupted, which ordinarily would prevent erosion that is needed to maintain the integrity of the vegetated cliff interest features. However, there are no vegetated cliffs habitats at Bonchurch, Ventnor or Castlehaven as they are historically built up areas. Therefore, the HTL policies at these locations will have **no adverse effect** on the integrity of the **Solent Maritime SAC**. The subtidal rocky marine habitats can be found along much of the coastline of this PDZ, though there are no sea caves within this PDZ. With sea level rise the subtidal features will migrate landwards over the intertidal area, resulting in some shift in the zonation of the sub-tidal reef features. In addition, rocky reefs are sensitive to physical loss, damage and abrasion from sediments. Any maintenance works along the Ventnor and Bonchurch frontages would not be done within the subtidal and would therefore not cause any physical damage or loss of the reefs. Such works would not cause any disturbance to sediments since the intertidal area is a rocky environment. Therefore, any maintenance works will have **no adverse effect** on the integrity of the **SAC**.

I5.4.35 ***Mitigation opportunities:*** None required.

I5.4.36 ***PDZ 4 - Implications for the integrity of the sites:*** There will be **no adverse effect on the integrity of the interest features of the Isle of Wight Downs SAC** (features scoped out) or **the South Wight Maritime SAC** (vegetated sea cliffs and subtidal rocky reefs and sea caves).

Designation	SMP Habitat Grouping	Habitat Function	Conclude No Adverse Effect On the Integrity?
Isle of Wight Downs SAC	Vegetated Sea Cliffs (None Present)	-	**Yes**
South Wight Maritime SAC	Vegetated Cliffs	-	
	Intertidal & Subtidal Marine Habitats (reefs & rocky shores)	-	

PDZ 5 (South-West Coastline)

I5.4.37 SMP policy in this PDZ provides for one NAI policy for all three epochs along the entire stretch of coastline to provide for natural development (through erosion) of the sea cliffs. PDZ 5 includes interest features of the **South Wight Maritime SAC**.

I5.4.38 ***Summary of the potential impacts of policy:*** The policy of NAI will enable the vegetated sea cliffs, an interest feature of the South Wight Maritime 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). It should be noted that Military Road runs along this stretch of coastline, and in

some places crosses a number of Chines[8] (e.g. Shepherds Chine and Chilton Chine). These Chines are an interest feature of both the South Wight Maritime SAC and Compton Chine to Steephill Cove SSSI. Under the road are culverts that manage the drainage from these Chines and it has been found that these culverts are preventing the Chines from migrating inland (see the Environment Agency comments in **Annex I-III of this document**). Therefore, in time these Chines will reduce in length as the cliffs fronting the sea are eroded and the Chines are held in place.

I5.4.39 Since the culverts are not part of a defence but rather a drainage management device that is under the road, and it has not been an option to continue to defend Military Road this impact is not related to this SMP. However, since the road will need to be moved inland in places to protect it from damage it will also mean the culverts will need moving, thus allowing the Chines to migrate naturally inland.

I5.4.40 ***Mitigation opportunities:*** None required.

I5.4.41 ***PDZ 5 - Implications for the integrity of the site:*** It is considered that adopting natural change along this area of coast will have **no adverse effect on the integrity** of the South Wight Maritime SAC, which is the only International site within this PDZ.

Designation	SMP Habitat Grouping	Habitat Function	Conclude No Adverse Effect On the Integrity?
Isle of Wight Downs SAC	Vegetated Sea Cliffs (None Present)	-	**Yes**
South Wight Maritime SAC	Vegetated Sea Cliffs	-	
	Intertidal & Subtidal Marine Habitats (reefs, rocky shores & sea caves)	-	

PDZ 7 (North-East Coastline)

I5.4.42 SMP policy in this PDZ provides for a NAI policy for all three epochs along the entire stretch of coastline to allow the area to continue to develop naturally over time. There are three International sites that could be affected by the SMP policy in this PDZ; these are:

- **Solent Maritime SAC** (habitat groups - estuaries, intertidal mud and sandflats, coastal saltmarsh, saline lagoons, vegetated shingle and freshwater habitats);
- **Solent and Southampton Water SPA** (same habitat groups as the SAC, as well as subtidal marine habitats); and
- **Solent and Southampton Water Ramsar site** (same habitat groups as the SAC and SPA, as well as coastal grazing marsh).

I5.4.43 ***Summary of the potential impacts of policy:*** This coastline is currently undefended from coastal erosion and flooding. The continued NAI policy along the entire PDZ frontage will ensure the natural evolution of the mudflats, saltmarshes, sandflats, vegetated shingle, coastal grazing marsh, freshwater habitat and saline lagoons. The SMP policy is of NAI and since there are no coastal or flood defences within the estuary, there will be no adverse effects on the international designations. Of note, there are some management structures

[8] A **Chine** is a steep-sided river valley where the river flows through coastal cliffs to the sea.

that are presently holding the historic salt pans in place and managed by the National Trust[9]. These two historic salt pans are also designated saline lagoons and it is estimated that the structures holding them in place will last for the duration of the first epoch. These saline lagoons are an internationally important wetland feature of the Solent Maritime SAC and Solent and Southampton Water Ramsar site (Criterion 1), and provide a feeding ground for the Mediterranean gull, which is an Annex I species for which the Solent and Southampton Water SPA is designated. With sea level rise there will be increasing saline inundation of the lagoons and increasing siltation in the long term, which could reduce the extent and condition (i.e. salinity) of the lagoons, though this is due to natural processes. There is also a strong possibility that other saline lagoons may form naturally elsewhere in the harbour over time with sea level rise, since the conditions within the harbour are conducive to do so. Therefore, there will be **no adverse effect** on the integrity of this interest feature for the **Solent Maritime SAC**, **Solent and Southampton Water Ramsar** / **SPA** sites since saline lagoons are ephemeral in nature.

I5.4.44 ***Mitigation opportunities*:** None necessary.

I5.4.45 ***PDZ 7 - Implications for the integrity of the site:*** It is considered that continuing to allow natural change within this Harbour will have **no adverse effect on the integrity** of the any of the interest features within this PDZ for the Solent Maritime SAC, Solent and Southampton Water Ramsar and SPA sites.

Designation	SMP Habitat Grouping	Habitat Function	Conclude No Adverse Affect?
Solent Maritime SAC	Estuaries (Newtown Estuary)	Mudflats, Coastal Saltmarsh, Saline Lagoons	**Yes**
	Intertidal sediments (mudflat and sandflat)	-	
	Coastal saltmarsh	-	
	Saline lagoons	-	
	Intertidal sediments (vegetated shingle)	-	
Solent and Southampton Water SPA / Ramsar	Coastal saltmarsh	High tide refuge & breeding sites for waders and feeding for Brent geese	
	Intertidal sediments (mudflat and sandflat)	Feeding habitat for bird species (e.g. waders, gulls and terns)	
	Saline lagoons	Feeding habitat (e.g. Mediterranean gull)	
	Intertidal sediments (vegetated shingle)	Roosting habitats (e.g. terns)	
	Freshwater habitats	Roosting and feeding site for waterfowl	
Solent and Southampton Water Ramsar only	Coastal grazing marsh	Winter grazing and high tide roost sites (e.g. redshank and Brent geese)	

[9] This HRA is assessing the impact of the SMP policies on the International sites not whether the private defences have an effect on the integrity of these sites. It is worth noting that it is likely that some private defences (e.g. National Trust) could have an effect on the International sites, either positive or negative.

I5.5 PDZs where either 'it cannot be concluded that there is not an Adverse Effect' or there is 'an Adverse Effect' on Integrity of International Sites

I5.5.1 Of the seven PDZs appraised within this Stage 3 Appropriate Assessment, it has been deemed that there is one PDZ that results in 'an Adverse Effect', even when mitigation measures are implemented for SMP policy, and there are no PDZs where it could not be concluded that there is not an Adverse Effect on the integrity of the International sites.

I5.5.2 An important factor to remember at this stage is that where options are provided in response to uncertainty, matters will be clarified as time progresses and monitoring and analysis informs each subsequent SMP revision.

PDZ where there is an adverse effect on the integrity of International sites:

PDZ 6

PDZ 6 (West Wight)

I5.5.3 SMP policy in this PDZ provides for a combination of HTL, NAI and MR within three management units for all three epochs. There are three International sites which have the potential to be affected by this PDZ; these are:

- **Solent Maritime SAC** (habitat groups - intertidal sediments (mudflats and vegetated shingle), coastal saltmarsh and saline lagoons);
- **Solent and Southampton Water SPA** (same habitat groups as the SAC, as well as coastal grazing marsh).
- **Solent and Southampton Water Ramsar** site (same habitat groups as the SPA);
- **South Wight Maritime SAC** (vegetated sea cliffs and intertidal and subtidal rocky marine habitats); and
- **Isle of Wight Downs SAC** (vegetated sea cliffs).

MAN6A (Freshwater and Tennyson Down)

I5.5.4 SMP policy for Freshwater and the Tennyson Down headland (**MAN6A**) is predominantly NAI, with a small section of HTL policy at Freshwater Bay. The intent is to maintain the natural character through a continuous policy of NAI along the high undefended cliff lines, whilst protecting Freshwater Bay and the Western Yar from tidal inundation. A policy of NAI around the cliffs allows the continuation of the natural processes of coastal erosion and cliff retreat. This will sustain the succession of the vegetated sea cliffs through landslips and slumping, as well as allowing the natural coastal processes to pursue around the rocky intertidal and subtidal reefs and sea caves. A HTL policy at Freshwater Bay (a 0.28km stretch of coast) for three epochs, by maintaining and raising the level of the hard defences, will ensure that there is no tidal inundation up the Yar Valley, which would otherwise cause an adverse effect on the Freshwater Marshes SSSI. There are no vegetated sea cliffs within the bay of freshwater and therefore the HTL policy will have **no adverse effect** on the vegetated cliffs of the **South Wight Maritime SAC**. Seaward of the hard defences is a steep sand shingle beach (which is above the MLW boundary of the SAC), with a subtidal rocky seabed. The rocky seabed is a feature of the SAC, however it is not expected that this feature will be impacted by the policy to protect the bay from flooding and further erosion. It

is therefore anticipated that there will be **no adverse effect** on the integrity of the rocky reef interest feature of the **South Wight Maritime SAC** or its component SSSI (Headon Warren and West High Down). The vegetated sea cliffs along Tennyson Down are also a designated interest feature of the Isle of Wight Downs SAC. The policy of NAI will ensure that the natural coastal processes will continue eroding the cliffs. Therefore the SMP policy will have **no adverse effect** on the integrity of the **Isle of Wight Downs SAC**.

MAN6B (Totland to Norton)

I5.5.5 The second Management Unit, Totland to Norton (**MAN6B**) has a combination of NAI and HTL policies. The intent is to maximise the benefit of the existing defence structures but to adapt to a more natural coastline over the medium to longer term. The defences along Totland and Colwell Bay are to be maintained over all three epochs. This area comprises of soft slumping cliffs that are protected at the toe by a concrete wall, seaward of which there are some rocky foreshore areas around Warden Point. However, the area is not designated as either SAC, SPA or Ramsar sites and thereby does not require assessment in this HRA.

MAN6C (Yarmouth to Bouldnor, including Western Yar Estuary)

I5.5.6 The third management unit (**MAN6C**) in this PDZ provides for a combination of HTL and NAI policies for Yarmouth to Bouldnor, including the Western Yar Estuary. The intent is to protect the town of Yarmouth, the functioning of the harbour and maintain road access by bridge to west Wight, whilst allowing the majority of the estuary to adapt naturally to sea level rise. The defences along Norton Spit are to be held for the duration of the SMP, which will ensure that the mudflat and saltmarsh on the landward side of the spit are maintained, resulting in a beneficial effect of the HTL policy. Furthermore, allowing the adjacent coastline between Sconce Point and Norton to naturally erode in the medium to long term will ensure an increase of sediment downdrift, resulting in accretion of Norton Spit which would further protect the mudflat and saltmarsh on the landward side of the defence structures.

I5.5.7 The majority of the Western Yar Estuary comprises of mudflats and extensive areas of saltmarsh which will be allowed to evolve naturally under a NAI policy. Increasing inundation with sea level rise and the steep topography of most of the Yar valley would restrict the degree of natural landward migration of the saltmarshes, resulting in a natural loss of the lower stands of saltmarsh habitat through erosion to mudflats. Rising sea levels and tidal inundation within the estuary will be further exacerbated by a HTL policy along The Causeway at Freshwater. The reason for maintaining sufficient flood defence at this location is that it ensures both the protection of the Freshwater Marshes SSSI that lies between The Causeway and Freshwater Bay, and that West Wight does not become an island. It is not expected that this HTL policy will have an adverse affect on the integrity of the coastal marshes or mudflats of the estuary in the short term, though in the medium to long term there IW Mitigation Strategy predicted that there is potential for a small amount of mudflat and saltmarsh habitat loss over the 100 year period, both of which are features of the Solent and Southampton Water SPA and Ramsar sites (ca. 0.39 ha) and the Solent Maritime SAC (ca. 0.54 ha) sites (IW Mitigation Strategy, 2006). It should be noted that the IW Mitigation Strategy figures are include for the section of defences at Thorley Brook (PU6C.5) to be HTL for all three epochs. The HTL section at Thorley Brook makes up ca. 30% of the council defended areas within the estuary and since the HTL is only for the first epoch, there will be a 30% reduction in the amount of frontage within the estuary being HTL for the second and third epochs. Therefore, the amount of habitat lost can be reduced by ca. 30%. The following table gives a rough estimate of the losses over the three epochs for the SAC, SPA and Ramsar site (**Table 5.5**).

Table 5.5 **Table with intertidal losses (saltmarsh and mudflat) within MAN 6C for the Solent Maritime SAC and Solent and Southampton Water SPA and Ramsar site over the three epochs of the SMP2**

SMP policies	Loss of intertidal habitat (mudflat and saltmarsh) (hectares)											
	Solent Maritime SAC				Solent and Southampton Water SPA				Solent and Southampton Water Ramsar site			
	Time (Years)			Total Loss	Time (Years)			Total Loss	Time (Years)			Total Loss
	0-20	20-50	50-100		0-20	20-50	50-100		0-20	20-50	50-100	
IW Mitigation Strategy[1]	0.09	0.18	0.27	**0.54**	0.06	0.13	0.19	**0.39**	0.06	0.13	0.19	**0.39**
SMP2 policy[2]	0.09	0.13	0.19	**0.40**	0.06	0.09	0.10	**0.25**	0.06	0.09	0.10	**0.25**

[1] = HTL policies for all three epochs for MAN 6C; [2] = HTL/HTL/HTL (PU6C.3, 5 & 6) & HTL/MR/NAI (PU6C.5)

I5.5.8 **Table 5.5** illustrates the small degree of loss of mudflat and saltmarsh, which is within the natural fluctuations of the ecosystem and indiscernible from natural losses, since for the Solent Maritime SAC the loss of these two habitats (0.40ha) equates to ca. 0.004 ha per year over the next 100 years, and also ca. 0.004 ha for the Solent and Southampton Water Ramsar site. Therefore, it has been considered that this impact is *de minimus*. Furthermore, it is likely that the opening up of Thorley Brook will result in the mobilisation of sediments that could build up areas within the estuary in line with sea level rise for further saltmarsh and mudflat habitats, though this cannot be quantified or guaranteed without physical modelling and is something that could be studied further. Overall, the loss over time can be regarded as having **no adverse effect** on the integrity of the **Solent Maritime SAC** and the **Solent and Southampton Water Ramsar** site.

I5.5.9 In addition, these two habitats also support birds of international importance that are designated features of the **Solent and Southampton Water SPA,** and therefore a loss of **ca. 0.25 ha of mudflat and saltmarsh** over a 100 year period (2005 – 2105) is predicted (see **Table 5.5**). Such small losses over time are unlikely to have an adverse effect on the availability of feeding resources and high water roost sites for these birds. Particularly, since the areas known to be important feeding and high tide roost sites for wader and waterfowl are on the west side of the estuary south of Norton, which is where there is a policy of NAI and there will be no loss of habitat due to coastal squeeze. Therefore, it is deemed that there will be **no adverse effect** on the integrity of the **Solent and Southampton Water SPA** from coastal squeeze.

I5.5.10 One of the main constraints on the migration of the saltmarshes in the estuary is the disused railway on the east bank that is currently a cyclepath. This is particularly the case at Thorley Brook, which is presently in unfavourable declining condition because of coastal squeeze and increasing tidal inundation, caused by the presence of the raised railway line, a concrete revetment south of the disused Yarmouth Mill and a wall in front of the Mill (Unit 30 of the Yar Estuary SSSI). The intent of the SMP policy is to allow for a tidal link with Thorley Brook and Barnfields Stream over time. This would be done by having a HTL policy in the first epoch to allow time to research the MR policy for the second epoch, which would be followed by NAI in the third epoch. The MR policy would allow the management of the saline inundation of the landward coastal grazing marshes, so as to enable slow adaptation to increasing saline intrusion with the **creation of 30.9 ha of saltmarsh and mudflat** in the medium to long term. This management option would mitigate for the loss of saltmarsh and mudflat habitats of the Western Yar (due to coastal squeeze against defences with continuing HTL policies) within the Solent and Southampton SPA and Ramsar sites. Indirectly, it would also mitigate for the loss of mudflat and saltmarsh for the Solent Maritime SAC. Although the SAC boundary does not extend beyond the disused Yarmouth Mill it would both improve the condition of the

mudflats landward of the sluice at the disused Yarmouth mill, which are presently in declining condition because of coastal squeeze and release sediments from the MR, which will help build up more mudflats in line with sea level rise within the existing Western Yar estuary.

I5.5.11 The opening up of defences at Thorley Brook (PU6C.5) in the second epoch will result in the flooding of Thorley and Barnfields Stream, which will have **an adverse effect** on the integrity of the designated **coastal grazing marshes** and (and undesignated) freshwater habitats that are features of the **Solent and Southampton Ramsar site**, as well as **bird species** that use the coastal grazing marshes for feeding that are features of the **Solent and Southampton SPA**. The freshwater reed beds and grazing marshes landward of the Thorley Brook defences offer important wetland areas for high water roosting and feeding activities of water and wildfowl (SPA interest feature and Ramsar Criterion 1), as well as supporting rare and important species (Ramsar Criterion 2). Saline intrusion would cause the loss of ca. 4.0 ha of undesignated freshwater habitat around the line of the two rivers and 30.9 ha of designated grazing marsh habitats (plus 5.3 ha of undesignated grazing marsh). If saline intrusion is prevented from extending beyond Thorley Bridge (under the Thorley Road) then 13.1 ha of grazing marsh will be remain unaffected. The change in habitat from coastal grazing marsh that offer feeding grounds and high water roost sites for wildfowl would be gradually replaced by saltmarsh and mudflat. It is likely that though the area would still provide an important feeding ground for many bird species, in that some birds would adapt and find new roost sites over time, whilst others would not since the function of mudflats and saltmarsh are different to that of coastal grazing marsh. Therefore, the community of birds may change over time with the MR policy as the feeding function of the area changes. It has been concluded that the change in 30.9 ha of habitat will cause **an adverse affect** on the **Solent and Southampton Water SPA** and **Ramsar** site. It has been predicted that **30.9 ha of coastal grazing marsh** that support the SPA bird species that currently use this site will need to be sought for **compensation through the Southern RHCP**.

I5.5.12 The remaining section of coast (i.e. PU6C.6) is for a HTL policy to protect the coast along the Yarmouth frontage to Bouldnor, with the intention to maintain the main coastal road link between the two communities. Landward of the coast road between Yarmouth and Bouldnor is an extensive area of coastal grazing marsh that would be at increasing risk of sudden saline intrusion from overtopping from the sea if the defences were not maintained. However, maintaining these defences will ensure that no sudden overtopping event occurs. Incidentally, these grazing marshes will change in the medium to long term as a result of the MR and NAI policy in PU6C.5, with brackish flooding from the estuary. It is considered that there will be **no adverse effect** on the integrity of the **Solent and Southampton SPA** and **Ramsar** sites from the policy in PU6C.6.

I5.5.13 Finally, there will be **no adverse effect** on the **Solent Maritime SAC** or **Solent and Southampton Water Ramsar** site feature of 'estuaries', since the SMP2 policies within the Western Yar Estuary allow it to respond to sea level rise. In fact, the opening up of the defences in PU6C.5 (Thorley Brook) will have a beneficial effect on the estuary feature, since it will allow the saline inundation up Thorley and Barnfields Streams, enabling the estuary to function more naturally than it does at present.

I5.5.14 ***Summary of the potential impacts of policy:***

The findings of the assessment are concluded below, with the losses and gains recorded in **Table 5.6** below:

- Solent Maritime SAC**:** There will be **no adverse effect** on the integrity of the vegetated sea cliffs, rocky intertidal and subtidal reefs, mudflats, saltmarsh and sea caves features from any of the policies within this PDZ.

- Isle of Wight Downs SAC: There will be **no adverse effect** on the integrity of the vegetated sea cliffs.
- Solent and Southampton Water SPA / Ramsar sites: The policy suite within and around the Western Yar Estuary means that overall there will be a **net gain of 11.8 ha** of **mudflat** and **17.3 ha saltmarsh** and a **loss of 30.9 ha** of **coastal grazing marsh**, which means **an adverse effect** on these designations.

Table 5.6 Anticipated Habitat Losses in PDZ 6 as a result of SMP2 Policy

Designated Site	PU	Habitat Type	Extent of Loss of Habitat (ha)				Adverse Effect on Integrity of Site
			Epoch 1	Epoch 2	Epoch 3	Total	
Solent Maritime SAC	6C.1 6C.3 6C.6	Mudflat	<-0.05	-0.06	-0.09	**-0.20**	**No**
	6C.1 6C.3 6C.6	Saltmarsh	<-0.05	-0.06	-0.09	**-0.20**	**No**
Solent and Southampton Water SPA site	6C.5	Coastal Grazing Marsh		-30.90		**-30.90**	**Yes**
	6C.5	Mudflat/Saltmarsh		+30.90		**+30.90**	**No**
	6C.1 6C.3 6C.6	Mudflat	<-0.05	-0.05	-0.05	**-0.13**	**No**
	6C.1 6C.3 6C.6	Saltmarsh	<-0.05	-0.05	-0.05	**-0.13**	**No**
Solent and Southampton Water Ramsar site	6C.5	Coastal Grazing Marsh		-30.90		**-30.90**	**Yes**
	6C.5	Mudflat/Saltmarsh		+30.90		**+30.90**	**No**
	6C.1 6C.3 6C.6	Mudflat	<-0.05	-0.05	-0.05	**-0.13**	**No**
	6C.1 6C.3 6C.6	Saltmarsh	<-0.05	-0.05	-0.05	**-0.13**	**No**

I5.5.15 ***Mitigation opportunities*:** There are no mitigation opportunities within this PDZ, though there are within PDZ 2 (refer to **Section I6: Cumulative Summary of The Plan**).

I5.5.16 ***Compensation requirement:*** Grazing marsh would need to be sought through the Southern RHCP as compensation, as there is nowhere within the Solent and Southampton Water SPA or Ramsar sites that approximately 30.9 ha could be mitigated for. It is the function of this grazing marsh to provide feeding and high water roosts that needs to be compensated for, and will need to be done as closely to the site as possible. A study into how and when the coastal grazing marshes would need to be replaced (i.e. by the second epoch) would be required in the first epoch.

I5.5.17 ***Implications for the integrity of the site*: There will only be an adverse effect on the Solent and Southampton SPA and Ramsar sites (loss of ca. 30.9 ha of coastal grazing marsh).**

Designation	SMP Habitat Grouping	Habitat Function	Conclude No Adverse Affect?
Solent Maritime SAC	Estuaries (Western Yar Estuary)	Mudflats, Coastal Saltmarsh, Saline Lagoons	**Yes**
	Intertidal sediments (mudflat and sandflat)	-	
	Coastal saltmarsh	-	
	Intertidal sediments (vegetated shingle)	-	
Solent Wight Maritime SAC	Vegetated sea cliffs	-	
	Intertidal & subtidal marine habitats (reefs, rocky shores & caves)	-	
Isle of Wight Downs SAC	Vegetated sea cliffs	-	
Solent and Southampton Water SPA / Ramsar	Coastal saltmarsh	High tide refuge & breeding sites for waders and feeding (e.g. Brent geese and Mediterranean gull)	
	Intertidal sediments (mudflat and sandflat)	Feeding habitat for bird species (e.g. waders, gulls and terns)	
	Saline lagoons	Feeding habitat (e.g. Mediterranean gull)	
	Coastal grazing marsh	Winter grazing and high tide roost sites (e.g. Brent geese)	**No**

I5.6 Conclusion of the 'Alone' Assessment at PDZ Level

I5.6.1 The provision of an active consideration of maintaining the integrity of International sites in the preparation and development of SMP policy is reflected within this assessment. It is clearly apparent that measures have been taken to factor the requirements of the International sites into the SMP policy suite. Accordingly, SMP policy is largely focused on maintaining or pursuing measures which will either maintain or enhance the features of International sites. PDZs can therefore be classified as falling into three categories (where the PDZ falls into two categories the worst case scenario will be put forward overall):

- have **No Adverse Effect on the Integrity' (NAEOI)** of International sites;
- **cannot be concluded that there is not an adverse effect** (i.e. assume adverse effect as a precaution), (particularly if it is dependant on the details at scheme/project level or securing mitigation measures); and
- have **'an Adverse Effect on the Integrity (AEOI)'** of International sites.

I5.6.2 It should be noted that in providing an assessment of SMP policy, the actual design of schemes to implement such policy, will provide the most focused stage in preventing any

adverse effect on the integrity of International sites. The mitigation measures supplied therefore will ensure that where a policy could have *an adverse effect*, the implementation of policy is provided in a manner which will prevent this.

I5.6.3 Of the SMP policies assessed within the 'alone' assessment, the PDZs fall into the following categories:

No Adverse Effect on the Integrity of International sites

I5.6.4 For six of the PDZs, it can be concluded that the policy suite they contain will have no adverse effect on the integrity of an International site. These areas are:

- **PDZ 1 Cowes and Medina Estuary**
- **PDZ 2 Ryde and North-East Coastline**
- **PDZ 3 Bembridge and Sandown Bay**
- **PDZ 4 Ventnor and The Undercliff**
- **PDZ 5 South-West Coastline**
- **PDZ 7 The North-West Coastline**

PDZs containing policy which are considered to have an Adverse Effect on the Integrity of sites

I5.6.5 The PDZs that are considered to have some or all adverse effects on site integrity are as follows:

- **PDZ 6 West Wight**

Since the assessment is of the plan, rather than a constituent policy, it is concluded therefore that the SMP will have an adverse effect on the integrity of International sites.

I6 CUMULATIVE SUMMARY FOR THE WHOLE SMP2

I6.1.1 This section summarises all the losses and gain that have been established at PDZ level for the same SMP habitat groupings within each of the International designated sites. This will then establish whether the SMP as a whole has any significant adverse effects on the designations, since gains in habitat in one location of a designation may cancel out losses elsewhere within the designation.

I6.1.2 **Table 6.1** summarises the amount of losses and gains overall for each SMP habitat grouping, for each SPA/Ramsar and SAC site. The table shows that cumulatively the SMP as a whole has an adverse effect on only three of the International designated sites.

Table 6.1 **Habitat losses and gains (hectares) for the Isle of Wight SMP habitat groupings for each of the International designations** (figures given to the nearest 0.5 ha). Grey boxes denote where the designation is not applicable. * = where concluded 'de minimus' – need to refer to corresponding text in **Section I5**.

SMP Habitat Grouping	Loss (-) / Gain (+) of habitat (hectares) within each PDZ							Cumulative Gains (+) / Losses (-)	Adverse Effect on Integrity of Site?
	1	2	3	4	5	6	7		
Solent Maritime SAC									
Intertidal sediments (mudflats, sandflats, sand banks and vegetated shingle)	**-1.7**	0				**<-0.5***	0	**-1.9***	**No**
Coastal saltmarsh	0	0				**<-0.5***	0	**<-0.5***	**No**
Estuaries	0	0				0	0	**0**	**No**
Saline lagoons	0	0				N/A	0	**0**	**No**
Solent and Southampton Water SPA									
Intertidal sediments (mudflats, sandflats, sand banks and vegetated shingle)	**-1.7**	**<- 0.5**	**-2.8***			**<-0.5 / +17.5**	0	**+11.3**	**No**
Coastal saltmarsh	0	0	0			**<-0.5 / +17.5**	0	**+17.5**	**No**
Saline lagoons	N/A	0	0			0	0	**0**	**No**
Coastal grazing marsh	N/A	0	N/A			**-30.9**	N/A	**-30.9**	**Yes**
Subtidal marine habitats (seagrass)	N/A	0	N/A			N/A	N/A	**0**	**No**
Freshwater habitats	N/A	N/A	0			N/A	0	**0**	**No**
Solent and Southampton Water Ramsar									
Intertidal sediments (mudflats, sandflats, sand banks and vegetated shingle)	**-1.7**	**<-0.5**	**-2.8***			**<-0.5 / +17.5**	0	**+11.3**	**No**
Coastal saltmarsh	0	0	0			**<-0.5 /**	0	**+17.3**	**No**

SMP Habitat Grouping	Loss (-) / Gain (+) of habitat (hectares) within each PDZ							Cumulative Gains (+) / Losses (-)	Adverse Effect on Integrity of Site?
	1	2	3	4	5	6	7		
						+17.5			
Saline lagoons	N/A	0	0			0	0	**0**	**No**
Coastal grazing marsh	N/A	N/A	N/A			**-30.9**	0	**-30.9**	**Yes**
Subtidal marine habitats (seagrass, reefs, rocky and sand banks)	N/A	**<-0.5***	**-0.9**			N/A	0	**-0.9***	**No**
Freshwater habitats	N/A	N/A	0			N/A	0	**0**	**No**
Briddlesford Copse SAC									
Woodland		0						**0**	**No**
Solent and Isle of Wight Lagoons SAC									
Saline lagoons			0					**0**	**No**
South Wight Maritime SAC									
Vegetated sea cliffs			0	0	0	0		**0**	**No**
Intertidal and subtidal rocky habitats			0	0	0	0		**0**	**No**
Isle of Wight Downs SAC									
Vegetated sea cliffs					0			**0**	**No**

Solent and Southampton SPA and Ramsar sites

I6.1.3 The Solent and Southampton SPA and Ramsar site are covered by PDZs 1, 2, 3, 6, and 7 (for details of each relevant policy unit refer to **Annex I-V of this document**, and for maps refer to **Annex I-I**). The adverse impact on both these sites results from the **MR/NAI policy at PU6C.5**, in that there will be a loss in coastal grazing marsh, which is a feature of the Ramsar site (Criterion 1 – area of internationally important wetland), whilst these marshes support internationally important migratory bird species that are interest features of the SPA, by providing feeding and high water roosts within these habitats. The loss of this habitat type has however created a substantial amount of estuarine mudflat and saltmarsh habitat, which incidentally has cancelled out the losses that occurred within the Western Yar Estuary and elsewhere on the Island as a result of coastal squeeze.

I6.1.4 ***Coastal grazing marsh:*** In some areas the coastal grazing marshes will continue to be protected by defences under HTL policies. However, in the Western Yar Estuary there will be habitat loss due to a policy of MR/NAI at PU6C.5 in the second and third epochs, which will cause saline inundation, and habitat change will occur with the succession of mudflats and coastal saltmarsh. The **loss of at least 30.9 ha** of coastal grazing marsh (and 4 ha of undesignated freshwater habitat) in this location will result in the loss of part of an important international wetland habitat that supports waterfowl and wildfowl. Therefore, there will be **an adverse impact** on the integrity of this interest feature, and the interest features that it supports for these two International sites, as a result of the SMP policies. Since there are no

available mitigation measures for this loss, **compensation habitat will need to be sought for both the Solent and Southampton SPA and Ramsar sites.**

Feeding and High Tide Roost Sites

I6.1.5 Finally, it should be noted that there is **one area** that is important wader and wildfowl feeding and high tide roost sites **will be lost** through the SMP policies; this can be seen in **Table 6.2** below. This loss is from the MR policy at Yarmouth Mill and Thorley (PU6C.5) in Epoch 2, which will result in the loss of 30.9 ha of coastal grazing marsh, which is an important area for feeding and high tide roosts for internationally important wader and wildfowl species, including migratory species such as black-tailed Godwit, dark-bellied Brent goose, teal and ringed plover.

I6.1.6 There are no habitats that are seaward of the coastal defences that will be lost through HTL coastal squeeze processes. There are two areas where the policy is HTL and the habitats are landward of the coastal defences, and will therefore be protected. The other sites are on coastlines where the policy is NAI and there are no existing defences, and thus the sites will evolve naturally over the SMP period.

Table 6.2 Feeding and high tide roost site losses in the Solent and Southampton Water SPA and Ramsar

Area (PDZ)	Specific Site Location	Policy Unit (Policy)	Habitat Type	Function of Habitat	Conclude No Adverse Effect on Integrity?
Western Yar Estuary (PDZ 6)	West side (south of Norton)	PU6C.2 (NAI)	Saltmarsh, mudflat and arable land	Local data/information confirms this is an **important feeding and roost site**[10].	**YES** - Will naturally evolve, as the area is currently undefended and will continue to with a NAI policy
Western Yar Estuary (PDZ 6)	East side (around Thorley and Barnsfield Streams)	PU6C.5 (HTL/MR/NAI)	Coastal grazing marsh	**An important site** for feeding and high tide roosts[11].	**NO –** this habitat will be lost in Epoch 2 through the MR policy and evolve to become increasingly more saline until it comprises of saltmarsh and mudflat habitats.
Newtown Estuary (PDZ 7)	Over 10 locations within the estuary	PU7.2 (NAI)	Saltmarsh, mudflat and improved grassland	**An important site** for both feeding and roost sites, particularly between Shalfleet Lake and Causeway Lake.	**YES** - Will naturally evolve, as the area is currently undefended and will continue to with a NAI policy
Thorness Bay (PDZ 7)	Four locations on the coast near Little Thorness	PU7.3 (NAI)	Saltmarsh, freshwater habitat, improved grassland	**An important site** for feeding.	**YES** - Will naturally evolve, as the area is currently undefended and will continue to with a

[10] Refer to communications with Colin Pope (Isle of Wight Council Senior Ecologist) found on page 145 (**Annex I-III**)

Area (PDZ)	Specific Site Location	Policy Unit (Policy)	Habitat Type	Function of Habitat	Conclude No Adverse Effect on Integrity?
			and arable land		NAI policy
Medina Estuary (PDZ 1)	Central medina – west side (Werrar Farm)	PU1B.1 (NAI)	Saltmarsh, mudflat, freshwater habitat, and arable land	**One important feeding area** on the Werrar Marsh saltmarsh and a number of uncertain locations landward of this. **Two important roost site areas** (saltmarsh bank landward of Werrar Farm).	**YES** - Will naturally evolve, as the area is currently undefended and will continue to with a NAI policy
	Central medina – east side	PU1B.5 (NAI)	Arable land	**Large area of feeding importance** between the Marina and Medina Park (south of the Folly Works industrial site). Two likely areas for feeding and roosting – the marina and near North Fairlee Farm	**YES** - Will naturally evolve, as the area is currently undefended and will continue to with a NAI policy
Ryde Sands (PDZ 2)	Ryde East Sands and along the Appley, Puckpool and Spring Vale frontage	PU2C.1 (HTL) and PU2C.2 (HTL)	Sandflats, coastal grazing marsh and freshwater habitat	**Large important area** for wader and waterfowl feeding. Two uncertain areas at The Duver and Woodlands Vale. Minimal value as a roosting site.	**YES** – Those areas that are landward of the HTL will remain protected (e.g. freshwater habitats at Spring Vale). The accreting system of Ryde sands will mean HTL will not affect the feeding site. Human disturbance is more of an issue.
Eastern Yar (PDZ 3)	Landward of The Embankment	PU3A.4 (HTL)	Arable and improved grassland	**An important area** for wader and waterfowl feeding and roosting, particularly around Home Farm.	**YES** – The coastal grazing marsh, freshwater habitats and saline lagoons that are landward of Embankment Road will remain protected by a HTL policy.

I6.1.7 It can therefore be concluded that there will be **an adverse effect** on the following International designated sites:

- **Solent and Southampton Water SPA** (coastal grazing marsh habitat)
- **Solent and Southampton Water Ramsar** (coastal grazing marsh habitat)
- Seaward feeding / high tide roost site (Thorley and Barnsfield Streams – PU6C.5)

I6.1.8 There will be **no adverse effect** on the integrity of the following International sites:

- **Solent Maritime SAC**
- **Briddlesford Copse SAC**
- **Solent and Isle of Wight Lagoons SAC**
- **South Wight Maritime SAC**
- **Isle of Wight Downs SAC**

Requirements for Compensatory Habitat

I6.1.9 The total amount of compensatory habitat that would be required is also recorded for each SMP habitat grouping in **Table 6.1**. The table illustrates that the compensation that will be required for the adverse effect on the **Solent and Southampton Water Ramsar** and **SPA** sites is for one habitat type that will begin to be lost in the second epoch (i.e. post 2025); this is as follows:

Coastal grazing marsh - **30.9 hectares** with a function of providing feeding habitat and high tide roosts for internationally important wader and waterfowl bird species as designated under the Solent and Southampton Water SPA and Ramsar sites.

I6.1.10 If this habitat is found to still be required following the 'In-combination' assessment with the North Solent SMP2, then compensatory habitat would need to be sought through the Southern RHCP following a 'test of alternative solutions' and 'imperative reasons of overriding public interest (IROPI), which forms Stage 4 of the HRA' (refer to **Section I7.2** for further details).

I7 IN-COMBINATION AND CUMULATIVE ASSESSMENT

I7.1 Introduction

I7.1.1 As discussed previously, the Habitats Regulations provide the requirement for an 'in-combination' assessment. The in-combination assessment builds on the assessment of the SMP alone and considers the impacts of the SMP policy in combination with other policies and approved projects yet to be implemented.

I7.1.2 Natural England have advised that for the Isle of Wight SMP, as was done for the North Solent SMP Appropriate Assessment, that only where an impact 'alone' is considered to be adverse there is no need to undertake 'in combination' assessment since the adverse effect will need to be fully offset, thus neutralising the adverse effect on the integrity of the International sites. This approach was agreed with Natural England (see **Annex I-III** – HRA Topic Group meeting 200410 and comments dated 28.10.10 for further details). Therefore, an 'In-combination' assessment is not needed as this AA does conclude that there will be an adverse effect on the integrity of two of the International sites and one feeding/high tide roost site.

I7.1.3 Due to the extent and location of the Solent Maritime SAC, Solent and IOW Lagoons SAC and Solent and Southampton Water SPA and Ramsar sites, there is a requirement to assess cumulative cross-Solent implications at a strategic SMP level. It is therefore necessary to combine the results of the Isle of Wight and North Solent SMPs to assess the potential habitat losses and gains to the cross-Solent designated sites. This will provide the Environment Agency with a totalled amount of losses and gains, and the required compensation that will need to be sought through the Southern RHCP.

I7.2 The Cumulative Assessment on Each International Site with the North Solent SMP

I7.2.1 The cumulative assessment of how the Isle of Wight SMP2 policies as a whole will affect the integrity of the SMP habitat groups for each International designation alongside the North Solent SMP2 is summarised below in **Table 7.1** below (North Solent Forum, 2010)[11].

I7.2.2 This AA scoped out the Portsmouth Harbour SPA/Ramsar and Chichester and Langstone SPA/Ramsar sites (refer to **Section I2.3**), and deemed there would be no adverse effect on the integrity of the Solent and IoW Lagoons SAC. Therefore, only the Solent and Southampton Water SPA/Ramsar site and the Solent Maritime SAC have been used in the cumulative assessment in **Table 7.1** below.

I7.2.3 The cumulative losses and gains from the two SMPs result in there still being **no adverse effect** on the integrity of the **Solent Maritime SAC**, since in-combination there will be a gain of mudflats, so adding to the certainty that there will no adverse effect (140 ha in total). There will, however, still be **an adverse effect** on the integrity of the **Solent and Southampton Water SPA** and **Ramsar** sites. On the whole the amount of compensatory habitat required by the two SMPs increased marginally from that needed by the North Solent SMP with the addition of the Isle of Wight SMP requirements. Since the North Solent SMP2 is also going to lose coastal grazing marsh rather than gain this habitat then there is no available mitigation for the loss of this habitat within PDZ 6 of the Isle of Wight SMP2.

[11] The North Solent SMP AA summary data that is used in this report is the best available at the time of writing (20th October 2010), which is following public consultation. .

I7.2.4 In conclusion, the cumulative compensatory habitat that will need to be sought and secured through the Southern RHCP for the Solent and Southampton Water SPA and Ramsar site by the Isle of Wight SMP2 will be **31 ha** of **coastal grazing marsh habitat**.

Table 7.1 **Cumulative losses and gains for the Solent Maritime SAC, Solent and Southampton Water SPA and Ramsar site for the Isle of Wight SMP2 and North Solent SM2** (all decimals have been rounded up if equal or greater than 0.5) [IW]compensation required by Isle of Wight; [NS]compensation required by North Solent

SMP habitat grouping	Isle of Wight SMP	North Solent SMP	Additive Habitat Change (ha)	Amount of Habitat required for compensation (ha)
	Habitat Change (ha)			
Solent Maritime SAC				
Mudflat	-1.7	+142	+140	-
Saltmarsh	<-0.5	-419	-419	**419**[NS]
Saline Lagoons	0	0	0	-
Vegetated Shingle	No	No	No	-
Sand Dunes	No	No	No	-
Estuaries	No	No	No	-
Solent and Southampton Water SPA/Ramsar				
Mudflat	+11	+207	+218	-
Saltmarsh	+17	-187	-170	**170** [NS]
Saline lagoons	No	No	No	-
Freshwater habitats	No	-4	-4	**4** [NS]
Coastal grazing marsh	-31	-39	-70	**31**[IW] **39** [NS]
Vegetated shingle	No	No	No	-
Unvegetated shingle	No	No	No	-
Feeding/High tide roost sites	No	Yes	Yes	-
Estuaries	No	No	No	-

I8 NEXT STAGE: WHERE TO FROM HERE?

I8.1.1 With the conclusion that the SMP2 as a whole (and PDZ 6 in particular) has an adverse effect on Solent and Southampton Water SPA and Ramsar sites within the SMP2 study area, Stage 4 of the HRA must be completed, and can be found in **Appendix 20 of the SMP2**. Appendix 20 provides Information to the Secretary of State according to Regulations 62 (5) and 64 (2) of the Habitats Regulations 2010, and which includes the following tasks:

- Summary of the assessment of the negative effects on the sites;
- Modification or restrictions considered;
- Test of Alternative Solutions;
- Test for Imperative Reasons of Overriding Public Interest (IROPI); and
- Identifying the necessary Compensatory Measures.

Appendix 20 will be prepared and submitted to the Secretary of State by the 9th of November 2010, following consideration by Natural England. Appendix 20 will need to be accompanied by a support letter from Natural England, as well as this Stage 3 HRA Report as a supporting Annex.

I8.2 Test for Alternative Solutions

I8.2.1 The test for no alternative solutions must be based on the alternative policy options that may be more expensive, more difficult to achieve, less convenient to implement, but must not be unrealistic alternatives that are clearly not technically feasible. The policy development stage examined the four potential strategic policy options with respect to coastal management measures. At this strategic level this is the considered to be the examination of alternative options (see **Appendix G of the SMP document**).

I8.2.2 This report indicates the potentially greater adverse effects on both natural processes and the natural environment (including designated sites) of other options in particular the NAI or HTL scenario. In summary, it is evident for PDZ 6 that total NAI or HTL of the coastline results in potentially more significant impacts on the sites that would be greater than the preferred policies.

I8.3 Test for Imperative Reasons of Overriding Public Interest (IROPI)

I8.3.1 Subject to approval from Natural England to the test for alternative solutions, the policies will then require approval for imperative reasons of overriding public interest (IROPI). Acceptable reasons are:

- Imperative, that it is both necessary and urgent;
- Overriding, that it is of such a scale of importance that the reasons outweigh the scale of harm to the integrity of the site(s);
- Of public, not private interest; and
- Of a social or economic nature unless a priority habitat or species may be affected.

I8.3.2 The reasons may relate to economic or social considerations, reasons of human health, reasons of public safety, or beneficial consequences of primary importance for the environment. On the whole, the reasons for the policies for the specific units and management areas for PDZ 6 are related to coastal management, however, the policies in

both are reflecting the aim and objective of protecting the natural environment (and designated site interests to the extent that they can be protected in the sea level rise scenarios that we have examined) as well as avoiding impacts on the social environment. For PDZ 6, the measures of Hold the Line in the first epoch, followed by Managed Realignment in the second epoch and then No Active Intervention in the long term at Thorley Brook and Barnfields Stream, combines protection of the SPA, SAC and Ramsar site unit within the Western Yar Estuary alongside protecting the communities and nationally important transport link of Yarmouth, and protecting the Historic Environment interests. The preferred policies are acting to prevent significantly greater impacts on the designated site interests.

I8.4 Compensatory Measures

I8.4.1 Subject to approval from Natural England to the test for IROPI, where habitats and species are being adversely affected, compensatory habitat will be sought through the Southern RHCP, so as to ensure the ecological coherence of the Natura 2000 (and Ramsar sites) network is protected. The Environment Agency's Southern Region Habitat Creation Programme is a dedicated, resourced plan for delivering compensatory habitat. To date, the RHCP has firm delivery plans for the first epoch (first 20 years), where the necessary compensation will be created and ecologically functional by the time it is required. It is reasonable to expect that this method of providing compensation habitat will continue for epochs 2 and 3. Natural England themselves have agreed nationally that the Regional Habitat Creation Schemes are an appropriate mechanism for securing and delivering compensatory habitat.

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I10 GLOSSARY OF TERMS

Appropriate Assessment (AA): Is defined as Stage 3 of a Habitats Regulations Assessment (HRA). An AA determines whether the adverse affects (identified from likely significant effects assessment - Stage 2 of the HRA) will affect the integrity of the International or European designated sites in question.

Biodiversity Action Plan (BAP): An agreed plan for a habitat or species, which forms part of the UK's commitment to biodiversity. For further information consult the BAP website: http://www.ukbap.org.uk

Birds Directive: European Community Directive (79/409/EEC) on the conservation of wild birds. Implemented in the UK as the Conservation (Natural Habitats, etc.) Regulations (1994). For further information consult Her Majesty's Stationery Office website: http://www.hmso.gov.uk/si/si1994/Uksi_19942716_en_1.htm

Compensation: Used in this document to refer to measures to compensate for significant adverse effects (i.e. loss of habitat) on the environment outside the designated area with which a loss of habitat has been identified.

