North Solent Shoreline Management Plan

Appendix H:
Economic Appraisal and Sensitivity Testing

Appendix H: Economic Appraisal

Contents by Policy Unit

Note the geographic breakdown of the appraisals presented in this Appendix is not necessarily the same as the final Policy Units (PU). In this Appendix the breakdown has been based upon coastal process and morphological changes along the shoreline. For ease of reference, the following table identifies the page number on which appraisals relevant to each PU start.

Policy Unit			Final Summary Table	Summary Table	Summary NAI Erosion losses	Summary NAI Flood Losses	Defence Work Costs	Sensitivity Final Summary Table	Sensitivity Summary Table	Sensitivity Defence Work Costs
No.	**From**	**To**	**Page No**							
5A09	Chidham Point	Nutbourne	16	42	49	53	58	n/a	n/a	n/a
5A10	Nutbourne		17	42	49	53	58	35	47	63
5A11	Nutbourne	Prinsted	17	42	49	53	58	n/a	n/a	n/a
5A12	Prinsted	Stanbury Point	17	42	49	53	58	36	47	63
5A13	Stanbury Point	Marker Point	17	42	49	53	58	n/a	n/a	n/a
5A14	Marker Point	Wickor Point	18	42	49	53	58	36	47	63
5A15	Wickor Point	Emsworth Yacht Haven	18	42	49	53	58	36	47	
5A16	Emsworth Yacht Haven	Maisemore Gardens	18	42	49	53	58	n/a	n/a	n/a
5A17	Maisemore Gardens	Wade Lane	19	43	49	53	58	36	47	63
5A18	Wade Lane	Southmoor Lane	19	43	49	53	58	n/a	n/a	n/a
5A19	Southmoor Lane	Farlington Marshes	19	43	49	53	58	n/a	n/a	n/a
5A20	Farlington Marshes		20	43	49	53	59	37	47	63
5A21	Farlington Marshes	Cador Drive	20	43	49	53	59	n/a	n/a	n/a
5A22	Cador Drive	A27	21	43	49	53	59	n/a	n/a	n/a
5A23	A27	Fleetlands	21	43	49	53	59	n/a	n/a	n/a
5A24	Fleetlands	Quay Lane	21	43	50	53	59	n/a	n/a	n/a

Policy Unit			Final Summary Table	Summary Table	Summary NAI Erosion losses	Summary NAI Flood Losses	Defence Work Costs	Sensitivity Final Summary Table	Sensitivity Summary Table	Sensitivity Defence Work Costs
No.	**From**	**To**	**Page No**							
5A25	Quay Lane	Portsmouth Harbour entrance	22	43	50	53	59	n/a	n/a	n/a
5B01	Portsmouth Harbour entrance	Gilkicker Point	22	43	50	53	59	n/a	n/a	n/a
5B02	Gilkicker Point	Meon Road, Titchfield Haven	22	43	50	53	59	n/a	n/a	n/a
5B03	Meon Road, Titchfield Haven	Hook Park	22	43	50	53	59	n/a	n/a	n/a
5C01	Hook Park	Warsash North	23	43	50	53	59	n/a	n/a	n/a
5C02	Warsash North	Swanwick Shore Road	23	43	50	53	59	n/a	n/a	n/a
5C03	Swanwick Shore Road	Bursledon Bridge	23	43	50	53	59	n/a	n/a	n/a
5C04	Bursledon Bridge to Botley & Curbridge to Satchell Marshes		23	43	50	54	59	n/a	n/a	n/a
5C05	Satchell Marshes	Hamble Common Point	24	44	50	54	59	n/a	n/a	n/a
5C06	Hamble Common Point	Hamble Oil Terminal	24	44	50	54	59	n/a	n/a	n/a

Policy Unit			Final Summary Table	Summary Table	Summary NAI Erosion losses	Summary NAI Flood Losses	Defence Work Costs	Sensitivity Final Summary Table	Sensitivity Summary Table	Sensitivity Defence Work Costs
No.	**From**	**To**	**Page No**							
5C07	Hamble Oil Terminal	Ensign Industrial Park	24	44	50	54	59	n/a	n/a	n/a
5C08	Ensign Industrial Park	Cliff House	25	44	50	54	59	n/a	n/a	n/a
5C09	Cliff House	Netley Castle	25	44	50	54	60	n/a	n/a	n/a
5C10	NetleyCastle	WestonPoint	25	44	50	54	60	n/a	n/a	n/a
5C11	Weston Point	Woodmill Lane	26	44	50	54	60	n/a	n/a	n/a
5C12	Woodmill Lane	Redbridge	26	44	50	54	60	n/a	n/a	n/a
5C13	Lower Test Valley		26	44	50	54	60	n/a	n/a	n/a
5C14	Redbridge	Calshot Spit	26	44	50	54	60	n/a	n/a	n/a
5C15	Calshot Spit	Calshot Spit	27	44	50	54	60	n/a	n/a	n/a
5C16	Calshot Spit	Inchmery	27	44	50	54	60	37	47	63
5C17	Inchmery	Salternshill	27	44	50	54	60	n/a	n/a	n/a
5C18	Salternshill	Park Shore	27	44	50	54	60	37	47	63
5C19	Park Shore	Sowley	28	44	50	54	60	n/a	n/a	n/a
5C20	Sowley	Elmer's Court	28	44	51	54	60	38	47	63
5C21	Elmer's Court	Lymington Yacht Haven	28	44	51	54	60	n/a	n/a	n/a
5C22	Lymington Yacht Haven	Saltgrass Lane	29	45	51	54	60	38	47	63
5F01	Hurst Spit	29	45	51	54	60	n/a	n/a	n/a	5F01

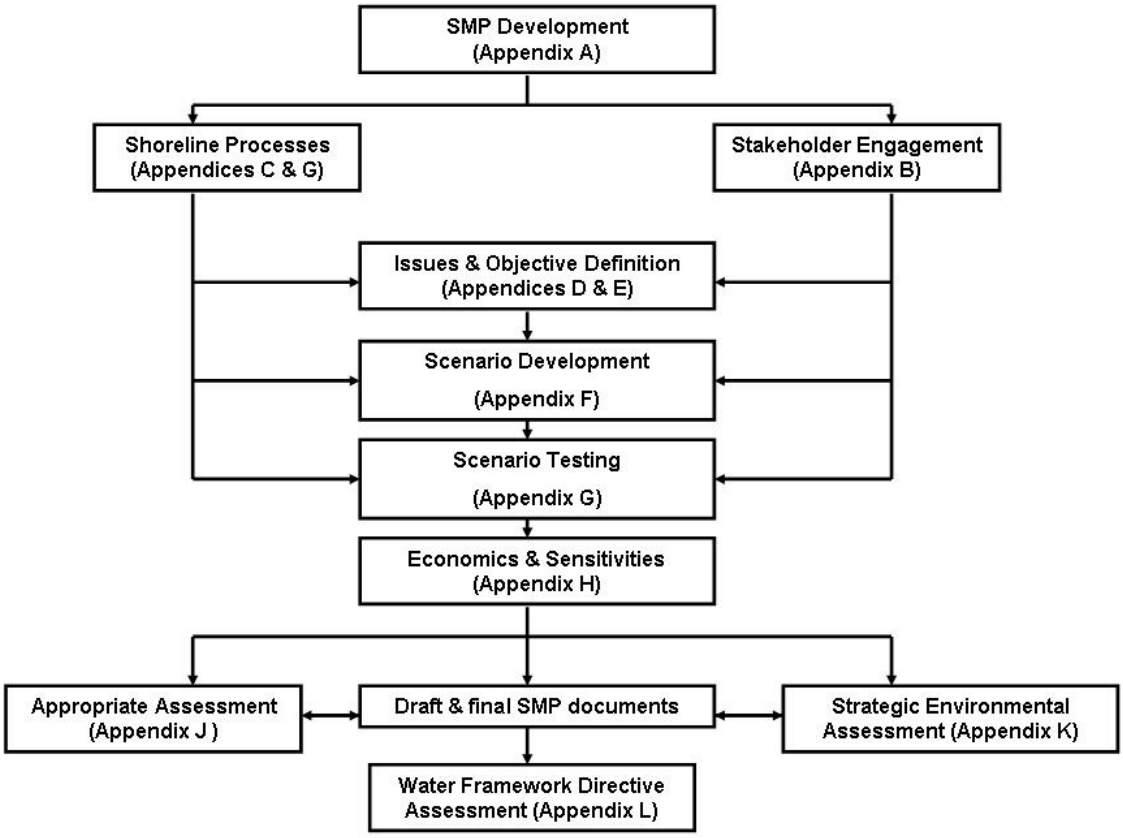
Policy Unit			Final Summary Table	Summary Table	Summary NAI Erosion losses	Summary NAI Flood Losses	Defence Work Costs	Sensitivity Final Summary Table	Sensitivity Summary Table	Sensitivity Defence Work Costs
No.	**From**	**To**	**Page No**							
5API01	Langstone Harbour entrance (harbour)	Portsmouth Harbour entrance	29	45	51	54	60	n/a	n/a	n/a
5API02	Langstone Harbour entrance (open coast)	Portsmouth Harbour entrance	30	45	51	54	60	n/a	n/a	n/a
5AHI01	Langstone Bridge	Northney Farm	30	45	51	54	60	n/a	n/a	n/a
5AHI02	Northney Farm		30	45	51	54	60	38	47	63
5AHI03	Northney Farm	Mengham	31	45	51	54	60	38	47	63
5AHI04	Mengham	Chichester Harbour entrance	31	45	51	54	61	n/a	n/a	n/a
5AHI05	Chichester Harbour entrance	Langstone Harbour entrance	31	45	51	54	61	n/a	n/a	n/a
5AHI06	Langstone Harbour entrance	North Shore Road, New Town	32	45	51	54	61	n/a	n/a	n/a
5AHI07	North Shore Road, New Town	West Lane (Stoke)	32	45	51	54	61	n/a	n/a	n/a
5AHI08	West Lane (Stoke)	Langstone Bridge	32	45	51	54	61	38	47	63

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:

Appendix	Subject	Detail
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:



H1 INTRODUCTION

A review of economic viability has been carried out for the final plan and its associated policies. The review makes a broad assessment of the economic robustness of the final policies for each of the Policy Units. It should be noted that further detailed economic analysis will need to be undertaken in justifying any specific scheme in line with principles set out in Defra's Flood and Coastal Defence Project Appraisal Guidance Note 3: Economic Appraisal (FCDPAG3).

The aim of this review is to determine to what degree the final policy may be justified in broad economic terms relating to coast protection or sea defence. The economic review therefore determines whether or not each policy is:

- Clearly economically viable
- Clearly not economically viable
- Of marginal viability (and therefore may be in need of a more detailed assessment at a later date, e.g. as part of a strategic plan. Some commentary on this is provided within this report).

It must be recognised that the justification for a particular policy is not necessarily dependant on economic viability alone, as impacts on other benefits may be considered more important e.g. holding and maintaining existing defences to sustain a designated habitat. Such sites may not be considered economically viable under current Treasury guidance; this is particularly applicable to privately owned and maintained defences where the owner may consider the costs of maintenance of defences or maintaining existing defences to a lower standard of protection affordable, but under national Treasury criteria would be deemed not economically viable. Following consultation and discussions with landowners of sites where a policy of Managed Realignment was proposed, the final policies reflect their future defence management intentions, with clear statements as to whether public funding (in the form of Flood and Coastal Defence Grant In Aid) would be available.

The following sections detail how the economic assessment has been undertaken. This is followed by a series of economic statements for each policy unit and spreadsheets providing the economic analysis for this SMP.

H2 USE OF EXISTING INFORMATION

For some frontages within the North Solent area, Coastal Defence Strategies and schemes have been developed, in line with the recommendations and to address uncertainties identified in SMP1. While information has been incorporated as it becomes available, such as from Coastal Defence Strategies, it is clearly not possible to include detailed information of concurrent studies, such as Coastal Defence Strategies that have not been approved or a completed draft available at the time of developing this

document; therefore, information from these sources has not been incorporated into the SMP assessment. The completed studies have been able to consider the economic consequence for specific areas in far greater detail than would be appropriate for the second round SMPs. For example, the strategies have been able to determine specific damages relating to flooding due to overtopping and consider damages relating to aspects such as amenity and uses of the coast. For studies that have been completed prior to the development of this SMP, the information could only be used where it is directly comparable with the Policy Units, and the criteria are valid and consistent with current Defra guidance. However, the majority of the North Solent SMP shoreline has not been included or covered by such Coastal Defence Strategy studies, and accordingly it has been necessary to adapt information from the completed studies to allow this information to be used in this economic appraisal. The following datasets were consulted to obtain information for the economic review:

- Address Point datasets
- National Property Dataset (December 2005) – for property locations and identification of commercial properties and values
- http://news.bbc.co.uk/1/shared/spl/hi/in_depth/uk_house_prices/counties/html/counties.stm - for residential property values (July 2009)
- https://statistics.defra.gov.uk/esg/publications/auk/2008/AUK2008CHAPTER4_AUK.pdf - for agricultural land values
- SMP Guidance – for defence costs
- Futurecoast – for guidance on erosion rates
- Environment Agency Indicative Floodplain – for indicative Flood Zone 3 mapping (2007) (1 in 200 year return period levels)
- PUSH – Flood Zone (2115) mapping for Hampshire (1 in 200 year return period levels)
- Pagham to East Head Coastal Defence Strategy (approved) – Flood Zone (2108) mapping (1 in 200 year return period levels) for West Sussex area within North Solent SMP project area
- Pagham to East Head Coastal Defence Strategy (2008) (approved)
- Portsea Island Coastal Defence Strategy (final approval 2010)
- Portchester to Emsworth Coastal Defence Strategy (in preparation)
- River Itchen, Weston Shore, Netley and River Hamble Coastal Defence Strategy (in preparation)
- West Solent Coastal Defence Strategy (in preparation)

H3 GENERATION OF DATA

There is very limited existing information that can be used directly to confirm robustness of the SMP policy and, therefore, such a ‘Broad-scale Economic Review’ uses nationally available information on property locations and values together with the tidal flood and coastal erosion risk maps developed through the assessment of shoreline interactions and responses, and the defence assessment data (Appendix C). The numbers and type of properties (residential or commercial), the area and type of agricultural land (grades 1 to

5) and area and type of nature conservation designated sites at risk from tidal flood or coastal erosion risk were calculated using Geographical Information Systems (GIS).

The Modelling and Decision Support Framework (MDSF) software suggested in the Defra SMP guidance was not utilised as considerable detailed data and documentation was readily available and had already been produced through the development of the SMP. These datasets in a wide variety of formats were most effectively collated, analysed and presented through GIS techniques and GIS-linked databases. This information was made available and contributed towards the development of other CDS and other studies that were being progressed.

H3.1 DETERMINING DAMAGES AND BENEFITS

The North Solent SMP assessments used a high level analysis to identify properties potentially at risk from coastal erosion and tidal flooding. The National Property Dataset (2005) was used, under licence from the EA, to determine the number and location of residential and commercial properties at risk from erosion and/or tidal flooding. Each property with a postal address within the NPD is represented by a point (please note that outbuildings, such as warehouses, barns, etc that do not have a postal address assigned to them are not included within the NPD). Properties with a single address point but with multiple occupancies, i.e. blocks of flats, are identified within the attribute tables. Multiple occupancy of property addresses have been included within the SMP assessments.

Only those property points from the NPD that fell within the erosion risk zones were included in the total number of properties, including multiple occupancies. If a property point fell landward of the 50-100yr erosion zone, this was not included in the totals. Aerial photography was not used as a base layer. Therefore, at the SMP scale of assessment the total no of properties potentially at risk from erosion and flooding will be underestimated. FCERMS and other more detailed studies will provide more accurate totals and valuations for the properties at risk

Indicative flood mapping for the 1:200 yr return event for 2007 and in 100years were overlaid onto the National Property Dataset base map to quantify the number of properties at risk from tidal flooding now and in 100 years time for each Local Authority, and for each affected Council Ward area. (Please refer to Appendix C Section C5 for further details on method and datasets)

Average annual erosion rates have been determined using coastal monitoring programme data, aerial photography analysis, local engineer expertise CDS and other studies, and then extrapolated to produce indicative erosion zones for each SMP epoch. Shoreline erosion risk was determined and mapped for 20, 50 and 100 years time under baseline scenarios of No Active Intervention (where there is no expenditure on maintaining or improving existing coastal and flood defences and defences will fail at a time dependent upon their

residual life and the condition of the fronting beaches and inter-tidal areas) and With Present Management' (all existing defence practices are continued, therefore defences are maintained to provide a similar level of protection over the next 100 years to that provided at present resulting in no erosion predicted).

The benefits are the damages averted or deferred by the preferred plan i.e. the difference in losses between implementing the proposed policies and the No Active Intervention (NAI) scenario. These have been calculated for each epoch. Although policy appraisal has determined a 'zone' of likely future erosion, only the most landward extent of the likely erosion (for each period: 0-20, 20-50 and 50-100 years) has been used in the present analysis for the purposes of estimating possible benefits. It should be noted that average erosion rates used for this SMP are estimates (see Appendix C). As such, erosion losses calculated through erosion are indicative and therefore should be used accordingly. The landward likely erosion lines have been mapped on a GIS and property types (residential or commercial) identified through the use of Address Point and the National Property Dataset. Losses of buildings which do not have an address point (e.g. barns, warehouses, out-lying buildings) or identified costs associated with temporary flooding issues associated with infrastructure e.g. road flooding, rail flooding, have not been included in the economic assessment. This indicates that cost estimates and damage valuations are likely to be underestimated in this assessment.

Value data for residential and commercial properties, along with agricultural land values, have been used to calculate potential economic losses and economic benefits for the NAI scenario and the preferred plan scenario. In areas where there is a tidal flooding risk, no attempt has been made to undertake detailed flood risk modelling; rather areas identified as at flooding risk by the Environment Agency's flood mapping have been used to identify assets potentially at risk. The potential damages in these areas are simply taken as the summed value of all the 'at risk' assets. This is based on the assumption that under a NAI scenario flood defences would fail and all at risk assets would be inundated and become uninhabitable. This is taken as an indicative figure for the assets potentially protected by defence structures. In calculating damages and benefits for the preferred scenario, no account has been taken of the potential for short-term accelerated or delayed losses compared to NAI, other than the total adjustment in shoreline position at the end of each epoch.

The SMP does not take account of standards of protection as it is only defence management policy that is being determined. Standards of protection relate to implementation of these policies, which is usually undertaken within more detailed 'strategy' level studies.

H3.2 ESTIMATING VALUE OF BENEFITS

H3.2.1 Valuation of Properties

For properties, losses and benefits have been calculated only on the basis of residential and commercial property values. Current average residential property prices were obtained from www.news.bbc.co.uk/1/shared/spl/hi/in_depth/uk_house_prices/counties/html/counties.stm , which provided property price statistics per Local Authority area. These values have been assigned according to Table 1 below.

Local Authority	Average Value (£)
Chichester DC	255,169
Havant BC	185,899
Portsmouth CC	141,195
Gosport BC	147,211
Fareham BC	220,106
Winchester CC	306,415
Eastleigh BC	214,907
Southampton CC	160,214
Test Valley BC	265,551
New Forest DC	260,165

Table H1: Average property values per Local Authority

Using the 20, 50 and 100 year erosion contours, the Capital Value (CV) and discounted Present Value (PV) of the properties have been calculated for the flood risk areas, GIS has been used to simply sum the CV for all built assets within the flood area, using the property database.

H3.2.2 Valuation of Agricultural Land

Agricultural land values were calculated from land prices obtained from Defra. In accordance with guidance, the values of land are multiplied by a factor of 0.65 to remove the cost of subsidies. (The Flood and Coastal Defence Appraisal Guidance Economic Appraisal supplementary Note to Operating Authorities: Valuation of Agricultural Land and Output for Appraisal Purposes, May 2008 replaces Annex B of FCDPAG3 and is line with the Treasury Green Book). As these values are from 2004 an RPI factor has been applied to bring the values up to date (2009). For each agricultural grade a value (£ per ha) has been assigned according to Table 2 below.

