

2 Environmental Assessment

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2 Environmental assessment

In carrying out the Isle of Wight SMP it is important to understand the relationship between the areas of environmental value (e.g. nature conservation and cultural heritage) and coastal processes, and understand how coastal defences can alter these coastal processes and therefore have an impact on the nature of the environment. In addition coastal defences may also have an impact on the landscape of an area, depending on the type of defence used, and the significance of this may depend upon the importance placed upon a particular landscape.

This chapter outlines the strategic process undertaken for the environmental appraisal of the Isle of Wight SMP based on the key requirements of the European Strategic Environmental Assessment (SEA) Directive (2001/42/EC), the EC Habitats Directive (92/43/EEC) and the Water Framework Directive (WFD) (2000/60/EC). It contains the following sections; environmental assessment within the SMP2 process, SEA, Habitats Regulations Assessment (HRA) and the WFD assessment.

2.1 Environmental Assessment within the SMP Process

2.1.1 Existing Environment

The geology and geomorphology of the Isle of Wight coastline provides for a very rich natural environment, with a diversity of coastal habitats that include maritime cliffs and slopes, coastal saltmarsh, coastal saline lagoons, intertidal sand and mudflats and seagrass, grazing marshes, intertidal and subtidal rocky reefs and caves, estuaries and coastal woodland. These habitats are recognised for their international and national ecological and geomorphological value to nature conservation. The international designations along the coastline include five Special Areas of Conservation (SAC) including one European Marine Site (EMS), one Special Protection Area (SPA) and one Ramsar site; these are:

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

The northern shores of the Island are composed mainly of soft and slumping clay cliffs and sheltered estuarine creeks and harbours. There are five small but important estuaries on the Island that have some significant areas of valuable intertidal mudflats, saltmarsh and coastal grazing marsh, which are of high conservation interest as they provide important feeding grounds for large populations of internationally important bird species such as waders, gulls and waterfowl. These estuaries are:

- Western Yar Estuary;
- Newtown Estuary;
- Medina Estuary;
- Wootton Creek; and
- Eastern Yar Estuary (Bembridge Harbour);

The coastal habitats of the south of the Island contrast with those of the north coast and consist mainly of cliffs. There are high Chalk cliffs, which support important plant communities and cliff nesting bird colonies, whilst the softer cliffs composed of sand and clay slump into a series of grassy terraces.

The Isle of Wight encompasses a diversity of geology, with exposures along stretches of coastal cliffs recording millions of years of coastal change. The geology is of great significance on account of the completeness of a variety of historical time periods that make a special contribution to the understanding and appreciation of earth science and geological history of the region and Britain. As a result, there are a number of nationally important geological features along the coastline, including seven geological Sites of Special Scientific Interest (SSSI) and two Regionally Important Geological and Geomorphological Sites (RIGS).

The above combination of selected natural environmental assets, supported by natural processes, associated with this particular SMP creates a coastline of great value, with a regionally important tourism economy. However, these existing environmental assets could quite easily be damaged by inappropriate coastal defences.

The current state of the natural and built environment for the Isle of Wight SMP study area is described in the Thematic Review presented in Appendix D of this report. This study identifies the key features of the natural, human, historical and landscape environments of the coastline, including a commentary on the characteristics, status, relevant designations, as well as the importance of these features and the 'benefits' they provide to wider society.

This is supplemented by the review of the coastal processes within the Baseline Process Understanding report, in Appendix C, which identifies the contemporary physical form of the coastline and the processes operating upon it.

2.1.2 The Appraisal Process

A SMP provides an assessment of the risks associated with coastal evolution and provides a framework to address these risks to people and the developed, historic and natural environment in a sustainable manner. The SMP is a non-statutory, policy document for coastal defence management planning, which takes account of other existing planning initiatives and legislative requirements, being intended to inform wider strategic planning. It does not set policy for anything other than coastal defence management.

Full details on the background to the SMP and the appraisal process are set out in chapters 1 and 3, with the exact details of the procedure followed in development of the Plan being set out in Appendix A.

