

# **North Solent Shoreline Management Plan**

## **Appendix L:**

### **Water Framework Directive Assessment for the North Solent SMP**



<b>Contents</b>		
L1	Introduction	1
L1.1	Purpose of report	1
L1.2	Background	2
L1.2.1	Achieving Objectives for EU Protected Sites	4
L1.3	EA Guidance for EU Protected Sites	4
L1.3.1	Classifying Water Body Status	4
L1.3.2	Assessing Ecological Status	4
L1.3.3	Achieving High Status	4
L1.3.4	Water Body Designation as Artificial or Heavily Modified	5
L1.3.5	Ecological Potential	5
L1.3.6	Assessing Deterioration	5
L1.3.7	Mitigation Measures	7
L2	Assessment Methodology	8
L2.1	Scoping the SMP- Data Collection	9
L2.2	Defining Features and Issues	10
L2.3	Assessment of SMP policy against Environmental Objectives	10
L2.4	Complete WFD Summary Statement	11
L3	Results	20
L3.1	Scoping the SMP- Data Collection	20
L3.1.1	Transitional and Coastal Water Bodies (TraC)	20
L3.1.2	River and Lake Water Bodies	20
L3.1.3	Groundwater Water Bodies	21
L3.1.4	Boundary Issues	21
L3.1.5	Natura Designated Sites	22
L3.2	Defining Features and Issues	22
L3.3	Assessment of SMP policy against Environmental Objectives	22
L3.3.1	Environmental Objective WFD1	22
L3.3.2	Environmental Objective WFD2	23
L3.3.3	Environmental Objective WFD3	24
L3.3.4	Environmental Objective WFD4	24
L3.4	WFD Summary Statements	24
L4	Discussion and Conclusions	28
L5	WFD Assessment Tables 2-5	31

<b>List of Figures</b>		
L1.1	River Basin Districts in England and Wales	2
L2.1	WFD Assessment Process for SMPs	8
L3.1	Water Bodies Associated with the North Solent SMP	25
L3.2	Transitional and Coastal (TraC) Water Bodies Associated with the North Solent SMP	26
L3.3	Groundwater Water Bodies Associated with the North Solent SMP	27

<b>List of Tables</b>		
L1.1	Environmental Objectives in the Water Framework Directive	3
L1.2	Definition of Quality Elements	4
L1.3	Process for Classifying Ecological Potential	5
L1.4	Conditions for Defending Deterioration in Ecological Status or Potential	6
L2.1	WFD Environmental Objectives from Article 4.1 of the WFD	10
L2.2	Corresponding SMP Policy Units with WFD Water Bodies	19
WFD Assessment Table 2	WFD Features and Issues for the North Solent SMP	31
WFD Assessment Table 3	Assessment of SMP policy for the North Solent SMP	49
WFD Assessment Table 4	Summary of achievement of WFD Environmental Objective for each Water Body in the North Solent SMP area	91
WFD Assessment Table 5	WFD Summary Statement	96

## Glossary

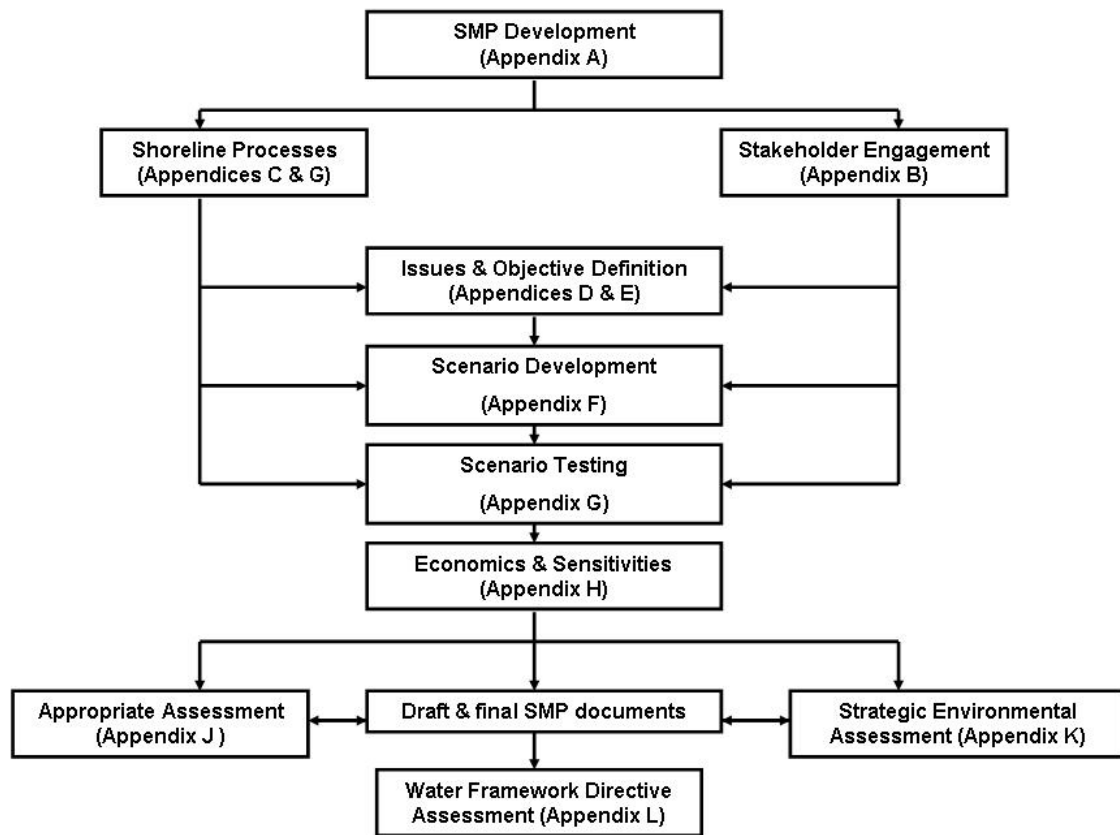
AA	Appropriate Assessment
AWB	Artificial Water Body
BQE	Biological Quality Element
CFMP	Catchment Flood Management Plan
FCRM	Flood & Coastal Erosion Risk Management
GEP	Good Ecological Potential
GES	Good Ecological Status
GWB	Groundwater Body
HMWB	Heavily Modified Water Body
HTL	Hold the Line (SMP policy)
MR	Managed Realignment (SMP policy)
NAI	No Active Intervention (SMP policy)
RBD	River Basin District
RBMP	River Basin Management Plan
SMP	Shoreline Management Plan
SPZ	Source Protection Zone
WFD	Water Framework Directive
TraC	Transitional and Coastal Water Bodies
WPM	With Present Management

## The Supporting Appendices

All information used to support the Shoreline Management Plan is contained in a series of Appendices. In this way there is clarity in the decision-making process and the rationale behind the policies being promoted is both transparent and auditable. The appendices are:

<b>Appendix</b>	<b>Subject</b>	<b>Detail</b>
A	SMP Development	Reports the history of development of the SMP, describing fully the plan and policy decision-making process
B	Stakeholder Engagement	All communications from the stakeholder process are provided here, together with information arising from the consultation process
C	Baseline Process Understanding	Includes a baseline process report, defence assessment, NAI and WPM assessments and summarises data used in assessments
D	Theme Review	This report identifies and evaluates the environmental features (human, natural, historical and landscape)
E	Issues & Objective Evaluation	Provides information on the issues and objectives identified as part of the Plan development, including appraisal of their importance
F	Initial Policy Appraisal & Scenario Development	Presents the consideration of generic policy options for each frontage, identifying possible acceptable policies, and their combination into 'scenarios' for testing
G	Scenario Testing	Presents the policy assessment and appraisal of objective achievement towards definition of the Preferred Plan
H	Economic Appraisal and Sensitivity Testing	Presents the economic analysis undertaken in support of the Preferred Plan
I	Metadatabase and Bibliographic database	All supporting information used to develop the SMP is referenced for future retrieval and examination
J	Appropriate Assessment	Presents an assessment of the effect the plan will have on European sites.
K	Strategic Environmental Assessment	Presents the various items undertaken in developing the Plan specifically related to the requirements of the EU Council Directive 2001/42/EC (Strategic Environmental Assessment Directive)
L	Water Framework Directive Assessment	Presents an assessment of the implications of the Water Framework Directive

The broad relationships between the appendices are as below:



# **L1 INTRODUCTION**

## **L1.1 Purpose of Report**

The purpose of the Water Framework Directive is to establish a framework for protecting inland surface waters, transitional waters, coastal waters and groundwaters. The framework for delivering this Directive is through the River Basin Management Plans (RBMPs). The Environment Agency has divided England and Wales into eleven River Basin Districts (RBDs) (see Figure L1.1). The North Solent SMP area falls entirely within the South East River Basin District. Each RBD has been characterized into smaller management units known as Water Bodies.

The North Solent SMP proposed policy options were completed in June 2009. Guidance to undertake a Water Framework Directive Assessment was provided by the Environment Agency (the competent authority for delivering the Directive) during May 2009. As a part of this project work was undertaken to assess the implications of the Water Framework Directive (referred to as WFD in this report) for the final policies of the North Solent SMP.

The North Solent SMP has undertaken an assessment for the Water Framework Directive in line with guidance prepared by the Environment Agency, the competent authority in England for delivering the Directive, and with reference to the WFD assessments undertaken for the River Tyne to Flamborough Head and Medway and Swale SMP reviews.



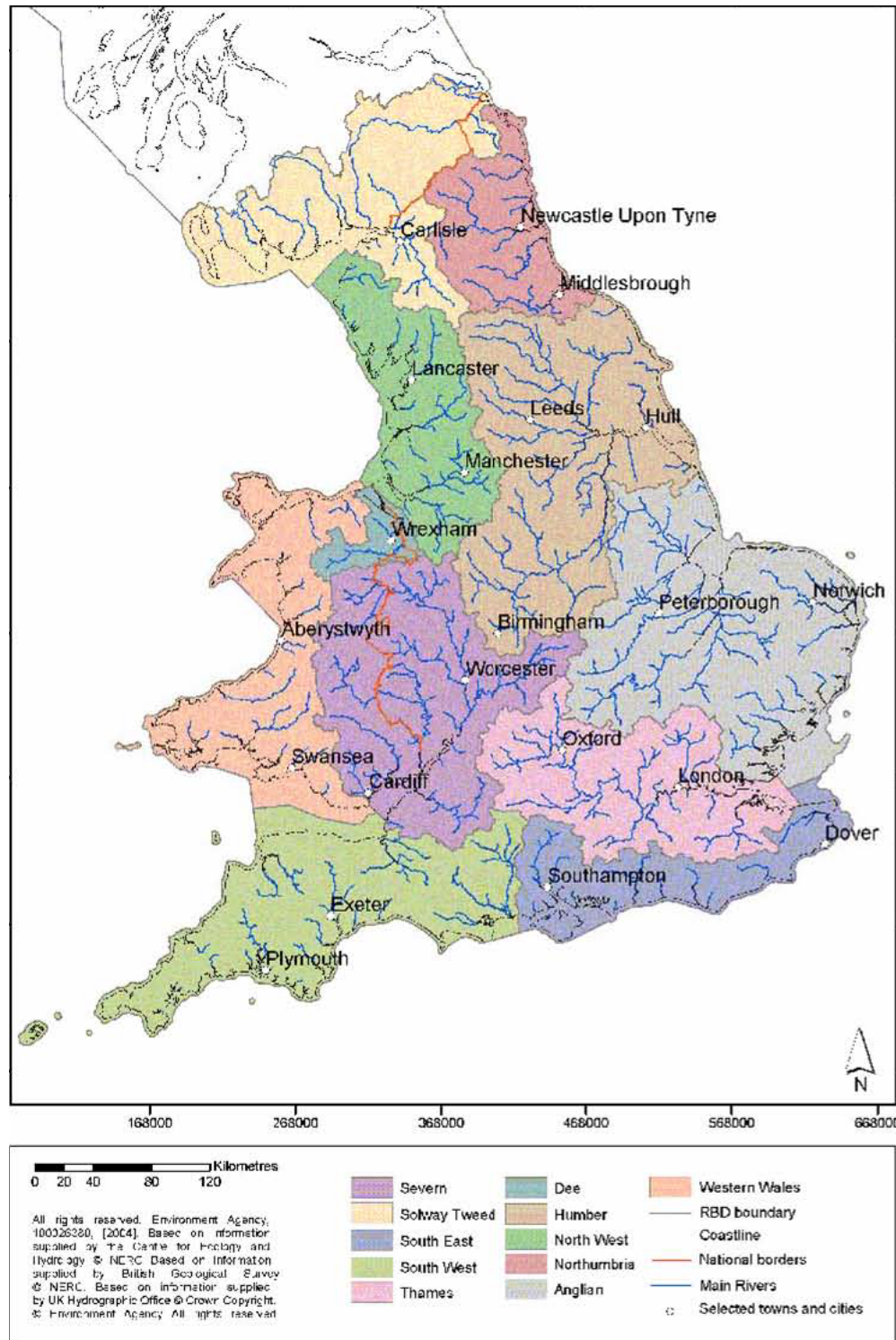


Figure L1.1 River Basin Districts in England and Wales (Source. South East River Basin District)

## L1.2 Background

The EU Water Framework Directive was transposed into law in England and Wales by the Water Environment (Water Framework Directive) (England and Wales) Regulations 2003. The requirements of the WFD need to be

considered at all stages of the river and coastal planning and development process. For the purposes of large-scale plans, such as SMPs, the consideration of the requirements of the WFD when setting and selecting policies must be necessarily high level but sets the framework for future delivery of smaller-scale strategies or schemes. The WFD requires that Environmental Objectives be set for all surface and ground waters in each EU Member State. Table 1.1 presents the default Environmental Objectives of relevance to the SMP.

Specific mitigation measures will be set for each River Basin District (RBD) to achieve the Environmental Objectives of the WFD. These measures are to mitigate impacts that have been or are being caused by human activity. In other words, measures to enhance and restore the quality of the existing environment. These mitigation measures will be delivered through the River Basin Management Plan (RBMP) Process and listed in a Programme of Measures within the RBMP.

Table L1.1 summarises the default objectives which apply to surface waters including the alternative objectives that apply for Heavily Modified Water Bodies (HMWBs) and Artificial Water Bodies (AWBs) and groundwaters, to prevent deterioration in either the Ecological Status or, for HMWBs or AWBs, the Ecological Potential of the water body.

<b>Objectives (taken from Article 4 of the Directive)</b>	<b>Reference</b>
Implement the necessary measures to prevent deterioration of the status of all bodies of surface water	4.1(a)(i)
Protect, enhance and restore all bodies of surface water, subject to the application of subparagraph (iii) for artificial and heavily modified bodies of water, with the aim of achieving good surface water status by 2015.	4.1(a)(ii)
Protect and enhance all artificial and heavily modified Bodies of water, with the aim of achieving good ecological potential and good surface water chemical status by 2015.	4.1(a)(iii)
Progressively reduce pollution from priority substances and cease or phasing out emissions, discharges and losses of priority hazardous substances.	4.1(a)(iv)
Prevent Deterioration in Status and prevent or limit input of pollutants to groundwater	Ground Water 4.1(b)(i)

Table L1.1 Environmental Objectives in the Water Framework Directive

Any activity which has the potential to have an impact on ecology (as defined by the biological, physico-chemical and hydromorphological Quality Elements listed in Annex V of the WFD) will need consideration in terms of whether it could cause deterioration in the Ecological Status or Potential of a water body. It is, therefore, necessary to consider the possible changes associated to baseline policies for each water body within the SMP area so that a decision making audit is available should any later failure to meet the Environmental Objectives need to be defended.

### L1.2.1 Achieving objectives for EU protected sites

Where there are sites protected under EU legislation (e.g. the Birds Habitats or Shellfish Waters Directives) the WFD aims for compliance with any relevant standards or objectives for these sites. Therefore, where a site which is water-dependent in some way is protected via designation under another EU Directive and the Good Ecological Status or Good Ecological Potential targets set under the WFD would be insufficient to meet the objectives of the other relevant environmental Directive(s), the more stringent targets would apply.

### L1.3 EA guidance for classifying WB status

#### L1.3.1 Classifying Water Body status

Ecological Status is expressed in terms of five status classes – high, good, moderate, poor or bad. These classes are established on the basis of specific criteria and boundaries defined against biological, physico-chemical and hydromorphological elements, which are set out in Annex V of the WFD and defined in Table L1.2 below.

Type	Description
Biological assessment	Uses numeric measures of communities of plants and animals (e.g. fish, rooted plants)
Physico-chemical assessment	Looks at elements such as temperature and the level of nutrients, which support the biology
Hydromorphological quality	Looks at water flow, sediment composition and movement, continuity (in rivers) and the structure of physical habitat

Table L1.2 Definition of Quality Elements

#### L1.3.2 Assessing Ecological Status

The overall ecological status of a Water Body is determined by whichever of these assessments is the poorer. A Water Body might achieve 'Good Status' for chemical and physico-chemical assessments, but only achieve 'Moderate Status' for the biological assessment; in this case it would be classed overall as having 'Moderate Ecological Status'. To achieve the overall aim of good surface water status, the WFD requires that surface waters be of at least Good Ecological Status and Good Chemical Status.

#### L1.3.3 Achieving High Status

To achieve High Status, the WFD requires that the hydromorphological Quality Elements are also in place. For lower classes, although hydromorphological quality is not explicitly required, it is a supporting element of the biological and in some cases physico-chemical status and must therefore be taken into account

The Environment Agency has classified the Ecological Status of all Water Bodies that have not been designated as HMWBs or as AWBs.

### **L1.3.4 Water Body Designation as Artificial or Heavily Modified**

The WFD recognises that physical alterations may have been undertaken to support the use of a Water Body for a particular purpose (e.g. water storage, coast or flood defence, navigation, etc). If this reason is still valid the Water Body may be designated as a HMWB.

AWBs are those Water Bodies which have been constructed only for a specific use (e.g. reservoir).

Any of the surface Water Body types (rivers, coastal, lake or transitional) can be designated as HMWBs or AWBs, and subject to alternate environmental objectives than ordinary Water Bodies hence they have been clearly identified in each RBD and will have been classified differently.

### **L1.3.5 Ecological Potential**

The Environment Agency have applied a separate classification process for HMWBs and AWBs. This was based on separate guidance developed by UKTAG. Table L1.3 shows the steps that this guidance set out for identifying whether a HMWB or AWB meets its Ecological Potential or not.

<b>Stage</b>	<b>Description</b>
1	Identifying the impacts of physical modification affecting the water body
2	Identifying possible mitigation measures necessary to ensure the hydromorphological characteristics of a water body are consistent with Good or Maximum Ecological Potential
3	Assessing whether all of those measures have been taken.

Table L1.3 Process for classifying Ecological Potential

Where all applicable mitigation measures have already been taken or screened out, the Water Body can be classified as Good Ecological Potential or better.

A Water Body where one or more applicable mitigation measure(s) remain to be taken is classified as of Moderate Ecological Potential or worse. This will then be combined with the outcomes from other assessments to give an overall classification.

### **L1.3.6 Assessing Deterioration**

Deterioration is reported as a negative change between classes in Ecological Status or Potential. The WFD assessment considers any activity that has the potential to have an impact on ecology (as defined by the BQEs) in terms of whether the activity could cause deterioration in the Ecological Status or Potential on a Water Body, or could prevent the Water Body from achieving its target Ecological Status or Potential.

There are circumstances in which failure to achieve the environmental objectives can be justified under the WFD, these are:

- When failure to achieve good groundwater status, good ecological status or, where relevant, good ecological potential or to prevent deterioration in the status of a body of surface water or groundwater is the result of new modifications to the physical characteristics of a surface water body or alterations to the level of bodies of groundwater
- When failure to prevent deterioration from high status to good status of a body of surface water is the result of new sustainable human development activities.

In order to justify deterioration under these circumstances, all of the conditions set out in Article 4.7 of the WFD must be met.

Where new defences, or maintenance works to existing defences, may be required as a result of the SMP policy, they may have the potential to result in deterioration in current Ecological Status or Potential, or to affect the achievement of target Ecological Status or Potential. Such an affect could be due to contamination or more likely in the case of coastal defence works, hydromorphological. Therefore, in order to take account of the requirements of the WFD during policy making, where the policy has the potential to result in deterioration in current or target Ecological Status or Potential, the conditions identified in Table L1.4 will need to be assessed and documented for the relevant Water Body.

<b>Condition</b>	<b>Description</b>
A	All practicable steps are taken to mitigate the adverse impact on the status of the body of water
B	The reasons for selecting the final SMP policies are Reasons of Overriding Public Interest and/or the benefits to the environment and to society of achieving the environmental objectives are outweighed by the benefits of the final MP policies to human health, to the maintenance of health and safety or to sustainable development
C	The beneficial objectives served by the SMP policies cannot for reasons of technical feasibility or disproportionate cost be achieved by other means, which are a significantly better environmental option
D	The final SMP policies do not permanently exclude or compromise the achievement of the objectives of the WFD in Water Bodies within the same RBD that are outside of the SMP area
E	There are no other overriding issues(e.g. designated sites, recommendations of the Appropriate Assessment)

Table L1.4 Conditions for defending 'deterioration' in Ecological Status or Potential

### **L1.3.7 Mitigation Measures**

Mitigation measures are defined as actions which aim to minimize or cancel the adverse impact on the Ecological Status or Potential of the Water Body. By practicable steps, the WFD is referring to actions or measures which could be taken to mitigate adverse impacts. The way that the term 'practicable' is used in other legislation suggests that those 'mitigation measures' should:

- Deliver the results for which they have been designed
- Be technically feasible
- Not lead to disproportionate costs; and
- Be compatible with the new modification or sustainable human development activity.

## L2 ASSESSMENT METHODOLOGY

The methodology follows the Guidance for the assessment of SMPs under the WFD provided by the Environment Agency. The process has been broken down into a series of clearly defined steps, broadly following the tasks and activities described within the Defra guidance on producing SMPs (Defra, 2006), to provide a transparent and accountable assessment of the SMP policies.

The WFD assessment process for SMPs is shown in Figure L2.1, and these steps are described in detail in the sections below.

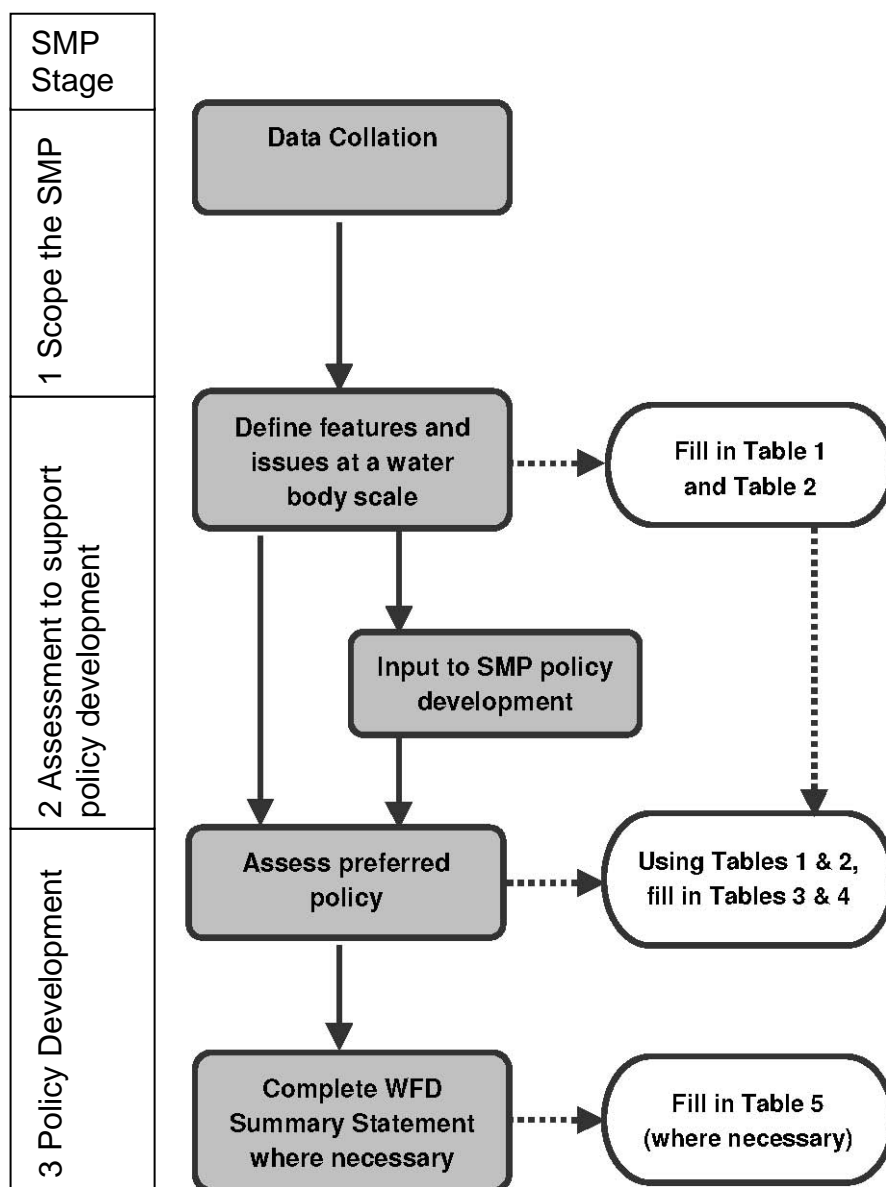


Figure L2.1 WFD assessment process for SMPs

## L2.1 Scoping the SMP – Data Collection

To make the assessment as comprehensive as possible, a data collation exercise was undertaken to identify all transitional and coastal (TraC) Water Bodies present in the North Solent SMP study area (see Figures L3.2, L3.3 and L3.4). In addition, river and lake Water Bodies were identified that may be influenced by the SMP policies.