Competent Authority: The organisation which prepares a plan or programme subject to the Directive and is responsible for the AA. In this case, this is the Isle of Wight Council.

Department for Communities and Local Government (DCLG): The department that is responsible for local communities and social issues. For further information please view the website http://www.communities.gov.uk/corporate/

Habitats Directive: The Habitats Directive (Council Directive 92/43/EEC of 21 May 1992) requires EU Member States to create a network of protected wildlife areas, known as *Natura 2000*, across the European Union. This network consists of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), established to protect wild birds under the Birds Directive (Council Directive 79/409/EEC of 2 April 1979). These sites are part of a range of measures aimed at conserving important or threatened habitats and species.

Habitats Regulations Assessment (HRA): A four staged assessment to determine whether a likely significant effect (LSE; Stage 2) on International or European designated nature conservation sites will occur as a result of a proposed plan, policy or project. If there are LSEs, Stage 3 of the process, the Appropriate Assessment will assess whether the integrity of the designated sites be adversely affected. The final stage of the HRA assessment (Stage 4) involves the approval or refusal of the plan, policy or project.

Mitigation: Used in this document to refer to measures to avoid, reduce or offset significant adverse effects on the environment within the same designated area with which a loss of habitat has been identified.

Objective: A statement of what is intended, specifying the desired direction of change in trends.

Plan or Programme: For the purposes of an HRA, the term "plan or programme" covers any plans or programmes to which the Directive applies.

Ramsar Site: The Ramsar Convention on Wetlands of International Importance, especially as Waterfowl Habitat (1971) requires the UK Government to promote using wetlands wisely and to protect wetlands of international importance. This includes designating certain areas

as Ramsar sites, where their importance for nature conservation (especially with respect to waterfowl) and environmental sustainability meet certain criteria. Ramsar sites receive SSSI designation under The Countryside and Rights of Way (CRoW) Act 2000 and The Wildlife and Countryside Act 1981 (as amended). Further information can be located on the Ramsar convention on wetlands website: http://www.ramsar.org/

Scoping: The process of deciding the scope and level of detail of a Habitats Regulations Assessment (HRA). This includes the likely significant environmental effects (Stage 2 of the HRA) and alternatives which need to be considered, the assessment methods to be used for the Stage 3 Appropriate Assessment, and the structure and contents of the HRA Report.

Shoreline Management Plan (SMP): Non-statutory plans to provide sustainable coastal defence policies (to prevent erosion by the sea and flooding of low-lying coastal land) and to set objectives for managing the shoreline in the future. They are prepared by us or maritime local authorities, acting individually or as part of coastal defence groups.

Site of Special Scientific Interest (SSSI): Sites of Special Scientific Interest (SSSIs) are notified under the Wildlife and Countryside Act 1981 (as amended) and the Countryside and Rights of Way (CRoW) Act 2000 for their flora, fauna, geological or physiographical features. Notification of a SSSI includes a list of work that may harm the special interest of the site. The Wildlife and Countryside Act 1981 (provisions relating to SSSIs) has been replaced by a new Section 28 in Schedule 9 of the CROW Act. The new Section 28 provides much better protection for SSSIs. All cSACs, SPAs and Ramsar sites are designated as SSSIs. For further information refer to Natural England's website: http://www.naturalengland.org.uk/

Special Protection Area (SPA): A site of international importance for birds, designated as required by the EC Birds Directive. SPAs are designated for their international importance as breeding, feeding and roosting habitat for bird species. The Government must consider the conservation of SPAs in all its planning decisions. SPAs receive SSSI designation under The Countryside and Rights of Way (CRoW) Act 2000 and The Wildlife and Countryside Act 1981 (as amended). For further details refer to the European Commission website http://europa.eu.int/ and the Joint Nature Conservation Committee website www.jncc.gov.uk.

I11 LIST OF ABBREVIATIONS

Abbreviation	Definition
AA	Appropriate Assessment
ATL	Advance the Line
BAP	Biodiversity Action Plan
CHaMP	Coastal Habitat Management Plan
CHC	Cowes Harbour Commissioners
CSG	Client Steering Group
DCLG	Department for Communities and Local Government
EA	Environment Agency
ECJ	European Court of Justice
EMP	Estuary Management Plan
FCS	Flood and Coastal Strategy
FEPA	Food and Environmental Protection Act
HRA	Habitats Regulations Assessment
HTL	Hold the Line
IPPC	Integrated Pollution and Prevention Control
IROPI	Imperative Reasons of Overriding Public Interest
IWCCE	Isle of Wight Centre for the Coastal Environment
JNCC	Joint Nature Conservation Committee
LDD	Local Development Document
LDF	Local Development Framework
LSE	Likely Significant Effect
MAN	Management Unit
MEMP	Medina Estuary Management Plan
MFA	Marine and Fisheries Agency
MHWS	Mean High Water Springs
MLWS	Mean Low Water Springs
MMO	Marine Management Organisation
MR	Managed Realignment
NAEOI	No Adverse Effect on Integrity
NAI	No Active Intervention
NE	Natural England
ODPM	Office of the Deputy Prime Minister
PDZ	Policy Development Zone
PPS	Planning Policy Statement
PU	Policy Unit
Ramsar	The Ramsar Convention on Wetlands of International Importance
RHCP	Regional Habitat Creation Programme
RoC	Review of Consents
RPG	Regional Planning Guidance
RSPB	Royal Society for the Protection of Birds
RSS	Regional Spatial Strategy
SAC	Special Area for Conservation
SEA	Strategic Environmental Assessment
SFRA	Strategic Flood Risk Assessment
SINC	Site of Important Nature Conservation
SMP	Shoreline Management Plan
SPA	Special Protection Area
SSFDC	Southern Sea Fisheries District Committee
SSSI	Site of Special Scientific Interest
UDP	Unitary Development Plans
WYEMP	Western Yar Estuary Management Plan

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Isle of Wight Shoreline Management Plan 2:
Appendix I - Habitats Regulations Assessment
(Stage 3: Supporting Annexes)

Isle of Wight Council

December 2010
Final Report, for the Final SMP2
9V8288 / 02

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Project number	9V8288 / 02
Client	Isle of Wight Council
Reference	9V8288/02/HRA AA Report/v3/HH

Drafted by	Dr Elizabeth Jolley and Sarah Wright	
Checked by	Dr Elizabeth Jolley	
Date/initials check	ECJ	03.11.10
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Date/initials approval	PT	03.11.10

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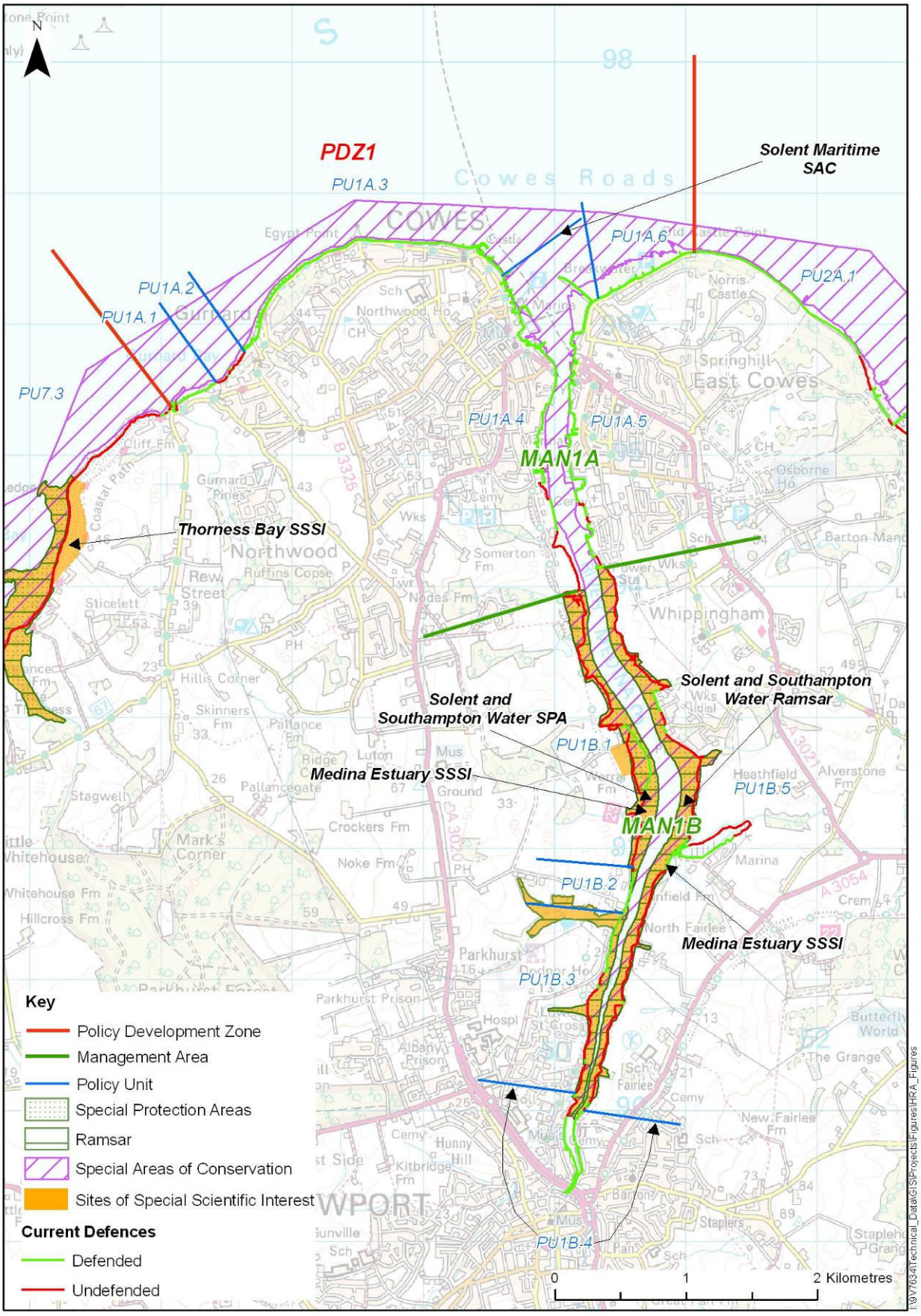
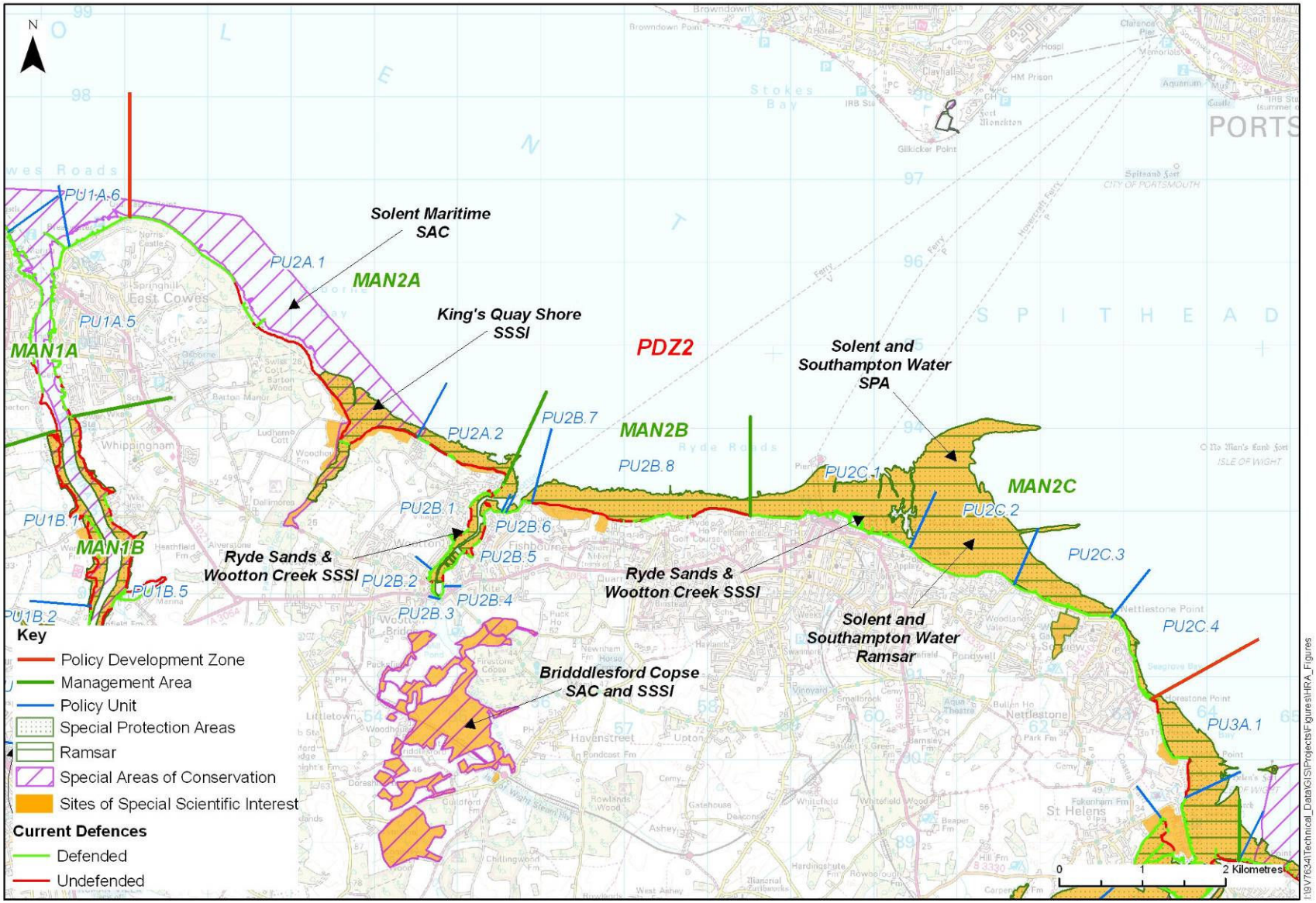
Version No.	Raised by	Approved by	Date of Issue	Description
Version 01 - Draft	Elizabeth Jolley	Pete Thornton	28-05-10	CSG Review
Version 02 - Final of Draft SMP2	Elizabeth Jolley	Pete Thornton	13-07-10	Public Consultation Review
Version 03 - Final of Final SMP2	Elizabeth Jolley	Pete Thornton	03-11-11	Final SMP2

ANNEX I-I: PDZ MAPS AND NATURE CONSERVATION DESIGNATIONS

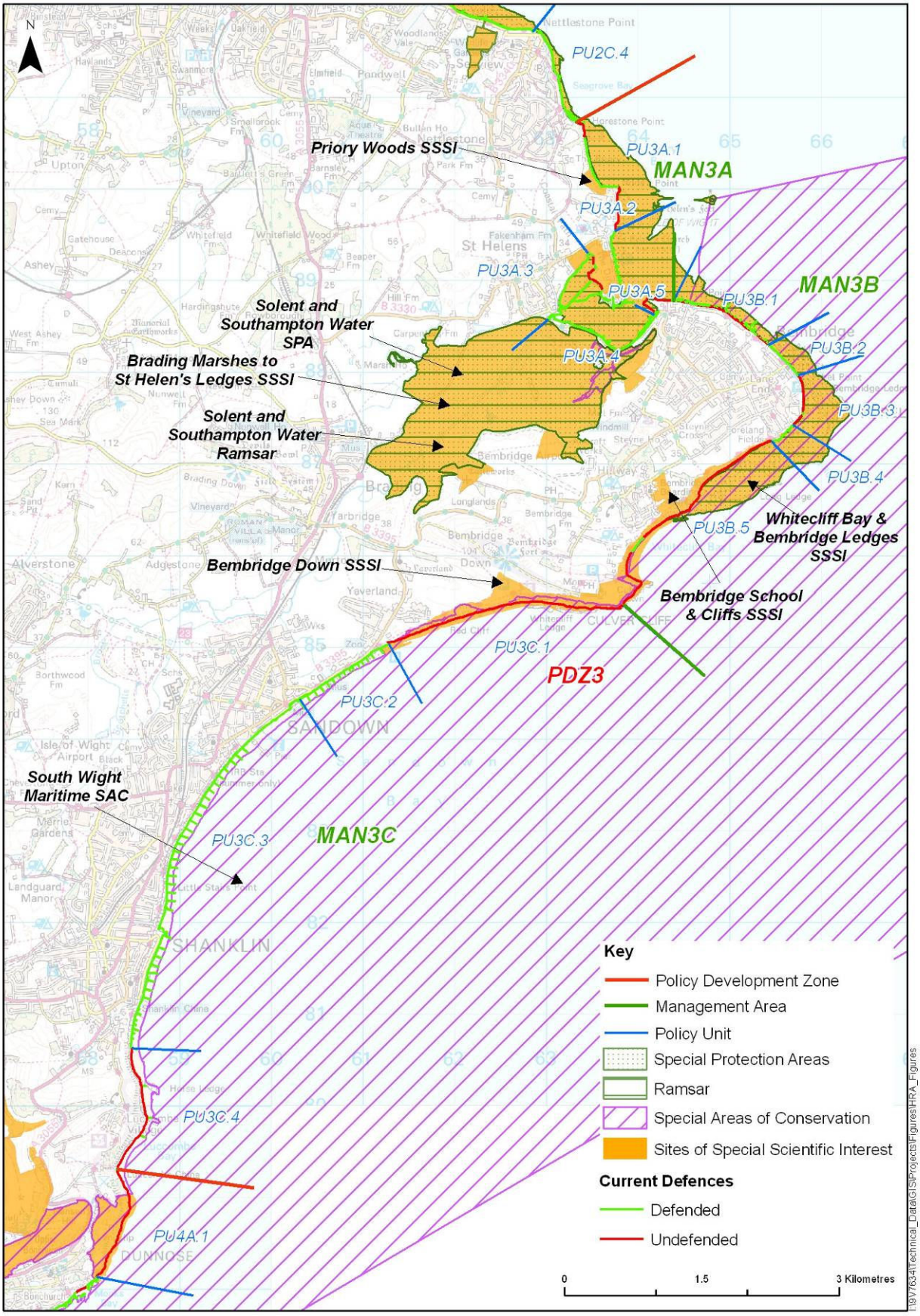
Annex I-I: Figure 1 – PDZ 1 (Cowes and Medina Estuary)



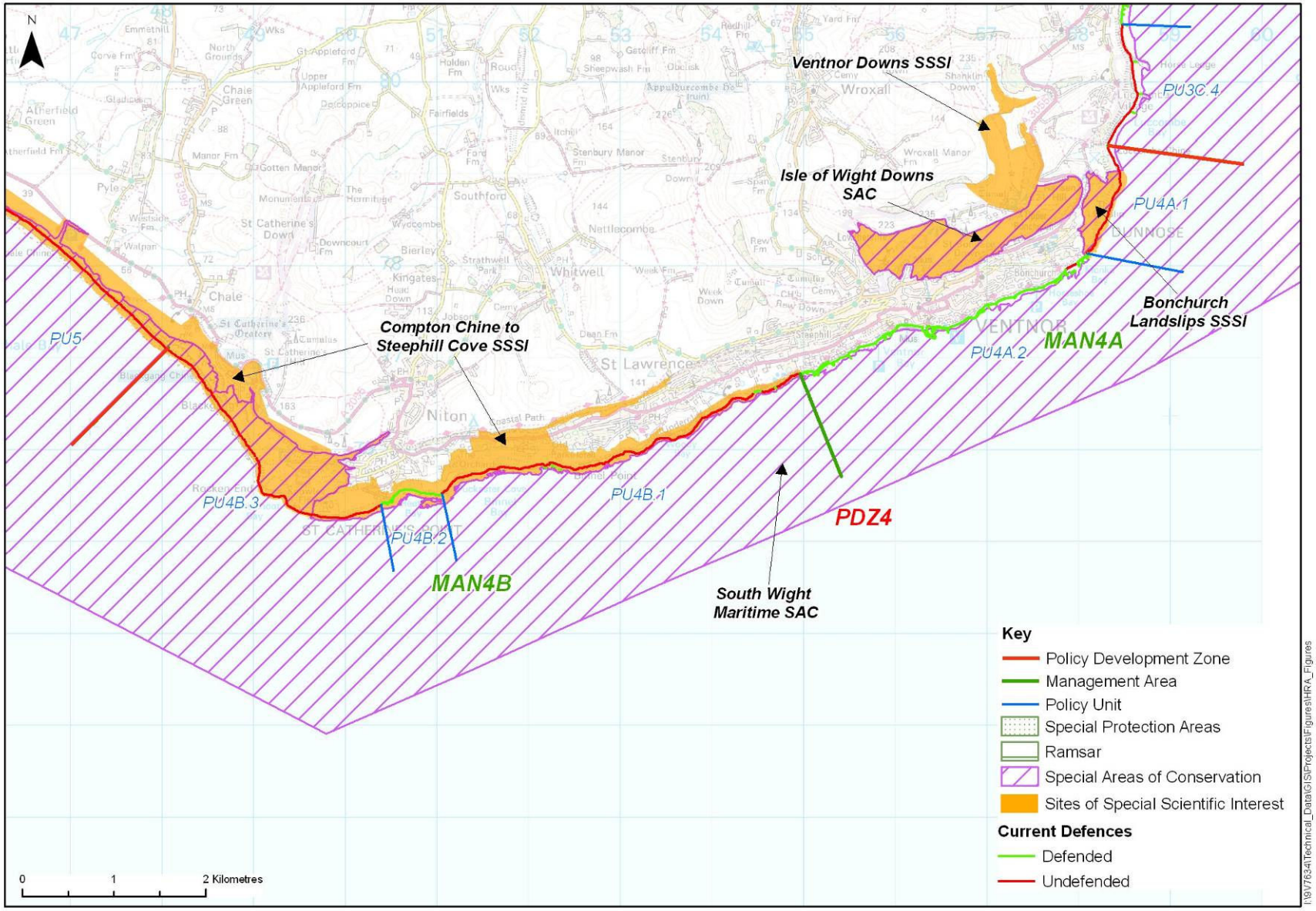
Annex I-I: Figure 2 – PDZ 2 (Ryde and North-East Coastline)



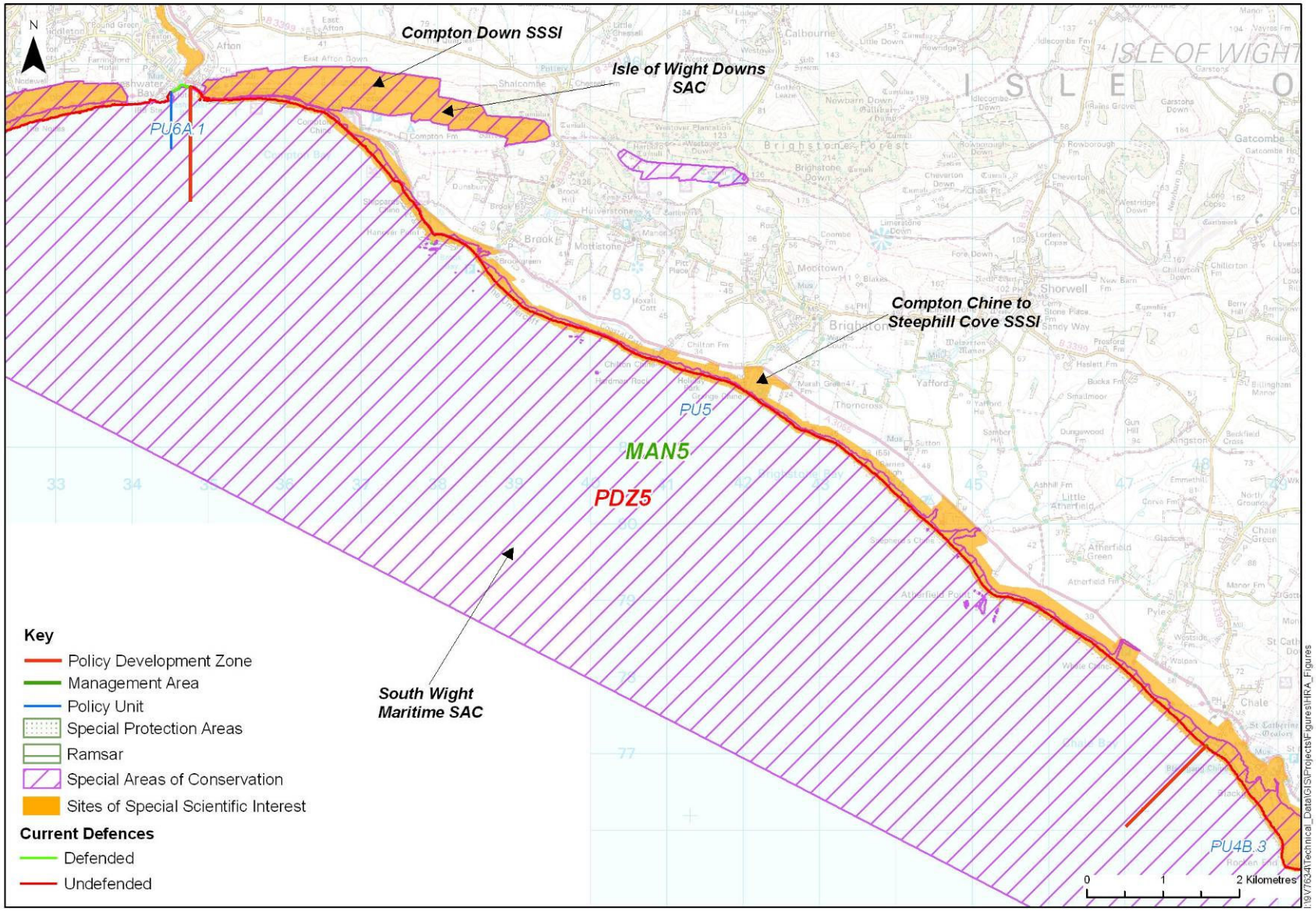
Annex I-I: Figure 3 – PDZ 3 (Bembridge and Sandown Bay)



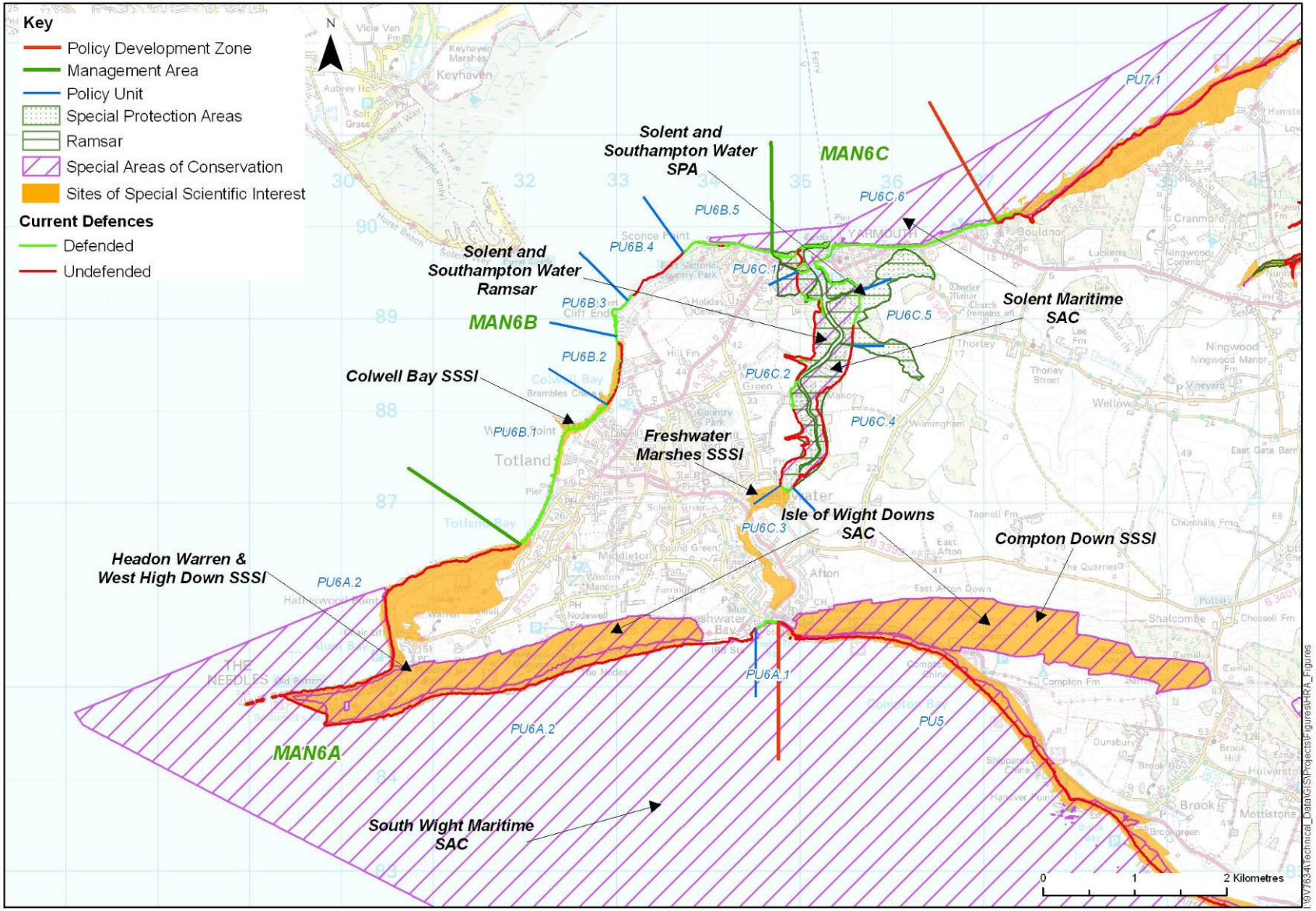
Annex I-I: Figure 4 – PDZ 4 (Ventnor and The Undercliff)



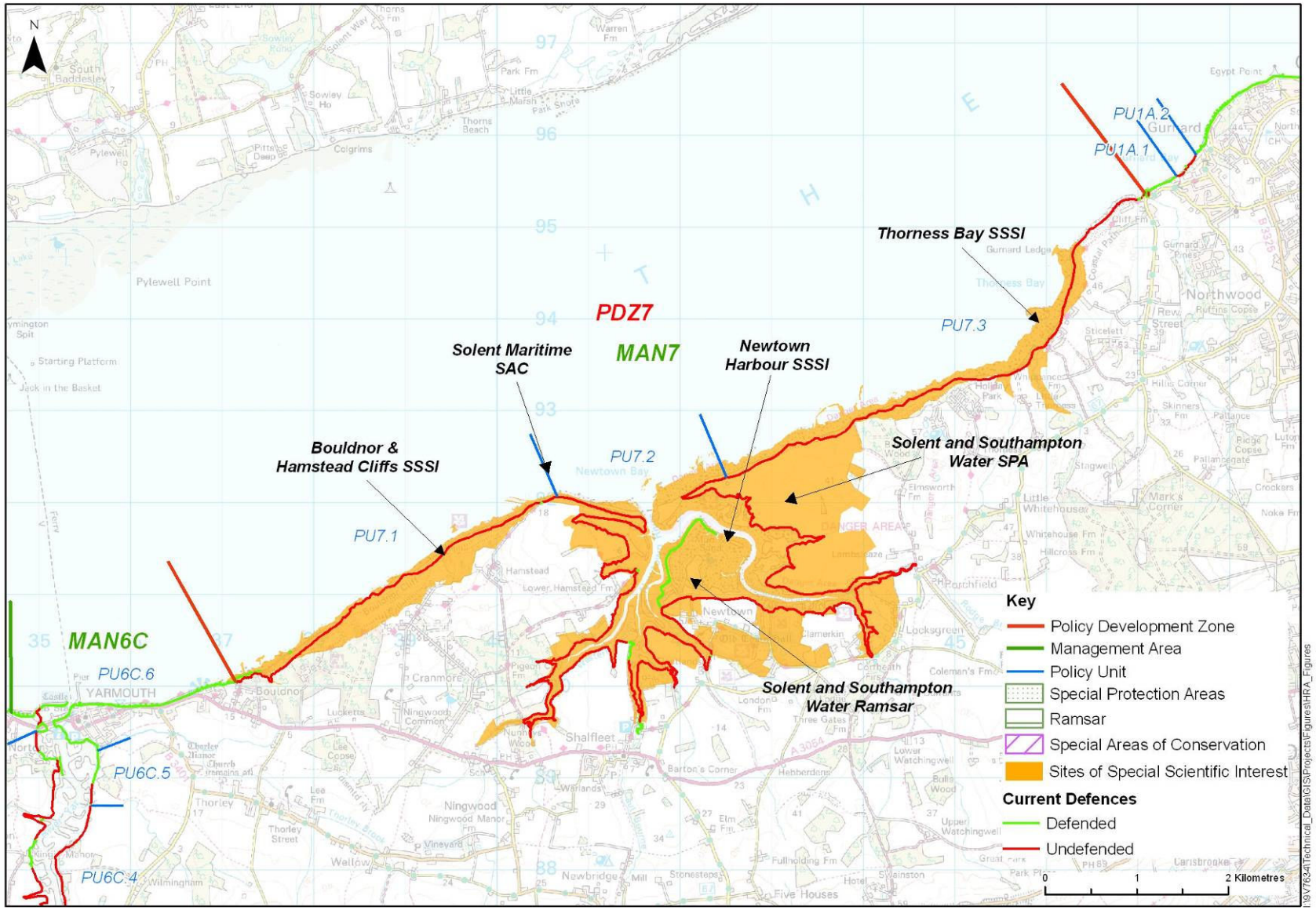
Annex I-I: Figure 5 – PDZ 5 (South-West Coastline)



Annex I-I: Figure 6 – PDZ 6 (West Wight)



Annex I-I: Figure 7 – PDZ 7 (North-West Coastline)



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ANNEX I-II: BASELINE INFORMATION ON INTERNATIONAL SITES

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ANNEX I-II.A

II1 BASELINE INFORMATION ON SITES WITHIN OR IMMEDIATELY ADJACENT TO THE SMP2 POLICY AREA

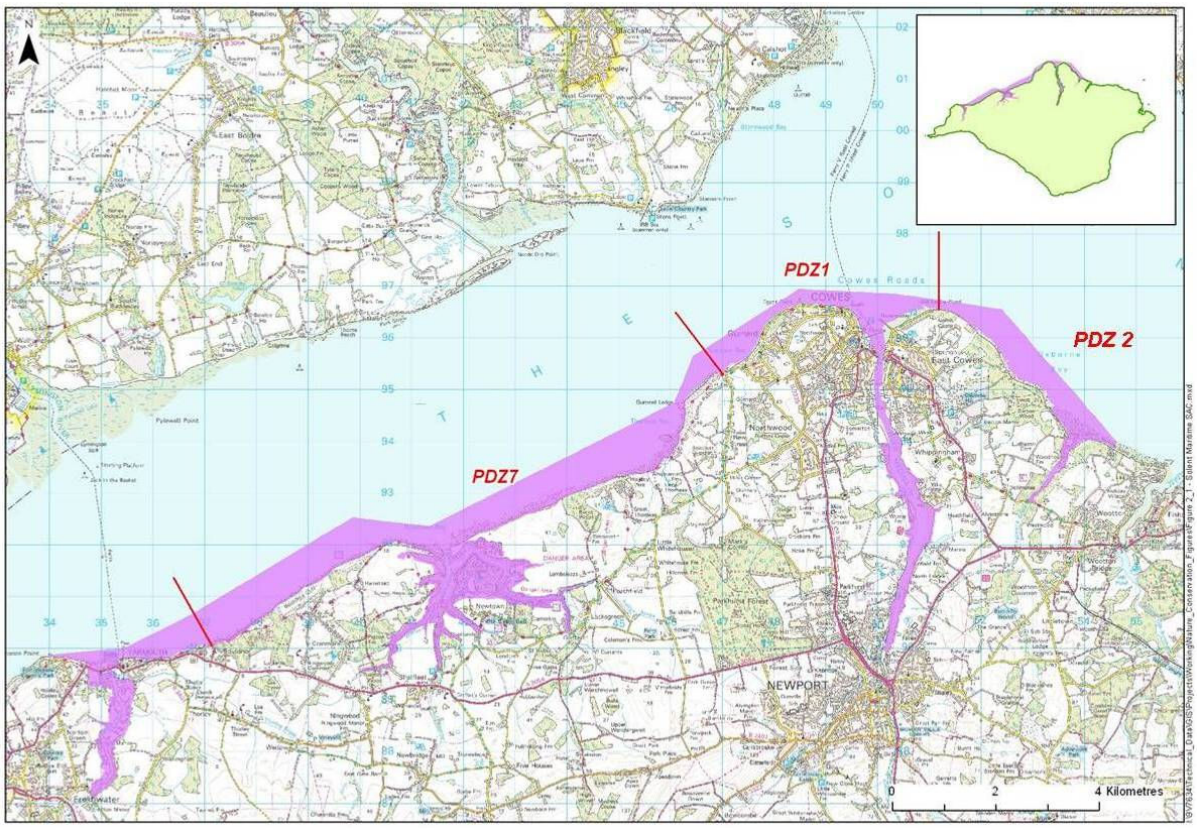
II.A1.1 Solent Maritime SAC

II.A1.1.1 The Solent Maritime SAC covers 11,325 ha, which includes both intertidal and shallow subtidal areas along the north and north-west coastline of the Isle of Wight, and sections of mainland coastline in Hampshire and West Sussex. On the Isle of Wight the SAC runs from Sconce Point west of Yarmouth in the west to the eastern end of Osborne Bay in the east. **Figure 1** below illustrates that the SMP2 policies within Policy Development Zones (PDZs) 1, 2 and 7 have the potential to affect the conservation objectives of this SAC.

II.A1.1.2 The site contains three primary habitats under Annex I of the Habitats Directive including estuaries, cordgrass swards and Atlantic salt meadows. There are also seven Annex I habitats that are qualifying features but not the primary reason for site selection (see **Annex I-II.B** for further details).

II.A1.1.3 The conservation objectives of the Solent Maritime SAC are to maintain the estuaries (in particular the saltmarsh, intertidal mudflat, sandflat and mixed sediment communities, and subtidal sediment communities), cordgrass swards (i.e. small cordgrass, smooth cordgrass and Townsend's cordgrass), and Atlantic salt meadows (low, mid, upper and transitional high marsh communities) in 'favourable condition', taking account of natural change.

Figure 1 **Boundaries of the Solent Maritime SAC (*lilac shaded area*)**



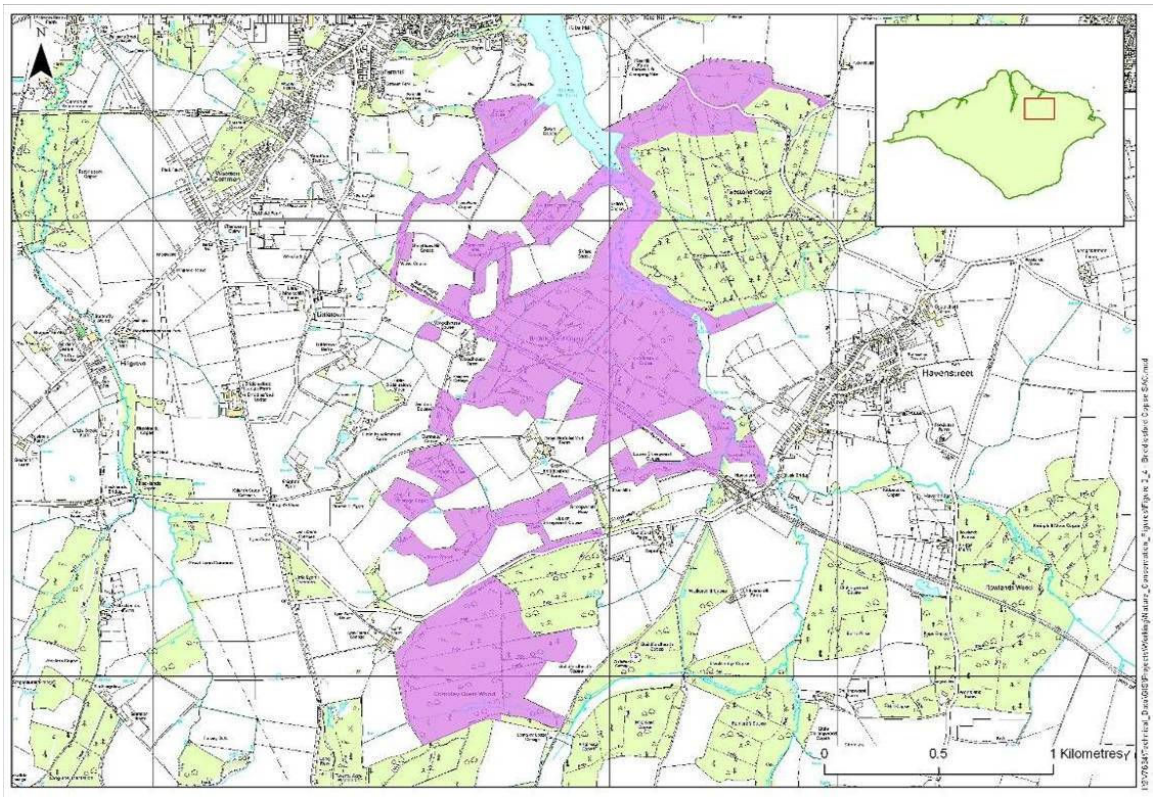
II.A1.1.4 Key site sensitivities include activities or developments, such as existing and new flood defence and coast protection works, resulting in both changes of natural processes and physical loss, reduction or smothering of the primary habitat extent and degradation of physical characteristics of the habitats. Most estuarine communities are not considered highly sensitive to siltation, however, on the north coast of the Island, areas of sand and gravel are present and the marine communities are sensitive to excessive inputs of fine material. Physical loss can also occur from development pressures including ports, marinas and jetties, which also often involve capital/ maintenance dredging to provide/ improve deep water access, and land-claim of coastal habitats. Given the estuarine nature of the site, the intertidal habitats are at risk of coastal squeeze resulting from sea level rise. Furthermore, since the Solent is used heavily for shipping with nearby ports and heavy industrial activities there is potential for accidental pollution from shipping, oil/chemical spills, heavy industrial activities, former waste disposal sites and waste-water discharge, as well as the introduction of non-native species (i.e. from shipping activity).

II.A1.2 Briddlesford Copse SAC

II.A1.2.1 The Briddlesford Copse SAC covers a relatively small area of 167 ha, and is a broadleaved woodland area inland of Wootton Creek on the north-east coast of the Island (see **Figure 2** and **Annex I-II.B** for further details). The site is owned by the Forestry Commission who undertake timber extraction operations to remove non-native trees according to a Natural England-assented Forest Design Plan. Only the SMP2 policies within PDZ 2 may have the potential to affect the conservation objectives of this SAC.

II.A1.2.2 The site contains no primary habitats under Annex I of the Habitats Directive but rather is designated for supporting one Annex II species - Bechstein's bat *Myotis bechsteinii*, which is also a UK BAP species. The bat uses the woodland as a roost site, feeding within approximately a 5km radius from their roost sites.

Figure 2 Boundary and area of the Briddlesford Copse SAC (*lilac shaded area*)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0.5
1 Kilometres

II.A1.2.3 The conservation objectives of the site are to maintain, in favourable condition, subject to natural change, the supporting woodland habitat for the populations of the tree-dwelling bat Bechstein's bat. Since this species is also a UK BAP species there is an Isle of Wight Species Action Plan for Woodland Bats. This aims to protect and, where possible, increase distribution and population of woodland bats, in particular Bechstein's bat.

II.A1.2.4 The site is sensitive to activities and developments that could affect, or potentially threaten the habitats that support the bat. These activities include changes to the water levels and salinity of the Wootton Creek/Mill Pond that borders the designated woodland area. The water level management/sluice maintenance, if not managed, could be affected by sea-level rise, resulting in saline waters extending beyond Wootton Bridge into the Mill Pond. As broadleaved trees are reliant on a freshwater ground sources and not brackish, this could affect the designated woodland which borders the pond.

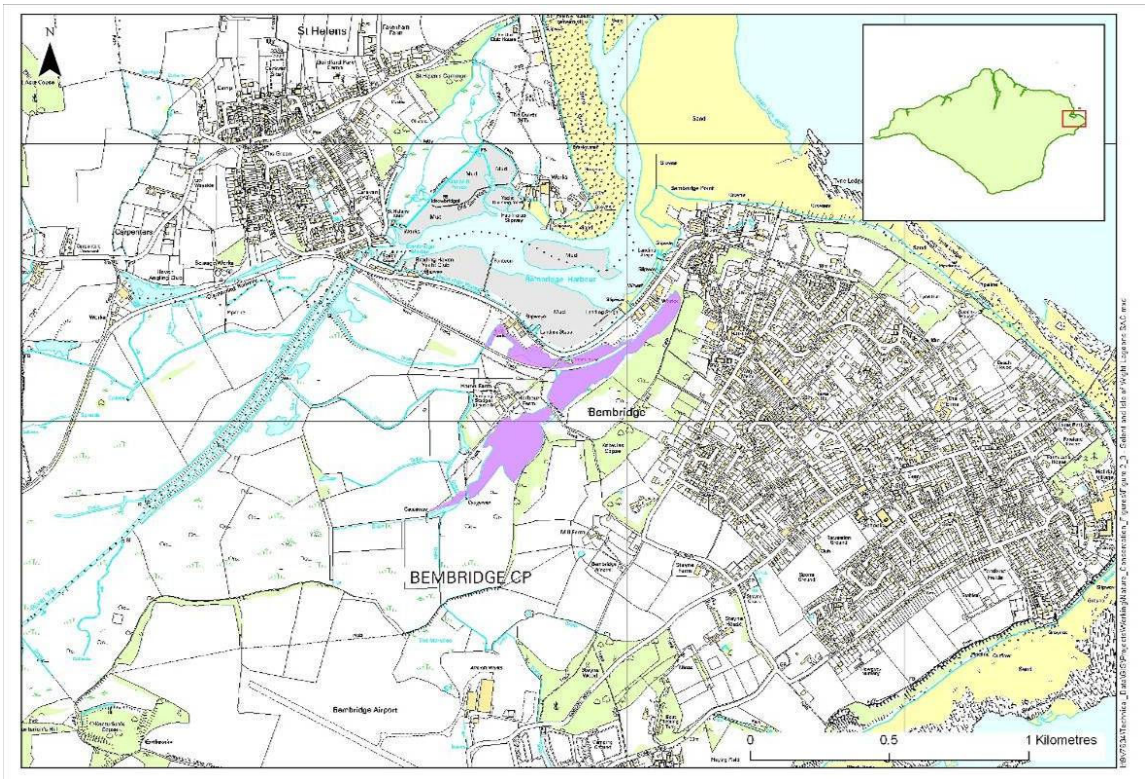
II.A1.3 Solent and Isle of Wight Lagoons SAC

II.A1.3.1 The Solent and Isle of Wight Lagoons SAC includes a number of lagoons in the marshes in the Keyhaven – Pennington area, at Farlington Marshes in Chichester Harbour, behind the sea-wall at Bembridge Harbour and at Gilkicker, near Gosport and covers a small area of only 36 ha. 10% of the designated area is on the Isle of Wight, located behind the sea-wall at Bembridge Harbour (**Figure 3**). The majority (90%) of the site is outside the SMP2 boundary in Hampshire (i.e. Keyhaven, Chichester Harbour and near Gosport).