Grade	Average price for southeast England 2004 (£ per hectare)	Average Price multiplied by 0.65 to remove the cost of subsidies (£ per hectare)	Average price for southeast England updated to 2009 base date by RPI (£ per hectare)
1 & 2	7,256	6,178	7,058
3	8,289	7,058	8,063
4 & 5	6,572	5,596	6,393
No grade	4,016	3,420	3,907

Table H2: Agricultural Land Prices

H3.2.3Exclusions

In accordance with SMP guidance, the following have not been valued or included in the economic appraisal:

- losses associated with buildings with no Address Point identifier (e.g. barns, warehouses, out buildings);
- costs associated with temporary flooding
- other assets such as caravans, holiday chalets, beach huts, car parks,
- infrastructure and other utilities (e.g. highways, rail links, services); and
- intangibles, such as recreation and amenity value and use)

The exclusion of these factors will robustly influence economic viability, as these would provide added value. More detailed studies, such as Coastal Defence Strategies would attempt to incorporate such values, to determine economic viable measures to evaluate and determine defence management options.

H3.3 ESTIMATING DEFENCE COSTS

Future coastal defence management approaches for each Policy Unit have been developed as part of the preferred plan. From this, the broad replacement and maintenance requirements for each epoch have been determined. Where there is no existing information relating to future defence costs for an area, e.g. from a strategy plan or scheme design, costs have been generated using other nationally available information. It has also been identified that costs should be included for habitat creation that will be required through the implantation of the preferred plan.

H3.3.1 Costs of Replacing Defences

Replacement costs for general defence types have been taken from the revised Shoreline Management Plan Guidance (from Defra (2006) Flood and Coastal Defence Appraisal Guidance, FCDPAG3 Economic Appraisal, Supplementary Note to Operating Authorities – Climate Change Impacts, October 2006). This suggests average replacement costs of:

- £2.7million/km for linear structures (e.g. revetments, seawalls)
  £5.1million/km for beach management schemes
  £0.6million/km for groynes, embankments and other ''low cost'' defences.

Optimism bias in accordance with most recent Defra guidelines was finally applied to all costs (at 60%) to reflect uncertainty in broad level analysis at the SMP scale.

H3.3.2 Maintenance Costs for Defences

Maintenance costs have been taken from the Defra National Appraisal of Defence Needs And Costs (NADNAC) study (from Defra (2004) NADNAC National Appraisal of Defence Needs and Costs Study). The average annual maintenance costs are:

- £10,000/km for linear structures (e.g. revetments, seawalls) and groyne fields
- £20,000/km for beach management schemes

Allowance has also been made for the increase in costs due to climate change, and takes account of the need to make structures higher, deeper and more resilient to increased exposure. The assumptions were:

- no cost increase for the 0-20 year epoch
- costs factored up by 1.5 times present day rates for the 20-50 year epoch
- costs factored up by 2.0 times the present day rates for the 50-100 year epoch

Optimism bias in accordance with most recent Defra guidelines was finally applied to all costs (at 60%) to reflect uncertainty in broad level analysis at the SMP scale.

H3.3.3 Construction Intervals for Defences

The SMP guidance states that the timing of full scheme reconstruction required (i.e. design life) is at least:

- once every 100 years for linear defences, such as seawalls and revetments;
- every 50 years for beach schemes; and
- every 30 years for groynes and embankments.

However, these periods may become more frequent for areas where erosion potential is high e.g. on the outside of meanders and in confined channel locations. The interval or requirement for maintenance works has been assumed to be the same rate every year throughout the life of the scheme. In reality, this will be less in the early years and will increase in later years of the scheme's life. However, for the broad-brush appraisal undertaken at SMP level this will make no difference to decisions.

H3.4 ESTIMATING HABITAT CREATION COSTS

The Environment Agency Habitat Creation Programme Team provided estimations of habitat creation costs for inter-tidal and transitional freshwater (e.g. coastal grazing marsh) habitats. These were:

- £75,000/hectare for inter-tidal habitat
- £35,000/hectare for coastal grazing marsh habitat

Estimation of costs associated with the provision of compensatory inter-tidal habitats resulting from coastal squeeze (ongoing maintenance of defences preventing the natural landward migration of inter-tidal habitats) have also been provided by the Environment Agency Habitat Creation Programme Team. These costs have been based on the following:

- 600 hectares – estimated total area of inter-tidal habitat loss resulting from coastal squeeze (Solent Dynamic Coast Project, 2008)
- 212km - approximate length of defences causing coastal squeeze
- Therefore, this equates to approximately 2.8 hectares of coastal squeeze losses per km of defence.
- £75,000 is cost of inter-tidal habitat creation
- Therefore, this equates approximately £210,000 is cost per km of defence for offsetting coastal squeeze resulting from Hold the Line policies
- This rate has then been applied to those Policy Units with a proposed HTL policy affecting a European designated site.

H3.5 COMPARISON OF COSTS AND BENEFITS

As this review is not a full economic assessment, a formal benefit-cost assessment using benefit-cost ratios (BCR) has not been conducted; rather, the information available has been used to review the robustness of the preferred plan. In comparing likely benefits and likely costs for the policies for an individual location, over the full 100 year period it is, however, still useful in some instances to be able to consider these in terms of Present Value (PV). Present Value is the value of a stream of benefits or costs when discounted back to the present day.

For this SMP, the discount factors used are the latest provided by Defra for assessment of schemes, i.e. 3.5% for years 0-30, 3.0% for years 31-75, and 2.5% thereafter. For calculation of PV damages, the approximate timing of property losses has been determined using erosion and flood mapping and corresponding discount factors applied accordingly. For calculation of PV costs for defence replacement, the average discount factor for each epoch has been used, the actual timing of works being uncertain at present. The year-on-year maintenance PV costs have been calculated using the total of the discount rates for that epoch. The figures generated reflect the high level nature of the assessments undertaken.

H3.6 CONSIDERATION OF OBJECTIVE-LED LOCALISED POLICY REQUIREMENTS

In the draft SMP the proposed objective-led policies with the localised potential MR or environmental enhancement through regulated tidal exchange (RTE), or localised HTL policy caveats (identified in Appendix F and Appendix G) were considered within the economic appraisal.

Within the appraisal of frontages identified with localised HTL, indicative estimates of primary defences and costs associated with inter-tidal habitat creation, for offsetting coastal squeeze, were included.

Where necessary, setback or secondary defence requirements for localised MR (as presented in the Solent Dynamic Coast Project) and compensation costs associated with creating coastal grazing marsh resulting from the localised MR, were included within the assessment.

Within the Sensitivity Testing appraisals, a comparison between the policy scenario with and without the localised policy caveat was undertaken to determine the most economically viable option for that Policy Unit.

Where the objective-led policy with the localised policy was considered more economically viable than without the localised policy, the policy definition for the Policy Unit included the localised policy option.

Following the public consultation and the determination of the final SMP policies, the majority of the proposed MR policies and localised MR policies

that were proposed on privately owned landholdings or behind privately maintained defences, were objected to by the landowners. The final policies have therefore been changed, following public consultation to reflect the intentions of the landowner's future management of their defences

For many of the privately owned frontages, which have been assigned a HTL policy with a clear statement that no public funding would be available to maintain or upgrade existing defences, the final policies are considered economically marginal or not viable; it is important to note that private landowners may consider costs associated with maintenance and upgrading their defences affordable but the national economic criteria indicates the works are marginal or not viable. There is however, a risk that defence costs may result in defences not being maintained as effectively Over the long-term and could lead to failure or increased frequency of flooding to landholdings, properties, communities and environmentally important sites.

Further more detailed and site-specific studies will need to consider the identified potential localised opportunities where the final policies are considered economically marginal or not viable but have been changed, following public consultation to reflect the intentions of the landowner's future management of their defences; it is important to note that private landowners may consider costs associated with maintenance and upgrading their defences affordable but the national economic criteria indicates the works are marginal or not viable. These further detailed studies should also reconsider the proposed objective-led policy and localised policy options.

H4 ECONOMIC APPRAISAL FINAL SUMMARY TABLE

The Table below provides the Final Summary Tables of the economic review of the final policy scenarios for each Policy Unit, which may be different to the objective-led policies proposed in the draft SMP. It outlines information used in this review, including benefits and costs, together with a statement on economic viability. The Table details the cumulative costs per epoch for each Policy Unit, which is considered the most useful summary of potential costs. It is important to note that economic appraisals will be further assessed at the CDS and Scheme level in more detail. Summary data is also available in the main SMP document. The total costs apply national economic criteria for all defences, including private defences, but descriptions state whether defences are privately owned and funded. The Action Plan identifies further studies, CDS, Schemes and consultations with defence owners to determine affordability, which has been differentiated from economically viability. The assessment includes:

- indicative length estimates of primary defences
- indicative length estimates of secondary defences
- costs associated with inter-tidal habitat creation for offsetting coastal squeeze
- compensation costs associated with creating coastal grazing marsh resulting from MR or environmental enhancement through regulated tidal exchange (RTE)
- statement of economic viability of the objective-led policy scenario

Following the public consultation and the determination of the final SMP policies, the majority of the proposed MR policies and localized MR policies that were proposed on privately owned landholdings or behind privately maintained defences, were objected to by the landowners. The final policies have therefore been changed, following public consultation to reflect the intentions of the landowner's future management of their defences

For many of the privately owned frontages, which have been assigned a HTL policy with a clear statement that no public funding would be available to maintain or upgrade existing private defences, the final policies are considered economically marginal or not viable; it is important to note that private landowners may consider costs associated with maintenance and upgrading their defences affordable but the national economic criteria indicates the works are marginal or not viable. Over the long-term there is however, a risk that defence costs may result in privately owned defences not being maintained as effectively over the long-term. This could lead to failure or increased frequency of flooding to third party landholdings, properties, communities and environmentally important sites elsewhere.

In many cases where defences where privately maintained or owned, the policy scenarios that were previously tested in the sensitivity assessment are the final policies. The economic appraisals have been updated and sensitivity testing sections amended accordingly.

An estimate of the total costs of the identified works associated with the intention of the final management policies for the entire SMP can simply be calculated by summing the cumulative costs for all three epochs for each of the 62 final Policy Unit. It is important to note that defence work costs have been based on national economic criteria (see section H3), which have been applied to all defences, regardless of ownership.

Privately owned and maintained defences may be managed differently to those maintained by Local Authorities and the Environment Agency. For example, the. standard of protection the private defences provide to a landholding or individual properties may be lower than in areas that protect significant development; the interval that maintenance works are undertaken may be less frequent than the asset management programmes of the Operating Authorities; works may be undertaken subject to affordability rather than completion of feasibility studies that determine viability and best use of limited public resources. Therefore, when determining an estimate of the cost of the works identified in the final plan the policy options and policy intentions need to take account of ownership. As stated throughout the final plan, maintenance and improvements to private defences are not eligible for public funding, through the Flood and Coastal defence Grant In Aid.

Total cost of the works identified in the final plan assuming funding is available for all defences, regardless of defence ownership, is in the order of £2,400 Million over the 100 years (£1,100M epoch 1; £700M epoch 2; £600M epoch 3). This accounts for optimism bias of 60%, includes estimated costs associated with provision of compensation and mitigation habitats, defence replacement costs and intervals for replacement (as stated in section H3) and includes the maintenance and improvement works to defences which are known to be privately owned and maintained. Costs are anticipated to be highest in epoch 1 due to rebuild and improvement works required due to residual life and condition of existing defences, with continued maintenance of structures in remaining epochs reflecting the design life of the new defences. Considering the significantly high proportion of privately owned and maintained defences with the Solent (over 60%) this total cost estimate is a significant over estimate and is not a realistic reflection of the future financial requirement for managing flood and coastal erosion risk management.

If the known privately owned and maintained defences and those defences owned and maintained by the MOD are removed from the cost estimates the total cost of the works identified in the final plan, can be reduced by at least approximately £300-400 Million over the 100 years. This is provided as a range as there are a number Policy Units that comprise a mixture of public and private defences or structures that provide a flood defence function but are not classified as flood defences per se, e.g. Port of Southampton, western shore of Southampton Water, Portsea Island, etc. At the SMP scale of

assessment the public and private defences on these frontages have been assessed collectively.

Due to the complexities associated with defence ownership, alternative funding opportunities, funding sources for management and relocation of landfill and contaminated land, inter-tidal and freshwater habitat creation opportunities, function of designated and non-designated sites that comprise elements of the Solent-wide network of high tide roost sites and other issues, and increased pressures for further development and redevelopment within the region, the management of defences on frontages on a considerable number of Policy Units will be determined through further detailed studies and Flood and Coastal Erosion Risk Management Strategies (as detailed in the Action Plan). It is likely that the management of defences in a number of locations will be different in the medium and long-term, which may further reduce the forecasts for public Flood and Coastal Defence Grant In Aid within the North Solent SMP region.

Location		Final Policy	Calculation of Damages & Benefits (CV) (£M)		Assumed Defence Works & Costs (CV)			Comment
			Previous studies	Broad Scale Review	Broad Scale Review			
					Years 0 to 20	Years 20 to 50	Years 50 to 100	
5A01	Selsey West Beach to Bracklesham (Medmerry)	Epoch 1 MR (localised HTL Medmerry Cliffs)	Pagham to East Coastal Defence Study (approved)	**NAI Damages**. Tidal flood losses include 99 properties at a total CVCost of £23M; Erosion losses include 12ha of Grade 3 agricultural land with a CVCost £0.09M and 2 properties with a CVCost of £0.5M	Construction of secondary defences at a CVCost of £23.2M.	Maintenance of secondary defences at a CVCost of £10M	Maintenance of secondary defences at a CVCost of £16.6M	Benefits provided by leisure, recreation and amenity assets, including the extensive caravan park complex have not been included in calculations. Refer to Pagham to East Head CDS for more detailed economic analysis of options
		Epoch 2 HTL Epoch 3 HTL		By 2025 25.63 By 2055 27.34 By 2105 30.42 **Preferred Plan Damages** By 2025 5.34 By 2055 5.83 By 2105 6.56	PVBenefit of £18.2M and a PVCost of £16.5M.	PVBenefit of £44.7M and a PVCost of £19.5M	PVBenefit of £74.1M and a PVCost of £21.1M.	The Plan for this policy unit is considered **Economically Viable**.
5A02	Bracklesham to East Wittering	Epoch 1 HTL	Pagham to East Coastal Defence Study (approved)	**NAI Damages:** Tidal flood losses include 729 properties at a total CVCost of £185.3M; Erosion losses include 29ha of Grade 3 agricultural land with a CVCost £0.2M and 146 properties with a CVCost of £37M	Linear defences and groynes to be replaced and maintained at a CVCost of £20.9M.	Groyne replacement and maintenance of defences at a CVCost of £10.9M	Groyne replacement and maintenance of defences at a CVCost of £18.5M	Refer to Pagham to East Head CDS for more detailed economic analysis of options
		Epoch 2 HTL Epoch 3 HTL		By 2025 66.51 By 2055 135.71 By 2105 223.83 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.00	PVBenefit of £47.1M and a PVCost of £14.9M.	PVBenefit of £136M and a PVCost of £18.2M	PVBenefit of £245.8M and a PVCost of £19.9M.	The Plan for this policy unit is considered **Economically Viable**.
5A03	East Wittering to Cakeham	Epoch 1 HTL	Pagham to East Coastal Defence Study (approved)	**NAI Damages:** Tidal flood losses include 177 properties at a total CVCost of £42.9M; Erosion losses include 20ha of Grade 3 agricultural land with a CVCost £0.1M and 32 properties with a CVCost of £8.1M	Maintenance of groynes at a CVCost of £2.9M	Linear defences and groynes to be replaced and all defences maintained at a CVCost of £14.5M. Defences will be realigned slightly to improve coastal processes	Groyne replacement and maintenance of defences and realigned seawall at a CVCost of £8.3M	Refer to Pagham to East Head CDS for more detailed economic analysis of options. Value of assets at risk likely to be underestimated.
		Epoch 2 HTL Epoch 3 HTL		By 2025 13.24 By 2055 28.04 By 2105 51.40 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.00	PVBenefit of £9.4M and a PVCost of £2.1M.	PVBenefit of £27.4M and a PVCost of £6.5M	PVBenefit of £50.2M and a PVCost of £7.3M.	The Plan for this policy unit is considered **Economically Viable**.

Location		Final Policy		Calculation of Damages & Benefits (CV) (£M)		Assumed Defence Works & Costs (CV)			Comment
				Previous studies	Broad Scale Review	Broad Scale Review			
						Years 0 to 20	Years 20 to 50	Years 50 to 100	
5A04	Cakeham (including East Head) to Ella Nore Lane	Epoch 1	AM	Pagham to East Coastal Defence Study (approved)	**NAI Damages** Tidal flood losses include 24 properties at a total CVCost of £6.1M; Erosion losses include 8ha of Grade 3 agricultural land	Adaptive Management approach require maintenance of defences and management practices at a CVCost of £11M.	Adaptive Management approach, including beach recharge and groyne replacements require defences and management practices at a CVCost of £12.8M.	Adaptive Management approach, including groyne renewal require defences and management practices, and secondary defences at West Wittering at a CVCost of £7.2M.	Refer to Pagham to East Head CDS for more detailed economic analysis of options. Variable defence works and timings will significantly determine economic appraisal. Future work requirements will be identified through CDS. Value of assets at risk likely to be underestimated.
		Epoch 2	AM		By 2025 4.09				
		Epoch 3	AM		By 2055 5.10 By 2105 6.62				
					Preferred Plan Damages				
					By 2025 0.00 By 2055 0.00 By 2105 0.00	PVBenefit of £2.9M and a PVCost of £7.8M.	PVBenefit of £7.4M and a PVCost of £11.7M.	PVBenefit of £12.5M and a PVCost of £12.4M.	The Plan for this policy unit is considered **Economically Marginal**
5A05	Ella Nore Lane to Fishbourne	Epoch 1	HTL (NPFA)	No Previous Studies have been referred to	**NAI Damages**. Tidal flood losses include 231 properties at a minimum total CVCost of £53.4M	Linear defences to be replaced and maintained at a CVCost of £33.9M, includes cost of creating coastal grazing marsh resulting from Horse Pond localised managed realignment	Maintenance of defences at a CVCost of £7.2M.	Maintenance of defences at a CVCost of £13.2M. Localised realignment at Horse Pond not require secondary defences.	Private owned and maintained defences; replacement/maintenance works not viable for public funding. MR works would be publicly funded. Future proposed studies for Chichester Harbour e.g. private landowner management plan would provide more detailed assessment for the longer-term management of historic towns, land use and heritage features. Value of assets at risk likely to be underestimated.
		Epoch 2	HTL (NPFA)		By 2025 18.73 By 2055 33.48 By 2105 55.62				
		Epoch 3	HTL (NFPA) (localised MR Horse Pond)		**Preferred Plan Damages**				
					By 2025 0.00 By 2055 0.00 By 2105 0.00	PVBenefit of £13.3M and a PVCost of £24.3M.	PVBenefit of £36.8M and a PVCost of £26.3M.	PVBenefit of £65.6M and a PVCost of £27.5M.	The Plan for this policy unit is considered **Economically Marginal,** but private owners may consider works affordable.
5A06	Fishbourne	Epoch 1	HTL (NFPA)	No Previous Studies have been referred to	**NAI Damages** Tidal flood losses include 20 properties at a minimum total CVCost of £4.8M	Linear defences to be maintained at a CVCost of £7.5M.	Maintenance of defences at a CVCost of £1.6M	Maintenance of linear defences at a CVCost of £2.9M.	Private owned and maintained defences; replacement/maintenance works not viable for public funding. MR works would be publicly funded. Future proposed studies for Chichester Harbour e.g. private landowner management plan would provide more detailed assessment for the longer-term management of historic towns, land use and heritage features. Value of assets at risk likely to be underestimated. See Sensitivity tables for alternative scenarios.
		Epoch 2	HTL (NPFA)		By 2025 0.26				
		Epoch 3	HTL (NPFA)		By 2055 2.26 By 2105 5.27				
					Preferred Plan Damages				
					By 2025 0.00 By 2055 0.00 By 2105 0.42	PVBenefit of £0.2M and a PVCost of £5.3M.	PVBenefit of £1.1M and a PVCost of £5.8M.	PVBenefit of £2.4M and a PVCost of £6M.	The Plan for this policy unit is considered **Economically Marginal** in long-term.
5A07	Fishbourne to west of Cobnor Point	Epoch 1	HTL (NPFA) (localised MR East Chidham)	No Previous Studies have been referred to	**NAI Damages**. Tidal flood losses include 582 properties at a minimum total CVCost of £142.4M	Defences to be replaced and maintained at a CVCost of £48.4M. Includes the cost for offsetting loss of transitional freshwater habitats resulting from localised managed realignment at Chidham and Bosham	Maintenance of defences at a CVCost of £10.2M. No secondary defences required	Maintenance of defences at a CVCost of £18.8M. No secondary defences required	Private owned and maintained defences; replacement/maintenance works not viable for public funding. MR works would be publicly funded. Future proposed studies for Chichester Harbour e.g. private landowner management plan would provide more detailed assessment for the longer-term management of historic towns, land use