For each relevant water body the following information was obtained / determined from the Environment Agency:

- WFD water body identification number;
- Water body classification details (including information on relevant Biological Quality Elements and any designation as an artificial or heavily modified water body);
- The relevant WFD environmental objectives;
- Actions from the programme of measures in the South East RBMP relevant to the Water Bodies in the North Solent SMP area.

The Environment Agency web-based 'Flood Map' was used to assess whether there are any landward fresh Water Bodies that have the potential to be influenced by the SMP policies and should, therefore, be covered within this assessment.

Groundwater Water Bodies (GWBs) that could potentially be impacted by SMP policies were identified by reviewing the WFD compliance mapping for groundwater risk (known as River Basin Characterisation 2 (RBC2) and status assessment). Using the RBC2 mapping and the WFD status maps for saline intrusion obtained from the Environment Agency, the GWBs designated as being 'at risk', 'probably at risk' or at 'Poor Status' within the SMP area were identified. The locations of groundwater abstractions with Source Protection Zones (SPZs) within the SMP area were also obtained from the Environment Agency.

All Natura 2000 designated sites were identified from the existing Appropriate Assessment of the SMP. Consideration of any boundary issues and identification of where changes of the SMP boundary would be recommended to attain consistency with water body boundaries was also undertaken. It was also determined at this stage whether there were any additional investigations that could be recommended for the next round of SMP reviews to inform the WFD assessment, such as studies to address the zone of influence in terms of Biological Quality Elements (BQEs). For example, the impacts of changes in sediment transport may be wider for BQEs, such as fish, than for other interest features designated under Natura 2000 sites.

A general set of WFD environmental objectives for all Water Bodies within the North Solent SMP area were identified as set out below (based on Article 4 of the Directive) and described in Table L2.1.



<b>WFD1</b>	No changes affecting high status sites.
<b>WFD2</b>	No changes that will cause failure to meet surface water Good Ecological Status or Potential or result in a deterioration of surface water Ecological Status or Potential.
<b>WFD3</b>	No changes which will permanently prevent or compromise the Environmental Objectives being met in other Water Bodies.
<b>WFD4</b>	No changes that will cause failure to meet good groundwater status or result in deterioration in groundwater status.

Table L2.1 WFD environmental objectives from Article 4.1 of the WFD

## L2.2 Defining Features & Issues

For all Water Bodies in the North Solent SMP area, the hydromorphological parameters that potentially could be changed by SMP policies, with potential impact on the BQEs, were identified. To identify changes in hydromorphology which may impact on biology, the SMP baseline scenarios were used i.e. No Active Intervention (NAI) and With Present Management (WPM).

BQEs that potentially could be affected by SMP policies for each Water Body were identified in Assessment Table 2. These define the key features and issues for each Water Body, and are used to assess whether the SMP policy has the potential to meet or fail the WFD Environmental Objectives (as set out in Section 2.1). Assessment Table 2 outlines the Water Body Classification, key SMP policy related features and issues, WFD Environmental Objectives and RBMP recommended potential mitigation measures.

## L2.3 Assessment of the SMP policy against the Environmental Objectives

Using the information on the Water Body features and issues defined in Assessment Table 2, the potential impact of the SMP policy for each Policy Unit was assessed in relation to aspects of the WFD and recorded in Assessment Table 3. For each Policy Unit, the potential changes to the relevant physical and hydromorphological parameters that might occur as a result of the SMP policy were identified. The impacts of climate change on baseline processes were taken into account when assessing all epochs. The assessment of deterioration with respect to the WFD considered the impact of any changes to the surface Water Body features (BQEs) that were identified in Assessment Table 2.

The assessment of SMP policies in Assessment Table 3 also included consideration of the potential for impact upon GWBs. Particular attention was paid to Policy Units where the SMP policy is No Active Intervention or Managed Realignment as these policies could potentially result in the saltwater– freshwater interface moving landwards, which, coupled with abstraction pressures, could result in saltwater intrusion and deterioration of the GWB. For these Policy Units, the extent of groundwater abstractions was identified through the use of Zone 3 (total catchment of the groundwater abstraction) of the SPZ. Where Zone 3 of an abstraction was found to extend

to the coastline, or where it extended to the long-term (100 years) predicted shoreline, it was considered that an SMP policy could potentially cause deterioration in the quality of the abstraction due to saline intrusion. Consideration was also given to the potential for SMP policies to lead to deterioration in Status or Potential of the TraC Water Bodies as a result of groundwater pollution.

The outcomes of the assessment of deterioration were then checked against the Environmental Objectives (as set out in Assessment Table 2 for each Water Body). For each Policy Unit, it was recorded in Assessment Table 3 whether the SMP policy has the potential to meet or fail the Environmental Objectives. Following the assessment of SMP policies for each Policy Unit, a summary of the achievement (or otherwise) of the Environmental Objectives was completed at the Water Body scale (Assessment Table 4).

## **L2.4 Complete WFD Summary Statement**

Where it was identified that the WFD Environmental Objectives were not met for one or more Policy Units, and that there is potential for deterioration in a Water Body, then it was determined that a WFD Summary Statement should be completed for that Water Body and this was recorded in the final column of Assessment Table 4. A separate Water Framework Summary Statement was completed for each Water Body where it was identified that there is potential for deterioration to occur as a result of the SMP policies (Assessment Table 5).

Assessment Table 5 summarises the considerations made in SMP development that are pertinent to Article 4.7 of the WFD, specifically:

- Assess whether all appropriate mitigation measures for potential new modifications have been included in the final SMP policy;
- Present evidence that the final SMP policy is being promoted for reasons of over-riding public interest;
- Present evidence that no other SMP policy option would present an environmentally better, affordable, option for that policy unit;
- Demonstrate that the effects on Water Bodies outside the SMP study area have been considered and that the associated WFD objective 3 would not be compromised;
- Highlight any other overriding issues that should be considered.

Table L2.2 shows which policy units correspond to which Water Bodies, and the relevant policy options for each unit of the 3 epochs of the SMP.

SMP Final Policy						WFD Water Body		
Ref No	From	To	2025	2055	2075	Coastal	Transitional	Groundwater
5A01	Selsey West Beach	Bracklesham (Medmerry)	MR	MR (HTRL)	MR (HTRL)	Isle of Wight East		
5A02	Bracklesham	East Wittering	HTL	HTL	HTL	Isle of Wight East		
5A03	East Wittering	Cakeham	HTL	HTL (potential minor MR at Cakeham)	HTL (potential minor MR at Cakeham)	Isle of Wight East		
5A04	Cakeham (including East Head)	Ella Nore Lane	AM	AM	AM	Isle of Wight East & Chichester Harbour		
5A05	Ella Nore Lane	Fishbourne	HTL (NPFA)	HTL (NPFA)	HTL (NPFA)	Chichester Harbour	Chichester Harbour East	Chichester-Worthing-Portsdown-Chalk
5A06	Fishbourne		HTL (NPFA)	HTL (NPFA)	HTL (NPFA)		Chichester Harbour East	Chichester-Worthing-Portsdown-Chalk
5A07	Fishbourne	West of Cobnor Point	HTL (NPFA) (localised MR East Chidham)	HTL (NPFA)	HTL (NPFA)	Chichester Harbour	Chichester Harbour East	Chichester-Worthing-Portsdown-Chalk

Table L2.2 Corresponding SMP Policy Units with WFD Water Bodies

Key

HTL=Hold the Line; MR=Managed Realignment; NAI=No Active Intervention; AM=Adaptive Management; NPFA=No Public Funding Available

5A08	West of Cobnor Point	Chidham Point	MR	MR (HTRL)	MR (HTRL)	Chichester Harbour		Chichester-Worthing-Portsdown-Chalk
5A09	Chidham Point	Nutbourne	HTL	HTL	HTL	Chichester Harbour		Chichester-Worthing-Portsdown-Chalk
5A10	Nutbourne		HTL (NPFA)	HTL (NPFA)	HTL (NPFA)	Chichester Harbour		Chichester-Worthing-Portsdown-Chalk
5A11	Nutbourne	Prinstead	HTL	HTL	HTL	Chichester Harbour		Chichester-Worthing-Portsdown-Chalk
5A12	Prinstead	Stanbury Point	HTL	HTL	HTL	Chichester Harbour & Great Deep		Chichester-Worthing-Portsdown-Chalk
5A13	Stanbury Point	Marker Point	HTL	HTL	HTL	Chichester Harbour		Chichester-Worthing-Portsdown-Chalk
5A14	Marker Point	Wickor Point	HTL	HTL	HTL	Chichester Harbour		Chichester-Worthing-Portsdown-Chalk
5A15	Wickor Point	Emsworth Yacht Haven	HTL	HTL	HTL	Chichester Harbour & Great Deep		Chichester-Worthing-Portsdown-Chalk

Table L2.2 Corresponding SMP Policy Units with WFD Water Bodies

Key

HTL=Hold the Line; MR=Managed Realignment; NAI=No Active Intervention; AM=Adaptive Management; NPFA=No Public Funding Available

5A16	Emsworth Yacht Haven	Maisemore Gardens	HTL	HTL	HTL	Chichester Harbour		South Hants Lambeth Group
5A17	Maisemore Gardens	Wade Lane	HTL	HTL*	HTL*	Chichester Harbour		East Hants Chalk
5A18	Wade Lane	Southmoor Lane	HTL	HTL*	HTL*	Chichester Harbour & Langstone Harbour		East Hants Chalk
5A19	Southmoor Lane	Farlington Marshes (east)	HTL	HTL	HTL	Langstone Harbour		East Hants Chalk
5A20	Farlington Marshes (east)	Farlington Marshes (west)	HTL	HTL*	HTL*	Langstone Harbour		East Hants Chalk
5A21	Farlington Marshes (west)	Cador Drive	HTL	HTL	HTL	Langstone Harbour & Portsmouth Harbour		East Hants Chalk
5A22	Cador Drive	A27	HTL	HTL	HTL	Portsmouth Harbour	Wallington	
5A23	A27	Fleetlands (MOD boundary)	HTL	HTL	HTL	Portsmouth Harbour	Wallington	
5A24	Fleetlands (MOD Boundary)	Quay Lane (MOD boundary)	HTL	HTL	HTL	Portsmouth Harbour		
5A25	Quay Lane (MOD boundary)	Portsmouth Harbour entrance	HTL	HTL	HTL	Portsmouth Harbour		South East Hants Bracklesham Group

Table L2.2 Corresponding SMP Policy Units with WFD Water Bodies

Key

HTL=Hold the Line; MR=Managed Realignment; NAI=No Active Intervention; AM=Adaptive Management; NPFA=No Public Funding Available

5B01	Portsmouth Harbour entrance	Gilkicker Point	HTL	HTL	HTL	Solent & Portsmouth Harbour		South East Hants Bracklesham Group
5B02	Gilkicker Point	Meon Road, Titchfield Haven	HTL	HTL	HTL	Solent		South East Hants Bracklesham Group
5B03	Meon Road, Titchfield Haven	Hook Park	NAI (HTL for cross-Solent infrastructure)	NAI (HTL for cross-Solent infrastructure)	NAI (HTL for cross-Solent infrastructure)	Solent	Southampton Water	South East Hants Bracklesham Group
5C01	Hook Park	Warsash North	NAI	MR	MR (HTRL)		Southampton Water	South East Hants Bracklesham Group
5C02	Warsash North	Swanwick Shore Road	NAI	NAI	NAI		Southampton Water	South East Hants Bracklesham Group
5C03	Swanwick Shore Road	Bursledon Bridge	HTL	HTL	NAI		Southampton Water	
5C04	Bursledon Bridge to Botley & Curdrige to Satchell Marshes		NAI	NAI	NAI		Southampton Water	South East Hants Bracklesham Group

Table L2.2 Corresponding SMP Policy Units with WFD Water Bodies

Key

HTL=Hold the Line; MR=Managed Realignment; NAI=No Active Intervention; AM=Adaptive Management; NPFA=No Public Funding Available

5C05	Satchell Marshes	Hamble Common Point	NAI* (HTL the Quay and Rope Walk)	NAI* (HTL the Quay and Rope Walk)	NAI* (HTL the Quay and Rope Walk)		Southampton Water	South East Hants Bracklesham Group
5C06	Hamble Common Point	Hamble Oil Terminal	NAI	NAI	NAI		Southampton Water	Central Hants Bracklesham Group
5C07	Hamble Oil Terminal	Ensign Industrial Park	HTL	HTL	NAI		Southampton Water	Central Hants Bracklesham Group
5C08	Ensign Industrial Park	Cliff House	NAI	NAI	NAI		Southampton Water	Central Hants Bracklesham Group
5C09	Cliff House	Netley Castle	HTL	HTL*	NAI		Southampton Water	Central Hants Bracklesham Group
5C10	Netley Castle	Weston Point	HTL	HTL	HTL		Southampton Water	Central Hants Bracklesham Group
5C11	Weston Point	Woodmill Lane	HTL	HTL	NAI*		Southampton Water	Central Hants Bracklesham Group
5C12	Woodmill Lane	Redbridge	HTL	HTL	HTL		Southampton Water	Central Hants Bracklesham Group
5C13	Lower Test Valley	Lower Test Valley	NAI	NAI	NAI		Southampton Water	Central Hants Bracklesham Group
5C14	Redbridge	Calshot Spit	HTL	HTL	HTL		Southampton Water	Central Hants Bracklesham Group
5C15	Calshot Spit	Calshot Spit	HTL	HTL	NAI	Solent	Southampton Water	

Table L2.2 Corresponding SMP Policy Units with WFD Water Bodies

Key

HTL=Hold the Line; MR=Managed Realignment; NAI=No Active Intervention; AM=Adaptive Management; NPFA=No Public Funding Available

5C16	Hillhead, Calshot	Inchmery	NAI	NAI	NAI	Solent	Beaulieu River	South West Hants Barton Group
5C17	Inchmery	Salternshill	NAI	NAI	NAI		Beaulieu River	South West Hants Barton Group
5C18	Salternshill	Park Shore	HTL (NPFA)	HTL (NPFA)	HTL (NPFA)		Beaulieu River & Black Water Lagoons	
5C19	Park Shore	Sowley	HTL	HTL	HTL*	Solent		South West Hants Barton Group
5C20	Sowley	Elmer's Court	NAI	NAI	NAI	Solent , Sowley Marsh	Lymington	South West Hants Barton Group
5C21	Elmer's Court	Lymington Yacht Haven	HTL	HTL	HTL (potential RTE Lymington Reedbeds)		Lymington	South West Hants Barton Group
5C22	Lymington Yacht Haven	Saltgrass Lane	HTL	HTL	HTL	Solent	Lymington	South West Hants Barton Group
5F01	Hurst Spit	Hurst Spit	HTL	HTL	HTL	Solent		South West Hants Barton Group

Table L2.2 Corresponding SMP Policy Units with WFD Water Bodies

Key

HTL=Hold the Line; MR=Managed Realignment; NAI=No Active Intervention; AM=Adaptive Management; NPFA=No Public Funding Available



<b>Portsea Island</b>								
5API01	Langstone Harbour entrance (west) (harbour)	Portsmouth Harbour entrance (east)	HTL	HTL	HTL	Portsmouth Harbour & Langstone Harbour		East Hants Chalk & South East Hants Bracklesham Group
5API02	Langstone Harbour entrance (west) (open coast)	Portsmouth Harbour entrance (east)	HTL	HTL	HTL	Solent & Portsmouth Harbour & Langstone Harbour		South East Hants Bracklesham Group
<b>Hayling Island</b>								
5AHI01	Langstone Bridge	Northney Farm	HTL	HTL	HTL	Chichester Harbour		
5AHI02	Northney Farm		HTL (NPFA)	HTL (NPFA)	HTL (NPFA)* (* further detailed studies required which consider whether MR may occur)	Chichester Harbour		
5AHI03	Northney Farm	Mengham	HTL (NPFA)	HTL (NPFA)	HTL (NPFA)	Chichester Harbour		
5AHI04	Mengham	Chichester Harbour entrance (west)	HTL	HTL	HTL	Chichester Harbour		

Table L2.2 Corresponding SMP Policy Units with WFD Water Bodies

Key

HTL=Hold the Line; MR=Managed Realignment; NAI=No Active Intervention; AM=Adaptive Management; NPFA=No Public Funding Available

5AHI05	Chichester Harbour entrance (west)	Langstone Harbour entrance (east)	HTL	HTL	HTL	Solent & Chichester Harbour		
5AHI06	Langstone Harbour entrance (east)	North Shore Road, New Town	HTL	HTL	HTL	Langstone Harbour		
5AHI07	North Shore Road, New Town	West Lane (Stoke)	NAI* (HTL Newtown)	NAI* (HTL Newtown)	NAI* (HTL Newtown)	Langstone Harbour		
5AHI08	West Lane (Stoke)	Langstone Bridge	HTL*	HTL*	HTL*	Langstone Harbour & Langstone Oysterbeds		

Table L2.2 Corresponding SMP Policy Units with WFD Water Bodies

Table L2.2 Corresponding SMP Policy Units with WFD Water Bodies

Key

HTL=Hold the Line; MR=Managed Realignment; NAI=No Active Intervention; AM=Adaptive Management; NPFA=No Public Funding Available

## L3 RESULTS

The Water Bodies associated with the North Solent SMP are shown in Figure L3.1.

### L3.1 Scoping the SMP - Data Collection

As all hydromorphological and physical parameters featured in Assessment Table 1 could potentially change as a result of SMP policies, Assessment Table 1 has not been included.

#### L3.1.1 Transitional and Coastal Water Bodies (TraC)

There are 15 principal transitional / coastal (TraC) Water Bodies within the North Solent SMP area; 9 coastal Water Bodies and 6 transitional Water Bodies. Further details on these Water Bodies and on their sensitive biological quality elements are presented in Assessment Table 2.

The 9 Coastal Water Bodies, shown in Figures L3.1 and L3.2, are:

- Chichester Harbour
- Great Deep
- Isle of Wight East
- Langstone Harbour
- Langstone Harbour Oysterbeds
- Portsmouth Harbour
- Solent
- Sowley Marsh
- Dorset/Hampshire

The 6 Transitional Water Bodies in the SMP area, shown in Figures 3.1 and 3.2, are:

- Beaulieu River
- Black Water Lagoons
- Chichester Harbour East
- Lymington
- Southampton Water
- Wallington

#### L3.1.2 River and Lake Water Bodies

According to the post-adoption statements for the Arun and West Streams, South East Hampshire, Test and Itchen, and New Forest Catchment Flood Management Plans (CFMPs), these have considered and assessed all types of inland flooding, from rivers, groundwater, surface water and tidal flooding, but not flooding directly from the sea (coastal flooding), which is covered by SMPs. The potential for upstream environmental enhancement and improved flood risk management e.g. through regulated tidal exchange, has been considered for the majority of the main rivers.

Regulated tidal exchange will, therefore, allow a controlled change in the extent of dynamic tidal influence which will impact on the parameters (e.g. salinity, temperature and nutrients) of the freshwater body may cause a local deterioration of ecological status; however, at a strategic scale of assessment, the ecological status of the freshwater bodies upstream, beyond the tidal influence, will remain unaffected. Along with mitigation measures considered in this WFD assessment, such as channel dredging, channel realignment, removal or replacement of flood defences, these approaches aim to manage and control the conditions that could cause tide locking under rising sea levels and provide a range of environmental and flood risk management benefits.

After consideration of the uncertainties relating to the management approaches and the potential effects on the ecological status of the freshwater bodies as a result of SMP policies, and consultations with Environment Agency, freshwater Water Bodies were ruled out from any further consideration within this assessment. The existing Transitional Water Bodies (estuaries) identified above have, however, been assessed. The subsequent FCERMS will explore these opportunities and potential implications through more detailed assessments. In general and at this broad-scale of assessment, landward recession of the mouths of these freshwater rivers is not likely to impact them as Water Bodies and hence further assessment of them has been discounted.

### **L3.1.3 Groundwater Water Bodies**

The Ground Water Bodies (GWBs) present within the North Solent SMP, shown in Figure L3.1 and L3.3, are:

- Central Hants Bracklesham Group
- Chichester-Worthing-Portsdown Chalk
- East Hants Chalk Group
- South East Hants Bracklesham Group
- South Hants Lambeth Group
- South West Hants Barton Group

These GWBs were considered further in the assessment of potential deterioration in water body status.

### **L3.1.4 Boundary Issues**

Boundary issues within the assessment area are clear. At Hurst Spit the SMP boundary is consistent with the western edge of the Solent Coastal Water Body boundary and abuts to the Dorset/Hampshire boundary. At Selsey Bill the SMP boundary is further westward than the Isle of Wight East Coastal Water Body, which extends to the southern tip of the Bill, and abuts with the Sussex Coastal Water Body. Due to hydrodynamic and morphological processes acting at or near the Bill, potential changes in the Sussex Coastal Water Body should be checked as a part of the Beachy Head to Selsey Bill SMP. The SMP boundary has been determined due to coastal processes, as there is a sediment transport divergence at this junction, rather than at the southern tip of the Bill; therefore, whilst the SMP boundaries do not compromise this assessment, the SMP

boundary would not be consistently determined if altered to align with the Isle of Wight East and Sussex Coastal Water Bodies. Figure L3.2 indicates the consistency between the SMP and Coastal Water Body boundaries at Hurst Spit, and the discrepancy between SMP and Coastal Water Body boundaries at Selsey Bill.

### **L3.1.5 Natura Designated Sites**

The Natura 2000 designated sites within the North Solent SMP area are the:

- Solent and Southampton Water Ramsar site
- Portsmouth Harbour Ramsar site
- Langstone and Chichester Harbours Ramsar site
- Solent and Southampton Water SPA
- Portsmouth Harbour SPA
- Langstone and Chichester Harbours SPA
- Solent Maritime SAC
- Solent and Isle of Wight Lagoons SAC

The following 21 SSSI sites are also within the North Solent SMP area: Lymington River; Hurst Castle & Lymington River Estuary; North Solent; Calshot to Hythe Marshes; Dibden Bay; Eling and Bury Marshes; Lower Test Valley; Lee-on-the-Solent to Itchen Estuary; River Itchen; Lincegrove & Hackett's Marshes; Titchfield Haven; Browndown; Wild Grounds; Gilkicker Lagoon; Portsmouth Harbour; Langstone Harbour; Sinah Common; Chichester Harbour; Bracklesham Bay; Selsey East Beach; and Pagham.

### **L3.2 Defining Features and Issues**

The key features and issues for each Water Body in the SMP area are summarised in Assessment Table 2 together with the classification and the relevant WFD Environmental Objectives (i.e. WFD1, WFD2, WFD3 and WFD4) for each Water Body.

### **L3.3 Assessment of the SMP Policy against the WFD Environmental Objectives**

The potential impacts of SMP policies on WFD environmental objectives have been evaluated and are summarised in Assessment Table 3. The potential to meet or fail each of the relevant WFD environmental objectives has been assessed in terms of the effect of the proposed SMP policy on the relevant physical and hydromorphological parameters. The relationship between these parameters and the biological quality elements has already been determined in Assessment Table 2.

#### **L3.3.1 Environmental Objective WFD1**

There are currently no High Status Water Bodies within the North Solent SMP area. Hence, no further consideration of the impact of SMP policy on high status Water Bodies is required.

### **L3.3.2 Environmental Objective WFD2**

The following SMP policy units along the North Solent frontage do not present a significant risk of deterioration in ecological status or potential of the associated Water Bodies, nor do they present a risk of attaining Good Potential in these Water Bodies in the future;

Where the SMP policy is for NAI, this policy supports natural development of the frontage. Policies of AM (5A04) and HTL (5B02, 5C10, 5F01 and 5AHI05) where the line of defence is held through beach management activities have been considered and assessed as supporting natural development. These sites are managed as dynamic (not 'fixed') frontages, maintained through beach replenishment and sediment recycling but the line of defence may migrate landward or seaward, depending on prevailing coastal processes and wave climate conditions. As the ability of these managed beaches to respond naturally to such conditions is not prevented and erosion and accretion could continue to occur on a cyclical or ephemeral basis, the sites have been assessed at this broad scale as supporting natural development. Owing to the broad scale of the SMP assessments and the uncertainties of funding, timing and implementation of future beach replenishments it is not possible to provide more specific assessments for the proposed management of these frontages. Subsequent more detailed studies will need to determine the techniques and intervals for intervention and mitigation measures to be implemented and assess implications on water bodies, habitat management and coastal processes, etc.

Where the SMP policy is to implement Managed Realignment this is also in line with the mitigation measures identified in the RBMP as necessary to allow the modified Water Bodies to achieve Good Potential (see Assessment Tables 2 and 4 for details on these mitigation measures). Although these mitigation measures have not been screened in the RBMP development process for technical feasibility or disproportionate cost, they do present aspirations and the SMP policies for managed realignment present opportunities to contribute to these in each case.

Therefore, these SMP policies do not threaten Environmental Objective WFD2.