II.A1.3.2 The site contains one habitat designated under Annex I of the Habitats Directive; these are the coastal lagoons, which is categorised as a **priority habitat**.

II.A1.3.3 The conservation objectives of the site are to maintain the coastal lagoons in favourable condition, subject to natural change.

Figure 3 **Boundaries and area of the Solent and Isle of Wight Lagoons SAC on the Island (*lilac shaded area*)**


N
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1 Kilometres

II.A1.3.4 The site is sensitive to activities and developments that could affect, or potentially threaten the lagoons within the SMP2 area. These activities include a change in SMP policy where saline lagoons area protected behind coastal defences, changes in water quality due to diffuse pollution, but unlikely to be due to industrial waste disposal/landfill/discharges. Furthermore, water level management/sluice maintenance could affect the salinity and water levels of the lagoons, if not managed the effects of sea-level rise could result in more saline habitats, whilst the presence of coastal defences could result in reduced saline intrusion.

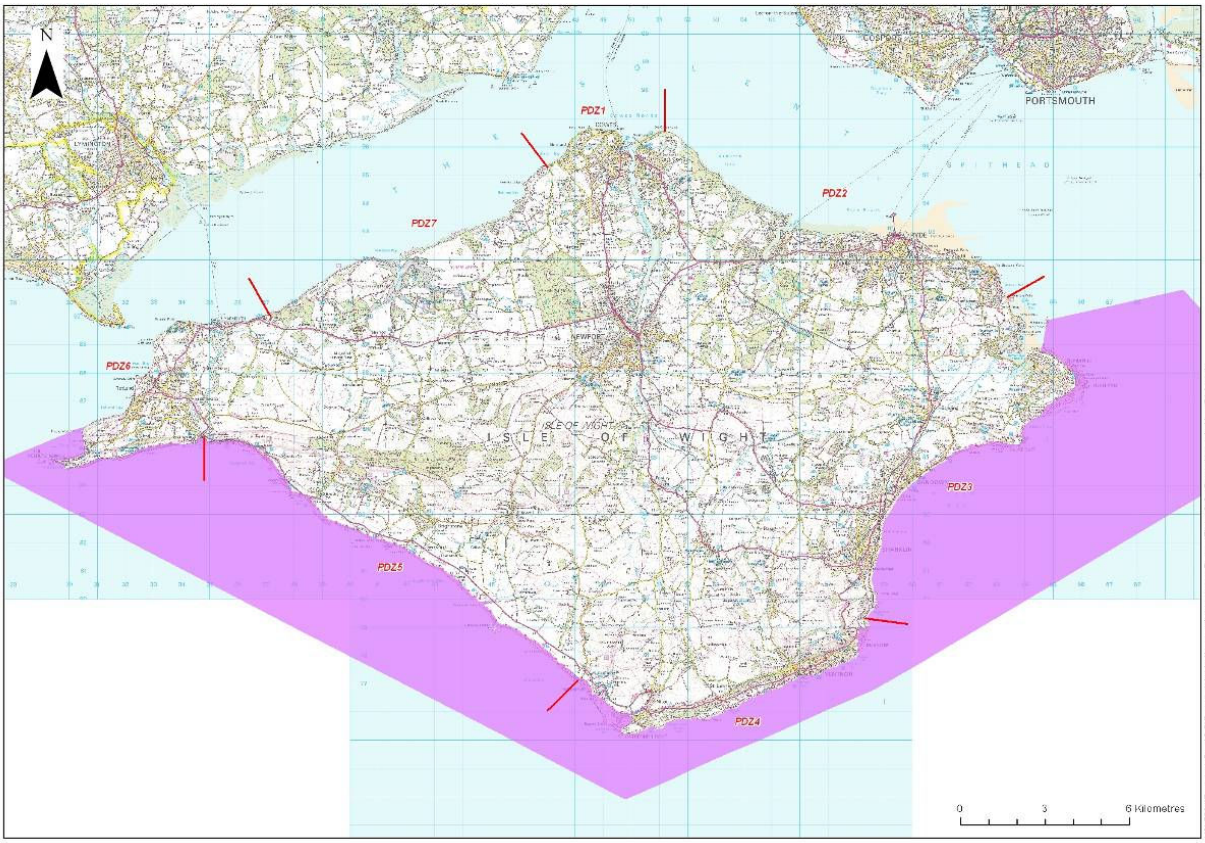
II.A1.4 South Wight Maritime SAC

II.A1.4.1 The South Wight Maritime SAC covers a large expanse (19,863ha) of intertidal and subtidal habitats along the south-east and south-west coastline of the Island, running from Bembridge Point in the east to Hatherwood Point north of the Needles in the west (see **Figure 4** below). **Figure 4** illustrates that the SMP2 policies within PDZs 3, 4, 5 and 6 have the potential to affect the conservation objectives of this SAC.

II.A1.4.2 The site has been designated for three primary habitats under Annex I of the Habitats Directive; these are reefs, vegetated sea cliffs of the Atlantic and Baltic coasts and submerged and partially submerged sea caves.

II.A1.4.3 Subject to natural change, the conservation objectives of the South Wight Maritime SAC are to maintain the reefs in 'favourable condition', in particular the rocky shore, kelp forest, subtidal red algae, subtidal faunal turf (e.g. sponges, hydroids, anemones and sea squirts) and sea cave communities. The objectives to maintain vegetated sea cliffs of the Atlantic and Baltic coasts in 'favourable' condition are identified within Natural England's conservation objectives for the relevant SSSIs within the SAC boundary. They are not contained within the Regulation 33 report as they sit above the high water mark.

Figure 4 **Boundaries of the South Wight Maritime SAC (*lilac shaded area*)**



II.A1.4.4 Key site sensitivities include activities or developments that could result in deterioration or disturbance to habitats or species for which the site was designated; these include physical loss and damage through removal and/or smothering. This could be caused from changes in natural coastal processes because of existing and/or new flood defence and coast protection works, coastal development and land claim thus resulting in coastal erosion, siltation and/or abrasion. Reefs and sea caves can also be sensitive to toxic compounds (e.g. domestic outfalls, antifouling paint, etc.) and changes in nutrient loading, organic loading and turbidity from a variety of discharges. The vegetated cliffs are particularly sensitive to disruption to ecological processes linked to coastal erosion, coastal squeeze, and development in the intertidal and subtidal.

II.A1.5 Isle of Wight Downs SAC

II.A1.5.1 The Isle of Wight Downs SAC covers 462 ha over four locations on the south side of the Isle of Wight. The most easterly area is above the cliffs at Ventnor (103ha), the second is a small area inland of Brightstone Bay, bordering Brightstone Forest (33ha), whilst the third is an elongated area (185ha) over the Compton Downs area, and which borders the coast along Compton Chine. The fourth area within the SAC runs along the cliff tops of Tennyson Down from Freshwater Bay to the Needles (137ha). The SAC location is illustrated in **Figure 5** below, and it can be seen that the SMP2 policies within PDZs 4, 5 and 6 have the potential to affect the conservation objectives of this SAC.

Figure 5 **Boundaries and areas of the Isle of Wight Downs SAC (*lilac shaded area*)**

II.A1.5.2 The site contains three primary habitats under Annex I of the Habitats Directive; these are vegetated sea cliffs of the Atlantic and Baltic coasts, European dry heaths and semi-natural dry grasslands and scrubland facies: on calcareous substrates (70% coverage). There is also one Annex II species for which the SAC has been selected; this is the early gentian *Gentianella anglica*, which is also protected under Schedule 4 of the Habitats Regulations, is listed as vulnerable on the GB Red List and is a UK BAP species.

II.A1.5.3 Though there are no conservation objectives available for this site, it is recommended that subject to natural change, those features for which the site is designated (i.e. vegetated sea cliffs, European dry heaths, and semi-natural dry grasslands and scrubland facies) should be maintained in favourable condition.

II.A1.5.4 The activities and developments to which this SAC is sensitive, or which could potentially threaten the habitats and early gentian within the SMP2 area, include inappropriate grazing regime (as this leads to a more rank sward and scrub encroachment), recreation pressure resulting from trampling damage, vulnerability of vegetated sea cliffs to cliff stabilisation schemes.

II.A1.6 Solent and Southampton Water SPA

II.A1.6.1 The Solent and Southampton SPA covers 5,506 and is located on the south English coast. The area covered extends from Hurst Spit to Hill Head along the south coast of Hampshire, and from Yarmouth to Whitecliff Bay along the north coast of the Isle of Wight. The site runs across five locations on the northern side of the Isle of Wight. The designated areas are all around the main estuaries of the Island – the West Yar Estuary at Yarmouth, Newtown Estuary, Medina Estuary, Wootton Creek (and Ryde Bay) and the East Yar Estuary at Bembridge (see **Figure 6** below for SPA boundaries). **Figure 6** also illustrates that the

SMP2 policies within PDZs 1, 2, 3, 6 and 7 may have the potential to affect the conservation objectives of this SPA, though this depends on the nature of the impact.

Figure 6 **Boundaries and areas of the Solent and Southampton Water SPA areas on the Island (*green shaded area*)**

II.A1.6.2 The Solent and Southampton Water SPA qualifies under Article 4.1 of the Birds Directive by supporting important populations of species including common tern, little tern, Mediterranean gull, Roseate tern and sandwich tern. The site also qualifies under Article 4.2 by supporting populations of black-tailed godwit, dark-bellied Brent Goose, ringed plover and teal, as well as regularly supporting at least 20,000 waterfowl.

II.A1.6.3 Based on the SSSI components of the Solent and Southampton Water SPA on the Island (there are eight on the Isle of Wight: Brading Marshes to St. Helen's Ledges, King's Quay Shore, Medina Estuary, Newtown Harbour, Ryde Sands and Wootton Creek, Thorness Bay, Whitecliff Bay and Bembridge Ledges, Yar Estuary SSSIs) the overall condition of the SPA is unfavourable. A variety of factors are influencing the condition of the site, including nutrient enrichment, toxic contamination, thermal pollution, organic enrichment and reductions in freshwater flows.

II.A1.6.4 The conservation objectives of the Solent and Southampton SPA are to maintain, in favourable condition, subject to natural change, the habitats for supporting the internationally important populations of regularly occurring:

- **Annex I bird species** of European importance, with particular reference to sand and shingle, saltmarsh, intertidal mudflats and sandflats, and shallow coastal waters; and

- **Migratory species** and **waterfowl**, with particular reference to saltmarsh, intertidal mudflats and sandflats, boulder and cobble shores, and mixed sediment shores.

II.A1.6.5 There are a number of current factors that influence this SPA. The key site sensitivities include activities or developments, such as new and maintained coastal protection works, land claim and dredging activities within the Solent resulting in changes in natural processes and physical loss or reduction in primary habitat extent, and degradation of physical characteristics of the habitats. Changes in natural processes can increase sedimentation and any areas of sand and gravel, such as those found on the north coast of the Isle of Wight, are highly sensitive to smothering from fine material. Development may impact upon bird populations through using previously arable areas that are used for feeding, impacting upon high water wader roosts and could further exacerbate flood risk. Other factors include sensitivities to toxic and non-toxic contaminants, non-physical disturbance (e.g. noise), changes in turbidity, water abstraction, changes in salinity and removal of prey species (e.g. commercial fishing and bait collection).

II.A1.7 Solent and Southampton Water Ramsar site

II.A1.7.1 The Solent and Southampton Ramsar site covers a 5,346 hectare area, which is similar though marginally smaller to that of the corresponding SPA. The Ramsar site occurs over the same mainland areas and five locations on the northern side of the Isle of Wight as the SPA, though the extent of protection is less in some areas, in particular around Newtown Estuary (see **Figure 7** below). As with the corresponding SPA, **Figure 7** illustrates that the SMP2 policies within PDZs 1, 2, 3, 6 and 7 may have the potential to affect the conservation objectives of this Ramsar site.

II.A1.7.2 The Solent and Southampton Water Ramsar site qualifies under Criteria 1, 2, 5 and 6 (see **Section I-II.B for this Annex** for further details). Wetland areas, in particular saline lagoons, saltmarshes, estuaries and intertidal reefs are of importance, since they support important assemblages of rare plants, invertebrates and internationally important wintering waterfowl (e.g. ringed plover, dark-bellied Brent goose, teal and black-tailed godwit).

II.A1.7.3 The conservation objectives of the Solent and Southampton Ramsar site are to maintain in favourable condition, subject to natural change:

- the internationally important wetland characteristic of the Atlantic biogeographical region (Criterion 1: habitats), in particular, estuaries, saline lagoons, saltmarsh, intertidal reefs and damp woodland;

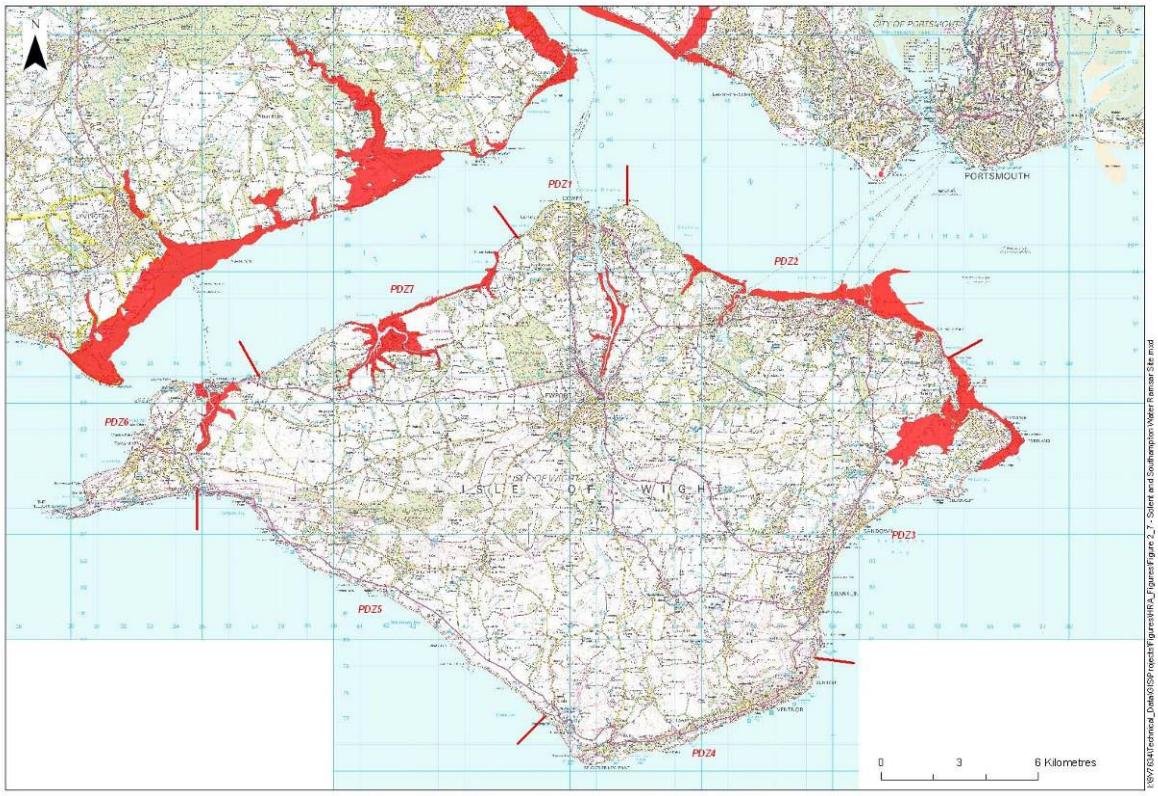
- The wetland hosting an assemblage of rare, vulnerable or endangered species (Criterion 2: species), in particular, saline lagoons, saltmarsh and cordgrass swards (*Spartina* sp.);

- The wetland regularly supporting 20,000 waterfowl species (Criterion 5: birds), in particular, saltmarshes, intertidal mudflats and sandflats, boulder and cobble shores and mixed sediment shores; and

- The wetland regularly supporting 1% or more of the individuals in a population of waterfowl species (Criterion 6: birds), in particular, saltmarshes, sand and shingle,

shallow coastal waters, intertidal mudflats and sandflats, boulder and cobble shores and mixed sediment shores.

Figure 7 **Boundaries and areas of the Solent and Southampton Water Ramsar site on the Island (*red shaded area*)**



II.A1.7.4 There are a number of current factors that influence this Ramsar site. Key site sensitivities include activities or developments, such as new and maintained coastal protection works, land claim and dredging activities within the Solent resulting in changes in natural processes, physical loss, reduction and/or physical damage in the extent of the wetland, which all contribute to the degradation of physical characteristics of the habitats. Any changes in natural processes can increase sedimentation and smothering by fine materials of sensitive habitats, such as sand and gravel shores, that are found on the north coast of the Isle of Wight. Other factors include sensitivities to toxic and non-toxic contaminants, changes in turbidity, changes in salinity and removal of prey species (e.g. commercial fishing and bait collection) and introduction of non-native species.

II2 SITES WITHIN 15KM OF THE SMP2 POLICY AREA

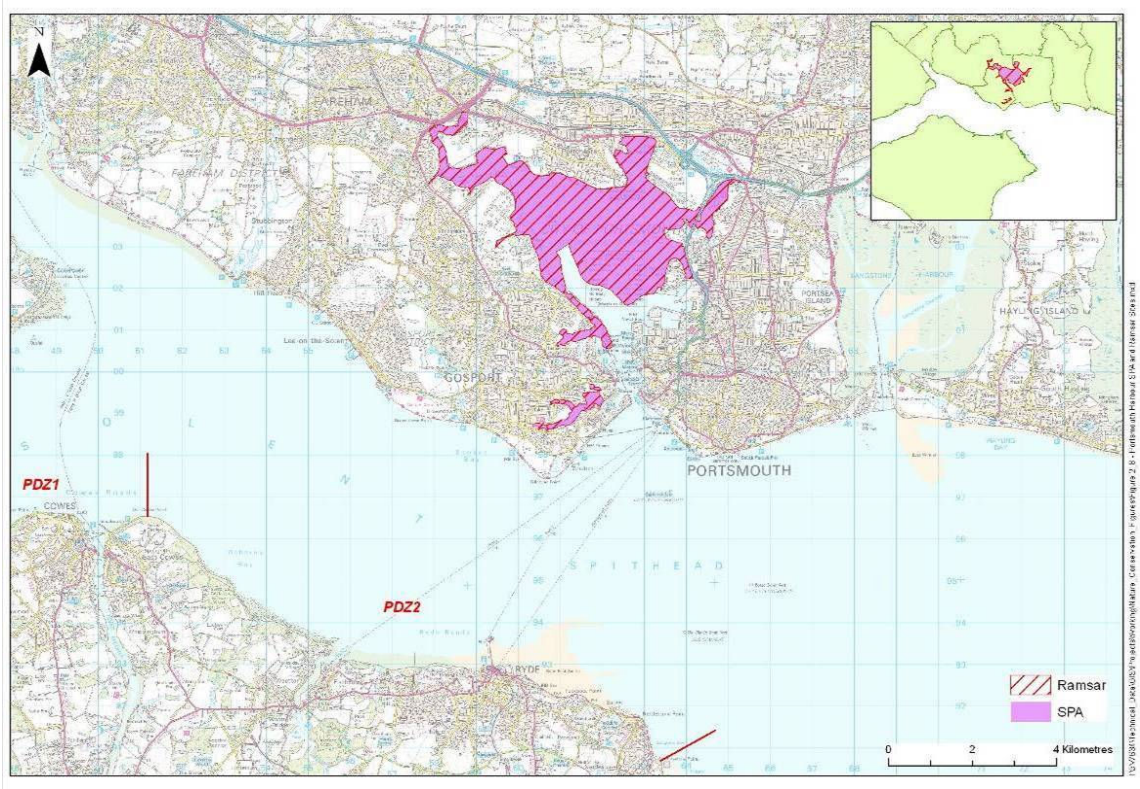
II.A2.1 Portsmouth Harbour SPA and Ramsar

II.A2.1.1 The Portsmouth Harbour SPA covers 1,289 hectares within the Portsmouth estuary. It is 6km from the Isle of Wight (see **Figure 8** for SPA and Ramsar site boundaries).

II.A2.1.2 The Portsmouth SPA qualifies under Article 4.2 of the Birds Directive by supporting populations of overwintering dark-bellied Brent Goose, which is a species of European importance (for further details refer to **Section I3 of this Annex**). This is also a qualifying reason under Criterion 6 of the Ramsar

Convention, since at least 2.1% of the UK's population occur within this Ramsar site. In addition, the site also includes Ramsar criterion 3, in that the site contains populations of plant and/or animals important for maintaining the biological diversity of a particular biogeographic region, these are eelgrass beds, mud-snails, common cordgrass and green algae.

Figure 8 **Boundaries and areas of the Portsmouth SPA and Ramsar sites (SPA: *lilac-shaded* and Ramsar*: striped area*)**



II.A2.1.3 Based on the SSSI component of the Portsmouth Harbour SPA (i.e. Portsmouth Harbour SSSI) the overall condition of the SPA is in favourable condition, with mudflat erosion, *Spartina* die-back and habitat loss from coastal squeeze influencing the condition of the site.

II.A2.1.4 The conservation objectives of the Portsmouth Harbour SPA are to maintain, in favourable condition, subject to natural change, the habitats for supporting the internationally important populations of regularly occurring migratory species, in particular coastal and inundation grassland, saltmarsh, intertidal mudflats and sandflats and shallow coastal waters. The conservation objectives of the Ramsar site are to maintain the wetland characteristics of the Atlantic biogeographic region so that they can support genetically and ecologically diverse flora and fauna, including populations of internationally important dark-bellied Brent Goose; these habitats include: coastal lagoons, saltmarsh, intertidal mudflats and sandflats, shallow coastal waters and cordgrass swards.

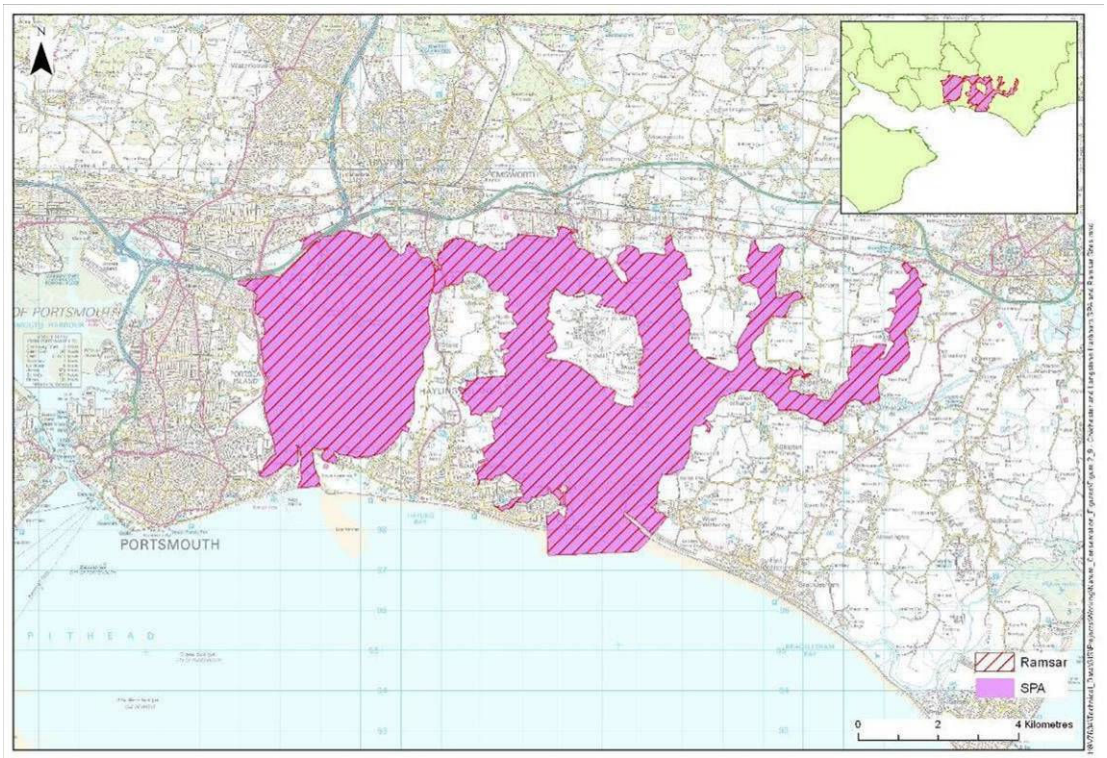
II.A2.1.5 This SPA and Ramsar site has a number of key vulnerabilities, which include activities or developments such as maintaining and developing urban and industrial development, commercial and military ports, and modifying physical processes through large-scale land-claim, capital and maintenance dredging and sea defences, with consequences for the extent and distribution of intertidal habitats. In addition, some of these coastal developments can result in habitat

loss because of coastal squeeze and sea level rise. Intertidal wetland habitats are also at risk from increased nutrient concentrations (waste water discharges), pollution incidents (shipping) and increased coastal recreation pressures.

II.A2.2 Chichester and Langstone Harbours SPA and Ramsar (9km from the Isle of Wight)

II.A2.2.1 Chichester and Langstone Harbours SPA covers a 5,810 hectare area within two estuaries in Hampshire and West Sussex, respectively. The SPA is 9km from the Isle of Wight at its closest point (see **Figure 9** below for SPA and Ramsar site boundaries).

Figure 9 **Boundaries and areas of the Chichester & Langstone Harbours SPA and Ramsar sites (SPA: *lilac-shaded* and Ramsar*: striped area*)**



II.A2.2.2 This SPA qualifies under Article 4.1 of the Birds Directive by supporting rare or vulnerable populations of Annex I species, these include breeding little tern and sandwich tern, on-passage little egret, and over-wintering bar-tailed godwit and little egret. The site also qualifies under Article 4.2 by supporting over-wintering populations of ringed plover, black-tailed godwit, dark-bellied Brent goose, dunlin, grey plover, redshank and ringed plover, as well as regularly supporting at least 20,000 waterfowl. There are a number of factors which qualify for designation as a Ramsar site (Criteria 1, 5 and 6). The site contains internationally important wetland habitats, in particular, intertidal mudflats and sandflats, saltmarsh and estuaries (criterion 1) that regularly support 20,000 waterfowl, especially ringed plover, black-tailed godwit and common redshank. These occur at levels of international importance.

II.A2.2.3 Based on the two SSSI components of the SPA (i.e. Chichester Harbour (59% favourable) and Langstone Harbour (25% favourable) SSSIs) the overall condition of the SPA is in unfavourable condition. The main issues relate to coastal squeeze, inappropriate coastal management and pollution.

II.A2.2.4 The conservation objectives of the Chichester and Langstone Harbours SPA are to maintain, in favourable condition, subject to natural change, the habitats for internationally important populations of regularly occurring Annex 1, migratory and waterfowl species, in particular sand and shingle, shallow coastal waters, saltmarsh, intertidal mudflats and sandflats and mixed sediment shores. The conservation objectives of the Ramsar site are to maintain the wetland characteristics of the Atlantic biogeographic region that regularly support the 20,000 waterfowl and populations that are internationally important; these habitats include: estuaries and saltmarshes in addition to those designated under the SPA.

II.A2.2.5 There are a number of key vulnerabilities which have caused the sites to be in unfavourable condition. These include modifying physical processes through sea defences, with consequences for the extent and distribution of intertidal habitats. Changes in physical processes have resulted in habitat loss because of coastal squeeze, which will continue with sea level rise. Of particular note, coastal defences in Langstone Harbour have prevented the landward migration of saltmarsh; this habitat has now been eroded, with the harbour now comprising mostly of mudflats. Intertidal wetland habitats are at risk from incremental loss of fringe habitats and transitional communities, as hard defences are maintained by riparian land-owners. Other key sensitivities include increased nutrient concentrations (waste water discharges), pollution incidents (shipping), increased coastal recreation pressures, erosion and air pollution.

II.A2.3 Avon Valley SPA and Ramsar

II.A2.3.1 The Avon Valley SPA covers 1,385 hectares across the lower reaches of the River Avon and its floodplain. It is 12km from the Isle of Wight (see **Figure 10** below for SPA and Ramsar site boundaries).

II.A2.3.2 The Avon Valley SPA qualifies under Article 4.1 of the Birds Directive by supporting populations of Bewick's Swan and under Article 4.2 by supporting populations of Gadwall, which are species of European importance. The area also qualifies as a Ramsar site under Criterion 1, 2 and 6 on the basis of its lowland habitats, diverse assemblage of wetland flora and fauna, and its populations of Gadwall, Northern pintail and Black-tailed godwit.

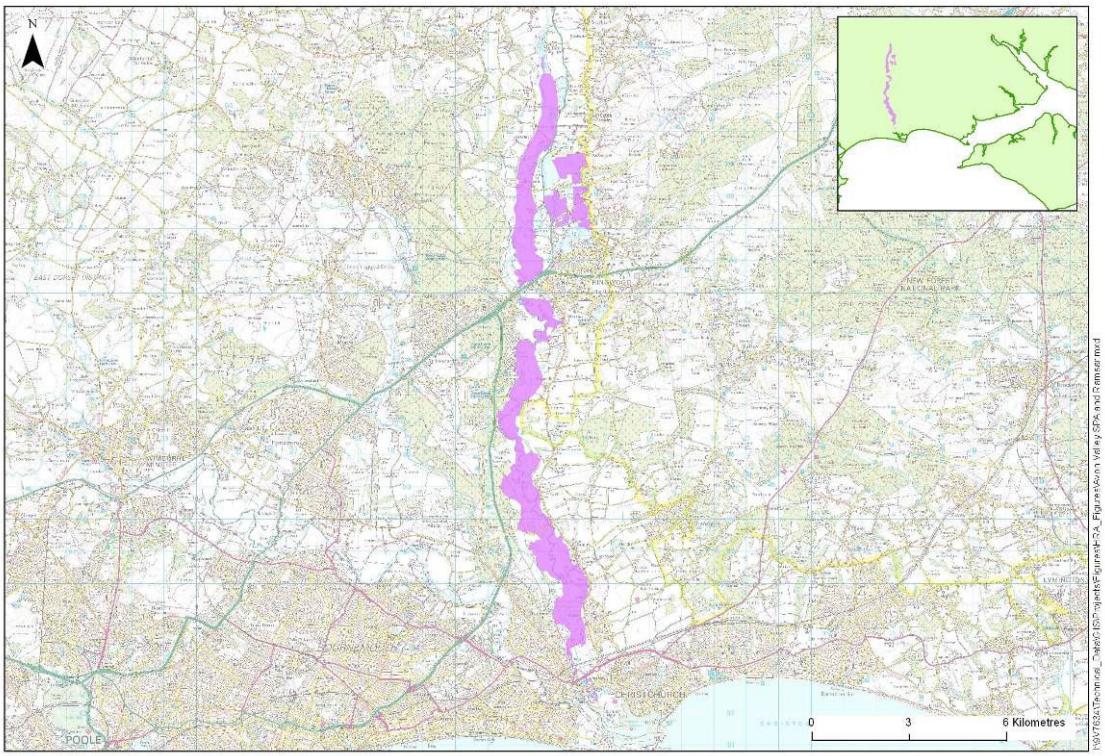
II.A2.3.3 Based on the SSSI component of the Avon Valley SPA, the primary factors influencing the condition of the site is related to inappropriate ditch management, water levels, and undergrazing.

II.A2.3.4 The conservation objectives of the Avon Valley SPA are to maintain, in favourable condition, subject to natural change, the supporting habitats for the populations of Annex I bird species (Bewicks' Swan and Gadwall) of European importance, with particular reference to open water, standing water, and floodplain grazing marsh.

II.A2.3.5 Key site sensitivities include activities or developments resulting in physical loss of the intertidal supporting habitats, which are likely to reduce the availability of

food and roosting habitat for the Bewick's Swan and overwintering Gadwall; increased disturbance (e.g. sudden noise, movements) to overwintering birds can also have an effect of displacing the birds from their feeding grounds, and affect their survival.

Figure 10 **Boundaries and areas of the Avon Valley SPA and Ramsar sites (SPA: *lilac-shaded* and Ramsar*: striped area*)**



II.A2.4 River Avon SAC

II.A2.4.1 The site covers 498 ha of the River Avon from its outfall into Christchurch Harbour, upstream of Stanpit Marsh. It is 15km from the Isle of Wight Wight (see **Figure 11** for SAC site boundaries).

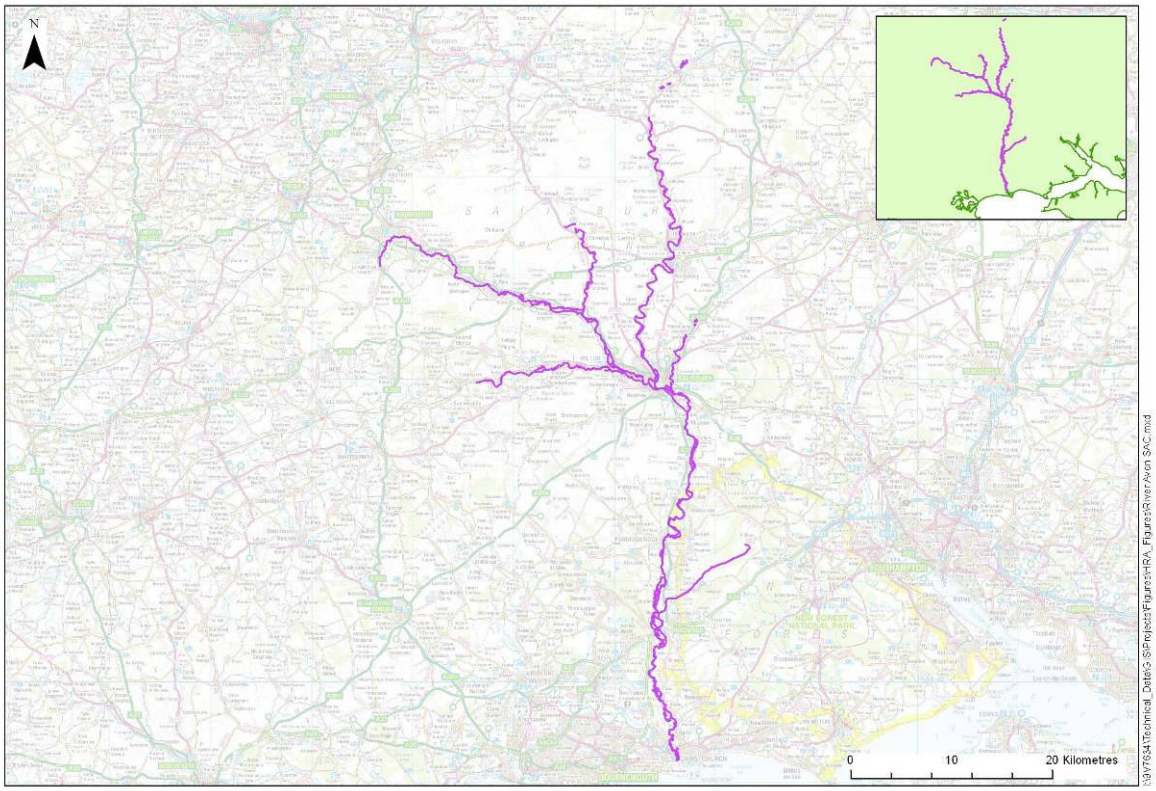
II.A2.4.2 The site contains various primary habitats under Annex I of the Habitats Directive including watercourses of plain to montane levels with *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation. Annex II primary species associated with the site include Desmoulin's Whorl-Snail, Sea Lamprey, Brook Lamprey, Atlantic Salmon, and Bullhead.

II.A2.4.3 The conservation objectives of the River Avon SAC are to maintain, in favourable condition, the river and adjoining land as habitat for populations of Desmoulin's Whorl-Snail; to maintain, in favourable condition, the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation, and the river as a habitat for populations of Atlantic Salmon and Bullhead; and to maintain in favourable condition the river as a habitat for Bullhead, populations of Brook Lamprey and Sea Lamprey.

II.A2.4.4 The primary factors influencing the condition of the River Avon SAC are: historical modifications for mills, water meadows and more recently land drainage, land use in the catchment, abstraction of water for public supply and

agricultural uses, disposal of sewage effluents, management of the water courses for fishery, and agricultural and other uses. Currently much of the system is considered to be at risk from reduced flows, elevated nutrient levels and changes to sediment processes resulting from previous channel modifications. Key site sensitivities include activities or developments such as land use changes resulting in the physical loss or reduction in primary habitat extent and degradation of physical characteristics of the habitats.

Figure 11 **Boundaries and areas of the River Avon SAC.**



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ANNEX I-II.B

Natura 2000 site descriptions and interest features are given in the tables below. Information on international designations based on *Natura 2000* Data Forms and web descriptions (Available at: www.jncc.gov.uk)

Table 1 Special Areas of Conservation as designated under the Habitats Directive (92/43/EEC)

Special Areas of Conservation (SACs)	Description of Interests
SOLENT MARITIME (11,325 ha)	**Annex I habitats** (as primary reason for selection) **Estuaries (1130)** The site includes a major estuarine system encompassing four coastal plain estuaries (Yar, Medina, King's Quay Shore, Hamble) and four bar-built estuaries (Newtown Harbour, Beaulieu, Langstone Harbour, Chichester Harbour). Unusual features include the presence of very rare sponges in the Yar estuary. It is considered to be one of the best estuarine areas in the UK. ***Spartina* swards (*Spartinion maritimae*) (1320)** The only site for smooth cord-grass *Spartina alterniflora* in the UK and is one of only two sites where significant amounts of small cord-grass *S. maritima* are found. It is one of only two known outstanding localities in the UK and is considered to be rare as its total extent in the UK is estimated to be less than 100 hectares. **Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) (1330)** The second-largest aggregation of Atlantic salt meadows in south and south-west England. The site's salt meadows are notable as being representative of the ungrazed type. The site shows rare and unusual transitions to freshwater reedswamp and alluvial woodland, as well as coastal grassland. This habitat is considered to be one of the best areas in the United Kingdom **Annex I habitats (as a qualifying feature)** **Annual vegetation of drift lines (1210)** - considered to be rare as its total extent in the United Kingdom is estimated to be less than 100 hectares. **Perennial vegetation of stony banks (1220)** - considered to support a significant presence. **Coastal Lagoons (1150)** *Priority feature - considered to support a significant presence. ***Salicornia* and other annuals colonizing mud and sand (1310)** - considered to support a significant presence. **Mudflats & sandflats not covered by seawater at low tide (1140)** - considered to support a significant presence. **Sandbanks which are slightly covered by seawater all the time (1110)** - considered to support a significant presence. **Shifting dunes along the shoreline with *Ammophila arenaria* ('white dunes') (2120)** - considered to support a significant presence.

Special Areas of Conservation (SACs)	Description of Interests
BRIDDLESFORD COPSE (167 ha)	The Briddlesford Copse complex of woodlands represents the most varied, structurally diverse and species-rich cluster of ancient broadleaved woodland on the Isle of Wight. **Annex I habitat** **Atlantic acidophilous beech forests** with *Ilex* and sometimes also *Taxus* in the shrublayer (*Quercion robori-petraeae* or *Ilici-Fagenion*). **Alluvial forests** with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*). **Annex II species** (as primary reason for selection) **Bechstein's bat *Myotis bechsteinii*** The woodland supports an important breeding population of the rare Bechstein's bat, with 51-100 resident individuals (*Natura 2000* data form, 2004).
SOLENT & ISLE OF WIGHT LAGOONS (36 ha)	**Annex I habitats** (as primary reason for selection) **Coastal Lagoons (1150)** *Priority feature The Solent on the south coast of the UK encompasses a series of Coastal lagoons, including four of which are located behind the sea-wall at Bembridge Harbour, and which are considered to be one of the best areas in the UK. These habitats have formed in a depression behind the sea-wall and sea water enters by percolation. Species diversity in these lagoons is high and the fauna includes very high densities of the starlet sea anemone *Nematostella vectensis.*
SOUTH WIGHT MARITIME (19,863 ha)	**Annex I habitats** (as primary reason for selection) **Reefs (1170)** Some of the most important subtidal UK chalk reefs, representing over 5% of Europe's coastal chalk exposures, including the reefs off the Needles, Culver Cliff and Freshwater Bay. There is a large reef of hard limestone off Bembridge and Whitecliff Bay, where the horizontal and vertical faces and crevices provide a range of habitats. Other reef habitats within the site include areas of large boulders off the coast around Ventnor. **Vegetated sea cliffs of the Atlantic & Baltic coasts (1230)** This habitat occurs above the high water mark. The site represents contrasting Cretaceous hard cliffs, semi-stable soft cliffs and mobile soft cliffs. The western and eastern extremities of the site consist of high chalk cliffs with species-rich calcareous grassland vegetation, the former exposed to maritime influence and the latter comparatively sheltered. At the western end, the site adjoins the Isle of Wight Downs, providing an unusual combination of maritime and chalk grassland. The site supports the Glanville fritillary butterfly *Melitaea cinxia* in its main English stronghold. **Submerged & partially submerged sea caves (8330)** Exposure of the south coast of the Island to high wave energy has allowed the erosion of the Cretaceous calcareous hard cliffs to form sea caves. Examples of this habitat can be found from the Needles along the south-west coast of the Island to Watcombe Bay, and also in Culver Cliff on the south-east coast of the Island. This site also contains the only known location of subtidal chalk caves in the UK. The large littoral caves in the chalk cliffs are of ecological importance, with many hosting rare algal species, which are restricted to this type of habitat.

Special Areas of Conservation (SACs)	Description of Interests
ISLE OF WIGHT DOWNS (462 ha)	**Annex I habitats** (as primary reason for selection) **Vegetated sea cliffs of the Atlantic and Baltic coasts** The western end of the site adjoins the cliffs of the South Wight Maritime SAC. Here, species-rich calcareous grassland vegetation is present on the cliff tops. The instability and maritime influence has altered the chalk grassland vegetation to include maritime species. Site represents an uncommon transition from chalk grassland species to sea cliff vegetation, which can include the Annex II species Early gentian. Site is one of the best examples of chalk grassland in the south of England under maritime influence. **European dry heaths** This site comprises Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*). Heathland on deep gravel overlying chalk is an unusual biological feature in the UK. **Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*)** The complex consists of large areas of semi-natural dry grassland on chalk at the southern extremity of its UK range. There are extensive examples of *Festuca ovina – Avenula pratensis* grassland in both inland and coastal situations on a variety of aspects and slope gradients. This open, stony grassland contains one of the most important examples of lichen-rich maritime chalk grassland in the UK. **Annex II species** (as primary reason for selection) **Early gentian *Gentianella anglica*** Chalk grasslands on the southern coast of the Isle of Wight support very large populations of early gentian.
RIVER AVON (498 ha)	**Annex I habitats** (as primary reason for selection) **Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation** The Avon in southern England is a large, lowland river system that includes sections running through chalk and clay, with transitions between the two. Five aquatic *Ranunculus* species occur in the river system, but stream water-crowfoot *Ranunculus penicillatus* ssp. *pseudofluitans* and river water-crowfoot *R. fluitans* are the main dominants. Some winterbourne reaches, where *R. peltatus* is the dominant water-crowfoot species, are included in the SAC. **Annex II species** (as primary reason for selection) **Desmoulin`s Whorl-Snail *Vertigo moulinsiana*** There is an extensive population of Desmoulin's Whorl-Snail along about 20 km of the margins and associated wetlands of the Rivers Avon, Bourne and Wylye. **Sea Lamprey *Petromyzon marinus*** The Avon represents Sea Lamprey in a high-quality river in the southern part of its range.

Special Areas of Conservation (SACs)	Description of Interests
	Brook Lamprey *Lampetra planeri* The Avon is a high-quality river that represents the southern part of the range of Brook Lamprey. **Atlantic Salmon *Salmo salar*** The Avon in southern England represents a south coast chalk river supporting Atlantic Salmon. The salmon populations here are typical of a high-quality chalk stream, unaffected by the introduction of genetic stock of non-native origin. **Bullhead *Cottus gobio*** The Avon represents Bullhead in a calcareous, relatively unmodified river in the southern part of its range in England. The River Avon has a mosaic of aquatic habitats that support a diverse fish community.