2.1.3 Stakeholder Engagement

A wide variety of stakeholders have been involved in the development and the review process of the SMP, with regular consultation having been undertaken. This is one of the key changes from the first SMP, with this involvement having:

- Been undertaken throughout the development of the SMP;

- Given people and organisations an opportunity to comment on the environmental appraisal of options; and
- Allowed representations made by the organisations, communities and the public to be taken into account in the selection of policy options.

Stakeholders for the SMP have included representatives from local authorities, government agencies and industry. They have met periodically through the development of the SMP, including several key stakeholders attending the regular Client Steering Group (CSG) meetings, to input information and review outputs as the SMP has progressed. The CSG for the Isle of Wight SMP has comprised representatives from the Isle of Wight Council, Natural England (NE) and the Environment Agency (including the National Environmental Assessment Service - NEAS), with a remit to agree the various stages of the SMP as it progresses. The views of those whom the SMP policies will affect have therefore been involved in its development, which has ensured that all relevant issues have been considered.

Full details of all stages of stakeholder engagement undertaken during development of the draft Plan are presented in Appendix B. This includes copies of briefing materials.

2.1.4 Environmental Objectives

An integral part of the SMP development process has been the identification of issues and definition of objectives for future management of the shoreline. This was based upon an understanding of the existing environment, the aspirations of stakeholders and an understanding of the likely evolution of the shoreline under the hypothetical scenario of NAI (Appendix C3), which identifies the likely physical evolution of the coast without any future defence management and hence potential risks to shoreline features.

The definition and appraisal of objectives has been undertaken with engagement with stakeholders during development of the SMP (as identified in Appendix B). The full list of issues and objectives defined for this SMP is presented in Appendix E, which is supplemented by background information provided in the Thematic Studies (Appendix D). Appendix G includes consideration of how the objectives and hence the environment, would be affected under a NAI scenario, while chapter 5 of the SMP provides and draws together the overall potential environmental effects of the preferred policies.

2.1.5 Environmental Effects of the Preferred Plan

The rationale for development of the preferred plan within each PDZ is reported in chapter 4, which includes a summary policy statement for each MA, containing the environmental implications of the various scenarios recorded. A summary of how the preferred plan might perform with respect to different themes is presented in chapter 5.

Within the MA Summary Statements in chapter 4, further detail of the implications of the preferred plan for all of the internationally, nationally or regionally designated environmental areas are presented, as well as an identification of any mitigation measures that would be required in order to implement the policy. This is further supported through undertaking a SEA, HRA and WFD assessment of the SMP, with

the supporting information being provided in Appendices F,I and J, respectively (a brief overview of each of these environmental assessments are given below in sections 2.2, 2.3.and 2.4). Appendix L then provides the HRA Stage 4 Report, which provides details on the negative effects that the SMP2 has on any international designations and how this needs to be compensated for; this is the document that will be submitted to the Secretary of State alongside a supporting letter from Natural England stating the Imperative Reasons of Overriding Public Interest for why the SMP2 should be implemented.

2.2 Strategic Environmental Assessment (SEA)

2.2.1 Background

The Defra SMP guidance states that the environmental effects of all policies must be considered before deciding which policies will be adopted (Defra, 2006). Consideration should be made with regards to both the positive and negative effects of options on the environment.

Under Directive 2001/42/EC of the European Parliament and of the Council, and the legislative act which transposes the Directive into domestic law - the "Environmental Assessment of Plans and Programmes Regulations (SI 1633, 2004)" a Strategic Environmental Assessment (SEA) must be made of plans and programmes that are required by legislative, regulatory or administrative provisions. The intention of the Directive is to "*provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development*". SMPs clearly set a framework for future development and have much in common with the kind of plans and programmes for which the Directive is designed. As a result, Defra guidance recommends that operating authorities assess policies using the approach described in the Directive and the Regulations (Defra, 2006).