The remaining Policy Units have been identified as having potential to fail to meet Environmental Objective WFD2 (no changes that will cause failure to meet surface water Good Ecological Status or Potential or result in a deterioration of surface water Ecological Status or Potential);

This potential arises where the SMP policy of HTL for the defence of property or assets could result in some coastal squeeze and / or accelerated erosion, particularly in longer term epochs. This could lead to loss of foreshore and habitats, and related changes in the hydrodynamics could lead to increased abrasion and changes in substrate conditions. This could impact upon the BQEs identified in Table 2. Hence there is potential for deterioration in Ecological Status or Potential of the relevant water body and/or failure to meet good Status or Potential.

Each of these policy units has therefore been examined further to establish the justification for HTL (see Assessment Table 4).

### **L3.3.3 Environmental Objective WFD3**

None of the SMP policies are considered to present the potential to contribute to a failure in WFD3, i.e. to cause changes which would permanently prevent the environmental objectives of other Water Bodies being met.

### **L3.3.4 Environmental Objective WFD4**

MR and NAI policies could result in a change in the land areas that are tidally inundated. However, none of the policy units with MR or NAI policies overlie a groundwater outer source protection Zone (SPZ 3). Therefore, at the water body scale, all of the groundwater Water Bodies involved have been considered not at risk of saline intrusion. Thus the consequences of the MR and NAI policies are considered to be insignificant and to present no risk of deterioration in groundwater body status.

## **L3.4 WFD Summary Statements**

A Water Body by Water Body summary of achievement (or otherwise) of the Environmental Objectives for the SMP policies is shown in Assessment Table 4. Where any WFD environmental objective is at risk of not being met for any SMP policy unit, a WFD Summary Statement is complete in Assessment Table 5.





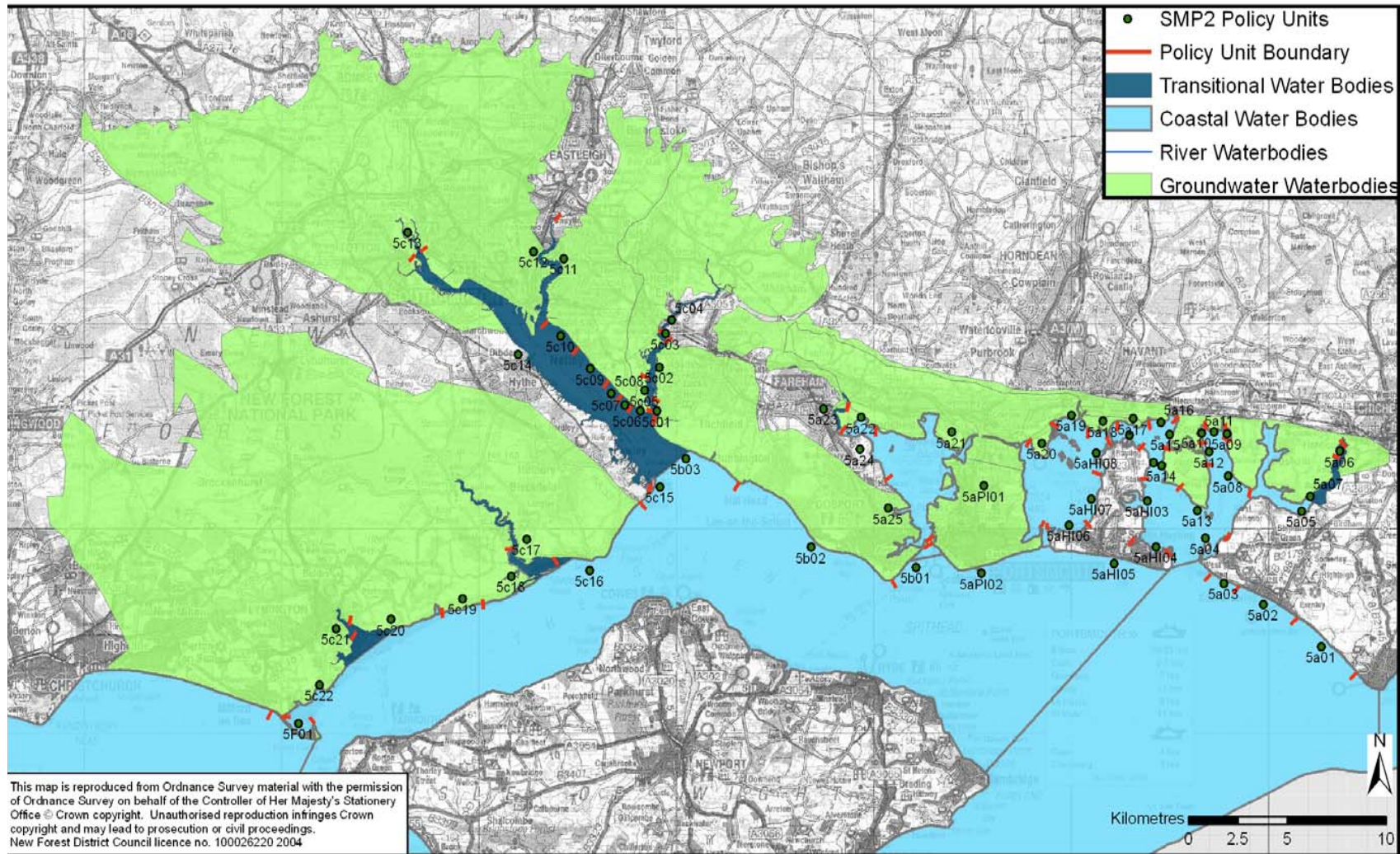


Figure L3.1 Water Bodies Associated with the North Solent SMP





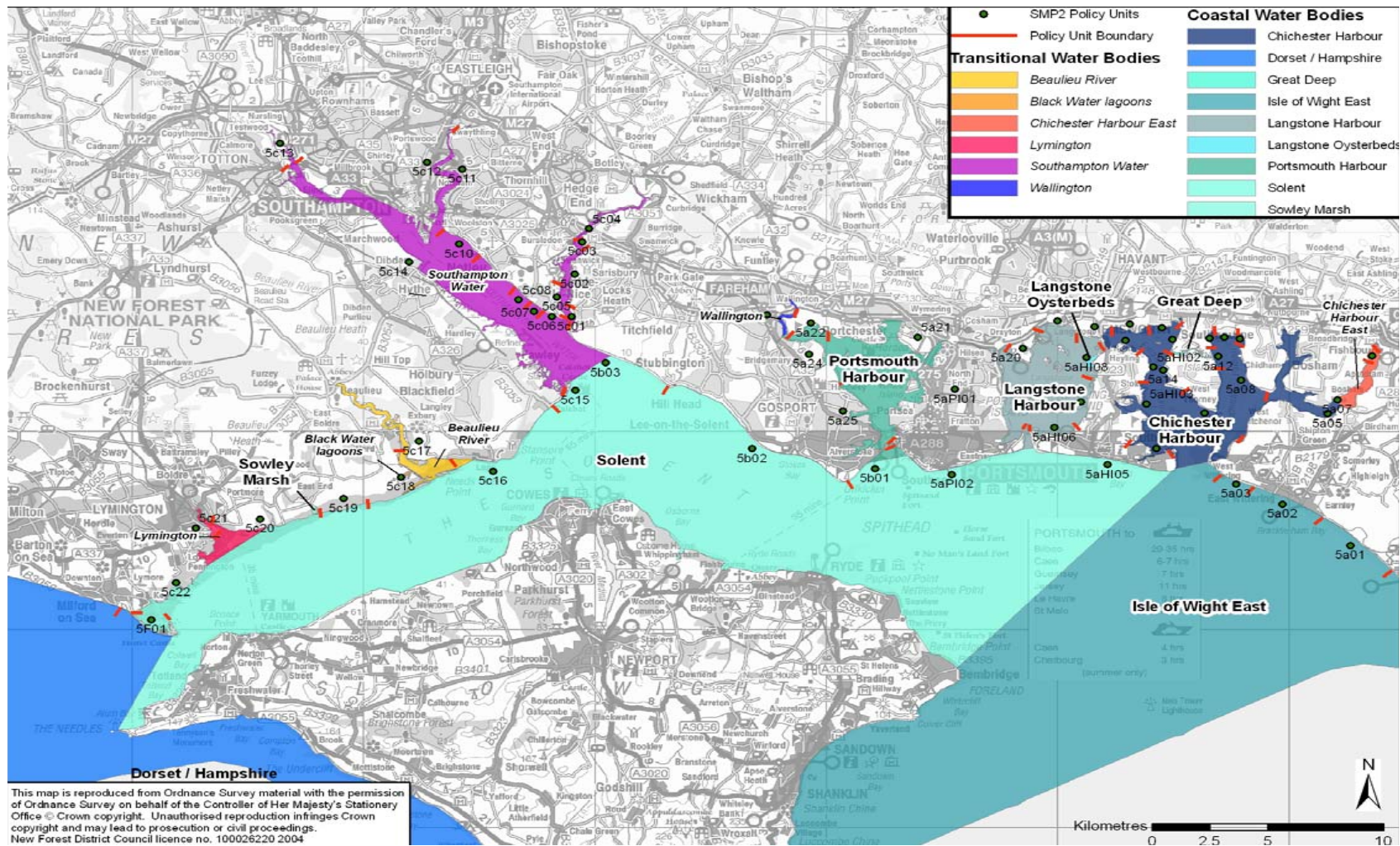


Figure L3.2 Transitional and Coastal (TraC) Water Bodies Associated with the North Solent SMP



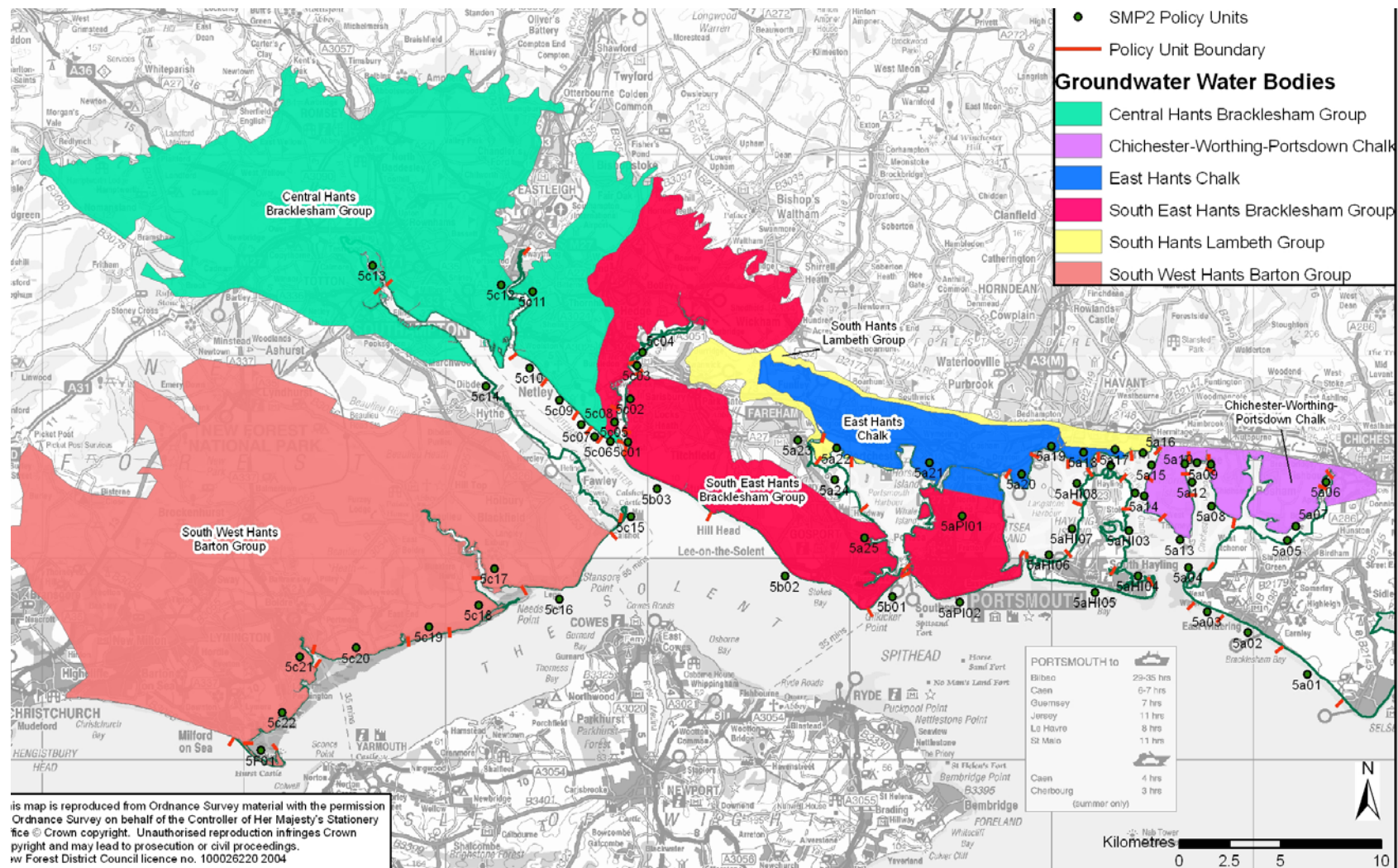


Figure L3.3 Groundwater Water Bodies Associated with the North Solent SMP



## L4 DISCUSSION AND CONCLUSIONS

North Solent SMP policies which have the potential to contribute to failure of Environmental Objectives are identified by an 'x' under the 'Environmental Objectives met?' column in Table 3). A Water Framework Directive Summary Statement has been completed for those relevant Water Bodies where there is potential for failure. The Summary Statement outlines the reasons behind selecting the final SMP policy and any mitigation measures that have been incorporated into the policies.

The Summary Statements also demonstrate that:

- There is overriding public interest in each case;
- In no policy unit is there an environmentally better option which would meet the required public interest;
- None of the policies would have significant effect on any internationally designated nature conservation site, designated fishery / shellfishery, or other water body (as needs to be assessed under Articles 4.8 of the WFD4)

There are no "high" status Water Bodies in the North Solent SMP study area, and therefore WFD Environmental Objective WFD1 does not apply.

Many of the SMP policy units do not present a notable risk of deterioration in ecological status or potential of the associated Water Bodies, and also support the likely mitigation measures identified in the RBMP as required to achieve at least good potential in Water Bodies. But for those Water Bodies which include SMP policy options that conflict with WFD environmental objective 2, Summary Statements have been prepared which set out mitigation measures to be further explored when implementing the final policies to minimise, reduce or avoid adverse impacts on the water bodies. More detailed assessments of the potential impacts on the affected Water Bodies and appropriate mitigation measures required will be undertaken through subsequent FCERMS or more detailed studies that will determine the management approaches to be implemented.

North Solent SMP policies which will modify coastal, estuarine and groundwater processes will only do so in localised areas. Therefore, changes in coastal, estuarine and groundwater processes along frontages adjacent to but outside the SMP area are not expected as a result of SMP policies. Hence WFD Environmental Objective 3 will be met.

None of the MR or NAI policies will result in saltwater overlying a groundwater SPZ. Furthermore, none of the groundwater Water Bodies are considered to be at risk from saline intrusion as a result of abstraction, which could make them more vulnerable to further saline risk. Thus, any change in groundwater quality as a result of movement of the coastline is considered a return to more natural conditions without any adverse effects on underlying groundwater Water Bodies. Therefore, WFD environmental objective 4 will be met.

Any MR related increase in intertidal areas associated with the collective SMP policies is seen by the Environment Agency and Natural England as a contribution to the interests of the internationally designated nature conservation sites in the area, and thus support the wider interests of Protected Areas associated with the Habitats and Birds Directives. The North Solent SMP makes generic comments about mitigation measures but does not include specific and detailed mitigation measures for each policy unit as no outline designs have yet been proposed; some comments on mitigation are made in this report.

The North Solent SMP presents opportunities to deliver good ecological potential or good ecological status in the Water Bodies through coastal monitoring and contribution to the following RBMP proposed mitigation measures:

- Retain marginal aquatic and riparian habitats (channel alteration) (Chichester Harbour, Langstone Harbour, Portsmouth Harbour, Chichester Harbour East)
- Preserve and where possible enhance ecological value of marginal aquatic habitat, banks and riparian zone (Chichester Harbour, Langstone Harbour, Portsmouth Harbour, Solent, Chichester Harbour East, Lymington, Southampton Water, Wallington)
- Removal of hard bank reinforcement / revetment, or replacement with soft engineering solution (Chichester Harbour, Langstone Harbour, Solent, Chichester Harbour East, Lymington, Wallington)
- Managed realignment of flood defence (Chichester Harbour, Langstone Harbour, Portsmouth Harbour, Solent, Chichester Harbour East, Lymington)
- Increase in-channel morphological diversity (Portsmouth Harbour)
- Vessel Management (Langstone Oysterbeds)
- Site selection (dredged material disposal) (e.g. avoid sensitive sites) (Langstone Oysterbeds)
- Sediment management (Langstone Oysterbeds)
- Alter timing of dredging / disposal (Langstone Oysterbeds)
- Prepare a dredging / disposal strategy (Langstone Oysterbeds)
- Avoid the need to dredge (e.g. minimise under-keel clearance; use fluid mud navigation; flow manipulation or training works) (Langstone Oysterbeds)
- Modify channel (Langstone Oysterbeds)
- Operational and structural changes to locks, sluices, weirs, beach control, etc (Lymington, Southampton Water)
- Removal of obsolete structure (Lymington)

## **References**

Defra (2006) Shoreline management plan guidance Volume 2: Procedures. Department for Environment, Food and Rural Affairs, March 2006, 77pp.

Environment Agency. Assessing Shoreline Management Plans against the requirements of the Water Framework Directive. Guidance and Background information.

Royal Haskoning (2008). Water Framework Directive: Retrospective Assessment for the River Tyne to Flamborough Head SMP



## L5 WFD ASSESSMENT TABLES 2-5

WFD Assessment Table 2: Water Framework Directive Features and Issues for the North Solent SMP

Feature			Issue	Water body classification and environmental objectives	Opportunity to deliver mitigation measures from the programme of measures &/or recommendations on final policy
Water body	Policy Units	Biological Quality Element	Potential for change in hydromorphological or physical parameter		
<b>Coastal</b>					
Chichester Harbour	5A04, 5A05, 5A07, 5A08, 5A09, 5A10, 5A11, 5A12, 5A13, 5A14, 5A15, 5A16, 5A17, 5A18, 5AHI01, 5AHI02, 5AHI03, 5AHI04, 5AHI05	Phytoplankton	Potential changes to phytoplankton through: changes in turbidity; changes in thermal depth; changes in water depth; changes in residence time	<p><b><u>Ecological Potential Status</u></b></p> <p><b>Current status; Moderate potential (HMWB)</b></p> <p><b>Ecological Status Objective; Good by 2027</b></p> <p><u>Environmental objectives:</u></p> <p>WFD 2: No changes that will cause failure to meet surface water Good Ecological Status or Potential or result in a deterioration of surface water Ecological Status or Potential</p> <p>WFD 3: No changes which will permanently prevent or compromise the</p>	<p><i>Programme of measures from RBMP that could be considered in SMP development or in schemes resulting from SMP policies are indicated below:</i></p> <ul style="list-style-type: none"> <li>• Indirect / offsite mitigation (offsetting measures)</li> <li>• Retain marginal aquatic and riparian habitats (channel alteration)</li> <li>• Preserve and where possible enhance ecological value of marginal aquatic habitat, banks and riparian zone</li> <li>• Managed realignment of flood defence</li> <li>• Removal of hard bank reinforcement / revetment, or replacement with soft</li> </ul>

Feature			Issue	Water body classification and environmental objectives	Opportunity to deliver mitigation measures from the programme of measures &/or recommendations on final policy
Water body	Policy Units	Biological Quality Element	Potential for change in hydromorphological or physical parameter		
				environmental objectives being met in other Water Bodies	engineering solution
Great Deep	5A12, 5A15	No BQE's		<p><b><u>Ecological Potential Status</u></b></p> <p><b>Current status; Moderate potential (not designated)</b></p> <p><b>Ecological Status Objective; Good by 2015</b></p> <p><u>Environmental objectives:</u></p> <p>WFD 2: No changes that will cause failure to meet surface water Good Ecological Status or Potential or result in a deterioration of surface water Ecological Status or Potential</p> <p>WFD 3: No changes which will permanently prevent or compromise the environmental objectives being met in other Water Bodies</p>	<p><i>Programme of measures from RBMP that could be considered in SMP development or in schemes resulting from SMP policies are indicated below:</i></p> <p>No mitigation measures recommended</p>

Feature			Issue	Water body classification and environmental objectives	Opportunity to deliver mitigation measures from the programme of measures &/or recommendations on final policy
Water body	Policy Units	Biological Quality Element	Potential for change in hydromorphological or physical parameter		
Isle of Wight East	5A01, 5A02, 5A03, 5A04, 5AH105	Benthic Invertebrates	Potential changes to benthic invertebrates through: connectivity with riparian zone; availability of organic debris; groundwater connectivity; light; beach water table (TraC)	<p><b><u>Ecological Potential Status</u></b></p> <p><b>Current status; Good potential (HMWB)</b></p> <p><b>Ecological Status Objective; Good by 2015</b></p> <p><u>Environmental objectives;</u></p> <p>WFD 2: No changes that will cause failure to meet surface water Good Ecological Status or Potential or result in a deterioration of surface water Ecological Status or Potential</p> <p>WFD 3: No changes which will permanently prevent or compromise the environmental objectives being met in other Water Bodies</p>	<p><i>Programme of measures from RBMP that could be considered in SMP development or in schemes resulting from SMP policies are indicated below:</i></p> <p>All recommended mitigation measures in place</p>
		Macroalgae	Potential changes to macroalgae through: changes in abrasion (associated with velocity); changes in salinity		
		Phytoplankton	Potential changes to phytoplankton through: changes in turbidity; changes in thermal depth; changes in water depth; changes in residence time		

Feature			Issue	Water body classification and environmental objectives	Opportunity to deliver mitigation measures from the programme of measures &/or recommendations on final policy
Water body	Policy Units	Biological Quality Element	Potential for change in hydromorphological or physical parameter		
Langstone Harbour	5A18, 5A19, 5A20, 5A21, 5API01, 5API02, 5AHI01, 5AHI06, 5AHI07, 5AHI08	Macroalgae	Potential changes to macroalgae through: changes in abrasion (associated with velocity); changes in salinity	<p><b><u>Ecological Potential Status</u></b></p> <p><b>Current status; Moderate Potential (HMWB)</b></p> <p><b>Ecological Status Objective; Good by 2027</b></p> <p><u>Environmental objectives;</u></p> <p>WFD 2: No changes that will cause failure to meet surface water Good Ecological Status or Potential or result in a deterioration of surface water Ecological Status or Potential</p> <p>WFD 3: No changes which will permanently prevent or compromise the environmental objectives being met in other Water Bodies</p>	<p><i>Programme of measures from RBMP that could be considered in SMP development or in schemes resulting from SMP policies are indicated below:</i></p> <ul style="list-style-type: none"> <li>• Indirect / offsite mitigation (offsetting measures)</li> <li>• Retain marginal aquatic and riparian habitats (channel alteration)</li> <li>• Preserve and where possible enhance ecological value of marginal aquatic habitat, banks and riparian zone</li> <li>• Managed realignment of flood defence</li> <li>• Removal of hard bank reinforcement / revetment, or replacement with soft engineering solution</li> </ul>
		Phytoplankton	Potential changes to phytoplankton through: changes in turbidity; changes in thermal depth; changes in water depth; changes in residence time		

Feature			Issue	Water body classification and environmental objectives	Opportunity to deliver mitigation measures from the programme of measures &/or recommendations on final policy
Water body	Policy Units	Biological Quality Element	Potential for change in hydromorphological or physical parameter		
Portsmouth Harbour	5A21, 5A22, 5A23, 5A24, 5A25, 5B01, 5API01, 5API02	Benthic Invertebrates	Potential changes to benthic invertebrates through: connectivity with riparian zone; availability of organic debris; groundwater connectivity; light; beach water table (TraC)	<p><b><u>Ecological Potential Status</u></b></p> <p><b>Current status; Moderate potential (HMWB)</b></p> <p><b>Status Objective; Good by 2027</b></p> <p><u>Environmental objectives;</u></p> <p>WFD 2: No changes that will cause failure to meet surface water Good Ecological Status or Potential or result in a deterioration of surface water Ecological Status or Potential</p>	<p><i>Programme of measures from RBMP that could be considered in SMP development or in schemes resulting from SMP policies are indicated below:</i></p> <ul style="list-style-type: none"> <li>• Indirect / offsite mitigation (offsetting measures)</li> <li>• Retain marginal aquatic and riparian habitats (channel alteration)</li> <li>• Preserve and where possible enhance ecological value of marginal aquatic habitat, banks and riparian zone</li> <li>• Managed realignment of flood defence</li> </ul>
		Macroalgae	Potential changes to macroalgae through: changes in abrasion (associated with velocity); changes in salinity		