Table 2 Special Protection Areas designated under the Birds Directive (79/409/EEC)

Special Protection Areas (SPAs)	Site Features
SOLENT AND SOUTHAMPTON WATER (5,506 ha)	The Solent and Southampton Water SPA extends from Yarmouth to Whitecliff Bay along the north coast of the Isle of Wight, and from Hurst Spit to Hill Head along the south coast of Hampshire. The site comprises a series of estuaries and harbours with extensive mud-flats and saltmarshes with adjacent coastal habitats including saline lagoons, shingle beaches, reedbeds, damp woodland and grazing marsh. The mud-flats support beds of *Enteromorpha* spp. and *Zostera* spp. and have a rich invertebrate fauna that forms the food resource for the estuarine birds. In summer, the site is of importance for breeding seabirds, including gulls and four species of terns. In winter, the SPA holds a large and diverse assemblage of waterbirds, including geese, ducks and waders. Dark-bellied Brent Goose *Branta b. bernicla* also feed in surrounding areas of agricultural land outside the SPA. **Article 4.1 Qualification (79/409/EEC) – rare or vulnerable Annex I species** • Common Tern *Sterna hirundo* - breeding (267 pairs, at least 2.2% of UK breeding population; 5 year peak mean, 1993-1997). • Little Tern *Sterna albifrons* – breeding (49 pairs, at least 2.0% of UK breeding population; 5 year peak mean, 1993-1997). • Mediterranean Gull *Larus melanocephalus* – breeding (2 pairs, at least 20.0% of UK breeding population; 5 year peak mean, 1994-1998). • Roseate Tern *Sterna dougallii* – breeding (2 pairs, at least 3.3% of UK breeding population; 5 year peak mean, 1993-1997). • Sandwich Tern *Sterna sandvicensis* – breeding (231 pairs, at least 1.7% of UK breeding population; 5 year peak mean, 1993-1997). **Article 4.2 Qualification (79/409/EEC)** • Black-tailed Godwit *Limosa limosa islandica* (1,125 individuals, at least 1.6% of the wintering Iceland breeding population; 5 year peak mean, 1992/3-1996/7). • Dark-bellied Brent Goose *Branta bernicla bernicla* (7,506 individuals, at least 2.5% of the wintering Western Siberia/Western Europe population; 5 year peak mean, 1992/3-1996/7). • Ringed Plover *Charadrius hiaticula* (552 individuals, at least 1.1% of the wintering Europe/Northern Africa population; 5 year peak mean, 1992/3-1996/7). • Teal *Anas crecca* (4,400 individuals, at least 1.1% of the wintering Northwestern Europe population; 5 year peak mean, 1992/3-1996/7). **Assemblage qualification:** *A wetland of international importance* The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl. Over winter, the area regularly supports 53,948 individual waterfowl (5 year peak mean 1991/2 - 1995/6), in addition to the four species above these include: Gadwall *Anas strepera*, Little Grebe *Tachybaptus ruficollis*, Great Crested Grebe *Podiceps cristatus*, Cormorant *Phalacrocorax carbo*, Wigeon *Anas penelope*, Redshank *Tringa totanus*, Pintail *Anas acuta*, Shoveler *Anas clypeata*, Red-breasted Merganser *Mergus serrator*, Grey Plover *Pluvialis squatarola*, Lapwing *Vanellus vanellus*, Dunlin *Calidris alpina alpina*, Curlew *Numenius arquata*, Shelduck *Tadorna tadorna*.

Special Protection Areas (SPAs)	Site Features
PORTSMOUTH HARBOUR (1,289 ha)	Portsmouth Harbour is located on the central south coast of England. It is a large industrialised estuary and includes one of the four largest expanses of mud-flats and tidal creeks on the south coast of Britain. The mud-flats support large beds of narrow-leaved eelgrass *Zostera angustifolia* and dwarf eelgrass *Z. noltii*, extensive green algae beds, mainly *Enteromorpha* species, and sea lettuce *Ulva lactuca*. The site supports important numbers of wintering dark-bellied Brent geese *Branta bernicla bernicla,* which feed also in surrounding agricultural areas away from the SPA. **Article 4.2 Qualification (79/409/EEC)** • Dark-bellied Brent goose *Branta bernicla bernicla* – wintering (0.9% of the wintering Western Siberia/Western Europe population)
CHICHESTER & LANGSTONE HARBOURS (5,810 ha)	Chichester and Langstone Harbours are located on the south coast of England in Hampshire and West Sussex. They are large, sheltered estuarine basins comprising extensive sand- and mud-flats exposed at low tide. The two harbours are joined by a stretch of water that separates Hayling Island from the mainland. Tidal channels drain the basin and penetrate far inland. The mud-flats are rich in invertebrates and also support extensive beds of algae, especially *Enteromorpha* species, and eelgrasses *Zostera* spp. The basin contains a wide range of coastal habitats supporting important plant and animal communities. The site is of particular significance for waterbirds, especially in migration periods and in winter. It also supports important colonies of breeding terns. **Article 4.1 Qualification (79/409/EEC) – rare or vulnerable Annex I species** • Little tern *Sterna albifrons* – breeding (4.2% of the UK breeding population; 5 year mean 1992-1996) • Sandwich tern *Sterna sandvicensis* – breeding (1.1% of the UK breeding population) • Little egret *Egretta garzetta* – on passage (17.1% of the UK population; counts as at 1998) • Bar-tailed godwit *Limosa lapponica* – wintering (3.2% of UK wintering population; 5 year peak mean 1991/2 – 1995/6) • Little egret *Egretta garzetta* - wintering (20.0% of UK wintering population; count as at 1998) **Article 4.2 Qualification (79/409/EEC)** • Ringed plover *Charadrius hiaticula* - on passage (4.9% of the Europe/Northern Africa - wintering population; 5 year peak mean 1991/2 – 1995/6) • Black-tailed godwit *Limosa limosa islandica* – wintering (1.4% of the wintering Iceland - breeding population; 5 year peak mean 1991/2 – 1995/6) • Dark-bellied Brent goose *Branta bernicla bernicla* – wintering (5.7% of the wintering Western Siberia/Western Europe population; 5 year peak mean 1991/2 – 1995/6) • Dunlin *Calidris alpina alpina* – wintering (3.2% of the wintering Northern Siberia/Europe/Western Africa population; 5 year peak mean 1991/2 – 1995/6) • Grey plover *Pluvialis squatarola* – wintering (2.5% of the wintering Eastern

Special Protection Areas (SPAs)	Site Features
	Atlantic - wintering population; 5 year peak mean 1991/2 – 1995/6) • Redshank *Tringa totanus* – wintering (1.2% of the wintering Eastern Atlantic - wintering population; 5 year peak mean 1991/2 – 1995/6) • Ringed plover *Charadrius hiaticula* – wintering (1.7% of the wintering Europe/Northern Africa - wintering population; 5 year peak mean 1991/2 – 1995/6) **Assemblage qualification:** *A wetland of international importance* The area qualifies under **Article 4.2** of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl. Over winter, the area regularly supports 93,142 individual waterfowl (5 year peak mean 1991/2 - 1995/6) in addition to those species above these include: Wigeon *Anas penelope*, little grebe *Tachybaptus ruficollis*, shelduck *Tadorna tadorna*, curlew *Numenius arquata*, teal *Anas crecca*, pintail *Anas acuta*, shoveler *Anas clypeata*, red-breasted merganser *Mergus serrator*, oystercatcher *Haematopus ostralegus*, lapwing *Vanellus vanellus*, knot *Calidris canutus*, sanderling *Calidris alba*, cormorant *Phalacrocorax carbo*, whimbrel *Numenius phaeopus*.
AVON VALLEY (1,385 ha)	The Avon Valley SPA encompasses the lower reaches of the River Avon and its floodplain on the south coast of England. The site extends for approximately 20 km between Bickton and Christchurch. The River Avon displays wide fluctuations in water level and parts of the valley are regularly flooded in winter. Consequently, the valley includes one of the largest expanses of unimproved floodplain grassland in Britain, including extensive areas managed as hay meadows and grazing marsh under low–intensity agricultural systems. These extensive floodplain grasslands support wintering Bewick's Swan *Cygnus columbianus bewickii* in numbers of European importance, and Blashford Lakes Gravel Pits within the SPA are particularly important for wintering Gadwall *Anas strepera*. **Article 4.1 Qualification (79/409/EEC) – rare or vulnerable Annex I species** • Bewick's Swan – wintering (135 individuals representing at least 1.9% of the wintering population in Great Britain; 5 year peak mean 1991/2 - 1995/6) **Article 4.2 Qualification (79/409/EEC)** • Gadwall – wintering (667 individuals representing at least 2.2% of the wintering Northwestern Europe population; 5 year peak mean 1991/2 - 1995/6)

Table 3 Ramsar Sites designated under the Ramsar Convention 1971

Ramsar sites	Interest Features
SOLENT AND SOUTHAMPTON WATER (5,346 ha)	**Ramsar criterion 1a:** The site is one of the few major sheltered channels between a substantial island and mainland in European waters, exhibiting an unusual strong double tidal flow and has long periods of slack water at high and low tide. Wetland characteristics of the Atlantic bio-geographic region in particular: saline lagoons, saltmarshes, estuaries, inter-tidal reefs. **Ramsar criterion 2:** Supports an important assemblage of rare plants and invertebrates: • at least 33 RDB invertebrates; and • at least 8 RDB plants. **Ramsar criterion 3a:** Supports assemblages of internationally important wintering waterfowl (51,343 individual birds). Species/populations occurring at levels of international importance include; ringed plover, dark-bellied Brent goose, Eurasian teal, black-tailed godwit. **Ramsar criterion 3c:** Species/populations occurring at levels of international importance: Species with peak counts in winter: • Black-tailed godwit, *Limosa limosa islandica*, Iceland/W Europe (2.6% of UK population) • Dark-bellied brent goose, *Branta bernicla bernicla*, (3.2% of UK population) • Eurasian teal, *Anas crecca*, NW Europe (1.1% of UK population)
PORTSMOUTH HARBOUR (1,249 ha)	**Ramsar criterion 3:** Intertidal mudflat areas possess extensive eelgrass beds (*Zostera angustifolia* and *Zostera noltei*) which support grazing dark-bellied brent geese populations. The mud-snail *Hydrobia ulvae* is found at extremely high densities, which helps to support the wading bird interest of the site. Common cord-grass *Spartina anglica* dominates large areas of the saltmarsh and there are also extensive areas of green algae *Enteromorpha* spp. and sea lettuce *Ulva lactuca*. The site also includes a number of saline lagoons hosting nationally important species. **Ramsar criterion 3c:** Species/populations occurring at levels of international importance: Species with peak counts in winter: • Dark-bellied brent goose, *Branta bernicla bernicla*, (2,105 individuals, at least 2.1% of UK population)
CHICHESTER & LANGSTONE HARBOUR (5,810 ha)	Chichester and Langstone Harbours are large, sheltered estuarine basins comprising extensive mud and sand flats exposed at low tide. The site is of particular significance for over-wintering wildfowl and waders and also a wide range of coastal and transitional habitats supporting important plant and animal communities. **Ramsar criterion 1:** Two large estuarine basins linked by the channel which divides Hayling Island from the main Hampshire coastline. The site includes intertidal mudflats, saltmarsh, sand and shingle spits and sand dunes

Ramsar sites	Interest Features
	Ramsar criterion 3a: Assemblages of international importance: Species with peak counts in winter: • 76,480 waterfowl (5 year peak mean 1998/99- 2002/2003) **Ramsar criterion 3c:** Species/populations occurring at levels of international importance: Species with peak counts in spring/autumn: • Ringed plover, *Charadrius hiaticula*, Europe/ Northwest Africa (853 individuals, 1.1% of UK population; 5 year peak mean 1998/9 – 2002/3) • Black-tailed godwit, *Limosa limosa islandica*, Iceland/W Europe (906 individuals, 2.5 % of UK population; 5 year peak mean 1998/9 – 2002/3) • Common redshank, *Tringa totanus totanus* (2,577 individuals, 1% of UK population; 5 year peak mean 1998/9 – 2002/3)
AVON VALLEY (1,385 ha)	The site encompasses the lower reaches of the River Avon and its floodplain between Bickton and Christchurch. The River Avon displays wide fluctuations in water level and parts of the valley are regularly flooded in winter. The Avon valley has a greater range of habitats and a more diverse flora and fauna than any other chalk river in Britain. The valley includes one of the largest expanses of unimproved floodplain grassland in Britain, including extensive areas managed as hay meadow. **Ramsar criterion 1:** The site shows a greater range of habitats than any other chalk river in Britain, including fen, mire, lowland wet grassland and small areas of woodland. **Ramsar criterion 2:** The site supports a diverse assemblage of wetland flora and fauna including several nationally-rare species. **Ramsar criterion 6:** Species/populations occurring at levels of international importance. Species with peak counts in winter: • Gadwall , *Anas strepera strepera* (537 individuals, representing an average of 3.1% of the GB population; 5 year peak mean 1998/9-2002/3)

ANNEX I-II.C SUMMARY OF THE CONDITION OF THE SSSI SITES WITH FEATURES IN CLOSE PROXIMITY TO THE COAST

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Table 1 Condition of the SSSIs within close proximity of the coast

SSSI Site Name	Number of Units	Hectares (Ha)	% Area meeting PSA target	% Area favourable	% Area unfavourable recovering	% Area unfavourable no change	% Area unfavourable declining	% Area destroyed / part destroyed	Main Habitats	Issues
Headon Warren And West High Down	26	269.42	98.82%	95.19%	3.63%	0.00%	0.00%	1.17%	Dwarf shrub heath - lowland Calcareous grassland - lowland Littoral rock Broadleaved, mixed and yew woodland - lowland Earth heritage	Inappropriate cutting/mowing, Planning permission - general
Colwell Bay	9	14.08	60.20%	60.20%	0.00%	2.49%	37.31%	0.00%	Earth Heritage	Earth science feature obstructed, Inappropriate weirs dams and other structures Inappropriate coastal management
Yar Estuary	30	132.4	90.62%	83.15%	7.47%	0.00%	9.38%	0	Littoral sediment Built up areas and gardens Supralittoral sediment Coastal lagoon Arable and horticulture Broadleaved, mixed and yew woodland - lowland	Coastal squeeze

SSSI Site Name	Number of Units	Hectares (Ha)	% Area meeting PSA target	% Area favourable	% Area unfavourable recovering	% Area unfavourable no change	% Area unfavourable declining	% Area destroyed / part destroyed	Main Habitats	Issues
									Neutral grassland - lowland	
Bouldner and Hamstead Cliffs	9	97.41	100.00%	100.00%	0.00%	0.00%	0.00%	0.00%	Supralittoral rock Littoral sediment Earth heritage	Inappropriate scrub control
Freshwater Marshes	6	23.24	86.78%	0.00%	86.78%	13.22%	0.00%	0.00%	Fen, marsh and swamp - lowland	Inappropriate scrub control
Compton Down	13	199.44	100.00%	45.55%	54.45%	0.00%	0.00%	0.00%	Calcareous grassland - lowland Supralittoral rock Littoral rock Earth heritage	
Compton Chine To Steephill Cove	38	628	100.00%	23.67%	76.33%	0.00%	0.00%	0.00%	Supralittoral rock Calcareous grassland - lowland Earth heritage Littoral sediment	
Ventnor Downs	9	162	100.00%	0.00%	100.00%	0.00%	0.00%	0	Dwarf shrub heath - lowland Calcareous grassland - lowland	
Newtown Harbour	78	619.28	98.51%	89.33%	9.18%	1.14%	0.35%	0.00%	Littoral sediment Supralittoral sediment Broadleaved, mixed and yew woodland - lowland Neutral grassland -	Water pollution - agriculture/run off, Water pollution - discharge Agriculture - other

SSSI Site Name	Number of Units	Hectares (Ha)	% Area meeting PSA target	% Area favourable	% Area unfavourable recovering	% Area unfavourable no change	% Area unfavourable declining	% Area destroyed / part destroyed	Main Habitats	Issues
									lowland Coastal lagoon	
Thorness Bay	14	86.18	96.21%	96.21%	0.00%	0.00%	3.79%	0.00%	Littoral sediment Supralittoral sediment Neutral grassland - lowland Earth heritage	Inappropriate scrub control, Inappropriate water levels
Medina Estuary	12	100.5	100.00%	100.00%	0.00%	0.00%	0.00%	0.00%	Littoral sediment Standing open water and canals Rivers and streams Broadleaved, mixed and yew woodland - lowland Neutral grassland - lowland	
King's Quay Shore	30	97.16	98.15%	77.20%	20.95%	0.00%	1.86%	0.00%	Littoral sediment Broadleaved, mixed and yew woodland - lowland	
Ryde Sands And Wootton Creek	17	424.4	93.43%	71.92%	21.51%	0.00%	6.57%	0.00%	Neutral grassland - lowland	
Whitecliff Bay And Bembridge Ledges	8	131.6	99.07%	99.07%	0.00%	0.93%	0.00%	0.00%	Supralittoral rock Littoral rock	Planning permission - general, Public access/disturbance

SSSI Site Name	Number of Units	Hectares (Ha)	% Area meeting PSA target	% Area favourable	% Area unfavourable recovering	% Area unfavourable no change	% Area unfavourable declining	% Area destroyed / part destroyed	Main Habitats	Issues
Brading Marshes To St. Helen'S Ledges	58	488.46	90.36%	39.45%	50.91%	0.00%	9.64%	0.00%	Littoral sediment Supralittoral sediment Littoral rock Broadleaved, mixed and yew woodland - lowland Built up areas and gardens Coastal lagoon Neutral grassland - lowland Fen, marsh and swamp - lowland Standing open water and canals Earth heritage	Coastal squeeze Inappropriate scrub control, Vehicles - illicit Inappropriate water levels, Undergrazing Inappropriate cutting/mowing, Undergrazing Inappropriate water levels Public access/disturbance Inappropriate ditch management,
Bembridge Down	10	56.25	100.00%	100.00%	0.00%	0.00%	0.00%	0.00%	Calcareous grassland - lowland Supralittoral rock Littoral sediment Earth heritage	
Briddlesford Copses	24	167.22	94.08%	80.52%	13.56%	0.00%	5.92%	0.00%	Broadleaved, mixed and yew woodland - lowland Littoral sediment Acid grassland - lowland Fen, marsh and	Inappropriate weirs dams and other structures

SSSI Site Name	Number of Units	Hectares (Ha)	% Area meeting PSA target	% Area favourable	% Area unfavourable recovering	% Area unfavourable no change	% Area unfavourable declining	% Area destroyed / part destroyed	Main Habitats	Issues
									swamp - lowland	
Bembridge School And Cliffs	6	12.58	92.45%	92.45%	0.00%	6.60%	0.94%	0.00%	Earth heritage	Earth science feature obstructed, Inappropriate scrub control
Bonchurch Landslips	8	28.2	100.00%	26.39%	73.61%	0.00%	0.00%	0.00%	Supralittoral rock Littoral sediment Earth heritage	
Priory Woods	2	2.94	100.00%	100.00%	0.00%	0.00%	0.00%	0.00%	Earth heritage	

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ANNEX I-III: STAKEHOLDER COMMENTS, CSG & QRG REVIEW AND PUBLIC CONSULTATION

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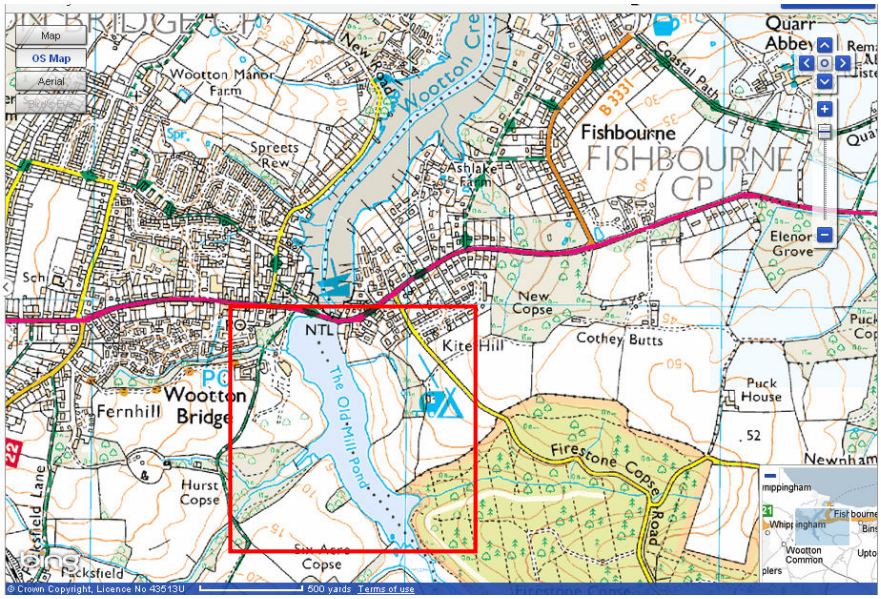
Minutes

Present	:	Lizzie Jolley (LJ) - Royal Haskoning (RH); Tara Eggiman (TE) - RH; Claire Lambert (CL)- Natural England (NE); Tom Schindl (TS)- NE; Caroline Price (CaP) - Environment Agency (EA); Colin Pope (CoP) - Isle of Wight Council
Absent	:	Jenny Jakeways
Date	:	23rd February 2010
Copy	:	Jenny Jakeways
Our reference	:	9V8288/02/CMM230210#AA/303686/Hayw
Subject	**:**	**Isle of Wight SMP2 - HRA Topic Group Meeting #1**

	Topic	Action
1	**North Solent SMP - AA** **LJ** and **TE** asked NE why the AA for the North Solent SMP2 had been so detailed. **CL** stated that the North Solent group had provided detail that was not required but they wanted to have as much detail as possible and they had the time and resource. **CL** explained her knowledge of how the North Solent SMP2 group addressed the AA: • Habitats were grouped under broad habitat groupings (e.g. intertidal habitats included mudflat, saltmarsh) – though would need a category for sandflats. • Pulled out bird data because presumed had to compensate for lost habitat so needed high water roost sites; • Hampshire Wildlife Trust (HWT) has high tide roost data – there should be sufficient information for the AA. **LJ** to contact Debbie King (HWT), if a problem to contact Colin Pope. Need to determine which roosts are affected, are there any? E.g. marshes on the River Medina (natural change). **TE** to contact Malgosia Gorczynska to get a word copy of the AA for the North Solent. Sam Cope and Andrew Colenutt are the key contacts for the North Solent if discussion is required.	**LJ & TE**
2	**Compensation** **CL** stated that if North Solent in credit the IoW can compensate for loss in say the 1st epoch. Therefore need to establish a timeline of the coastal loss and then need to programme in the compensation 20-30 years before.	
3	**The Solent Coastal Habitat Management Plan (CHaMP)** North Solent group was unsure of this but the statistics are correct (as	

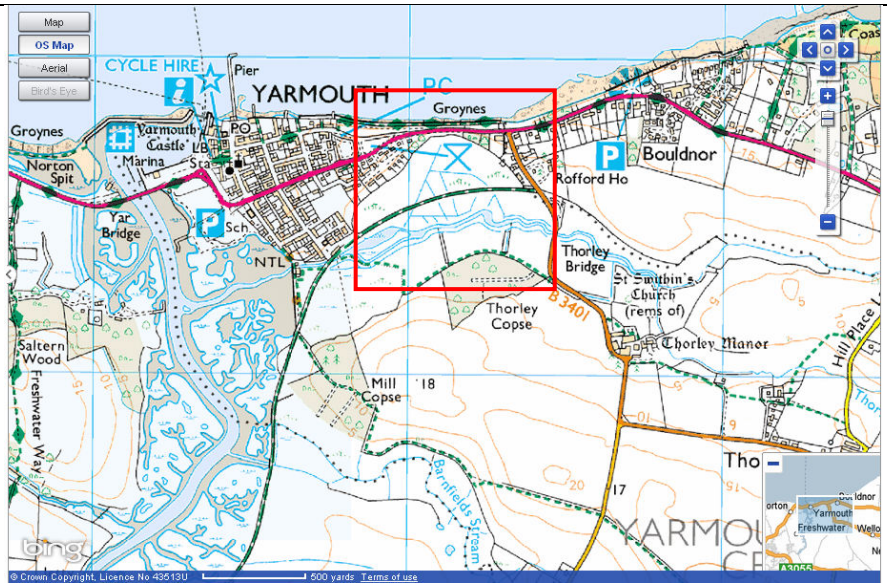
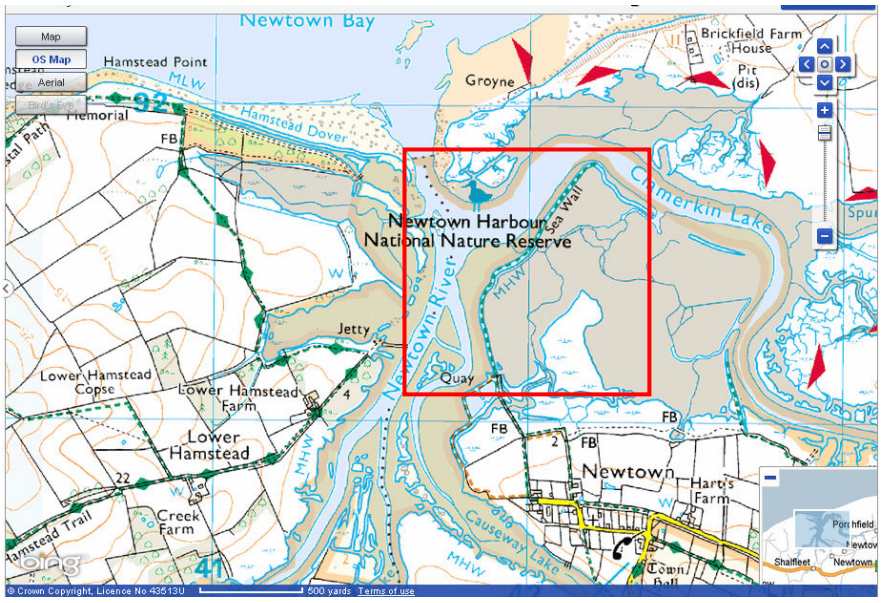
	Topic	Action
	double checked by North Solent SMP2). Therefore, the IoW SMP2 can use these figures for the loss though this only covers the north side of the Isle of Wight. **CL** suggested we use these figures to work out coastal squeeze and only need to offset against hard defences. The CHaMP gives the maximum coastal squeeze for the next 100 years. The AA will need to give the impact per designation for the time of the SMP2. On the south coast of the island there are no too many areas that are defended that will exhibit coastal squeeze and are not quantified by the CHaMP. Ventnor is one area, though what does this mean for South Wight Maritime? **CL** suggested that we need to concentrate on where there is low lying land behind defences, not where cliffs back the defences. Only an approximate quantification is needed.	
4	**IoW Mitigation Strategy** This report will have how the habitats will change in the future according to a 6mm sea level rise. **TE** advised NE that the new UKCIP sea level rise levels have not been approved for use by the EA and so therefore the SMP is using the old levels. **CL** advised just need to be clear about what levels you use. For 0-50 years 6mm will not make too much of a difference, however <50yrs the difference between 6mm and the UKCIP projections will matter. Use the GIS to map and determine what the changes there will be between subtidal and intertidal habitats. The CHaMP should have been incorporated into the IW mitigation strategy. **CL** only wants very approximate levels of loss not precise detail since this is a high level plan and not a precise project.	
5	**Identifying lost habitats** The SMP will identify the loss but should rely on the 'Regional Habitat Creation' report to identify the loss. Feeding areas are predicted to increase (i.e. mudflats) – it is expected that it is saltmarsh that will be lost. **CoP:** What happens if lose rocky intertidal on South Wight Maritime EMS e.g. at Bembridge – if soft defences there will be less of an issue? *Saline lagoons* – these are transient features and can easily be mitigated for especially if within the boundary, from which they have been affected, if outside the boundary then it will be an adverse affect and compensation will need to be sought. Look at Pennington Marshes in the North Solent for an example. Coastal squeeze and brent geese – they now sit on the grazing marsh and feed behind the sea wall around the Eastern Yar (i.e. they seemed to have adapted).	
6	**Abandoning defences** Need to decide if a seawall fails and the land behind is lost and evolves into another habitat do you need to compensate for this? – **CL:** abandoning a defence is regarded as a plan/project and therefore needs assessing. NE to provide advice or guidance on this.	**CL**

	Topic	Action
7	**Cumulative Effect / In-combination** Where assessing cumulative effect / in-combination effects, if a development has a significant adverse impact then you need to compensate. However, because the North Solent (NS) will have adverse impacts on the natural environment and they are compensating for this, it will not be necessary to include the NS SMP into the cumulative effect assessment.	
8	**Policy Development Zones (PDZs)** **TE** asked whether NE and EA were happy with using PDZs? NE's comments were sent to TE (LJ to receive a copy). The Management Units should be completed by the end of the first week in March.	**TE**
9	**Managed Realignment** **TE** explained RH use of Managed Realignment (MR) since it can be interpreted differently – it is a sustainable option to allow the coast to function. It can go either forward or backward. The use of 'Advance The Line' is used for hard options that are a long term investment. **CL** explained that our use of MR is similar to NE's 'Adaptive Management' and that it is not necessarily managed retreat. Where there is MR it is only possible to use 'Habitat Compensation Package'. Need to determine whether there is an adverse affect, and then figure out how much, why and how to compensate.	
10	**Public vs. Private** Where there is no public fund for intervention it will be necessary to define the difference between public and private options for the SMP.	
11	**Discussion of the potential biodiversity issues according to the seven PDZs:**	
11.1	**<u>PDZ 1: Cowes and the Medina Estuary</u>** **Gurnard** – this area is fairly affluent and the defences are privately managed by private land owners who have a right to maintain existing defences (though would need planning permission to increase the extent or condition). NE/EA view an opportunity to manage the coast (MR) around Gurnard Luck (a SINC) where there is a stream and marsh area that has the potential to flood. This could be a Pathfinder Project (presently a tentative roll out of helping communities adjust to changes in sea level rise e.g. Leap Country Park on the North Solent) and could be realigned in the 2nd/3rd epoch. There are also fluvial problems with it becoming increasingly brackish. It is a compensation opportunity as it is outside the European sites. **Cowes/ Medina Estuary** – Is advance the line an option for Cowes? Would this be cheaper? The more you fix the mouth the more you affect the estuaries SAC in the River Medina. There are two creeks (e.g. Dodnor Creek) off the Medina that are reclaimed tidal inlets – there is potential to open these up. NE has looked to adapt the estuary over time but are limited because of the contours and that there will be a loss of Wareham Marsh. Need to have an idea of the Island Plan (Local Development Framework) along the Medina as to what their plans are i.e. where they want to build. The Medina is not going to be a straight	

	Topic	Action
	forward area, particularly as this was left out of the last SMP. There are fluvial issues at Newport and the SMP goes to the bridge at Newport (which is not the tidal limit).	
11.2	**PDZ 2: Ryde and the North-East coastline** Expect to let go the tip of East Cowes (i.e. Osbourne Historic Park) as it is natural wooded area. **Wootton Creek** – there are a number of private defences for the gardens. In the past NE told them they couldn't defend their gardens; however there is not much scope for evolving because of the steep backdrop. **Millpond** – **CL:** Newport Road is the most favoured place for managed retreat / realignment for the whole island – let it go back naturally.  **Figure: The Old Mill Pond and Newport Road** **Ryde** – are there any opportunities? Seaview Duver (50 years on these works), easier to Hold the Line (HTL). Ryde sands are accreting – there needs to be research into why and how (is it the Ryde Pier?). As a habitat will it continue to increase? CL considered that it is not something to be considered to compensate for. Need to decide whether accreting as to how to take it with the Habitats Regulations. On the best available data it was decided that it is accreting, so therefore there will be no impact.	
11.3	**PDZ 3: Bembridge and Sandown Bay** This PDZ straddles two European Sites. **Bembridge** - Need to take direction from the East Yar Fluvial and Coastal Strategy. Might suggest that HTL* for 50-100yrs (i.e. 3rd epoch) so that the SMP is slightly exaggerated so that when the strategy is reviewed this can be looked at. CL advised that the SMP2 is not allowed to go to MR in the 3rd epoch for this reason. CoP recommended that should asses what the specific features are for the saline lagoons for the SPA and SAC. **Sandown Bay** – This area could become sediment starved because	

	Topic	Action
	the cliffs are defended, depending on whether they are the source? TE stated that it would be good to lead the SMP3 and next coastal defence strategy to allow Bembridge to breach into the estuary but originally the reason given for this not being possible was the cost of compensation – are these figures right?	
11.4	**PDZ 4: Ventnor and the Undercliff** **Ventnor** – likely to be HTL with a mix of HTL and No Active Intervention (NAI). Discussions required with the transport planners about the road and access, since in the past there has been a lack of strategic thinking. The SMP2 will be influential for the highways and LDF. The highways are about to start LTP3 (commencing 2011-2012) – this is important for the SEA.	
11.5	**PDZ 5: South-West coastline** **TE:** Likely that there will be all only policy of NAI, all dependant on Military Road. **CoP**: as of 22/02/10 – various parts of risk just west of Brook that are going at an alarming rate. The road may need to be closed in the next couple of months. A paper is going to the cabinet to get a choice. There is really no option but to close the road since there is only 2m left. The decision of choosing what to do for the SMP2 has been taken away. An ideal opportunity to develop engagement with communities, as it becomes a recreational area with access.  **Photo: Cliff erosion adjacent to Military Road (fetch denotes road) – 27/01/10**	
11.6	**PDZ 6: West Wight** NAI for PDZ5 would have implications for PDZ 6, particularly for the defences for Freshwater Bay. **Freshwater Bay** – HTL. This bay is very popular and the closing of the road would increase traffic from other roads putting more pressure on them.	

	Topic	Action
	Totland Bay / Colwell Bay – There is a SSSI (geological) on top of the cliff and is no good scrubbed over (unfavourable condition). This is a very rapidly eroding bay that has historically been NAI thus creating two bays when naturally it is likely to be one bay. **CL:** it is alright to halt erosion but not to completely stop it altogether since this will permanently have a detrimental affect on the SSSI above. Fort Albert (historic environment) is being held, though why? It is privately owned and been turned into private flats; there is no access even to the cliff tops above it. How important is it in context with the rest of the coast?  **Photo: Fort Albert** **Yarmouth** – This is potentially going to be a difficult area. There is opportunity for MR in this area. Need to assume the ferry will stay the same (the IW Council has been creating a Ports Strategy). The area will mostly be NAI. **CL:** note the cycle path that runs along the railway (North Spit) – this would be an important access loss. At the mouth of the estuary this has been HTL, where there is a historic settlement near the waters edge (Kings Manor) and the SPA. It could be like 'Havant' as it is of high recreational value, Local Authority owned and managed. The site behind the main road exiting Yarmouth to the east is becoming more brackish (see red box below). The IW Council are happy with back flooding but want to keep the area. The EA manage the sluices. It is an important SPA high water roosting site. Need to ensure that the road does not breach because if there is a change this will mean a loss. **CL:** Look at the Mitigation Strategy. This is a tricky area and **CL** to think about it and decide. A full realignment will have an adverse effect as would loose the high water roost sites but what would we gain? If you have HTL you get coastal squeeze but if this is sustainable then it is the better option as it is an important area for recreation and access, and high water roost sites.	**CL**

	Topic	Action
		
11.7	**PDZ 7: North-West coastline** This PDZ will mostly be NAI. There are a number of historic settlements but on higher ground, though need to look on the flood maps. Much of the Newtown Estuary area is owned by the National Trust who is very foreword thinking. There is a wooden sea wall within the harbour but this has already been abandoned so it is not an issue. 	
	Miscellaneous notes: – **CL:** Tom Schindl will be the primary contact with CL cc'd in all correspondence; and – Contact Chris Mills from IW Planning if there are any questions over the SEA (e.g. developments, pressure on the Medina).	

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General Comments:		Reviewer:		Organisation:	Environment Agency

Page No.	Paragraph	Line	Comment	Name	Date	IWCCE Response	Name	Date
0	General		RHCP not currently set up to provide compensation for 'dry' habitats. If the AA finds these to be required we would need to discuss the best way of securing these. It may be they are 'secured' through the RHCP but delivered on a scheme specific basis	Rebecca Reynolds	30-Mar-10	Acknowledged	E.Jolley	28-Apr-10
0	General		The breakdown of losses and gains by policy unit for each epoch is really useful for the RHCP for our planning purposes. If required we can then supply the IoW council with a letter confirming these requirements have been included in the RHCP.	Rebecca Reynolds	30-Mar-10	An estimate of the losses and gains will be calculated but will a detailed investigation will be required if it is decided that said area were to be used in the RHCP.	E.Jolley	28-Apr-10
1	1.1.2		Note new Habs regs - SI (2010) 490, The Conservation of Habitats and Species Regulations 2010. No substantive changes but key regulation ref numbers may have changed - implications wherever regulations numbers referred to	Oliver Sykes	23-Apr-10	Acknowledged - changes made where necessary.	E.Jolley	28-Apr-10
1	1.1.3	1	replace 'Stage 1 (screening)' with 'Stage 1 and Stage 2 (Combined Screening & Scoping)' in line with the stages outlined in section 1.4 and avoid confusion as this is a scoping report.	Caroline Price	16-Apr-10	Changed	E.Jolley	28-Apr-10
2	1.2.4	2	replace 'therefore Isle of Wight policies will have…' with 'therefore Isle of Wight policies are likely to have..'; at this stage in the report this conclusion has yet to be drawn.	Caroline Price	16-Apr-10	Changed	E.Jolley	28-Apr-10
2	1.2.4	2	Isle of Wight SMP2 policies **are likely** to have …	Oliver Sykes	23-Apr-10	Changed	E.Jolley	28-Apr-10

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Page No.	Paragraph	Line	Comment	Name	Date	IWCCE Response	Name	Date
3	1.4.2	5	consistency: are you using 'international sites' or 'International sites'	Caroline Price	16-Apr-10	Using 'International sites'	E.Jolley	28-Apr-10
3	1.4.4	10	Sentence that reads 'This stage may not be required' seems a little unnecessary; surely this is implicit in the sentence before which reads 'if there are no alternatives….etc?	Caroline Price	16-Apr-10	Acknowledged and changed.	E.Jolley	28-Apr-10
3	1.4.5		IROPI - imperative reasons of overwhelming public interest	Oliver Sykes	23-Apr-10	Not sure why 'Overwhelming' is used here when it is always 'overriding'. This could be a preference in style. Unchanged in document.	E.Jolley	28-Apr-10
7	fig 1.3		Figure OK but doesn't separate Stage 2 (Likely Significant Effect) from Stage 3 (Adverse Effect On Integrity)	Oliver Sykes	23-Apr-10	Acknowledged - This figure has been changed in the HRA Report.	E.Jolley	28-Apr-10
8	1.6.2	1	Stage 3 (AA) instead of Stage 3:AA	Caroline Price	16-Apr-10	Changed	E.Jolley	28-Apr-10
10	2.1.1	1	remove '-'	Caroline Price	16-Apr-10	Changed	E.Jolley	28-Apr-10
10	2.1.2	5	change sentence 'The New Forest SAC…' to read 'The New Forest SAC, SPA and Ramsar sites were not considered as the terrestrial interest features of these inland sites have negligible marine influence.'	Caroline Price	16-Apr-10	Acknowledged that missed out New Forest SPA and Ramsar sites - Added.	E.Jolley	28-Apr-10
12	2.2.4	6	remove word 'area'	Caroline Price	16-Apr-10	Changed	E.Jolley	28-Apr-10
13	2.2.8	2	Sentence reading 'These activities include disturbance from the public etc'… only potential impacts from SMP policy need to be discussed here?	Caroline Price	16-Apr-10		E.Jolley	28-Apr-10

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Page No.	Paragraph	Line	Comment	Name	Date	IWCCE Response	Name	Date
13	2.2.8	5 & 6	Suggest rewrite sentence as: SMP policy which has the potential to affect water level management/sluice maintenance could affect the salinity and water levels of Wootton Creek/Mill Pond; if not managed, the effect of sea level rise…etc.	Caroline Price	16-Apr-10	Acknowledged and changed.	E.Jolley	28-Apr-10
14	2.2.12	6	remove 'since' and replace with 'lagoons; if not managed…' etc	Caroline Price	16-Apr-10	Changed	E.Jolley	28-Apr-10
23	3.1.1	1	replace 'The section above' with 'Section 2'	Caroline Price	16-Apr-10	Changed	E.Jolley	28-Apr-10
27	3.3.1		Sugest to use the definitions as they are in the SMP guidance?	Uwe Dornbusch	19-Apr-10	Acknowledged and changed.	E.Jolley	28-Apr-10
27	table 3.4		check relevance of impacts to habitat	Oliver Sykes	23-Apr-10	Following HRA Topic Group meeting discussions on this matter, changed.	E.Jolley	28-Apr-10
28	Table 3.5		Number of issues - repetition, incorrect assessments (eg coastal squeeze and dry grassland). Review	Oliver Sykes	23-Apr-10	Table amended and corrected.	E.Jolley	28-Apr-10

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Page No.	Paragraph	Line	Comment	Name	Date	IWCCE Response	Name	Date
28			Generic potential impacts I am not sure about some of the assumptions made - see below - **Coastal GM and HTL policy - Saline Intrusion** - No significant effect assumed. However, if HTL is a 'maintain' policy then with sea-level rise there will be a damaging effect over the lifetime of the SMP **Saline Lagoon and saline intrusion** - surely this needs to be site specific as to determine whether there is an adverse impact or not you need to know on how the lagoon currently works - for example HTL could lead to insufficient sea water percolation and be an adverse effect. **Rivers and Estuaries** - NAI could have an adverse effect, surely it depends on what the current policy is... for example if it's a natural system then it prob is no adverse effect, but if it's currently a HTL with freshwater designations behind a wall, then in time there will be an adverse effect. The cumulative impacts of these assumptions could mean any requirement for compensatory habitat could be significantly out	Rebecca Reynolds	30-Mar-10	Comments Acknowledged - only a generic assessment table - the effect of the policies will depend on the individual circumstances of the area.	E.Jolley	28-Apr-10
30	3.4.3		agree with the scoping out, but should there be some more words rather than just the table to explain why they have been scoped out?	Uwe Dornbusch	19-Apr-10	Comment acknowledged and taken on board for the HRA Report.	E.Jolley	28-Apr-10

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Page No.	Paragraph	Line	Comment	Name	Date	IWCCE Response	Name	Date
31	Table 3.6		Solent Maritime SAC and MR policy could also lead to loss of freshwater habitat NAI policy - would you need to make an assumption about when defences will fail and when coastal squeeze will stop and freshwater habitat loss begin - the compensatory package shouldn't include the worst case scenario for both...ie 100 years of squeeze plus loss of freshwater in the first epoch - need to estimate what we think will happen	Rebecca Reynolds	30-Mar-10	Comment acknowledged and will be taken on board for the HRA Report.	E.Jolley	28-Apr-10
31	Table 3.6		Biddlesford copse 'natural change' would need to be agreed with NE to ascertain whether compensatory habitat is required	Rebecca Reynolds	30-Mar-10	Comments acknowledged - discussed with Natural England at HRA Topic Group Meeting 200410.	E.Jolley	28-Apr-10
31	Table 3.6		Solent and Southampton Water SPA and Ramsar - NAI as Solent Maritime	Rebecca Reynolds	30-Mar-10	Comment acknowledged.	E.Jolley	28-Apr-10
31	Table 3.6		Portsmouth Hbr SPA/Ramsar - is there a risk of loss of freshwater habitat loss with NAI?	Rebecca Reynolds	30-Mar-10	*No - unsure on how this would be the case. Discuss with R. Reynolds.*	E.Jolley	28-Apr-10
31	Table 3.6		Chichester and Langstone Hbr SPA and SAC - is there a risk of loss of freshwater habitat with NAI	Rebecca Reynolds	30-Mar-10	*No - unsure on how this would be the case. Discuss with R. Reynolds.*	E.Jolley	28-Apr-10

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Page No.	Paragraph	Line	Comment	Name	Date	IWCCE Response	Name	Date
32			column 4, row 3 - what is natural /unnatural coastal squeeze? If unnatural coastal squeeze is that due to defences, why is there a need to consider natural coastal squeeze in HRA?	Oliver Sykes	26-Apr-10	Comment also raised by Natural England in HRA topic group meeting - natural coastal squeeze (where topography does not allow migration of habitat as sea levels rise) does not need to be assessed in the HRA and will be stated so.	E.Jolley	28-Apr-10
32			column 5, row 3 - suggest MR not applicable to vegetated sea cliffs	Oliver Sykes	26-Apr-10	Agree with comment - change made	E.Jolley	28-Apr-10
32			column 5, row 4 - suggest MR not applicable to vegetated sea cliffs	Oliver Sykes	26-Apr-10	Agree with comment - change made	E.Jolley	28-Apr-10
32			in South Wight Maritime SAC, Managed Realignment Option: replace 'detriment' with 'detrimental' in line with other entries in the table	Caroline Price	16-Apr-10	Agree with comment.	E.Jolley	28-Apr-10
33			column 3, row 2 - surely coastal squeeze from redundant defences would only apply for the residual life of the defences - likely to be first or second epoch only?	Oliver Sykes	26-Apr-10	Agree with comment.	E.Jolley	28-Apr-10
33			column 3, row 4 - as above	Oliver Sykes	26-Apr-10	Agree with comment.	E.Jolley	28-Apr-10
37	4.1.1	2	DCLG? Not explained elsewhere in the report	Caroline Price	16-Apr-10	Abbreviation will be written in full in HRA report	E.Jolley	28-Apr-10
37	4.2.2		Typo? "Although Option 4…" should read "Although Option 1…"?	Oliver Sykes	26-Apr-10	Agree with comment.	E.Jolley	28-Apr-10

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Page No.	Paragraph	Line	Comment	Name	Date	IWCCE Response	Name	Date
39	4.3.6.		why a table on PDZ level when there will be on one on PU level?	Uwe Dornbusch	19-Apr-10	The table will be at PDZ level not PU level. There will be a preliminary assessment at PU level but reported at the PDZ level.	E.Jolley	28-Apr-10
40	4.3.13		Reference to compensation (outside the designated areas). My understanding is that such 'compensatory habitat' can only be considered at stage 4 - i.e. after confirmation of no alternatives and IROPI. Unlike mitigation habitat, it can't be considered in stage 3 assessment.	Oliver Sykes	26-Apr-10	Agree with comment - changed	E.Jolley	28-Apr-10
41	4.3.15		as above - remove references to compensation	Oliver Sykes	26-Apr-10	Agree with comment - changed	E.Jolley	28-Apr-10
41	box		The correct name of the RHCP is the Southern Region Habitat Creation Programme. Also, we cannot use the term 'bank' habitat… this is not allowed under Defra rules. What we are able to do is to undertake 'strategic land acquisition' against a known future requirement ie. we can purchase land to create habitat that we know we will need as result of the HRA process. Defra has agreed that the SMP can 'secure' the habitat it needs for compensation using the RHCP. Prob need to reword the last couple of sentences - give me a call if I can help clarify further!	Rebecca Reynolds	30-Mar-10	Taken comment on board - useful information.	E.Jolley	28-Apr-10

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General Comments:		Reviewer:		Organisation:	Environment Agency

Page No.	Paragraph	Line	Comment	Name	Date	IWCCE Response	Name	Date
41			Orange box: Check wording re RHCP with Tim Kermode	Caroline Price	16-Apr-10	As above comment - take on board.	E.Jolley	28-Apr-10
42	4.4.2		Reference to Policy Options Assessment. Should this be part of Stage 3 HRA? I understood that Stage 3 HRA (or AA) is applied only to the preferred option, after options appraisal using other tools (including SEA). SEA should have enough resolution to allow the identification of the **ecologically** preferred option, following which AA is applied to the PO	Oliver Sykes	26-Apr-10	Miswording - corrected	E.Jolley	28-Apr-10
44	5.4.1		Eastern Yar Flood and Erosion Management Strategy not fluvial and coastal strategy. Missing words in line 2.	Oliver Sykes	26-Apr-10	Corrected	E.Jolley	28-Apr-10
44	5.6.1	3	Replace/update to reflect change of MFA to MMO	Caroline Price	16-Apr-10	Corrected	E.Jolley	28-Apr-10
45	5.8.1		References to HRA regulation numbers may need updating - 2010 regs	Oliver Sykes	26-Apr-10	Acknowledged - corrected.	E.Jolley	28-Apr-10
46	5	1	Tasks 1.2 and 1.4 in Figure 6.1 has' should read 'have' as plural.	Caroline Price	16-Apr-10	Acknowledged - corrected.	E.Jolley	28-Apr-10
46	6.1.1		This report has completed four tasks towards determining the scope of the assessment	Oliver Sykes	26-Apr-10	Acknowledged - corrected.	E.Jolley	28-Apr-10
46	6.1 and 6.1.1		Ther are two headings numbered 6.1 and 6.1.1	Uwe Dornbusch	26-Apr-10	Acknowledged - corrected.	E.Jolley	28-Apr-10
51	9		could the list of abbreviations include “RDB” as found in the RAMSAR description?	Uwe Dornbusch	19-Apr-10	Added	E.Jolley	28-Apr-10

Client Steering Group and Interested Parties Document Review

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General Comments:		Reviewer: Colin Pope		Organisation: IWC	

The report deals only with the Isle of Wight component of the Solent & Southampton Waters SPA, two SACs and Ramsar sites. I think that reference needs to be made to the Assessment of these within the North Solent HRA and the conclusions reached because both SMP2s collectively should result in no adverse effect on integrity. At our last get together at Romsey, Claire said that provided the impacts of the North Solent components of the international sites will be compensated for, then there is no requirement to consider them 'in combination' with any IOW impacts. If this is Natural England's view then it needs to be clearly stated. A second point which may need NE's guidance, how do we deal with the Solent & IW lagoons SAC? Because the site boundaries are closely drawn around the lagoons, new replacement lagoons will have to be deemed as compensation. Mitigation is not an option.