The SEA provides a systematic appraisal of the potential environmental consequences of high-level decision-making (i.e. plans, policies and programmes). By addressing strategic level issues, the SEA aids the selection of the preferred options, directs individual schemes towards the most appropriate solutions and locations and helps to ensure that resulting schemes comply with legislation and other environmental requirements. Within the SEA process and in a manner analogous to that used throughout the SMP, the term environment is used to cover the SEA receptors of biodiversity, habitats and species, populations and health, land use, material assets and infrastructure, geology and soil, water, air, climatic factors, landscape, cultural heritage (objects of archaeological, architectural or historical interest) and the intrinsic relationship between these (Defra, 2004). The SEA process follows five stages, though there are three distinct deliverables, the scoping report, the environmental report of the SMP2, and finally the Statement of Environmental Particulars which is completed following public consultation to demonstrate how the results of the environmental assessments (SEA, HRA and WFDA) and stakeholder and public comments are integrated into the Final SMP2 (refer to Appendix M of this report). The purpose of producing a scoping report is to establish the environmental baseline and identify the key environmental issues to be considered during subsequent stages of the SEA. It also includes the development of SEA assessment criteria and indicators for each of the SEA receptors so that there is the basis for the

assessment of SMP policy. With this in mind, the overall aims of the SEA associated with this SMP were to:

- Provide for a high level of environmental protection;
- Ensure that likely significant effects on the environment from the implementation of the SMP are identified, described and evaluated, so that they can be taken into account before the plan is adopted; and
- Evaluate the alternative SMP policies for their likely significant effects, taking into account the objectives and geographical scope, so that these can inform the nature and content of the SMP.

2.2.2 Evaluation of the Plan and Alternatives

The function of a SMP is to consider the coast as a whole from the perspective of managing coastal flood and erosion risk. The behaviour of the Isle of Wight coastline is driven by its geological and geomorphological make-up and it is therefore evident that no one aspect of the coastal environment (in terms of its physical behaviour, natural or built) dominates. There is a complex interdependence between different values along the coastline that means that in some places a decision taken within one Policy Development Zone (PDZ) has the potential to affect other PDZs. It was, therefore, considered inappropriate that a simple rigid procedure of option appraisal over individual sections of the coast could be undertaken in deriving policy.

2.2.3 Monitoring Requirements

In assessing the Isle of Wight SMP, areas of uncertainty have remained which were critical to the implementation of shoreline management. The SEA process has developed mitigation and monitoring to address specific issues identified throughout the development of the SEA. The need for this is management area specific and should largely be the responsibility of the operating authority or coastal manager within that area. This not only would then provide the information necessary to inform the on-going development of the plan but also provides essential contact between the development of the coast at this local level and decisions being made.

In finalising the Plan, an action plan has been created which brings together important linkages between the environment and the SMP, and introduces overall coherence for monitoring the SMP area, which will be delegated to one organisation. The approach to and requirement for monitoring is discussed in section 9 of the SEA. Detailed monitoring and definition of mitigation requirements will be undertaken as part of on-going management and development of strategy studies.

2.2.4 Summary of the SEA Environmental Report

The predicted potentially significant impacts associated with the preferred policy options are presented in **Appendix F**, with a summary for each SEA receptor below and a summary of whether the objectives have been met in Table 1 below:

Human population and communities: There are seven key urban areas where the preferred SMP policy is to maintain existing defences, since they have been deemed economically viable in the long-term. This will result in a beneficial impact on people, their health and property by protecting the communities and their assets from flooding

or erosion. Protection is predominantly focussed upon larger conurbations, where the highest level of benefit is achieved. Under the recommended policies the majority of residential and commercial assets will be protected.

Land use, infrastructure and material assets: The SMP has aimed to protect major infrastructure, commercial and industrial areas and material assets for the entire plan's period, where economically viable to do so, to minimise risk, particularly where they are of great importance to the Island's economy.

Water quality and resources: In most areas around the Isle of Wight, the preferred SMP policy provides protection from flooding or erosion to potentially polluting features such as landfill sites. The separate WFDA (Appendix J) has addressed impacts of proposed policies under the SMP on freshwater, transitional, coastal and groundwater bodies in detail, with affects to one coastal water body (Solent) and four transitional water bodies (Medina, Wootton Creek, Eastern Yar and Western Yar). Refer to Section 2.4 below for more details.

Geology and soils: The preferred policies of NAI or MR have been mostly recommended in areas where there are limited human assets or along areas of undeveloped coastline. The cumulative impact on coastal geology of constraining coastal processes along the shoreline is of minor significance given that only small parts of two geological Sites of Special Scientific Interest and features of the South Wight Maritime SAC have been affected.