Feature			Issue	Water body classification and environmental objectives	Opportunity to deliver mitigation measures from the programme of measures &/or recommendations on final policy
Water body	Policy Units	Biological Quality Element	Potential for change in hydromorphological or physical parameter		
		Phytoplankton	Potential changes to phytoplankton through: changes in turbidity; changes in thermal depth; changes in water depth; changes in residence time	WFD 3: No changes which will permanently prevent or compromise the environmental objectives being met in other Water Bodies	<ul style="list-style-type: none"> <li>• Increase in-channel morphological diversity</li> </ul>
Solent	5B01, 5B02, 5B03, 5C15, 5C16, 5C18, 5C19, 5C20, 5C22, 5F01, 5API02, 5AHI05	Benthic Invertebrates	Potential changes to benthic invertebrates through: connectivity with riparian zone; availability of organic debris; groundwater connectivity; light; beach water table (TraC)	<p><b><u>Ecological Potential Status</u></b></p> <p><b>Current status; Moderate Potential (HMWB)</b></p> <p><b>Ecological Status Objective; Good by 2027</b></p> <p><u>Environmental objectives:</u></p> <p>WFD 2: No changes that will cause failure to meet surface water Good Ecological Status or Potential or result in a deterioration of surface water Ecological Status or Potential</p>	<p><i>Programme of measures from RBMP that could be considered in SMP development or in schemes resulting from SMP policies are indicated below:</i></p> <ul style="list-style-type: none"> <li>• Indirect / offsite mitigation (offsetting measures)</li> <li>• Preserve and where possible enhance ecological value of marginal aquatic habitat, banks and riparian zone</li> <li>• Managed realignment of flood defence</li> <li>• Removal of hard bank reinforcement / revetment, or replacement with soft</li> </ul>
		Phytoplankton	Potential changes to phytoplankton through: changes in turbidity; changes in thermal depth; changes in water depth; changes in residence time		

Feature			Issue	Water body classification and environmental objectives	Opportunity to deliver mitigation measures from the programme of measures &/or recommendations on final policy
Water body	Policy Units	Biological Quality Element	Potential for change in hydromorphological or physical parameter		
				WFD 3: No changes which will permanently prevent or compromise the environmental objectives being met in other Water Bodies	engineering solution
Sowley Marsh	5C20	*Expert judgment used to evaluate this water body		<p><b><u>Ecological Potential Status</u></b></p> <p><b>Current status; Moderate potential (AWB)</b></p> <p><b>Status Objective; Good by 2027</b></p> <p><u>Environmental objectives:</u></p> <p>WFD 2: No changes that will cause failure to meet surface water Good Ecological Status or Potential or result in a deterioration of surface water Ecological Status or Potential</p> <p>WFD 3: No changes which will permanently prevent or</p>	<p><i>Programme of measures from RBMP that could be considered in SMP development or in schemes resulting from SMP policies are indicated below:</i></p> <p>No recommended mitigation measures</p>

Feature			Issue	Water body classification and environmental objectives	Opportunity to deliver mitigation measures from the programme of measures &/or recommendations on final policy
Water body	Policy Units	Biological Quality Element	Potential for change in hydromorphological or physical parameter		
				compromise the environmental objectives being met in other Water Bodies	
Dorset/Hampshire	5F01	Benthic Invertebrates	Potential changes to benthic invertebrates through: connectivity with riparian zone; availability of organic debris; groundwater connectivity; light; beach water table (TraC)	<p><b><u>Ecological Potential Status</u></b></p> <p><b>Current status; Good potential (HMWB)</b></p> <p><b>Ecological Status Objective; Good by 2015</b></p> <p><u>Environmental objectives;</u></p> <p>WFD 2: No changes that will cause failure to meet surface water Good Ecological Status or Potential or result in a</p>	No mitigation measures recommended
		Macroalgae	Potential changes to macroalgae through: changes in abrasion (associated with velocity); changes in salinity		



Feature			Issue	Water body classification and environmental objectives	Opportunity to deliver mitigation measures from the programme of measures &/or recommendations on final policy
Water body	Policy Units	Biological Quality Element	Potential for change in hydromorphological or physical parameter		
		Phytoplankton	Potential changes to phytoplankton through: changes in turbidity; changes in thermal depth; changes in water depth; changes in residence time	deterioration of surface water Ecological Status or Potential  WFD 3: No changes which will permanently prevent or compromise the environmental objectives being met in other Water Bodies	
Langstone Oysterbeds	5AHI08	*Expert judgment used to evaluate this water body		<b><u>Ecological Potential Status</u></b>  <b>Current status; Moderate potential (AWB)</b>  <b>Status Objective; Good by 2027</b>  <u>Environmental objectives:</u>  WFD 2: No changes that will cause failure to meet surface water Good Ecological Status or Potential or result in a deterioration of surface water Ecological Status or Potential	<i>Programme of measures from RBMP that could be considered in SMP development or in schemes resulting from SMP policies are indicated below:</i>  <ul style="list-style-type: none"> <li>• Vessel Management</li> <li>• Site selection (dredged material disposal) (e.g. avoid sensitive sites)</li> <li>• Sediment management</li> <li>• Alter timing of dredging / disposal</li> <li>• Prepare a dredging / disposal strategy</li> <li>• Avoid the need to dredge (e.g. minimise</li> </ul>

Feature			Issue	Water body classification and environmental objectives	Opportunity to deliver mitigation measures from the programme of measures &/or recommendations on final policy
Water body	Policy Units	Biological Quality Element	Potential for change in hydromorphological or physical parameter		
				WFD 3: No changes which will permanently prevent or compromise the environmental objectives being met in other Water Bodies	under-keel clearance; use fluid mud navigation; flow manipulation or training works) <ul style="list-style-type: none"> <li>• Modify channel</li> </ul>
<b>Transitional</b>					
Beaulieu River	5C16, 5C17, 5C18	No BQE's		<p><b>Ecological Potential Status</b>  <b>Current status; Moderate potential (HMWB)</b>  <b>Status Objective; Good by 2027</b></p> <p><u>Environmental objectives;</u></p> <p>WFD 2: No changes that will cause failure to meet surface water Good Ecological Status or Potential or result in a deterioration of surface water Ecological Status or Potential</p> <p>WFD 3: No changes which will permanently prevent or compromise the environmental objectives being met in other Water Bodies</p>	<p><i>Programme of measures from RBMP that could be considered in SMP development or in schemes resulting from SMP policies are indicated below:</i></p> <p>All recommended mitigation measures in place</p>

Feature			Issue	Water body classification and environmental objectives	Opportunity to deliver mitigation measures from the programme of measures &/or recommendations on final policy
Water body	Policy Units	Biological Quality Element	Potential for change in hydromorphological or physical parameter		
Chichester Harbour East	5A05, 5A06, 5A07	No BQE's		<p><b><u>Ecological Potential Status</u></b></p> <p><b>Current status; Moderate potential (HMWB)</b></p> <p><b>Status Objective; Good by 2027</b></p> <p><u>Environmental objectives;</u></p> <p>WFD 2: No changes that will cause failure to meet surface water Good Ecological Status or Potential or result in a deterioration of surface water Ecological Status or Potential</p> <p>WFD 3: No changes which will permanently prevent or compromise the environmental objectives being met in other Water Bodies</p>	<p><i>Programme of measures from RBMP that could be considered in SMP development or in schemes resulting from SMP policies are indicated below:</i></p> <ul style="list-style-type: none"> <li>• Indirect / offsite mitigation (offsetting measures)</li> <li>• Retain marginal aquatic and riparian habitats (channel alteration)</li> <li>• Preserve and where possible enhance ecological value of marginal aquatic habitat, banks and riparian zone</li> <li>• Managed realignment of flood defence</li> <li>• Removal of hard bank reinforcement / revetment, or replacement with soft engineering solution</li> </ul>

Feature			Issue	Water body classification and environmental objectives	Opportunity to deliver mitigation measures from the programme of measures &/or recommendations on final policy
Water body	Policy Units	Biological Quality Element	Potential for change in hydromorphological or physical parameter		
Lymington	5C20, 5C21, 5C22	No BQE's		<p><b><u>Ecological Potential Status</u></b></p> <p><b>Current status; Moderate potential (HMWB)</b></p> <p><b>Status Objective; Good by 2027</b></p> <p><u>Environmental objectives;</u></p> <p>WFD 2: No changes that will cause failure to meet surface water Good Ecological Status or Potential or result in a deterioration of surface water Ecological Status or Potential</p> <p>WFD 3: No changes which will permanently prevent or compromise the environmental objectives being met in other Water Bodies</p>	<p><i>Programme of measures from RBMP that could be considered in SMP development or in schemes resulting from SMP policies are indicated below:</i></p> <ul style="list-style-type: none"> <li>• Indirect / offsite mitigation (offsetting measures)</li> <li>• Operational and structural changes to locks, sluices, weirs, beach control, etc</li> <li>• Preserve and where possible enhance ecological value of marginal aquatic habitat, banks and riparian zone</li> <li>• Managed realignment of flood defence</li> <li>• Removal of hard bank reinforcement / revetment, or replacement with soft engineering solution</li> <li>• Remove obsolete structure</li> </ul>

Feature			Issue	Water body classification and environmental objectives	Opportunity to deliver mitigation measures from the programme of measures &/or recommendations on final policy
Water body	Policy Units	Biological Quality Element	Potential for change in hydromorphological or physical parameter		
Southampton Water	5B03, 5C01, 5C02, 5C03, 5C04, 5C05, 5C06, 5C07, 5C08, 5C09, 5C10, 5C11, 5C12, 5C13, 5C14, 5C15	Fish	Potential changes to fish through: heterogeneity of habitat (changes in substrate, provision of shelter); continuity for migration routes; substrate conditions; accessibility to nursery areas (elevation of saltmarshes, connectivity with shoreline); presence of macrophytes	<p><b>Ecological Potential Status</b></p> <p><b>Current status; Moderate potential (HMWB)</b></p> <p><b>Status Objective; Good by 2027</b></p> <p><u>Environmental objectives;</u></p> <p>WFD 2: No changes that will cause failure to meet surface water Good Ecological Status or Potential or result in a deterioration of surface water Ecological Status or Potential</p> <p>WFD 3: No changes which will permanently prevent or compromise the environmental objectives being met in other Water Bodies</p>	<p><i>Programme of measures from RBMP that could be considered in SMP development or in schemes resulting from SMP policies are indicated below:</i></p> <ul style="list-style-type: none"> <li>• Indirect / offsite mitigation (offsetting measures)</li> <li>• Operational and structural changes to locks, sluices, weirs, beach control, etc</li> <li>• Preserve and where possible enhance ecological value of marginal aquatic habitat, banks and riparian zone</li> </ul>
		Benthic Invertebrates	Potential changes to benthic invertebrates through: connectivity with riparian zone; availability of organic debris; groundwater connectivity; light; beach water table (TraC)		
		Macroalgae	Potential changes to macroalgae through: changes in abrasion (associated with velocity); changes in salinity		

Feature			Issue	Water body classification and environmental objectives	Opportunity to deliver mitigation measures from the programme of measures &/or recommendations on final policy
Water body	Policy Units	Biological Quality Element	Potential for change in hydromorphological or physical parameter		
Wallington	5A22, 5A23	Macroalgae	Potential changes to macroalgae through: changes in abrasion (associated with velocity); changes in salinity	<p><b><u>Ecological Potential Status</u></b></p> <p><b>Current status; Moderate potential (HMWB)</b></p> <p><b>Status Objective; Good by 2027</b></p> <p><u>Environmental objectives;</u></p> <p>WFD 2: No changes that will cause failure to meet surface water Good Ecological Status or Potential or result in a deterioration of surface water Ecological Status or Potential</p> <p>WFD 3: No changes which will permanently prevent or compromise the environmental objectives being met in other Water Bodies</p>	<p><i>Programme of measures from RBMP that could be considered in SMP development or in schemes resulting from SMP policies are indicated below:</i></p> <ul style="list-style-type: none"> <li>• Preserve and where possible enhance ecological value of marginal aquatic habitat, banks and riparian zone</li> <li>• Removal of hard bank reinforcement / revetment, or replacement with soft engineering solution</li> </ul>

Feature			Issue	Water body classification and environmental objectives	Opportunity to deliver mitigation measures from the programme of measures &/or recommendations on final policy
Water body	Policy Units	Biological Quality Element	Potential for change in hydromorphological or physical parameter		
Black Water Lagoon	5C18	*Expert judgment used to evaluate this water body		<p><b><u>Ecological Potential Status</u></b></p> <p><b>Current status; Moderate potential (AWB)</b></p> <p><b>Status Objective; Good by 2027</b></p> <p><u>Environmental objectives;</u></p> <p>WFD 2: No changes that will cause failure to meet surface water Good Ecological Status or Potential or result in a deterioration of surface water Ecological Status or Potential</p> <p>WFD 3: No changes which will permanently prevent or compromise the environmental objectives being met in other Water Bodies</p>	<p><i>Programme of measures from RBMP that could be considered in SMP development or in schemes resulting from SMP policies are indicated below:</i></p> <p>No recommended mitigation measures</p>

Feature			Issue	Water body classification and environmental objectives	Opportunity to deliver mitigation measures from the programme of measures &/or recommendations on final policy
Water body	Policy Units	Biological Quality Element	Potential for change in hydromorphological or physical parameter		
<b>Groundwater</b>					
Central Hants Bracklesham Group	5C05, 5C06, 5C07, 5C08, 5C09, 5C10, 5C11, 5C12, 5C13, 5C14			<p><b><u>Ecological Potential Status</u></b></p> <p><b>Current status: Good status for saline intrusion</b>  <b>Status Objective: Good status for saline intrusion by 2015</b></p> <p>Environmental objectives: WFD 4; No changes that will cause failure to meet good groundwater status or result in a deterioration of groundwater status</p>	
Chichester-Worthing_Portsmouth Chalk	5A05, 5A06, 5A07, 5A08, 5A09, 5A10, 5A11, 5A12, 5A13, 5A14, 5A15, 5A16			<p><b><u>Ecological Potential Status</u></b></p> <p><b>Current status: Good status for saline intrusion</b>  <b>Predicted status: Good status for saline intrusion by 2015</b></p> <p>Environmental objectives; WFD 4; No changes that will cause failure to meet good groundwater status or result in a deterioration of groundwater status</p>	



Feature			Issue	Water body classification and environmental objectives	Opportunity to deliver mitigation measures from the programme of measures &/or recommendations on final policy
Water body	Policy Units	Biological Quality Element	Potential for change in hydromorphological or physical parameter		
East Hants Chalk	5A17, 5A18, 5A19, 5A20, 5A21, 5A22, 5A23, 5API01			<p><b><u>Ecological Potential Status</u></b></p> <p><b>Current status: Good status for saline intrusion</b>  <b>Status Objective: Good status for saline intrusion by 2015</b></p> <p>Environmental objectives; WFD 4; No changes that will cause failure to meet good groundwater status or result in a deterioration of groundwater status</p>	
South East Hants Bracklesham Group	5A25, 5B01, 5B02, 5B03, 5C01, 5C02, 5C03, 5C04, 5C05, 5API01			<p><b><u>Ecological Potential Status</u></b></p> <p><b>Current status: Good status for saline intrusion</b>  <b>Status Objective: Good status for saline intrusion by 2015</b></p> <p>Environmental objectives; WFD 4; No changes that will cause failure to meet good groundwater status or result in a deterioration of groundwater status</p>	

Feature			Issue	Water body classification and environmental objectives	Opportunity to deliver mitigation measures from the programme of measures &/or recommendations on final policy
Water body	Policy Units	Biological Quality Element	Potential for change in hydromorphological or physical parameter		
South Hants Lambeth Group	5A16, 5A17, 5A21, 5A22, 5A23			<p><b><u>Ecological Potential Status</u></b></p> <p><b>Current status: Good status for saline intrusion</b>  <b>Status Objective: Good status for saline intrusion by 2015</b></p> <p>Environmental objectives; WFD 4; No changes that will cause failure to meet good groundwater status or result in a deterioration of groundwater status</p>	
South West Hants Barton Group	5C16, 5C17, 5C18, 5C19, 5C20, 5C21, 5C22, 5F01			<p><b><u>Ecological Potential Status</u></b></p> <p><b>Current status: Good status for saline intrusion</b>  <b>Status Objective: Good status for saline intrusion by 2015</b></p> <p>Environmental objectives; WFD 4; No changes that will cause failure to meet good groundwater status or result in a deterioration of groundwater status</p>	

**WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP** (Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
5A01	Selsey West Beach to Bracklesham	MR	HTL	HTL	In order to improve the standard of flood protection, managed realignment along the Medmerry frontage has been assessed as the final option through the approved Pagham to East Head Coastal Defence Strategy. This will require new defences to be constructed landwards of the present shingle ridge, and will allow the creation of valuable inter-tidal habitats. The barrier beach will need to be maintained until the new defences are functional and the realignment can be implemented. The new defences will be maintained on the retreated line over the next 100 years. The MR policy supports natural development of the frontage. Hence there should be no significant changes to physical or hydro-morphological parameters that could impact on BQE's. As such deterioration in Ecological Potential is not considered likely as a result of the SMP policy.	n/a	✓	✓	n/a
5A02	Bracklesham to East Wittering	HTL	HTL	HTL	The intent here is to maintain the current defence line over the next 100 years. Defences will have to be raised over time to account for the risk from rising sea levels. However, as a result the foreshore may experience significant steepening and lowering unless beach replenishment operations are undertaken. This could impact on benthic invertebrate, macroalgae and phytoplankton BQE's through potential changes in	n/a	*	✓	n/a

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
					abrasion, salinity, turbidity, light, water depth, residence time, beach water table, groundwater connectivity, connectivity with riparian zone and availability of organic debris. Hence, there is potential for deterioration in surface water Ecological Potential as a result of the SMP policy.				
5A03	East Wittering to Cakeham	HTL	HTL (potential minor MR at Cakeham)	HTL	<p>In the medium to long term a slight realignment of defences at Cakeham may provide improved sediment transport and slow the rate of beach loss, acting to stabilise beach widths and levels. The new defence line would be maintained over the next 100yrs. This policy has been assessed as the final option through the Pagham to East Head Coastal Defence Strategy.</p> <p>However, maintaining the current line of defence could result in a short term loss of foreshore. This could impact on benthic invertebrate, macroalgae and phytoplankton BQE's through potential changes in abrasion, salinity, turbidity, light, water depth, residence time, beach water table, groundwater connectivity, connectivity with riparian zone and availability of organic debris. Hence, there is potential for short term deterioration in surface water Ecological Potential as a result of the SMP policy.</p>	n/a	*	✓	n/a

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
 (Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
5A04	Cakeham to Ella Nore Lane	AM	AM	AM	This Policy Unit has been defined and assessed in the approved Pagham to East Head Coastal Defence Strategy, which determined an Adaptive Management policy for the frontage. Adaptive management practices will become increasingly important for the future of this unit, not only to conserve its environmental, amenity and socio-economic values but also to manage the effects of coastal process on the wider harbour which is designated as environmentally important for a number of national and international features and is also an Area of Outstanding Natural Beauty. Ongoing coastal monitoring, defence maintenance and recycling activities will be required to maintain the integrity of the system at East Head spit. To manage the flood risk to West Wittering Village new flood defences will also need to be constructed. The AM policy supports natural development of the frontage. Hence there should be no significant changes to physical or hydro-morphological parameters that could impact on BQE's. As such deterioration in Ecological Potential is not considered likely as a result of the SMP policy.	n/a	✓	✓	n/a
5A05	Ella Nore Lane to Fishbourne	HTL (NPFA)	HTL (NPFA)	HTL (NPFA) (potential minor MR at Horse Pond)	The landowner's intent is to maintain the current defence line over the next 100 years. Maintenance of defence structures would result in the continued loss of inter-tidal foreshore habitats. This could impact on the phytoplankton BQE through potential changes in turbidity, water depth, thermal depth and residence time. Whilst this SMP policy may result in potential short term deterioration in surface water Ecological Potential, the policy would not prevent	n/a	*	✓	✓

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
(Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
					obtaining good groundwater status or result in deterioration in groundwater status. There are also localised managed realignment opportunities for inter-tidal habitat creation Horse Pond in the longer term.				
5A06	Fishbourne	HTL (NPFA)	HTL (NPFA)	HTL (NPFA)	It is the intention of the landowner to maintain the current defence line. Maintenance of defence structures would continue to cause erosion and lowering of intertidal foreshore habitats. Whilst this SMP policy may result in potential short term deterioration in surface water Ecological Potential, the policy would not prevent obtaining good groundwater status or result in deterioration in groundwater status.	n/a	*	✓	✓
5A07	Fishbourne to west of Cobnor Point	HTL (NPFA) (localised MR East Chidham)	HTL (NPFA)	HTL (NPFA)	Continued maintenance of the defences would provide protection of the historical residential areas of Bosham and Chidham, agricultural assets and landholdings, plus several boatyards and sailing clubs. There are localised managed realignment opportunities for inter-tidal habitat creation at East Chidham in the short term, currently behind privately maintained defences. Continued maintenance of defence structures would result in the continued erosion and lowering of intertidal foreshore habitats under rising sea levels. This could impact on the phytoplankton BQE through potential changes in turbidity, water depth, thermal depth and residence time. Whilst this SMP policy may result in potential short term deterioration in surface water Ecological Potential, the policy would not prevent obtaining good groundwater status or result in deterioration in groundwater status	n/a	*	✓	✓

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
(Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
5A08	West of Cobnor Point to Chidham Point	MR	HTL	HTL	The lack of infrastructure, properties or designated habitats at risk from tidal flooding, provides an opportunity for realigning the existing privately owned and maintained defences to improve flood storage capacity and inter-tidal habitat creation. New landward defences have already been constructed and the site is currently in a pre-realignment state. The MR policy supports natural development of the frontage. Hence there should be no significant changes to physical or hydro-morphological parameters that could impact on BQE's, This SMP policy is not likely to prevent Good Ecological Status being obtained or result in deterioration in surface water Ecological Potential, or prevent obtaining good groundwater status or result in deterioration in groundwater status.	n/a	✓	✓	✓
5A09	Chidham Point to Nutbourne	HTL	HTL	HTL	The intent along this short frontage is to continue to maintain the current defence line over the next 100 years. However this would result in the continued erosion and lowering of intertidal foreshore habitats. There is minimal erosion risk within this sheltered area of the harbour, although foreshores are likely to erode as sea levels rise. This could impact on the phytoplankton BQE through potential changes in turbidity, water depth, thermal depth and residence time. Whilst this SMP policy may result in potential short term deterioration in surface water Ecological Potential, the policy would not prevent obtaining good groundwater status or result in deterioration in groundwater status.	n/a	*	✓	✓

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
(Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
5A10	Nutbourne	HTL (NPFA)	HTL (NPFA)	HTL (NPFA)	The intent along this short frontage is to continue to maintain the current defence line over the next 100 years. There is minimal erosion risk within this sheltered area of the harbour, although foreshores are likely to erode as sea levels rise. This would result in the continued erosion and lowering of intertidal foreshore habitats. This could impact on the phytoplankton BQE through potential changes in turbidity, water depth, thermal depth and residence time. Whilst this SMP policy may result in potential short term deterioration in surface water Ecological Potential, the policy would not prevent obtaining good groundwater status or result in deterioration in groundwater status.	n/a	*	✓	✓
5A11	Nutbourne to Prinsted	HTL	HTL	HTL	The intent along this short, largely privately-owned frontage is to maintain the current defence line over the next 100 years, in order to continue to provide protection from the significant coastal flood risk to agricultural land, residential centres and transport links further inland. There is minimal erosion risk due to the sheltered nature of the area. However continued maintenance of defences would result in the erosion and lowering of intertidal habitats levels over the coming 20-100 years due to the harbour naturally deepening as a function of rising sea levels. This could impact on the phytoplankton BQE through potential changes in turbidity, water depth, thermal depth and residence time. Whilst this SMP policy may result in potential short term deterioration in surface water Ecological Potential, the policy would not prevent obtaining good groundwater status or result in	n/a	*	✓	✓

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
(Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)



Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
					deterioration in groundwater status.				
5A12	Prinsted to Stanbury Point	HTL	HTL	HTL	The intent along this short, largely privately-owned frontage is to maintain the current defence line over the next 100 years. The existing flood defences will continue to be maintained by the MOD to protect the operational capabilities of their facilities for as long as they occupy the site, although this will cause continued erosion and lowering of intertidal foreshore habitats. This could impact on the phytoplankton BQE through potential changes in turbidity, water depth, thermal depth and residence time. Whilst this SMP policy may result in potential short term deterioration in surface water Ecological Potential, the policy would not prevent obtaining good groundwater status or result in deterioration in groundwater status.	n/a	*	✓	✓
5A13	Stanbury Point to Marker Point	HTL	HTL	HTL	The existing flood defences will continue to be maintained by the MOD to protect the operational capabilities of their facilities for as long as they occupy the site, although this will cause continued erosion and lowering of intertidal foreshore habitats. This could impact on the phytoplankton BQE through potential changes in turbidity, water depth, thermal depth and residence time. Whilst this SMP policy may result in potential short term deterioration in surface water Ecological Potential, the policy would not prevent obtaining good groundwater status or result in deterioration in groundwater status.	n/a	*	✓	✓

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
(Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
5A14	Marker Point to Wickor Point	HTL	HTL	HTL	The existing flood defences will continue to be maintained by the MOD to protect the operational capabilities of their facilities for as long as they occupy the site, although this will cause continued erosion and lowering of intertidal foreshore habitats. This could impact on the phytoplankton BQE through potential changes in turbidity, water depth, thermal depth and residence time. Whilst this SMP policy may result in potential short term deterioration in surface water Ecological Potential, the policy would not prevent obtaining good groundwater status or result in deterioration in groundwater status.	n/a	*	✓	✓
5A15	Wickor Point to Emsworth Yacht Haven	HTL	HTL	HTL	The existing flood defences will continue to be maintained by the MOD to protect the operational capabilities of their facilities for as long as they occupy the site, although this will cause continued erosion and lowering of intertidal foreshore habitats. This could impact on the phytoplankton BQE through potential changes in turbidity, water depth, thermal depth and residence time. Whilst this SMP policy may result in potential short term deterioration in surface water Ecological Potential, the policy would not prevent obtaining good groundwater status or result in deterioration in groundwater status.	n/a	*	✓	✓
5A16	Emsworth Yacht Haven to Maisemore Gardens	HTL	HTL	HTL	This Policy Unit has been defined and assessed in the draft Portchester to Emsworth Coastal Defence Strategy, which has recommended a HTL policy for the frontage. Continuing existing maintenance of the privately owned defences would reduce the risk of tidal flooding to the residential area of Emsworth and its associated	n/a	*	✓	✓