Page No.	Paragraph	Line	Comment	Name	Date	IWCCE Response	Name	Date
27	3.2.3	Table	Should Eelgrass beds be added to this list?	Colin Pope	29-Mar-10	Under 'Subtidal Marine Habitats'	E.Jolley	29-Apr-10

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Minutes

Present	:	Lizzie Jolley – Royal Haskoning; Claire Lambert - Natural England; Tom Schindl - Natural England; Colin Pope - Isle of Wight Council; Jenny Jakeways - Isle of Wight Council
Absent	:	Tim Sykes (Environment Agency)
Date	:	**20th April 2010**
Copy	:	Tara Eggiman (Royal Haskoning), Greg Guthrie (Royal Haskoning), Simon Colenutt (North Solent SMP2
Our reference	:	9V8288 02/C200410/303686/Hayw
Subject	**:**	**Isle of Wight SMP2 - HRA Topic Group Meeting #2**

The aim of the meeting was to discuss the HRA Scoping Report (issued on Thursday 25th March 2010), and to confirm with Natural England and the Environment Agency that they agreed with the scope of the HRA and the way forward, i.e. the Appropriate Assessment (Stage 3 of the HRA). Furthermore, there were a number of issues and questions that need to be discussed before proceeding further with the assessment.

Caroline Price has left the EA since the last Topic Group Meeting and it is still undecided who will be her replacement, however it is suspected that it will be Tim Sykes – *This was confirmed when Lizzie Jolley met with Tim Sykes on Tuesday 21st April.*

	DETAIL	ACTION
1.	**<u>Section 1: Introduction and Background</u>** **Section 1.5** • Need to add in a paragraph on the role of the Environment Agency	LJ
	Paragraph 1.5.2 • "Ensuring that if there is a negative assessment of a plan or project, agreement to that plan or project is only given if there are no alternative solutions, if it is for imperative reasons of overriding public interest, and where any compensatory measures that may be required are secured" – this should be the responsibility of the Secretary of State not the Competent Authority.	LJ
2.	**<u>Section 2: Sites and Features of the European Sites</u>** • Need to include those sites along the Hampshire coast if have detailed those on the Portsmouth side.	LJ
	• Isle of Wight Downs SAC – there are no conservation objectives available for this designation.	**TS by Monday 26th**

	DETAIL	ACTION
3.	**Section 3: Likely Significant Effect Assessment (Stage 2)** This section was discussed in detail and it was decided that it would be advisable to make some changes to make it easier on the reader to understand immediately what has been scoped out first before identifying the habitat groupings that are relevant to the Isle of Wight.	LJ
3.1	• Need to explain what has been scoped out and that these are in a table in the Appendices – it was agreed that Portsmouth Harbour SPA and Chichester & Langstone Harbour SPA and those designations on the Poole/Bournemouth side are scoped out.	
3.2	• Need to also explain that the North Solent (and presume Bournemouth/Poole) SMP(s) have been considered and is not mutually exclusive – that these are in draft at the moment, and that the North Solent has an adverse effect alone and is being mitigated through Medmerry and another habitat creation project from the EA Habitat Creation Programme. Need to also state that birds could roost and feed at another site if disturbed because of the SMP policies however this is very unlikely to happen between the Isle of Wight and the sites for these two SMPs and therefore will no be affected and can be scoped out. – Need to have an HRA Topic Group Meeting with the North Solent – TS will organise.	**TS**
3.3	• Agreed that Briddlesford Copse should be scoped in (as presently scoped out) as there is a very small risk of the SMP2 having an effect on the conservation objectives.	
3.4	• Also need to state that any features within the international designations that are not on the Isle of Wight have been scoped out.	
3.5	• First need to have a table with the four policy types (NAI, HTL, ATL and MR) and what impacts each of these causes and what effect these impacts will have on the conservation objectives for the different conservation sites. For example, that coastal squeeze affects the extent of habitat within the designations.	
3.6	**Table 3.1** • Solent Maritime SAC - Desmoulin's whorl snail *Vertigo moulinsiana* – this is not present on the island – so can scope the relevant habitat out i.e. freshwater habitats – reedbeds for this designation. • South Wight Maritime SAC – Subtidal marine habitats should be renamed "Intertidal and subtidal rocky habitats" • Isle of Wight Downs SAC – only "vegetated sea cliffs of the Atlantic and Baltic coasts" can be scoped in – the other three features to be scoped out. • Intertidal mudflat to be changed to "*intertidal sediment*" so this includes sandflats, sand dunes, estuaries, sand banks and	

	DETAIL	ACTION
	shingle with regards to coastal squeeze. It was agreed that intertidal habitats are subject to both coastal squeeze and changes in coastal processes (as mudflats and other sediment shores are dependant on sediment supply). • Vegetated sea cliffs – these are not affected by coastal squeeze but rather if the toe is defended to stabilise the sea cliffs from slumping then they will not be naturally eroded.	
3.7	**Table 3.2** • The only Annex I species present on the Isle of Wight is the Mediterranean Gull – this means the other Annex I species can be scoped out as well as the habitats that the Mediterranean gull does not use (i.e. vegetated shingle, unvegetated shingle, shallow sub-tidal). • The only SPA that is scoped in is the Solent and Southampton Water SPA – remove the others.	
3.8	**Table 3.3** • Only Solent and Southampton Water have been scoped in – remove the others. • Marine Subtidal Aquatic Beds – these refer to the seagrass beds.	
3.9	**Table 3.4** • Remove "Dry Grassland" and "Rivers" – also amend those habitat groupings that had changed in previous tables.	
3.10	**Table 3.5** – remove as excessive – this information will go into the new table at the start that will be more concise.	
4.	**<u>Section 4: HRA Stage 3 – AA Methodology</u>** **CL:** If the SMP causes adverse affect alone – then there is no need to carry out an in-combination assessment. There were discussions over how to present the information in the simplest manner – **Table 4.1** was agreed to be CL stated that it is not necessary to have the 'Attribute' and 'Target/Objective' columns since they were in the first table in **Section 3**. LJ explained the stage that had been reached (i.e. starting the assessment) – having determined which habitat groups were present in each policy unit and how the preferred policies in each epoch impact upon these habitats. This information was used to fill in Table 4.1. This is still at a draft stage as the preferred policy was only agreed to on Monday 19th April at the last CSG meeting. CL clarified that the CHaMPS report will be used to determine the loss of habitat along the north side of the island rather than to use GIS to work out the loss. This will speed up the process. The CHaMPs did not differentiate between natural and unnatural	

	DETAIL	ACTION
	coastal squeeze – need to state in the HRA that this has been used. Malcom Bray from Portsmouth University created this and would be available to talk to if any queries. Table 4.2 – careful not to double count the overall loss – as will illustrate the loss for the SPA/Ramsar and the SAC and then have a total loss and gains table.	
6.	**<u>Other Questions and Issues:</u>**	
6.1	**NAI** – is a plan/project – it is possible to have an adverse effect as a consequence.	
6.2	Agreed that historic non-functioning defences e.g. timber structures in Newtown & Medina Estuary that have landward areas of saltmarsh were not be considered as defences. Therefore if the policy is NAI these areas will not be affected be adversely affected as the coast would be left to act naturally as it has done for some time.	
6.3	Dylan Todd (NE at Lyndhurst) – deals with recreation pressure and birds. Rachel Williams (NE at Lyndhurst) – has been dealing with the sea caves on the island for which there has been a survey – TS to send on details of the survey.	**TS**
6.4	**Vegetated sea cliffs** – it is thought unlikely that there will be a significant effect on this habitat, however if there is, this will need to be discussed, particularly with regards to mitigation or preventative measures.	
6.5	**Poor quality habitats** – it was decided to still assess these however with a note that of their condition and that they have not been mapped.	
6.6	**PDZ 5** – is the road a constraint on the retreat of the cliffs and will this have an affect on the HRA (CP)? – suggested that this is clarified with Tim Sykes. Near Freshwater Bay there are piles holding the cliffs – these will be removed after 50 years. However, the cliffs are still able to erode – particularly the toe. It was agreed that the road will not be a constraint over the cliffs as it has always been abandoned and realigned with the loss of the cliffs. *Speaking to Tim Sykes at the EA on Wednesday 21st April we discussed the cliffs along PDZ 5. Apparently where the road goes over the chines there are culverts underneath to control the flow of the exiting fluvial water. The culverts are causing coastal squeeze as the chines are naturally widening with erosion and they are unable to with these culverts in place. The culverts will need to be modified or the road to go back for there not to be an adverse impact on the Geological SSSI or the South Wight Maritime SAC designations. The chines are interest features of both the SSSI and SAC.*	

	DETAIL	ACTION
6.7	The **mudflats in Bembridge Harbour** are normally thought of as accreting which is why there is dredging in the harbour – therefore coastal squeeze is unlikely. The Eastern Yar Strategy are still in the process of determining whether there is a 2ha loss of mudflat due to coastal squeeze in front of the Duver Sea Wall (HTL) – this is a case of 'De Minimus'.	
6.8	The area around the **Folly Inn** could be contaminated – LJ to investigate – if this is the case then it will need to be HTL.	
6.9	The grassed area (near the car park) to the SW of Yarmouth is not used by Brent Geese.	
6.10	TS to send LJ details of the EA Regional Habitat Creation Programme – *Tim Sykes recommended getting in contact with either Ruth Jolley or Rebecca Reynolds.*	**TS**
6.11	**Colwell Bay Geological SSSI** – 60% in favourable condition and 40% in unfavourable declining condition. CP stated that the area is not a problem for the SMP2 as the HTL area is in favourable condition it is the area to the north of this that is undefended that is in unfavourable condition.	
6.12	**Central Medina Estuary** – where it is now one policy of NAI with caveats for those small areas that have private defences it was decided that it would be worth calculating the areas that could possibly have coastal squeeze if these defences are maintained. However, since the area is NAI coastal squeeze is not an impact. There are a few other cases around the island. **This needs to be clarified by Claire Lambert and Tim Sykes.**	
6.13	**Saline Lagoons** – those in Brading Marshes will not be affected as HTL policy will maintain their integrity. The lagoons at the entrance of the Western Yar are behind historic timber defences and therefore if they are lost from sea level rise it is due to natural occurrences and not due to the SMP2.	
6.14	**Brading Marshes** – these could be affected in the second epoch unless Embankment Road is maintained – therefore a policy of HTL will maintain the integrity of the marshes.	
6.15	There are dunes on the sand banks within the Inner Duver and Old Mill Pond, as well as at Bembridge Point.	

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Client Steering Group and Interested Parties Document Review

Document Title:	Appendix I - Habitats Regulations Assessment	Project No.:		IWSMP2	To be returned to:	jenny.jakeways@iow.gov.uk
General Comments:		Reviewer:		All	Organisation:	

RSPB (Richard Black): It is not easy from the tables to work out exactly which section of coast line each policy unit refers to. Figure 5.1 in the Draft HRA report we were sent by Dr Elizabeth Jolley clearly shows the seven Policy Developments Units (PDZ) but the limits and designations of the individual Policy Units (PU) within them are not so easy to work out. I was wondering if you had a map of the island showing and naming all the policy units that you could send me as it would make commenting on the tables considerably easier. Thank you for seeking the RSPB's comments on the draft Appropriate Assessment (AA) for the Isle of Wight SMP. Our detailed comments are presented in the attached annex in relation to the various Policy Development Zones (PDZ) within the draft SMP. We also have some more general comments, set out below, in respect of particular aspects of the draft AA, and their consequences on the internationally designated wildlife sites. - *LJolley: Maps of each PDZ (with PUs) are given Annex I-I.*

As you are aware, much of the Isle of Wight coast is extremely important for wildlife, including internationally important populations of breeding and wintering birds. Coastal squeeze and the resulting habitat loss pose a direct threat to these sites, and the SMP process therefore provides an opportunity to identify coastal management solutions that can create new habitat to maintain the coherence of the Natura 2000 network. In addition, it also offers opportunities to contribute to the delivery of UK Biodiversity Action Plan (BAP) habitat and species targets. However, new coastal management proposals may also constitute a threat, and therefore need careful consideration. In general, the RSPB welcomes the extensive work that has been undertaken to ensure that coastal defence policies for the Isle of Wight are based on the best available evidence, clearly identifying losses and gains to key coastal habitats and ensuring that the most sustainable coastal defence options are proposed with minimum damage to the designated sites. In particular we support the adoption of a habitat group-focused assessment similar to that of the North Solent SMP.

As you are aware, much of the Isle of Wight coast is extremely important for wildlife, including internationally important populations of breeding and wintering birds. Coastal squeeze and the resulting habitat loss pose a direct threat to these sites, and the SMP process therefore provides an opportunity to identify coastal management solutions that can create new habitat to maintain the coherence of the Natura 2000 network. In addition, it also offers opportunities to contribute to the delivery of UK Biodiversity Action Plan (BAP) habitat and species targets. However, new coastal management proposals may also constitute a threat, and therefore need careful consideration. In general, the RSPB welcomes the extensive work that has been undertaken to ensure that coastal defence policies for the Isle of Wight are based on the best available evidence, clearly identifying losses and gains to key coastal habitats and ensuring that the most sustainable coastal defence options are proposed with minimum damage to the designated sites. In particular we support the adoption of a habitat group-focused assessment similar to that of the North Solent SMP.

We welcome the consideration of the effects of policies on designated sites and of whether any compensatory sites are necessary. We would point out, however, that loss of habitat within designated sites cannot be replaced by improvement of habitat that is itself already designated. Instead compensation should come from the improvement of undesignated habitat or re-creation of new habitat. In particular the location of compensatory habitat for the loss of 21.6 hectares of coastal grazing marsh has yet to be identified. The competent authority will need to be clear that a suitable area can be found to maintain the coherence of the network.

We recognise that in some places a policy of Hold the Line may be necessary but it is important that the HRA presents the case for Imperative Reasons of Overriding Public Interest. This is necessary to demonstrate that the strict tests of the Habitats Regulations can be met which would then trigger the provision of compensatory measures. It is vital that the European sites are fully protected and that damage as a result of future coastal defence policy is only allowed in exceptional circumstances. This demands a robust, systematic and transparent approach to the key tests on alternative solutions and imperative reasons of overriding public interest, and any resulting compensatory requirements.

We would also advise that where loss of habitat from coastal squeeze results from privately maintained defences there is still an obligation to provide mitigation or compensation. This is a particular concern where these defences may be at odds with the agreed preferred policy.
In summary, to give the necessary level of assurance, we believe that the SMP and its AA must commit to the following:
• Predict, identify and monitor habitat losses resulting from SMP policies for all key coastal habitats.
• Replace all priority habitat losses in a functionally like for like manner, at least on a 1:1 basis.
• Maintain an audit, or balance sheet, for each habitat type, of:
o European site habitat losses resulting from SMP policies and
o European site habitat gains.
• Ensure that habitat gains at any time must exceed habitat losses.
• Ensure that the suite of habitats created perform the necessary ecological functions to maintain the species for which the SPAs are designated.

The SMP also offers the prospect of contributing to UK Biodiversity Action Plan targets for habitats and species. This contribution should be assessed, and we would recommend the SMP process include an assessment of potential BAP habitat gains and losses over the SMP's three epochs.

RSPB (Carrie Temple): Many thanks for consulting the RSPB on the scenario testing. We broadly support the assessment of the potential impacts of the preferred options and baseline scenarios in draft Appendix G. With particular reference to our reserve at Brading, we support the policy of hold the line at Embankment Road in order to protect the internationally important freshwater interests behind the defences. However, we consider that there more be more opportunities exist for Managed Realignment around other parts of Bembridge Harbour, particularly at the Duver where a policy of Hold the Line is currently recommended. We therefore urge you to consider other options for this stretch of coastline. We note that there appear to be some inconsistencies between the preferred options policies outlined in Appendix G and those summarised in Figure 5.1 of the draft HRA (Appendix I). For example Figure 5.1 seems to suggest that PU3A.5 will be subject to HTL in the first two epochs and to Managed Realignment thereafter, but in Appendix G this section of coast has NAI given as the preferred option for the first epoch and HTL thereafter. Similar discrepancies seem to exist for areas PU3A.2. It would be helpful if you could advise which are the current preferred options before we provide comments on this document.

Colin Pope (IW Senior Ecologist): I wonder whether we will get the opportunity to discuss document this with NE/EA? I don't have any direct comments to make but I feel that it would be useful to have a discussion with NE about the findings, particularly with respect to PDZ6. My currents thoughts are:

* 15.5.39 I don't properly understand the reasoning behind the conclusion that HTL at Freshwater Bay will result in an adverse effect on vegetated cliffs.
* 15.5.42 I think it would be valuable to have a discussion to bottom out what the SPA impacts would be.
* 15.5.48 I don't properly understand how the risk to saline lagoons could result in adverse SPA impacts.
* 17. Conclusions. I feel we need to discuss these and come to a common agreement on the way forward.

Environment Agency: The RHCP is set up to provide strategic compensation sites for habitat losses e.g. we create large areas of mudflat/saltmarsh to address coastal squeeze losses. It is not currently set up to address loss of habitat that is specific and strongly linked to a particular location e.g. vegetated cliffs, rocky shore, sand dunes etc so we will need to discuss how this can be taken forward. These specific habitats could be recognised within the RHCP, but actually delivered on a scheme specific basis if it seems more appropriate to do so. The AA seems to finish quite abruptly. It would be helpful to have a summary of the estimated habitat losses (broken down by habitat type) resulting from implementation of the SMP policies, for each epoch. Good clear document. Assessment of impact on SAC and SPAs is detailed and clearly presented. good report - comprehensive. Regarding potential mitigation /compensation habitat - possible confusion with habitat that would develop under natural change - and cannot be claimed as mitigation? So assumption /conclusion that HTL would not result in AEOI of SAC and SPA /Ramsar (intertidal) may be a bit optimistic. Concerned that figures developed under Eastern Yar strategy (EYS) for coastal squeeze losses are very different to those in the IW mitigation report (also by Atkins). Substantive differences betw EYS and this analysis.

Natural England: HRA does a good job in identifying SMP habitat groups, their interest features and potential impacts. A good job was done on identifying/quantifying the area of habitat lost or gained as consequence of the policy options. However there are some issues that need to be addressed:

1) It would be very useful to provide a succinct summary in the form of a table perhaps that clearly quantifies the impact (i.e. habitat loss/gain) across each European site with regards to the habitat groupings identified in the early part of the report. Currently the quantification of habitat loss/gain presented in the HRA is at the PDZ level.

2) If possible, the quantification of habitat loss/gain should be divided and made across all 3 epochs.

3) With regards to the mitigation identified in annex 3 (appropriate assessment tables), in order for the mitigation to count towards offsetting loss of habitat, the mitigation needs to be clearly identified and secured (i.e. is it deliverable?). Currently, it reads as being very broad-brushed and uncommitted. Furthermore, on page 16, reference is made to mitigation options requiring further discussion at a later stage by the CSG. This implies that the identification of mitigation options has not been completed in this HRA. Lastly, NE is unlikely to support the idea that improving the condition of a particular habitat is adequate mitigation for the loss of habitat.

4) One area were there is some confusion is in regards to compensation. Compensation is typically outside of the scope of an AA and should not be included when determining the AA. Clarification is required whether or not compensation opportunities identified in the annex 3 are factored into the overall AA when assessing adverse effect on integrity? If so, then this is inappropriate at this stage in the HRA processes (although it is not without use that the compensation opportunities have been identified!). The compensation that has been identified should be saved and used later when making the case for IROPI and not within the AA!

5) The in combination assessment needs to be reviewed and made in light of the European site as a whole rather than at the PDZ level. This relates directly to point 2 and it would probably make things much easier if looked at across a whole European site rather than at each PDZ where the boundaries are quite arbitrary anyway?! You may well find that looking at habitat loss across the whole of a European site, that you may have no net loss of a particular habitat, which you may have otherwise found for an individual PDZ - therefore potentially eliminating any requirement to do an in combination assessment. Also this would help rectify the current situation where you have certain PDZs that clearly have an adverse affect and hence no need for an in combination assessment, and other PDZs which have LSE but no adverse affect but requiring an in combination assessment. If the AA indicates adverse affect, then technically the need for an in combo assessment is not required!? Basically, it is a little unusual to have an AA with elements that undertakes an in-combo assessment in light of a clearly identified adverse affect!

6) A conclusion that provides a clear and simple summary of habitat loss/gain per each European site that can ultimately be provided to the RHCP.

Page No.	Paragraph	Line	Comment	Name	Organisation	Date	IWCCE Response	Name	Date
Foreword		2	Isn't this the first review of the SMP?	Rloader	IWCAHES	10-Jun-10	Agreed - changed to 'first review' or SMP2	LJolley	17-Jun-10
ii	1	1	Should this say, 'They key contact for the Habitats Regulations Assessment is…'	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
1	I1.1.4	4	The correct reference is Southern Region Habitat Creation Programme	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
2	I1.2.2	3	An SMP	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10

Page No.	Paragraph	Line	Comment	Name	Organisation	Date	IWCCE Response	Name	Date
3	Map		Could the font for the management units be bigger, as not very clear on an A4 printout	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Figure made into A3 and text made clearer	LJolley	17-Jun-10
4			For MR and NAI section there is no mention of 'loss of wader roost habitat.. I understand this is a generic table that lists possible impacts, but perhaps it should more detailed and consider all impacts?!	Tom Schindl	Natural England	14-Jun-10	Loss of wader roost habitat added, detail not added as it is supposed to be a concise table	LJolley	6-Jul-10
5	I1.3.2		I think the habs regs were updated this year so worth double checking all the article numbers etc are correct if you've not done this already	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Already incorporated previously	LJolley	17-Jun-10
5	I1.3.3		ODPM - acronym not explained	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Added	LJolley	17-Jun-10
5	1.3.1		reference should be made to intertidal 'mud' flats	Tom Schindl	Natural England	14-Jun-10	Changed	LJolley	17-Jun-10
5	1.3.3		For me this first sentence reads a little funny! Suggestion: The HRA process and the outcomes of the AA allows the competent authority to determine whether the project will have an adverse effect on the integrity on any international site.	Tom Schindl	Natural England	14-Jun-10	Changed	LJolley	17-Jun-10
7	table 2.1		Perhaps a mention of 'alternatives stage' as part of the HRA process at stages 3/4 in the table.	Tom Schindl	Natural England	14-Jun-10	Added in 'Test for Alternative Solutions' in Stage 3	LJolley	6-Jul-10

Page No.	Paragraph	Line	Comment	Name	Organisation	Date	IWCCE Response	Name	Date
8	Fig 2.1		Text is visually not very clear	Emily Allison	Environment Agency (RHCP)	03-Jun-10	This document is from an EA document and cannot be changed	LJolley	6-Jul-10
10	I2.3.6	4	Should sentence read 'Furthermore, there are some interest features that have been coped out of sites that had been scoped in'	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Clarified	LJolley	17-Jun-10
10	Table 2.3		Reasons for Effect column, should they say 'directly affect' or 'directly effect'?	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed to 'Directly Affect'	LJolley	17-Jun-10
11	I2.4.2	1	Should sentence say 'and how this could affect the conservation objectives…is in Table 1.1'?	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
11	table 2.3		Under the 'No LSE' I wonder if its worth mentioning that the North Solent SMP will pick up on the coastal SPA/SACs that you are scoping out of the IoW SMP? Might help in showing how the 2 SMPs are dividing their area of responsibility but also how they are 'dove-tailing' together regarding the designated sites across the Solent and ultimately how they feed into the RHCP.	Tom Schindl	Natural England	14-Jun-10	Taken account and footnote added to this affect	LJolley	17-Jun-10
11	table 2.3		I feel that it may be more appropriate to slot table 2.3 under section 2.3.6. Currently it is under 2.3.7.	Tom Schindl	Natural England	14-Jun-10	Moved as advised	LJolley	17-Jun-10
12	Table 2.4	Title	Should sentence say '…to be significantly affected by the SMP policy…'	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10

Page No.	Paragraph	Line	Comment	Name	Organisation	Date	IWCCE Response	Name	Date
13	table 2.5		Coastal processes mentioned twice	Tom Schindl	Natural England	14-Jun-10	Because it is against difference habitat groups	LJolley	17-Jun-10
15	I2.5.5	7	identified the - word missing	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
15	I2.5.5	2	Is a word missing after 'Scoping' e.g. report?	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
15	I2.5.5	4	Should sentence read '…identified by the site habitat groupings and targets'	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Change to 'within'	LJolley	17-Jun-10
15	I2.5.7	2	Epoch1 dates conflict with I1.2.5	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
16	I2.6.1	4	Should this say'…effects on coastal habitat or processes…'	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
16	2.7.1		For the point highlighted in pink - if we are talking about the identification of a likely significant effect, but one that is not considered to have a significant adverse impact on the integrity of the site alone, then I feel that it may be better to simply state this in preference to the current wording. I think this is important given this relates to the in combination assessment that is discussed/reviewed in chapter 6. If this change in wording is accepted, then don't forget to change this same colour table on page 58 also.	Tom Schindl	Natural England	14-Jun-10	Changed and taken comment on board	LJolley	17-Jun-10

Page No.	Paragraph	Line	Comment	Name	Organisation	Date	IWCCE Response	Name	Date
17	2.8.3		Preventative measures! - if we are talking about mitigation measures, then why do we not simply say mitigation? I think this becomes more of an issue in chapter 5 were you are specifically talking about mitigation. The word 'mitigation' is widely accepted as standard.	Tom Schindl	Natural England	14-Jun-10	Removed preventative, replace with Mitigation Opportunities	LJolley	6-Jul-10
18	I2.9.2	1	…an international site.'	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
18	I2.9.3	2	repitition of 'the'	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
18	I2.9.4		The Environment Agency, not the Agency	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
19	I2.10.1	2	Was Hampshire and Isle of Wight Wildlife Trust also consulted, or just RSPB?	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
21	Table 3.1 Relevant Area		typo Osborne Bay	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
24	Table3.4	8	Physical loss of what? Sentence not clear	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
25	Table 3.6 Relevant Area		typos Brighstone Bay ... Brighstone Forest	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
26	Table 3.5 Relevant Area		West**ern** Yar and East**ern** Yar	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
32	I4.2.7		There's currently no year reference for the Sandown Bay and the Undercliff Strategy.	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10

Page No.	Paragraph	Line	Comment	Name	Organisation	Date	IWCCE Response	Name	Date
34	I5.1.1	1	Should 'the assessment' be 'this assessment'?	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
34	I5.1.3		Need to be consistent with use of 'i' or 'I' for international within the whole report. It's 'i' in this paragraph, but 'I' in previous sections.	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
34	Table 5.1		It would be really useful for the RHCP if this table could be expanded to include the potential habitat losses (type and amount), as well as potential compensatory sites (types and amount).	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
37	Fig 5.1		Should the map be labelled with 'PU' or 'PDZ'?	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
37			Figure refers to PUs - should be PDZs	Oliver Sykes	Environment Agency (RHCP)		Changed	LJolley	17-Jun-10
37	Figure 5.1		PU's should be PDZ's on map regarding the 7 policy development zones	Tom Schindl	Natural England	14-Jun-10	Changed	LJolley	17-Jun-10
38	I5.4.4	9	type - drainage from these **chines**	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
39	I5.5		Can AEOI be written in full in the title, as it was for I5.4	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
39	I5.5		Incorrect title - should be 'PDZs where NAEOI of International Sites cannot be concluded'	Oliver Sykes	Environment Agency (RHCP)		Changed	LJolley	17-Jun-10
40	I5.5.6	1,2	typo for on	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
40	I5.5.7	3	typo - **where** feasible	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
40	15.5.6	2	remove "on"	SRJ	Environment Agency (RHCP)		Changed	LJolley	17-Jun-10
40	I5.5.6	1	Sentence isn't very clear	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10

Page No.	Paragraph	Line	Comment	Name	Organisation	Date	IWCCE Response	Name	Date
40	I5.5.7		This paragraph might be clearer if the mitigation measures were listed as bullet points	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
41	I5.5.11	1	typo Osborne Bay	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
41	I5.5.13	12	Particularly... Not a sentence	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
41	I5.5.13	12	typo - ad	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
41	15.5.13	18	remove "there"	SRJ	Environment Agency (RHCP)		Changed	LJolley	17-Jun-10
41	I5.5.13	5	Should say '…where the saltmarsh (3.7ha) and mudflat (2.99ha)…'	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
41	I5.5.13	8	Should sentence say 'Overall, therefore, it cannot be concluded…'	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
41	5.5.14		Last sentence - grammar?	Tom Schindl	Natural England	14-Jun-10	Changed	LJolley	17-Jun-10
42	I5.5.16		Whilst bearing in mind the important archaeological sites located on this stretch of foreshore, particularly between Wootton Creek and Ryde Pier	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
42	I5.5.15	1	Sentence does not give a figure for maximum ha of lost intertidal muflats	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Added in maximum figure	LJolley	6-Jul-10
42	I5.5.15	3	missing data	Oliver Sykes	Environment Agency (RHCP)		Changed	LJolley	17-Jun-10
42	5.5.15		In brackets what is the max figure???	Tom Schindl	Natural England	14-Jun-10	Changed	LJolley	17-Jun-10
43	I5.5.21	8	typo - embankment **thus** means	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
43	15.5.21	12	replace "tern with "term"	SRJ	Environment Agency (RHCP)		Changed	LJolley	17-Jun-10

Page No.	Paragraph	Line	Comment	Name	Organisation	Date	IWCCE Response	Name	Date
43	I5.5.20		Contradictions to Eastern yar strategy HRA. Holding the line at St Helens (not The Duver) will not result in coastal squeeze due to net accretion regime. Holding the line at The Duver was estimated by Atkins to result in 2.84ha of intertidal sandflat habitat loss due to coastal squeeze by 2055; however detailed analysis of SPA interest features using the site allowed this to be agreed by NE as a 'de minimus' effect. No commitment to MR in the long term - just a review /reappraisal of policies.	Oliver Sykes	Environment Agency (RHCP)		Reworded and used the EYS rather than IW Mitigation Plan - as advised also by NE	LJolley	6-Jul-10
43	I5.5.21	4	Suggest remove 'this' from the sentence as does not make sense	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
43	I5.5.21		"coastal squeeze of the mudflats from encroaching saltmarsh communities and rising sea levels." - don't understand this - surely this would be natural change? Where in Bembridge harbour does the 0.069ha of squeeze occur? Strategy HRA agreed no coastal squeeze due to HTL at Embankment Road due to the accretion regime; also no impact on the SPA /Ramsar overall due to the fact the HTL is required for the management /benefit of the freshwater components of the SPA /Ramsar. Bembridge point is not being realigned in the first epoch - NAI for all three epochs	Oliver Sykes	Environment Agency (RHCP)		Reworded and used the EYS rather than IW Mitigation Plan - as advised also by NE	LJolley	6-Jul-10

Page No.	Paragraph	Line	Comment	Name	Organisation	Date	IWCCE Response	Name	Date
43	5.5.21		Re: embankment rd - the conclusion of no adverse effect is for a limited period and not for the whole 100 years.	Tom Schindl	Natural England	14-Jun-10	Amendment to the text - reads that protected for 30 years, after which the defences would need to be heightened to protect the landward habitats	LJolley	6-Jul-10
44	I5.5.23	13	Remove **By**	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
44	I5.5.22	7	Suggest changing the sentence which starts 'This will be by decreasing...' as it doesn't currently read very well	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
44	I5.5.24	4	Change affects to 'effect'	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
44	I5.5.24		see above	Oliver Sykes	Environment Agency (RHCP)		Changed	LJolley	17-Jun-10
45	I5.5.25	2	Suggest remove 'this' from the sentence as does not make sense	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
45	I5.5.26	1	Suggest phrasing is similar to I5.5.17 as 'ensure' is too strong a word. E.g. 'There is potential for habitat re-creation at Wootton Old Mill Pond (see PDZ2 for further details on the investigations required) which could mitigate for the small loss....'	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
45	I5.5.30		Suggest remove 'There will be...' from sentence as it doesn't make sense	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
45	I5.5.32	1	'Potential impact of policy on the Isle of Wight Downs SAC'	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10

Page No.	Paragraph	Line	Comment	Name	Organisation	Date	IWCCE Response	Name	Date
45	I5.5.32	2	Might be useful to say when the features of this SSSI were scoped out and why	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
46	I5.5.33	8	causing loss or damage of what - intertidal or rocky habitats?	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
46	I5.5.34	2	Suggest changing sentence from 'will shortly fail if they have not already done so' to 'that are likely to fail in the short term'	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
46	I5.5.37		Paragraph is a bit wordy. Suggest it is more succinct.	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
46	I5.5.38	2	There are more than 3 international sites listed	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
47	I5.5.39	7	typo - **this** will be impacted	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
47	I5.5.40	4	comprises. Not comprises of	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
47	I5.5.42	1	comprises. Not comprises of	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
47	I5.5.42	7	However, by maintaining... remove **by**	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
47	I5.5.39	5	I think the sentence is a bit long and if someone is just skim reading, 'which would otherwise cause an adverse effect' could lead to confusion. Suggest sentence is broken up or altered slightly e.g. 'so there will not be an adverse effect on Freshwater Marshes SSSI. However, this policy would an adverse effect on the vegetated....'	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
48	I5.5.42	16	typo - overtopping **if** the defences	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
48	I5.5.44	3	typo- improvements **to**	Rloader	IWCAHES	10-Jun-	Changed	LJolley	17-Jun-

Page No.	Paragraph	Line	Comment	Name	Organisation	Date	IWCCE Response	Name	Date
						10			10
48	I5.5.43	1	Are the designations in this paragraph correct? I thought I5.5.39 said there will be an adverse effect on South Wight SAC (not Solent Maritime SAC) from Freshwater Bay, and this will only affect the vegetated cliffs and not rocky intertidal or sub-tidal or sea caves. Also, for consistency, should any sentence with no/adverse effect and a designation be in bold? In this case near the end of the paragraph Solent and Southampton Water SPA and Ramsar, and Solent Maritime SAC are in normal text.	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
48	I5.5.45	1	Paragraph isn't very strong at the moment - is this because further research is required? It's unnecessary to include part of the sentence saying 'to ensure one habitat is not lost to provide for the gain of the other'. Suggest sentence is amended to something like 'Further research is required to investigate the potential losses of designated coastal grazing marsh habitat and sites for compensation.'	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
48	I5.5.46	1	Suggest sentence is re-phrased as it doesn't read very well and there are some spelling mistakes e.g. 'where' should be 'were'	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
49	Title		North-**West** Coastline	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10

Page No.	Paragraph	Line	Comment	Name	Organisation	Date	IWCCE Response	Name	Date
49	I5.5.49	2	Long sentence, suggest it is broken up.	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
50	I6.1.1	3	typo - as outline**d** in Section I4	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
50	6.2.1		grammar? - for an adverse effect	Tom Schindl	Natural England	14-Jun-10	Changed	LJolley	17-Jun-10
51	PDZ 7		North-**West** Coastline	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
52	I6.3.5	10	too many ifs	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
52	I6.3.3		"Erosion of the lower stands of saltmarsh habitat and improval of mudflats that are in unfavourable declining condition due to coastal squeeze may provide mitigation measures for habitat gain where coastal topography allows, however, rising sea level could counter some of this." This seems to be natural change, which cannot be claimed as mitigation /compensation?	Oliver Sykes	Environment Agency (RHCP)		This has been removed and the sections changed around. There are no mitigation measures within the SMP area for any of the sites. Mitigation opportunities have been given but these have not been secured and are therefore not calculated in the losses and gains	LJolley	6-Jul-10
53	I6.3.6	1	at two locations on the Island - should this be on the Island within the Solent Maritime SAC?	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
53	I6.3.7	7	typo - associate**d**	Rloader	IWCAHES	10-Jun-	Changed	LJolley	17-Jun-

Page No.	Paragraph	Line	Comment	Name	Organisation	Date	IWCCE Response	Name	Date
						10			10
53	I6.3.10	1	typo - B**r**iddlesford	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
53	I6.3.10	3	However,... not a sentence	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
54	I6.3.15	3	typo - 100 year**s**	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
55	I6.3.19	1	typo - 100 year**s**	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
55	I6.3.23		About SPA but refers to SAC	Oliver Sykes	Environment Agency (RHCP)		Changed	LJolley	17-Jun-10
56	I6.3.25	16	sought. For exampe... Replace full stop with comma	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
56	I6.3.26	2	remove **including**	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
56	I6.3.26	2	typo - Osborne	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
56	I6.3.27	1	see comment above, p.53, I6.3.6	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
56	16.3.26	2	subtidal seagrass beds are also found at Yarmouth.	SRJ	Environment Agency (RHCP)		Added	LJolley	17-Jun-10
58	I7.1.4	1	Should this be 'For one of the PDZs' ?	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
58	I7.1.4	1	Remove 'the' from sentence so just says 'For three of the PDZs...'	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Not changed see above comment	LJolley	17-Jun-10
58	I7.1.4		Why is only one PDZ included in the box if there are 3?	Emily Allison	Environment Agency (RHCP)	03-Jun-10	There is only one PODZ not 3 - our error	LJolley	17-Jun-10
58	7.1.4		Is it not only for 1 PDZ not 3?	Tom Schindl	Natural England	14-Jun-10	Taken account	LJolley	17-Jun-10
59	I7.1.8	1	typo - none were considered	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10

Page No.	Paragraph	Line	Comment	Name	Organisation	Date	IWCCE Response	Name	Date
59	I7.1.8	1	Sentence isn't very clear	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
60	6.1.2	9	remove **on**	Rloader	IWCAHES	10-Jun-10	Changed and paragraph numbering	LJolley	17-Jun-10
61	6.1.2	10	remove comma after alongside	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
64			Suggested additions to the list of abbreviations: N/AEOI	Emily Allison	Environment Agency (RHCP)	03-Jun-10	Changed	LJolley	17-Jun-10
73	I.A1.6.3	4	What is the condition of the eight SSSI units of the Solent and Southampton Water SPA which are on the Isle of Wight. Some of the factors influencing the condition of the SPA as a whole might not be relevant to the SSSI on the Isle of Wight. Please clarify condition and pressures on IOW SSSI units specifically.	SRJ	Environment Agency (RHCP)	03-Jun-10	Added in table of SSSI conditions into Annex - see Annex I.C	LJolley	17-Jun-10
77	I.IA.3.3	2	primary factors... a**re**	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
96	11		Norris Castle and Osborne Historic Parks and associated Listed Buildings	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
124	Intertidal sediments - impacts		typo - Osborne	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
131	Vegetated sea cliffs - impact		Large stretches of undefended coastline **are**subject	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10

Page No.	Paragraph	Line	Comment	Name	Organisation	Date	IWCCE Response	Name	Date
132	Subtidal marine habitats - impact	5	Is this not a conglomeration of two separate SSSI?	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10
135	Intertidal and subtidal marine habitats - impact		As above	Rloader	IWCAHES	10-Jun-10	Added in Bembridge SSSI	LJolley	17-Jun-10
147 & 150	Coastal grazing marsh - impact		There are extensive areas of coastal grazing marsh... that **are** used...	Rloader	IWCAHES	10-Jun-10	Changed	LJolley	17-Jun-10

Communication with Natural England (17/06/10) re: Adverse Effects

Jolley, E (Lizzie)

From: Lambert, Claire (NE) [Claire.Lambert@naturalengland.org.uk]
Sent: 17 June 2010 15:58
To: Jolley, E (Lizzie)
Cc: Pope, Colin; Schindl, Thomas (NE); Sykes, Tim
Subject: FW: Isle of Wight SMP appropriate assessment - CL Comments [Filed 17 Jun 2010 17:30]
Importance: High

Lizzie

Presentation

Tom has provided comments here, having reviewed document again we can relax the advice about the presentation of 'in combination'; what you have done is rigorous and given the time constraints I wouldn't change it.

Otherwise as previously advised change mitigation to an opportunity and take comments on compensation out of aa, put them in later section.

I have some other specifics I'll talk through with you on the phone.

Coastal Squeeze inter-tidal impact: might explain at the beginning that:

Coastal squeeze: this impact can occur against any hard defence, whether flood defence or coast protection. However NE has recognised that by far the greatest impact affecting Solent soft sediment sites is squeeze against flood defences with extensive low-lying land behind them and we have more or less 'parked' squeeze against rising land behind coast protection as far as SSSI site condition is concerned.

On the IOW coastal squeeze is mostly against coast protection with rising land behind, in contrast to N Solent coast. While coastal squeeze habitat losses should be noted for the SMP north coast, they will be small compared to losses for the same N2K sites on the North Solent. It should be noted that the IOW SMP is adverse 'in combination' with North Solent SMP, and the quantity requiring mitigation will be increased by a few ha. This is the most precautionary approach and more precautionary than SSSI condition assessment.

We are considering our advice about coastal squeeze against existing defences of South Wight SAC. This is different to coastal squeeze on soft sediment shores where there is rapid squeeze, and big areas behind sea walls denied to site. The conservation objectives for South Wight say 'no increase in defences', suggesting the integrity can cope with current ones. Rate of loss and potential gain much slower, larger areas are undefended. However experience from Thanet coast (Chris McMullon) suggests that we will need to have a good rationale, including figures for habitat loss, for why there is not an adverse effect. From what you say we will have this.

The SMP is right to use existing data sources to provide an estimate. Given that only a few ha results there is no real need to divide between epochs, but can do as way of adding to N Solent.

Other comments

PDZ1 Medina

1 Having 'parked' coastal squeeze against coast protection and rising land for condition assessment NE has assessed the Medina as favourable (hopefully with an 'at risk' alert for sediment management). Nevertheless it is a fact that, even in the low energy Medina, bank and MHW/MLW recession is very evident where natural erosion can take place (I have heard the same about the Hants Harbours). **Therefore, for SMP appropriate assessment purposes, I would advise that a loss of a few ha is recorded as an adverse effect for SAC/SPA/Ramsar, as currently described.**

As discussed mitigation described as 'opportunities' and not factored in

PDZ2 Ryde

Need to present arguments differently

- Agree SAC NAI policy results in no impact.

- SPA/Ramsar, HTL in Wootton Creek and Seagrove Bay results in small amount of inter-tidal squeeze, currently 0.5ha +. As agreed cannot factor mitigation in at this stage.

- 0.02ha rocky shore squeeze is 'de minimus' rather than adverse, unless adds to other similar rocky losses.

- Overall conclude adverse, add bit more to c.s. losses to SPA/ramsar from those of Medina.

PDZ3 Bembridge

Need to present arguments differently with different conclusion

- For Duver follow EYS; de minimus argument

- For Embankment follow EYS, not adverse

- Bembridge Headland to Culver, 775m short term HTL where slow annual erosion followed by MR, I would be inclined to judge coastal squeeze not adverse for SPA bird pop? Geological interest not N2K.

- **You are refining advice re Sandown Bay HTL and South Wight ?? waiting for your figures to support not adverse.**

DZ 4 Ventnor

- We need to review position about 4.25km HTL (toe held) for Ventnor. You are getting figures. Looking like not adverse for reefs. Vegetated cliffs not in SAC here, Colin tells me.

PDZ6 West Wight

- Agree with Colin that HTL at Freshwater Bay will be 'de minimus' re any impacts on reefs, agree no impact on cliffs (sandown bay???) Not adverse effect.

- Agree adverse for grazing marsh, again alone and in combination with grazing marsh losses for same N2K in North Solent SMP. Need to specify epoch of loss here.

High water roosts

In intro need to recognise work that N Solent has done which showed the network important, hence all parts. Can assume same for IOW. Also that any adverse effect needs to be offset close to feeding areas unlike SAC habitat losses,hence need to pull out high water roost function and describe separately from Ramsar habitat feature (North Solent not described this adequately yet, but have done all the work).

Comment about use of inter-tidal features eg important Medina Werrar marsh which will go naturally, and how NAI of SMP policies will allow other features to form. Makes loss of grazing marsh more important, cf between SMP's. Perhaps Colin can advise on some text.

Touch base again later in week

Claire

Temp 07760 177046

Dr Claire Lambert

Coastal Advisor

Natural England

Communication with Natural England (25/06/10) re: South Wight Maritime SAC

Jolley, E (Lizzie)

From: Lambert, Claire (NE) [Claire.Lambert@naturalengland.org.uk]
Sent: 25 June 2010 13:15
To: Jolley, E (Lizzie)
Cc: Schindl, Thomas (NE); Sykes, Tim
Subject: IOW SMP South Wight Maritime

Lizzie

Natural England advises that the continuing 'Hold the line' policy at Ventnor and Sandown will not have an adverse effect on the integrity of the South Wight Maritime SAC because

1. The boundary of the SAC is MLW at these locations and the designated features here are sub-tidal reef.

2. There is some scope for this boundary and feature to migrate landwards over the inter-tidal area, but in due course they will abut the sea defences.

3. When the site becomes constrained by sea defences there will not be any loss of SAC area, but the consequence will be some shift in the zonation of the sub-tidal reef feature.