Landscape: Overall there is no plan to construct new defences in currently undefended areas, therefore most of the coastline which is nationally important for its landscape, with one Area of Outstanding Natural Beauty and the two Heritage Coasts will have negligible cumulative impacts as they will remain as today. As natural processes are to be allowed where possible, these are assessed as cumulative beneficial effects.

Biodiversity, habitats and species: A MR policy in PDZ 6 will result in the creation of mudflat and saltmarsh habitat in the Western Yar Estuary, however, it will also result in the loss of 31 hectares of internationally important coastal grazing marsh habitat in Thorley Brook and Barnfields Stream, which will need to be compensated for (refer to Section 2.3 below). The effects of the SMP2 policies on International designated sites are addressed in detail in the Appropriate Assessment of the HRA (see **Appendix I** of this SMP), whilst further details on the national and locally important designations is given in more detail in the SEA ER in **Appendix F**.

Historic Environment: Moderate cumulative adverse impacts on heritage assets are likely, as all policy options cause some adverse impact. There is a wide range of heritage assets around the Isle of Wight coast, with many more of these being protected through the SMP policies than would survive under a NAI policy. Significant protected features include the three Scheduled Monuments: Puckpool Mortar Battery, Sandown Barrack Battery and Yarmouth Castle and a large number of Grade I and II* Listed Buildings. Quarr Abbey, a Scheduled Monument is landward of a NAI policy frontage and the precinct walls are at risk of coastal flooding in Epoch 3. In addition, Yaverland Fort Battery, a Scheduled Monument on a continuing unprotected coastline within Sandown Bay will start to incur damages/losses in Epochs 2 and 3. These increased risks have been recognised and appropriate programmes of survey, recording and investigation to record these important sites will need to be undertaken.

Table 1: Achievement summary of the SEA Objectives by PDZ (Y = yes achieved SEA objective, N = no did not achieve objective, P = partly achieved objective)

SEA Receptors	SEA Objectives	Policy Development Zones						
		PDZ 1: Cowes and the Medina Estuary	PDZ 2: Ryde and the North-east Coastline	PDZ 3: Bembridge and Sandown Bay	PDZ 4: Ventnor and the Undercliff	PDZ 5: South-west Coastline	PDZ 6: West Wight	PDZ 7: North-west Coastline
Population, Communities and Human Health	A: To prevent or minimise loss / damage to residential properties from coastal erosion and flooding.	P	P	P	Y	N	P	N
	B: To prevent or minimise coastal erosion and flooding to key community assets (doctors, hospitals), recreation & tourism assets (leisure areas, beaches).	Y	Y	P	Y	P	P	n/a
	C: To prevent or minimise the loss / disruption to public footpaths and cycle routes.	P	P	P	P	N	N	P
Land Use, Material Assets / Infrastructure	D: To prevent or minimise the loss / damage / disruption to commercial properties and industrial sites.	Y	Y	Y	Y	n/a	Y	n/a
	E: To prevent or minimise the loss / damage / disruption to agricultural land.	P	P	Y	P	N	N	Y
	F: Prevent the loss / damage / disruption to transport and service infrastructure.	Y	P	Y	P	N	Y	n/a
Water Quality and Resources	G: To achieve the Environmental Objectives of the EC Water Framework Directive	P	P	P	Y	Y	P	Y
Geology & Soils	H: To prevent or minimise coastal erosion / flood management works that cause the loss / damage to designated geomorphological or geological interest features or significantly interrupt the supply of sediment to other areas of the Island.	P	Y	P	Y	Y	P	Y
Landscape	I: To protect and enhance the character and quality of the landscape and visual amenity from flooding and flood risk management works.	Y	Y	Y	Y	Y	Y	Y
Biodiversity, Habitats and Species	J: Identify and promote biodiversity opportunities to maintain, improve and avoid net loss of internationally and nationally important sites and habitats by sustainably managing coastal erosion and flood risk.	P	P	Y	Y	Y	P	Y
	K: Promote a balanced approach when maintaining, improving and avoiding net loss of terrestrial, freshwater and coastal habitats.	Y	Y	P	Y	Y	P	Y
Cultural Heritage	L: To prevent heritage assets from being lost / damaged by coastal erosion or flooding without implementing appropriate mitigation measures or preservation of evidence by record.	P	P	P	P	Y	P	N