Location		Final Policy	Calculation of Damages & Benefits (CV) (£M)		Assumed Defence Works & Costs (CV)			Comment
			Previous studies	Broad Scale Review	Broad Scale Review			
					Years 0 to 20	Years 20 to 50	Years 50 to 100	
		Epoch 2 HTL (NPFA)		By 2025 11.78				and heritage features. Value of assets at risk likely to be underestimated. See Sensitivity tables for alternative scenarios.
		Epoch 3 HTL (NPFA)		By 2055 64.95				
				By 2105 144.70				
				Preferred Plan Damages				
				By 2025 0.00 By 2055 0.00 By 2105 0.00	PVBenefit of £8.4M and a PVCost of £34.3M.	PVBenefit of £36.6M and a PVCost of £37.4M.	PVBenefit of £78.5M and a PVCost of £39.2M.	The Plan for this policy unit is considered **Economically Marginal**, but private owners may consider works affordable.
5A08	west of Cobnor Point to Chidham Point	Epoch 1 MR (NPFA)	No Previous Studies have been referred to	**NAI Damages**. Tidal flood losses include 2 properties at a minimum total CVCost of £0.5M	Realignment of linear defences (secondary defences already constructed) for flood risk management and habitat creation, and subsequent maintenance of defences at a CVCost of £0.6M	Maintenance of secondary defences at a CVCost of £1.4M	Maintenance of secondary defences at a CVCost of £3.2M	Future proposed studies for Chichester Harbour e.g. private landowner management plan would provide more detailed assessment for the longer-term management of historic towns, land use and heritage features. Value of assets at risk likely to be underestimated. Proposed MR on private land. Private owned and maintained defences. See Sensitivity tables for alternative scenarios.
		Epoch 2 HTL (NPFA)		By 2025 0.34				
		Epoch 3 HTL (NPFA)		By 2055 0.58				
				By 2105 0.96				
				Preferred Plan Damages				
				By 2025 0.34 By 2055 0.38 By 2105 0.45	PVBenefit of £0.2M and a PVCost of £0.4M.	PVBenefit of £0.6M and a PVCost of £0.9M.	PVBenefit of £1.2M and a PVCost of £1.2M.	The Plan for this policy unit is considered **Economically Marginal**, but private owners may consider works affordable.
5A09	Chidham Point to Nutbourne	Epoch 1 HTL (NPFA)	No Previous Studies have been referred to	**NAI Damages** Tidal flood losses include 37 properties at a minimum total CVCost of £9.2M	Defences to be replaced and maintained at a CVCost of £4.2M	Maintenance of defences at a CVCost of £0.9M	Maintenance of defences at a CVCost of £1.6M	Private owned and maintained defences; replacement/maintenance works not viable for public funding. Value of assets at risk likely to be underestimated. MR works would be publicly funded. See Sensitivity tables for alternative scenarios.
		Epoch 2 HTL (NPFA)		By 2025 0.13				
		Epoch 3 HTL (NPFA)		By 2055 3.92				
				By 2105 9.61				
				Preferred Plan Damages				
				By 2025 0.00 By 2055 0.00 By 2105 0.00	PVBenefit of £0.09M and a PVCost of £3M.	PVBenefit of £1.4M and a PVCost of £3.3M.	PVBenefit of £3.6M and a PVCost of £3.5M.	The Plan for this policy unit is considered **Economically Marginal,** but private owners may consider works affordable.

Location		Final Policy	Calculation of Damages & Benefits (CV) (£M)		Assumed Defence Works & Costs (CV)			Comment
			Previous studies	Broad Scale Review	Broad Scale Review			
					Years 0 to 20	Years 20 to 50	Years 50 to 100	
5A10	Nutbourne	Epoch 1 HTL (NPFA)	No Previous Studies have been referred to	**NAI Damages**. Tidal flood losses include 46 properties at a minimum total CVCost of £10.8M; Erosion losses include 12ha of Grade 3 agricultural land with a CVCost £0.04M	Defences to be replaced and maintained at a CVCost of £8M.	Maintenance of defences at a CVCost of £1.7M	Maintenance of defences at a CVCost of £3.1M	Realignment of EA maintained defence. Future proposed studies for Chichester Harbour e.g. private landowner management plan would provide more detailed assessment for the longer-term management of historic towns, land use and heritage features. Value of assets at risk likely to be underestimated. See Sensitivity tables for alternative scenarios.
		Epoch 2 HTL (NPFA)		By 2025 0.80				
		Epoch 3 HTL (NPFA)		By 2055 4.82				
				By 2105 10.85				
				Preferred Plan Damages				
				By 2025 0.00 By 2055 0.02 By 2105 0.05	PVBenefit of £0.6M and a PVCost of £5.6M.	PVBenefit of £2.6M and a PVCost of £6.1M.	PVBenefit of £5.7M and a PVCost of £6.5M.	The Plan for this policy unit is considered **Economically Marginal**.
5A11	Nutbourne to Prinsted	Epoch 1 HTL	No Previous Studies have been referred to	**NAI Damages** Tidal flood losses include 95 properties at a minimum total CVCost of £20.3M	Linear defences to be replaced and maintained at a CVCost of £6.2M	Maintenance of defences at a CVCost of £1.3M	Maintenance of defences at a CVCost of £2.4M	Defences maintained by EA. Future proposed studies for Chichester Harbour e.g. private landowner management plan would provide more detailed assessment for the longer-term management of historic towns, land use and heritage features.
		Epoch 2 HTL		By 2025 9.51				
		Epoch 3 HTL		By 2055 14.03				
				By 2105 20.80				
				Preferred Plan Damages				
				By 2025 0.00 By 2055 0.00 By 2105 0.00	PVBenefit of £6.7M and a PVCost of £4.4M.	PVBenefit of £17.8M and a PVCost of £4.8M.	PVBenefit of £30.8M and a PVCost of £5.1M.	The Plan for this policy unit is considered **Economically Viable**.
5A12	Prinsted to Stanbury Point	Epoch 1 HTL	No Previous Studies have been referred to	**NAI Damages**. Minimal tidal flood losses to properties	Linear defences to be maintained at a CVCost of £6.3M.	Maintenance of defences at a CVCost of £1.3M	Maintenance of defences at a CVCost of £2M.	Defences owned and maintained by MOD and EA. Management of Thorney Island dependent on MOD. See Sensitivity tables for alternative scenarios.
		Epoch 2 HTL		By 2025 13.65				
		Epoch 3 HTL		By 2055 13.98				
				By 2105 14.49				
				Preferred Plan Damages				
				By 2025 0.00 By 2055 0.00 By 2105 0.77	PVBenefit of £9.6M and a PVCost of £4.5M.	PVBenefit of £23.6M and a PVCost of £4.9M.	PVBenefit of £38.9M and a PVCost of £5.1M.	The Plan for this policy unit is considered **Economically Viable** (to be considered jointly with policies for 5A15)
5A13	Stanbury Point to Marker Point	Epoch 1 HTL	No Previous Studies have been referred to	**NAI Damages** Tidal flood losses include 4 properties at a minimum total CVCost of £0.7M	Linear defences to be replaced and maintained at a CVCost of £10.8M	Maintenance of defences at a CVCost of £2.3M	Maintenance of defences at a CVCost of £4.2M	Future proposed studies for Chichester Harbour e.g. private landowner management plan would provide more detailed assessment for the longer-term management of historic towns, land use and heritage features. Defences owned and maintained by MOD. Management of Thorney Island dependent on MOD. MOD Assets and other intangibles not included in assessment
		Epoch 2 HTL		By 2025 1.28				
		Epoch 3 HTL		By 2055 0.77				
				By 2105 0.77				
				Preferred Plan Damages				
				By 2025 0.00 By 2055 0.00 By 2105 0.00	PVBenefit of £0.9M and a PVCost of £7.7M.	PVBenefit of £2M and a PVCost of £8.4M.	PVBenefit of £3.3M and a PVCost of £8.8M.	The Plan for this policy unit is considered **Not Economically viable** but owned and maintained by MOD.
5A14	Marker Point to Wickor Point	Epoch 1 HTL	No Previous Studies have been referred to	**NAI Damages**. Tidal flood losses include 189 properties at a minimum total CVCost of £47.7M	Linear defences to be replaced and maintained at a CVCost of £9.9M	Maintenance of defences at a CVCost of £2.1M	Maintenance of defences at a CVCost of £3.8M	Future proposed studies for Chichester Harbour e.g. private landowner management plan would provide more detailed assessment for the longer-term management of historic towns, land use and heritage features. Defences owned and maintained by MOD and EA. Management of Thorney Island
		Epoch 2 HTL		By 2025 40.58				

Location		Final Policy	Calculation of Damages & Benefits (CV) (£M)		Assumed Defence Works & Costs (CV)			Comment
			Previous studies	Broad Scale Review	Broad Scale Review			
					Years 0 to 20	Years 20 to 50	Years 50 to 100	
		Epoch 3 HTL		By 2055 43.43 By 2105 47.72 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.00	PVBenefit of £28.8M and a PVCost of £0.5M.	PVBenefit of £71M and a PVCost of £0.9M.	PVBenefit of £117M and a PVCost of £1.2M.	dependent on MOD. See Sensitivity tables for alternative scenarios. The Plan for this policy unit is considered **Economically Viable**
5A15	Wickor Point to Emsworth Yacht Haven	Epoch 1 HTL Epoch 2 HTL Epoch 3 HTL	No Previous Studies have been referred to	**NAI Damages**. Tidal flood losses include 59 properties at a minimum total CVCost of £13.7M By 2025 13.65 By 2055 13.98 By 2105 14.49 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.77	Linear defences to be replaced and maintained at a CVCost of £7.1M. PVBenefit of £9.7M and a PVCost of £5M.	Maintenance of defences at a CVCost of £1.6M PVBenefit of £23.6M and a PVCost of £5.5M.	Maintenance of defences at a CVCost of £2.4M. PVBenefit of £39M and a PVCost of £5.7M.	Future proposed studies for Chichester Harbour e.g. private landowner management plan would provide more detailed assessment for the longer-term management of historic towns, land use and heritage features. Defences owned and maintained by MOD and EA. Management of Thorney Island dependent on MOD. See Sensitivity tables for alternative scenarios. The Plan for this policy unit is considered **Economically Viable** (to be considered jointly with policies for 5A12)
5A16	Emsworth Yacht Haven to Maisemore Gardens	Epoch 1 HTL Epoch 2 HTL Epoch 3 HTL	emerging Portchester to Emsworth Coastal Defence Study	**NAI Damages** Tidal flood losses include 358 properties at a minimum total CVCost of £88.2M; Erosion losses are minimal By 2025 46.60 By 2055 53.79 By 2105 64.82 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.00	Linear defences to be replaced and maintained at a CVCost of £14.8M PVBenefit of £33M and a PVCost of £10.5M.	Maintenance of defences at a CVCost of £3.1M PVBenefit of £82.6M and a PVCost of £11.5M.	Maintenance of defences at a CVCost of £5.8M PVBenefit of £138.8M and a PVCost of £12M.	Refer to draft Portchester to Emsworth CDS for more detailed economic analysis of options. Future proposed studies for Chichester Harbour e.g. private landowner management plan would provide more detailed assessment for the longer-term management of historic towns, land use and heritage features. The Plan for this policy unit is considered **Economically Viable**

Location		Final Policy	Calculation of Damages & Benefits (CV) (£M)		Assumed Defence Works & Costs (CV)			Comment
			Previous studies	Broad Scale Review	Broad Scale Review			
					Years 0 to 20	Years 20 to 50	Years 50 to 100	
5A17	Maisemore Gardens to Wade Lane	Epoch 1 HTL	emerging Portchester to Emsworth Coastal Defence Study	**NAI Damages**. Tidal flood losses are minimal	Linear defences to be replaced and maintained at a CVCost of £7.1M.	Maintenance of defences at a CVCost of £1.5M	Maintenance of defences and secondary defences at Warblington at a CVCost of £2.8M.	Objective-led policies marginal. Future proposed studies for Chichester Harbour e.g. private landowner management plan would provide more detailed assessment for the longer-term management of historic towns, land use and heritage features. See Sensitivity tables for alternative scenarios. Private/LA owned and maintained defences; replacement/maintenance works not viable for, or likely to attract, public funding. MR works would be publicly funded. Refer to draft
				By 2025 0.07 By 2055 0.10				
		Epoch 2 HTL*		By 2105 0.14				
		Epoch 3 HTL*		**Preferred Plan Damages**				
				By 2025 0.00 By 2055 0.00 By 2105 0.00	PVBenefit of £0.05M and a PVCost of £5M.	PVBenefit of £0.1M and a PVCost of £5.5M.	PVBenefit of £0.2M and a PVCost of £5.8M.	The Plan for this policy unit is considered **Not Economically viable**, but private owners may consider works affordable.
5A18	Wade Lane to Southmoor Lane	Epoch 1 HTL	emerging Portchester to Emsworth Coastal Defence Study	**NAI Damages**. Tidal flood losses include 151 properties at a minimum total CVCost of £40.6M	Linear defences to be replaced and maintained at a CVCost of £15.8M.	Maintenance of defences and secondary defences at Southmoor at a CVCost of £4M.	Maintenance of defences at a CVCost of £7.3M	Refer to draft Portchester to Emsworth CDS for more detailed economic analysis of options
		Epoch 2 HTL*		By 2025 39.00 By 2055 39.82 By 2105 41.05				
				Preferred Plan Damages				
		Epoch 3 HTL*		By 2025 0.00 By 2055 0.00 By 2105 0.00	PVBenefit of £27.6M and a PVCost of £11.3M.	PVBenefit of £67.5M and a PVCost of £12.5M.	PVBenefit of £111.3M and a PVCost of £13.2M.	The Plan for this policy unit is considered **Economically Viable**
5A19	Southmoor Lane to Farlington Marshes (east)	Epoch 1 HTL	emerging Portchester to Emsworth Coastal Defence Study	**NAI Damages** Tidal flood losses include 99 properties at a minimum total CVCost of £19M	Linear defences to be replaced and maintained at a CVCost of £14.4M	Maintenance of defences at a CVCost of £3.1M	Maintenance of defences at a CVCost of £5.6M	Refer to draft Portchester to Emsworth CDS for more detailed economic analysis of options
		Epoch 2 HTL		By 2025 15.11				
		Epoch 3 HTL		By 2055 16.83 By 2105 19.41				
				Preferred Plan Damages				
				By 2025 0.00 By 2055 0.00 By 2105 0.00	PVBenefit of £10.7M and a PVCost of £10.2M.	PVBenefit of £26.6M and a PVCost of £11.2M.	PVBenefit of £44.3M and a PVCost of £11.7M.	The Plan for this policy unit is considered **Economically Viable**

Location		Final Policy	Calculation of Damages & Benefits (CV) (£M)		Assumed Defence Works & Costs (CV)			Comment
			Previous studies	Broad Scale Review	Broad Scale Review			
					Years 0 to 20	Years 20 to 50	Years 50 to 100	
5A20	Farlington Marshes	Epoch 1 HTL Epoch 2 HTL* Epoch 3 HTL*	emerging Portchester to Emsworth Coastal Defence Study	**NAI Damages**. Tidal flood losses (north of the motorway) include 326 properties at a minimum total CVCost of £48.4M By 2025 46.70 By 2055 47.37 By 2105 48.39 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.00	Linear defences to be replaced and maintained at a CVCost of £17.7M. PVBenefits of £33.1M and a PVCost of £12.1M.	Maintenance of defences at a CVCost of £3.6M PVBenefits of £80.7M and a PVCost of £13.3M.	Maintenance of defences at a CVCost of £1.2M. PVBenefits of £132.9M and a PVCost of £13.4M.	Refer to draft Portchester to Emsworth CDS for more detailed economic analysis of options. The location and alignment of defences will need to be determined through more detailed and site specific studies. See Sensitivity tables for alternative scenarios. The Plan for this policy unit is considered **Economically viable.** Environmental importance, amenity value and other intangibles not included in assessment
5A21	Farlington Marshes (west) to Cador Drive	Epoch 1 HTL Epoch 2 HTL Epoch 3 HTL	emerging Portchester to Emsworth Coastal Defence Study	**NAI Damages** Tidal flood losses include 6381 properties at a minimum total CVCost of £1,066M By 2025 2,474.14 By 2055 1,910.88 By 2105 1,066.00 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.00	Linear defences to be replaced and maintained at a CVCost of £68M PVBenefit of £1,754.2M and a PVCost of £48.3M.	Maintenance of defences at a CVCost of £14.4M PVBenefit of £4,095M and a PVCost of £52.7M.	Maintenance of defences at a CVCost of £26.4M PVBenefit of £6,536M and a PVCost of £55.2M.	Refer to draft Portchester to Emsworth CDS for more detailed economic analysis of options The Plan for this policy unit is considered **Economically Viable**

Location		Final Policy	Calculation of Damages & Benefits (CV) (£M)		Assumed Defence Works & Costs (CV)			Comment
			Previous studies	Broad Scale Review	Broad Scale Review			
					Years 0 to 20	Years 20 to 50	Years 50 to 100	
5A22	Cador Drive to A27	Epoch 1 HTL Epoch 2 HTL* Epoch 3 HTL*	No Previous Studies have been referred to	**NAI Damages** Tidal flood losses are minimal By 2025 0.05 By 2055 0.20 By 2105 0.43 **Preferred Plan Damages** By 2025 0.00 By 2055 0.01 By 2105 0.03	Linear defences to be replaced and maintained at a CVCost of £25.4M. PVBenefit of £0.03M and a PVCost of £18M.	Maintenance of defences at a CVCost of £3.7M PVBenefit of £0.1M and a PVCost of £19.2M.	Maintenance of defences at a CVCost of £6.9M PVBenefit of £0.3M and a PVCost of £19.8M.	Proposed Portsmouth Harbour entrance to Hoeford Lake CDS with extension to Portchester will include contaminated land investigations todetermine longer-term management of site. Value of assets at risk likely to be underestimated in this assessment. The Plan for this policy unit is considered **Not Economically viable** (but defences need to be maintained until contaminated land investigations determine longer-term management of defences andshoreline)
5A23	A27 to Fleetlands (MOD boundary)	Epoch 1 HTL Epoch 2 HTL Epoch 3 HTL	No Previous Studies have been referred to	**NAI Damages** Tidal flood losses include 419 properties at a minimum total CVCost of £109.6M; Erosion losses include 8 properties with a CVCost of £1.5M By 2025 0.00 By 2055 44.98 By 2105 110.13 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.00	Linear defences to be replaced and maintained at a CVCost of £16.4M PVBenefit of £0.002M and a PVCost of £11.7M.	Maintenance of defences at a CVCost of £3.5M PVBenefit of £13.8M and a PVCost of £12.7M.	Maintenance of defences at a CVCost of £6.4M PVBenefit of £38M and a PVCost of £13.3M.	Value of assets at risk likely to be underestimated in this assessment. Proposed Portsmouth Harbour entrance to Hoeford Lake CDS with extension to Portchester will include contaminated land investigations todetermine longer-term management of site. The Plan for this policy unit is considered **Economically Marginal**
5A24	Fleetlands (MOD Boundary) to Quay Lane (MOD boundary)	Epoch 1 HTL Epoch 2 HTL Epoch 3 HTL	No Previous Studies have been referred to	**NAI Damages** Type and value of MOD assets potentially at risk have not been available By 2025 0.00 By 2055 0.00 By 2105 0.00 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.00	Linear defences to be replaced and maintained at a CVCost of £29.9M No PVBenefits calculated and a PVCost of £21.2M.	Maintenance of defences at a CVCost of £6.3M No PVBenefits calculated and a PVCost of £23.2M.	Maintenance of defences at a CVCost of £11.7M No PVBenefits calculated and a PVCost of £24.3M.	Defences owned and maintained by MOD. Value of assets at risk likely to be underestimated in this assessment. Proposed Portsmouth Harbour entrance to Hoeford Lake CDS with extension to Portchester will include contaminated land investigations todetermine longer-term management of site. The Plan for this policy unit is considered **Not Economically viable** but owned and maintained by MOD.