4. 88% of the coastline of this SAC has a NAI policy which will encourage natural evolution with sea level rise. The range of features and sub-features can continue to evolve naturally over most of the coastline.

5. In view of the above the future structure and function of the SAC is largely natural and the integrity of the site will not be compromised by a relatively minor impact on zonation at Ventnor and Sandown

As discussed on the phone, would be helpful to know roughly how the coastal squeeze for the inter-tidal mud was calculated, to ensure it really is an effect of the sea defences and not natural coastal squeeze against rising land.

Regards

Dr Claire Lambert

Coastal Advisor

Natural England

SE Region

W Area Government Team

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Communication with Colin Pope (09/07/10) re: Wader and Roost Sites

From: Pope, Colin [Colin.Pope@IOW.gov.uk]

Sent: 09 July 2010 15:05

To: Jolley, E (Lizzie)

Subject: Feeding & High Tide Roost Sites

Hi Lizzie,

Here are my comments on Table 6.2.

There is a problem with the data used for these calculations in that for many of the sites the data gathered by the Wildlife Trust has been allocated 'Uncertain'. This is because insufficient data has been presented for analysis. Some of these sites are known to be Important but have not been classified as such.

Western Yar (PDZ6)
Local data confirms that this is an important wader & waterfowl feeding and roosting site (both functions). As we discussed at the meeting there should be no change in functionality for roosting & feeding over time.

Newtown Estuary (PDZ7)
Local data confirms that this is an important wader & waterfowl feeding and roosting site (both functions).

Thorness Bay (PDZ7)
Important for feeding; retain uncertain for roosting.

Medina Estuary (PDZ1)
I think there is a typo here. The second lower entry should read Central Medina – east (not west) side
Retain habitat functions as listed.

Ryde Sands (PDZ2)
Local data confirms that this is an important wader & waterfowl feeding site but has minimal value as a roosting site.

Eastern Yar (PDZ3)
Local data confirms that this is an important wader & waterfowl feeding and roosting site (both functions).

Of course, these changes have no bearing on the conclusions reached but do give a more accurate assessment of functionality.

Best wishes. Have a good weekend. Give my kind regards to Julian.

Colin.

Dr Colin Pope / Senior Ecology Officer / Parks & Countryside / Seaclose offices, Fairlee road, Newport, Isle of Wight PO33 2QS / Tel. 01983 823893 / Fax 01983 823851
For ecological data requests please e-mail lrc@iow.gov.uk
Explore the Island's biodiversity on www.wildonwight.co.uk

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RSBP – 22nd October 2010

RSPB nature's voice

Jenny Jakeways
Isle of Wight Council
Coastal Management Team
Dudley Road
Ventnor
Isle of Wight
PO38 1EJ

By email: jenny.jakeways@iow.gov.uk
Our ref: 13225

22 October 2010

Dear Ms Jakeways

Re: ISLE OF WIGHT SHORLINE MANAGEMENT PLAN (SMP) – DRAFT SMP 2

Thank you for seeking the RSPB's comments on the draft Isle of Wight SMP.

Our detailed comments in relation to the various Policy Development Zones (PDZs) within the draft SMP are presented in the attached annex. We also have some more general comments, set out below, in respect of particular aspects of the assessments, and their consequences on the internationally designated wildlife sites.

As you are aware, much of the northern coast of the Isle of Wight is extremely important for wildlife both in its own right and as part of the wider Solent and Southampton Water Special Protection Area (SPA). Coastal squeeze and the resulting habitat loss pose a direct threat to these sites, which include internationally important populations of breeding and wintering birds. The SMP provides an opportunity to identify coastal management that can create new habitat to maintain the coherence of the Natura 2000 network. In addition, it also offers opportunities to contribute to the delivery of Biodiversity Action Plan (BAP) habitat and species targets. However, new coastal management proposals may also constitute a threat, and need careful consideration.

The RSPB welcomes the assessment work that has been undertaken in respect of the SMP, however we question whether the statutory requirements laid out under the Strategic Environmental Assessment (SEA) Regulations and, in particular, the Habitats Regulations have been fully met. For example, we note that a habitat group approach has been taken to the assessment of impacts on the international sites and, while we broadly support this approach, the Habitats Regulations Assessment (HRA) and SEA must also assess the specific ecological function of the habitats affected by coastal policies. Key international site features, such as SPA bird feeding and roost sites must be carefully mapped and their importance to site integrity assessed.

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Where such features are considered essential to site integrity, there will be an imperative to maintain such features in situ. However, where this is not possible the Council must be able to identify the locations for the replacement of such features in order to ensure the coherence of the international sites.

We appreciate the challenges of delivering replacement habitats at this scale, however, we are extremely concerned by the references to losses of habitat, for example the mudflats at Wootton Creek, as having no adverse effect on the designated sites. Not only has insufficient evidence been presented to support this conclusion at a site level, but the approach fails to consider the cumulative effects of small losses to habitat across the SPA as a result of the proposed coastal defence policies, and does not comply with the precautionary principle required by the Habitats Regulations.

We are further concerned that the policy unit assessments, in many cases, fail to clearly quantify the losses to the habitat groups at a PDZ level or to provide full details of the compensatory proposals which are required to offset losses to key coastal habitats as a result of SMP policies over the lifetime of the Plan, including losses to intertidal and freshwater habitats, and losses to feeding and high tide roost sites. In addition, the effect of policies on seabird breeding sites, and whether any compensatory sites are necessary does not appear to have been considered.

Losses of SPA habitat will generally need to be replaced outside of the SPA network through a programme of compensatory measures, following assessment and justification under the Habitats Regulations. The competent authority will need to demonstrate that a suitable area of all compensatory SPA habitats can be delivered ahead of the predicted losses to maintain the coherence of the network. This includes compensation of designated freshwater habitats, such as coastal grazing marsh, of which we note that 30.9 ha of replacement habitat has yet to be identified.

We recognise that in some places a policy of Hold the Line may be necessary but, in such cases, it is important that the HRA presents the case for 'no alternative solutions' and 'imperative reasons of overriding public interest'. This is necessary to demonstrate that the strict tests of the Habitats Regulations can be met which would then trigger the need to undertake compensatory measures. It is vital that the European sites are fully protected and that damage as a result of future coastal defence policy is only allowed in exceptional circumstances. This demands a robust, systematic and transparent approach to the key tests on alternative solutions and imperative reasons of overriding public interest, and any resulting compensatory requirements.

We would also advise that where loss of habitat from coastal squeeze results from privately maintained defences there is still an obligation to provide mitigation or compensation. This is a particular concern where these defences may be at odds with the agreed preferred policy.

In summary, to give the necessary level of assurance, we believe that the SMP and its HRA must commit to the following:

- Predict, identify and monitor habitat losses resulting from SMP policies for all key coastal habitats.
- Replace all priority habitat losses in a functionally like for like manner, at least on a 1:1 basis.
- Maintain an audit, or balance sheet, for each habitat type, of:
  (i) European site habitat losses resulting from SMP policies and
  (ii) European site habitat gains.
- Ensure that habitat gains at any time must exceed habitat losses.
- Ensure that the suite of habitats created perform the necessary ecological functions to maintain the species for which the SPAs are designated.

The SMP also offers the prospect of contributing to UK Biodiversity Action Plan targets for habitats and species. This contribution should be assessed, and we would recommend the SMP process includes an assessment of potential BAP habitat gains and losses over the SMP's three epochs.

We hope that these comments and those in the annex below are helpful.

Yours sincerely

Richard Black
Assistant Conservation Officer

ANNEX

RSPB COMMENTS ON THE DRAFT ISLE OF WIGHT SMP

Introduction
Our detailed comments relating to specific SMP Policy Development Zones (PDZs) are presented in the table below. We have not commented on every unit within the PDZs but focus on those which raise particular SPA and Ramsar issues.

Policy Unit	Location	RSPB comments
PDZ 1	Cowes and Medina Estuary	The RSPB recognises the need to Hold the Line at Newport to protect people and property. However, as you are aware, any losses to the extent of SPA habitat or features will need to be replaced. We note that an area of ca. 4.1 ha of land to the north of the Werrar Marsh has been suggested as mitigation for the loss of mudflat and sandflat in the inner estuary. However the proposed habitat re-creation is for mudflat and saltmarsh and it is not therefore clear that this will provide the same function as the habitat that will be lost. Further information is also required to demonstrate how tidal inundation of this site will affect the present SPA interest, and whether further compensation will also be required.
PDZ 2		The RSPB supports policies of No Active Intervention and Managed Realignment at Wootton Creek to improve the quality of the mudflats and saltmarsh. However we are concerned by the conclusion that the loss of intertidal mudflats at this site as the result of Hold The Line policies will have no adverse effect. While we accept that it is possible that gains in mudflats at King's Quay Creek may mitigate for this loss it must be ensured that the gains occur before the losses. Additionally it must also be ensured that the saltmarsh at King's Quay Creek is able to roll back as predicted. If this results in the saltmarsh rolling back beyond the boundary of the SPA this will become a case for compensation rather than mitigation and will require further assessment under the Habitats Regulations. We strongly disagree with the application of the *de minimus* principle for the habitat loss at Nettlestone Point.

PDZ 3	Bembridge and Sandown Bay	We welcome the proposals for Managed Realignment to restore the natural processes of the last substantial dune system on the Island, at St. Helen's Duver (PU3a.2). We believe that positive efforts to allow the seaward dune system to become mobile again are vital for the dunes and for protecting saltmarsh and mudflats behind. However this will not happen until the third epoch and we are concerned that the initial policy of Hold the Line will result in the loss of designated intertidal habitat. Again we disagree with the application of the *de minimus* principle. Mitigation or compensation should be sought resulting in, at the least, no net loss in area. We support the policy of Hold The Line at the Embankment Road (PU3A.4). The RSPB reserve at Brading Marshes is potentially one of the most extensive and valuable areas of freshwater grazing marsh in southern England. We believe that protecting this site from tidal inundation is necessary to protect the internationally important freshwater interests behind the defences. As a European designated site, the freshwater wetland would have to be replaced elsewhere if the defences were not maintained and it is difficult to see where and how this could be accomplished within the existing catchment, or indeed within the wider SPA area. We would like to see the importance of the designated freshwater marsh as a justification for this strategy clearly acknowledged in the SMP. Further, it is vital that the marshes are allowed to fulfil their designated Natura 2000 and Ramsar functions. The successful deliverance of the Water Level Management Plan is crucial and must be achieved if the decision to Hold The Line at Embankment Road is to be justified.
PDZ 4	Ventnor and the Undercliff	Having viewed the new defences in the Castlehaven area (PU4B.2) we share the concerns of the Hampshire and Isle of Wight Wildlife Trust that the impacts of the new coastal defence on wildlife are not being monitored. We believe that this monitoring should be undertaken to a high standard to ensure that future decisions are undertaken with the fullest possible data.
PDZ 5	South-west Coastline	The RSPB supports the move to a policy of No Active Intervention for this PDZ, allowing the maritime cliff habitat to evolve naturally.
PDZ 6	West Wight	The RSPB is concerned that no compensation has been identified for the loss of coastal grazing marsh from this stretch of coast.
PDZ 7	North East Coastline	The RSPB supports the policy of No Active Intervention for this zone as this policy approach will be beneficial to the intertidal habitats of the SPA and allow replacement of eroded habitats. However our support is conditional that mitigation measures for the saline lagoons are carried through. We question whether a firm commitment has been made to the necessary management of the saline lagoons in order maintain their integrity as a European site feature.

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J Jakeways
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Dudley Road
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Date 18th October 2010
Our ref 14.5.2.5

Dear Jenny

Isle of Wight Shoreline Management Plan. Draft SMP 2.

Thank you for your letter of 22nd July together with the team responding to our questions at the open day at Ryde on 14th September.

In responding to this consultation we declare an interest in owning and managing land within the coastal landslips of the Undercliff. In preparation to this response we have re-visited a number of sites across the Island with a particular emphasis on locations subject to contention in the past.

Our comments relate both to the broad policies expressed in the draft plan as well as comments on individual proposals. We have therefore structured our comments slightly differently from that suggested in the response form.

Overview

We welcome the production of this draft as it assists in bringing clarity to issues of great interest and concern to Islanders and to the wider public.

We are particularly pleased with the emphasis the plan gives to identifying risks from coastal instability and flooding. The recognition that adaption is an essential part of the suite of responses is helpful in drawing together a plan that is sustainable. We particularly welcome the recognition that new coast defences are unlikely under current financial constraints and that the long term retention of all defences, such as at Castlehaven, cannot be guaranteed. We similarly welcome the recognition that the A3055 is unsustainable on its existing alignment and that detailed consideration will need to be made to adapt to breaches in this part of the Island's infrastructure.

Comments on individual sites

Brading Marshes. PDZ3. We have taken a particular interest in recommendations relating to land historically within the intertidal zone and currently managed as grazing marshes. Our interest relates

to the intrinsic issues of individual sites together with the strategic issues relating to such sites across the Solent region.

The Brading marshes are proposed to be defended from tidal inundation into the foreseeable future. In this respect the policy position for Brading differs from other coastal grazing marshes, particularly those on the western Yar. The reasoning behind the preferred strategy is not as clearly articulated in the plan as it might be. We ask that the final edition of the plan offers this reasoning in greater detail.

Having recently visited the marshes, and having discussed the issues with the RSPB and others, we have been persuaded that the preferred policy option is the correct one. However this reasoning becomes questionable should the marshes not fulfil the Natura 2000 and Ramsar functions that justify their defended status in the plan. In this respect we believe the effective delivery of the water level management plan is an essential element in the justification of the policy to maintain the flood defences of the site.

St Helens Duver. PDZ3.

The Duver at St Helen's is the last substantial sand dune system on the Island. The southern spit of the harbour is currently quarried for sand and gravel and has lost much of biological interest.

The Trust welcomes the recognition of the unsustainability of the current management regime of the Duver. We welcome and encourage the proposals to manage a restoration of natural processes. We respect the uncertainty that such a strategy brings to some users of the Duver and request that the implementation of the plan assists in the process of adaption.

Niton Undercliff PDZ4. We took a particular interest in the Castlehaven area as this defence is relatively new and was highly contentious at the time of its construction. Part of the 'package' associated with this coastal defence was the close monitoring of the response of wildlife to the works. This monitoring would provide data that would inform future options. We are concerned that the scheme of monitoring that should be informing decisions is not being undertaken. As such this undermines confidence in the decision making process and leaves doubt as to the soundness of future discussions and decisions. Given the future management and maintenance of this defence will be subject to future debates we believe it is essential that the commitments to monitor the site are honoured.

Assessments

We welcome what assessments have been prepared but question whether these meet the statutory obligations under the Strategic Environmental Assessment or Habitat Regulation Assessment procedures. We agree with Natural England[1] that the Appropriate Assessment concludes that the Shoreline Management Plan is likely to have an adverse effect on Natura 2000 interests. We had hoped to see the assessments of the plan analysing the habitat changes arising from the plan together with the changes in the structure and function of these habitats and attendant populations. The

[1] Natural England's letter to IWCCE of 21 July 2010 appended to the SMP.

features that we look to have assessed in the Appropriate Assessment are those relating to the Natura 2000 designations and the Ramsar designations together with the SSSI, SINC and priority BAP interests in the Strategic Environmental Assessment. To understand the issues that need addressing we believe it necessary to consider these features in their own right, collectively in an Island context and then more broadly in a Solent context.

Our concern is that the shortfalls in the assessment do not permit an overview of the issues. The shortfalls also mean it is not possible to identify what works may be required to 'compensate' or 'mitigate' for the changes facilitated by the plan. We therefore have a plan which has been identified as likely to cause an adverse impact on internationally important wildlife without setting out how that challenge is to be addressed

To illustrate this concern coastal features such as grazing marshes are identified in various statutory designations for their special interests. These interests include the use of these areas by Ramsar and Natura 2000 bird populations as part of the complex structure and functioning of the Solent's estuarine ecosystem. The Natura 2000 and Ramsar grazing marshes also contain a range of habitats including freshwater marshes, saline and hypersaline marshes, swamps, lagoons and tidal woodlands. There is no way of knowing from the assessment to what degree these features will be prejudiced by the draft plan.

We therefore request that before this plan is finalised the assessments are completed so that proper provision may be made for these important features within the context of a dynamic coastline.

Conclusion.

We welcome the draft plan for highlighting the challenges that a naturally dynamic coastline brings to the community and economy of the Island. We similarly welcome the realism in recognising that the forces in question are such that adaption is an essential component in formulating a response. We are concerned that statutory environmental issues have not been adequately addressed and this leaves the plan vulnerable to challenge.

If it would assist you we would be happy to explore the thoughts expressed above in greater detail.

Yours sincerely

Clive Chatters
Head of Conservation (Policy and Evidence)

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Client Steering Group and Interested Parties Document Review					
Document Title:	**IoW SMP2 - Appendix I: HRA Stage 3 AA for Public Consultation**	Project No.:	IWSMP2	To be returned to:	jenny.jakeways@iow.gov.uk
General Comments:		Reviewer:		Organisation:	Combination
Natural England (Claire Lambert): No major problems, main comments are to do with a need to improve the clarity of presentation. A difficult job given the complications of the Habitat Regulations!					

Page No.	Paragraph	Line	Comment	Name	Date	IWCCE Response	Name	Date
Hampshire and Isle of Wight Wildlife Trust								
	General		We welcome what assessments have been prepared but question whether these meet the statutory obligations under the Strategic Environmental Assessment or Habitat Regulation Assessment procedures. We agree with Natural England1 that the Appropriate Assessment concludes that the Shoreline Management Plan is likely to have an adverse effect on Natura 2000 interests. We had hoped to see the assessments of the plan analysing the habitat changes arising from the plan together with the changes in the structure and function of these habitats and attendant populations. The features that we look to have assessed in the Appropriate Assessment are those relating to the Natura 2000 designations and the Ramsar designations together with the SSSI, SINC and priority BAP interests in the Strategic Environmental Assessment. To understand the issues that need addressing we believe it necessary to consider these features in their own right, collectively in an Island context and then more broadly in a Solent context.	Clive Chatters	18.10.10	Thank you for your comments, it may be a case of clarifying where this information can be found, which is given as follows. The HRA does in fact take into consideration the habitat types and their structure and function, as given in **Table 2.7 of the Stage 3 Report**, and discussed in the detailed tables for each PDZ within **Annex I-IV** of the HRA report. Furthermore, the loss of the 31 hectares of coastal grazing marsh, its function and supporting species as a result of the policy suite in PU6C.5 (Yarmouth Mill and Thorley) is discussed in detail within **Appendix L of the SMP2** (Stage 4 of the HRA - which is about to be submitted to Defra). The issues for the international and European nature conservation sites have been addressed at at PDZ level, collectively in an Island context and more widely for the whole designated site across the Solent (e.g. refer to **Section I5** for PDZ level and Annex I-IV Tables, and **Section I6** for the whole SMP2 summary, and **Section I7** in combination with the North Solent SMP2).	E.Jolley	03.11.10

Page No.	Paragraph	Line	Comment	Name	Date	IWCCE Response	Name	Date
						The SSSI, SINC and priority BAP interests are discussed in the SEA, as these are not required to be assessed within the HRA (for example refer to **Annex F-III** and **Table 8.1** in the **Appendix F - SEA Environmental Report**). Furthermore, the Statement of Environmental Particulars (SoEP) that accompanies the Final SMP2 will list those sites and habitats (international, national and local) that will be affected by the SMP2 policy, along with the required habitat monitoring and management.		
	General		Our concern is that the shortfalls in the assessment do not permit an overview of the issues. The shortfalls also mean it is not possible to identify what works may be required to 'compensate' or 'mitigate' for the changes facilitated by the plan. We therefore have a plan which has been identified as likely to cause an adverse impact on internationally important wildlife without setting out how that challenge is to be addressed	Clive Chatters	18.10.10	The assessment has been carried out according to habitat type for each designated site within each PDZ and is given in **Annex I-IV of the HRA Stage 3 Report**, which states whether any mitigation measures are required and whether there is an adverse effect. This is then summarised by PDZ in **Section I5** of the HRA Stage 3 Report, and then cumulatively for the whole SMP2 in **Section I6**. Following the comments from the Quality Review Group and Natural England, we have however added in summary tables for each PDZ to clearly show how each habitat type is affected (i.e. quantitative losses and gains where possible), stating whether an adverse effect or not has been concluded. In addition, the summary table of the whole SMP2 (refer to **Table 6.2**) has been made clearer. Stage 3 of the HRA report is to conduct the Appropriate Assessment and states what was to happen next (refer to **Section I8: Next Stage: Where to From Here?**).	E.Jolley	03.11.10

Page No.	Paragraph	Line	Comment	Name	Date	IWCCE Response	Name	Date
						Stage 4 of the HRA process is to: summarise the assessment of the negative effects on the sites; record the modifications or restrictions considered; test of Alternative Solutions; test for Imperative Reasons of Overriding Public Interest (IROPI); and identify the necessary Compensatory Measures. This has now been drafted following Public Consulation of the Final SMP2 and will be submitted to the Secretary of State shortly. Compensation for any habitat loss will be sought through the Environment Agency's Southern Regional Habitat Creation Programme, which is the Government's recommended vehicle for delivering strategic habitat compensation and are funded in advance of engineering works that cause damage. Therefore, no damage to a Natura 2000 site as a result of a policy can occur, prior to compensation being secured.	E.Jolley	03.11.10
	General		To illustrate this concern coastal features such as grazing marshes are identified in various statutory designations for their special interests. These interests include the use of these areas by Ramsar and Natura 2000 bird populations as part of the complex structure and functioning of the Solent's estuarine ecosystem. The Natura 2000 and Ramsar grazing marshes also contain a range of habitats including freshwater marshes, saline and hypersaline marshes, swamps, lagoons and tidal woodlands. There is no way of knowing from the assessment to what degree these features will be prejudiced by the draft plan. We therefore request that before this plan is finalised the assessments are completed so that proper provision may be made for these important features within the context of a dynamic coastline.	Clive Chatters	18.10.10	We agree with your comment that the habitats discussed are used by Ramsar and Natura 2000 bird populations, and therefore these are discussed within the SPA and Ramsar site assessment in Annex K-IV, as well as illustrating which species use which habitats in **Table 2.5 of the HRA Stage 3 Report**. It is also agreed that the grazing marshes also contain a range of habitats, but the assessment is based on the recommendation from Natural England to format the HRA by assessing the habitat groupings rather than individual sub-features. Where there has been an adverse effect more detail of the site lost has been given in the Stage 4 Report (which is Appendix L of the SMP2 and will accompany the Final SMP2). It should also be noted that the HRA for this SMP2 is a high level assessment and we have used the available information, and further studies will be conducted where necessary.	E.Jolley	03.11.10

Page No.	Paragraph	Line	Comment	Name	Date	IWCCE Response	Name	Date
	General		We are concerned that statutory environmental issues have not been adequately addressed and this leaves the plan vulnerable to challenge.	Clive Chatters	18.10.10	We feel that the statutory environmental issues for both the SEA and HRA have been addressed and have been done so in accordance with the Habitats, Birds and SEA Directives, as well as the Habitats Regulations 2010, alongside guidance and much discussion with the CSG (which includes Natural England and the Environment Agency). Hopefully we have provided some clarity on some of the issues raised and pointed out where this information has been recorded. We have taken your comments on board (along with other stakeholders) by improving the presentation of information within the HRA Stage 3 Report (which will be re-issued for your information). Furthermore, subsequent to the Public Consultation stage of the SMP process Stage 4 of the HRA (i.e. IROPI and seeking compensation) and the Statement of Environmental Particulars to support the Final SMP2 are also to be produced, the latter of which is a summary of the environmental findings (SEA, HRA and WFDA) and how they have been incorporated along with consultation comments into the SMP2.		
RSPB								
	General		The RSPB welcomes the assessment work that has been undertaken in respect of the SMP, however we question whether the statutory requirements laid out under the Strategic Environmental Assessment (SEA) Regulations and, in particular, the Habitats Regulations have been fully met. For example, we note that a habitat group approach has been taken to the	Richard Black	22.10.10	Thank you for your comments, it may be a case of clarifying where this information can be found, which is given as follows. The HRA does in fact take into consideration the habitat types and their structure and function, as given in **Table 2.7 of the Stage 3 Report**, and discussed in the detailed tables for each PDZ within **Annex I-IV of the HRA report**.	E.Jolley	03.11.10

Page No.	Paragraph	Line	Comment	Name	Date	IWCCE Response	Name	Date
			assessment of impacts on the international sites and, while we broadly support this approach, the Habitats Regulations Assessment (HRA) and SEA must also assess the specific ecological function of the habitats affected by coastal policies. Key international site features, such as SPA bird feeding and roost sites must be carefully mapped and their importance to site integrity assessed.			Furthermore, the AA has recognised high tide roosting sites as being an important habitat component in its own right. The SMP has teased out this 'function' separately in the AA, as it was recognised as being important. The Isle of Wight SMP2 along with the North Solent SMP2 have been at the forefront in addressing/recognising/assessing high tide wader roost sites. Please refer to **Tables 2.8** and **6.2** of the Stage 3 HRA Report. Furthermore, the loss of the 31 hectares of coastal grazing marsh, its function and supporting species as a result of the policy suite in PU6C.5 (Yarmouth Mill and Thorley) is discussed in detail within **Appendix L of the SMP2** (Stage 4 of the HRA - which is about to be submitted to Defra, following support from Natural England).		

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	General		Where such features are considered essential to site integrity, there will be an imperative to maintain such features in situ. However, where this is not possible the Council must be able to identify the locations for the replacement of such features in order to ensure the coherence of the international sites.	Richard Black	22.10.10	Stage 3 of the HRA report is to conduct the Appropriate Assessment and states what was to happen next (refer to Section I8: Next Stage: Where to From Here?), which is Stage 4 of the HRA process - which is to: summarise the assessment of the negative effects on the sites; record the modifications or restrictions considered; test of Alternative Solutions; test for Imperative Reasons of Overriding Public Interest (IROPI); and identify the necessary Compensatory Measures. This has now been drafted following Public Consulation of the Final SMP2 and will be submitted to the Secretary of State shortly. Compensation for any habitat loss will be sought through the Environment Agency's Southern Regional Habitat Creation Programme, which is the Government's recommended vehicle for delivering strategic habitat compensation and are funded in advance of engineering works that cause damage. Therefore, no damage to a *Natura 2000 site (or network)* as a result of a policy can occur, prior to compensation being secured. Within the Appendix L (SMP2) report it is highlighted that it is essential that not only does 31 hectares of coastal grazing marsh need to be compensated for but also the same function and structure will need to be replaced so that it provides for the birds that will loose this habitat. Potential areas are identified within this report, since it is necessary for the RHCP to look within the vicinity of the lost habitat, before it looks further afield if it cannot be replaced nearby.	E.Jolley	03.11.10

Page No.	Paragraph	Line	Comment	Name	Date	IWCCE Response	Name	Date
	General		We appreciate the challenges of delivering replacement habitats at this scale, however, we are extremely concerned by the references to losses of habitat, for example the mudflats at Wootton Creek, as having no adverse effect on the designated sites. Not only has insufficient evidence been presented to support this conclusion at a site level, but the approach fails to consider the cumulative effects of small losses to habitat across the SPA as a result of the proposed coastal defence policies, and does not comply with the precautionary principle required by the Habitats Regulations.	Richard Black	22.10.10	Thank you for your comments, as a result of these (along with other stakeholders) we have clarified the summaries at PDZ level and for the island as a whole (i.e. cumulatively) by adding in tables to summarise the losses for each habitat grouping for each designated site (refer to the amended **Table 6.2** for the cumulative summary). We have also clarified our argument at Wootton Creek (and other locations where necessary), as we still believe and have the support of Natural England that there will be no adverse effect to the SPA or Ramsar site from the policy suite, since over the 100 year period there will be a loss of less than ca. 0.005ha per year, which will be indiscernible from the natural fluctuations within the system. Furthermore, the increase in mudflat habitat from the MR policy at Wootton Bridge will increase the available habitat, and Solent wide mudflat habitats will be increasing over the 100 year period.	E.Jolley	03.11.10

Page No.	Paragraph	Line	Comment	Name	Date	IWCCE Response	Name	Date
	General		We are further concerned that the policy unit assessments, in many cases, fail to clearly quantify the losses to the habitat groups at a PDZ level or to provide full details of the compensatory proposals which are required to offset losses to key coastal habitats as a result of SMP policies over the lifetime of the Plan, including lossesto intertidal and freshwater habitats, and losses to feeding and high tide roost sites. In addition, the effect of policies on seabird breeding sites, and whether any compensatory sites are necessary does not appear to have been considered.	Richard Black	22.10.10	As stated earlier, tables have been inserted within each PDZ summary to clearly present the losses and gains where quantified for each habitat type within each designation, along with stating whether an adverse effect on the site integrity has been included. The required compensatory habitat is presented in **Section I6 (Paragraph I6.1.9)**. The details of what exactly will need to be compensated for is then further detailed (i.e. the need for the coastal grazing marsh to fulfill the function of feeding areas for winter birds and high tide roosts) within the Stage 4 Report (which is to be presented in Appendix L of the SMP2) that will be issued to the Secretary of State. Furthermore, the AA has recognised high tide roosting sites as being an important habitat component in its own right. The SMP has teased out this 'function' separately in the AA, as it was recognised as being important. The Isle of Wight SMP2 along with the North Solent SMP2 have been at the forefront in addressing/recognising/assessing high tide wader roost sites. Please refer to **Tables 2.8** and **6.2** of the Stage 3 HRA Report.		
	General		Losses of SPA habitat will generally need to be replaced outside of the SPA network through a programme of compensatory measures, following assessment and justification under the Habitats Regulations. The competent authority will need to demonstrate that a suitable area of all compensatory SPA habitats can be delivered ahead of the predicted losses to maintain the coherence of the network.	Richard Black	22.10.10	Stage 4 of the HRA process is to: summarise the assessment of the negative effects on the sites; record the modifications or restrictions considered; test of Alternative Solutions; test for Imperative Reasons of Overriding Public Interest (IROPI); and identify the necessary Compensatory Measures.	E.Jolley	03.11.10

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			This includes compensation of designated freshwater habitats, such as coastal grazing marsh, of which we note that 30.9 ha of replacement habitat has yet to be identified. We recognise that in some places a policy of Hold the Line may be necessary but, in such cases, it is important that the HRA presents the case for 'no alternative solutions' and 'imperative reasons of overriding public interest'. This is necessary to demonstrate that the strict tests of the Habitats Regulations can be met which would then trigger the need to undertake compensatory measures. It is vital that the European sites are fully protected and that damage as a result of future coastal defence policy is only allowed in exceptionalcircumstances. This demands a robust, systematic and transparent approach to the key tests on alternativesolutions and imperative reasons of overriding public interest, and any resulting compensatory requirements.			This has now been drafted following Public Consulation of the Final SMP2 and will be submitted to the Secretary of State shortly, following support from Natural England to ensure that it complies with the strict tests of the Habitats Regulations 2010. Compensation for any habitat loss will be sought through the Environment Agency's Southern Regional Habitat Creation Programme, which is the Government's recommended vehicle for delivering strategic habitat compensation and are funded in advance of engineering works that cause damage. Therefore, no damage to a Natura 2000 site (or network) as a result of a policy can occur, prior to compensation being secured. The 31 hectares of coastal grazing marsh will be lost in Epoch 2, which gives us Epoch 1 to create the Habitat Managment Plan for the site and to secure and create the necessary habitat (along with the required structure and function that will be lost at Thorley and Barnsfield streams).		

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	General		We would also advise that where loss of habitat from coastal squeeze results from privately maintained defences there is still an obligation to provide mitigation or compensation. This is a particular concern where these defences may be at odds with the agreed preferred policy.	Richard Black	22.10.10	The HRA only assesses the policies of the SMP2 and not for privately maintained defences. Where there is a policy of NAI with a caveat that does not preclude the right for owners to maintain their own defences through private funding - the HRA has assessed the SMP2 and is under no obligation to provide mitigation or compensation. It will be the requirement of the private owners to prove that they will not be having an adverse effect on the designated sites and will have to provide information for an AA so that the maintenance works can be approved by the Council. However, that said, it will be included in the Statement of Environmental Particulars, those policies that are either NAI/MR where there are private defences that sit within nature conservation sites so that it is easily identifiable where there may be applications for maintenance works in the future.	E.Jolley	03.11.10
	General		In summary, to give the necessary level of assurance, we believe that the SMP and its HRA must commit to the following:• Predict, identify and monitor habitat losses resulting from SMP policies for all key coastal habitats.• Replace all priority habitat losses in a functionally like for like manner, at least on a 1:1 basis.• Maintain an audit, or balance sheet, for each habitat type, of:(i) European site habitat losses resulting from SMP policies and(ii) European site habitat gains.• Ensure that habitat gains at any time must exceed habitat losses.• Ensure that the suite of habitats created perform the necessary ecological functions to maintain the species for which the SPAs are designated.	Richard Black	22.10.10	The losses and gains have already been given within the HRA - Table 6.2 for a cumulative summary. Monitoring requirements are also given in the SEA and SMP2 Action Plan. Any lost BAP habitats will be replaced like for like (i.e. this is the case for the coastal grazing marsh). An audit, or balance sheet, for each habitat type has already been carried out, but this has been clarified and summarised in Table 6.2 of the HRA Report.		

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	General		The SMP also offers the prospect of contributing to UK Biodiversity Action Plan targets for habitats and species. This contribution should be assessed, and we would recommend the SMP process includes an assessment of potential BAP habitat gains and losses over the SMP's three epochs.	Richard Black	22.10.10	The BAP habitats have been assessed in the SEA, however they have not been quanitified, these can be extrapolated from those BAP habitats that sit within the international designations and extrapolated and presented in the Statement of Environmental Particulars - but no further work will be completed.	E.Jolley	03.11.10
	PDZ 1		**PDZ 1** - The RSPB recognises the need to Hold the Line at Newport to protect people and property. However, as you are aware, any losses to the extent of SPA habitat or features will need to be replaced. We note that an area of ca. 4.1 ha of land to the north of the Werrar Marsh has been suggested as mitigation for the loss of mudflat and sandflat in the inner estuary. However the proposed habitat re-creation is for mudflat and saltmarsh and it is not therefore clear that this will provide the same function as the habitat that will be lost. Further information is also required to demonstrate how tidal inundation of this site will affect the present SPA interest, and whether further compensationwill also be required.	Richard Black	22.10.10	Following communications with Natural England it has been deemed that the loss of mudflat within the Medina Estuary is actually a maximum of. 1.7ha over the 100 year period (which is ca. 0.017ha a year) less than previously assessed (i.e. 4.1ha) and that this loss of mudflat in the context of the amount of estuarine mudflat habitat within the SAC and the net increase in ca. 142 hectare of mudflats elsewhere in the SAC over the 100 year period (which will also have a similar habitat function in that they will be estuarine mudflats e.g. the gain within the Lymington estuary) means that the loss is not significant and will have no adverse effect on the integrity of the SAC. It would be difficult to discern this from the natural year round variation in tides, which could mask any potentially negligible loss, as well as from the natural changes that will occur in this estuary due to its steep topography and sea level rise. The amount of loss will be small and indiscernible from the natural variations within the estuary that the birds already experience. Furthermore, the areas that have HTL policies have not been identified as being important feeding areas for waders and waterfowl species. Additional habitat is also being created outside of the SPA (i.e. through the MR of Wootton Creek) which could provide additional nearby feeding habitats. It is therefore also been concluded that there will no adverse effect on the Solent and	E.Jolley	03.11.10

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						Southampton Water SPA.		
	PDZ 2		**PDZ 2** - The RSPB supports policies of No Active Intervention and Managed Realignment at Wootton Creek to improve the quality of the mudflats and saltmarsh. However we are concerned by the conclusion that the loss of intertidal mudflats at this site as the result of Hold The Line policies will have no adverse effect. While we accept that it is possible that gains in mudflats at King's Quay Creek may mitigate for this loss it must be ensured that the gains occur before the losses. Additionally it must also be ensured that the saltmarsh at King's Quay Creek is able to roll back as predicted. If this results in the saltmarsh rolling back beyond the boundary of the SPA this will become a case for compensation rather than mitigation and will require further assessment under the Habitats Regulations. We strongly disagree with the application of the de minimus principle for the habitat loss at Nettlestone Point.	Richard Black	22.10.10	The IW Mitigation Strategy estimated a minimum of 0.5 ha (maximum of 1 ha) loss of intertidal mudflats designated within the Solent and Southampton Water Ramsar site for the whole of Wootton Creek. However, this was estimated for the area when a HTL policy was for the entire of Wootton Creek, when now the only areas are policy units 2B.2, 2B.4, 2B.6 and 2B.7, which equates to about 30% of the entire Creek. Furthermore, PU2B.2 is fronted by designated mudflat, PU2B.4 by mudflat though only 11% of this unit is designated, PU2B.6 only has <50m stretch of designated mudflat since it is the ferry port, whilst only ca. 60% of PU2B.7 is designated, with ca. 40% mudflat habitat. Overall therefore, the loss of mudflat due to HTL policy within this management unit is likely to be significantly less than 0.5 ha over the 100 year period and this loss, which will mainly be within PU2B.2, will be difficult to discern from both the natural loss due to the steep topography of this small estuary with sea level rise and the natural fluctuations of the system over the 100 year period.		

Page No.	Paragraph	Line	Comment	Name	Date	IWCCE Response	Name	Date
						Therefore, it can be concluded that there will be no adverse effect on the integrity of the important wetland habitat of the mudflats that support internationally important wader species for the Solent and Southampton Water Ramsar site. Wootton Creek is used as a feeding ground by some internationally designated wader and waterfowl bird species protected by the Solent and Southampton Water SPA, though they are in this location, they do not occur in numbers of international importance. The combination of the loss of less than 0.5 ha mudflat within the Creek over 100 years (which is too small a rate of loss to affect bird populations), the creation of 15ha of improved feeding habitat in the vicinity as a result of the MR at Wootton Bridge (PU2B.3), and the increase in intertidal mud of 125ha more widely in the SPA, it is therefore very unlikely to affect the feeding of these bird species and thus it can be concluded to have no adverse effect on the integrity of the Solent and Southampton Water SPA. With regards to Kings Quay the defences that have previously existed in this location are no longer functional and therefore a policy of NAI will allow the small creek to continue to evolve naturally with sea level rise and therefore is the saltmarsh begins to shift landward of the SPA boundary this is beyond the implications of the SMP2 but rather as a result of natural change.	E.Jolley	03.11.10

Page No.	Paragraph	Line	Comment	Name	Date	IWCCE Response	Name	Date
	PDZ 3		**PDZ 3** - We welcome the proposals for Managed Realignment to restore the natural processes of the last substantial dune system on the Island, at St. Helen's Duver (PU3a.2). We believe that positive efforts to allow the seaward dune system to become mobile again are vital for the dunes and for protecting saltmarsh and mudflats behind. However this will not happen until the third epoch and we are concerned that the initial policy of Hold the Line will result in the loss of designated intertidal habitat. Again we disagree with the application of the de minimus principle. Mitigation or compensation should be sought resulting in, at the least, no net loss in area. We support the policy of Hold The Line at the Embankment Road (PU3A.4). The RSPB reserve at Brading Marshes is potentially one of the most extensive and valuable areas of freshwater grazing marsh in southern England. We believe that protecting this site from tidal inundation is necessary to protect the internationally important freshwater interests behind the defences. As a European designated site, the freshwater wetland would have to be replaced elsewhere if the defences were not maintained and it is difficult to see where and how this could be accomplished within the existing catchment, or indeed within the wider SPA area. We would like to see the importance of the designated freshwater marsh as a justification for this strategy clearly acknowledged in the SMP. Further, it is vital that the marshes are allowed to fulfil their designated Natura 2000 and Ramsar functions. The successful deliverance of the Water Level Management Plan is crucial and must be achieved if the decision to Hold The Line at Embankment Road is to be justified.	Richard Black	22.10.10	The application of 'de minimus' was applied and accepted by Natural England as part of the study conducted by Atkins for the Eastern Yar Flood and Erosion Management Strategy was completed in . Detailed analysis of the SPA interest features that use the sandflats within the SPA/Ramsar sites as a feeding grounds was recorded as being <0.1% (and <1% of the birds (waterfowl such as dark-bellied Brent geese and teal) within the study area), which was deemed as having no adverse effect to the integrity of the SPA and Ramsar site. Therefore, no mitigation or compensation is required.	E.Jolley	03.11.10

Page No.	Paragraph	Line	Comment	Name	Date	IWCCE Response	Name	Date
	PDZ 4		**PDZ 4** - Having viewed the new defences in the Castlehaven area (PU4B.2) we share the concerns of the Hampshire and Isle of Wight Wildlife Trust that the impacts of the new coastal defence on wildlife are not being monitored. We believe that this monitoring should be undertaken to a high standard to ensure that future decisions are undertaken with the fullest possible data.	Richard Black	22.10.10	Thank you for expressing your concern on this issue. It has been assessed that the HTL policy within PDZ will have no adverse effects on the international designations and therefore no mitigation or monitoring will be required. (P.Marsden:) However, with regards to the Castlehaven Coast Protection Scheme in place and the associated monitoring, these comments have some justification but relate to scheme specific management and should not influence the longer term management intent. Changes to the landowner have resulted in access issues, though there have been attempts to overcome these. This is an ongoing matter for the IWC to resolve.		
	PDZ 6		**PDZ 6** - The RSPB is concerned that no compensation has been identified for the loss of coastal grazing marsh from this stretch of coast.	Richard Black	22.10.10	The HRA Stage 3 Report is not required to identify the location of the compensatory habitat that will be needed, other than to state what is required (included its function and supporting species) and by when. Stage 4 of the HRA process (which will be in Appendix L of the SMP2) goes further into the needs of the compensatory habitat as part of the IROPI case to the Secretary of State, which will be sought through the Southern Regional Habitat Creation Programme and is the Government's dedicated resource for delivering strategic habitat compensation and are funded in advance of engineering works that cause damage. Within this report suggestions are made of the possible compensatory habitats within the vicinity of the loss.	E.Jolley	03.11.10

Page No.	Paragraph	Line	Comment	Name	Date	IWCCE Response	Name	Date
	PDZ 7		**PDZ 7** - The RSPB supports the policy of No Active Intervention for this zone as this policy approach will be beneficial to the intertidal habitats of the SPA and allow replacement of eroded habitats. However our support is conditional that mitigation measures for the saline lagoons are carried through. We question whether a firm commitment has been made to the necessary management of the saline lagoons in order maintain their integrity as a European site feature.	Richard Black	22.10.10	On further discussion with Natural England it has been deemed that the structures that support the historic salt pans and which are owned and managed by the National Trust since they are historic assets are not coastal or flood defences and therefore do not fall under the remit of the SMP2. Therefore, Newtown Estuary will continue to be undefended throughout and will evolve naturally with sea level rise with a continued policy of NAI throughout the 100 year period of the SMP2. Therefore, no mitigation measures are required. The necessary changes have been made within Section I5.4.43 and Table 7 of Annex I-IV of the HRA Stage 3 Report.		
Natural England								
			I wonder if a summary up front in document, setting this (2) out, would help the reader.	C.Lambert	28.10.10	A summary has been written for the HRA Stage 3 report - providing the relevant designations, the process, the findins of the AA and the next stage i.e. Stage 4 in Appendix L of the SMP2.	E.Jolley	02.11.10
	Section I7		Section I7 in combination: I have been advised by our legal team that 'in combination' not intended to be used to mitigate, and may not be best to describe in those terms. Better to say 1.7ha not adverse IOW SMP 'alone' because 1.7ha over 100 years very small rate of loss on IOW coast and within N2K site there will be a net increase over 100 years. Same thing but worded differently. This avoids complication in S17 of saying don't need to do 'in comb' because adverse alone but then do it to mitigate! This not critical if out of time.	C.Lambert	28.10.10	Changed according to recommendation	E.Jolley	02.11.10

Page No.	Paragraph	Line	Comment	Name	Date	IWCCE Response	Name	Date
	Section I7		While on 17 'in combination' change 'only if no adverse effect on integrity do in combination' to 'where an impact 'alone' is considered to be adverse there is no need to undertake 'in combination' assessment since the adverse effect will need to be fully offset, neutralising the adverse effect.' Note that Defra (Andy Tulley) has questioned this (5) use of the Habitat Regulations. NE SE Region (advised by legal team) happy but we (Chris M) following up with Defra. It's obvious so I am I'm confident we are right!	C.Lambert	28.10.10	Changed according to recommendation	E.Jolley	02.11.10
	I5.4.6		Info to inform aa: when assessing impacts as 'de minimus' here and elsewhere say the impact is over 100 years to bring that home- otherwise ob face of it los can seem more important. Eg again 15.4.9 nettlestone point 0.05 ha over 100 years	C.Lambert	28.10.10	Changed.	E.Jolley	02.11.10
	PDZ Habitat Change Tables		PDZ habitat change tables use an asterix to say if change adverse. This not very clear. If poss, but not essential, have separate colomb to indicate adverse effect at PDZ level, also could put note to explain the YES or NO.	C.Lambert	28.10.10	Added in another column which clearly shows whether there is an adverse effect at PDZ level.	E.Jolley	02.11.10
	I5.4.6		Info to inform: need to change Wootton Creek text, condition assessment changed to favourable since 0.5-1ha coastal squeeze over 100 years too small a rate of loss to affect bird populations.	C.Lambert	28.10.10	Changed.	E.Jolley	02.11.10
	I5.4.35		Newtown; Could you say more clearly that the wall protecting the lagoon is not a current flood protection structure. The coast here is undefended and so NAI continues that management hence any changes are natural change and not contrary to the conservation objectives. The loss of this lagoon over time is not an adverse effect as a consequence of SMP policy. The need to ensure continued representation of our range of habitats where lost through natural change will be achieved through BAP targets.	C.Lambert	28.10.10	Changed text so that it is more clear that there are no coastal or flood defences within Newtown Harbour - the salt pans are historic structures and have been maintained that way previously and are under the ownership of the National Trust.	E.Jolley	02.11.10