2.3 Habitats Regulations Assessment (HRA)

2.3.1 Background

A Habitats Regulations Assessment (Stage 3 of which is the Appropriate Assessment) is a requirement of the EC Habitats Directive (Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora) and its implementation in the UK under the Conservation of Habitats and Species Regulations 2010 (hereon in referred to as the “Habitats Regulations”). Under Regulation 61 (1), an assessment of the implications a plan or project is required, which determines whether the plan or project either alone or in combination with other plans or projects is likely to have a significant effect on European sites or European offshore marine sites and is not directly connected with or necessary for the management of the site. A European site is defined as being either a Special Area of Conservation (SAC) (sites designated under EC Habitats Directive 92/43/EEC) or a Special Protection Area (SPA) (sites designated under Council Directive 79/409/EEC on the conservation of wild birds). Furthermore, Planning Policy Statement 9 (PPS9) specifies that wetlands of international importance designated under the Ramsar Convention (known as ‘Ramsar sites’) should also be subject to the provisions of the Habitats Regulations (ODPM, 2005a).

HRA is the mandatory process to support a decision by the 'Competent Authority', in this case the Isle of Wight Council, as to whether the proposed plan or project would have an adverse effect on the integrity of any international site. The “integrity of the site” is defined in the Government Circular: Biodiversity and geological conservation – statutory obligations and their impact within the planning system. Adverse effect is quantified as one that prevents the site from maintaining the same contribution to favourable conservation status of the qualifying feature(s) for which it was designated. The conservation status and integrity of the site is defined through the site's conservation objectives and it is against these objectives that the effects of the plan or project must be assessed. Conservation objectives set out the physical, chemical and biological thresholds and limits of anthropogenic activity and disturbance which are required to be met to achieve the integrity of the site. Conservation objectives for European Marine Sites are set out in the Relevant Regulation 33 documents for each site, which for English European Marine Sites are the responsibility of Natural England.

Where it is not possible to determine that a plan or project under consideration will not have an adverse effect on the integrity of an international site, then Stage 4 of the HRA process needs to be implemented (this is recorded in Appendix L of this report), which involves assessing any alternative solutions which avoid harming site integrity must be sought. If alternatives are not possible, then the plan or project can only proceed on the basis of Imperative Reasons of Over-riding Public Importance (IROPI). If IROPI is agreed by the Secretary of State, then compensatory measures must be secured to offset damage done by the plan or project, such that the overall coherence of the SAC/SPA network is maintained.

2.3.2 Habitats Regulations Assessment in the Land Use Plan Context

The Office of the Department for Communities and Local Government (DCLG) has produced draft guidance on how to determine the need for an AA for a given land use plan and the provision of an assessment if one is considered to be required (DCLG,

2006). Natural England has provided an internal draft document relating to the provision of AAs for Regional Spatial Strategies (RSSs) and Sub-Regional Strategies (SRSs), while more specific guidance on assessing SMPs in terms of the Habitats Regulations 2010 is available from the Environment Agency (Natural England, 2006 and Environment Agency, draft). These three guidance documents provide the most cohesive source of guidance relating to the provision of Stage 3 Appropriate Assessments for SMPs. These documents relate explicitly to land use plans; however, given that SMPs have the potential to influence the development of land, this guidance has been applied in this report to SMP policy. An HRA is simply a mechanism to establish the actual scale and implications of impacts and to provide a determination on whether a course of action is acceptable or unacceptable, in terms of its impacts on the integrity of international sites.

2.3.3 Summary of the HRA Stage 2: Scoping

During the development of the Isle of Wight SMP, the opportunity has been presented to align the development of SMP policy with the requirements of the Habitats Regulations, allowing for the development of SMP policy which takes into account site integrity. The area covered by the Isle of Wight SMP2 supports significant assemblages of habitats and species that are protected through international nature conservation designations, which include SACs, SPAs and Ramsar sites. SACs and SPAs are collectively termed Natura 2000 sites. The Isle of Wight SMP2 area includes five SACs, one SPA and one Ramsar site (see Section 2.1 above). On the basis of the nature of SMPs, in terms of their critical role in determining key coastal processes, and thus the extent and status of the internationally designated natural habitats along the coastline of Isle of Wight, ***it cannot be concluded that there would not be a likely significant effect of the SMP on the site.*** The SMP has therefore been subject to a full HRA.