Location		Final Policy	Calculation of Damages & Benefits (CV) (£M)		Assumed Defence Works & Costs (CV)			Comment
			Previous studies	Broad Scale Review	Broad Scale Review			
					Years 0 to 20	Years 20 to 50	Years 50 to 100	
5A25	Quay Lane (MOD boundary) to Portsmouth Harbour entrance (west)	Epoch 1 HTL Epoch 2 HTL Epoch 3 HTL	No Previous Studies have been referred to	**NAI Damages** Tidal flood losses include 3312 properties at a minimum total CVCost of £490M; Erosion losses include 34 properties with a CVCost of £4.9M By 2025 130.91 By 2055 274.62 By 2105 495.13 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.00	Linear defences to be replaced and maintained at a CVCost of £69M PVBenefit of £92.8M and a PVCost of £48.9M.	Maintenance of defences at a CVCost of £14.6M PVBenefit of £270M and a PVCost of £53.4M.	Maintenance of defences at a CVCost of £26.8M PVBenefit of £494M and a PVCost of £56M.	Proposed Portsmouth Harbour entrance to Hoeford Lake CDS with extension to Portchester will include contaminated land investigations todetermine longer-term management of site. The Plan for this policy unit is considered **Economically Viable**
5B01	Portsmouth Harbour entrance to Gilkicker Point	Epoch 1 HTL Epoch 2 HTL Epoch 3 HTL	No Previous Studies have been referred to	**NAI Damages** Tidal flood losses are minimal By 2025 0.00 By 2055 0.12 By 2105 0.29 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.00	Linear defences and groynes to be replaced and maintained at a CVCost of £2.1M No PVBenefits calculated and a PVCost of £1.5M.	Groyne renewal and maintenance of defences at a CVCost of £36.2M PVBenefit of £0.04M and a PVCost of £12.6M.	Groyne replacement and maintenance of defences at a CVCost of £6.2M PVBenefit of £0.1M and a PVCost of £13.2M.	Valuation of commerical or MOD assets not available, and therefore not included in assessment. Value of assets at risk likely to be underestimated in this assessment. Frontage would benefit from beach The Plan for this policy unit is considered **Not Economically viable** but majority of assets are owned and maintained by MOD.
5B02	Gilkicker Point to Meon Road, Titchfield Haven	Epoch 1 HTL Epoch 2 HTL Epoch 3 HTL	No Previous Studies have been referred to	**NAI Damages** Tidal flood losses include 410 properties at a minimum total CVCost of £61.3M. Erosion losses include 0.5ha of Grade 4 agricultural land, and 12 properties with a CVCost of £1.9M By 2025 16.30 By 2055 33.73 By 2105 61.29 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.00	Linear defences and groynes to be replaced and maintained at a CVCost of £28.9M. PVBenefit of £11.5M and a PVCost of £20.5M.	Groyne replacement, beach recharge and maintenance of defences at a CVCost of £69.3M. Beach recharge will benefit frontages between site and harbour entrance PVBenefit of £33.5M and a PVCost of £41.8M.	Groyne replacement and maintenance of defences and secondary defences at a CVCost of £19.9M PVBenefit of £61.2M and a PVCost of £43.6M.	Value of assets at risk likely to be underestimated in this assessment. Frontage would benefit from beach recharge at Lee-on-the-Solent; localised HTL to defend important highway link; possible raising of inland structures required to limit overtopping but towards end of epoch 3 and dependent on conditions. Further detailed study required for frontage between Portsmouth Harbour entrance The Plan for this policy unit is considered **Economically Marginal**
5B03	Meon Road, Titchfield Haven to Hook Park	Epoch 1 NAI (HTL for cross-Solent infra-structure) Epoch 2 NAI (HTL for cross-Solent infra-structure) Epoch 3 NAI (HTL for cross-Solent infra-structure)	No Previous Studies have been referred to	**NAI Damages** Tidal flood losses include 97 properties at a minimum total CVCost of £19.1M; Erosion losses include 13ha of Grade 2, 3 and 4 agricultural land with a CVCost £0.09M and 7 properties with a CVCost of £1.5M By 2025 12.21 By 2055 15.46 By 2105 22.06 **Preferred Plan Damages** By 2025 0.55 By 2055 0.58 By 2105 1.38	No defence works identified	No defence works identified	No defence works identified	Solent Breezes, chalet homes. Value of assets at risk likely to be underestimated in this assessment; Caravan parks not included in Defra economic criteria. Further detailed study required for frontage between Portsmouth Harbour entrance and River Hamble The Plan for this policy unit is considered **Economically Viable**

Location		Final Policy	Calculation of Damages & Benefits (CV) (£M)		Assumed Defence Works & Costs (CV)			Comment
			Previous studies	Broad Scale Review	Broad Scale Review			
					Years 0 to 20	Years 20 to 50	Years 50 to 100	
5C01	Hook Park to Warsash North	Epoch 1 NAI Epoch 2 MR Epoch 3 HTL	draft Itchen, Woolston, Netley and Itchen Coastal Defence Strategy	**NAI Damages** Tidal flood losses include 16 properties at a minimum total CVCost of £1.9M By 2025 1.55 By 2055 2.24 By 2105 1.90 **Preferred Plan Damages** By 2025 1.18 By 2055 1.26 By 2105 0.00	No defence works identified.	Linear defences to be realigned (for flood risk management) and maintained at a CVCost of £5M. PVBenefit of £2.9M and a PVCost of £1.5M.	Groyne replacement and maintenance of defences and realigned seawall at a CVCost of £1.1M PVBenefit of £4.9M and a PVCost of £1.6M.	Refer to Itchen, Woolston, Netley and Itchen CDS for more detailed economic analysis of options. Value of assets at risk likely to be underestimated in this assessment. The Plan for this policy unit is considered **Economically Viable**
5C02	Warsash North to Swanwick Shore Road	Epoch 1 NAI Epoch 2 NAI Epoch 3 NAI	draft Itchen, Woolston, Netley and Itchen Coastal Defence Strategy	**NAI Damages** Tidal flood losses include 6 properties at a minimum total CVCost of £0.8M; Erosion losses include 2.5ha of Grade 4 agricultural land with a CVCost £0.01M By 2025 2.12 By 2055 1.59 By 2105 0.92 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.12	No defence works identified.	No defence works identified	No defence works identified	Refer to Itchen, Woolston, Netley and Itchen CDS for more detailed economic analysis of options. See Sensitivity tables for alternative scenarios. Private owned and maintained defences The Plan for this policy unit is considered **Economically Viable**
5C03	Swanwick Shore Road to Bursledon Bridge	Epoch 1 HTL Epoch 2 HTL Epoch 3 NAI	draft Itchen, Woolston, Netley and Itchen Coastal Defence Strategy	**NAI Damages** Tidal flood losses include 41 properties at a minimum total CVCost of £7.4M; Erosion losses include 0.8ha of Grade 3 and 4 agricultural land with a CVCost £0.05M By 2025 4.34 By 2055 5.57 By 2105 7.47 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.05	Linear defences to be replaced and maintained at a CVCost of £3.2M PVBenefit of £3M and a PVCost of £2.3M.	Maintenance of defences at a CVCost of £0.7M. PVBenefit of £7.8M and a PVCost of £2.5M.	No defence works identified. PVBenefit of £13.3M and a PVCost of £2.5M.	Refer to Itchen, Woolston, Netley and Itchen CDS for more detailed economic analysis of options. Site to be developed and will therefore include flood risk management measures. See Sensitivity tables for alternative scenarios. Private owned and maintained defences The Plan for this policy unit is considered **Economically Viable**
5C04	Bursledon Bridge to Curbridge to Botley to Satchell Marshes	Epoch 1 NAI Epoch 2 NAI Epoch 3 NAI	draft Itchen, Woolston, Netley and Itchen Coastal Defence Strategy	**NAI Damages** Tidal flood losses include 54 properties at a minimum total CVCost of £9.1M; Erosion losses include 20ha of Grade 1, 2, 3, 4 and 5 agricultural land with a CVCost £0.01M and 1 property By 2025 2.09 By 2055 3.62 By 2105 6.64 **Preferred Plan Damages** By 2025 0.10 By 2055 0.11 By 2105 0.84	No defence works identified.	No defence works identified	No defence works identified	Refer to Itchen, Woolston, Netley and Itchen CDS for more detailed economic analysis of options. See Sensitivity tables for alternative scenarios. Majority of shoreline is undefended. Individual properties mainly located south of Bursledon Bridge. The Plan for this policy unit is considered **Economically Viable**

Location		Final Policy	Calculation of Damages & Benefits (CV) (£M)		Assumed Defence Works & Costs (CV)			Comment
			Previous studies	Broad Scale Review	Broad Scale Review			
					Years 0 to 20	Years 20 to 50	Years 50 to 100	
5C05	Satchell Marshes to Hamble Common Point	Epoch 1 NAI* (HTL for Rope Walk and the Quay) Epoch 2 NAI* (HTL for Rope Walk and the Quay) Epoch 3 NAI* (HTL for Rope Walk and the Quay)	draft Itchen, Woolston, Netley and Itchen Coastal Defence Strategy	**NAI Damages** Tidal flood losses include 21 properties at a minimum total CVCost of £1.6M By 2025 2.38 By 2055 2.11 By 2105 1.65 **Preferred Plan Damages** By 2025 0.04 By 2055 0.04 By 2105 0.00	For the majority of the frontage no works have been identified. For the Hamble village section linear defences to be replaced and maintained at a CVCost of £4.6M PVBenefit of £1.7M and a PVCost of £3.3M.	For the majority of the frontage no works have been identified. For the Hamble village section linear defences to be maintained at a CVCost of £0.7M PVBenefit of £4M and a PVCost of £3.5M.	For the majority of the frontage no works have been identified. For the Hamble village section linear defences to be maintained at a CVCost of £1.6M PVBenefit of £6.5M and a PVCost of £3.7M.	Refer to Itchen, Woolston, Netley and Itchen CDS for more detailed economic analysis of options. Value of assets at risk likely to be underestimated in this assessment. See Sensitivity tables for alternative scenarios. The Plan for this policy unit is considered **Economically Marginal,** but private owners may consider works affordable.
5C06	Hamble Common Point to Hamble Oil Terminal	Epoch 1 NAI Epoch 2 NAI Epoch 3 NAI	draft Itchen, Woolston, Netley and Itchen Coastal Defence Strategy	**NAI Damages** Tidal flood losses include 32 properties at a minimum total CVCost of £4.8M By 2025 6.69 By 2055 6.24 By 2105 4.87 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.00	Maintenance of defences discontinued	Maintenance of defences discontinued	Maintenance of defences discontinued	Refer to Itchen, Woolston, Netley and Itchen CDS for more detailed economic analysis of options. The Plan for this policy unit is considered **Economically Viable**
5C07	Hamble Oil Terminal to Ensign Industrial Park	Epoch 1 HTL Epoch 2 HTL Epoch 3 NAI	draft Itchen, Woolston, Netley and Itchen Coastal Defence Strategy	**NAI Damages** Tidal flood losses include 11 properties at a minimum total CVCost of £1.7M By 2025 0.00 By 2055 0.70 By 2105 1.76 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.00	Linear defences to be replaced and maintained at a CVCost of £2.9M	Maintenance of defences at a CVCost of £0.6M PVBenefit of £0.2M and a PVCost of £2.3M.	Maintenance of defences discontinued PVBenefit of £0.6M and a PVCost of £2.3M.	Refer to Itchen, Woolston, Netley and Itchen CDS for more detailed economic analysis of options. See Sensitivity tables for alternative scenarios. Private owned and maintained defences. Valuation of the Oil Terminal and supporting infrastructure not included, but assumed to be significant. The Plan for this policy unit is considered **Not Economically viable**

Location		Final Policy	Calculation of Damages & Benefits (CV) (£M)		Assumed Defence Works & Costs (CV)			Comment
			Previous studies	Broad Scale Review	Broad Scale Review			
					Years 0 to 20	Years 20 to 50	Years 50 to 100	
5C08	Ensign Industrial Park to Cliff House	Epoch 1 NAI Epoch 2 NAI Epoch 3 NAI	draft Itchen, Woolston, Netley and Itchen Coastal Defence Strategy	**NAI Damages** Tidal flood losses are minimal By 2025 0.00 By 2055 0.00 By 2105 0.00 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.00	No defence works identified.	No defence works identified	No defence works identified	Refer to Itchen, Woolston, Netley and Itchen CDS for more detailed economic analysis of options. The Plan for this policy unit is considered **Economically Viable,** but valuation of the Oil Terminal and supporting infrastructure not included
5C09	Cliff House to Netley Castle	Epoch 1 HTL Epoch 2 HTL* Epoch 3 NAI (HTL for Netley Village)	draft Itchen, Woolston, Netley and Itchen Coastal Defence Strategy	**NAI Damages** Tidal flood losses include 38 properties at a minimum total CVCost of £8.1M By 2025 1.93 By 2055 4.43 By 2105 8.17 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.00	Linear defences to be replaced and maintained and beach recharge at a CVCost of £16.7M PVBenefit of £1.4M and a PVCost of £11.9M.	Maintenance of defences at a CVCost of £2.1M. PVBenefit of £4.1M and a PVCost of £12.5M.	Maintenance of defences at a CVCost of £10.6M. PVBenefit of £7.6M and a PVCost of £13.5M.	Refer to Itchen, Woolston, Netley and Itchen CDS for more detailed economic analysis of options. Value of assets at risk likely to be underestimated, and amenity value and other intangibles not included. Residential properties include groups of flats, which are not identified using the National Property Dataset. Therefore the Value of properties is an underestimate. The CDS has identified 196 properties compared to the 38 from NPD. See Sensitivity tables for alternative scenarios. The Plan for this policy unit is considered **Not Economically viable.** CDS determined this policy to be economically viable.
5C10	Netley Castle to Weston Point	Epoch 1 HTL Epoch 2 HTL Epoch 3 HTL	draft Itchen, Woolston, Netley and Itchen Coastal Defence Strategy	**NAI Damages** Tidal flood losses include 49 properties at a minimum total CVCost of £7.85M By 2025 30.60 By 2055 21.50 By 2105 7.85 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.00	No defence works identified.	No defence works identified	No defence works identified	Refer to Itchen, Woolston, Netley and Itchen CDS for more detailed economic analysis of options. The Plan for this policy unit is considered **Economically Viable**

Location		Final Policy	Calculation of Damages & Benefits (CV) (£M)		Assumed Defence Works & Costs (CV)			Comment
			Previous studies	Broad Scale Review	Broad Scale Review			
					Years 0 to 20	Years 20 to 50	Years 50 to 100	
5C11	Weston Point to Woodmill Lane	Epoch 1 HTL Epoch 2 HTL Epoch 3 NAI* (HTL for Rope Walk and the Quay)	draft Itchen, Woolston, Netley and Itchen Coastal Defence Strategy	**NAI Damages** Tidal flood losses include 882 properties at a minimum total CVCost of £149M By 2025 52.84 By 2055 91.33 By 2105 149.08 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.00	Linear defences to be replaced and maintained at a CVCost of £41.7M PVBenefit of £37.5M and a PVCost of £29.6M.	Maintenance of defences at a CVCost of £8.8M. PVBenefit of £103M and a PVCost of £32.3M.	Maintenance of defences discontinued PVBenefit of £182M and a PVCost of £32.3M.	A significant proportion of defences are privately owed or maintained. See Sensitivity tables for alternative scenarios. The Plan for this policy unit is considered **Economically Viable**
5C12	Woodmill Lane to Redbridge	Epoch 1 HTL Epoch 2 HTL Epoch 3 HTL	No Previous Studies have been referred to	**NAI Damages** Tidal flood losses include 5555 properties at a minimum total CVCost of £5,031M By 2025 432.48 By 2055 2,271.69 By 2105 5,030.51 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.00	Linear defences to be replaced and maintained at a CVCost of £107M PVBenefit of £307M and a PVCost of £75.8M.	Maintenance of defences at a CVCost of £22.7M. PVBenefit of £1,310.7M and a PVCost of £82.8M.	Maintenance of defences at a CVCost of £41.6M. PVBenefit of £2,78735M and a PVCost of £86.7M.	A significant proportion of defences are privately owed or maintained The Plan for this policy unit is considered **Economically Viable**
5C13	Lower Test Valley	Epoch 1 NAI Epoch 2 NAI Epoch 3 NAI	No Previous Studies have been referred to	**NAI Damages** Tidal flood losses to agricultural land in 50-100years By 2025 0.00 By 2055 0.00 By 2105 1.05 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 1.05	No defence works identified.	No defence works identified	No defence works identified	Privately owned land, no existing defences The Plan for this policy unit is considered **Economically Viable**
5C14	Redbridge to Calshot Spit	Epoch 1 HTL Epoch 2 HTL Epoch 3 HTL	No Previous Studies have been referred to	**NAI Damages** Tidal flood losses include 1446 properties at a minimum total CVCost of £355.2M; Erosion losses include 5ha of Grade 4 agricultural land with a CVCost £0.03M By 2025 192.06 By 2055 257.32 By 2105 355.76 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.00	Maintenance of defences at a CVCost of £11.7M PVBenefit of £136.2M and a PVCost of £8.3M.	Linear defences to be replaced and maintained at a CVCost of £134.6M PVBenefit of £351.3M and a PVCost of £49.6M.	Maintenance of defences at a CVCost of £34.5M. PVBenefit of £599.9M and a PVCost of £52.9M.	See Sensitivity tables for alternative scenarios. The majority of defences on this frontage are privately owned or maintained by industrial or commercial parties. Significant value in the industrial and commercial assets and supporting infrastructure that are not available or included in this assessment. The Plan for this policy unit is considered **Economically Viable**

Location		Final Policy	Calculation of Damages & Benefits (CV) (£M)		Assumed Defence Works & Costs (CV)			Comment
			Previous studies	Broad Scale Review	Broad Scale Review			
					Years 0 to 20	Years 20 to 50	Years 50 to 100	
5C15	Calshot Spit	Epoch 1 HTL	No Previous Studies have been referred to	**NAI Damages** CVCost of the facilities and amenities at risk from tidal flooding have not been available	Maintenance of defences at a CVCost of £1.6M.	Linear defences to be replaced and maintained at a CVCost of £4.5M	Maintenance of defences discontinued due to predicted flood risk.	See Sensitivity tables for alternative scenarios. Value of assets at risk likely to be underestimated but amenity and other intangibles not included in assessment
		Epoch 2 HTL Epoch 3 NAI		By 2025 0.88 By 2055 0.95 By 2105 0.00				
				Preferred Plan Damages				
				By 2025 0.00 By 2055 0.00 By 2105 0.00	PVBenefit of £0.6M and a PVCost of £1.1M.	PVBenefit of £1.5M and a PVCost of £2.5M.	PVBenefit of £2.5M and a PVCost of £2.5M.	The Plan for this policy unit is considered **Economically Marginal**
5C16	Calshot Spit to Inchmery	Epoch 1 NAI	No Previous Studies have been referred to	**NAI Damages**. Erosion losses include 12ha of Grade 2, 3 and 5 agricultural land with a CVCost £0.8M and 12 properties with a CVCost of £2.1M	No defence works identified.	No defence works identified.	No defence works identified.	See Sensitivity tables for alternative scenarios. Private owned and maintained defences. Value of assets at risk likely to be underestimated.
		Epoch 2 NAI Epoch 3 NAI		By 2025 0.65 By 2055 0.72 By 2105 3.14				
				Preferred Plan Damages				
				By 2025 0.39 By 2055 0.46 By 2105 0.97				The Plan for this policy unit is considered **Economically Viable**
5C17	Inchmery to Salternshill	Epoch 1 NAI	No Previous Studies have been referred to	**NAI Damages** Tidal flood losses include 40 properties at a minimum total CVCost of £9.8M; Erosion losses include 5ha of Grade 2 and 4 agricultural land with a CVCost £0.03M	No defence works identified.	No defence works identified.	No defence works identified.	Private owned and maintained defences. Value of assets at risk likely to be underestimated.
		Epoch 2 NAI Epoch 3 NAI		By 2025 0.26 By 2055 4.08 By 2105 10.13				
				Preferred Plan Damages				
				By 2025 0.00 By 2055 0.00 By 2105 0.33				The Plan for this policy unit is considered **Economically Viable**
5C18	Salternshill to Park Shore	Epoch 1 HTL (NPFA)	No Previous Studies have been referred to	**NAI Damages**. Tidal flood losses include 17 properties at a minimum total CVCost of £4.1M; Erosion losses include 3ha of Grade 2 and 4 agricultural land with a CVCost £0.01M	Linear defences and groynes to be maintained at a CVCost of £28.3M.	Defences to be maintained at a CVCost of £10.2M	Defences to be maintained at a CVCost of £16M	See Sensitivity tables for alternative scenarios. Private owned and maintained defences. Value of assets at risk likely to be underestimated in this assessment.
		Epoch 2 HTL (NPFA)		By 2025 4.40				
		Epoch 3 HTL (NPFA)		By 2055 4.60				
				By 2105 5.01				
				Preferred Plan Damages				
				By 2025 0.00 By 2055 0.00 By 2105 0.85	PVBenefit of £3.1M and a PVCost of £20.1M.	PVBenefit of £7.6M and a PVCost of £23.3M.	PVBenefit of £12.6M and a PVCost of £24.7M.	The Plan for this policy unit is considered **Economically Marginal,** as value of assets at risk likely to be underestimated in this assessment.