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
(Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
					community facilities and commercial properties. A conservation area here contains two tidal mill ponds (Slipper Mill & Emsworth Mill) both of high historical value. Maintenance of defence structures would continue to cause erosion and lowering of intertidal foreshore habitats due to the harbour naturally deepening as a function of increased sea levels. This could impact on the phytoplankton BQE through potential changes in turbidity, water depth, thermal depth and residence time. Whilst this SMP policy may result in potential short term deterioration in surface water Ecological Potential, the policy would not prevent obtaining good groundwater status or result in deterioration in groundwater status.				
5A17	Maisemore Gardens to Wade Lane	HTL	HTL* *=Further detailed studies are required which consider MR at Conigar and Warbling'n	HTL* *=Further detailed studies are required which consider MR at Conigar and Warbling'n	This frontage has been assessed in the draft Portchester to Emsworth Coastal Defence Strategy, which has recommended a HTL Policy for the frontage in the short term to minimise the risk of tidal flooding to a cemetery, amenity open space and agricultural grade land with NAI in the medium/longer term. There is a potential opportunity for localised managed realignment to create inter-tidal habitat at Conigar Point in the short term and at Warblington in the longer term. These managed realignment options would require landowner consent and the construction of secondary defences at Warblington to protect the cemetery. Analysis of shoreline erosion indicates the rate and scale of coastal processes are less within the harbours than on the open coast, though maintenance of defence structures would continue to	n/a	*	✓	✓

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
(Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
					cause erosion and lowering of intertidal foreshore habitats. This could impact on the phytoplankton BQE through potential changes in turbidity, water depth, thermal depth and residence time. Whilst this SMP policy may result in potential short term deterioration in surface water Ecological Potential, the policy would not prevent obtaining good groundwater status or result in deterioration in groundwater status.				
5A18	Wade Lane to Southmoor Lane	HTL	HTL* *=Further detailed studies are required which consider MR at Southmoor	HTL* *=Further detailed studies are required which consider MR at Southmoor	This frontage has been assessed in the draft Portchester to Emsworth Coastal Defence Strategy, which has recommended a HTL policy for the frontage. Continued maintenance of the current defence line will provide flood risk management to considerable assets at risk. These include the regionally important A27 and railway lines, the residential area of Langstone (with its community facilities and commercial properties), agricultural grade 1 land and cross-harbour infrastructure. Holding the line will contribute towards the loss of inter-tidal foreshore habitats. This could impact on the phytoplankton and macroalgae BQEs through potential changes in turbidity, water depth, thermal depth, residence time, abrasion (associated with velocity) and salinity. Whilst this SMP policy may result in potential short term deterioration in surface water Ecological Potential, the policy would not prevent obtaining good groundwater status or result in deterioration in groundwater status.	n/a	*	✓	✓

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
(Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
5A19	Southmoor Lane to Farlington Marshes (east)	HTL	HTL	HTL	This frontage has been assessed in the draft Portchester to Emsworth Coastal Defence Strategy, which has recommended a HTL policy for the frontage. Continued maintenance of the current defence line will provide flood risk management to the considerable assets at risk. Holding the defence line will contribute towards the loss of inter-tidal foreshore. This could impact on the phytoplankton and macroalgae BQEs through potential changes in turbidity, water depth, thermal depth, residence time, abrasion (associated with velocity) and salinity. Whilst this SMP policy may result in potential short term deterioration in surface water Ecological Potential, the policy would not prevent obtaining good groundwater status or result in deterioration in groundwater status.	n/a	*	✓	✓
5A20	Farlington	HTL	HTL*	HTL*	The site is a key designated site for its nature	n/a	*	✓	✓

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
		<p>*=In addition to a study looking across the context of the wider strategic network of sites, a study is required to confirm the future management of the site. This is likely to be a range of options from HTL to MR. This is likely to result in doing something different, to recognise coastal change. The study will address the economic, environmental and social implications and flood management issues of the site. To be reflected in the implementation plan of strategy and Action plan of the SMP. SMP, Strategy and Sustainability study are to have clear engagement plans. The SMP and Strategy will be advising the Regional Habitat Creation Plan of the likelihood of the need to provide compensatory habitat for the features and amenities of Farlington Marshes, and given the uncertain timescales this needs to be taken account of now.)</p>							

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
 (Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
5A21	Farlington Marshes (west) to Cadour Drive	HTL	HTL	HTL	A Coastal Defence Strategy is required between Portchester and Hoeford Lake to determine the best shoreline management option, but in the interim the intent is to maintain the existing standard of defence. For the frontage as far eastward as Portchester Castle, the recommendation from the draft Portchester to Emsworth Coastal Defence Strategy is for the current defence line to be held for the next 100 years, although this will cause continued erosion and lowering of intertidal foreshore habitats due to the harbour naturally deepening as a function of increased sea levels. This could impact on the phytoplankton, macroalgae and benthic invertebrate BQEs through potential changes in turbidity, water depth, thermal depth, residence time, abrasion (associated with velocity), salinity, connectivity with riparian zone, availability of organic debris, groundwater connectivity, light, and the beach water table. Whilst this SMP policy may result in potential short term deterioration in surface water Ecological Potential, the policy would not prevent obtaining good groundwater status or result in deterioration in groundwater status.	n/a	*	✓	✓
5A22	Cadour Drive to A27	HTL	HTL	HTL	Until such studies are concluded the intent here is to maintain the existing standard of defence, which will continue to cause the erosion and lowering of intertidal foreshore habitats. This could impact on the phytoplankton, macroalgae and benthic invertebrate BQEs through potential changes in turbidity, water depth, thermal depth, residence time, abrasion (associated with	n/a	*	✓	✓

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
(Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
					velocity), salinity, connectivity with riparian zone, availability of organic debris, groundwater connectivity, light, and the beach water table. Whilst this SMP policy may result in potential short term deterioration in surface water Ecological Potential, the policy would not prevent obtaining good groundwater status or result in deterioration in groundwater status.				
5A23	A27 to Fleetlands (MOD boundary)	HTL	HTL	HTL	The policy recommendation is to maintain the current defence line for the next 100 years. Continued maintenance of defences by the local authority, private individuals, and the MOD will cause the erosion and lowering of the intertidal foreshore as the harbour deepens as a function of increased sea levels. This could impact on the phytoplankton, macroalgae and benthic invertebrate BQEs through potential changes in turbidity, water depth, thermal depth, residence time, abrasion (associated with velocity), salinity, connectivity with riparian zone, availability of organic debris, groundwater connectivity, light, and the beach water table. Whilst this SMP policy may result in potential short term deterioration in surface water Ecological Potential, the policy would not prevent obtaining good groundwater status or result in deterioration in groundwater status.	n/a	*	✓	✓
5A24	Fleetlands (MOD boundary) to Quay Lane (MOD	HTL	HTL	HTL	The existing defences are owned and maintained by the MOD. However the site is currently being re-allocated and maintenance of defences may transfer to the Local Authority; until this is completed MOD will continue to maintain defences. In light of this the recommendation	n/a	*	✓	✓

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
(Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)



Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
	Boundary)				here is to maintain the current defence line for the next 100 years. Continued maintenance of defences by the local authority, private individuals, and the MOD will cause the erosion and lowering of the intertidal foreshore as the harbour deepens as a function of increased sea levels. This could impact on the phytoplankton, macroalgae and benthic invertebrate BQEs through potential changes in turbidity, water depth, thermal depth, residence time, abrasion (associated with velocity), salinity, connectivity with riparian zone, availability of organic debris, groundwater connectivity, light, and the beach water table. Whilst this SMP policy may result in potential short term deterioration in surface water Ecological Potential, the policy would not prevent obtaining good groundwater status or result in deterioration in groundwater status.				
5A25	Quay Lane (MOD Boundary) to Portsmouth Harbour entrance (west)	HTL	HTL	HTL	The policy recommendation is to maintain the current defence line for the next 100 years. Continued maintenance of defences by the local authority, private individuals, and the MOD will cause the erosion and lowering of the intertidal foreshore as the harbour deepens as a function of increased sea levels. This could impact on the phytoplankton, macroalgae and benthic invertebrate BQEs through potential changes in turbidity, water depth, thermal depth, residence time, abrasion (associated with velocity), salinity, connectivity with riparian zone, availability of organic debris, groundwater connectivity, light, and the beach water table. Whilst this SMP policy may result in potential short term deterioration in surface	n/a	*	✓	✓

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
 (Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
					water Ecological Potential, the policy would not prevent obtaining good groundwater status or result in deterioration in groundwater status.				
5B01	Portsmouth Harbour entrance (west) to Gilkicker Point	HTL	HTL	HTL	It is intended that the current defence line is held here over the next 100 years in order to provide coastal flood protection to a diverse range of assets. Due to rising sea levels, maintaining the defences may cause beach narrowing and lowering, therefore beach recycling or recharge operations along this frontage will need to be investigated. This could impact on the phytoplankton, macroalgae and benthic invertebrate BQEs through potential changes in turbidity, water depth, thermal depth, residence time, abrasion (associated with velocity), salinity, connectivity with riparian zone, availability of organic debris, groundwater connectivity, light, and the beach water table. Whilst this SMP policy may result in potential short term deterioration in surface water Ecological Potential, the policy would not prevent obtaining good groundwater status or result in deterioration in groundwater status.	n/a	*	✓	✓
5B02	Gilkicker Point to Meon Road, Titchfield Haven	HTL	HTL	HTL	Defence structures will be maintained and upgraded to provide flood protection to residential areas, commercial property, MOD assets, infrastructure (such as Stokes Bay Road), and amenity open space. In terms of beach management and recycling operations, the frontage is considered as a single management area and will benefit Hill Head, Lee-on-the-Solent and adjacent frontages, with possible beach recycling from Gilkicker Point. Coastal	n/a	✓	✓	✓

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
(Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
					monitoring will be key to the successful management of this frontage. This SMP policy is not likely to prevent Good Ecological Status being obtained or result in deterioration in surface water Ecological Potential, or prevent obtaining good groundwater status or result in deterioration in groundwater status.				
5B03	Meon Road, Titchfield Haven to Hook Park	NAI (HTL for cross-Solent infrastructure)	NAI (HTL for cross-Solent infrastructure)	NAI (HTL for cross-Solent infrastructure)	A policy of NAI is intended for this unit with localised maintenance of defences for cross Solent infrastructure. In the longer term, under rising sea levels, the rates of erosion are likely to increase and allow natural maintenance of the beach levels along this and adjacent frontages. Hook Spit is likely to naturally migrate landwards due to more severe wave climate conditions; this may result in the creation of new inter-tidal habitats and losses of existing designated habitats. The NAI policy supports natural development of the frontage. Hence there should be no significant changes to physical or hydro-morphological parameters that could impact on BQE's. As such deterioration in Ecological Potential is not considered likely as a result of the SMP policy. Coastal monitoring will be key to the successful management of this frontage. Groundwater status isn't likely to deteriorate due to geology and topography of this frontage.	n/a	✓	✓	✓
5C01	Hook Park to Warsash North	NAI	MR	HTL	This frontage has been assessed in the draft River Itchen, Weston Shore, Netley and Hamble Coastal Defence Strategy, which has recommended a NAI policy for the first epoch, a MR for the second and to maintain the realigned defences in the third epoch. There is no	n/a	✓	✓	✓

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
(Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
					intention to intervene on the undefended sections of frontage, but in the short term existing privately owned defences may be maintained and property level flood defences may be appropriate. The recommendations through draft Coastal Defence Strategy indicate the coastal flood risk to residential properties, the Warsash Naval Academy, and various commercial assets in Warsash, will remain minimal in the short-term. In the medium to long term, as rising sea levels increase the flood risk within Hook Lake, there is likely to be a requirement for additional defences to be constructed landward of the existing line of defences. This will provide flood storage capacity benefits and improve the standard of protection to residential properties, infrastructure, commercial assets and transport links in and around Warsash. Realignment of defences on the northern bank of Hook Lake may result in the creation of new inter-tidal habitats and losses of existing designated habitats. The NAI and MR policies support natural development of the frontage. Hence there should be no significant changes to physical or hydro-morphological parameters that could impact on BQE's. As such deterioration in Ecological Potential is not considered likely as a result of the SMP policy. Groundwater status isn't likely to deteriorate due to geology and topography of this frontage.				

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
 (Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
5C02	Warsash North to Swanwick Shore Road	NAI	NAI	NAI	This frontage has been assessed in the draft River Itchen, Weston Shore, Netley and Hamble Coastal Defence Strategy, which has recommended a NAI policy for each epoch for the frontage. This largely undefended section of the River Hamble will be permitted to adapt naturally to changing coastal conditions. There is minimal risk of tidal flooding and erosion to the assets; however property level defences may be appropriate in the longer-term. Currently undefended sections will remain undefended. Adaptation options are being considered for the regionally important recreational footpath along Bunny Meadows and the loss of open space. For the majority of the frontage no works are identified. This policy supports natural development of the frontage. Hence there should be no significant changes to physical or hydro-morphological parameters that could impact on BQE's. As such deterioration in Ecological Potential is not considered likely as a result of the SMP policy. Groundwater status isn't likely to deteriorate due to geology and topography of this frontage.	n/a	✓	✓	✓
5C03	Swanwick Shore to Road Burlesdon Bridge	HTL	HTL	NAI	This frontage has been assessed in the draft River Itchen, Weston Shore, Netley & Hamble Coastal Defence Strategy, which has recommended a HTL policy for each epoch. The potential tidal flood risk area on this relatively short and privately owned frontage on the eastern bank of the River Hamble would affect marina-based development, commercial assets, infrastructure, transport links and residential property developments. Due to rising	n/a	✗	✓	✓

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
(Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
					sea levels, maintaining the defences may cause beach narrowing and lowering. This could impact on the fish, benthic invertebrate and macroalgal BQEs through potential changes in heterogeneity of habitat, continuity for migration routes, substrate conditions, accessibility to nursery area, presence of macrophytes, connectivity with riparian zone, availability of organic debris, groundwater connectivity, light, beach water table, in abrasion and salinity. Hence, there is potential for deterioration in surface water Ecological Potential as a result of the SMP policy.				
5C04	Burlesdon Bridge to Curbridge to Botley to Satchell Marshes	NAI	NAI	NAI	The draft River Itchen, Weston Shore, Netley and Hamble Coastal Defence Strategy has recommended an NAI policy for the frontage, but with localised HTL on the east bank south of Bursledon Bridge to Lands End Lane. The frontage upstream of Bursledon Bridge is privately owned and almost entirely undeveloped and undefended. It encompasses a large proportion of the shoreline of the River Hamble including the upper tidal reaches. The flood risk area is relatively constrained by the natural topography, however, as sea levels rise and the tidal influence stretches further upstream there may be the potential for flooding of the low lying hinterland thereby naturally creating inter-tidal habitats. Shore-side developments south of the bridge, such as marinas, may continue to maintain their defences. This policy supports natural development of the frontage. Hence there should be no significant changes to physical or hydro-	n/a	✓	✓	✓

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
 (Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
					morphological parameters that could impact on BQE's. As such deterioration in Ecological Potential and Groundwater status are not considered likely as a result of the SMP policy.				
5C05	Satchell Marshes to Hamble Common Point	NAI* (HTL the Quay and Rope Walk)	NAI* (HTL the Quay and Rope Walk)	NAI* (HTL the Quay and Rope Walk)	This frontage has been assessed in the draft River Itchen, Weston Shore, Netley and Hamble Coastal Defence Strategy. The intention of the policies is to protect the residential, industrial and commercial developments within Hamble-le-Rice with a localised Hold The Line policy along the Quay and Rope Walk. Elsewhere, the natural topography restricts the extent of the tidal floodplain and erosion rates are currently low. Adaptation options will also need to be considered for the recreationally important public open spaces located along the Hamble-le-Rice frontage. Further assessments on the long-term shoreline evolution of Hamble Point will necessitate a review of management options in the medium to long term. There should be no significant changes to physical or hydro-morphological parameters that could impact on BQE's. As such deterioration in Ecological Potential and Groundwater status are not considered likely as a result of the SMP policy.	n/a	✓	✓	✓
5C06	Hamble Common Point to Hamble Oil Terminal	NAI	NAI	NAI	This frontage has been assessed in the draft River Itchen, Weston Shore, Netley and Hamble Coastal Defence Strategy. The intention is to let the coast evolve naturally over the next 100 years. The natural topography here restricts the extent of the tidal floodplain and erosion rates are currently low. Further assessments on the long-term	n/a	✓	✓	✓

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
(Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
					shoreline evolution of Hamble Point will necessitate a review of management options in the medium to long term. Studies will need to address the economic, environmental and social implications of flood management issues for the River Hamble. There should be no significant changes to physical or hydro-morphological parameters that could impact on BQE's, as such deterioration in Ecological Potential and Groundwater status are not considered likely as a result of the SMP policy.				
5C07	Hamble Oil Terminal to Ensign Industrial Park	HTL	HTL	NAI	This frontage has been assessed in the draft River Itchen, Weston Shore, Netley and Hamble Coastal Defence Strategy. In the short to medium term the recommended policy is to maintain the current standard of the existing privately maintained defences. The natural topography restricts the extent of the tidal floodplain area. Coupled with rising sea levels this policy is likely to result in the narrowing and loss of the fronting beach. This could impact on the fish, benthic invertebrate and macroalgal BQEs through potential changes in heterogeneity of habitat, continuity for migration routes, substrate conditions, accessibility to nursery area, presence of macrophytes, connectivity with riparian zone, availability of organic debris, groundwater connectivity, light, beach water table, in abrasion and salinity. Whilst this SMP policy may result in potential short term deterioration in surface water Ecological Potential, the policy would not prevent obtaining good groundwater status or result in	n/a	*	✓	✓

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
 (Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)



Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
					deterioration in groundwater status.				
5C08	Ensign Industrial Park to Cliff House	NAI	NAI	NAI	This frontage has been assessed in the draft River Itchen, Weston Shore, Netley and Hamble Coastal Defence Strategy. The residential properties and industrial developments along this largely undefended frontage are situated on raised topography, which restricts the extent of the tidal floodplain both now and over the next 100 years. The recommended policy of no active intervention reflects the relative stability of the frontage. Any erosion would allow sediment feed into the system and would help to maintain healthy beach levels along this and adjacent frontages. This policy supports natural development of the frontage. Hence there should be no significant changes to physical or hydro-morphological parameters that could impact on BQE's. As such deterioration in Ecological Potential and Groundwater status are not considered likely as a result of the SMP policy.	n/a	✓	✓	✓
5C09	Cliff House to Netley Castle	HTL	HTL* (requirement for further studies)	NAI (localised HTL Netley village)	This frontage has been assessed in the draft River Itchen, Weston Shore, Netley and Hamble Coastal Defence Strategy. In the short to medium term the intention is to maintain the current standard of defence. Coastal monitoring with the appropriate intervention will be the key to the successful management of this frontage. Due to rising sea levels, maintaining the defences may cause beach narrowing and lowering. This could impact on the fish, benthic invertebrate and macroalgal BQEs through potential changes in heterogeneity of habitat, continuity for migration routes, substrate conditions, accessibility to	n/a	*	✓	✓

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
(Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
					nursery area, presence of macrophytes, connectivity with riparian zone, availability of organic debris, groundwater connectivity, light, beach water table, in abrasion and salinity. Whilst this SMP policy may result in potential short term deterioration in surface water Ecological Potential, the policy would not prevent obtaining good groundwater status or result in deterioration in groundwater status.				
5C10	Netley Castle to Weston Point	HTL	HTL	HTL	This frontage has been assessed in the River Itchen, Weston Shore, Netley and Hamble Coastal Defence Strategy. The shoreline between Netley Abbey and Weston Point has no defence structures and historically has not needed beach management intervention from the local authority. However, the increasing coastal flood and erosion risks over the medium to long-term may necessitate beach management and replenishment activities to maintain the recreational beach and to prevent the erosion of the open space and underlying former landfill site. Such works would provide protection to the residential and commercial properties located within the tidal floodplain. This would help to maintain healthy beach levels along this and adjacent frontages. This policy supports natural development of the frontage. Coastal monitoring will be key to the successful management of this beach. Hence there should be no significant changes to physical or hydro-morphological parameters that could impact on BQE's. As such deterioration in Ecological Potential and Groundwater status are not considered likely	n/a	✓	✓	✓

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
 (Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
					as a result of the SMP policy.				
5C11	Weston Point to Woodmill Lane	HTL	HTL	NAI*	This frontage has been assessed in the River Itchen, Weston Shore, Netley and Hamble Coastal Defence Strategy. This frontage spans the east bank of the River Itchen and has considerable development within the relatively restricted tidal floodplain. The intention in the medium term is to maintain the current standard of any existing defences in order to manage the risk of coastal flooding. Improvements and maintenance of the revetments and seawalls would be required to reduce the variation in the standard of protection and to provide flood protection to the significant numbers of properties and assets here. Due to the increasing risk of coastal flooding, the Coastal Defence Strategy assessments indicate that, in the longer term it may not be economically viable to continue defending this frontage as it is currently. Property level defences or localised lengths of defences to protect properties or heritage sites may be more appropriate. Further assessments that address the economic, environmental and social implications of flood management issues for the frontage are required to determine adaptation and management options in the medium to long term. Currently undefended sections will remain undefended. Continued maintenance of defence structures would cause the erosion and lowering of intertidal foreshore habitats. This could impact on the fish, benthic invertebrate and macroalgal BQEs through potential changes in heterogeneity of habitat, continuity for	n/a	*	✓	✓

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
 (Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
					migration routes, substrate conditions, accessibility to nursery area, presence of macrophytes, connectivity with riparian zone, availability of organic debris, groundwater connectivity, light, beach water table, in abrasion and salinity. Whilst this SMP policy may result in potential short term deterioration in surface water Ecological Potential, the policy would not prevent obtaining good groundwater status or result in deterioration in groundwater status.				
5C12	Woodmill Lane to Redbridge	HTL	HTL	HTL	The recommendation to continue to maintain and improve flood defences would provide considerable economic and societal benefits to the heavily developed and populated conurbations of Southampton City within the extensive area of coastal flood risk. The commercial and industrial dominated frontage extending northwest from the River Itchen, is principally owned and the defence structures maintained by the port authority. The west bank of the River Itchen is wholly developed with substantial numbers of residential and commercial properties, heritage sites, transport networks and other associated city centre infrastructure. Maintenance of defence structures would continue to contribute towards the erosion and lowering of intertidal foreshore habitats. This could impact on the fish, benthic invertebrate and macroalgal BQEs through potential changes in heterogeneity of habitat, continuity for migration routes, substrate conditions, accessibility to nursery area, presence of macrophytes, connectivity with riparian zone, availability of organic debris, groundwater	n/a	*	✓	✓

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
 (Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
					connectivity, light, beach water table, in abrasion and salinity. Whilst this SMP policy may result in potential short term deterioration in surface water Ecological Potential, the policy would not prevent obtaining good groundwater status or result in deterioration in groundwater status.				
5C13	Lower Test Valley	NAI	NAI	NAI	The recommended policy is to allow the estuary to evolve and migrate upstream naturally over the next 100 years as sea levels rise. Inter-tidal and coastal grazing marsh and other freshwater habitats may establish and evolve naturally. Undefended shoreline frontages are to continue to be undefended, but property level defences may be appropriate as the tidal flood risk increases over the longer term. No defence works are identified. This policy supports natural development of the frontage. Hence there should be no significant changes to physical or hydro-morphological parameters that could impact on BQE's. As such deterioration in Ecological Potential and Groundwater status are not considered likely as a result of the SMP policy.	n/a	✓	✓	✓
5C14	Redbridge to Calshot Spit	HTL	HTL	HTL	Given the regionally and nationally significant assets within the coastal flood risk area the policy recommendation is to maintain and upgrade the current standard of defences along the west bank of Southampton Water over the next 100 years. This will not prevent the continuing erosion and lowering of the designated intertidal foreshore habitats. This could impact on the fish, benthic invertebrate and macroalgal BQEs through	n/a	*	✓	✓

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
(Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
					potential changes in heterogeneity of habitat, continuity for migration routes, substrate conditions, accessibility to nursery area, presence of macrophytes, connectivity with riparian zone, availability of organic debris, groundwater connectivity, light, beach water table, in abrasion and salinity. Whilst this SMP policy may result in potential short term deterioration in surface water Ecological Potential, the policy would not prevent obtaining good groundwater status or result in deterioration in groundwater status.				
5C15	Calshot Spit	HTL	HTL	NAI	In the short to medium-term the policy recommendation is to maintain the current standard of defences. Given the potential for sea level rise over the next 100 years Calshot Spit will become increasingly vulnerable to flooding and breaching. Maintenance of defences will gradually cease as providing effective flood defence to the assets on the spit will become technically unfeasible and economically unsustainable in the longer term. Coastal monitoring and adaptation options will determine the long-term management options for assets here. Continued maintenance of defence structures would cause the erosion and lowering of intertidal foreshore habitats. This could impact on the fish, macroalgae, phytoplankton and benthic invertebrate BQEs through potential changes in heterogeneity of habitat, continuity for migration routes, substrate conditions, accessibility to nursery area, presence of macrophytes, abrasion (associated with velocity), salinity, turbidity, water depth, thermal depth,	n/a	*	✓	n/a