Page No.	Paragraph	Line	Comment	Name	Date	IWCCE Response	Name	Date
	I5.5 Title		15.5 title for table? Reads 'Where adverse effect on Integrity cannot be concluded'. This is not wrong to mean 'no adverse effect on integrity', but muddles the terminology making it difficult to understand. Please could the accepted terminology be used everywhere in the doca. A judgement of 'no adverse effect' is just that, it has to be confident to be made.b. The precautionary approach of Habs Regs, when not sure, is described when we say 'it cannot be concluded that there is not an adverse effect' to mean 'assume adverse effect as precaution', or if confident use words 'there is an adverse effect'.	C.Lambert	28.10.10	Changed.	E.Jolley	02.11.10
	PDZ 1 Summary		PDZ1 Medina: again note 1.7ha over 100 years as described in row 23 above - I think 1.7ha coastal squeeze mud over 100 years is probably not adverse alone for SAC in SMP, in context of increase in mud in SAC as a whole (see above). I am not inclined to change condition assessment to unfavourable on this basis. This text is less conflicting.	C.Lambert	28.10.10	Changed.	E.Jolley	02.11.10
	PDZ 6 Summary		PDZ 6 W Yar: 0.6ha inter-tidal SAC over 100 years not adverse, for SPA and ramsar mitigated by Thorely MR (you may have said this- sorry my notes not good here)	C.Lambert	28.10.10	I have not said that it will be mitigated by the opening up of Thorley as it is not adverse alone anyway.	E.Jolley	02.11.10
	Section I6 - Table I6.1		S16 SMP Level assessment: Table 16.1 title confusing, again clarify re 11 above.	C.Lambert	28.10.10	Changed to make the table clearer.	E.Jolley	02.11.10
	Section I5		Have a look and see if the presentation of assessment at PDZ level and N2k SMP level and N2k both SMP's could be made clearer- not essential.	C.Lambert	28.10.10	Tables have been added in at the end of each PDZ summary with the loss/gain calculated for the designated habitats.	E.Jolley	02.11.10
	General		Feeding and high tide roosts: If this is not a function in habitat groupings as per NS SMP then it should be added in- RSPB doesn't think its there??? I haven't looked just assumed was??	C.Lambert	28.10.10	This is in the report, as was in the NS SMP AA Report. This is in Table 2.5.	E.Jolley	02.11.10
	Table 6.2		We agreed that Thorely Brook would be added as a high tide roost even though not in the data you were given- extraordinary!	C.Lambert	28.10.10	This has been added to Tables 2.8 and 6.2 - it was discussed in the text just not mentioned in these tables.	E.Jolley	02.11.10

Page No.	Paragraph	Line	Comment	Name	Date	IWCCE Response	Name	Date
	General		Again change 'cannot be concluded that there will be an adverse effect' text	C.Lambert	28.10.10	Changed.	E.Jolley	02.11.10
	General - Tables/Figures		For your tables I have noticed that table/figure number for the actual table/figure has been deleted, yet the table/figure number is still referenced in the main body of text. Just check if this is actually intended.	T. Schindl	29.10.10	Checked all tables and figures and made sure they are all correct, as well as all the referencing within the text.	E.Jolley	02.11.10
	5.3.6		Finally, as stated within the IW Mitigation Strategy, though the losses of intertidal habitats along estuaries could be significant, the requirement for compensation habitat will not necessarily rise proportionately to habitat lost, as in many areas, topography (i.e. natural change), not coastal defences will be the principle constraint to the expansion of these features. Under such a scenario, this is considered natural change and thus not subject to assessment under the Habs regs..etc or something along these lines	T. Schindl	29.10.10	Added in text.	E.Jolley	02.11.10
	5.3.8		the 1st sentence even after re-reading, does not make sense. Should read 'where quantities of habitat loss and gain have been quoted as being/having been calculated...	T. Schindl	29.10.10	Corrected.	E.Jolley	02.11.10
	Title 5.4		For ease of reading, can the heading/ opening paragraph better 'describe' that this section of the AA assessment is at the PDZ level with reference to final 'island-wide' assessment being made in later part of report. I just found this focus at PDZ level starting with PDZ 2 to throw me (as a reader) a little.	T. Schindl	29.10.10	Text added for clarity.	E.Jolley	02.11.10
46	Table 5.2		The summing up of figures could confuse people, as they don't add up properly. I understand we are talking about very small approximations over each epoch, but it may be worth making this clear.	T. Schindl	29.10.10	The figures were originally given to 2 or 4 decimal points and it was brought up by QRG that I should round up to 0.5 hectare. I disagreed with up to that but to round up to 0.05 hectare - but this has meant sometimes the figures do not add up. Have amended where possible - or made a note for the reader.	E.Jolley	02.11.10

Page No.	Paragraph	Line	Comment	Name	Date	IWCCE Response	Name	Date
	5.4.16		With regards to the groyne. NE advises that in the context of the 'current management situation' of the harbour, the re-establishment of the groyne at Bembridge point can proceed (with private funds only). To make the arguement that a new groyne will be opposed in the future based on possible negative effects on 'natural processes' and not allowing that section of coast line to evolve and function naturally is inappropriate given the harbour is highly managed. In fact it may be that the groyne, could help to retain more sediment in the system as less may move in the navigation channel and thus require effort to dredge. Thus, whilst NE would prefer for Bembridge Point to evolve naturally, NE would not object to private money being spent to restablish a similar groyne, provided there would not be any significant adverse impacts stemming from the groyne.	T. Schindl	29.10.10	Amended text within Section I5.4.16	E.Jolley	02.11.10
	5.4.21		Perhaps you may want to re-iterate that some policy options where necessary for management of the site (i.e. protect the lagoons – with the strategy going into more detail how these will be managed in the future. I.e allowing a degree of over topping)????	T. Schindl	29.10.10	This is already discussed in Section I5.4.15.	E.Jolley	02.11.10
	5.4.27		Is this is the action plan? If not, are these comments necessary as part of the HRA?	T. Schindl	29.10.10	No it is not in the action plan and has therefore been removed.	E.Jolley	02.11.10
51			For the footers, there are 'spaces' missing in the sentence for footer No. 9.	T. Schindl	29.10.10	Amended text.	E.Jolley	02.11.10
	5.4.35		Are the NT defences still maintained? I thought they were redundant. My understanding for the argument for no adverse effect on the lagoons, was that the defences have ceased acting as defences are only relict structures. As such the loss of the lagoons was a direct of natural change and not a consequence of or lack of human intervention. I feel this section needs to reflect this better, especially the statement (at the start) of NT maintaining defences. This statement conflicts with the argument that change is recognised here as natural!	T. Schindl	29.10.10	Amended text - see comment in row 45.	E.Jolley	02.11.10

Page No.	Paragraph	Line	Comment	Name	Date	IWCCE Response	Name	Date
	5.5.5		(the text in red, for the last 2 sentences) – is it appropriate to make such a conclusion that birds displaced at Medina WILL go to wootton to feed! Can we make this assumption? In the end is this not all about the functionality of a site?? Furthermore, I question the appropriateness of using wootton creek, where in proceeding sections it is mentioned that not only is there a loss of 0.5 Ha but also a claim that birds don't use that estuary. This could sound a little inconsistent to readers!	T. Schindl	29.10.10	It is appropriate and was discussed and advised by Claire Lambert. The text ensures that it is consistent.	E.Jolley	02.11.10
56			Check your table numbering for tables and with the text . ****In addition, I have noticed you tables do not run in chronological order.	T. Schindl	29.10.10	Amended.	E.Jolley	02.11.10
	5.5.17		Reference to starlet anemone. This species inhabits saline lagoons. I wasn't aware this species was found in Thorley!?	T. Schindl	29.10.10	Reference removed.	E.Jolley	02.11.10
	5.5.18		Im confused. Will there be HTL here or something else that will impact the grazing marsh? If so, how can you conclude no adverse effect?	T. Schindl	29.10.10	HTL for PU6C.6 between Yarmouth and Bouldnor to maintain the road, which will prevent a sudden breach and saline intrusion of the grazing marshes from saline waters.	E.Jolley	02.11.10
	5.5.22		Draw attention to the fact the we are talking about compensating function and that this function would likely be required to be recreated near the site.	T. Schindl	29.10.10	Amended.	E.Jolley	02.11.10
	6.1.6		What about Thorley? Maybe I have missed something here, but I thought the grazing marsh here also served as a high tide wader feeding and roosting site? The claims made here contradict 6.1.5.	T. Schindl	29.10.10	Added in the importance of high tide roosts and grazing importance of the grazing marsh around Thorley and Barnsfield streams - Tables 6.2 and 2.8.	E.Jolley	02.11.10

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ANNEX I-IV: APPROPRIATE ASSESSMENT TABLES

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Annex I-IV: Table 1 – Appropriate Assessment for PDZ 1 (Cowes and Medina Estuary)

Policy Development Zone: 1			
SMP Habitat Grouping	**Potential Impact of Preferred Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
Solent Maritime SAC			
Estuaries	HTL in the outer Medina (heavily defended) is not expected to result in change to coastal processes. Strategy for the central Medina is generally NAI which will allow the estuary to respond to sea level rise. Over time, regular tidal flooding will occur and may see the extent of the estuary move inland, though inundation is confined by coastal topography along much of the estuary. The estuary feature will not only be maintained but policies of NAI will be beneficial for the estuary since saline inundation will occur and estuary components (e.g. mudflat and saltmarsh) will **not be adversely affected**.	No mitigation is required.	**YES**
Intertidal sediments (mudflat and sandflat)	The designated SAC intertidal sediments within the Medina Estuary only apply to management area MAN1B, since in MAN1A (where the policy is HTL) the designation only extends to MLWM and not the MHWM, therefore not protecting the intertidal sediments. The Medina Estuary is a steep-sided valley which would undergo natural loss of mudflats and saltmarsh in many locations with sea level rise. The HTL policies at the mouth of the estuary (Cowes and East Cowes; PU1A.4 and PU1A.5) as well as within the central estuary at West Medina Mills wharf (PU1B.2) and around Newport (PU1B.4) in the inner estuary are backed by rising land and therefore, even if the defences were not present the mudflats would be eventually be lost over time. Therefore, the HTL policy in the vicinity of Cowes and East Cowes is not considered to cause coastal squeeze. The policy of NAI in the inner Medina Estuary will allow the estuary to function more naturally, with mudflats eroding back where feasible (as discussed earlier, in many places they are constrained naturally by the steep topography, particularly on the west bank). The SAC boundary within the Medina is presently landward of any mudflat and saltmarsh habitats, which would allow natural roll back to still be within the International designation. The areas at risk of loss of intertidal sediments within the Medina Estuary (due to HTL policy causing coastal squeeze) is 0.54ha of SAC mudflat landward of the defences within PU1B.2 and 1.15ha of SAC mudflat landward of defences within PU1B.4 (these areas are the total areas of mudflat in front of the defences rather than what will actually be lost of the next 100 years). The total area of SAC mudflat within the estuary is 93 hectares. **The maximum amount of loss, 1.69ha, is 1.8% of the SAC habitat within the**	No mitigation required. Gains in intertidal sediments elsewhere in the SMP study area within the SAC have the possibility to cancel out this loss (this will be assessed in the cumulative assessment). Of interest there is potential to recreate mudflat and saltmarsh to the north of the Werrar Marsh since the SAC boundary goes beyond the existing saltmarsh area up to the road and presently covers arable land. The area that could potentially be created is ca. **4.1 ha**. In addition, outside of the Isle of Wight SMP2 area the North Solent SMP2 is gaining 125ha of mudflat habitat over the 100 year period, which will mitigate for the 1.69ha loss within the Medina Estuary (this mitigation has not been included in the 'alone' assessment).	**YES**

Policy Development Zone: 1			
SMP Habitat Grouping	**Potential Impact of Preferred Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
	Medina Estuary. This is deemed a small amount which will be difficult to discern from the natural changes that will occur with sea level rise due to the steep sided valley sides and therefore it is regarded to be '*de minimus*' since the loss will be ca. 0.0169 ha per year for the next 100 years. Therefore, it can be concluded that there will be **no adverse effect** on the integrity of the SAC.		
Coastal saltmarsh	The policy of NAI in the inner Medina Estuary will allow the estuary to function more naturally, with the areas of saltmarsh migrating back with increasing saline inundation where feasible (in many places they are constrained naturally by the steep topography, particularly on the west bank). HTL is the preferred option along two stretches of the inner estuary (West Medina Mills wharf and Newport Harbour) where defences are already in place. However, there is no saltmarsh habitat in front of the defences with a HTL policy, and therefore, there will be **no adverse effect** on the saltmarsh component of the SAC.	No mitigation is required. However, there is potential to recreate mudflat and saltmarsh to the north of the Werrar Marsh since the SAC boundary goes beyond the existing saltmarsh area up to the road and presently covers arable land. The area that could potentially be created is approximately **4.1 ha**.	**YES**
Solent and Southampton Water SPA			
Coastal saltmarsh	The policy of NAI in the inner Medina Estuary will allow the estuary to function more naturally, with the areas of saltmarsh migrating back with increasing saline inundation where feasible (in many places they are constrained naturally by the steep topography, particularly on the west bank). HTL is the preferred option along two stretches of the inner estuary (West Medina Mills wharf and Newport Harbour) where defences are already in place. However, there is no saltmarsh habitat to be squeezed in front of the defences with a HTL policy, and therefore, there will be **no adverse effect** on the integrity of the Solent and Southampton Water SPA.	No mitigation is required. However, there is potential to recreate mudflat and saltmarsh to the north of the Werrar Marsh since the SPA boundary goes beyond the existing saltmarsh area up to the road and presently covers arable land. The area that could potentially be created is approximately **4.1 ha**.	**YES**
Intertidal sediments (mudflat and sandflat)	The designated SAC intertidal sediments within the Medina Estuary only apply to management area MAN1B, since in MAN1A (where the policy is HTL) the designation only extends to MLWM and not the MHWM, therefore not protecting the intertidal sediments. The Medina Estuary is a steep-sided valley which would undergo natural loss of mudflats and saltmarsh in many locations with sea level rise. The HTL policies at the mouth of the estuary (Cowes and East Cowes; PU1A.4 and PU1A.5) as well as within the central estuary at West Medina Mills wharf (PU1B.2) and around Newport (PU1B.4) in the inner estuary are backed by rising land and therefore, even if the defences were not present the mudflats would be eventually be	No mitigation is required. However, there is potential to recreate mudflat and saltmarsh to the north of the Werrar Marsh since the SPA boundary goes beyond the existing saltmarsh area up to the road and presently covers arable land. The area that could potentially be created is approximately **4.1 ha**.	**YES**

Policy Development Zone: 1			
SMP Habitat Grouping	**Potential Impact of Preferred Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
	lost over time. Therefore, the HTL policy in the vicinity of Cowes and East Cowes is not considered to cause coastal squeeze. The policy of NAI in the inner Medina Estuary will allow the estuary to function more naturally, with mudflats eroding back where feasible (as discussed earlier, in many places they are constrained naturally by the steep topography, particularly on the west bank). The SAC boundary within the Medina is presently landward of any mudflat and saltmarsh habitats, which would allow natural roll back to still be within the International designation. The areas at risk of loss of intertidal sediments within the Medina Estuary (due to HTL policy causing coastal squeeze) is 0.54ha of SAC mudflat landward of the defences within PU1B.2 and 1.15ha of SAC mudflat landward of defences within PU1B.4 (these areas are the total areas of mudflat in front of the defences rather than what will actually be lost of the next 100 years). The total area of SAC mudflat within the estuary is 93 hectares. **The maximum amount of loss, 1.69ha, is 1.8% of the SAC habitat within the Medina Estuary** and in the context of the amount of estuarine mudflat habitat within the SAC and the net increase in ca. 142 hectare of mudflats elsewhere in the SAC over the 100 year period (which will also have a similar habitat function in that they will be estuarine mudflats e.g. the gain within the Lymington estuary over the next 100 years) means that the loss is not significant and is regarded as **no adverse effect** on the integrity of the SAC. However, this has the potential to affect the integrity of highly important feeding habitats for the Annex I species, the Mediterranean gull, as well as Brent Geese and migratory bird species such as black-tailed godwit and teal. However, the areas that have HTL policies have not been identified as being important feeding areas for waders and waterfowl species (see **Table 2.8** of the HRA). Furthermore, additional habitat is being created outside of the SPA (i.e. MR of Wootton Creek) that will provide additional feeding habitats nearby. It is therefore been deemed that there will **no adverse effect** on the Solent and Southampton Water SPA.		
Solent and Southampton Water Ramsar			
Coastal saltmarsh	The policy of NAI in the inner Medina Estuary will allow the estuary to function more naturally, with the areas of saltmarsh migrating back with increasing saline inundation where feasible (in many places they are constrained naturally by the steep topography, particularly on the west bank). HTL is the preferred option along two stretches of the inner estuary (West Medina Mills wharf and Newport Harbour) where	No mitigation is required. However, there is potential to recreate mudflat and saltmarsh to the north of the Werrar Marsh since the Ramsar boundary goes beyond the existing	**YES**

Policy Development Zone: 1			
SMP Habitat Grouping	**Potential Impact of Preferred Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
	defences are already in place. However, there is no saltmarsh habitat in front of the defences with a HTL policy, and therefore, there will be **no adverse effect** on the saltmarsh component (Criterion 2) of the Ramsar site, which is an internationally important wetland habitat (Criterion 1), nor affect the ability to support of waterfowl species (Criterion 5), thereby failing to adhere to the conservation objectives of the Ramsar site.	saltmarsh area up to the road and presently covers arable land. The area that could potentially be created is approximately **4.1 ha**.	
Intertidal sediments (mudflat and sandflat)	The designated SAC intertidal sediments within the Medina Estuary only apply to management area MAN1B, since in MAN1A (where the policy is HTL) the designation only extends to MLWM and not the MHWM, therefore not protecting the intertidal sediments. The Medina Estuary is a steep-sided valley which would undergo natural loss of mudflats and saltmarsh in many locations with sea level rise. The HTL policies at the mouth of the estuary (Cowes and East Cowes; PU1A.4 and PU1A.5) as well as within the central estuary at West Medina Mills wharf (PU1B.2) and around Newport (PU1B.4) in the inner estuary are backed by rising land and therefore, even if the defences were not present the mudflats would be eventually be lost over time. Therefore, the HTL policy in the vicinity of Cowes and East Cowes is not considered to cause coastal squeeze. The policy of NAI in the inner Medina Estuary will allow the estuary to function more naturally, with mudflats eroding back where feasible (as discussed earlier, in many places they are constrained naturally by the steep topography, particularly on the west bank). The Ramsar boundary within the Medina is presently landward of any mudflat and saltmarsh habitats, which would allow natural roll back to still be within the International designation. The areas at risk of loss of intertidal sediments within the Medina Estuary (due to HTL policy causing coastal squeeze) is 0.54ha of SAC mudflat landward of the defences within PU1B.2 and 1.15ha of mudflat landward of defences within PU1B.4 (these areas are the total areas of mudflat in front of the defences rather than what will actually be lost of the next 100 years). The total area of mudflat within the estuary is 93 hectares. **The maximum amount of loss, 1.69ha, is 1.8% of the Ramsar habitat within the Medina Estuary** and in the context of the amount of estuarine mudflat habitat within the SAC and the net increase in ca. 142 hectare of mudflats elsewhere in the SAC over the 100 year period (which will also have a similar habitat function in that they will be estuarine mudflats e.g. the gain within the Lymington estuary over the next 100 years) means that the loss is not significant and is regarded as having **no adverse effect** on the integrity of the Ramsar site. This is deemed a small amount which will be difficult to discern from the natural changes that will occur with sea level	No mitigation required. Gains in intertidal sediments elsewhere in the SMP study area within the Ramsar site have the possibility to cancel out this loss (this will be assessed in the cumulative assessment). Of interest there is potential to recreate mudflat and saltmarsh to the north of the Werrar Marsh since the Ramsar boundary goes beyond the existing saltmarsh area up to the road and presently covers arable land. The area that could potentially be created is ca. **4.1 ha**. In addition, outside of the Isle of Wight SMP2 area the North Solent SMP2 is gaining 125ha of mudflat habitat over the 100 year period, which will mitigate for the 1.69ha loss within the Medina Estuary (this mitigation has not been included in the 'alone' assessment).	**YES**

Policy Development Zone: 1			
SMP Habitat Grouping	**Potential Impact of Preferred Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
	rise due to the steep sided valley sides and therefore it is regarded to be '*de minimus*' since the loss will be ca. 0.0169 ha per year for the next 100 years. Therefore, it can be concluded that there will be **no adverse effect** on the integrity of the Ramsar site.		

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Annex I-IV: Table 2 – Appropriate Assessment for PDZ 2 (Ryde and North-east Coastline)

Policy Development Zone: 2			
SMP Habitat Grouping	**Potential Impact of Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
Solent Maritime SAC			
Estuaries	There is only one small estuary within this PDZ for the SAC, this is Kings Quay. The policy along this frontage is of NAI, which will ensure the estuary can develop naturally by migrating inland as sea levels rise without being constrained.	None required.	**YES**
Intertidal sediments (mudflats)	This SAC only covers where there is a policy of NAI from Osborne Bay to beyond King's Quay. The coastline will naturally migrate landward without being constrained and so therefore no effect on the intertidal sediments of this SAC.	None required.	**YES**
Coastal saltmarsh	There is only one area of saltmarsh within this SAC, which is within Kings Quay (ca. 5ha). The policy along this frontage is of NAI, which will ensure coastal saltmarsh can migrate inland as sea levels rise without being constrained.	None necessary.	**YES**
Intertidal sediments (Vegetated shingle)	There are two areas of vegetated shingle within the PDZ which are interest features of the SAC; these are a narrow band (0.7ha) on the upper foreshore of Osborne Bay and two areas on the small spits at King's Quay (0.27ha). Under a policy of NAI it is expected for there to be a continuing accumulation of material following local cliff reactivations updrift, with the unconstrained migration inland as sea levels rise.	None required.	**YES**
Solent and Southampton Water SPA			
Coastal saltmarsh	There are only two areas of saltmarsh within the SPA, which are within Kings Quay (ca. 5ha) and Wootton Creek (ca. 0.1ha). The policy along Kings Quay is of NAI, as is that within the stretch concerned in Wootton Creek, which will ensure the coastal saltmarsh can migrate inland as sea levels rise without being constrained. Neither site is of known importance for waders or dark-bellied Brent geese.	None required.	**YES**

Policy Development Zone: 2			
SMP Habitat Grouping	**Potential Impact of Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
Intertidal sediments (mudflat and sandflat)	There are large areas of sandflats (the most extensive in the Solent) within this PDZ, with the Ryde sandflats being of high importance for feeding by dark-bellied Brent geese and more than 90% of bar-tailed godwits found on the Isle of Wight coast. There are also areas of mudflats, particularly in Wootton Creek and along the front of Quarr and Binstead. Ryde Sands is sensitive to wave climate and will be vulnerable to the rising sea level and increased storminess. Sediment input by littoral drift from the south-east and west is likely to increase if adjacent shorelines erode and reactivate under this scenario, but the balance of sediment supply and movement is unclear. Exposed mudflats are important feeding and roosting grounds for internationally important migratory species such as black-tailed godwit, teal and ringed plover, which are interest features of the SPA. Policies of NAI and HTL apply variously along the coastline in PDZ 2, as well as MR. Under NAI there is potential for the coast to roll back, while under HTL coastal squeeze will occur with rising sea levels. The HTL policy along the Ryde frontage could mean loss in the extent of some sandflat habitat in the long term due to coastal squeeze. However, the area is sediment sink and is currently accreting, so sea level rise is not expected to cause coastal squeeze. In the long term it is unknown whether the area will continue to be a sediment sink (which in itself helps to defend Ryde from increasing wave action). It is therefore considered that it is likely there will be **no adverse effect on the integrity on the sandflats** which support the SPA interest features. HTL policies along various stretches within Wootton Creek are likely to result in some habitat loss from coastal squeeze as sea levels rise. The IW Mitigation Strategy predicted a minimum loss of <0.5ha (a maximum of 1 ha) of intertidal habitats within Wootton Creek over the 100 year period. This loss has the potential to affect the availability of feeding resources for regularly feeding migratory bird species. However, the creek is not known to have any important wader and waterfowl feeding sites (see **Table 2.8** of the HRA document), and combined with the creation of ca. 15ha of improved feeding habitat (mudflat and saltmarsh) through the MR policy at Wootton Bridge, and the increase in mudflat more widely within the SPA of 125ha on the north side of the Solent it has therefore been deemed that there will be **no adverse affect** on the integrity of the SPA.	No mitigation required.	**YES**

Policy Development Zone: 2			
SMP Habitat Grouping	**Potential Impact of Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
Subtidal marine habitats (seagrass)	Off Ryde Sands East there is an extensive seagrass bed that is an important intertidal food resource, particularly for dark-bellied Brent geese. This area falls under the HTL policy. The vast sand and mixed sediment spit is currently in favourable condition and it is this that provides the seagrass bed with protection in the shallow subtidal from the strong currents within the Solent. A continued HTL policy is not predicted to have an affect on the seagrass beds, thus maintaining the integrity of the food resource that support interest features of the SPA.	No mitigation required.	**YES**
Saline lagoons	The saline lagoons at Seaview (which are potentially important for a variety of bird species) are not expected to be impacted under HTL as they will be protected from saline intrusion by the maintenance and increase in protection of the defences that will protect the landward communities.	No mitigation required.	**YES**
Coastal grazing marsh	Coastal grazing marsh is an important habitat for the feeding and high tide roosting of internationally important bird species. There is a small amount of coastal grazing marsh around Quarr and Binstead. The frontage is presently undefended and a policy of NAI applies for the length of the SMP. The naturally formed vegetated shingle ridge seaward of the lagoons and marsh area protects the area from wave action. This area is likely to adapt with sea level rise, and SMP policy will have no adverse effect on the integrity of the site or its bird assemblages. There are also two areas of this habitat near Seaview (3.5 and 6.0 ha). The HTL policy and management of the culverts will maintain the saline conditions so as to prevent these historic habitats from changing, thus ensuring the integrity of the habitat continues to provide resources for internationally important migratory and over-wintering waterfowl.	No mitigation required.	**YES**
Solent and Southampton Water Ramsar			
Coastal saltmarsh	There are only two small areas of saltmarsh within the Ramsar site, which are within Kings Quay (ca. 5 ha) and Wootton Creek (ca. 0.1 ha). Saltmarshes are internationally important wetland areas that host rare, vulnerable and endangered species (Criterions 1 and 2). The policy along Kings Quay is of NAI, as is that within the stretch concerned in Wootton Creek, which will ensure the coastal saltmarsh can migrate inland as sea levels rise without being constrained. Neither site is of known importance for waders or dark-bellied Brent geese.	No mitigation required.	**YES**
Intertidal sediments (mudflat	There are large areas of sandflats (the most extensive in the Solent) within this PDZ,	No mitigation required.	**YES**

Policy Development Zone: 2			
SMP Habitat Grouping	**Potential Impact of Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
and sandflat)	with the Ryde sandflats being of high importance for feeding by dark-bellied Brent geese and more than 90% of bar-tailed godwits found on the Isle of Wight coast (Criterion 6). There are also areas of mudflats, particularly in Wootton Creek and along the front of Quarr and Binstead. Ryde Sands is sensitive to wave climate and will be vulnerable to the rising sea level and increased storminess. Sediment input by littoral drift from the south-east and west is likely to increase if adjacent shorelines erode and reactivate under this scenario, but the balance of sediment supply and movement is unclear. Exposed mudflats are important feeding and roosting grounds for internationally important migratory species such as black-tailed godwit, teal and ringed plover. Policies of NAI and HTL apply variously along the coastline in PDZ 2, as well as MR. Under NAI there is potential for the coast to roll back, while under HTL coastal squeeze will occur with rising sea levels. The HTL policy along the Ryde frontage could mean loss in the extent of some sandflat habitat in the long term due to coastal squeeze. However, the area is sediment sink and is currently accreting, so sea level rise is not expected to cause coastal squeeze. In the long term it is unknown whether the area will continue to be a sediment sink (which in itself helps to defend Ryde from increasing wave action). It is therefore considered that it is likely there will be **no adverse effect on the integrity on the sandflats** which will achieve the conservation objectives of the site to maintain wetlands that regularly support 1% or more of the individuals in a population of waterfowl species (Criterion 6). HTL policies along various stretches of mudflats within Wootton Creek are likely to result in some habitat loss from coastal squeeze as sea levels rise. The IW Mitigation Strategy predicted a minimum loss of <0.5 ha (a maximum of 1 ha) of intertidal habitats within Wootton Creek from the Solent and Southampton Water Ramsar site, though this was estimated for the area when HTL policy was for the entire of Wootton Creek, when now the only areas are 2B.2, 2B.4, 2B.6 and 2B.7. PU2B.2 is fronted by designated mudflat, PU2B.4 by mudflat though only 11% of this unit is designated, PU2B.6 only has <50m stretch of designated mudflat, whilst only ca. 60% of PU2B.7 is designated, with ca. 40% mudflat habitat. Overall therefore, **the loss of mudflat due to HTL policy** within this management unit is likely to be **less than 0.5 ha over the 100 year period** and this loss, which will mainly be within PU2B.2, will be difficult to discern from both the natural loss. Therefore, it can be concluded that there will be **no adverse effect** on the integrity of the important wetland habitat of the mudflats that support internationally important wader species for the Ramsar site.		

Policy Development Zone: 2			
SMP Habitat Grouping	**Potential Impact of Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
Subtidal marine habitats (seagrass, reefs, rocky shores)	Off Ryde Sands East there is an extensive area of shallow water colonised by seagrass species that provide an important intertidal food resource, particularly for dark-bellied Brent geese (Criterion 6). This area falls under the HTL policy. The vast sand and mixed sediment spit is currently in favourable condition and it is this that provides the seagrass bed with protection in the shallow subtidal from the strong currents within the Solent. A continued HTL policy is not predicted to have an affect on the seagrass beds, thus maintaining the integrity of the food resource that support important waterfowl species. There are limited intertidal rocky shore exposures in this PDZ, only at Nettlestone Point (1.5ha); this is an internationally important wetland area that is diverse in macroalgal species such as egg-wrack. This habitat will be constrained by a HTL policy as sea levels rise, as foreshore erosion that would exposure more rock would be prevented. The IW Mitigation Strategy predicted a **minimum potential loss of 0.02ha of rocky shore and adjacent sandy area** over the 100 year period within Seagrove Bay, however this has been deemed by Natural England as '***de minimus***' and will there will therefore be **no adverse effect**.	Any new defences or maintenance works on the upper foreshore around Nettlestone Point should be created out of rocky material (with sufficient heterogeneity) to provide for colonisation opportunities with sea level rise.	**YES**
Saline lagoons	The internationally important wetland habitat of saline lagoons at Seaview (which are potentially important for a variety of bird species) are not expected to be impacted under HTL. They will be protected from saline intrusion by the maintenance and increase in protection of the defences which will be protecting the surrounding communities and preventing saline intrusion of Nettlestone Stream.	No mitigation required.	**YES**
Briddlesford Copse SAC			
Woodland	This SAC comprises woodland habitat that supports Bechstein's bat, an Annex II species, for which the SAC was primarily designated. The bat uses the woodland for roosting, whilst feeding in the surrounding areas (ca. 5km radius). The MR policy at Wootton Bridge in the medium to long term has the potential to cause saline inundation of the woodland resulting in die-back. However, the area already experiences very periodic saline intrusion through managed culverts and sluices, however, the Old Mill Pond (part of Briddlesford Copses SSSI) is currently in unfavourable declining condition because of there is currently not enough saline intrusion to maintain the condition of the saltmarshes and mudflats. On this basis it is concluded that there is no potential for there to be an adverse effect on the SAC as a result of the SMP policy.	No mitigation required.	**YES**

Annex I-IV: Table 3 – Appropriate Assessment for PDZ 3 (Bembridge and Sandown Bay)

Policy Development Zone: 3			
SMP Habitat Grouping	**Potential Impact of Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
Solent and Isle of Wight Lagoons SAC			
Saline lagoons	Brading Marshes and the saline lagoons will be maintained under a HTL policy. The current embankment will hold for the next 30 years, following which the road will need to be raised to prevent a breach from occurring. Improved defences and drainage measures would ensure that the saline intrusion continued to be what it is presently so that the **integrity of these brackish habitats are not adversely effected**.	No mitigation required. Opportunities for artificial creation of new saline lagoons in the long term.	**YES**
South Wight Maritime SAC			
Vegetated sea cliffs	There is a series of actively eroding cliffs around MAN3B and MAN3C, with extensive stretches of intertidal sand, rock and shingle along the seaward foreshore. Large stretches of undefended coastline is subject to NAI, under which natural coastal processes will continue to erode the cliffs, thus exposing the Chalk and Bembridge Marls that is an important interest feature of the SAC. Where HTL is in place to protect assets (e.g. Foreland Fields) it is unlikely to cause interruption of coastal processes in the short to medium term on the short length (ca. 775m) of coastline, which could have otherwise had an adverse effect on the integrity of the South Wight Maritime SAC. A MR policy in the third epoch would however, ensure that natural coastal processes were allowed to act on the cliffs ensuring the integrity of the SAC was resumed in the long term.	Where there is a HTL policy, explore soft defence options once the life of the hard defences fails within the first epoch. For example, shingle replenishment which would slow the erosion rather than halt it completely, this would ensure that the integrity of the interest features would be maintained.	**YES**
Subtidal marine habitats (reefs, rocky shores)	There are extensive intertidal rocky platforms (known as the Bembridge ledges) and subtidal reefs around the headland of Bembridge that provide for highly diverse communities, particularly red algal communities and kelp (also designated as the Whitecliff Bay and St Helens Ledges SSSI). The headland is currently defended (e.g. Lane End and Foreland Fields) in a variety of capacities (incl. shingle replenishment), whilst Whitecliff Bay is undefended. NAI policies will allow the actively eroding cliffs to continue to erode, supplying sediment to the upper foreshore and exposing the Bembridge ledges so that sea level rise will not cause the extent of the intertidal exposures to decrease. In the short to medium term, the HTL policy around the headland of the Bembridge rocky shore ledges is predicted to hinder natural erosion processes erosion, and thus reduce the exposure of rocky	Explore soft defence options once the life of the hard defences fail within the first epoch. For example, shingle replenishment which would slow the erosion rather than halt it completely, this would ensure that the integrity of the interest features would be maintained (i.e. continue to be exposed). The effect of shingle replenishment on the integrity of the rocky ledges and	**YES**

Policy Development Zone: 3			
SMP Habitat Grouping	**Potential Impact of Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
	foreshore. With rising sea levels rise this could cause some degree of coastal squeeze and zonation change. However, the area of coastal squeeze is ca. 0.88ha (by the end of the second epoch), which is 0.004% of the South Wight Maritime SAC area. However, the exposure of these ledges is highly dynamic, particularly in the upper shore, where the movement of soft sediments changes diurnally, causing beach elevation and thus exposure of the chalk and clay bedrock to change on a regular basis (Royal Haskoning, 2010). Therefore, the area that could be constrained due to the defences and sea level rise is minimal and would not result in an adverse effect, based on the fact that it is within the natural fluctuations of this already dynamic environment. **Therefore, the integrity of the intertidal rocky ledges will not be adversely affected.** MR in the long term would ensure that coastal squeeze would not be an issue.	their communities would need to be established first.	
Solent and Southampton Water SPA			
Coastal saltmarsh	There is an area of coastal saltmarsh within Bembridge Harbour (ca. 9ha) behind St. Helens Duver and also a smaller area landward of the Embankment, both of which provide important feeding and high tide roosting habitat for significant numbers of waterfowl including dark-bellied Brent geese and teal, both of which are interest features of the SPA. The coastline in this area is subject variously to NAI, HTL and MR. The harbour is currently an accreting system with the potential for areas of habitat gain of saltmarsh as mudflats become increasingly colonised by saltmarsh species. A HTL policy would also maintain the saltmarsh habitat landward of the Embankment. Therefore it is unlikely that the feeding and roosting resource used by internationally important bird species will be affected.	No mitigation necessary.	**YES**
Intertidal sediments (mudflats and sandflats)	There are areas of mudflat located within Bembridge Harbour and sandflats fronting St. Helens Duver that are feeding grounds for large numbers of internationally important waterfowl such as dark-bellied Brent geese and teal. The harbour is an accreting system, and a HTL policy along St Helens will not result in coastal squeeze due to the net accretion regime of Bembridge Harbour (Environment Agency, 2010). HTL at The Duver, will however, cause some coastal squeeze of the intertidal sediments (sandflats), as well as preventing the dunes behind from rolling back. The sand dunes are presently being kept static by the defences either side of the spit. The study by Atkins for the Eastern Yar Flood and Erosion Management Strategy (EYS) estimated that by holding the line along The Duver will result in a small loss of 2.82ha of intertidal sand flat habitat due to coastal squeeze	There are no opportunities for improving existing mudflat areas within the harbour since they are all in favourable condition.	**YES**

Policy Development Zone: 3			
SMP Habitat Grouping	**Potential Impact of Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
	by 2055 (Environment Agency, 2010). Detailed analysis of the SPA interest features affected (waterfowl such as dark-bellied Brent geese and teal) using the sandflats within the SPA/Ramsar sites as a feeding grounds would be <0.1% (and <1% of the birds within the study area), which allowed this to be agreed by Natural England as a '*de minimus'* effect. In the long term, a MR policy will result in a more sustainable plan to manage the spit so that it can function more naturally and benefits the SPA. Therefore, there will be **no adverse effect on the integrity of the Solent and Southampton SPA**.		
Saline lagoons	There are saline lagoons landward of the Embankment in Bembridge Harbour, which are used as feeding habitats by the Annex I species, the Mediterranean gull. The current embankment will hold for the next 30 years, following which the road will need to be raised to prevent a breach from occurring. Improved defences and drainage measures would ensure that the saline intrusion continued to what it is presently so that the **integrity of these brackish habitats are not affected and thus do not adversely effect an interest feature of the SPA.**	No mitigation required. Opportunities for artificial creation of new saline lagoons in the long term.	**YES**
Solent and Southampton Water Ramsar			
Coastal saltmarsh	There is an area of coastal saltmarsh within Bembridge Harbour (ca. 9ha) behind St. Helens Duver and also a smaller area landward of the Embankment. Saltmarsh is recognised as an internationally important wetland habitat (Criterion 1) that can host rare, vulnerable and endangered species (Criterion 2), as well as providing important feeding and high tide roosting habitat for significant numbers of waterfowl including dark-bellied Brent geese and teal (Criterion 6). The coastline in this area is subject variously to NAI, HTL and MR. The harbour is currently an accreting system with the potential for areas of habitat gain of saltmarsh as mudflats become increasingly colonised by saltmarsh species. A HTL policy would also maintain the saltmarsh habitat landward of the Embankment. **Therefore it is unlikely that this wetland habitat that is used by internationally important bird species will be adversely affected**.	No mitigation necessary.	**YES**
Intertidal mudflat and sandflat	There are areas of mudflat located within Bembridge Harbour and sandflats fronting St. Helens Duver that are feeding grounds for large numbers of internationally important waterfowl such as dark-bellied Brent geese and teal (Criterion 6). The harbour is an accreting system, and a HTL policy along St Helens will not result in	There are no opportunities for improving existing mudflat areas within the harbour since they are all in favourable condition. There are	**YES**

Policy Development Zone: 3			
SMP Habitat Grouping	**Potential Impact of Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
	coastal squeeze due to the net accretion regime of Bembridge Harbour (Environment Agency, 2010). HTL at The Duver, will however, cause some coastal squeeze of the intertidal sediments (sandflats), as well as preventing the dunes behind from rolling back. The sand dunes are presently being kept static by the defences either side of the spit. The study by Atkins for the Eastern Yar Flood and Erosion Management Strategy (EYS) estimated that by holding the line along The Duver will result in a small loss of 2.84ha of intertidal sand flat habitat due to coastal squeeze by 2055 (Environment Agency, 2010). Detailed analysis of the SPA interest features using the sandflats within the SPA/Ramsar sites as a feeding grounds as being <0.1% (and <1% of the birds (waterfowl such as dark-bellied Brent geese and teal) within the study area), which allowed this to be agreed by Natural England as a 'de minimus' effect. In the long term, a MR policy will result in a more sustainable plan to manage the spit so that it can function more naturally and benefits the SPA. Therefore, there will be **no adverse effect on the integrity of the Solent and Southampton Ramsar site.**	however, possibilities for improving the condition of mudflats elsewhere within the SPA, such as in Wootton Creek.	
Intertidal and subtidal marine habitats (intertidal rocky shores)	There are extensive intertidal rocky platforms (known as the Bembridge ledges) around the headland of Bembridge that provide for highly diverse communities, particularly red algal communities and kelp (Criterion 1 of the Ramsar site; also designated as the Whitecliff Bay and St Helens Ledges SSSI). The headland is currently defended (e.g. Lane End and Foreland Fields) in a variety of capacities (incl. shingle replenishment), whilst Whitecliff Bay is undefended. NAI policies will allow the actively eroding cliffs to continue to erode, supplying sediment to the upper foreshore and exposing the Bembridge ledges so that sea level rise will not cause the extent of the intertidal exposures to decrease. A HTL policy will cause habitat loss of the rocky intertidal in the long term as sea levels rise and the shore is squeezed, under such conditions the area of subtidal reefs would increase in extent. However, the area of coastal squeeze is ca. 0.88ha (by the end of the second epoch), which is 0.004% of the designated area. The exposure of these ledges is highly dynamic, particularly in the upper shore, where the movement of soft sediments changes diurnally, causing beach elevation and thus exposure of the chalk and clay bedrock to change on a regular basis (Royal Haskoning, 2010). Therefore, the area that could be constrained due to the defences and sea level rise is minimal and would not result in an adverse effect, based on the fact that it is within the natural fluctuations of this already dynamic environment. **Therefore, the integrity of the intertidal rocky ledges will not be adversely affected** and the	Explore soft defence options once the life of the hard defences fail within the first epoch. For example, shingle replenishment which would slow the erosion rather than halt it completely, this would ensure that the integrity of the interest features would be maintained (i.e. continue to be exposed). The effect of shingle replenishment on the integrity of the rocky ledges and their communities would need to be established first.	**YES**

Policy Development Zone: 3			
SMP Habitat Grouping	**Potential Impact of Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
	objective of Criterion 1 in the short to medium will not be adversely affected. MR in the long term would ensure that coastal squeeze would not be an issue.		
Saline lagoons	There are saline lagoons landward of the Embankment in Bembridge Harbour, which support rare and scarce species lagoonal invertebrate fauna (Criterion 2), as well as being used as feeding habitats by the Annex I species, the Mediterranean gull (Criterion 6). The current embankment will hold for the next 30 years, following which the road will need to be raised to prevent a breach from occurring. Improved defences and drainage measures would ensure that the saline intrusion continued to what it is presently so that the **integrity of these brackish habitats are not affected and thus do not adversely effect an integrity of the Ramsar site.**	No mitigation required. Opportunities for artificial creation of new saline lagoons in the long term.	**YES**

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Annex I-IV: Table 4 – Appropriate Assessment for PDZ 4 (Ventnor and the Undercliff)

Policy Development Zone: 4			
SMP Habitat Grouping	**Potential Impact of Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
Isle of Wight Downs SAC			
Vegetated sea cliffs	There are no vegetated sea cliffs within this PDZ. This designation lies above the cliffs of Bonchurch and Ventnor and is lowland dwarf shrub heath and calcareous grassland, which is also the Ventnor Downs SSSI, and are features that were scoped out as not having the potential to be affected by the SMP policy.	No mitigation required.	**YES**
South Wight Maritime SAC			
Vegetated sea cliffs	The most important aspect of maintaining vegetated maritime cliffs and slopes is to maintain natural and geomorphological coastal processes without constraints. The majority of cliff habitat in PDZ4 is undefended and will be subject to NAI, allowing natural erosion and evolution of the cliff line to continue with no adverse effects. In most locations this process will gradually extend the widths of the boulder aprons at the foot of cliffed coastline. Where there is a policy of HTL to stabilise the cliffs along the Ventnor, Bonchurch and Castlehaven frontages (ca. 4.25km), coastal processes will be interrupted, preventing erosion and natural succession. However, in these built up areas there are no vegetated cliff features and thus there would be **no adverse affect the integrity of the Solent Maritime SAC**.	No mitigation required.	**YES**
Intertidal and subtidal marine habitats (reefs, rocky shores and sea caves)	There are no sea caves within this PDZ, so therefore their integrity will not be affected. The SMP will not halt the natural evolution of the nearshore reef along much of the PDZ coastline. The cliff line will continue to erode and thus contribute boulder/cobble to the features.	No mitigation required.	**YES**

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Annex I-IV: Table 5 – Appropriate Assessment for PDZ 5 (South-west Coastline)

Policy Development Zone: 5			
SMP Habitat Grouping	**Potential Impact of Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
Isle of Wight Downs SAC			
Vegetated sea cliffs	This section of coastline is undergoing rapid erosion, which would continue and accelerate under NAI. The policy will not result in the active intervention of coastal processes, enabling the integrity of this feature to continue.	No mitigation required.	**YES**
South Wight Maritime SAC			
Vegetated sea cliffs	This section of coastline is undergoing rapid erosion, which would continue and accelerate under NAI. The policy will not result in the active intervention of coastal processes, enabling the integrity of this feature to continue.	No mitigation required.	**YES**
Intertidal and subtidal rocky marine habitats (incl. sea cliffs)	This undefended coastline will be allowed to continue to evolve naturally under a NAI policy. The integrity of these interest features will therefore continue to be maintained.	No mitigation required.	**YES**

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Annex I-IV: Table 6 – Appropriate Assessment for PDZ 6 (West Wight)

Policy Development Zone: 6			
SMP Habitat Grouping	**Potential Impact of Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
Solent Maritime SAC			
Intertidal sediments (mudflats)	Intertidal mudflats are found extensively in the Western Yar Estuary. The wider policy for the Estuary is NAI, with HTL applying to smaller defended sections of coastline. Where there are NAI policies within the estuary the mudflats will be allowed to naturally erode the upper foreshore saltmarsh habitats without causing coastal squeeze on the saltmarshes since they can migrate inland, ensuring that there is habitat gain in pace with sea level rise. Where there are HTL policies there will be erosion of the saltmarsh into mudflat in the short to medium term, with potential for mudflat loss in the long term. The IW Mitigation Strategy predicted a minimum loss of 0.2670 ha of mudflat (0.539 ha combined mudflat and saltmarsh habitats) within the estuary for the SAC. It should be noted though that these figures are based on the section of defences at Thorley Brook (PU6C.5) being HTL for all three epochs, and therefore since it will only be HTL for the first epoch, then these figures could be reduced by at ca. 30% (which is to **ca. 0.202 ha loss of mudflats for the SAC over the 100 year period**). Therefore, it would be expected for a 0.045 ha loss of mudflat in the first epoch (25 years), followed by a loss of 0.063 in the second (30 years) and 0.094 in the third (50 years) epochs for the SAC. The small degree of loss of mudflat will be within the natural fluctuations of the ecosystem and indiscernible from natural losses, since for the Solent Maritime SAC the loss of this habitat equates to ca. 0.002 ha per year over the next 100 years. Therefore, it has been considered that this impact is *de minimus* and there will be no adverse effect on the integrity of the site. The MR policy in PU6C.5 in the second epoch would allow natural migration of the mudflat, however, the defences at the disused Yarmouth Mill, is the boundary of the SAC. Though the opening up of Thorley Brook and Barnfields Stream will result in a gain of mudflat and saltmarsh for the Solent and Southampton Water Ramsar and SPA it will not for the SAC. There will however, be a likely release of sediments from the MR policy which will help build up more mudflats within the existing Western Yar estuary. This is something that will need to be studied further to understand how the MR will benefit the rest of the estuary. Furthermore,	No mitigation necessary.	**YES**