Location		Final Policy	Calculation of Damages & Benefits (CV) (£M)		Assumed Defence Works & Costs (CV)			Comment
			Previous studies	Broad Scale Review	Broad Scale Review			
					Years 0 to 20	Years 20 to 50	Years 50 to 100	
5C19	Park Shore to Sowley	Epoch 1 HTL Epoch 2 HTL Epoch 3 HTL*	No Previous Studies have been referred to	**NAI Damages** Tidal flood losses include 17 properties at a minimum total CVCost of £4.4M; Erosion losses include 1ha of Grade 2 agricultural By 2025 2.47 By 2055 3.38 By 2105 4.69 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.00	Linear defences and groynes to be replaced and maintained at a CVCost of £12M PVBenefit of £1.7M and a PVCost of £8.5M.	Maintenance of defences at a CVCost of £3.7M. PVBenefit of £4.5M and a PVCost of £9.7M.	Maintenance of defences at a CVCost of £7.4M. PVBenefit of £7.8M and a PVCost of £10.4M.	See Sensitivity tables for alternative scenarios. Private owned and maintained defences. Value of assets at risk likely to be underestimated in this assessment. The Plan for this policy unit is considered **Not Economically Viable** but private owners may consider works affordable.
5C20	Sowley to Elmer's Court	Epoch 1 NAI Epoch 2 NAI Epoch 3 NAI	No Previous Studies have been referred to	**NAI Damages** Tidal flood losses include 6 properties at a minimum total CVCost of £2.1M; Erosion losses include 7ha of Grade 3 and 4 agricultural land with a CVCost £0.05M By 2025 1.52 By 2055 1.88 By 2105 2.13 **Preferred Plan Damages** By 2025 0.74 By 2055 0.78 By 2105 0.57	No defence works identified.	No defence works identified.	No defence works identified.	See Sensitivity tables for alternative scenarios. Private owned and maintained defences. Value of assets at risk likely to be underestimated in this assessment. The Plan for this policy unit is considered **Economically Viable**
5C21	Elmer's Court to Lymington Yacht Haven	Epoch 1 HTL (potential RTE Lymington Reedbeds) Epoch 2 HTL Epoch 3 HTL	No Previous Studies have been referred to	**NAI Damages**. Tidal flood losses include 427 properties at a minimum total CVCost of £104M By 2025 20.31 By 2055 53.75 By 2105 104.05 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.00	Maintenance of defences and secondary defences at a CVCost of £1.4M. Includes the CVCost of offsetting loss of transitional freshwater habitats resulting from RTE works PVBenefit of £14.4M and a PVCost of £1M.	Linear defences to be replaced and maintained at a CVCost of £16M PVBenefit of £45.3M and a PVCost of £5.9M.	Maintenance of defences at a CVCost of £4.1M. PVBenefit of £86M and a PVCost of £6.3M.	Significant proportion of defences on this frontage are privately owned or maintained by industrial or commercial parties. Value of assets at risk likely to be underestimated in this assessment. The Plan for this policy unit is considered **Economically Viable**

Location		Final Policy	Calculation of Damages & Benefits (CV) (£M)		Assumed Defence Works & Costs (CV)			Comment
			Previous studies	Broad Scale Review	Broad Scale Review			
					Years 0 to 20	Years 20 to 50	Years 50 to 100	
5C22	Lymington Yacht Haven to Saltgrass Lane	Epoch 1 HTL	No Previous Studies have been referred to	**NAI Damages.** Tidal flood losses include 353 properties at a minimum total CVCost of £86.8M By 2025 29.84 By 2055 52.85 By 2105 89.31	Linear defences and groynes to be replaced and maintained at a CVCost of £5.3M	Maintenance of defences and secondary defences at a CVCost of £91.5M	Maintenance of defences at a CVCost of £23.5M.	Value of assets at risk likely to be underestimated, and amenity values and other intangibles not included
		Epoch 2 HTL Epoch 3 HTL		**Preferred Plan Damages** By 2025 1.25 By 2055 0.00 By 2105 0.00	PVBenefit of £21.1M and a PVCost of £3.8M.	PVBenefit of £58.5M and a PVCost of £31.2M.	PVBenefit of £104.3M and a PVCost of £34.1M.	The Plan for this policy unit is considered **Economically Viable**
5F01	Hurst Spit	Epoch 1 HTL	No Previous Studies have been referred to	**NAI Damages** Tidal flood losses are considerable (combination of losses in adjacent Policy units)	Beach recharge at end of epoch at a CVCost of £12.2M.	Maintenance through beach recycling at a CVCost of £2.9M.	Beach recharge and maintenance through beach recycling at a CVCost of £38.9M.	Value of assets at risk are underestimated, as assets potentially at risk throughout West Solent and Lee-on-the-Solent; amenity values and other intangibles not included
		Epoch 2 HTL Epoch 3 HTL		By 2025 16.71 By 2055 23.46 By 2105 33.27				
				Preferred Plan Damages By 2025 0.00 By 2055 0.00 By 2105 0.00	PVBenefit of £11.8M and a PVCost of £8.7M.	PVBenefit of £30.9M and a PVCost of £9.6M.	PVBenefit of £53M and a PVCost of £13.2M.	The Plan for this policy unit is considered **Economically Viable**
5API01	Langstone Harbour entrance (west) (harbour) to Portsmouth Harbour entrance (east)	Epoch 1 HTL	No Previous Studies have been referred to	**NAI Damages** Tidal flood losses include 13245 properties at a minimum total CVCost of £2,028M; Erosion losses include 1 property	Linear defences to be replaced and maintained at a CVCost of £140.2M	Maintenance of defences at a CVCost of £29.7M.	Maintenance of defences at a CVCost of £54.5M.	Refer to Portsea Island CDS for more detailed economic analysis of options.
		Epoch 2 HTL Epoch 3 HTL		By 2025 965.36 By 2055 1,391.42 By 2105 2,028.15				
				Preferred Plan Damages By 2025 0.00 By 2055 0.00 By 2105 0.00	PVBenefit of £684.4M and a PVCost of £99.4M.	PVBenefit of £1,796M and a PVCost of £108.5M.	PVBenefit of £3,098.3M and a PVCost of £113.7M.	The Plan for this policy unit is considered **Economically Viable**

Location		Final Policy	Calculation of Damages & Benefits (CV) (£M)		Assumed Defence Works & Costs (CV)			Comment
			Previous studies	Broad Scale Review	Broad Scale Review			
					Years 0 to 20	Years 20 to 50	Years 50 to 100	
5API02	Langstone Harbour entrance (west) (open coast) to Portsmouth Harbour entrance (east)	Epoch 1 HTL	No Previous Studies have been referred to	**NAI Damages** Tidal flood losses include 9730 properties at a minimum total CVCost of £1,354M; Erosion losses include 1 property	Linear defences and groynes to be replaced and maintained at a CVCost of £38.9M	Linear defences and groynes to be replaced and maintained, and beach recharge at a CVCost of £22M	Maintenance of defences at a CVCost of £16.6M.	Refer to Portsea Island CDS for more detailed economic analysis of options.
		Epoch 2 HTL Epoch 3 HTL		By 2025 754.94 By 2055 994.75 By 2105 1,353.80 **Preferred Plan Damages**				
				By 2025 0.00 By 2055 0.00 By 2105 0.00	PVBenefit of £535.2M and a PVCost of £27.6M.	PVBenefit of £1,375.9M and a PVCost of £34.4M.	PVBenefit of £2,343.8M and a PVCost of £35.9M.	The Plan for this policy unit is considered **Economically Viable**
5AHI01	Langstone Bridge to Northney Farm	Epoch 1 HTL	No Previous Studies have been referred to	**NAI Damages** Tidal flood losses include 97 properties at a minimum total CVCost of £14.9M and	Linear defences to be replaced and maintained at a CVCost of £13.7M	Maintenance of defences at a CVCost of £2.9M.	Maintenance of defences at a CVCost of £5.4M.	Proportion of defences on this frontage are privately owned or maintained. Value of assets at risk likely to be underestimated, and amenity values and other intangibles not included. Future proposed studies for Chichester Harbour e.g. private landowner
		Epoch 2 HTL Epoch 3 HTL		By 2025 9.92 By 2055 11.97 By 2105 15.36 **Preferred Plan Damages**				
				By 2025 0.00 By 2055 0.00 By 2105 0.00	PVBenefit of £7M and a PVCost of £9.7M.	PVBenefit of £17.7M and a PVCost of £10.6M.	PVBenefit of £29.9M and a PVCost of £11.1M.	The Plan for this policy unit is considered **Economically Marginal** but private owners may consider works
5AHI02	Northney Farm	Epoch 1 HTL (NPFA)	No Previous Studies have been referred to	**NAI Damages**. Tidal flood losses include 85 properties at a minimum total CVCost of £15.9M	Maintenance of defences at a CVCost of £1.1M.	Maintenance of defences at a CVCost of £1.8M.	Maintenance of defences at a CVCost of £25.6M.	See Sensitivity tables for privately funded replacement and maintenance CVCosts. Private owned and maintained defences. Value of assets at risk likely to be underestimated, and amenity values and other intangibles not included. Future proposed studies for Chichester Harbour e.g. private landowner management plan would provide more detailed assessment for the longer-term management of historic towns, land use and heritage features.
		Epoch 2 HTL (NPFA)		By 2025 1.35				
		Epoch 3 MR		By 2055 6.86 By 2105 15.90 **Preferred Plan Damages**				
				By 2025 0.00 By 2055 0.00 By 2105 0.78	PVBenefit of £1M and a PVCost of £0.8M.	PVBenefit of £4M and a PVCost of £1.3M.	PVBenefit of £8.6M and a PVCost of £3.7M.	The Plan for this policy unit is considered **Economically Marginal** but private owners may consider works affordable.

Location		Final Policy	Calculation of Damages & Benefits (CV) (£M)		Assumed Defence Works & Costs (CV)			Comment
			Previous studies	Broad Scale Review	Broad Scale Review			
					Years 0 to 20	Years 20 to 50	Years 50 to 100	
5AHI03	Northney Farm to Mengham	Epoch 1 HTL (NPFA)	No Previous Studies have been referred to	**NAI Damages**. Tidal flood losses include 189 properties at a minimum total CVCost of £36.4M	Linear defences to be replaced and maintained at a CVCost of £44.5M.	Maintenance of defences at a CVCost of £9.4M.	Realignment of existing defences and construction of secondary defences and maintained at a CVCost of £17.3M.	See Sensitivity tables for alternative scenarios. Private owned and maintained defences. Value of assets at risk likely to be underestimated, and amenity values and other intangibles not included. Future proposed studies for Chichester Harbour e.g. private landowner management plan would provide more detailed assessment for the longer-term management of historic towns, land use and heritage features.
		Epoch 2 HTL (NPFA)		By 2025 8.46				
		Epoch 3 HTL (NPFA)		By 2055 19.07				
				By 2105 36.37				
				Preferred Plan Damages				
				By 2025 0.00 By 2055 0.00 By 2105 1.39	PVBenefit of £6M and a PVCost of £4.1M.	PVBenefit of £17.8M and a PVCost of £7M.	PVBenefit of £33.1M and a PVCost of £8.2M.	The Plan for this policy unit is considered **Economically Marginal** but private owners may consider works affordable.
5AHI04	Mengham to Chichester Harbour entrance (west)	Epoch 1 HTL	No Previous Studies have been referred to	**NAI Damages** Tidal flood losses include 990 properties at a minimum total CVCost of £182.2M	Linear defences to be replaced and maintained at a CVCost of £25.2M	Maintenance of defences at a CVCost of £5.4M.	Maintenance of defences at a CVCost of £9.8M.	Value of assets at risk likely to be underestimated, and amenity values and other intangibles not included.
		Epoch 2 HTL Epoch 3 HTL		By 2025 93.83 By 2055 129.20 By 2105 182.26				
				Preferred Plan Damages				
				By 2025 0.00 By 2055 0.00 By 2105 0.00	PVBenefit of £66.5M and a PVCost of £17.9M.	PVBenefit of £172.7M and a PVCost of £19.5M.	PVBenefit of £296M and a PVCost of £20.4M.	The Plan for this policy unit is considered **Economically Viable**
5AHI05	Chichester Harbour entrance (west) to Langstone Harbour entrance (east)	Epoch 1 HTL	No Previous Studies have been referred to	**NAI Damages** Tidal flood losses include 850 properties at a minimum total CVCost of £152.8M; Erosion losses include 112 properties with a CVCost of £19.7M	Linear defences to be replaced and maintained at a CVCost of £40.7M	Maintenance of defences and beach recharge at a CVCost of £68.1M.	Maintenance of defences and beach recycling at a CVCost of £38.2M.	Value of assets at risk likely to be underestimated, and amenity values and other intangibles not included.
		Epoch 2 HTL Epoch 3 HTL		By 2025 94.66 By 2055 135.05 By 2105 172.57				
				Preferred Plan Damages				
				By 2025 0.00 By 2055 0.00 By 2105 0.00	PVBenefit of £67.1M and a PVCost of £28.9M.	PVBenefit of £176M and a PVCost of £49.8M.	PVBenefit of £300.5M and a PVCost of £53.4M.	The Plan for this policy unit is considered **Economically Viable**

Location		Final Policy	Calculation of Damages & Benefits (CV) (£M)		Assumed Defence Works & Costs (CV)			Comment
			Previous studies	Broad Scale Review	Broad Scale Review			
					Years 0 to 20	Years 20 to 50	Years 50 to 100	
5AHI06	Langstone Harbour entrance (east) to North Shore Road, New Town	Epoch 1 HTL Epoch 2 HTL Epoch 3 HTL	No Previous Studies have been referred to	**NAI Damages** Tidal flood losses include 128 properties at a minimum total CVCost of £23.6M By 2025 12.74 By 2055 17.40 By 2105 23.61 **Preferred Plan Damages** By 2025 0.47 By 2055 0.59 By 2105 0.00	Linear defences to be replaced and maintained at a CVCost of £14.7M PVBenefit of £9M and a PVCost of £10.4M.	Maintenance of defences and beach recharge at a CVCost of £3.1M. PVBenefit of £23.4M and a PVCost of £11.4M.	Maintenance of defences and beach recycling at a CVCost of £5.7M. PVBenefit of £40M and a PVCost of £11.9M.	See Sensitivity tables for alternative scenarios. Private owned and maintained defences. Amenity values and other intangibles not included. The Plan for this policy unit is considered **Economically Marginal** but amenity and other intangibles not included in assessment
5AHI07	North Shore Road, New Town to West Lane (Stoke)	Epoch 1 NAI (HTL Newtown) Epoch 2 NAI (HTL Newtown) Epoch 3 NAI (HTL Newtown)	No Previous Studies have been referred to	**NAI Damages** Tidal flood losses include 88 properties at a minimum total CVCost of £16.2M By 2025 5.65 By 2055 10.87 By 2105 16.43 **Preferred Plan Damages** By 2025 5.83 By 2055 11.09 By 2105 16.61	Linear defences to be replaced and maintained at a CVCost of £14.5M	Maintenance of defences and beach recharge at a CVCost of £3M. PVBenefit of £4.2M and a PVCost of £10.2M.	Maintenance of defences and beach recycling at a CVCost of £5.6M. PVBenefit of £11.5M and a PVCost of £10.6M.	See Sensitivity tables for alternative scenarios. Private owned and maintained defences. Value of assets at risk likely to be underestimated, and amenity values and other intangibles not included. The Plan for this policy unit is considered **Economically Marginal** but amenity and other intangibles not included in assessment
5AHI08	West Lane (Stoke) to Langstone Bridge	Epoch 1 HTL* Epoch 2 HTL* Epoch 3 HTL*	No Previous Studies have been referred to	**NAI Damages**. Tidal flood losses include 236 properties at a minimum total CVCost of £43.9M By 2025 17.32 By 2055 27.96 By 2105 44.47 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.00	Linear defences to be replaced and maintained at a CVCost of £15.4M PVBenefit of £12.3M and a PVCost of £10.9M.	Maintenance of defences at a CVCost of £3.2M. PVBenefit of £33.1M and a PVCost of £11.9M.	Maintenance of defences at a CVCost of £6M. PVBenefit of £58.2M and a PVCost of £12.5M.	Value of assets at risk likely to be underestimated, and amenity values and other intangibles not included. The Plan for this policy unit is considered **Economically Viable**

H5 SENSITIVITY TESTING

For the proposed policies in the draft SMP, a sensitivity assessment was undertaken for selected locations, to indicate the economic viability of alternative defence policies to the objective-led policy scenario. This focused on the proposed objective-led policies with the localised potential MR or environmental enhancement through regulated tidal exchange (RTE), or localised HTL policy caveats.

For the assessment on draft policies, frontages that were identified with localised HTL, indicative estimates of primary defences and costs associated with inter-tidal habitat creation, for offsetting coastal squeeze, were included. Where necessary, setback or secondary defence requirements for localised MR (as presented in the Solent Dynamic Coast Project) and compensation costs associated with creating coastal grazing marsh resulting from the localised MR, were included within the assessment.

Within the Sensitivity Testing appraisals, a comparison between the policy scenario with and without the localised policy caveat was undertaken to determine the most economically viable option for that Policy Unit. Where the objective-led policy with the localised policy was considered more economically viable than without the localised policy, the policy definition for the Policy Unit included the localised policy option.

Consideration was also given to include additional sensitivity testing factors for reduced costs for private defences, and for different standards of protection that these defences may provide. However, following discussions with the EA and other CSG members, these estimated assessments were not included, and the SMP-scale appraisal focused on determining estimates for public funding demands. The SMP Action Plan has identified the requirement that CDS and landowner management plans will need to determine more realistic costs and benefits particularly for private defences and standard of protection for these defences and designated habitat sites, along with potential liabilities associated with failure, non-maintenance or removal of private defences.

Following the public consultation and the determination of the final SMP policies, the majority of the proposed MR policies and localized MR policies that were proposed on privately owned landholdings or behind privately maintained defences, were objected to by the landowners. The final policies were therefore changed to reflect the intentions of landowners for future management of their defences.

For many of the privately owned frontages, which have been assigned a HTL policy with a clear statement that no public funding would be available to maintain or upgrade existing defences, the final policies are considered economically marginal or not viable; it is important to note that private landowners may consider costs associated with maintenance and upgrading

their defences affordable but the national economic criteria indicates the works are marginal or not viable. There is however, a risk that defence costs may result in defences not being maintained as effectively Over the long-term and could lead to failure or increased frequency of flooding to landholdings, properties, communities and environmentally important sites.

In many cases where defences where privately maintained or owned, the policy scenarios that were previously tested in the sensitivity assessment are now the final policies. The sensitivity tables therefore, now provide economic appraisal information for the alternative policy options, which were originally the objective-led policy options. The economic appraisals have been updated and sensitivity testing sections have therefore been amended accordingly.

Further more detailed and site-specific studies will need to consider the identified potential localised opportunities where the final policies are considered economically marginal or not viable but have been changed, following public consultation to reflect the intentions of the landowner's future management of their defences; it is important to note that private landowners may consider costs associated with maintenance and upgrading their defences affordable but the national economic criteria indicates the works are marginal or not viable. These further detailed studies should also reconsider the proposed objective-led policy and localised policy options.