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
(Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
					residence time, connectivity with riparian zone, availability of organic debris, groundwater connectivity, light, and the beach water table. Whilst this SMP policy may result in potential short term deterioration in surface water Ecological Potential, the policy would not prevent obtaining good groundwater status or result in deterioration in groundwater status.				
5C16	Calshot Spit to Inchmery	NAI	NAI	NAI	Although the majority of the privately owned and largely undeveloped shoreline between Calshot and Inchmery is defended by the landowners, the policy recommendation is to allow the shoreline to naturally evolve over the next 100 years. Adaptation studies are also underway to determine the medium to long-term options for Lepe Country Park and its facilities. It is likely that a change in defence management at this site in the longer-term may be required. This policy supports natural development of the frontage. Hence there should be no significant changes to physical or hydro-morphological parameters that could impact on BQE's. As such deterioration in Ecological Potential and Groundwater status are not considered likely as a result of the SMP policy.	n/a	✓	✓	✓
5C17	Inchmery to Salternshill	NAI	NAI	NAI	The policy intention is to allow the shoreline to naturally evolve over the next 100 years, with the undefended shoreline of the Beaulieu River remaining undefended. This policy supports natural development of the frontage. It may be necessary for property-level defences to be implemented at the small numbers of individual properties and heritage sites. Whilst relatively low, the rates of	n/a	✓	✓	✓

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
(Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
					erosion and sediment transport within the Beaulieu River and West Solent are likely to increase under rising sea levels. This policy supports natural development of the frontage. Hence there should be no significant changes to physical or hydro-morphological parameters that could impact on BQE's. As such deterioration in Ecological Potential and Groundwater status are not considered likely as a result of the SMP policy.				
5C18	Salternshill to Park Shore	HTL (NPFA)	HTL (NPFA)	HTL (NPFA)	It is the intention that the privately owned defences are maintained for at least the medium-term, although this would continue to cause erosion and lowering of intertidal foreshore habitats. It is intended that the undefended shoreline, such as Gull Island, remains undefended. Feasibility studies of managed realignment opportunities in the medium to long term may also be required, as the increasing risk of flooding from the Solent and the Beaulieu River may require additional defences to protect properties at Park Shore. Maintenance of the current privately maintained defence line may become technically unsustainable in the longer term due to the extensive coastal flood risk from the Solent and Beaulieu River. Construction of new defences landward would provide flood storage capacity benefits within this area of the Solent, but would also result in loss of privately owned and managed land along with several properties and other built assets that are already at flood risk. The area at risk from inundation has been identified as a potential intertidal habitat creation site in the medium to long term, for	n/a	*	✓	✓

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
 (Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)



Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
					which public funding may be available, but could only be realised with landowner consent. Tidal inundation of the land would also result in the loss of designated coastal grazing marsh which would need to be recreated in a more sustainable site elsewhere. It is likely that a change in defence management in the longer-term may be required. This could impact on the phytoplankton and benthic invertebrate BQEs through potential changes in turbidity, water depth, thermal depth, residence time, connectivity with riparian zone, availability of organic debris, groundwater connectivity, light, and the beach water table. Whilst this SMP policy may result in potential short term deterioration in surface water Ecological Potential, the policy would not prevent obtaining good groundwater status or result in deterioration in groundwater status.				
5C19	Park Shore to Sowley	HTL	HTL	HTL*	Maintaining the current privately owned line of defence over the next 100 years would provide coastal flood protection to residential properties and agricultural hinterland from flooding from the Solent. Such maintenance work however would continue to cause erosion and lowering of intertidal foreshore habitats. In the medium term a more detailed study may be required to consider the risks of flooding from both the Solent and the Beaulieu River and the possible implications of the management practices undertaken in neighbouring units. Additional defences may be required in the medium to long term to provide protection to the properties along this	n/a	*	✓	✓

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
 (Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
					frontage as the risk of flooding increases. It is likely that a change in defence management in the longer-term may be required. Rights of private owners to maintain their defences remain. This could impact on the phytoplankton, macroalgae and benthic invertebrate BQEs through potential changes in turbidity, water depth, thermal depth, residence time, abrasion (associated with velocity), salinity, connectivity with riparian zone, availability of organic debris, groundwater connectivity, light, and the beach water table. Whilst this SMP policy may result in potential short term deterioration in surface water Ecological Potential, the policy would not prevent obtaining good groundwater status or result in deterioration in groundwater status.				
5C20	Sowley to Elmers Court	NAI	NAI	NAI	Although the undeveloped and largely undefended shoreline between Sowley and Elmer's Court is privately owned, the policy recommendation is to allow the shoreline to naturally evolve over the next 100 years. Rights of private owners to maintain their defences remain. Rates of erosion and sediment transport within this sector of the West Solent are likely to increase under rising sea levels, particularly as the saltmarshes within Lymington River estuary continue to erode and provide a decreasing level of natural protection to the shoreline. Erosion of the shoreline will provide increased beach material to stabilise the foreshore and protect the environmentally important areas vulnerable in adjacent frontages. The tidal flood risk to properties along this	n/a	✓	✓	✓

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
 (Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
					privately owned shoreline is constrained due to the naturally rising hinterland, both now and over the next 100 years. This policy supports natural development of the frontage. Hence there should be no significant changes to physical or hydro-morphological parameters that could impact on BQE's. As such deterioration in Ecological Potential and Groundwater status are not considered likely as a result of the SMP policy.				
5C21	Elmers Court to Lymington Yacht Haven	HTL	HTL	HTL (potential Regulated Tidal Exchange at Lymington Reedbeds)	Upgrading and continued maintenance of defences in the Lymington River over the next 100 years would provide flood protection to this developed frontage. Although the tidal floodplain is relatively restricted on the east bank of the river due to the topography, on the west bank it is much more extensive potentially affecting significant numbers of residential properties, industrial and commercial assets. A localised Managed Realignment policy for the Lymington Reedbeds nature reserve may provide improved standards of protection to properties upstream and allow freshwater and inter-tidal habitat migration upstream in the longer term. Options include modifications to sluice gate operations and functioning (regulated tidal exchange). Consultation with landowners and further more detailed sustainability studies are required to determine the long-term management of the nature reserve and floodplain; this localised option could only be realised with landowner consent. This could impact on BQEs. Whilst this SMP policy may result in potential short term deterioration in surface water	n/a	*	✓	✓

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
 (Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
					Ecological Potential, the policy would not prevent obtaining good groundwater status or result in deterioration in groundwater status.				
5C22	Lymington Yacht Haven to Saltgrass Lane	HTL	HTL	HTL	Continued maintenance and upgrades to the Environment Agency maintained seawall would provide protection to an extensive area that covers undeveloped and agricultural land, as well as residential properties, commercial and industrial assets and a former landfill site. The seawall also provides important coastal access to the Solent. Despite the Hold the Line policy a detailed assessments that address the socio-economic and environmental implications will be required, to determine the management option for the former landfill site in the medium to long term. Maintaining the line of defence will protect amenity benefits and the internationally important coastal grazing marsh and freshwater habitats, but will exacerbate the erosion and lowering of intertidal foreshore habitats. This could impact on the phytoplankton, macroalgae and benthic invertebrate BQEs through potential changes in turbidity, water depth, thermal depth, residence time, abrasion (associated with velocity), salinity, connectivity with riparian zone, availability of organic debris, groundwater connectivity, light, and the beach water table. Whilst this SMP policy may result in potential short term deterioration in surface water Ecological Potential, the policy would not prevent obtaining good groundwater status or result in deterioration in groundwater status.	n/a	*	✓	✓

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
 (Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
5F01	Hurst Spit	HTL	HTL	HTL	Hurst Spit forms the boundary with the neighbouring Poole and Christchurch Bays Shoreline Management Plan which details how the coastline to the west of here will be managed. Continued maintenance of Hurst Spit is necessary to reduce the risk of breaching and subsequent tidal flooding of properties at Keyhaven, Lymington and throughout the West Solent. North Point would be allowed to develop naturally, while continuing to provide a source of shingle for recycling, along with continued maintenance of the rock structures. Beach recycling and coastal monitoring will be key to the successful management of this frontage, and will prevent erosion and lowering of intertidal foreshore habitats. Hence there should be no significant changes to physical or hydro-morphological parameters that could impact on BQE's. As such deterioration in Ecological Potential or groundwater status is not considered likely as a result of the SMP policy.	n/a	✓	✓	✓
5API 01	Langstone Harbour entrance (west) (harbour) to Portsmouth Harbour entrance (east)	HTL	HTL	HTL	The long-term policy recommendation for both the harbour frontages of Portsea Island, is to maintain, sustain and improve the current standard of the defences here over the next 100 years. Such works would provide considerable economic and societal benefits to the heavily developed and populated conurbations of Portsmouth City that comprise substantial numbers of residential properties, MOD facilities, cross-harbour transport networks and associated infrastructure. The commercial operations of the Cross Channel Ferry Port, heritage assets and amenity open spaces, would also benefit from	n/a	*	✓	n/a

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
 (Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
					ongoing flood protection. Maintaining the existing defences will also contribute to the continued erosion and lowering of intertidal foreshore habitats. This could impact on the phytoplankton, macroalgae and benthic invertebrate BQEs through potential changes in turbidity, water depth, thermal depth, residence time, abrasion (associated with velocity), salinity, connectivity with riparian zone, availability of organic debris, groundwater connectivity, light, and the beach water table. Hence, there is potential for deterioration in surface water Ecological Potential as a result of the SMP policy.				
5API 02	Langstone Harbour entrance (west) (open coast) to Portsmouth Harbour entrance (east)	HTL	HTL	HTL	This frontage has been assessed in the Portsea Island Coastal Defence Strategy, which has recommended a HTL policy for the frontage. The long-term policy recommendation for the open coast frontage, from the Portsea Island Coastal Defence Strategy, is to maintain, sustain and improve the current standard of the defences here over the next 100 years. Such works would provide considerable economic and societal benefits to the heavily developed and populated conurbations of Portsmouth City that comprise substantial numbers of residential properties, MOD facilities, transport networks and associated infrastructure. Heritage assets and amenity open spaces, such as Southsea common, Eastney common and Langstone recreation ground would also benefit from ongoing flood protection. Maintenance of defence structures is likely to result in the narrowing and lowering of the important amenity beaches on the open	n/a	*	✓	n/a

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
 (Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
					coast. This could impact on the phytoplankton, macroalgae and benthic invertebrate BQEs through potential changes in turbidity, water depth, thermal depth, residence time, abrasion (associated with velocity), salinity, connectivity with riparian zone, availability of organic debris, groundwater connectivity, light, and the beach water table. Hence, there is potential for deterioration in surface water Ecological Potential as a result of the SMP policy.				
5AHI 01	Langstone Bridge to Northney Farm	HTL	HTL	HTL	The intention of the recommended policy is to continue to maintain the current standard of protection over the next 100 years within this sector of the Chichester Harbour Area of Outstanding Natural Beauty. Continued flood defence works to manage the flood risk to an extensive area of Hayling Island would provide economic and societal benefits to residential properties and commercial facilities, including a marina, along with transport network links both to the mainland and to the rest of the island. Such works however would continue to cause the erosion and lowering of intertidal foreshore habitats This could impact on the phytoplankton and macroalgae BQEs through potential changes in turbidity, water depth, thermal depth, residence time, abrasion (associated with velocity) and salinity. Hence, there is potential for deterioration in surface water Ecological Potential as a result of the SMP policy.	n/a	*	✓	n/a
5AHI 02	Northney Farm	HTL (NPFA)	HTL (NPFA)	HTL* (NPFA)	It is the intention of the landowner to maintain the current defence line. Maintenance of defence structures would	n/a	*	✓	n/a

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
 (Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
					continue to cause erosion and lowering of intertidal foreshore habitats. This could impact on the phytoplankton BQE through potential changes in turbidity, water depth, thermal depth and residence time. Whilst this SMP policy may result in potential short term deterioration in surface water Ecological Potential, the policy would not prevent obtaining good groundwater status or result in deterioration in groundwater status. The long term management of defences will be determined through more detailed studies which will consider a wide range of options including MR. Construction of new defences landward of the current privately owned and maintained defences would improve the standard of protection and provide flood storage capacity benefits to the wider community within this area of Hayling Island but would result in a change in private land use and a loss of agricultural land. Due to the topography of the agricultural land there is the potential for coastal habitat to naturally migrate inland in response to rising sea levels and depending upon the extent of land available, designated coastal grazing marsh may not need to be recreated in advance of a change in defence management.				
5AHI 03	Northney Farm to Mengham	HTL (NPFA)	HTL (NPFA)	HTL (NPFA)	It is the intention that the privately owned defences are maintained in the current shoreline position given the residential properties, commercial assets, recreational facilities and designated coastal grazing marsh habitats within the extensive tidal floodplain. However, this would continue to cause the erosion and lowering of intertidal	n/a	*	✓	n/a

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
 (Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)



Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
					foreshore habitats. This could impact on the phytoplankton and macroalgae BQEs through potential changes in turbidity, water depth, thermal depth, residence time, abrasion (associated with velocity) and salinity. Hence, there is potential for deterioration in surface water Ecological Potential as a result of the SMP policy.				
5AHI 04	Mengham to Chichester Harbour entrance (west)	HTL	HTL	HTL	Maintaining the defence line through upgrades and maintenance would provide economic and societal benefits to significant numbers of residential properties, commercial assets and local transport networks, as well as amenity open space and facilities. However, maintaining the existing defences would contribute to the continued erosion and lowering of intertidal foreshore habitats. This could impact on the phytoplankton and macroalgae BQEs through potential changes in turbidity, water depth, thermal depth, residence time, abrasion (associated with velocity) and salinity. Hence, there is potential for deterioration in surface water Ecological Potential as a result of the SMP policy.	n/a	*	✓	n/a
5AHI 05	Chichester Harbour entrance (west) to Langstone Harbour entrance (east)	HTL	HTL	HTL	Maintaining the defence line through upgrades, maintenance or beach management activities would provide economic and societal benefits to significant numbers of residential properties, commercial assets and transport networks, as well as amenity open space and facilities, including a golf course. Beach recycling from areas of sediment accretion at Sinah to Eastoke and coastal monitoring will be key to the successful management of this frontage, and will allow the shoreline	n/a	✓	✓	n/a

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
(Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
					to naturally evolve over the next 100 years. Hence there should be no significant changes to physical or hydro-morphological parameters that could impact on BQE's. As such deterioration in Ecological Potential is not considered likely as a result of the SMP policy.				
5AHI 06	Langstone Harbour entrance (east) to North Shore Road, Newtown	HTL	HTL	HTL	Maintaining the defence line through upgrades and maintenance would provide economic and societal benefits to residential properties, transport networks, as well as amenity open space and facilities, including a golf course. However, maintaining the existing defences would contribute to the continued erosion and lowering of intertidal foreshore habitats. This could impact on the phytoplankton and macroalgae BQEs through potential changes in turbidity, water depth, thermal depth, residence time, abrasion (associated with velocity) and salinity. Hence, there is potential for deterioration in surface water Ecological Potential as a result of the SMP policy.	n/a	*	✓	n/a

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
 (Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
5AHI 07	North Shore Road, Newtown to West Lane (Stoke)	NAI* (HTL Newtown)	NAI* (HTL Newtown)	NAI* (HTL Newtown)	The intention is to allow this largely undeveloped and undefended coastline to evolve naturally over the next 100 years. The low rates of erosion would result in minimal loss of agricultural land. The relatively constrained tidal floodplain would require a localised policy of Hold The Line at Newtown. Currently undefended sections will remain undefended. Adaptation options are being considered for the regionally important recreational Hayling Billy and loss of open space and it is likely that a change in defence management in the longer-term may be required. The footpath is not considered as a defensive structure unless improvements to the seaward face will allow this to function as a secondary defence and create opportunities for natural processes to continue in front of the Newtown community. For the majority of the frontage no works are identified. This policy supports natural development of the frontage. Hence there should be no significant changes to physical or hydro-morphological parameters that could impact on BQE's. As such deterioration in Ecological Potential is not considered likely as a result of the SMP policy.	n/a	✓	✓	n/a
5AHI 08	West Lane (Stoke) to Langstone Bridge	HTL*	HTL*	HTL*	It is the long-term intention to continue flood defence works to manage the flood risk to an extensive area of Hayling Island which would provide economic and societal benefits to residential centres, agricultural land, transport links, a former landfill site and areas of nature conservation. It is likely that a change in defence management in the longer-term may be required.	n/a	*	✓	n/a

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
(Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

Policy Unit		SMP Policy			Assessment of impact (including list of Water Bodies affected)	Environmental Objectives met?			
		2025	2055	2075		WFD 1	WFD 2	WFD 3	WFD 4
					Offshore, there are oyster beds to the northwest side of Hayling Island. However, maintaining the existing defences would contribute to the continued erosion and lowering of intertidal foreshore habitats. This could impact on the phytoplankton and macroalgae BQEs through potential changes in turbidity, water depth, thermal depth, residence time, abrasion (associated with velocity) and salinity. Hence, there is potential for deterioration in surface water Ecological Potential as a result of the SMP policy.				

WFD Assessment Table 3: Assessment of SMP Policy for the North Solent SMP  
 (Key: NAI = No Active Intervention; HTL = Hold the Line; ATL = Advance the Line; MR = Managed Realignment)

**WFD Assessment Table 4. Summary of achievement of WFD Environmental Objectives for each Water Body in the North Solent SMP area.**

Water Body (and related SMP policy units)	Environmental objectives met?				WFD summary table required?
	WFD1	WFD2	WFD3	WFD4	
<i>Coastal Water Bodies</i>					
Chichester Harbour GB680705210000  (5A04, 5A05, 5A07, 5A08, 5A09, 5A10, 5A11, 5A12, 5A13, 5A14, 5A15, 5A16, 5A17, 5A18, 5AHI01, 5AHI02, 5AHI03, 5AHI04, 5AHI05)	n/a	*	✓	n/a	<b>Yes</b> - Environmental Objective WFD2 may not be met by the SMP policy in some areas in this water body, i.e. 5A05, 5A07, 5A09, 5A10, 5A11, 5A12, 5A13, 5A14, 5A15, 5A16, 5A17, 5A18, 5AHI01, 5AHI02, 5AHI03, 5AHI04  (At the water body scale, 2 of the remaining policy units will have a neutral effect on WFD objective 2, and 1 will contribute positively to the objective by promoting the development of intertidal habitat)
Great Deep GB610070074000  (5A12, 5A15)	n/a	*	✓	n/a	<b>Yes</b> - Environmental Objective WFD2 may not be met by the SMP policy in this water body, i.e. 5A12, 5A15
Isle of Wight East GB650705530000  (5A01, 5A02, 5A03, 5A04, 5AHI05)	n/a	*	✓	n/a	<b>Yes</b> - Environmental Objective WFD2 may not be met by the SMP policy in some areas in this water body, i.e. 5A02, 5A03  (At the water body scale, 2 of the remaining policy units will have a neutral effect on WFD objective 2, and 1 will contribute positively to the objective by promoting the development of intertidal habitat)
Langstone Harbour GB680705130000  (5A18, 5A19, 5A20, 5A21, 5API01,	n/a	*	✓	n/a	<b>Yes</b> - Environmental Objective WFD2 may not be met by the SMP policy in some areas in this water body, i.e. 5A18, 5A19, 5A20, 5A21, 5API01, 5API02, 5AHI01, 5AHI06, 5AHI08  (At the water body scale, 1 policy unit will have a neutral effect on WFD

Water Body (and related SMP policy units)	Environmental objectives met?				WFD summary table required?
	WFD1	WFD2	WFD3	WFD4	
5API02, 5AHI01, 5AHI06, 5AHI07, 5AHI08)					objective 2)
Portsmouth Harbour GB680705140000  (5A21, 5A22, 5A23, 5A24, 5A25, 5B01, 5API01, 5API02)	n/a	*	✓	n/a	<b>Yes</b> - Environmental Objective WFD2 may not be met by the SMP policy in this water body, i.e. 5A21, 5A22, 5A23, 5A24, 5A25, 5B01, 5API01, 5API02,
Solent GB650705150000  (5B01, 5B02, 5B03, 5C15, 5C16, 5C18, 5C19, 5C20, 5C22, 5F01, 5API02, 5AHI05)	n/a	*	✓	n/a	<b>Yes</b> - Environmental Objective WFD2 may not be met by the SMP policy in some areas in this water body, i.e. 5B01, 5C15, 5C18, 5C19, 5C22, 5API02  (At the water body scale, the 6 remaining policy units will have a neutral effect on WFD objective 2)
Sowley Marsh GB610070075000  (5C20)	n/a	✓	✓	n/a	<b>No</b> - not necessary as delivery of Environmental Objectives is likely to be supported by the proposed SMP policy
Dorset/Hampshire GB620705550000  (5F01)	n/a	✓	✓	n/a	<b>No</b> - not necessary as delivery of Environmental Objectives is likely to be supported by the proposed SMP policy
Langstone Oysterbeds GB610070073000  (5AHI08)	n/a	*	✓	n/a	<b>Yes</b> - Environmental Objective WFD2 may not be met by the SMP policy in this water body, i.e. 5AHI08

WFD Assessment Table 4. Summary of achievement of WFD Environmental Objectives for each Water Body in the North Solent SMP area.

Water Body (and related SMP policy units)	Environmental objectives met?				WFD summary table required?
	WFD1	WFD2	WFD3	WFD4	
<i>Transitional Water Bodies</i>					
Beaulieu River GB520704201400  (5C16, 5C17, 5C18)	n/a	*	✓	n/a	<b>Yes</b> - Environmental Objective WFD2 may not be met by the SMP policy in some areas in this water body, i.e. 5C18  (At the water body scale, the 2 remaining policy units will have a neutral effect on WFD objective 2)
Chichester Harbour East GB520704114000  (5A05, 5A06, 5A07)	n/a	*	✓	n/a	<b>Yes</b> - Environmental Objective WFD2 may not be met by the SMP policy in this water body, i.e. 5A05, 5A06, 5A07
Lymington GB520704202100  (5C20, 5C21, 5C22)	n/a	*	✓	n/a	<b>Yes</b> - Environmental Objective WFD2 may not be met by the SMP policy in some areas in this water body, i.e. 5C21, 5C22  (At the water body scale, the remaining policy unit will have a neutral effect on WFD objective 2)
Southampton Water GB520704202800  (5B03, 5C01, 5C02, 5C03, 5C04, 5C05, 5C06, 5C07, 5C08, 5C09, 5C10, 5C11, 5C12, 5C13, 5C14, 5C15)	n/a	*	✓	n/a	<b>Yes</b> - Environmental Objective WFD2 may not be met by the SMP policy in some areas in this water body, i.e. 5C03, 5C07, 5C09, 5C11, 5C12, 5C14, 5C12, 5C14, 5C15  (At the water body scale, 8 of the remaining policy units will have a neutral effect on WFD objective 2, and 1 will contribute positively to the objective by promoting the development of intertidal habitat)
Wallington GB520704202200 (5A22, 5A23)	n/a	*	✓	n/a	<b>Yes</b> - Environmental Objective WFD2 may not be met by the SMP policy in this water body, i.e. 5A22, 5A23
Black Water Lagoon GB560704217200 (5C18)	n/a	*	✓	n/a	<b>Yes</b> - Environmental Objective WFD2 may not be met by the SMP policy in this water body, i.e. 5C18

WFD Assessment Table 4. Summary of achievement of WFD Environmental Objectives for each Water Body in the North Solent SMP area.

Water Body (and related SMP policy units)	Environmental objectives met?				WFD summary table required?
	WFD1	WFD2	WFD3	WFD4	
<i>Groundwater</i>					
Central Hants Bracklesham Group GB40702G500900  (5C05, 5C06, 5C07, 5C08, 5C09, 5C10, 5C11, 5C12, 5C13, 5C14)	n/a	n/a	n/a	✓	<b>No</b> - not necessary as delivery of Environmental Objectives is likely to be supported by the proposed SMP policy
Chichester-Worthing_Portsmouth Chalk GB40701G500700  (5A05, 5A06, 5A07, 5A08, 5A09, 5A10, 5A11, 5A12, 5A13, 5A14, 5A15, 5A16)	n/a	n/a	n/a	✓	<b>No</b> - not necessary as delivery of Environmental Objectives is likely to be supported by the proposed SMP policy
East Hants Chalk GB40701G502700  (5A17, 5A18, 5A19, 5A20, 5A21, 5A22, 5A23, 5API01)	n/a	n/a	n/a	✓	<b>No</b> - not necessary as delivery of Environmental Objectives is likely to be supported by the proposed SMP policy
South East Hants Bracklesham Group GB40702G503000  (5A25, 5B01, 5B02, 5B03, 5C01, 5C02, 5C03, 5C04, 5C05, 5API01)	n/a	n/a	n/a	✓	<b>No</b> - not necessary as delivery of Environmental Objectives is likely to be supported by the proposed SMP policy

WFD Assessment Table 4. Summary of achievement of WFD Environmental Objectives for each Water Body in the North Solent SMP area.