2.3.4 Summary of the HRA Stage 3: Appropriate Assessment for the SMP2

The findings of the assessment have determined that the Isle of Wight SMP2 will have **an adverse effect** on the integrity of **two European nature conservation designated sites** as a result of the policy at Yarmouth Mill and Thorley (PU6C.5). These sites are the **Solent & Southampton Water SPA and Ramsar sites** for 31 hectares of coastal grazing marsh. The loss of this coastal grazing marsh will also result in the potential loss of seaward feeding and high tide roost sites important for internationally important wader and wildfowl bird species. The preferred policy for Policy Unit 6C.5 (Yarmouth Mill and Thorley) is to Hold The Line in the short term (Epoch 1), followed by Managed Realignment in the medium term (Epoch 2), and No Active Intervention in the long term (Epoch 3). The loss of habitats over the 100 year period from this policy suite is given in Table 1 below.

Table 1: Loss of habitats over the SMP2 period for the Solent and Southampton SPA/Ramsar site

Habitat Types	Loss of Habitat Area (ha)			Total (ha)
	0-20 years	20-50 years	50-100 years	
Coastal grazing marsh	0	31	0	31

2.3.5 Stage 4 of the HRA

Since this Assessment concludes that the Final SMP2 will lead to an adverse effect on the integrity of two European designated nature conservation sites through the loss of 31 hectares of coastal grazing marsh, then Stage 4 of the Habitats Regulations Assessment is required to be submitted to the Secretary of the State according to Regulations 62 (5) and 64 (2) of the Habitats Regulations 2010. This is found in Appendix L of this SMP2 and will be submitted with the support from Natural England. This last stage assesses whether there are any alternative solutions or preventative measures to the policy (PU6C.5) that is resulting in the adverse effect, and to determine that the SMP2 should be permitted for Imperative Reasons of Overriding Public Interest. Compensatory habitat measures must therefore be secured to ensure that the overall coherence of the Natura 2000 network is protected. **Appendix L** will also record the compensation habitat required to pass onto the Environment Agency's Southern Regional Habitat Creation Programme for delivery, which is the Government's recommended vehicle for delivering strategic habitat compensation and are funded in advance of policies that cause damage. The full detail of Stages 1 to 3 of the HRA for the international sites associated with the Isle of Wight SMP is provided as **Appendix I**, whilst Stage 4 is provided in **Appendix L**.

2.4 Water Framework Directive Assessment (WFDA)

2.4.1 Background

The Water Framework Directive (WFD) 2000/60/EC is the most substantial piece of EC water legislation to date and needs to be taken into account in the planning of all new activities in the water environment. The WFD was transposed into law in England and Wales by the Water Environment (Water Framework Directive) (England and Wales) Regulations 2003. The requirements of the Directive to protect, improve and provide for sustainable use of the water environment is implemented through the recently approved (by the Secretary of State for the Department for Environment, Food and Rural Affairs) River Basin Management Plans (RBMPs), of which the Isle of Wight falls within the South East RBMP. Furthermore, the European Floods Directive (2007/60/EC on the assessment and management of flood risks) requires that the environmental objectives of the WFD are taken into account in flood and coastal erosion plans.

The WFD therefore needs to be considered at all stages of the river and coastal planning and development process. The Environment Agency (the competent authority in England and Wales responsible for delivering the Directive) has recommended that decisions setting policy, including large-scale plans such as Shoreline Management Plans (SMPs), take account of the requirements of the Directive. This has been done according to the *Water Framework Directive: Guidance for Assessment of SMPs under WFD*, which was recently developed for the Environment Agency (Royal Haskoning, 2009). The guidance describes the methodology for assessing the potential hydromorphological change and consequent ecological impact of SMP2 policies and ensuring that SMP2 policy setting takes account of the Directive.