Location		Preferred Policy		Calculation of Damages & Benefits (CV) (£M)		Assumed Defence Works & Costs (CV)			Comment
				Previous studies	Broad Scale Review	Broad Scale Review			
						Years 0 to 20	Years 20 to 50	Years 50 to 100	
5A05	Ella Nore Lane to Fishbourne	Epoch 1 Epoch 2 Epoch 3	HTL HTL (potential MR Ella Nore) HTL (potential MR Horse Pond)	No Previous Studies have been referred to	**NAI Damages**. Tidal flood losses include 231 properties at a minimum total CVCost of £53.4M By 2025 18.73 By 2055 33.48 By 2105 55.62 **Preferred Plan Damages** By 2025 0.20 By 2055 0.00 By 2105 0.00	Linear defences to be replaced and maintained at a CVCost of £34.2M, includes cost of creating coastal grazing marsh resulting from Horse Pond localised managed realignment PVBenefit of £13.3M and a PVCost of £24.3M.	Maintenance of defences, and secondary defences at Ella Nore at a CVCost of £7.2M. PVBenefit of £36.8M and a PVCost of £26.5M.	Maintenance of defences at a CVCost of £13.18M. Localised realignment at Horse Pond not require secondary defences. PVBenefit of £65.6M and a PVCost of £27.7M.	Private owned and maintained defences; replacement/maintenance works not viable for public funding. MR works would be publicly funded. Future proposed studies for Chichester Harbour e.g. private landowner management plan would provide more detailed assessment for the longer-term management of historic towns, land use and heritage features. Value of assets at risk likely to be underestimated. See Sensitivity tables for alternative scenarios. The Plan for this policy unit is considered **Economically Marginal,** but private owners may consider works affordable.
5A06	Fishbourne	Epoch 1 Epoch 2 Epoch 3	HTL HTL MR	No Previous Studies have been referred to	**NAI Damages** Tidal flood losses include 20 properties at a minimum total CVCost of £4.8M By 2025 0.26 By 2055 2.26 By 2105 5.27 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.42	Linear defences to be maintained in advance of future potential habitat creation (if to be counted as compensation habitats) at a CVCost of £1.6M. Includes the cost for offsetting loss of transitional freshwater habitats resulting from MR works PVBenefit of £0.2M and a PVCost of £1.2M.	Maintenance of defences at a CVCost of £0.7M PVBenefit of £1.1M and a PVCost of £1.4M.	Realignment of linear defences and secondary defences for flood risk management and habitat creation, and subsequent maintenance of defences at a CVCost of £2M. PVBenefit of £2.4M and a PVCost of £1.6M.	Private owned and maintained defences; replacement/maintenance works not viable for public funding. MR works would be publicly funded. Future proposed studies for Chichester Harbour e.g. private landowner management plan would provide more detailed assessment for the longer-term management of historic towns, land use and heritage features. Value of assets at risk likely to be underestimated. See Sensitivity tables for alternative scenarios. The Plan for this policy unit is considered **Economically Marginal** in long-term.
5A07	Fishbourne to west of Cobnor Point	Epoch 1 Epoch 2 Epoch 3	HTL (potential MR East Chidham & Bosham) HTL HTL	No Previous Studies have been referred to	**NAI Damages**. Tidal flood losses include 582 properties at a minimum total CVCost of £142.4M By 2025 11.78 By 2055 64.95 By 2105 144.70 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.00	Linear defences to be replaced and maintained at a CVCost of £48.4M. Includes the cost for offsetting loss of transitional freshwater habitats resulting from localised managed realignment at Chidham and Bosham PVBenefit of £8.4M and a PVCost of £34.3M.	Maintenance of defences at a CVCost of £10.2M. No secondary defences required PVBenefit of £36.6M and a PVCost of £78.5M.	Maintenance of defences at a CVCost of £18.8M. No secondary defences required PVBenefit of £78.5M and a PVCost of £39.2M.	Private owned and maintained defences; replacement/maintenance works not viable for public funding. MR works would be publicly funded. Future proposed studies for Chichester Harbour e.g. private landowner management plan would provide more detailed assessment for the longer-term management of historic towns, land use and heritage features. Value of assets at risk likely to be underestimated. See Sensitivity tables for alternative scenarios. The Plan for this policy unit is considered **Economically Marginal**, but private owners may consider works affordable.
5A10	Nutbourne	Epoch 1 Epoch 2 Epoch 3	MR MR (HTRL) MR (HTRL)	No Previous Studies have been referred to	**NAI Damages**. Tidal flood losses include 46 properties at a minimum total CVCost of £10.8M; Erosion losses include 12ha of Grade 3 agricultural land with a CVCost £0.04M By 2025 0.80 By 2055 4.82 By 2105 10.85 **Preferred Plan Damages** By 2025 0.17 By 2055 0.02 By 2105 0.05	Realignment of linear defences and construction of secondary defences, for flood risk management and habitat creation, and subsequent maintenance of defences at a CVCost of £2.6M. Includes the cost for offsetting loss of transitional freshwater habitats resulting from MR works PVBenefit of £0.6M and a PVCost of £1.8M.	Maintenance of defences at a CVCost of £0.3M PVBenefit of £2.6M and a PVCost of £1.9M.	Maintenance of defences at a CVCost of £0.8M PVBenefit of £5.7M and a PVCost of £2.0M.	Realignment of EA maintained defence. Future proposed studies for Chichester Harbour e.g. private landowner management plan would provide more detailed assessment for the longer-term management of historic towns, land use and heritage features. Value of assets at risk likely to be underestimated. See Sensitivity tables for alternative scenarios. The Plan for this policy unit is considered **Economically Marginal**.

5A12	Prinsted to Stanbury Point	Epoch 1 HTL Epoch 2 HTL Epoch 3 MR	No Previous Studies have been referred to	**NAI Damages**. Minimal tidal flood losses to properties By 2025 13.65 By 2055 13.98 By 2105 14.49 **Preferred Plan Damages** By 2025 3.33 By 2055 0.00 By 2105 0.77	Linear defences to be maintained in advance of future potential habitat creation (if to be counted as compensation habitats) at a CVCost of £11.6M. Includes the cost for offsetting loss of transitional freshwater habitats resulting from MR works PVBenefit of £9.6M and a PVCost of £8.2M.	Maintenance of defences at a CVCost of £1.3M PVBenefit of £23.6M and a PVCost of £8.7M.	Realignment of linear defences and construction of secondary defences for flood risk management and habitat creation, and subsequent maintenance of defences at a CVCost of £4.3M. PVBenefit of £38.9M and a PVCost of £9.1M.	Defences owned and maintained by MOD and EA. Management of Thorney Island dependent on MOD. See Sensitivity tables for alternative scenarios. The Plan for this policy unit is considered **Economically Viable** (to be considered jointly with policies for 5A15)
5A14	Marker Point to Wickor Point	Epoch 1 MR Epoch 2 MR (HTRL) Epoch 3 MR (HTRL)	No Previous Studies have been referred to	**NAI Damages**. Tidal flood losses include 189 properties at a minimum total CVCost of £47.7M By 2025 40.58 By 2055 43.43 By 2105 47.72 **Preferred Plan Damages** By 2025 2.22 By 2055 0.00 By 2105 0.00	Realignment of linear defences and construction of secondary defences for flood risk management and habitat creation, and subsequent maintenance of defences at a CVCost of £4.2M. Includes cost for offsetting loss of transitional freshwater habitats resulting from MR works PVBenefit of £28.8M and a PVCost of £3M.	Maintenance of defences at a CVCost of £1.4M PVBenefit of £71M and a PVCost of £3.4M.	Maintenance of defences at a CVCost of £3.2M PVBenefit of £117M and a PVCost of £3.7M.	Future proposed studies for Chichester Harbour e.g. private landowner management plan would provide more detailed assessment for the longer-term management of historic towns, land use and heritage features. Defences owned and maintained by MOD and EA. Management of Thorney Island dependent on MOD. See Sensitivity tables for alternative scenarios. The Plan for this policy unit is considered **Economically Viable**
5A15	Wickor Point to Emsworth Yacht Haven	Epoch 1 HTL Epoch 2 HTL Epoch 3 MR	No Previous Studies have been referred to	**NAI Damages**. Tidal flood losses include 59 properties at a minimum total CVCost of £13.7M By 2025 13.65 By 2055 13.98 By 2105 14.49 **Preferred Plan Damages** By 2025 3.33 By 2055 0.00 By 2105 0.77	Linear defences to be maintained in advance of future potential habitat creation (if to be counted as compensation habitats) at a CVCost of £7.1M. Includes the cost for offsetting loss of transitional freshwater habitats resulting from MR works PVBenefit of £9.7M and a PVCost of £5M.	Maintenance of defences at a CVCost of £1.6M PVBenefit of £23.6M and a PVCost of £5.5M.	Realignment of linear defences and construction of secondary defences for flood risk management and habitat creation, and subsequent maintenance of defences at a CVCost of £4.3M. PVBenefit of £39M and a PVCost of £5.9M.	Future proposed studies for Chichester Harbour e.g. private landowner management plan would provide more detailed assessment for the longer-term management of historic towns, land use and heritage features. Defences owned and maintained by MOD and EA. Management of Thorney Island dependent on MOD. See Sensitivity tables for alternative scenarios. The Plan for this policy unit is considered **Economically Viable** (to be considered jointly with policies for 5A12)
5A17	Maisemore Gardens to Wade Lane	Epoch 1 HTL (potential MR Conigar) Epoch 2 HTL Epoch 3 HTL (potential MR Warblington)	emerging Portchester to Emsworth Coastal Defence Study	**NAI Damages**. Tidal flood losses are minimal By 2025 0.07 By 2055 0.10 By 2105 0.14 **Preferred Plan Damages** By 2025 0.17 By 2055 0.00 By 2105 0.00	Linear defences to be replaced and maintained at a CVCost of £7.4M. Includes the cost for offsetting loss of transitional freshwater habitats resulting from localised managed realignment at Conigar (epoch 1) and Warblington (epoch 2). No secondary defences required at Conigar PVBenefit of £0.05M and a PVCost of £5.2M.	Maintenance of defences at a CVCost of £1.5M PVBenefit of £0.1M and a PVCost of £5.7M.	Maintenance of defences and secondary defences at Warblington at a CVCost of £2.8M. PVBenefit of £0.2M and a PVCost of £6M.	Objective-led policies marginal. Future proposed studies for Chichester Harbour e.g. private landowner management plan would provide more detailed assessment for the longer-term management of historic towns, land use and heritage features. See Sensitivity tables for alternative scenarios. Private/LA owned and maintained defences; replacement/maintenance works not viable for, or likely to attract, public funding. MR works would be publicly funded. Refer to draft Portchester to Emsworth CDS for more detailed economic analysis of options The Plan for this policy unit is considered **Not Economically viable**, but private owners may consider works affordable.

5A20	Farlington Marshes	Epoch 1 HTL Epoch 2 HTL Epoch 3 MR (Full)	emerging Portchester to Emsworth Coastal Defence Study	**NAI Damages**. Tidal flood losses (north of the motorway) include 326 properties at a minimum total CVCost of £48.4M By 2025 46.70 By 2055 47.37 By 2105 48.39 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.00	Linear defences to be maintained at a CVCost of £6.4M. Includes the CVCost of offsetting loss of transitional freshwater habitats resulting from MR works PVBenefits of £33.1M and a PVCost of £4.5M.	Maintenance of defences at a CVCost of £3.6M PVBenefits of £80.7M and a PVCost of £5.6M.	Realignment of linear defences and construction of secondary defences for flood risk management and habitat creation, and subsequent maintenance of defences at a CVCost of £15.4M. PVBenefits of £132.9M and a PVCost of £7.1M.	Based on Full MR (back to Motorway) and includes benefits north of motorway. Refer to draft Portchester to Emsworth CDS for more detailed economic analysis of options. The location and alignment of defences will need to be determined through more detailed and site specific studies. See Sensitivity tables for alternative scenarios. The Plan for this policy unit is considered **Economically viable.** Environmental importance, amenity value and other intangibles not included in assessment
5A20	Farlington Marshes	Epoch 1 HTL Epoch 2 HTL Epoch 3 MR (Partial)	emerging Portchester to Emsworth Coastal Defence Study	**NAI Damages**. Tidal flood losses (north of the motorway) include 326 properties at a minimum total CVCost of £48.4M By 2025 46.70 By 2055 47.37 By 2105 48.39 **Preferred Plan Damages** By 2025 2.59 By 2055 0.00 By 2105 0.00	Linear defences to be maintained at a CVCost of £5.4M. Includes the CVCost of offsetting loss of transitional freshwater habitats resulting from MR works PVBenefits of £33.1M and a PVCost of £3.8M.	Maintenance of defences at a CVCost of £3.6M PVBenefits of £80.7M and a PVCost of £4.9M.	Realignment of linear defences and construction of secondary defences for flood risk management and habitat creation, and subsequent maintenance of defences at a CVCost of £31.8M. PVBenefits of £132.9M and a PVCost of £7.9M.	Based on Partial MR and includes benefits north of motorway. Refer to draft Portchester to Emsworth CDS for more detailed economic analysis of options. The location and alignment of defences will need to be determined through more detailed and site specific studies. See Sensitivity tables for alternative scenarios. The Plan for this policy unit is considered **Economically viable (and less viable than full MR option).** Environmental importance, amenity value and other intangibles not included in assessment
5C16	Calshot Spit to Inchmery	Epoch 1 NAI Epoch 2 NAI Epoch 3 NAI	No Previous Studies have been referred to	**NAI Damages**. Erosion losses include 12ha of Grade 2, 3 and 5 agricultural land with a CVCost £0.8M and 12 properties with a CVCost of £2.1M By 2025 0.65 By 2055 0.72 By 2105 3.14 **Preferred Plan Damages** By 2025 0.39 By 2055 0.46 By 2105 0.97	No defence works identified.	No defence works identified.	No defence works identified.	See Sensitivity tables for alternative scenarios. Private owned and maintained defences. Value of assets at risk likely to be underestimated. The Plan for this policy unit is considered **Economically Viable**
5C18	Salternshill to Park Shore	Epoch 1 HTL Epoch 2 HTL Epoch 3 MR	No Previous Studies have been referred to	**NAI Damages**. Tidal flood losses include 17 properties at a minimum total CVCost of £4.1M; Erosion losses include 3ha of Grade 2 and 4 agricultural land with a CVCost £0.01M By 2025 4.40 By 2055 4.60 By 2105 5.01 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.85	Linear defences and groynes to be maintained at a CVCost of £17.6M. Includes the CVCost of offsetting loss of transitional freshwater habitats resulting from MR works PVBenefit of £3.1M and a PVCost of £12.5M.	Linear defences and groynes to be replaced and maintained at a CVCost of £9.1M PVBenefit of £7.6M and a PVCost of £15.3M.	Realignment of linear defences and construction of secondary defences for flood risk management and habitat creation, and subsequent maintenance of defences at a CVCost of £9.2M. PVBenefit of £12.6M and a PVCost of £16.1M.	See Sensitivity tables for alternative scenarios. Private owned and maintained defences. Value of assets at risk likely to be underestimated. The Plan for this policy unit is considered **Economically Marginal,** as value of assets at risk likely to be underestimated.

5C20	Sowley to Elmer's Court	Epoch 1 Epoch 2 Epoch 3	NAI NAI NAI	No Previous Studies have been referred to	**NAI Damages** Tidal flood losses include 6 properties at a minimum total CVCost of £2.1M; Erosion losses include 7ha of Grade 3 and 4 agricultural land with a CVCost £0.05M By 2025 1.52 By 2055 1.88 By 2105 2.13 **Preferred Plan Damages** By 2025 0.74 By 2055 0.78 By 2105 0.57	No defence works identified.	No defence works identified.	No defence works identified.	See Sensitivity tables for alternative scenarios. Private owned and maintained defences. Value of assets at risk likely to be underestimated. The Plan for this policy unit is considered **Economically Viable**
5C22	Lymington Yacht Haven to Saltgrass Lane	Epoch 1 Epoch 2 Epoch 3	HTL (potential MR Saltgrass Lane) HTL (potential RTE Avon Water) HTL	No Previous Studies have been referred to	**NAI Damages.** Tidal flood losses include 353 properties at a minimum total CVCost of £86.8M By 2025 29.84 By 2055 52.85 By 2105 89.31 **Preferred Plan Damages** By 2025 1.25 By 2055 0.00 By 2105 0.00	Maintenance of defences at a CVCost of £7.6M. Includes the cost for offsetting loss of transitional freshwater habitats resulting from localised MR works at Avon Water (none for Saltgrass Lane) PVBenefit of £21.1M and a PVCost of £5.4M.	Maintenance of defences and secondary defences at a CVCost of £91.5M PVBenefit of £58.5M and a PVCost of £33.5M.	Maintenance of defences at a CVCost of £23.5M. PVBenefit of £104.3M and a PVCost of £35.7M.	Value of assets at risk likely to be underestimated, and amenity values and other intangibles not included The Plan for this policy unit is considered **Economically Viable**
5AHI02	Northney Farm	Epoch 1 Epoch 2 Epoch 3	MR HTL HTL	No Previous Studies have been referred to	**NAI Damages**. Tidal flood losses include 85 properties at a minimum total CVCost of £15.9M By 2025 1.35 By 2055 6.86 By 2105 15.90 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.78	Realignment of existing defences and construction of secondary defences and maintained at a CVCost of £3M. Includes the cost for offsetting loss of transitional freshwater habitats resulting from MR works PVBenefit of £1M and a PVCost of £2.1M.	Maintenance of defences at a CVCost of £1M. PVBenefit of £4M and a PVCost of £2.5M.	Maintenance of defences at a CVCost of £2.2M. PVBenefit of £8.6M and a PVCost of £2.7M.	See Sensitivity tables for privately funded replacement and maintenance CVCosts. Private owned and maintained defences. Value of assets at risk likely to be underestimated, and amenity values and other intangibles not included. Future proposed studies for Chichester Harbour e.g. private landowner management plan would provide more detailed assessment for the lo The Plan for this policy unit is considered **Economically Viable**
5AHI03	Northney Farm to Mengham	Epoch 1 Epoch 2 Epoch 3	HTL HTL MR	No Previous Studies have been referred to	**NAI Damages**. Tidal flood losses include 189 properties at a minimum total CVCost of £36.4M By 2025 8.46 By 2055 19.07 By 2105 36.37 **Preferred Plan Damages** By 2025 1.61 By 2055 0.00 By 2105 1.39	Maintenance of defences at a CVCost of £8.6M. Includes the cost for offsetting loss of transitional freshwater habitats resulting from MR works PVBenefit of £6M and a PVCost of £6.1M.	Maintenance of defences at a CVCost of £9.4M. PVBenefit of £17.8M and a PVCost of £9M.	Realignment of existing defences and construction of secondary defences and maintained at a CVCost of £10.4M. PVBenefit of £33.1M and a PVCost of £10M.	See Sensitivity tables for alternative scenarios. Private owned and maintained defences. Value of assets at risk likely to be underestimated, and amenity values and other intangibles not included. Future proposed studies for Chichester Harbour e.g. private landowner management plan would provide more detailed assessment for the longer-term management of historic towns, land use and heritage features. The Plan for this policy unit is considered **Economically Marginal** but private owners may consider works affordable.
5AHI08	West Lane (Stoke) to Langstone Bridge	Epoch 1 Epoch 2 Epoch 3	HTL (potential MR West Northney & Stoke) HTL HTL	No Previous Studies have been referred to	**NAI Damages**. Tidal flood losses include 236 properties at a minimum total CVCost of £43.9M By 2025 17.32 By 2055 27.96 By 2105 44.47 **Preferred Plan Damages** By 2025 0.00 By 2055 0.00 By 2105 0.00	Linear defences to be replaced and maintained and construction of secondary defences at a CVCost of £15.4M PVBenefit of £12.3M and a PVCost of £10.9M.	Maintenance of defences at a CVCost of £3.2M. PVBenefit of £33.1M and a PVCost of £11.9M.	Realignment of existing defences and maintained at a CVCost of £6M. PVBenefit of £58.2M and a PVCost of £12.5M.	Value of assets at risk likely to be underestimated, and amenity values and other intangibles not included. The Plan for this policy unit is considered **Economically Viable**