Policy Development Zone: 6			
SMP Habitat Grouping	**Potential Impact of Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
	the condition of the mudflats fronting the Thorley Brook defences (12.39ha of mudflat and saltmarsh in Unit 30 of the Yar Estuary SSSI) are presently in unfavourable declining condition. Allowing landward saline intrusion would significantly improve the condition of mudflats as coastal squeeze would no longer be an issue. Overall, it is predicted that the preferred SMP policy suite for this PDZ will have **no adverse effect** on the integrity of the coastal saltmarsh interest feature of the SAC, since the small loss is over a 100 year period and will be indeterminable from natural changes that occur within the estuary.		
Coastal Saltmarsh	Extensive saltmarsh habitat is found within the Western Yar Estuary, including in the hinterland of Norton Spit. Norton Spit is protected by the HTL policy and no significant effect is expected on landward saltmarsh. Over time with sea level rise there will be increased erosion of the lower stands of saltmarsh within the estuary into mudflats. Where there are no landward defences, there will be landward migration of the upper levels of saltmarsh with increasing saline inundation, other than where the topography is too steep (which would not be as a result of the SMP policy). Where there are HTL policies, for example at The Causeway and around Yarmouth and Thorley Brook (in the short term) there will be loss of saltmarsh habitat due to landward constraint by defences and erosion into mudflats in the short to medium term. The IW Mitigation Strategy predicted a minimum loss of 0.2670 ha of saltmarsh (0.539 ha combined mudflat and saltmarsh habitats) within the estuary for the SAC. It should be noted though that these figures are based on the section of defences at Thorley Brook (PU6C.5) being HTL for all three epochs, and therefore since it will only be HTL for the first epoch, then these figures could be reduced by at ca. 30% (which is to **ca. 0.202ha loss of saltmarsh** for the SAC over the 100 year period). Therefore, it would be expected for a 0.045ha loss of saltmarsh in the first epoch (25 years), followed by a loss of 0.063ha in the second (30 years) and 0.094ha third (50 years) epochs for the SAC. The small degree of loss of saltmarsh will be within the natural fluctuations of the ecosystem and indiscernible from natural losses, since for the Solent Maritime SAC the loss of this habitat equates to ca. 0.002 ha per year over the next 100 years. Therefore, it has been considered that this impact is *de minimus* and there will be no adverse effect on the integrity of the site.	No mitigation necessary.	**YES**

Policy Development Zone: 6			
SMP Habitat Grouping	**Potential Impact of Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
	The MR policy in PU6C.5 in the second epoch would allow natural migration of the saltmarsh, however, the boundary of the SAC is in line with the defences at the disused Yarmouth Mill. Though the opening up of Thorley Brook and Barnfields Stream will result in a gain of mudflat and saltmarsh for the Solent and Southampton Water Ramsar and SPA, it will not for the SAC (see Annex I-I for illustrations). There will however, be a likely release of sediments from the MR policy that will help build up and stabilise saltmarsh areas within the existing Western Yar estuary. This is something that will need to be studied further to understand how the MR will benefit the rest of the estuary. Furthermore, the condition of the saltmarsh habitats fronting the Thorley Brook defences (12.39ha of mudflat and saltmarsh in Unit 30 of the Yar Estuary SSSI) are presently in unfavourable declining condition. Allowing landward saline intrusion would significantly improve the condition of mudflats as coastal squeeze would no longer be an issue. Overall, it is predicted that the preferred SMP policy suite for this PDZ will have **no adverse effect** on the integrity of the coastal saltmarsh interest feature of the SAC, since the small loss is over a 100 year period and will be indeterminable from natural changes that occur within the estuary.		
Intertidal sediments (Vegetated shingle)	There is a very small area of vegetated shingle that has accumulated amongst the timber groynes on Norton Spit. This area of coastline is subject to HTL. As the groynes currently keep shingle in place, maintenance of these defences would be expected to continue to retain shingle. The NAI policy between Sconce Point and Norton Spit would ensure there is a supply of sediments to increase the levels of this shingle habitat in pace with sea level rise. Therefore it is anticipated that there will be **no adverse effect** on the integrity of this interest feature of the SAC.	No mitigation required.	**YES**
South Wight Maritime SAC			
Vegetated sea cliffs	The vegetated sea cliff interest feature for this SAC exists within PU6A.1 and 6A.2. The NAI policy along the majority of these cliffs (PU6A.2) will ensure that natural processes will continue with no alteration to the integrity of the feature. A HTL policy at Freshwater Bay (a 0.28km stretch of coast) for three epochs, by maintaining and raising the level of the hard defences, will ensure that there is no tidal inundation up the Yar Valley, which would otherwise cause an adverse effect on the Freshwater	No mitigation required	**YES**

Policy Development Zone: 6			
SMP Habitat Grouping	**Potential Impact of Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
	Marshes SSSI. There are no vegetated sea cliffs within the bay of Freshwater and therefore the HTL policy will have **no adverse effect** on the vegetated cliffs of the South Wight Maritime SAC.		
Intertidal and subtidal marine habitats (reefs, rocky shores and caves)	The main areas of reef interest run from Freshwater Bay and around The Needles (chalk reefs) within PU6A.1 and 6A.2. This length of coastline is subject to an NAI policy. The NAI policy along the majority of these cliffs (PU6A.2) will ensure that natural processes will continue with no alteration to the integrity of the subtidal reefs, intertidal rocky exposure and sea cave feature. There are no intertidal rocky shores or sea caves within the HTL boundaries of Freshwater Bay, and therefore it is predicted that there will be **no adverse effect** on their integrity.	No mitigation required.	**YES**
Isle of Wight Downs SAC			
Vegetated sea cliffs	Vegetated sea cliff features for the Isle of Wight Downs SAC run along the PU6A.2, which is currently undefended and will continue with a NAI policy. Therefore there will be no obstruction to the coastal processes that erode these features, ensuring the integrity of the SAC is maintained.	No mitigation required.	**YES**
Solent and Southampton Water SPA			
Coastal Saltmarsh	Extensive saltmarsh habitat is found within the Western Yar Estuary, including in the hinterland of Norton Spit. The saltmarsh habitats are important for the roosting and feeding by the Mediterranean gull (Annex I species), as well as supporting migratory species and waterfowl. Norton Spit is protected by the HTL policy and no significant effect is expected on landward saltmarsh and subsequently as a functional habitat for bird species. Over time with sea level rise there will be increased erosion of the lower stands of saltmarsh within the estuary into mudflats. Where there are no landward defences, there will be landward migration of the upper levels of saltmarsh with increasing saline inundation, other than where the topography is too steep (which would not be as a result of the SMP policy). Where there are HTL policies, for example at The Causeway (all three	No mitigation necessary.	**YES**

Policy Development Zone: 6			
SMP Habitat Grouping	**Potential Impact of Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
	epochs), around Yarmouth (all three epochs) and Thorley Brook (in the short term) there will be loss of saltmarsh habitat due to landward constraint by defences and erosion into mudflats in the medium to long term. The IW Mitigation Strategy predicted a **minimum loss of 0.388ha (mudflat and saltmarsh)** over the next 100 years for within the Western Yar Estuary for the SPA. It should be noted though that these figures are based on the section of defences at Thorley Brook (PU6C.5) being HTL for all three epochs, and therefore since it will only be HTL for the first epoch, then these figures could be reduced by at ca. 30% (which is to **ca. 0.126ha loss of saltmarsh** for the SPA). Therefore, it would be expected for a 0.032ha loss of saltmarsh in the first epoch (25 years), followed by a loss of 0.045ha in the second (30 years) and 0.049ha third (50 years) epochs for the SPA. The small degree of loss of saltmarsh will be within the natural fluctuations of the ecosystem and indiscernible from natural losses, since for the Solent Maritime SAC the loss of this habitat equates to ca. 0.001 ha per year over the next 100 years. Therefore, it has been considered that this impact is *de minimus* and there will be **no adverse effect** on the integrity of the site. The MR/NAI policy in the second and third epochs in PU6C.5 will result in saline inundation of Thorley Brook and Barnfields Stream, thereby allowing migration and habitat gain of saltmarsh habitat (potential for a gain of 34.9 ha of saltmarsh and mudflat), which would benefit the international designation. Overall, it is predicted that the preferred SMP policy suite for this PDZ will have **no adverse effect** in either the short or long term on the integrity of the SPA interest features (i.e. wader and waterfowl such as teal, dark-bellied Brent geese and the Annex I Mediterranean gull) that use the coastal saltmarsh habitat for feeding and roosting.		
Intertidal sediments (mudflats)	Intertidal mudflats are found extensively in the Western Yar Estuary and are used for feeding at low tide by internationally important bird species. The wider policy for the Estuary is NAI, with HTL applying to smaller defended sections of coastline. Where there are NAI policies within the estuary the mudflats will be allowed to naturally erode the upper foreshore saltmarsh habitats without causing coastal squeeze on the saltmarshes since they can migrate inland, ensuring that there is habitat gain in pace with sea level rise. Where there are HTL policies there will be erosion of the saltmarsh into mudflat in the short to medium term, with potential for	No mitigation necessary.	**YES**

Policy Development Zone: 6			
SMP Habitat Grouping	**Potential Impact of Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
	mudflat loss in the long term. The IW Mitigation Strategy predicted a **minimum loss of 0.388ha over the 100 year period (combined mudflat and saltmarsh habitats)** within the estuary for the SPA. It should be noted though that these figures are based on the section of defences at Thorley Brook (PU6C.5) being HTL for all three epochs, and therefore since it will only be HTL for the first epoch, then these figures could be reduced by at ca. 30% (which is to **ca. 0.126ha loss of mudflat** for the SPA). Therefore, it would be expected for a 0.032ha loss of mudflat in the first epoch (25 years), followed by a loss of 0.045ha in the second (30 years) and 0.049ha third (50 years) epochs for the SPA. The small degree of loss of mudflat will be within the natural fluctuations of the ecosystem and indiscernible from natural losses, since for the Solent Maritime SAC the loss of this habitat equates to ca. 0.001 ha per year over the next 100 years. Therefore, it has been considered that this impact is *de minimus* and there will be **no adverse effect** on the integrity of the site. The NAI policy in PU6C.5 would allow natural migration of the mudflat and saltmarsh, with the creation of 34.9 ha in the long term, which would benefit the international designation. Furthermore, the condition of the mudflats fronting the Thorley Brook defences (12.39ha of mudflat and saltmarsh in Unit 30 of the Yar Estuary SSSI) are presently in unfavourable declining condition, allowing landward saline intrusion would significantly improve the condition of mudflats as coastal squeeze would no longer be an issue. Overall, it is predicted that the preferred SMP policy suite for this PDZ will have **no adverse effect** in either the short or long term on the integrity of the SPA interest features (i.e. teal, dark-bellied Brent geese, Mediterranean gull) that use the mudflat as a feeding resource.		
Saline lagoons	Under NAI the lagoon feature that supports SPA interest species (e.g. Mediterranean gull) as a feeding resource will be naturally lost (or migrate landwards), though not due to the SMP policy as there are no functioning defences.	Opportunities for MR could be investigated.	**YES**
Coastal grazing marsh	There are extensive areas of SPA designated coastal grazing marsh landward of Yarmouth that is used for feeding and roosting by internationally important migratory bird species and waterfowl. The coastline along the Yarmouth to Port la Salle frontage is subject to a HTL policy to maintain access. Therefore, the coastal grazing marshes would	Compensation opportunities: Investigate the options for potential landward migration of this habitat further up Thorley Brook and Barnfields Stream into	**NO**

Policy Development Zone: 6			
SMP Habitat Grouping	**Potential Impact of Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
	not be inundated by a sudden saline intrusion breach over the road and thus the integrity of the interest species would maintained from this policy. The HTL policy in Epoch 1 in PU6C.5 would also maintain the coastal grazing marsh habitat until 2025, however, the MR policy in the second epoch would result in the gradual saline inundation of the coastal grazing marshes and adjacent freshwater habitats, resulting in the succession largely by saltmarsh and mudflat (in the lower reaches of Thorley Brook), though this would allow sufficient time for the lost habitat to be created prior to it being lost. The NAI policy in the third epoch would mean the continued sustainability of the newly flooding area. The IW Mitigation Strategy predicted there would be a loss of at least 21.6ha of coastal grazing marsh as a result of any realignment of the defences at the disused Yarmouth Mill (i.e. Thorley Brook alone). This study has calculated a **loss of ca. 30.9 ha** for the flooding up Thorley and Barnsfield streams in **Epoch 2**. It should be noted that if saline intrusion is prevented from extending beyond Thorley Bridge (under the Thorley Road) then 13.1 ha of grazing marsh will be remain unaffected. The change in habitat from coastal grazing marsh that offer feeding grounds and high water roost sites for wildfowl would be gradually replaced by saltmarsh and mudflat. It is likely that the area would still provide an important feeding ground, and some bird species would adapt. However, there would be a loss of high tide roost sites, which would mean that there would be **an adverse effect** on the integrity of the SPA interest species that use this habitat.	adjacent land.	
Solent and Southampton Water Ramsar			
Coastal Saltmarsh	Extensive saltmarsh habitat is found within the Western Yar Estuary, including in the hinterland of Norton Spit. These saltmarsh habitats are recognised as being an internationally important wetland habitat (Ramsar Criterion 1) that contains at least two internationally scarce species of saltmarsh plant (Ramsar Criterion 2). The saltmarshes are important for the roosting and feeding by the Mediterranean gull (Annex I species), as well as supporting migratory species and waterfowl (Ramsar Criterion 5). Norton Spit is protected by the HTL policy and no significant effect is expected on landward saltmarsh and subsequently as a functional habitat for bird species. Over time with sea level rise there will be increased erosion of the lower stands of saltmarsh within the estuary into mudflats.	No mitigation necessary.	**YES**

Policy Development Zone: 6			
SMP Habitat Grouping	**Potential Impact of Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
	Where there are no landward defences, there will be landward migration of the upper levels of saltmarsh with increasing saline inundation, other than where the topography is too steep (which would not be as a result of the SMP policy). Where there are HTL policies, for example at The Causeway and around Yarmouth and Thorley Brook (in the short term) there will be loss of saltmarsh habitat due to landward constraint by defences and erosion into mudflats in the short to medium term. The IW Mitigation Strategy predicted a **minimum loss of 0.388ha (mudflat and saltmarsh) over the next 100 years** for within the Western Yar Estuary. It should be noted though that these figures are based on the section of defences at Thorley Brook (PU6C.5) being HTL for all three epochs, and therefore since it will only be HTL for the first epoch, then these figures could be reduced by at ca. 30% (which is to **ca. 0.126ha loss of saltmarsh** for the SPA). Therefore, it would be expected for a 0.032ha loss of saltmarsh in the first epoch (25 years), followed by a loss of 0.045ha in the second (30 years) and 0.049ha third (50 years) epochs for the Ramsar site. The small degree of loss of saltmarsh will be within the natural fluctuations of the ecosystem and indiscernible from natural losses, since for the Solent Maritime SAC the loss of this habitat equates to ca. 0.001 ha per year over the next 100 years. Therefore, it has been considered that this impact is *de minimus* and there will be **no adverse effect** on the integrity of the site. The MR/NAI policy in the second and third epochs in PU6C.5 will result in saline inundation of Thorley Brook and Barnfields Stream, thereby allowing the managed migration and habitat gain of saltmarsh habitat (potential for a gain of ca. 34.9 ha of saltmarsh and mudflat), which would benefit the international designation. Overall, it is predicted that the preferred SMP policy suite for this PDZ will have **no adverse effect** in either the short or long term on the integrity of the Ramsar interest features i.e. the wetland habitat or the species that use it for feeding and roosting.		
Intertidal sediments (mudflats)	Intertidal mudflats, an internationally important wetland habitat (Ramsar Criterion 1) are found extensively in the Western Yar Estuary and are used for feeding at low tide by bird species at levels of international importance (Criterion 5). The wider policy for the Estuary is NAI, with HTL applying to smaller defended sections of coastline. Where there are NAI policies within the estuary the mudflats will be allowed to naturally erode the upper foreshore	No mitigation necessary.	**YES**

Policy Development Zone: 6			
SMP Habitat Grouping	**Potential Impact of Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
	saltmarsh habitats without causing coastal squeeze on the saltmarshes since they can migrate inland, ensuring that there is habitat gain in pace with sea level rise. Where there are HTL policies there will be erosion of the saltmarsh into mudflat in the short to medium term, with potential for mudflat loss in the long term. The IW Mitigation Strategy predicted a **minimum loss of 0.388ha over the 100 year period (combined mudflat and saltmarsh habitats)** within the estuary for the SPA. It should be noted though that these figures are based on the section of defences at Thorley Brook (PU6C.5) being HTL for all three epochs, and therefore since it will only be HTL for the first epoch, then these figures could be reduced by at ca. 30% (which is to **ca. 0.126ha loss of mudflat** for the SPA). Therefore, it would be expected for a 0.032ha loss of mudflat in the first epoch (25 years), followed by a loss of 0.045ha in the second (30 years) and 0.049ha third (50 years) epochs for the Ramsar site. The small degree of loss of mudflat will be within the natural fluctuations of the ecosystem and indiscernible from natural losses, since for the Solent Maritime SAC the loss of this habitat equates to ca. 0.001 ha per year over the next 100 years. Therefore, it has been considered that this impact is *de minimus* and there will be **no adverse effect** on the integrity of the site. The HTL/MR/NAI policy suite in PU6C.5 would allow a managed migration of the mudflat and saltmarsh in Epoch 2, with the creation of ca. 34.9 ha in the long term, which would benefit the international designation. Furthermore, the condition of the mudflats fronting the Thorley Brook defences (12.39ha of mudflat and saltmarsh in Unit 30 of the Yar Estuary SSSI) are presently in unfavourable declining condition, allowing landward saline intrusion would significantly improve the condition of mudflats as coastal squeeze would no longer be an issue. Overall, it is predicted that the preferred SMP policy suite for this PDZ will have **no adverse effect** in either the short or long term on the integrity of the Ramsar interest features i.e. the wetland habitat or the species that use it for feeding and roosting.		
Saline lagoons	Under NAI the lagoon feature (an internationally important wetland habitat – Ramsar Criterion 1) that supports SPA interest species (e.g. Mediterranean gull – Ramsar Criterion 5) as a feeding resource will be lost, though not due to the SMP policy as the defences have not been functioning for some time.	Opportunities for MR could be investigated.	**YES**

Policy Development Zone: 6			
SMP Habitat Grouping	**Potential Impact of Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
Coastal grazing marsh	There are extensive areas of coastal grazing marsh (an internationally important wetland habitat – Ramsar Criterion 1) landward of Yarmouth that is used for feeding and roosting by migratory bird species and waterfowl occurring at levels of international importance (Ramsar Criterion 6). The coastline along the Yarmouth to Port la Salle frontage is subject to a HTL policy to maintain access. Therefore, the coastal grazing marshes would not be inundated by a sudden saline intrusion from a breach and thus the integrity of the interest species would maintained as a result of this particular policy. The HTL policy in Epoch 1 in PU6C.5 would also maintain the coastal grazing marsh habitat until 2025, however, the MR policy in PU6C.5 in Epoch 2 would result in the managed gradual saline inundation of the coastal grazing marshes and adjacent freshwater habitats, resulting in the succession largely by saltmarsh and mudflat (in the lower reaches of Thorley and Barnsfield stream). This would allow sufficient time for the lost habitat to be created prior to it being lost. The NAI policy in Epoch 3 would mean the continued sustainability of the newly flooding area. The IW Mitigation Strategy predicted there would be a loss of at least 21.6ha of coastal grazing marsh as a result of any realignment of the defences at the disused Yarmouth Mill (Thorley stream alone), and this study has calculated a **loss of ca. 30.9 ha in Epoch 2** for the flooding up Thorley and Barnsfield streams in **Epoch 2**. It should be noted that if saline intrusion is prevented from extending beyond Thorley Bridge (under the Thorley Road) then 13.1 ha of grazing marsh will be remain unaffected. This will mean **an adverse effect on the integrity of the Ramsar wetland and the plant and invertebrate species** that they support, though not the birds species since they will be able to adapt to the new feeding and roost sites over time. It will therefore be necessary to **compensate for this 30.9 ha loss**, as there is no capacity to mitigate for such a loss within the existing Ramsar boundaries.	Compensation opportunities: Investigate the options for potential landward migration of this habitat further up Thorley Brook and Barnfields Stream into adjacent land.	**NO**

Annex I-IV: Table 7 – Appropriate Assessment for PDZ 7 (North-West Coastline)

Policy Development Zone: 7			
SMP Habitat Grouping	**Potential Impact of Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
Solent Maritime SAC			
Estuaries	Newtown Estuary will evolve naturally under the NAI scenario and estuary feature will be retained. Expect erosion/breach of protective spits and increased wave penetration over the epochs. **No adverse effect on the integrity of the interest feature of the SAC. Long term benefits for the geomorphological and biodiversity of the area.**	No mitigation required.	**YES**
Intertidal sediments (mudflat and sandflat)	These habitat are associated around and within Newtown Estuary and along the foreshore to Thorness Bay. Under a policy of NAI the coastline will be able to evolve naturally with inland migration keeping pace with sea level rise. Therefore, there will be **no adverse effect on the integrity of these interest features of the SAC** as a result of the SMP policy.	No mitigation required.	**YES**
Coastal saltmarsh	This habitat and interest feature of the SAC is extensive within Newtown Estuary, with a small area at the entrance to Thorness Bay. Under a NAI policy along the entirety of this PDZ the saltmarsh habitats will be able to evolve naturally, migrating landward with increasing saline inundation as sea levels rise. Therefore, there will be **no adverse effect on the integrity of this interest feature of the SAC** as a result of the SMP policy.	No mitigation required.	**YES**
Saline lagoons	There are two areas of saline lagoons within the undefended Newtown Estuary, both of which are historic salt pans (held by privately maintained National Trust structures that form part of the salt pans – though these are not flood defence structures). The SMP policy is of NAI, which will allow the harbour and estuary to continue to evolve naturally with sea level rise, with the likelihood of increasing saline inundation of the lagoons, with increasing siltation in the medium to long term. There is also a strong possibility that other saline lagoons may form naturally elsewhere in the harbour over time with sea level rise, since the conditions within the harbour are conducive to do so. Therefore, there will be **no adverse effect on the integrity of this interest feature of the SAC** since saline lagoons are ephemeral in nature. The fact that the salt pans are supported	No mitigation required.	**YES**

Policy Development Zone: 7			
SMP Habitat Grouping	**Potential Impact of Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
	by historic structures owned by the National Trust is of interest (and of the same nature that the SMP has treated private defences) and by holding them in the past has held the saline lagoons in an unnatural equilibrium so if they fail they will become increasingly more natural. The management of these salt pans is outwith of the SMP2 policy.		
Intertidal sediments (vegetated shingle)	There are small areas of vegetated shingle along the western spit of Newtown Harbour (known as Hamstead Duver), as well as on the eastern spit (known as Fish House Point). Erosion or retreat/rollback of the spit is expected to continue and vegetated shingle habitat on the seaward side of the spit will migrate landward. Therefore, the NAI policy will **not have an adverse effect on the integrity of the SAC feature**.	No mitigation required.	**YES**
Solent and Southampton Water SPA			
Coastal saltmarsh	This saltmarsh habitat supports important interest species of the SPA in providing important feeding sites for dark-bellied Brent geese and roosting sites for waders (Footprint Ecology, 2010). Under a NAI policy along the entirety of this PDZ the saltmarsh habitats will be able to evolve naturally, migrating landward with increasing saline inundation as sea levels rise. Therefore, there will be **no adverse effect on the integrity of these SPA interest features using the saltmarshes** as a result of the SMP policy.	No mitigation required.	**YES**
Intertidal sediments (mudflat and sandflat)	These habitats provide important feeding resources for migratory species, waterfowl and the Mediterranean gull (Annex I species), and are associated around and within Newtown Estuary and along the foreshore to Thorness Bay. Under a policy of NAI the coastline will be able to evolve naturally with inland migration keeping pace with sea level rise. Therefore, there will be **no adverse effect on the integrity of these SPA interest features that use these mudflats** as a result of the SMP policy.	No mitigation required.	**YES**
Saline lagoons	There are two areas of saline lagoons within the undefended Newtown Estuary, both of which are historic salt pans (held by privately maintained National Trust structures that form part of the salt pans – though these are not flood defence structures). These saline lagoons are important feeding grounds for the Mediterranean gull, which is an Annex I species for which the SPA is designated. The SMP policy is of NAI, which will allow the harbour and estuary to continue to evolve naturally with sea level rise, with	No mitigation required.	**YES**

Policy Development Zone: 7			
SMP Habitat Grouping	**Potential Impact of Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
	the likelihood of increasing saline inundation of the lagoons, with increasing siltation in the medium to long term. There is also a strong possibility that other saline lagoons may form naturally elsewhere in the harbour over time with sea level rise, since the conditions within the harbour are conducive to do so. It is unlikely that this would affect the overall extent of the feeding resources available to the SPA interest features within the Newtown Estuary. Therefore, it is possible to conclude there will be **no adverse effect on the integrity of this interest feature of the SPA** since saline lagoons are ephemeral in nature. The fact that the saline lagoons are supported by historic structures owned by National Trust is of interest (and of the same nature that the SMP has treated private defences) and by holding them in the past has held the saline lagoons in an unnatural equilibrium so if they fail they will become increasingly more natural. The management of these salt pans is outwith of the SMP2 policy.		
Intertidal sediments (vegetated shingle)	There are small areas of vegetated shingle along the western spit of Newtown Harbour (known as Hamstead Duver), as well as on the eastern spit (known as Fish House Point). This habitat is an important roosting habitat for some of the SPA interest species. Natural evolution of the spit will continue with migration inland and continued accretion from the downdrift release of sediments from the eroding soft cliffs of Bouldnor. Therefore, the NAI policy will **not have an adverse effect on the integrity of the SAC feature**.	No mitigation required.	**YES**
Freshwater habitats	There is a small area of club rush swamp in Thorness Bay which could potentially be an important roosting and feeding site for waterfowl assemblages designated under the SPA. Under a policy of NAI, natural evolution will continue, with landward migration as the sea level rises. There will be **no adverse affect on the SPA interest species as a result of the SMP policy**.	No mitigation necessary.	**YES**
Solent and Southampton Water Ramsar			

Policy Development Zone: 7			
SMP Habitat Grouping	**Potential Impact of Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
Coastal saltmarsh	This saltmarsh habitat (an internationally important wetland habitat – Ramsar Criterion 1) is used for feeding and roosting by migratory bird species and waterfowl occurring at levels of international importance (Ramsar Criterion 6). Under a NAI policy along the entirety of this PDZ the saltmarsh habitats will be able to evolve naturally, migrating landward with increasing saline inundation as sea levels rise. Therefore, there will be **no adverse effect on the integrity of the Ramsar interest features** as a result of the SMP policy.	No mitigation required.	**YES**
Intertidal sediments (mudflat and sandflat)	Intertidal mudflats, an internationally important wetland habitat (Ramsar Criterion 1) are found extensively in the Newtown Estuary and along the foreshore of Thorness Bay and are used for feeding at low tide by bird species at levels of international importance (Criterion 5). Under a policy of NAI the coastline will be able to evolve naturally with inland migration keeping pace with sea level rise. Therefore, there will be **no adverse effect on the integrity of the Ramsar interest** as a result of the SMP policy.	No mitigation required.	**YES**
Saline lagoons	There are two areas of saline lagoons within Newtown Estuary, both of which are historic salt pans (held by privately maintained National Trust structures that form part of the salt pans – though these are not flood defence structures). These saline lagoons (an internationally important wetland habitat – Ramsar Criterion 1) are important feeding grounds for the Mediterranean gull. The SMP policy is of NAI, , which will allow the harbour and estuary to continue to evolve naturally with sea level rise, with the likelihood of increasing saline inundation of the lagoons, with increasing siltation in the medium to long term. There is also a strong possibility that other saline lagoons may form naturally elsewhere in the harbour over time with sea level rise, since the conditions within the harbour are conducive to do so. It is unlikely that this would affect the overall extent of the feeding resources available to the bird species that are designated as interest features of the Ramsar site that use the saline lagoons within the Newtown Estuary. It is therefore possible to conclude there will be **no adverse effect on the integrity of this interest feature of the Ramsar site** since saline lagoons are ephemeral in nature. The fact that the salt pan supporting structures that are owned by the National	No mitigation required.	**YES**

Policy Development Zone: 7			
SMP Habitat Grouping	**Potential Impact of Policy**	**Mitigation Opportunities**	**Conclude no adverse affect on integrity?**
	Trust is of interest (and of the same nature that the SMP has treated private defences) and by holding them in the past has held the saline lagoons in an unnatural equilibrium so if they fail they will become increasingly more natural. The management of these salt pans is outwith of the SMP2 policy.		
Freshwater habitats	There is a small area of club rush swamp in Thorness Bay which is a designated feature of the Ramsar site (Criterion 1) and could potentially be an important roosting and feeding site for waterfowl assemblages designated. Under a policy of NAI, natural evolution will continue, with landward migration as the sea level rises. There will be **no adverse affect on the Ramsar wetland habitat or the species that use it as a result of the SMP policy**.	No mitigation necessary.	**YES**
Coastal grazing marsh	There is a small area of coastal grazing marsh (ca. 9ha) on the south side of Newtown Estuary. This is a designated feature of the Ramsar site (Criterion 1). The NAI policy will allow natural evolution, with migration landward as saline inundation increases with sea level rise. The SMP policy will have **no adverse effect on the integrity of the Ramsar site.**	No mitigation necessary.	**YES**

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ANNEX I-V: RELEVANT POLICY UNITS WITH POTENTIAL TO EFFECT INTERNATIONAL SITES

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Table 1 **Proposed policies per policy unit, per epoch, and relevant habitat groupings for Solent Maritime SAC**

Policy Unit	Epoch 1 (0-20)	Epoch 2 (20-50)	Epoch 3 (50-100)	Relevant Habitat Groupings
HTL= Hold The Line; ATL = Advance The Line; MR = Managed Realignment; NAI = No Active Intervention				
PU1A1.1	HTL	NAI	NAI	*N/A*
PU1A1.2	NAI	NAI	NAI	*N/A*
PU1A1.3	HTL	HTL	HTL	*N/A*
PU1A1.4	HTL	HTL	HTL	Estuaries
PU1A1.5	HTL	HTL	HTL	Estuaries, intertidal sediments (mudflats, sand banks)
PU1A1.6	HTL	NAI	NAI	Intertidal sediments (sand banks)
PU1B.1	NAI	NAI	NAI	Estuaries, intertidal sediments (mudflats), coastal saltmarsh, freshwater habitats
PU1B.2	HTL	HTL	HTL	Estuaries, intertidal sediments (mudflats), freshwater habitats
PU1B.3	NAI	NAI	NAI	Estuaries, intertidal sediments (mudflats)
PU1B.4	HTL	HTL	HTL	Estuaries, intertidal sediments (mudflats), coastal saltmarsh
PU1B.5	NAI	NAI	NAI	Estuaries, intertidal sediments (mudflats)
PU2A.1	NAI	NAI	NAI	Intertidal sediments (mudflats, sand banks, vegetated shingle), coastal saltmarsh
PU6B.5	HTL	NAI	NAI	Intertidal sediment (mudflats, sand dunes), coastal saltmarsh, saline lagoons
PU6C.3	HTL	HTL	HTL	Coastal saltmarsh, intertidal sediment (mudflats, sandflats)
PU6C.4	NAI	NAI	NAI	Coastal saltmarsh, intertidal sediments (mudlats)
PU6C.5	HTL	MR	NAI	Coastal saltmarsh, intertidal sediment (mudflats, sandflats), coastal grazing marsh
PU6C.6	HTL	HTL	HTL	Coastal saltmarsh, intertidal sediment (mudflats, sandflats), coastal grazing marsh
PU7.1	NAI	NAI	NAI	Intertidal sediments (sand banks)
PU7.2	NAI	NAI	NAI	Estuaries, vegetated sea cliffs, intertidal sediments (mudflats, vegetated shingle), coastal saltmarsh, saline lagoons
PU7.3	NAI	NAI	NAI	Intertidal sediment (mudflats), coastal saltmarsh

Table 2 **Proposed policies per policy unit, per epoch, and relevant habitat groupings for Briddlesford Copse SAC**

Policy Unit	Epoch 1 (0-20)	Epoch 2 (20-50)	Epoch 3 (50-100)	Relevant Habitat Groupings
HTL= Hold The Line; ATL = Advance The Line; MR = Managed Realignment; NAI = No Active Intervention				
PU2B.3	MR	MR	MR	Woodland
PU2B.4	HTL	HTL	HTL	Woodland

Table 3 **Proposed policies per policy unit, per epoch, and relevant SAC habitat groupings for the Solent and Isle of Wight Lagoons SAC**

Policy Unit	Epoch 1 (0-20)	Epoch 2 (20-50)	Epoch 3 (50-100)	Relevant Habitat Groupings
HTL= Hold The Line; ATL = Advance The Line; MR = Managed Realignment; NAI = No Active Intervention				
PU3A.4	HTL	HTL	HTL	Saline lagoons

Table 4 **Proposed policies per policy unit, per epoch, and relevant SAC habitat groupings for the South Wight Maritime SAC**

Policy Unit	Epoch 1 (0-20)	Epoch 2 (20-50)	Epoch 3 (50-100)	Relevant Habitat Groupings
HTL= Hold The Line; ATL = Advance The Line; MR = Managed Realignment; NAI = No Active Intervention				
PU3C.1	NAI	NAI	NAI	Intertidal and Subtidal rocky habitats (reefs, sea caves), vegetated sea cliffs
PU3C.2	HTL	HTL	HTL	Vegetated sea cliffs
PU3C.3	HTL	HTL	HTL	*N/A*
PU3C.4	NAI	NAI	NAI	Vegetated sea cliffs
PU4A.1	NAI	NAI	NAI	Intertidal and Subtidal rocky habitats (reefs), vegetated sea cliffs
PU4A.2	HTL	HTL	HTL	Intertidal and Subtidal rocky habitats (reefs), vegetated sea cliffs
PU4B.1	NAI	NAI	NAI	Intertidal and Subtidal rocky habitats (reefs), vegetated sea cliffs
PU4B.2	HTL	HTL	MR	Intertidal and Subtidal rocky habitats (reefs), vegetated sea cliffs
PU4B.3	NAI	NAI	NAI	Intertidal and Subtidal rocky habitats (reefs), vegetated sea cliffs
PU5.1	NAI	NAI	NAI	Intertidal and Subtidal rocky habitats (reefs), vegetated sea cliffs
PU6A.1	HTL	HTL	HTL	Intertidal and Subtidal rocky habitats (reefs)
PU6A.2	NAI	NAI	NAI	Intertidal and Subtidal rocky habitats (reefs, sea caves), vegetated sea cliffs

Table 5 **Proposed policies per policy unit, per epoch, and relevant SAC habitat groupings for the Isle of Wight Downs SAC**

Policy Unit	Epoch 1 (0-20)	Epoch 2 (20-50)	Epoch 3 (50-100)	Relevant Habitat Groupings
HTL= Hold The Line; ATL = Advance The Line; MR = Managed Realignment; NAI = No Active Intervention				
PU4A.1	NAI	NAI	NAI	Vegetated sea cliffs
PU4A.2	HTL	HTL	HTL	Vegetated sea cliffs
PU5.1	NAI	NAI	NAI	Vegetated sea cliffs
PU6A.1	HTL	HTL	HTL	Vegetated sea cliffs
PU6A.2	NAI	NAI	NAI	Vegetated sea cliffs

Table 6 **Proposed policies per policy unit, per epoch, and relevant SPA habitat groupings for the Solent and Southampton Water SPA**

Policy Unit	Epoch 1 (0-20)	Epoch 2 (20-50)	Epoch 3 (50-100)	Relevant Habitat Groupings
HTL= Hold The Line; ATL = Advance The Line; MR = Managed Realignment; NAI = No Active Intervention				
PU1B.1	NAI	NAI	NAI	Intertidal sediments (mudflats), coastal saltmarsh, freshwater habitats
PU1B.2	HTL	HTL	HTL	Intertidal sediments (mudflats), freshwater habitats
PU1B.3	NAI	NAI	NAI	Intertidal sediments (mudflats)
PU1B.4	HTL	HTL	HTL	Intertidal sediments (mudflats), coastal saltmarsh
PU1B.5	NAI	NAI	NAI	Intertidal sediments (mudflats)
PU2A.1	NAI	NAI	NAI	Shallow sub-tidal (seagrass), intertidal sediments (mudflats, sandflats, vegetated shingle) coastal saltmarsh
PU2A.2	NAI	NAI	NAI	Intertidal sediments (mudflats, sandflats)
PU2B.1	NAI	NAI	NAI	Intertidal sediments (mudflats)
PU2B.2	HTL	HTL	HTL	Intertidal sediments (mudflats)
PU2B.3	MR	MR	MR	Intertidal sediments (mudflats), coastal saltmarsh, freshwater habitats (club rush swamp)
PU2B.4	HTL	HTL	HTL	Intertidal sediments (mudflats)
PU2B.5	NAI	NAI	NAI	Intertidal sediments (mudflats, vegetated shingle), coastal saltmarsh
PU2B.6	HTL	HTL	HTL	*N/A*
PU2B.7	HTL	HTL	MR	Intertidal sediments (mudflats)
PU2B.8	NAI	NAI	NAI	Intertidal sediments (mudflats, vegetated shingle), coastal saltmarsh
PU2C.1	HTL	HTL	HTL	Shallow sub-tidal (seagrass), intertidal sediments (sandflats)
PU2C.2	HTL	HTL	HTL	Shallow sub-tidal (seagrass), intertidal sediments (sandflats)
PU2C.3	HTL	HTL	HTL	Intertidal sediments (sandflats), coastal grazing marsh, saline lagoons
PU2C.4	HTL	HTL	HTL	*N/A*
PU3A.1	NAI	NAI	NAI	Shallow sub-tidal (seagrass)
PU3A.2	HTL	HTL	MR	Intertidal sediments (sandflats)
PU3A.3	HTL	HTL	HTL	Intertidal sediments (mudflats, sand dunes), coastal saltmarsh
PU3A.4	HTL	HTL	HTL	Intertidal mudflat, coastal saltmarsh, saline lagoons
PU3A.5	NAI	NAI	NAI	Intertidal sediments (sandflats, sand dunes)
PU3B.1	NAI	NAI	NAI	Intertidal sediments (sandflats), shallow sub-tidal (seagrass)
PU3B.2	HTL	HTL	MR	Shallow sub-tidal (seagrass)
PU3B.3	MR	MR	MR	Shallow sub-tidal (seagrass)
PU3B.4	HTL	HTL	MR	Shallow sub-tidal (seagrass)
PU3B.5	NAI	NAI	NAI	*N/A*
PU6B.5	HTL	NAI	NAI	Intertidal sediments (mudflats, sand dunes), coastal saltmarsh, shallow sub-tidal (seagrass), saline lagoons

Policy Unit	Epoch 1 (0-20)	Epoch 2 (20-50)	Epoch 3 (50-100)	Relevant Habitat Groupings
HTL= Hold The Line; ATL = Advance The Line; MR = Managed Realignment; NAI = No Active Intervention				
PU6C.1	HTL	HTL	HTL	Intertidal sediments (mudflats, sand dunes), coastal saltmarsh, shallow sub-tidal (seagrass), saline lagoons
PU6C.2	NAI	NAI	NAI	Intertidal sediments (mudflats, sand dunes), coastal saltmarsh, shallow sub-tidal (seagrass), saline lagoons, coastal grazing marsh
PU6C.3	HTL	HTL	HTL	Intertidal sediments (mudflats, sandflats), coastal saltmarsh
PU6C.4	NAI	NAI	NAI	Intertidal sediments (mudflats), coastal saltmarsh
PU6C.5	HTL	MR	NAI	Intertidal sediments (mudflats, sandflats), coastal saltmarsh, coastal grazing marsh
PU6C.6	HTL	HTL	HTL	Intertidal sediments (mudflats, sandflats), coastal saltmarsh, coastal grazing marsh
PU7.1	NAI	NAI	NAI	Intertidal sediments (sandflats)
PU7.2	NAI	NAI	NAI	Intertidal sediments (mudflat, vegetated shingle), coastal saltmarsh, saline lagoons, coastal grazing marsh
PU7.3	NAI	NAI	NAI	Intertidal sediments (mudflat, vegetated shingle), coastal saltmarsh, freshwater habitats (club rush swamp)

Table 7 **Proposed policies per policy unit, per epoch, and relevant SPA habitat groupings for the Solent and Southampton Water Ramsar site**

Policy Unit	Epoch 1 (0-20)	Epoch 2 (20-50)	Epoch 3 (50-100)	Relevant Habitat Groupings
HTL= Hold The Line; ATL = Advance The Line; MR = Managed Realignment; NAI = No Active Intervention				
PU1B.1	NAI	NAI	NAI	Estuaries, intertidal sediments (mudflats), coastal saltmarsh, freshwater habitats
PU1B.2	HTL	HTL	HTL	Estuaries, intertidal sediments (mudflats), freshwater habitats
PU1B.3	NAI	NAI	NAI	Estuaries, intertidal sediments (mudflats)
PU1B.4	HTL	HTL	HTL	Estuaries, intertidal sediments (mudflats), coastal saltmarsh
PU1B.5	NAI	NAI	NAI	Estuaries, intertidal sediments (mudflats)
PU2A.1	NAI	NAI	NAI	Shallow sub-tidal (seagrass), intertidal sediments (mudflats, sandflats, vegetated shingle) coastal saltmarsh
PU2A.2	NAI	NAI	NAI	Intertidal sediments (mudflats, sandflats)
PU2B.1	NAI	NAI	NAI	Estuaries, intertidal sediments (mudflats)
PU2B.2	HTL	HTL	HTL	Estuaries, intertidal sediments (mudflats)
PU2B.3	MR	MR	MR	Estuaries, intertidal sediments (mudflats), coastal saltmarsh, freshwater habitats (club rush swamp)
PU2B.4	HTL	HTL	HTL	Estuaries, intertidal sediments (mudflats)
PU2B.5	NAI	NAI	NAI	Estuaries, intertidal sediments (mudflats, vegetated shingle), coastal saltmarsh
PU2B.6	HTL	HTL	HTL	Estuaries

Policy Unit	Epoch 1 (0-20)	Epoch 2 (20-50)	Epoch 3 (50-100)	Relevant Habitat Groupings
HTL= Hold The Line; ATL = Advance The Line; MR = Managed Realignment; NAI = No Active Intervention				
PU2B.7	HTL	HTL	MR	Estuaries, intertidal sediments (mudflats)
PU2B.8	NAI	NAI	NAI	Estuaries, intertidal sediments (mudflats, vegetated shingle), coastal saltmarsh
PU2C.1	HTL	HTL	HTL	Shallow sub-tidal (seagrass), intertidal sediments (sandflats)
PU2C.2	HTL	HTL	HTL	Shallow sub-tidal (seagrass), intertidal sediments (sandflats)
PU2C.3	HTL	HTL	HTL	Intertidal sediments (sandflats), coastal grazing marsh, saline lagoons
PU2C.4	HTL	HTL	HTL	Shallow sub-tidal (rocky habitats)
PU3A.1	NAI	NAI	NAI	Marine aquatic beds (seagrass)
PU3A.2	HTL	HTL	MR	Intertidal sediments (sandflats)
PU3A.3	HTL	HTL	HTL	Intertidal sediments (mudflats, sand dunes), coastal saltmarsh
PU3A.4	HTL	HTL	HTL	Intertidal mudflat, coastal saltmarsh, saline lagoons
PU3A.5	NAI	NAI	NAI	Intertidal sediments (sandflats, sand dunes)
PU3B.1	NAI	NAI	NAI	Intertidal sediments (sandflats), marine aquatic beds (seagrass)
PU3B.2	HTL	HTL	MR	Marine aquatic beds (seagrass)
PU3B.3	MR	MR	MR	Marine aquatic beds (seagrass)
PU3B.4	HTL	HTL	MR	Marine aquatic beds (seagrass)
PU3B.5	NAI	NAI	NAI	*N/A*
PU6B.5	HTL	NAI	NAI	Intertidal sediments (mudflats, sand dunes), coastal saltmarsh, marine aquatic beds (seagrass), saline lagoons
PU6C.1	HTL	HTL	HTL	Intertidal sediments (mudflats, sand dunes), coastal saltmarsh, marine aquatic beds (seagrass), saline lagoons
PU6C.2	NAI	NAI	NAI	Intertidal sediments (mudflats, sand dunes), coastal saltmarsh, marine aquatic beds (seagrass), saline lagoons, coastal grazing marsh
PU6C.3	HTL	HTL	HTL	Intertidal sediments (mudflats, sandflats), coastal saltmarsh
PU6C.4	NAI	NAI	NAI	Intertidal sediments (mudflats), coastal saltmarsh
PU6C.5	HTL	MR	NAI	Intertidal sediments (mudflats, sandflats), coastal saltmarsh, coastal grazing marsh
PU6C.6	HTL	HTL	HTL	Intertidal sediments (mudflats, sandflats), coastal saltmarsh, coastal grazing marsh
PU7.1	NAI	NAI	NAI	Intertidal sediments (sandflats)

Policy Unit	Epoch 1 (0-20)	Epoch 2 (20-50)	Epoch 3 (50-100)	Relevant Habitat Groupings
HTL= Hold The Line; ATL = Advance The Line; MR = Managed Realignment; NAI = No Active Intervention				
PU7.2	NAI	NAI	NAI	Estuaries, intertidal sediments (mudflat, vegetated shingle), coastal saltmarsh, saline lagoons, coastal grazing marsh
PU7.3	NAI	NAI	NAI	Intertidal sediments (mudflat, vegetated shingle), coastal saltmarsh, freshwater habitats (club rush swamp)

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