2.4.2 Evaluation of the Plan

The methodology devised for WFDA consists of a series of clearly defined steps, broadly following the tasks and activities described within the Defra guidance on producing SMPs, to provide a transparent and accountable assessment of the SMP2 policies (Defra, 2006).

The Directive requires that Environmental Objectives be set for all surface and ground waters in each EU Member State. The generic Environmental Objectives (based on Article 4.1 of the Directive) have been used for the assessment of the SMP2 in relation to the Directive; the objectives are:

- WFD Objective 1: No changes affecting high status sites.
- WFD Objective 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.
- WFD Objective 3: No changes which will permanently prevent or compromise the Environmental Objectives being met in other water bodies.
- WFD Objective 4: No changes that will cause failure to meet good groundwater status or result in a deterioration of groundwater status.

2.4.3 Mitigation Measures

Specific mitigation measures have been set for each River Basin District (RBD) to achieve the Environmental Objectives of the Directive. These measures are to mitigate impacts that have been or are being caused by human activity, such as flood and coastal defence works. In other words, measures to enhance and restore the quality of the existing environment. These mitigation measures are delivered through the RBMPs and listed in a Programme of Measures within the relevant RBMP.

2.4.4 Conclusions of the Water Framework Directive Assessment

The WFD assessment of the Final SMP2 policies identified that there is potential that four of the seven PDZs have the potential to contribute to the failure to meet Environmental Objective WFD2. Whilst, there are two PDZs that have the potential to fail to meet Environmental Objective WFD3 (see Table 2 below). The policies that cause the potential for failure are presented in Table 2 below. The water bodies likely to be affected is one coastal water body (Solent) and four Transitional water bodies (Solent, Medina Estuary, Wootton Creek, Eastern Yar and Western Yar) within the Isle of Wight SMP2 area. As a result, Water Framework Directive Summary Statements have been completed for these five water bodies, which can be found in Appendix J.

It must be noted that this assessment is based upon a precautionary approach where it has been determined that there is potential for SMP2 policies to result in deterioration of Ecological Status or Potential of a water body and hence potential for failure to meet WFD Environmental Objectives. Therefore, a precautionary check has been made against the conditions outlined in Article 4.7 of the Directive. The Summary Statements in Section J3 of the WFDA outline the reasons behind selecting the preferred SMP2 policy and any relevant South East River Basin Management Plan mitigation measures that have been incorporated into policies, or that must be included in the SMP2 Action Plan so that all strategy or schemes incorporate these

measures to ensure that Good Ecological Potential/Status is achieved or maintained by either 2015 or 2027 at the latest. The WFD assessment for the SMP is provided as **Appendix J**.

Table 2: Summary of the policy units that have the potential to fail the WFD Environmental Objectives

Water Body	TraC Type	Designation	Current Ecological Status / Potential	Overall Objective	Policy Units against WFD 2	Policy Units against WFD 3
Solent	Coastal	Heavily modified water body (HMWB)	Moderate Potential	Good Ecological Potential (GEP) by 2015	2B.6, 2B.7, 2C.4, 6B.1, 6B.3	
Medina Estuary	Transitional	HMWB	Moderate Potential	GEP by 2027	1A.4, 1A.5, 1B.2, 1B.4	1B.2, 1B.5
Wootton Creek	Transitional	HMWB	Moderate Potential	GEP by 2027	2B.2, 2B.4	
Eastern Yar	Transitional	HMWB	Moderate Potential	GEP by 2027	3A.3, 3A.4	
Western Yar	Transitional	HMWB	Moderate Potential	GEP by 2027	6C.3, 6C.6	6C.5

References

Defra (2004). Guidance on SEA. Department of Environment, Food and Rural Affairs.

DCLG (2006). Planning for the protection of European Sites: Appropriate Assessment Guidance for Regional Spatial Strategies and Local Development Documents. Department for Communities and Local Government.

Natural England (2006). The Assessment of Regional Spatial Strategies under the Provisions of the Habitats Regulations – Draft Guidance. English Nature.

Environment Agency (draft). Appropriate Assessment of Flood Risk Management Plans Under the Habitats Regulations

Royal Haskoning (2009) Water Framework Directive: Guidance for Assessment of SMPs under WFD. January 2009.