SUPPORTING ECONOMIC APPRAISAL DATA

Annexes

- EXPLANATIONS OF COLUMN HEADINGS FOR APPRAISAL SUMMARY AND SENSITIVITY TESTING APPRAISAL SUMMARY TABLES
- ANNEX H1: APPRAISAL SUMMARY
- ANNEX H2: SENSITIVITY TESTING APPRAISAL SUMMARY
- ANNEX H3: NAI EROSION-ONLY LOSSES
- ANNEX H4: NAI FLOOD LOSSES
- EXPLANATIONS OF COLUMN HEADINGS FOR DEFENCE WORK COSTS AND SENSITIVITY TESTING DEFENCE WORK COSTS TABLES
- ANNEX H5: DEFENCE WORK COSTS
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EXPLANATIONS OF COLUMN HEADINGS FOR APPRAISAL SUMMARY AND SENSITIVITY TESTING APPRAISAL SUMMARY TABLES

(**a**)	Policy Unit	These relate to the stretches of shoreline defined in main SMP document
(**b**)	Epoch	These relate to time periods used for policy setting
(**c**)	Asset Value Loss per Epoch (Damages) : NAI	The calculated capital value (CV) of property (£) that would be lost during the identified time period for NAI
(**d**)	Asset Value Loss per Epoch (Damages) : Preferred Plan	The calculated capital value of property (£) that would be lost during the identified time period for Preferred Plan
(**e**)	Cumulative Property Damage or Loss (PV): NAI	The Present Value of property loss under the NAI scenario i.e. values from (c) discounted to reflect timing of loss. This is a cumulative measure, i.e. the 50 year value includes all losses or damages from year 0-50
(**f**)	Cumulative Property Damage or Loss (PV): Preferred Plan	The Present Value of property loss under the Preferred Plan scenario i.e. values from (c) discounted to reflect timing of loss. This is a cumulative measure i.e. the 50 year value includes all losses or damages from year 0-50, and the 100 year value indicates all losses or damages from year 0-100
(**g**)	Management Cost Per Epoch (CV) (Preferred Policy Scenario)	The calculated cost of defence and management measures for Preferred Plan during the identified time period. The calculation of these values is presented in the subsequent table
(**h**)	Preferred Policy Benefits & Damages Averted (PV)	The cumulative benefits expressed in terms of Present Value. This is the difference between the Preferred Plan damages (f) and the NAI damages (e)
(**i**)	Preferred Policy Costs (PV)	The Present Value of the costs of providing the Preferred Plan (i.e. the values from (g) discounted to reflect timing of activities). This is a cumulative measure. However, for years where no defence works are proposed, columns have been left blank

ANNEX H1: APPRAISAL SUMMARY

a		b		c	d	e	f	g	h	i
				Asset Current Value Loss per Epoch (Damages)		Cumulative Property Damage / Loss (PV)			Cumulative Final Policy Benefits & Damages Averted (PV)	Cumulative Final Policy Costs (PV)
				Asset Value Loss per Epoch (Damages)		Cumulative Property Damage / Loss (PV)		Management Cost Per Epoch (CV) (Final Policy Scenario)	Final Policy Scenario	
Policy Unit		Epoch	Final policy scenario	NAI	Preferred Plan	NAI	Preferred Policy		Damages Averted (PV)	Costs (PV)
5A01	Selsey West Beach to Bracklesham (Medmerry)	0-20	MR (localised HTL Medmerry Cliffs)	25,629,779	5,338,567	18,171,513		23,200,000	18,171,513	16,448,800
		20-50	HTL	27,342,032	5,826,009	26,565,517		10,080,000	44,737,030	19,543,360
		50-100	HTL	30,420,749	6,557,172	29,425,068		16,640,000	74,162,098	21,107,520
5A02	Bracklesham to East Wittering	0-20	HTL	66,511,903		47,156,939		20,959,554	47,156,939	14,860,323
		20-50	HTL	135,705,688		88,818,586		10,875,581	135,975,525	18,199,127
		50-100	HTL	223,831,881		109,858,782		18,496,308	245,834,307	19,937,780
5A03	East Wittering to Cakeham	0-20	HTL	13,238,366		9,386,002		2,945,666	9,386,002	2,088,477
		20-50	MR	28,043,788		17,995,444		14,491,080	27,381,446	6,537,239
		50-100	HTL	51,400,180		22,827,061		8,269,934	50,208,508	7,314,613
5A04	Cakeham (including East Head) to Ella Nore Lane	0-20	AM	4,091,635		2,900,969		10,974,530	2,900,969	7,780,942
		20-50	AM	5,104,833		4,468,153		12,771,390	7,369,121	11,701,758
		50-100	AM	6,624,631		5,090,868		7,226,716	12,459,989	12,381,069
5A05	Ella Nore Lane to Fishbourne	0-20	HTL (NPFA)	18,728,064		13,278,197		33,936,320	13,278,197	24,060,851
		20-50	HTL (NPFA)	33,484,680		23,557,994		7,201,920	36,836,192	26,271,840
		50-100	HTL (NPFA) (localised MR Horse Pond)	55,619,605		28,786,237		13,203,520	65,622,429	27,512,971
5A06	Fishbourne	0-20	HTL (NPFA)	257,345		182,458		7,464,000	182,458	5,291,976
		20-50	HTL (NPFA)	2,261,481		876,733		1,584,000	1,059,190	5,778,264
		50-100	HTL (NPFA)	5,267,685	419,474	1,371,895		2,904,000	2,431,085	6,051,240
5A07	Fishbourne to west of Cobnor Point	0-20	HTL (NPFA) (localised MR East Chidham)	11,779,771		8,351,858		48,366,064	8,351,858	34,291,539
		20-50	HTL (NPFA)	64,948,548		28,291,062		10,263,264	36,642,920	37,442,361
		50-100	HTL (NPFA)	144,701,712		41,893,023		18,815,984	78,535,943	39,211,064
5A08	west of Cobnor Point to Chidham Point	0-20	MR (NPFA)	337,238	337,238	239,102		640,000	239,102	453,760
		20-50	HTL (NPFA)	584,943	380,807	418,679		1,440,000	657,781	895,840
		50-100	HTL (NPFA)	956,500	446,162	508,590		3,200,000	1,166,371	1,196,640
5A09	Chidham Point to Nutbourne	0-20	HTL (NPFA)	132,766		94,131		4,276,327	94,131	3,031,916
		20-50	HTL (NPFA)	3,922,302		1,298,278		903,278	1,392,410	3,309,223
		50-100	HTL (NPFA)	9,606,606		2,201,299		1,656,010	3,593,709	3,464,888
5A10	Nutbourne	0-20	HTL (NPFA)	803,904	3,529	569,968		7,961,600	569,968	5,644,774
		20-50	HTL (NPFA)	4,823,843	20,780	2,050,888		1,689,600	2,620,856	6,163,482
		50-100	HTL (NPFA)	10,853,752	46,655	3,071,141		3,097,600	5,691,996	6,454,656
5A11	Nutbourne to Prinsted	0-20	HTL	9,512,453		6,744,329		6,250,111	6,744,329	4,431,329
		20-50	HTL	14,027,759		11,050,851		1,326,390	17,795,181	4,838,530
		50-100	HTL	20,800,716		13,006,119		2,431,715	30,801,300	5,067,112
5A12	Prinsted to Stanbury Point	0-20	HTL	13,646,328		9,675,247		6,316,939	9,675,247	4,478,710
		20-50	HTL	13,983,193		13,968,087		1,340,572	23,643,333	4,890,265
		50-100	HTL	14,488,491	765,349	15,330,005		2,031,170	38,973,338	5,081,195
5A13	Stanbury Point to Marker Point	0-20	HTL	1,275,845		904,574		10,847,680	904,574	7,691,005
		20-50	HTL	765,507		1,139,585		2,302,080	2,044,159	8,397,744
		50-100	HTL	765,507		1,211,542		4,220,480	3,255,701	8,794,469
5A14	Marker Point to Wickor Point	0-20	HTL	40,575,323	3,452	28,767,904		9,952,000	28,767,904	7,055,968
		20-50	HTL	43,432,960	3,196	42,101,823		2,112,000	70,869,727	7,704,352
		50-100	HTL	47,719,416	2,813	46,587,448		3,872,000	117,457,175	8,068,320
5A15	Wickor Point to Emsworth Yacht Haven	0-20	HTL	13,646,328		9,675,247		7,084,354	9,675,247	5,022,807
		20-50	HTL	13,983,193		13,968,087		1,612,301	23,643,333	5,517,783
		50-100	HTL	14,488,491	765,349	15,330,005		2,442,881	38,973,338	5,747,414
5A16	Emsworth Yacht Haven to Maisemore	0-20	HTL	46,599,218		33,038,846		14,848,664	33,038,846	10,527,703
		20-50	HTL	53,785,944		49,551,131		3,151,163	82,589,977	11,495,110
		50-100	HTL	64,821,201		55,644,323		5,777,133	138,234,300	12,038,160

a		b		c	d	e	f	g	h	i
				Asset Current Value Loss per Epoch (Damages)		Cumulative Property Damage / Loss (PV)			Cumulative Final Policy Benefits & Damages Averted (PV)	Cumulative Final Policy Costs (PV)
				Asset Value Loss per Epoch (Damages)		Cumulative Property Damage / Loss (PV)			Final Policy Scenario	
	Policy Unit	Epoch	Final policy scenario	NAI	Preferred Plan	NAI	Preferred Policy	Management Cost Per Epoch (CV) (Final Policy Scenario)	Damages Averted (PV)	Costs (PV)
5A17	Maisemore Gardens to Wade Lane	0-20	HTL	70,025		49,648		7,124,757	49,648	5,051,453
		20-50	HTL*	96,641		79,317		1,512,006	128,965	5,515,639
		50-100	HTL*	136,564		92,154		2,772,012	221,118	5,776,208
5A18	Wade Lane to Southmoor Lane	0-20	HTL	39,001,616		27,652,146		15,883,282	27,652,146	11,261,247
		20-50	HTL*	39,819,557		39,876,750		4,004,329	67,528,896	12,490,576
		50-100	HTL*	41,046,467		43,735,118		7,341,269	111,264,014	13,180,655
5A19	Southmoor Lane to Farlington Marshes (east)	0-20	HTL	15,109,056		10,712,321		14,430,400	10,712,321	10,231,154
		20-50	HTL	16,827,443		15,878,346		3,062,400	26,590,667	11,171,310
		50-100	HTL	19,405,024		17,702,418		5,614,400	44,293,085	11,699,064
5A20	Farlington Marshes (east) to Farlington	0-20	HTL	46,697,099		33,108,243		17,118,397	33,108,243	12,136,944
		20-50	HTL*	47,374,835		47,652,318		3,634,181	80,760,561	13,252,637
		50-100	HTL*	48,391,439		52,201,113		1,193,039	132,961,674	13,364,783
5A20	Farlington Marshes (east) to Farlington	0-20	HTL	46,697,099		33,108,243		2,257,597	33,108,243	1,600,636
		20-50	HTL*	47,374,835		47,652,318		3,634,181	80,760,561	2,716,330
		50-100	HTL*	48,391,439		52,201,113		6,662,665	132,961,674	3,342,620
5A21	Farlington Marshes (west) to Cador Drive	0-20	HTL	2,474,139,590		1,754,164,969		68,071,680	1,754,164,969	48,262,821
		20-50	HTL	1,910,883,563		2,340,806,223		14,446,080	4,094,971,192	52,697,768
		50-100	HTL	1,065,999,522		2,441,010,178		26,484,480	6,535,981,370	55,187,309
5A22	Cador Drive to A27	0-20	HTL	52,711		37,372		25,391,370	37,372	18,002,481
		20-50	HTL*	203,561	14,914	99,866		3,757,467	137,238	19,156,024
		50-100	HTL*	429,836	32,087	140,270		6,888,690	277,508	19,803,561
5A23	A27 to Fleetlands (MOD boundary)	0-20	HTL	3,466		2,457		16,465,208	2,457	11,673,832
		20-50	HTL	44,976,773		13,810,327		3,494,224	13,812,784	12,746,559
		50-100	HTL	110,125,622		24,162,135		6,406,078	37,974,919	13,348,730
5A24	Fleetlands (MOD Boundary) to Quay Lane (MOD	0-20	HTL					29,915,615		21,210,171
		20-50	HTL					6,348,651		23,159,207
		50-100	HTL					11,639,194		24,253,291
5A25	Quay Lane (MOD boundary) to Portsmouth	0-20	HTL	130,906,220		92,812,510		69,017,120	92,812,510	48,933,138
		20-50	HTL	274,620,040		177,120,862		14,646,720	269,933,372	53,429,681
		50-100	HTL	495,125,019		223,662,614		26,852,320	493,595,986	55,953,799
5B01	Portsmouth Harbour entrance to Gilkicker Point	0-20	HTL					2,138,123		1,515,930
		20-50	HTL	117,769		36,155		36,152,601	36,155	12,614,778
		50-100	HTL	294,422		63,831		6,232,570	99,986	13,200,640
5B02	Gilkicker Point to Meon Road, Titchfield Haven	0-20	HTL	16,301,097		11,557,477		28,936,468	11,557,477	20,515,956
		20-50	HTL	33,727,142		21,911,710		69,229,735	33,469,188	41,769,485
		50-100	HTL	61,287,107		27,672,698		19,961,581	61,141,886	43,645,873
5B03	Meon Road, Titchfield Haven to Hook Park	0-20	NAI (HTL cross-Solent infrastructure)	12,212,503	546,885	8,658,664			8,658,664	
		20-50	NAI (HTL cross-Solent infrastructure)	15,456,572	578,510	13,403,832			22,062,496	
		50-100	NAI (HTL cross-Solent infrastructure)	22,063,670	1,376,464	15,477,817			37,540,314	
5C01	Hook Park to Warsash North	0-20	NAI	1,549,294	1,180,084	1,098,450			1,098,450	
		20-50	MR	2,240,373	1,258,636	1,786,244		5,040,000	2,884,694	1,547,280
		50-100	HTL	1,900,527		1,964,894		1,120,000	4,849,588	1,652,560
5C02	Warsash North to Swanwick Shore Road	0-20	NAI	2,120,084		1,503,140			1,503,140	
		20-50	NAI	1,591,830		1,991,832			3,494,971	
		50-100	NAI	921,560	122,111	2,078,458			5,573,430	
5C03	Swanwick Shore Road to Bursledon Bridge	0-20	HTL	4,337,356		3,075,185		3,225,773	3,075,185	2,287,073
		20-50	HTL	5,572,778		4,786,028		684,569	7,861,214	2,497,236
		50-100	NAI	7,474,190	48,279	5,488,602			13,349,816	2,497,236
5C04	Bursledon Bridge to Curbridge to Botley to Satchell	0-20	NAI	2,090,342	99,966	1,482,053			1,482,053	
		20-50	NAI	3,624,045	108,824	2,594,635			4,076,687	
		50-100	NAI	6,637,725	835,235	3,218,581	13,537.97		7,281,730	

a		b		c	d	e	f	g	h	i
				Asset Current Value Loss per Epoch (Damages)		Cumulative Property Damage / Loss (PV)			Cumulative Final Policy Benefits & Damages Averted (PV)	Cumulative Final Policy Costs (PV)
				Asset Value Loss per Epoch (Damages)		Cumulative Property Damage / Loss (PV)		Management Cost Per Epoch (CV) (Final Policy Scenario)	Final Policy Scenario	
	Policy Unit	Epoch	Final policy scenario	NAI	Preferred Plan	NAI	Preferred Policy		Damages Averted (PV)	Costs (PV)
5C05	Satchell Marshes to Hamble Common Point	0-20	NAI (HTL for Rope Walk and Quay)	2,376,400	42,519	1,684,867		4,640,000	1,684,867	3,289,760
		20-50	NAI (HTL for Rope Walk and Quay)	2,107,120	44,823	2,331,753		720,000	4,016,621	3,510,800
		50-100	NAI (HTL for Rope Walk and Quay)	1,654,920		2,487,316		1,600,000	6,503,937	3,661,200
5C06	Hamble Common Point to Hamble Oil Terminal	0-20	NAI	6,692,247		4,744,803			4,744,803	
		20-50	NAI	6,241,149		6,660,836			11,405,639	
		50-100	NAI	4,873,289		7,118,925			18,524,563	
5C07	Hamble Oil Terminal to Ensign Industrial Park	0-20	HTL					2,935,956		2,081,593
		20-50	HTL	704,130		216,168		623,065	216,168	2,272,874
		50-100	NAI	1,760,326		381,639			597,807	2,272,874
5C08	Ensign Industrial Park to Cliff House	0-20	NAI							
		20-50	NAI							
		50-100	NAI							
5C09	Cliff House to Netley Castle	0-20	HTL	1,934,163		1,371,322		16,728,000	1,371,322	11,860,152
		20-50	HTL*	4,427,084		2,730,436		2,164,800	4,101,758	12,524,746
		50-100	NAI (HTL for Netley Village)	8,166,466		3,498,084		10,576,000	7,599,842	13,518,890
5C10	Netley Castle to Weston Point	0-20	HTL	30,600,874		21,696,020			21,696,020	
		20-50	HTL	21,500,719		28,296,740			49,992,760	
		50-100	HTL	7,850,486		29,034,686			79,027,446	
5C11	Weston Point to Woodmill Lane	0-20	HTL	52,840,628		37,464,005		41,684,767	37,464,005	29,554,500
		20-50	HTL	91,334,671		65,503,749		8,846,285	102,967,755	32,270,309
		50-100	NAI*	149,075,736		79,516,868			182,484,623	32,270,309
5C12	Woodmill Lane to Redbridge	0-20	HTL	432,477,414		306,626,486		106,922,477	306,626,486	75,808,036
		20-50	HTL	2,271,688,903		1,004,034,980		22,690,944	1,310,661,466	82,774,156
		50-100	HTL	5,030,506,138		1,476,902,557		41,600,063	2,787,564,023	86,684,562
5C13	Lower Test Valley	0-20	NAI							
		20-50	NAI							
		50-100	NAI	1,045,148	1,045,148	98,244			98,244	
5C14	Redbridge to Calshot Spit	0-20	HTL	192,056,092		136,167,769		11,718,315	136,167,769	8,308,286
		20-50	HTL	257,316,126		215,163,820		134,617,721	351,331,589	49,635,926
		50-100	HTL	355,758,396		248,605,109		34,583,321	599,936,698	52,886,758
5C15	Calshot Spit	0-20	HTL	879,616		623,647		1,582,034	623,647	1,121,662
		20-50	HTL	945,828		914,017		4,507,966	1,537,664	2,505,607
		50-100	NAI	1,387	1,387	914,147			2,451,811	2,505,607
5C16	Calshot Spit to Inchmery	0-20	NAI	652,603	392,438	462,696			462,696	
		20-50	NAI	716,516	456,351	682,666			1,145,362	
		50-100	NAI	3,136,709	965,224	977,517	21,972.50		2,100,906	
5C17	Inchmery to Salternshill	0-20	NAI	260,818	653	184,920			184,920	
		20-50	NAI	4,075,769	947	1,436,181			1,621,101	
		50-100	NAI	10,127,363	330,556	2,388,153			4,009,254	
5C18	Salternshill to Park Shore	0-20	HTL (NPFA)	4,403,939		3,122,393		28,318,844	3,122,393	20,078,060
		20-50	HTL (NPFA)	4,600,009		4,534,596		10,257,570	7,656,989	23,227,134
		50-100	HTL (NPFA)	5,011,842	849,202	5,005,709		16,043,298	12,662,698	24,735,204
5C19	Park Shore to Sowley	0-20	HTL	2,467,367		1,749,363		12,065,646	1,749,363	8,554,543
		20-50	HTL	3,381,764		2,787,565		3,717,712	4,536,928	9,695,881
		50-100	HTL*	4,689,538		3,228,381		7,370,435	7,765,309	10,388,701
5C20	Sowley to Elmer's Court	0-20	NAI	1,519,619	739,124	1,077,410			1,077,410	
		20-50	NAI	1,875,848	783,155	1,653,295			2,730,705	
		50-100	NAI	2,134,913	573,923	1,853,977			4,584,681	
5C21	Elmer's Court to Lymington Yacht Haven	0-20	HTL (potential RTE Lymington Reedbeds)	20,314,834		14,403,217		1,397,280	14,403,217	990,672
		20-50	HTL	53,753,841		30,905,647		16,051,680	45,308,864	5,918,537
		50-100	HTL	104,050,790		40,686,421		4,123,680	85,995,285	6,306,163