Water Body (and related SMP policy units)	Environmental objectives met?				WFD summary table required?
	WFD1	WFD2	WFD3	WFD4	
South Hants Lambeth Group GB40702G503700  (5A16, 5A17, 5A21, 5A22, 5A23)	n/a	n/a	n/a	✓	<b>No</b> - not necessary as delivery of Environmental Objectives is likely to be supported by the proposed SMP policy
South West Hants Barton Group GB40702G503500  (5C16, 5C17, 5C18, 5C19, 5C20, 5C21, 5C22, 5F01)	n/a	n/a	n/a	✓	<b>No</b> - not necessary as delivery of Environmental Objectives is likely to be supported by the proposed SMP policy

WFD Assessment Table 4. Summary of achievement of WFD Environmental Objectives for each Water Body in the North Solent SMP area.

**WFD Assessment Table 5 Water Framework Directive Summary Statement**

<b>Water Body (and related SMP policy units)</b>	<b>Water Framework Directive Summary Statement checklist</b>	<b>A brief description of decision making and reference to further documentation within the SMP</b>
<p><i>Coastal</i></p> <p>Chichester Harbour GB680705210000</p> <p>5A05, 5A07, 5A09, 5A10, 5A11, 5A12, 5A13, 5A14, 5A15, 5A16, 5A17, 5A18, 5AHI01, 5AHI02, 5AHI03, 5AHI04</p> <p><b>(Other units neutral or contribute to WFD objectives)</b></p>	<p><b>Mitigation measures:</b> have all practical mitigation measures been incorporated into the final SMP policies that affect this water body in order to mitigate the adverse impacts on the status of the water body? If not, then list mitigation measures that could be required.</p>	<p>The principal mitigation within the SMP is apparent when considering the effects at the scale of the whole water body, rather than individual frontages (policy units). Overall, the beach recycling activities at 2 units and proposed MR at 1 unit will provide opportunities for the water body to return to a more natural state, improving habitats and conditions for biological quality elements.</p> <p>These improved hydromorphological conditions will contribute towards offsetting the localised coastal squeeze impacts experienced in later epochs at the HTL sites.</p> <p>On a more local scale, the development of schemes associated with proposed Hold the Line SMP policies should take account of the hydromorphological mitigation measures for TrAC Water Bodies.</p> <p><u>Programme of measures from RBMP Measures</u></p> <ul style="list-style-type: none"> <li>• Retain marginal aquatic and riparian habitats (channel alteration)</li> <li>• Preserve and where possible enhance ecological value of marginal aquatic habitat, banks and riparian zone</li> <li>• Removal of hard bank reinforcement / revetment, or replacement with soft engineering solution</li> <li>• Managed realignment of flood defence</li> </ul> <p><u>Other measures</u></p> <ul style="list-style-type: none"> <li>• Coastal monitoring</li> </ul>
	<p><b>Overriding public interest;</b> can it be shown that the reasons for selecting the final SMP policies are reasons of overriding public</p>	<p>SMP Appendix G1-4 sets out the conclusions of scenario testing which was used to develop the proposed policies for each of these policy units.</p>

Water Body (and related SMP policy units)	Water Framework Directive Summary Statement checklist	A brief description of decision making and reference to further documentation within the SMP
	<p>interest and/or the benefits to the environment and to society of achieving the environmental objectives are outweighed by the benefits of the final SMP policies to human health, to the maintenance of health and safety or to sustainable development?</p> <p><b>Better environmental options:</b> have other significantly better options for the SMP policies been considered? Can it be demonstrated that those better environmental policy options which were discounted were done so on the grounds of being either technically unfeasible or disproportionately costly?</p> <p><b>Affect on other Water Bodies:</b> Can it be demonstrated that the final SMP policies do not permanently exclude or compromise the achievement of the objectives of the Directive in Water Bodies within the same River Basin District that are outside of the SMP area.</p>	<p>Appendix H sets out the economic damages associated with the proposed policy scenarios.                      Policy of maintaining defences at West Wittering, West Itchenor, Bosham, Bosham Hoe, Chidham, Nutbourne, Prinsted, Thorney Island, Emsworth, Langstone, North Hayling, Eastoke, Selsmore and Mengham is required to protect property, heritage, commercial and agricultural developments, transport infrastructure assets and designated habitats and sites. However, no public funding will be available for continued maintenance of privately owned flood defences, as is currently the case.</p> <p>SMP Appendix G1-4 sets out the conclusions of scenario testing which was used to develop the proposed policies for each of these policy units. Appendix H sets out the economic damages associated with the proposed policy scenarios.                      Discussions within the Client Steering Group indicated that an ATL policy is not applicable within the entire North Solent SMP area due to the complexity of the coastal processes, the number and extent of nature conservation designations and the use of the nearshore zone for navigation, transport and recreation.                      MR was proposed for Bosham, Nutbourne, Thorney Island and Ella Nore, but discounted along with NAI for the Harbour due to landowner intentions regarding future management of their defences and type and extent of numerous nature conservation designations. MR was considered and/or proposed for Northney Farm, Conigar and Warblington but management of these sites will be determined through further studies.</p> <p>SMP policies which will modify coastal, estuarine and groundwater processes will only do so in localised areas. Therefore, changes in coastal, estuarine and groundwater processes along frontages adjacent to but outside the SMP area (Dorset/Hampshire and Sussex) are not expected as a result of SMP policies.</p>

Water Body (and related SMP policy units)	Water Framework Directive Summary Statement checklist	A brief description of decision making and reference to further documentation within the SMP
	<p><b>Other issues:</b> Can it be shown that there are no over-riding issues that should be considered (such as designated sites, recommendations of the Appropriate Assessment)?</p>	<p>This Water Body includes all/part of Langstone and Chichester Harbour SPA, Langstone and Chichester Harbours Ramsar site and Solent Maritime SAC SMP Appendix J (Appropriate Assessment) sets out the conclusions of the assessments of the potential for the SMP policies to have significant effects on any internationally designated site within the SMP study area.</p>
<p>Great Deep GB610070074000  (5A12, 5A15)</p>	<p><b>Mitigation measures:</b> have all practical mitigation measures been incorporated into the final SMP policies that affect this water body in order to mitigate the adverse impacts on the status of the water body? If not, then list mitigation measures that could be required.</p>	<p>The development of schemes associated with proposed Hold the Line SMP policies should take account of the hydromorphological mitigation measures for TrAC Water Bodies</p> <p><u>Programme of measures from RBMP Measures</u></p> <ul style="list-style-type: none"> <li>• No mitigation measures recommended</li> </ul> <p><u>Other measures</u></p> <ul style="list-style-type: none"> <li>• Coastal monitoring</li> </ul>
	<p><b>Overriding public interest;</b> can it be shown that the reasons for selecting the final SMP policies are reasons of overriding public interest and/or the benefits to the environment and to society of achieving the environmental objectives are outweighed by the benefits of the final SMP policies to human health, to the maintenance of health and safety or to sustainable development?</p>	<p>SMP Appendix G1-4 sets out the conclusions of scenario testing which was used to develop the proposed policies for each of these policy units. Appendix H sets out the economic damages associated with the proposed policy scenarios. Policy of maintaining defences at Thorney Island is required to protect property, heritage, MOD and agricultural developments, transport infrastructure assets and designated habitats and sites .</p>
	<p><b>Better environmental options:</b> have other significantly better options for the SMP policies been considered? Can it be demonstrated that those better environmental policy options which were discounted were done so on the grounds of being either technically unfeasible or disproportionately costly?</p>	<p>SMP Appendix G1-4 sets out the conclusions of scenario testing which was used to develop the proposed policies for each of these policy units. Appendix H sets out the economic damages associated with the proposed policy scenarios. Discussions within the Client Steering Group indicated that an ATL policy is not applicable within the entire North Solent SMP area due to the complexity of the coastal processes, the number and extent of nature conservation designations and the use of the</p>

Water Body (and related SMP policy units)	Water Framework Directive Summary Statement checklist	A brief description of decision making and reference to further documentation within the SMP
	<p><b>Affect on other Water Bodies:</b> Can it be demonstrated that the final SMP policies do not permanently exclude or compromise the achievement of the objectives of the Directive in Water Bodies within the same River Basin District that are outside of the SMP area.</p> <p><b>Other issues:</b> Can it be shown that there are no over-riding issues that should be considered (such as designated sites, recommendations of the Appropriate Assessment)?</p>	<p>nearshore zone for navigation, transport and recreation. MR was considered for sites on Thorney Island but discounted along with NAI due to landowner (MOD) intentions regarding future management of their defences, type and extent of numerous nature conservation designations and the need to protect the infrastructure and assets.</p> <p>SMP policies which will modify coastal, estuarine and groundwater processes will only do so in localised areas. Therefore, changes in coastal, estuarine and groundwater processes along frontages adjacent to but outside the SMP area (Dorset/Hampshire and Sussex) are not expected as a result of SMP policies.</p> <p>This Water Body includes all/part of Langstone and Chichester Harbour SPA, Langstone and Chichester Harbours Ramsar site and Solent Maritime SAC SMP Appendix J (Appropriate Assessment) sets out the conclusions of the assessments of the potential for the SMP policies to have significant effects on any internationally designated site within the SMP study area.</p>
<p>Isle of Wight East GB650705530000  5A02, 5A03  <b>(Other units neutral or contribute to WFD objectives)</b></p>	<p><b>Mitigation measures:</b> have all practical mitigation measures been incorporated into the final SMP policies that affect this water body in order to mitigate the adverse impacts on the status of the water body? If not, then list mitigation measures that could be required.</p>	<p>The principal mitigation within the SMP is apparent when considering the effects at the scale of the whole water body, rather than individual frontages (policy units). Overall, the beach recycling activities at 2 units and proposed MR at 1 unit will provide opportunities for the water body to return to a more natural state, improving habitats and conditions for biological quality elements. These improved hydromorphological conditions will contribute towards offsetting the localised coastal squeeze impacts experienced in later epochs at the HTL sites.</p> <p>On a more local scale, the development of schemes associated with proposed Hold the Line SMP policies should take account of the hydromorphological mitigation measures for TrAC Water Bodies</p>

Water Body (and related SMP policy units)	Water Framework Directive Summary Statement checklist	A brief description of decision making and reference to further documentation within the SMP
		<p><u>Programme of measures from RBMP Measures</u></p> <ul style="list-style-type: none"> <li>• All recommended mitigation measures in place</li> </ul> <p><u>Other measures</u></p> <ul style="list-style-type: none"> <li>• Coastal monitoring</li> </ul>
	<p><b>Overriding public interest;</b> can it be shown that the reasons for selecting the final SMP policies are reasons of overriding public interest and/or the benefits to the environment and to society of achieving the environmental objectives are outweighed by the benefits of the final SMP policies to human health, to the maintenance of health and safety or to sustainable development?</p>	<p>SMP Appendix G1-4 sets out the conclusions of scenario testing which was used to develop the proposed policies for each of these policy units. Appendix H sets out the economic damages associated with the proposed policy scenarios. Policy of maintaining defences at East Wittering, Bracklesham and West Wittering is required to protect property, heritage and commercial developments and infrastructure assets.</p>
	<p><b>Better environmental options:</b> have other significantly better options for the SMP policies been considered? Can it be demonstrated that those better environmental policy options which were discounted were done so on the grounds of being either technically unfeasible or disproportionately costly?</p>	<p>SMP Appendix G1-4 sets out the conclusions of scenario testing which was used to develop the proposed policies for each of these policy units. Appendix H sets out the economic damages associated with the proposed policy scenarios. Discussions within the Client Steering Group indicated that an ATL policy is not applicable within the entire North Solent SMP area due to the complexity of the coastal processes, the number and extent of nature conservation designations and the use of the nearshore zone for navigation, transport and recreation. NAI and MR have been discounted for the developed areas of East Wittering, Bracklesham and West Wittering due to nature conservation designations and the need to protect the properties and assets along these frontages.</p>
	<p><b>Affect on other Water Bodies:</b> Can it be demonstrated that the final SMP policies do not permanently exclude or compromise the achievement of the objectives of the Directive in Water Bodies within the same River Basin District that are outside of the SMP area.</p>	<p>SMP policies which will modify coastal, estuarine and groundwater processes will only do so in localised areas. Therefore, changes in coastal, estuarine and groundwater processes along frontages adjacent to but outside the SMP area (Dorset/Hampshire and Sussex) are not expected as a result of SMP policies.</p>

Water Body (and related SMP policy units)	Water Framework Directive Summary Statement checklist	A brief description of decision making and reference to further documentation within the SMP
	<p><b>Other issues:</b> Can it be shown that there are no over-riding issues that should be considered (such as designated sites, recommendations of the Appropriate Assessment)?</p>	<p>This Water Body includes all/part of Langstone and Chichester Harbour SPA, Langstone and Chichester Harbours Ramsar site and Solent Maritime SAC SMP Appendix J (Appropriate Assessment) sets out the conclusions of the assessments of the potential for the SMP policies to have significant effects on any internationally designated site within the SMP study area.</p>
<p>Langstone Harbour GB680705130000</p> <p>5A18, 5A19, 5A20, 5A21, 5API01, 5API02, 5AHI01, 5AHI06, 5AHI08</p> <p><b>(Other units neutral or contribute to WFD objectives)</b></p>	<p><b>Mitigation measures:</b> have all practical mitigation measures been incorporated into the final SMP policies that affect this water body in order to mitigate the adverse impacts on the status of the water body? If not, then list mitigation measures that could be required.</p>	<p>The principal mitigation within the SMP is apparent when considering the effects at the scale of the whole water body, rather than individual frontages (policy units). The NAI policy at 1 unit will provide opportunities for the water body to return to a more natural state, improving habitats and conditions for biological quality elements. These improved hydromorphological conditions will contribute towards offsetting the localised coastal squeeze impacts experienced in later epochs at the HTL sites.</p> <p>On a more local scale, the development of schemes associated with proposed Hold the Line SMP policies should take account of the hydromorphological mitigation measures for TrAC Water Bodies</p> <p><u>Programme of measures from RBMP Measures</u></p> <ul style="list-style-type: none"> <li>• Retain marginal aquatic and riparian habitats (channel alteration)</li> <li>• Preserve and where possible enhance ecological value of marginal aquatic habitat, banks and riparian zone</li> <li>• Managed realignment of flood defence</li> <li>• Removal of hard bank reinforcement / revetment, or replacement with soft engineering solution</li> </ul> <p><u>Other measures</u></p> <ul style="list-style-type: none"> <li>• Coastal monitoring</li> </ul>

Water Body (and related SMP policy units)	Water Framework Directive Summary Statement checklist	A brief description of decision making and reference to further documentation within the SMP
	<p><b>Overriding public interest:</b> can it be shown that the reasons for selecting the final SMP policies are reasons of overriding public interest and/or the benefits to the environment and to society of achieving the environmental objectives are outweighed by the benefits of the final SMP policies to human health, to the maintenance of health and safety or to sustainable development?</p>	<p>SMP Appendix G1-4 sets out the conclusions of scenario testing which was used to develop the proposed policies for each of these policy units. Appendix H sets out the economic damages associated with the proposed policy scenarios. Policy of maintaining defences at New Town, Stoke, North Hayling, Langstone, Brockhampton, Farlington, Hilsea, Eastney and the heavily developed eastern frontage of Portsea Island is required to protect property, heritage, MOD, commercial, industrial and agricultural developments, transport and cross-harbour infrastructure assets and designated habitats and sites – i.e. ROPI. No public funding will be available for continued maintenance of privately owned flood defences, as is currently the case.</p>
	<p><b>Better environmental options:</b> have other significantly better options for the SMP policies been considered? Can it be demonstrated that those better environmental policy options which were discounted were done so on the grounds of being either technically unfeasible or disproportionately costly?</p>	<p>SMP Appendix G1-4 sets out the conclusions of scenario testing which was used to develop the proposed policies for each of these policy units. Appendix H sets out the economic damages associated with the proposed policy scenarios. Discussions within the Client Steering Group indicated that an ATL policy is not applicable within the entire North Solent SMP area due to the complexity of the coastal processes, the number and extent of nature conservation designations and the use of the nearshore zone for navigation, transport and recreation. MR was considered and/or proposed for Farlington, Southmoor and West Northney but management of these sites will be determined through further studies.</p>
	<p><b>Affect on other Water Bodies:</b> Can it be demonstrated that the final SMP policies do not permanently exclude or compromise the achievement of the objectives of the Directive in Water Bodies within the same River Basin District that are outside of the SMP area.</p>	<p>SMP policies which will modify coastal, estuarine and groundwater processes will only do so in localised areas. Therefore, changes in coastal, estuarine and groundwater processes along frontages adjacent to but outside the SMP area (Dorset/Hampshire and Sussex) are not expected as a result of SMP policies.</p>



Water Body (and related SMP policy units)	Water Framework Directive Summary Statement checklist	A brief description of decision making and reference to further documentation within the SMP
	<p><b>Other issues:</b> Can it be shown that there are no over-riding issues that should be considered (such as designated sites, recommendations of the Appropriate Assessment)?</p>	<p>This Water Body includes all/part of Langstone and Chichester Harbour SPA, Langstone and Chichester Harbours Ramsar site and Solent Maritime SAC SMP Appendix J (Appropriate Assessment) sets out the conclusions of the assessments of the potential for the SMP policies to have significant effects on any internationally designated site within the SMP study area.</p>
<p>Portsmouth Harbour GB680705140000  (5A21, 5A22, 5A23, 5A24, 5A25, 5B01, 5API01, 5API02)</p>	<p><b>Mitigation measures:</b> have all practical mitigation measures been incorporated into the final SMP policies that affect this water body in order to mitigate the adverse impacts on the status of the water body? If not, then list mitigation measures that could be required.</p> <p><b>Overriding public interest;</b> can it be shown that the reasons for selecting the final SMP policies are reasons of overriding public interest and/or the benefits to the environment and to society of achieving the environmental objectives are outweighed by the benefits of the final SMP policies to human health, to the maintenance of health and safety or to sustainable development?</p>	<p>The development of schemes associated with proposed Hold the Line SMP policies should take account of the hydromorphological mitigation measures for TrAC Water Bodies</p> <p><u>Programme of measures from RBMP Measures</u></p> <ul style="list-style-type: none"> <li>• Retain marginal aquatic and riparian habitats (channel alteration)</li> <li>• Preserve and where possible enhance ecological value of marginal aquatic habitat, banks and riparian zone</li> <li>• Managed realignment of flood defence</li> <li>• Increase in-channel morphological diversity</li> </ul> <p><u>Other measures</u></p> <ul style="list-style-type: none"> <li>• Coastal monitoring</li> </ul> <p>SMP Appendix G1-4 sets out the conclusions of scenario testing which was used to develop the proposed policies for each of these policy units. Appendix H sets out the economic damages associated with the proposed policy scenarios. Policy of maintaining defences at Gosport, Portchester, Port Solent and the heavily developed western frontage of Portsea Island is required to protect property, heritage, MOD, commercial, industrial and agricultural developments, transport and cross-harbour infrastructure assets and designated habitats and sites.</p>

Water Body (and related SMP policy units)	Water Framework Directive Summary Statement checklist	A brief description of decision making and reference to further documentation within the SMP
	<p><b>Better environmental options:</b> have other significantly better options for the SMP policies been considered? Can it be demonstrated that those better environmental policy options which were discounted were done so on the grounds of being either technically unfeasible or disproportionately costly?</p> <p><b>Affect on other Water Bodies:</b> Can it be demonstrated that the final SMP policies do not permanently exclude or compromise the achievement of the objectives of the Directive in Water Bodies within the same River Basin District that are outside of the SMP area.</p> <p><b>Other issues:</b> Can it be shown that there are no over-riding issues that should be considered (such as designated sites, recommendations of the Appropriate Assessment)?</p>	<p>SMP Appendix G1-4 sets out the conclusions of scenario testing which was used to develop the proposed policies for each of these policy units. Appendix H sets out the economic damages associated with the proposed policy scenarios. Discussions within the Client Steering Group indicated that an ATL policy is not applicable within the entire North Solent SMP area due to the complexity of the coastal processes, the number and extent of nature conservation designations and the use of the nearshore zone for navigation, transport and recreation. NAI and MR have been discounted for the developed areas of Gosport, Portchester, Port Solent and the heavily developed western frontage of Portsea Island due to landowner (MOD) intentions regarding future management of their defences or the need to protect the properties and assets along these frontages.</p> <p>SMP policies which will modify coastal, estuarine and groundwater processes will only do so in localised areas. Therefore, changes in coastal, estuarine and groundwater processes along frontages adjacent to but outside the SMP area (Dorset/Hampshire and Sussex) are not expected as a result of SMP policies.</p> <p>This Water Body includes all/part of Portsmouth Harbour SPA and Portsmouth Harbour Ramsar site. SMP Appendix J (Appropriate Assessment) sets out the conclusions of the assessments of the potential for the SMP policies to have significant effects on any internationally designated site within the SMP study area.</p>
Solent GB650705150000  5B01, 5C15, 5C18, 5C19, 5C22, 5API02	<b>Mitigation measures:</b> have all practical mitigation measures been incorporated into the final SMP policies that affect this water body in order to mitigate the adverse impacts on the status of the water body? If not, then list mitigation measures that could be	The principal mitigation within the SMP is apparent when considering the effects at the scale of the whole water body, rather than individual frontages (policy units). Overall, the beach recycling activities at 2 units and NAI at 4 units will provide opportunities for the water body to return to a more natural state, improving habitats and conditions for biological quality elements.

Water Body (and related SMP policy units)	Water Framework Directive Summary Statement checklist	A brief description of decision making and reference to further documentation within the SMP
<p><b>(Other units neutral or contribute to WFD objectives)</b></p>	<p>required.</p>	<p>These improved hydromorphological conditions will contribute towards offsetting the localised coastal squeeze impacts experienced in later epochs at the HTL sites.                      On a more local scale, the development of schemes associated with proposed Hold the Line SMP policies should take account of the hydromorphological mitigation measures for TrAC Water Bodies  <u>Programme of measures from RBMP Measures</u></p> <ul style="list-style-type: none"> <li>• Preserve and where possible enhance ecological value of marginal aquatic habitat, banks and riparian zone</li> <li>• Managed realignment of flood defence</li> <li>• Removal of hard bank reinforcement / revetment, or replacement with soft engineering solution</li> </ul> <p><u>Other measures</u></p> <ul style="list-style-type: none"> <li>• Coastal monitoring</li> </ul>
	<p><b>Overriding public interest;</b> can it be shown that the reasons for selecting the final SMP policies are reasons of overriding public interest and/or the benefits to the environment and to society of achieving the environmental objectives are outweighed by the benefits of the final SMP policies to human health, to the maintenance of health and safety or to sustainable development?</p>	<p>SMP Appendix G1-4 sets out the conclusions of scenario testing which was used to develop the proposed policies for each of these policy units. Appendix H sets out the economic damages associated with the proposed policy scenarios.                      Policy of maintaining defences at Eastoke, Eastney, West Town, Southsea, Lee on the Solent, Hill Head, Lymington and Keyhaven is required to protect property, heritage, MOD, commercial and agricultural developments, transport and cross-Solent infrastructure assets and designated habitats and sites. No public funding will be available for continued maintenance of privately owned flood defences, as is currently the case.</p>
	<p><b>Better environmental options:</b> have other significantly better options for the SMP policies been considered? Can it be demonstrated that those better environmental policy options which were discounted were done so on the grounds of being either</p>	<p>SMP Appendix G1-4 sets out the conclusions of scenario testing which was used to develop the proposed policies for each of these policy units. Appendix H sets out the economic damages associated with the proposed policy scenarios                      Discussions within the Client Steering Group indicated that an ATL policy is not applicable within the entire North Solent SMP area</p>

Water Body (and related SMP policy units)	Water Framework Directive Summary Statement checklist	A brief description of decision making and reference to further documentation within the SMP
	<p>technically unfeasible or disproportionately costly?</p> <p><b>Affect on other Water Bodies:</b> Can it be demonstrated that the final SMP policies do not permanently exclude or compromise the achievement of the objectives of the Directive in Water Bodies within the same River Basin District that are outside of the SMP area.</p> <p><b>Other issues:</b> Can it be shown that there are no over-riding issues that should be considered (such as designated sites, recommendations of the Appropriate Assessment)?</p>	<p>due to the complexity of the coastal processes, the number and extent of nature conservation designations and the use of the nearshore zone for navigation, transport and recreation. NAI and MR have been discounted for the developed areas of Eastoke, Eastney, West Town, Southsea, Lee on the Solent, Hill Head, Lymington and Keyhaven due to landowner intentions regarding future management of their defences, nature conservation designations or the need to protect the properties and assets along these frontages.</p> <p>SMP policies which will modify coastal, estuarine and groundwater processes will only do so in localised areas. Therefore, changes in coastal, estuarine and groundwater processes along frontages adjacent to but outside the SMP area (Dorset/Hampshire and Sussex) are not expected as a result of SMP policies.</p> <p>This Water Body includes all/part of Solent Maritime SAC , Solent and Southampton Water SPA and Solent and Southampton Water Ramsar site, SMP Appendix J (Appropriate Assessment) sets out the conclusions of the assessments of the potential for the SMP policies to have significant effects on any internationally designated site within the SMP study area.</p>
Langstone Oysterbeds GB610070073000  (5AHI08)	<p><b>Mitigation measures:</b> have all practical mitigation measures been incorporated into the final SMP policies that affect this water body in order to mitigate the adverse impacts on the status of the water body? If not, then list mitigation measures that could be required.</p>	<p>The development of schemes associated with proposed Hold the Line SMP policy should take account of the hydromorphological mitigation measures for TrAC Water Bodies</p> <p><u>Programme of measures from RBMP Measures</u></p> <ul style="list-style-type: none"> <li>• Vessel Management</li> <li>• Site selection (dredged material disposal) (e.g. avoid sensitive sites)</li> <li>• Sediment management</li> <li>• Alter timing of dredging / disposal</li> </ul>

Water Body (and related SMP policy units)	Water Framework Directive Summary Statement checklist	A brief description of decision making and reference to further documentation within the SMP
		<ul style="list-style-type: none"> <li>• Prepare a dredging / disposal strategy</li> <li>• Avoid the need to dredge (e.g. minimise under-keel clearance; use fluid mud navigation; flow manipulation or training works)</li> <li>• Modify channel</li> </ul> <p><u>Other measures</u></p> <ul style="list-style-type: none"> <li>• Coastal monitoring</li> </ul>
	<p><b>Overriding public interest;</b> can it be shown that the reasons for selecting the final SMP policies are reasons of overriding public interest and/or the benefits to the environment and to society of achieving the environmental objectives are outweighed by the benefits of the final SMP policies to human health, to the maintenance of health and safety or to sustainable development?</p>	<p>SMP Appendix G1-4 sets out the conclusions of scenario testing which was used to develop the proposed policies for each of these policy units. Appendix H sets out the economic damages associated with the proposed policy scenarios. Policy of maintaining defences at West Northney is required to protect property, heritage, commercial and agricultural developments, transport and cross-harbour infrastructure assets and designated habitats and sites – i.e. ROPI. No public funding will be available for continued maintenance of privately owned flood defences, as is currently the case.</p>
	<p><b>Better environmental options:</b> have other significantly better options for the SMP policies been considered? Can it be demonstrated that those better environmental policy options which were discounted were done so on the grounds of being either technically unfeasible or disproportionately costly?</p>	<p>SMP Appendix G1-4 sets out the conclusions of scenario testing which was used to develop the proposed policies for each of these policy units. Appendix H sets out the economic damages associated with the proposed policy scenarios. Discussions within the Client Steering Group indicated that an ATL policy is not applicable within the entire North Solent SMP area due to the complexity of the coastal processes, the number and extent of nature conservation designations and the use of the nearshore zone for navigation, transport and recreation. MR was considered and/or proposed for West Northney and Stoke but management of these sites will be determined through further studies. NAI was discounted at the developed area of West Northney and North Hayling due to significant flood risk to residential centres, transport, infrastructure and agricultural land.</p>

Water Body (and related SMP policy units)	Water Framework Directive Summary Statement checklist	A brief description of decision making and reference to further documentation within the SMP
	<p><b>Affect on other Water Bodies:</b> Can it be demonstrated that the final SMP policies do not permanently exclude or compromise the achievement of the objectives of the Directive in Water Bodies within the same River Basin District that are outside of the SMP area.</p> <p><b>Other issues:</b> Can it be shown that there are no over-riding issues that should be considered (such as designated sites, recommendations of the Appropriate Assessment)?</p>	<p>SMP policies which will modify coastal, estuarine and groundwater processes will only do so in localised areas. Therefore, changes in coastal, estuarine and groundwater processes along frontages adjacent to but outside the SMP area (Dorset/Hampshire and Sussex) are not expected as a result of SMP policies.</p> <p>This Water Body includes all/part of Langstone and Chichester Harbour SPA, Langstone and Chichester Harbours Ramsar site and Solent Maritime SAC SMP Appendix J (Appropriate Assessment) sets out the conclusions of the assessments of the potential for the SMP policies to have significant effects on any internationally designated site within the SMP study area.</p>
<p><i>Transitional</i></p> <p>Beaulieu River GB520704201400 (5C18)</p> <p><b>(Other units neutral or contribute to WFD objectives)</b></p>	<p><b>Mitigation measures:</b> have all practical mitigation measures been incorporated into the final SMP policies that affect this water body in order to mitigate the adverse impacts on the status of the water body? If not, then list mitigation measures that could be required.</p>	<p>The principal mitigation within the SMP is apparent when considering the effects at the scale of the whole water body, rather than individual frontages (policy units). Overall, the NAI policy at 2 units will provide opportunities for the water body to return to a more natural state, improving habitats and conditions for biological quality elements. These improved hydromorphological conditions will contribute towards offsetting the localised coastal squeeze impacts experienced in later epochs at the HTL sites.</p> <p>On a more local scale, the development of schemes associated with proposed Hold the Line SMP policies should take account of the hydromorphological mitigation measures for TrAC Water Bodies</p> <p><u>Programme of measures from RBMP Measures</u></p> <ul style="list-style-type: none"> <li>• All recommended mitigation measures in place</li> </ul> <p><u>Other measures</u></p> <ul style="list-style-type: none"> <li>• Coastal monitoring</li> </ul>

Water Body (and related SMP policy units)	Water Framework Directive Summary Statement checklist	A brief description of decision making and reference to further documentation within the SMP
	<p><b>Overriding public interest:</b> can it be shown that the reasons for selecting the final SMP policies are reasons of overriding public interest and/or the benefits to the environment and to society of achieving the environmental objectives are outweighed by the benefits of the final SMP policies to human health, to the maintenance of health and safety or to sustainable development?</p>	<p>SMP Appendix G1-4 sets out the conclusions of scenario testing which was used to develop the proposed policies for each of these policy units. Appendix H sets out the economic damages associated with the proposed policy scenarios. Policy of maintaining defences at Beaulieu is required to protect property, heritage and agricultural developments, infrastructure assets and designated habitats and sites. No public funding will be available for continued maintenance of privately owned flood defences, as is currently the case.</p>
	<p><b>Better environmental options:</b> have other significantly better options for the SMP policies been considered? Can it be demonstrated that those better environmental policy options which were discounted were done so on the grounds of being either technically unfeasible or disproportionately costly?</p>	<p>SMP Appendix G1-4 sets out the conclusions of scenario testing which was used to develop the proposed policies for each of these policy units. Appendix H sets out the economic damages associated with the proposed policy scenarios. Discussions within the Client Steering Group indicated that an ATL policy is not applicable within the entire North Solent SMP area due to the complexity of the coastal processes, the number and extent of nature conservation designations and the use of the nearshore zone for navigation, transport and recreation. MR was proposed but discounted along with NAI for this unit due to landowner intentions regarding future management of their defences and nature conservation designations.</p>
	<p><b>Affect on other Water Bodies:</b> Can it be demonstrated that the final SMP policies do not permanently exclude or compromise the achievement of the objectives of the Directive in Water Bodies within the same River Basin District that are outside of the SMP area.</p>	<p>SMP policies which will modify coastal, estuarine and groundwater processes will only do so in localised areas. Therefore, changes in coastal, estuarine and groundwater processes along frontages adjacent to but outside the SMP area (Dorset/Hampshire and Sussex) are not expected as a result of SMP policies.</p>
	<p><b>Other issues:</b> Can it be shown that there are no over-riding issues that should be considered (such as designated sites, recommendations of the Appropriate</p>	<p>This Water Body includes all/part of Solent Maritime SAC, Solent and Southampton Water SPA and Solent and Southampton Water Ramsar site. SMP Appendix J (Appropriate Assessment) sets out the</p>



Water Body (and related SMP policy units)	Water Framework Directive Summary Statement checklist	A brief description of decision making and reference to further documentation within the SMP
	Assessment)?	conclusions of the assessments of the potential for the SMP policies to have significant effects on any internationally designated site within the SMP study area.
Chichester Harbour East GB520704114000  (5A05, 5A06, 5A07)	<b>Mitigation measures:</b> have all practical mitigation measures been incorporated into the final SMP policies that affect this water body in order to mitigate the adverse impacts on the status of the water body? If not, then list mitigation measures that could be required.	The development of schemes associated with proposed Hold the Line SMP policies should take account of the hydromorphological mitigation measures for TrAC Water Bodies  <u>Programme of measures from RBMP Measures</u> <ul style="list-style-type: none"> <li>• Retain marginal aquatic and riparian habitats (channel alteration)</li> <li>• Preserve and where possible enhance ecological value of marginal aquatic habitat, banks and riparian zone</li> <li>• Managed realignment of flood defence</li> <li>• Removal of hard bank reinforcement / revetment, or replacement with soft engineering solution</li> </ul> <u>Other measures</u> <ul style="list-style-type: none"> <li>• Coastal monitoring</li> </ul>
	<b>Overriding public interest;</b> can it be shown that the reasons for selecting the final SMP policies are reasons of overriding public interest and/or the benefits to the environment and to society of achieving the environmental objectives are outweighed by the benefits of the final SMP policies to human health, to the maintenance of health and safety or to sustainable development?	SMP Appendix G1-4 sets out the conclusions of scenario testing which was used to develop the proposed policies for each of these policy units. Appendix H sets out the economic damages associated with the proposed policy scenarios. Policy of maintaining defences at Birdham, Apuldram and Fishbourne is required to protect property, heritage and agricultural developments, infrastructure assets and designated habitats and sites. No public funding will be available for continued maintenance of privately owned flood defences, as is currently the case.
	<b>Better environmental options:</b> have other significantly better options for the SMP policies been considered? Can it be demonstrated that those better environmental policy options which were discounted were	SMP Appendix G1-4 sets out the conclusions of scenario testing which was used to develop the proposed policies for each of these policy units. Appendix H sets out the economic damages associated with the proposed policy scenarios



Water Body (and related SMP policy units)	Water Framework Directive Summary Statement checklist	A brief description of decision making and reference to further documentation within the SMP
	<p>done so on the grounds of being either technically unfeasible or disproportionately costly?</p> <p><b>Affect on other Water Bodies:</b> Can it be demonstrated that the final SMP policies do not permanently exclude or compromise the achievement of the objectives of the Directive in Water Bodies within the same River Basin District that are outside of the SMP area.</p> <p><b>Other issues:</b> Can it be shown that there are no over-riding issues that should be considered (such as designated sites, recommendations of the Appropriate Assessment)?</p>	<p>Discussions within the Client Steering Group indicated that an ATL policy is not applicable within the entire North Solent SMP area due to the complexity of the coastal processes, the number and extent of nature conservation designations and the use of the nearshore zone for navigation, transport and recreation. MR was proposed at Fishbourne but discounted along with NAI due to landowner intentions regarding future management of their defences and nature conservation designations.</p> <p>SMP policies which will modify coastal, estuarine and groundwater processes will only do so in localised areas. Therefore, changes in coastal, estuarine and groundwater processes along frontages adjacent to but outside the SMP area (Dorset/Hampshire and Sussex) are not expected as a result of SMP policies.</p> <p>This Water Body includes all/part of Langstone and Chichester Harbour SPA, Langstone and Chichester Harbours Ramsar site and Solent Maritime SAC SMP Appendix J (Appropriate Assessment) sets out the conclusions of the assessments of the potential for the SMP policies to have significant effects on any internationally designated site within the SMP study area.</p>
<p>Lymington GB520704202100  (5C21, 5C22)  <b>(Other units neutral or contribute to WFD objectives)</b></p>	<p><b>Mitigation measures:</b> have all practical mitigation measures been incorporated into the final SMP policies that affect this water body in order to mitigate the adverse impacts on the status of the water body? If not, then list mitigation measures that could be required.</p>	<p>The principal mitigation within the SMP is apparent when considering the effects at the scale of the whole water body, rather than individual frontages (policy units). The NAI policy at 1 unit will provide opportunities for the water body to return to a more natural state, improving habitats and conditions for biological quality elements. These improved hydromorphological conditions will contribute towards offsetting the localised coastal squeeze impacts experienced in later epochs at the HTL sites. On a more local scale, the development of schemes associated with proposed Hold the Line SMP policies should take account of the hydromorphological mitigation measures for TrAC Water Bodies</p>

Water Body (and related SMP policy units)	Water Framework Directive Summary Statement checklist	A brief description of decision making and reference to further documentation within the SMP
		<p><u>Programme of measures from RBMP Measures</u></p> <ul style="list-style-type: none"> <li>• Operational and structural changes to locks, sluices, weirs, beach control, etc</li> <li>• Preserve and where possible enhance ecological value of marginal aquatic habitat, banks and riparian zone</li> <li>• Managed realignment of flood defence</li> <li>• Removal of hard bank reinforcement / revetment, or replacement with soft engineering solution</li> <li>• Removal of obsolete structure</li> </ul> <p><u>Other measures</u></p> <ul style="list-style-type: none"> <li>• Coastal monitoring</li> </ul>
	<p><b>Overriding public interest;</b> can it be shown that the reasons for selecting the final SMP policies are reasons of overriding public interest and/or the benefits to the environment and to society of achieving the environmental objectives are outweighed by the benefits of the final SMP policies to human health, to the maintenance of health and safety or to sustainable development?</p>	<p>SMP Appendix G1-4 sets out the conclusions of scenario testing which was used to develop the proposed policies for each of these policy units. Appendix H sets out the economic damages associated with the proposed policy scenarios. Policy of maintaining defences at Lymington is required to protect property, heritage and agricultural developments, infrastructure assets and designated habitats and sites.</p>
	<p><b>Better environmental options:</b> have other significantly better options for the SMP policies been considered? Can it be demonstrated that those better environmental policy options which were discounted were done so on the grounds of being either technically unfeasible or disproportionately costly?</p>	<p>SMP Appendix G1-4 sets out the conclusions of scenario testing which was used to develop the proposed policies for each of these policy units. Appendix H sets out the economic damages associated with the proposed policy scenarios. Discussions within the Client Steering Group indicated that an ATL policy is not applicable within the entire North Solent SMP area due to the complexity of the coastal processes, the number and extent of nature conservation designations and the use of the nearshore zone for navigation, transport and recreation. An overriding policy of NAI and MR has been discounted for Lymington due to the significant flood risk to residential centres, transport, infrastructure and agricultural land.</p>

Water Body (and related SMP policy units)	Water Framework Directive Summary Statement checklist	A brief description of decision making and reference to further documentation within the SMP
	<p><b>Affect on other Water Bodies:</b> Can it be demonstrated that the final SMP policies do not permanently exclude or compromise the achievement of the objectives of the Directive in Water Bodies within the same River Basin District that are outside of the SMP area.</p> <p><b>Other issues:</b> Can it be shown that there are no over-riding issues that should be considered (such as designated sites, recommendations of the Appropriate Assessment)?</p>	<p>SMP policies which will modify coastal, estuarine and groundwater processes will only do so in localised areas. Therefore, changes in coastal, estuarine and groundwater processes along frontages adjacent to but outside the SMP area (Dorset/Hampshire and Sussex) are not expected as a result of SMP policies.</p> <p>This Water Body includes all/part of Solent Maritime SAC, Solent and Southampton Water Ramsar site and Solent and Southampton Water Ramsar. SMP Appendix J (Appropriate Assessment) sets out the conclusions of the assessments of the potential for the SMP policies to have significant effects on any internationally designated site within the SMP study area.</p>
<p>Southampton Water GB520704202800</p> <p>5C03, 5C07, 5C09, 5C11, 5C12, 5C14, 5C12, 5C14, 5C15</p> <p><b>(Other units neutral or contribute to WFD objectives)</b></p>	<p><b>Mitigation measures:</b> have all practical mitigation measures been incorporated into the final SMP policies that affect this water body in order to mitigate the adverse impacts on the status of the water body? If not, then list mitigation measures that could be required.</p>	<p>The principal mitigation within the SMP is apparent when considering the effects at the scale of the whole water body, rather than individual frontages (policy units). Overall, the NAI policies at 7 units, beach recycling activities at 1 and proposed MR at 1 unit will provide opportunities for the water body to return to a more natural state, improving habitats and conditions for biological quality elements. These improved hydromorphological conditions will contribute towards offsetting the localised coastal squeeze impacts experienced in later epochs at the HTL sites. On a more local scale, the development of schemes associated with proposed Hold the Line SMP policies should take account of the hydromorphological mitigation measures for TrAC Water Bodies</p> <p><u>Programme of measures from RBMP Measures</u></p> <ul style="list-style-type: none"> <li>• Operational and structural changes to locks, sluices, weirs, beach control, etc</li> <li>• Preserve and where possible enhance ecological value of marginal aquatic habitat, banks and riparian zone</li> </ul> <p><u>Other measures</u></p> <ul style="list-style-type: none"> <li>• Coastal monitoring</li> </ul>

Water Body (and related SMP policy units)	Water Framework Directive Summary Statement checklist	A brief description of decision making and reference to further documentation within the SMP
	<p><b>Overriding public interest:</b> can it be shown that the reasons for selecting the final SMP policies are reasons of overriding public interest and/or the benefits to the environment and to society of achieving the environmental objectives are outweighed by the benefits of the final SMP policies to human health, to the maintenance of health and safety or to sustainable development?</p>	<p>SMP Appendix G1-4 sets out the conclusions of scenario testing which was used to develop the proposed policies for each of these policy units. Appendix H sets out the economic damages associated with the proposed policy scenarios. Policy of maintaining defences at Fawley Refinery, Fawley Power Station, Hythe, Marchwood, Ealing, Totton, Redbridge, Southampton, Netley, Hamble and Warsash is required to protect property, heritage, MOD, commercial, industrial and agricultural developments, transport and cross-harbour infrastructure assets and designated habitats and sites. No public funding will be available for continued maintenance of privately owned flood defences, as is currently the case.</p>
	<p><b>Better environmental options:</b> have other significantly better options for the SMP policies been considered? Can it be demonstrated that those better environmental policy options which were discounted were done so on the grounds of being either technically unfeasible or disproportionately costly?</p>	<p>SMP Appendix G1-4 sets out the conclusions of scenario testing which was used to develop the proposed policies for each of these policy units. Appendix H sets out the economic damages associated with the proposed policy scenarios. Discussions within the Client Steering Group indicated that an ATL policy is not applicable within the entire North Solent SMP area due to the complexity of the coastal processes, the number and extent of nature conservation designations and the use of the nearshore zone for navigation, transport and recreation. NAI and MR have been discounted for the developed areas of Fawley Refinery, Fawley Power Station, Hythe, Marchwood, Ealing, Totton, Redbridge, Southampton, Netley, Hamble and Warsash due to the need to protect the properties, infrastructure and assets along these frontages.</p>
	<p><b>Affect on other Water Bodies:</b> Can it be demonstrated that the final SMP policies do not permanently exclude or compromise the achievement of the objectives of the Directive in Water Bodies within the same River Basin District that are outside of the SMP area.</p>	<p>SMP policies which will modify coastal, estuarine and groundwater processes will only do so in localised areas. Therefore, changes in coastal, estuarine and groundwater processes along frontages adjacent to but outside the SMP area (Dorset/Hampshire and Sussex) are not expected as a result of SMP policies.</p>

Water Body (and related SMP policy units)	Water Framework Directive Summary Statement checklist	A brief description of decision making and reference to further documentation within the SMP
	<p><b>Other issues:</b> Can it be shown that there are no over-riding issues that should be considered (such as designated sites, recommendations of the Appropriate Assessment)?</p>	<p>This Water Body includes all/part of Solent Maritime SAC, Solent and Southampton Water SPA, Solent and Southampton Water Ramsar site SMP Appendix J (Appropriate Assessment) sets out the conclusions of the assessments of the potential for the SMP policies to have significant effects on any internationally designated site within the SMP study area.</p>
<p>Wallington GB520704202200  (5A22, 5A23)</p>	<p><b>Mitigation measures:</b> have all practical mitigation measures been incorporated into the final SMP policies that affect this water body in order to mitigate the adverse impacts on the status of the water body? If not, then list mitigation measures that could be required.</p>	<p>The development of schemes associated with proposed Hold the Line SMP policies should take account of the hydromorphological mitigation measures for TrAC Water Bodies. <u>Programme of measures from RBMP Measures</u></p> <ul style="list-style-type: none"> <li>• Preserve and where possible enhance ecological value of marginal aquatic habitat, banks and riparian zone</li> <li>• Removal of hard bank reinforcement / revetment, or replacement with soft engineering solution</li> </ul> <p><u>Other measures</u></p> <ul style="list-style-type: none"> <li>• Coastal monitoring</li> </ul>
	<p><b>Overriding public interest;</b> can it be shown that the reasons for selecting the final SMP policies are reasons of overriding public interest and/or the benefits to the environment and to society of achieving the environmental objectives are outweighed by the benefits of the final SMP policies to human health, to the maintenance of health and safety or to sustainable development?</p>	<p>SMP Appendix G1-4 sets out the conclusions of scenario testing which was used to develop the proposed policies for each of these policy units. Appendix H sets out the economic damages associated with the proposed policy scenarios. Policy of maintaining defences at Fareham is required to protect property, heritage and commercial developments, transport infrastructure assets.</p>
	<p><b>Better environmental options:</b> have other significantly better options for the SMP policies been considered? Can it be demonstrated that those better environmental policy options which were discounted were done so on the grounds of being either</p>	<p>SMP Appendix G1-4 sets out the conclusions of scenario testing which was used to develop the proposed policies for each of these policy units. Appendix H sets out the economic damages associated with the proposed policy scenarios. Discussions within the Client Steering Group indicated that an ATL policy is not applicable within the</p>

Water Body (and related SMP policy units)	Water Framework Directive Summary Statement checklist	A brief description of decision making and reference to further documentation within the SMP
	<p>technically unfeasible or disproportionately costly?</p> <p><b>Affect on other Water Bodies:</b> Can it be demonstrated that the final SMP policies do not permanently exclude or compromise the achievement of the objectives of the Directive in Water Bodies within the same River Basin District that are outside of the SMP area.</p> <p><b>Other issues:</b> Can it be shown that there are no over-riding issues that should be considered (such as designated sites, recommendations of the Appropriate Assessment)?</p>	<p>entire North Solent SMP area due to the complexity of the coastal processes, the number and extent of nature conservation designations and the use of the nearshore zone for navigation, transport and recreation. NAI and MR have been discounted at Fareham due to the need to protect the properties, infrastructure and assets along these frontages.</p> <p>SMP policies which will modify coastal, estuarine and groundwater processes will only do so in localised areas. Therefore, changes in coastal, estuarine and groundwater processes along frontages adjacent to but outside the SMP area (Dorset/Hampshire and Sussex) are not expected as a result of SMP policies.</p> <p>This Water Body includes all/part of Portsmouth Harbour SPA and Portsmouth Harbour Ramsar site. SMP Appendix J (Appropriate Assessment) sets out the conclusions of the assessments of the potential for the SMP policies to have significant effects on any internationally designated site within the SMP study area.</p>
<p>Black Water Lagoon GB560704217200 (5C18)</p>	<p><b>Mitigation measures:</b> have all practical mitigation measures been incorporated into the final SMP policies that affect this water body in order to mitigate the adverse impacts on the status of the water body? If not, then list mitigation measures that could be required.</p> <p><b>Overriding public interest;</b> can it be shown that the reasons for selecting the final SMP policies are reasons of overriding public interest and/or the benefits to the environment and to society of achieving the environmental objectives are outweighed by</p>	<p>The development of schemes associated with proposed Hold the Line SMP policy should take account of the hydromorphological mitigation measures for TrAC Water Bodies. <u>Programme of measures from RBMP Measures</u></p> <ul style="list-style-type: none"> <li>• No recommended mitigation measures</li> </ul> <p><u>Other measures</u></p> <ul style="list-style-type: none"> <li>• Coastal monitoring</li> </ul> <p>SMP Appendix G1-4 sets out the conclusions of scenario testing which was used to develop the proposed policies for each of these policy units. Appendix H sets out the economic damages associated with the proposed policy scenarios. Policy of maintaining defences is required to protect property,</p>

Water Body (and related SMP policy units)	Water Framework Directive Summary Statement checklist	A brief description of decision making and reference to further documentation within the SMP
	the benefits of the final SMP policies to human health, to the maintenance of health and safety or to sustainable development?	heritage and agricultural developments and designated habitats and sites. No public funding will be available for continued maintenance of privately owned flood defences, as is currently the case.
	<b>Better environmental options:</b> have other significantly better options for the SMP policies been considered? Can it be demonstrated that those better environmental policy options which were discounted were done so on the grounds of being either technically unfeasible or disproportionately costly?	SMP Appendix G1-4 sets out the conclusions of scenario testing which was used to develop the proposed policies for each of these policy units. Appendix H sets out the economic damages associated with the proposed policy scenarios Discussions within the Client Steering Group indicated that an ATL policy is not applicable within the entire North Solent SMP area due to the complexity of the coastal processes, the number and extent of nature conservation designations and the use of the nearshore zone for navigation, transport and recreation. MR was proposed but discounted along with NAI for this unit due to landowner intentions regarding future management of their defences and nature conservation designations.
	<b>Affect on other Water Bodies:</b> Can it be demonstrated that the final SMP policies do not permanently exclude or compromise the achievement of the objectives of the Directive in Water Bodies within the same River Basin District that are outside of the SMP area.	SMP policies which will modify coastal, estuarine and groundwater processes will only do so in localised areas. Therefore, changes in coastal, estuarine and groundwater processes along frontages adjacent to but outside the SMP area (Dorset/Hampshire and Sussex) are not expected as a result of SMP policies.
	<b>Other issues:</b> Can it be shown that there are no over-riding issues that should be considered (such as designated sites, recommendations of the Appropriate Assessment)?	This Water Body includes all/part of Solent Maritime SAC, Solent and Southampton Water SPA and Solent and Southampton Water Ramsar site SMP Appendix J (Appropriate Assessment) sets out the conclusions of the assessments of the potential for the SMP policies to have significant effects on any internationally designated site within the SMP study area.