a		b		c	d	e	f	g	h	i
				Asset Current Value Loss per Epoch (Damages)		Cumulative Property Damage / Loss (PV)			Cumulative Final Policy Benefits & Damages Averted (PV)	Cumulative Final Policy Costs (PV)
				Asset Value Loss per Epoch (Damages)		Cumulative Property Damage / Loss (PV)		Management Cost Per Epoch (CV) (Final Policy Scenario)	Final Policy Scenario	
Policy Unit		Epoch	Final policy scenario	NAI	Preferred Plan	NAI	Preferred Policy		Damages Averted (PV)	Costs (PV)
5C22	Lymington Yacht Haven to Saltgrass Lane	0-20	HTL	29,839,084	1,246,000	21,155,911		5,337,118	21,155,911	3,784,017
		20-50	HTL	52,853,784		37,382,022		91,455,771	58,537,933	31,860,938
		50-100	HTL	89,308,831		45,777,053		23,495,007	104,314,986	34,069,469
5F01	Hurst Spit	0-20	HTL	16,712,136		11,848,904		12,240,000	11,848,904	8,678,160
		20-50	HTL	23,464,124		19,052,390		2,880,000	30,901,295	9,562,320
		50-100	HTL	33,270,957		22,179,860		38,880,000	53,081,155	13,217,040
5API01	Langstone Harbour entrance (west) (harbour) to Portsmouth	0-20	HTL	965,357,249		684,438,290		140,201,427	684,438,290	99,402,812
		20-50	HTL	1,391,421,564		1,111,604,710		29,753,358	1,796,043,000	108,537,093
		50-100	HTL	2,028,152,312		1,302,251,027		54,547,822	3,098,294,027	113,664,588
5API02	Langstone Harbour entrance (west) (open coast) to Portsmouth Harbour entrance	0-20	HTL	754,943,367		535,254,847		38,940,087	535,254,847	27,608,522
		20-50	HTL	994,754,313		840,644,421		22,049,528	1,375,899,268	34,377,727
		50-100	HTL	1,353,798,856		967,901,514		16,640,095	2,343,800,782	35,941,896
5AHI01	Langstone Bridge to Northney Farm	0-20	HTL	9,915,302		7,029,949		13,721,868	7,029,949	9,728,804
		20-50	HTL	11,973,236		10,705,733		2,912,036	17,735,682	10,622,799
		50-100	HTL	15,362,909		12,149,846		5,338,733	29,885,529	11,124,640
5AHI02	Northney Farm	0-20	HTL (NPFA)	1,353,925		959,933		1,115,200	959,933	790,677
		20-50	HTL (NPFA)	6,859,752		3,065,877		1,795,200	4,025,809	1,341,803
		50-100	MR	15,895,054	776,560	4,560,012		25,558,400	8,585,821	3,744,293
5AHI03	Northney Farm to Mengham	0-20	HTL (NPFA)	8,458,084		5,996,782		44,485,536	5,996,782	31,540,245
		20-50	HTL (NPFA)	19,066,559		11,850,215		9,440,795	17,846,997	34,438,569
		50-100	HTL (NPFA)	36,373,056	1,393,784	15,269,282		17,308,123	33,116,279	36,065,533
5AHI04	Mengham to Chichester Harbour entrance (west)	0-20	HTL	93,827,964		66,524,027		25,233,845	66,524,027	17,890,796
		20-50	HTL	129,198,606		106,187,999		5,355,093	172,712,026	19,534,810
		50-100	HTL	182,258,189		123,320,269		9,817,670	296,032,294	20,457,671
5AHI05	Chichester Harbour entrance (west) to	0-20	HTL	94,662,182		67,115,487		40,753,440	67,115,487	28,894,189
		20-50	HTL	135,045,820		108,574,554		68,135,040	175,690,041	49,811,646
		50-100	HTL	172,572,417		124,796,361		38,255,840	300,486,402	53,407,695
5AHI06	Langstone Harbour entrance (east) to North Shore Road, New	0-20	HTL	12,739,981	470,647	9,032,646		14,725,777	9,032,646	10,440,576
		20-50	HTL	17,398,282	593,012	14,373,919		3,125,085	23,406,565	11,399,977
		50-100	HTL	23,609,667	494	16,593,228		5,729,322	39,999,793	11,938,533
5AHI07	North Shore Road, New Town to West Lane (Stoke)	0-20	NAI (HTL Newtown)	5,652,762	5,833,061	4,007,808	4,085,874.12	14,461,815	-78,066	10,253,427
		20-50	NAI (HTL Newtown)	10,873,391	11,090,870	7,345,939	3,081,833.62	3,069,067	4,186,040	11,195,630
		50-100	NAI (HTL Newtown)	16,427,385	16,607,684	8,890,114	1,537,756.53	5,626,622	11,538,397	11,724,533
5AHI08	West Lane (Stoke) to Langstone Bridge	0-20	HTL*	17,322,149		12,281,404		15,375,840	12,281,404	10,901,471
		20-50	HTL*	27,956,362		20,864,007		3,263,040	33,145,410	11,903,224
		50-100	HTL*	44,469,063		25,044,099		5,982,240	58,189,509	12,465,554

ANNEX H2: SENSITIVITY TESTING APPRAISAL SUMMARY

a		b		c	d	e	f	g	h	i	
				Asset Current Value Loss per Epoch (Damages)		Cumulative Property Damage / Loss (PV)		Management Cost Per Epoch (CV) (Preferred Policy Scenario)	cumulative Preferred Policy Benefits & Damages Averted (PV)	Cumulative Preferred Policy Costs (PV)	
				(Damages)		Cumulative Property Damage / Loss (PV)			Preferred Policy Scenario		
	Policy Unit	Epoch	preferred policy scenario	NAI	Preferred Plan	NAI	Preferred Policy		Damages Averted (PV)	Costs (PV)	Description of Alternative tested
5A05	Ella Nore Lane to Fishbourne	0-20	HTL	18,728,064	203,000	13,278,197		34,261,120	13,278,197	24,291,134	localised MR for epoch for habitat creation managed realignment
		20-50	HTL (potential MR Ella Nore)	33,484,680		23,557,994		7,180,800	36,836,192	26,495,640	
		50-100	HTL (potential MR Horse Pond)	55,619,605		28,786,237		13,164,800	65,622,429	27,733,131	
5A06	Fishbourne	0-20	HTL	257,345		182,458		1,625,760	182,458	1,152,664	MR for epoch for habitat creation managed realignment
		20-50	HTL	2,261,481		876,733		696,960	1,059,190	1,366,631	
		50-100	MR	5,267,685	419,474	1,371,895		2,048,000	2,431,085	1,559,143	
5A07	Fishbourne to west of Cobnor Point	0-20	HTL (potential MR East Chidham & Bosham)	11,779,771		8,351,858		48,361,744	8,351,858	34,288,476	MR for epoch for habitat creation managed realignment
		20-50	HTL	64,948,548		28,291,062		10,263,264	36,642,920	37,439,299	
		50-100	HTL	144,701,712		41,893,023		18,815,984	78,535,943	39,208,001	
5A10	Nutbourne	0-20	MR	803,904	171,529	569,968		2,588,800	569,968	1,835,459	MR for epoch for habitat creation managed realignment
		20-50	MR (HTRL)	4,823,843	20,780	2,050,888		360,000	2,620,856	1,945,979	
		50-100	MR (HTRL)	10,853,752	46,655	3,071,141		800,000	5,691,996	2,021,179	
5A12	Prinsted to Stanbury Point	0-20	HTL	13,646,328	3,325,000	9,675,247		11,636,939	9,675,247	8,250,590	MR for epoch for habitat creation managed realignment
		20-50	HTL	13,983,193		13,968,087		1,340,572	23,643,333	8,662,145	
		50-100	MR	14,488,491	765,349	15,330,005		4,304,000	38,973,338	9,066,721	
5A14	Marker Point to Wickor Point	0-20	MR	40,575,323	2,218,952	28,767,904		4,184,800	28,767,904	2,967,023	MR for epoch for habitat creation managed realignment
		20-50	MR (HTRL)	43,432,960	3,196	42,101,823		1,440,000	70,869,727	3,409,103	
		50-100	MR (HTRL)	47,719,416	2,813	46,587,448		3,200,000	117,457,175	3,709,903	
5A15	Wickor Point to Emsworth Yacht Haven	0-20	HTL	13,646,328	3,325,000	9,675,247		7,084,354	9,675,247	5,022,807	MR for epoch for habitat creation managed realignment
		20-50	HTL	13,983,193		13,968,087		1,612,301	23,643,333	5,517,783	
		50-100	MR	14,488,491	765,349	15,330,005		4,304,000	38,973,338	5,922,359	
5A17	Maisemore Gardens to Wade Lane	0-20	HTL (potential MR Conigar)	70,025	168,000	49,648		7,124,757	49,648	5,051,453	localised MR for epoch for habitat creation managed realignment
		20-50	HTL	96,641		79,317		2,290,406	128,965	5,754,608	
		50-100	HTL (potential MR Warblington)	136,564		92,154		2,772,012	221,118	6,015,177	
5A20	Farlington Marshes (east) to Farlington Marshes (west)	0-20	HTL	46,697,099	2,590,000	33,108,243		2,257,597	33,108,243	1,600,636	Full MR for epoch for habitat creation managed realignment
		20-50	HTL	47,374,835		47,652,318		6,742,181	80,760,561	3,670,486	
		50-100	MR full back to motorway	48,391,439		52,201,113		11,245,867	132,961,674	4,727,597	
5A20	Farlington Marshes (east) to Farlington Marshes (west)	0-20	HTL	46,697,099	2,590,000	33,108,243		2,257,597	33,108,243	1,600,636	Partial MR for epoch for habitat creation managed realignment
		20-50	HTL	47,374,835		47,652,318		3,634,181	80,760,561	2,716,330	
		50-100	MR partial	48,391,439		52,201,113		28,672,000	132,961,674	5,411,498	
5C16	Calshot Spit to Inchmery	0-20	NAI	652,603	392,438	462,696			462,696		Hold the Line for each epoch with no habitat creation
		20-50	NAI	716,516	456,351	682,666			1,145,362		
		50-100	NAI	3,136,709	965,224	977,517	21,973		2,100,906		
5C18	Salternshill to Park Shore	0-20	HTL	4,403,939		3,122,393		4,299,644	3,122,393	3,048,448	MR for epoch for habitat creation managed realignment
		20-50	HTL	4,600,009		4,534,596		10,257,570	7,656,989	6,197,521	
		50-100	MR	5,011,842	849,202	5,005,709		9,219,371	12,662,698	7,064,142	
5C20	Sowley to Elmer's Court	0-20	NAI	1,519,619	739,124	1,077,410			1,077,410		Hold the Line for each epoch with no habitat creation
		20-50	NAI	1,875,848	783,155	1,653,295		1,993,600	2,730,705	612,035	
		50-100	NAI	2,134,913	573,923	1,853,977			4,584,681	612,035	
5C22	Lymington Yacht Haven to Saltgrass Lane	0-20	HTL (potential MR at Saltgrass Lane)	29,839,084	1,246,000	21,155,911		5,337,118	21,155,911	3,784,017	localised MR for epoch for habitat creation managed realignment
		20-50	HTL (potential RTE Avon Water)	52,853,784		37,382,022		91,455,771	58,537,933	31,860,938	
		50-100	HTL	89,308,831		45,777,053		23,495,007	104,314,986	34,069,469	
5AHI02	Northney Farm	0-20	MR	1,353,925		959,933		448,000	959,933	317,632	MR for epoch for habitat creation managed realignment
		20-50	MR (HTRL)	6,859,752		3,065,877		3,752,000	4,025,809	1,469,496	
		50-100	MR (HTRL)	15,895,054	776,560	4,560,012		2,240,000	8,585,821	1,680,056	
5AHI03	Northney Farm to Mengham	0-20	HTL	8,458,084	1,610,000	5,996,782		5,864,736	5,996,782	4,158,098	MR for epoch for habitat creation managed realignment
		20-50	HTL	19,066,559		11,850,215		9,440,795	17,846,997	7,056,422	
		50-100	MR	36,373,056	1,393,784	15,269,282		10,400,000	33,116,279	8,034,022	
5AHI08	West Lane (Stoke) to Langstone Bridge	0-20	HTL (potential MR West Northney & Stoke)	17,322,149		12,281,404		15,375,840	12,281,404	10,901,471	localised MR for epoch for habitat creation managed realignment
		20-50	HTL	27,956,362		20,864,007		3,263,040	33,145,410	11,903,224	
		50-100	HTL	44,469,063		25,044,099		5,982,240	58,189,509	12,465,554	

ANNEX H3: NAI EROSION-ONLY LOSSES

			Residential			Commercial			Total Residential & Commercial					Agricultural Land (ha)						Agricultural Land (£)					
	Policy Unit	per epoch	Number of Properties	Total CV value	PV	Number of Properties	Total CV value	PV	Number of Properties	Total CV value	PV	total CV per PU	total PV per PU	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Total area of Agricultural Land Lost (ha)	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Total CV Cost of Agricultural Land Lost (£) per PU
5A01	Selsey West Beach to Bracklesham (Medmerry)	0-20										510,338	47,972			1.72			11.97			13,869			96,532
		20-50														3.92						31,608			
		50-100	2	510,338	47,972				**2**	**510,338**	47,972					6.33						51,056			
5A02	Bracklesham to East Wittering	0-20	2	510,338	361,830				**2**	**510,338**	361,830	58,902,566	10,404,166			3.07			29.38			24,754			236,919
		20-50	83	21,179,027	6,501,961	2	198750	61,016	**85**	**21,377,777**	6,562,978					9.50						76,600			
		50-100	145	36,999,505	3,477,953	1	14945.65	1,405	**146**	**37,014,451**	3,479,358					16.81						135,566			
5A03	East Wittering to Cakeham	0-20										10,972,267	1,629,254			0.26			20.22			2,096			163,053
		20-50	11	2,806,859	861,706				**11**	**2,806,859**	861,706					5.30						42,735			
		50-100	32	8,165,408	767,548				**32**	**8,165,408**	767,548					14.66						118,222			
5A04	Cakeham (including East Head) to Ella Nore Lane	0-20														1.36			8.11			10,966			65,400
		20-50														2.50						20,158			
		50-100														4.25						34,276			
5A05	Ella Nore Lane to Fishbourne	0-20																							
		20-50																							
		50-100																							
5A06	Fishbourne	0-20																							
		20-50																							
		50-100																							
5A07	Fishbourne to west of Cobnor Point	0-20																							
		20-50																							
		50-100																							
5A08	west of Cobnor Point to Chidham Point	0-20																							
		20-50																							
		50-100																							
5A09	Chidham Point to Nutbourne	0-20																							
		20-50																							
		50-100																							
5A10	Nutbourne	0-20																							
		20-50																							
		50-100																							
5A11	Nutbourne to Prinsted	0-20																							
		20-50																							
		50-100																							
5A12	Prinsted to Stanbury Point	0-20																							
		20-50																							
		50-100																							
5A13	Stanbury Point to Marker Point	0-20																							
		20-50																							
		50-100																							
5A14	Marker Point to Wickor Point	0-20																							
		20-50																							
		50-100																							
5A15	Wickor Point to Emsworth Yacht Haven	0-20																							
		20-50																							
		50-100																							
5A16	Emsworth Yacht Haven to Maisemore Gardens	0-20										255,169	23,986												
		20-50																							
		50-100	1	255,169	23,986				**1**	**255,169**	23,986														
5A17	Maisemore Gardens to Wade Lane	0-20																							
		20-50																							
		50-100																							
5A18	Wade Lane to Southmoor Lane	0-20																							
		20-50																							
		50-100																							
5A19	Southmoor Lane to Farlington Marshes (east)	0-20																							
		20-50																							
		50-100																							
5A20	Farlington Marshes (east) to Farlington Marshes (west)	0-20																							
		20-50																							
		50-100																							
5A21	Farlington Marshes (west) to Cador Drive	0-20																							
		20-50																							
		50-100																							
5A22	Cador Drive to A27	0-20																							
		20-50																							
		50-100																							
5A23	A27 to Fleetlands (MOD boundary)	0-20										1,540,742	379,243												
		20-50	5	1,100,530	337,863				**5**	**1,100,530**	337,863														
		50-100	2	440,212	41,380				**2**	**440,212**	41,380														

			Residential			Commercial			Total Residential & Commercial					Agricultural Land (ha)						Agricultural Land (£)					
	Policy Unit	per epoch	Number of Properties	Total CV value	PV	Number of Properties	Total CV value	PV	Number of Properties	Total CV value	PV	total CV per PU	total PV per PU	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Total area of Agricultural Land Lost (ha)	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Total CV Cost of Agricultural Land Lost (£) per PU
5A24	Fleetlands (MOD Boundary) to Quay Lane (MOD boundary)	0-20																							
		20-50																							
		50-100																							
5A25	Quay Lane (MOD boundary) to Portsmouth Harbour entrance (west)	0-20										4,934,250	463,820												
		20-50																							
		50-100	31	4,563,541	428,973	3	370709.4	34,847	**34**	**4,934,250**	463,820														
5B01	Portsmouth Harbour entrance to Gilkicker Point	0-20																							
		20-50																							
		50-100																							
5B02	Gilkicker Point to Lee-on-the-Solent	0-20																							
		20-50																							
		50-100																							
5B03	Lee-on-the-Solent to Meon Road, Titchfield Haven	0-20										2,191,267	252,862				0.08		0.47				511		3,030
		20-50	1	220,106	67,573	1			**2**	**220,106**	67,573						0.09						575		
		50-100	8	1,760,848	165,520	4	210312.5	19,769	**12**	**1,971,161**	185,289						0.30						1,943		
5B04	Meon Road, Titchfield Haven to Hook Park	0-20										1,760,848	212,402				0.40		12.69				2,557		91,185
		20-50	1	220,106	67,573				**1**	**220,106**	67,573				1.45	0.02	0.54				17,081	4,757	3,452		
		50-100	7	1,540,742	144,830				**7**	**1,540,742**	144,830				4.12	2.24	0.90				29,108	18,086	5,747		
5C01	Hook Park to Warsash North	0-20																							
		20-50																							
		50-100																							
5C02	Warsash North to Swanwick Shore Road	0-20															0.48		2.50				3,069		15,982
		20-50															0.76						4,859		
		50-100															1.26						8,055		
5C03	Swanwick Shore Road to Bursledon Bridge	0-20															0.33		0.83				2,110		5,848
		20-50															0.19						1,215		
		50-100														0.31						2,524			
5C04	Bursledon Bridge to Curbridge to Botley to Satchell Marshes	0-20										144,022	13,538	1.14	0.13	1.53	0.43	0.38	20.04	8,046	918	12,337	2,749	2,429	146,335
		20-50												1.84	0.20	2.47	0.91	0.60		12,987	1,412	19,916	5,818	3,836	
		50-100				1	144021.7	13,538	**1**	**144,022**	13,538			3.11	0.33	4.22	1.74	1.01		21,951	2,329	34,026	11,124	6,457	
5C05	Satchell Marshes to Hamble Common Point	0-20																							
		20-50																							
		50-100																							
5C06	Hamble Common Point to Hamble Oil Terminal	0-20																							
		20-50																							
		50-100																							
5C07	Hamble Oil Terminal to Ensign Industrial Park	0-20																							
		20-50																							
		50-100																							
5C08	Ensign Industrial Park to Cliff House	0-20																							
		20-50																							
		50-100																							
5C09	Cliff House to Netley Castle	0-20																							
		20-50																							
		50-100																							
5C10	Netley Castle to Weston Point	0-20																							
		20-50																							
		50-100																							
5C11	Weston Point to Woodmill Lane	0-20																							
		20-50																							
		50-100																							
5C12	Woodmill Lane to Redbridge	0-20																							
		20-50																							
		50-100																							
5C13	Lower Test Valley	0-20																							
		20-50																							
		50-100																							
5C14	Redbridge to Calshot Spit	0-20																	4.81						30,756
		20-50																							
		50-100															4.81						30,756		
5C15	Calshot Spit	0-20																							
		20-50																							
		50-100																							
5C16	Calshot Spit to Inchmery	0-20										2,145,070	201,637		0.44	0.73		0.22	11.71		3,106	5,886		1,406	82,544
		20-50													0.57	1.03		1.62			4,023	8,305		10,357	
		50-100	8	2,081,320	195,644	4	63750	5,993	**12**	**2,145,070**	201,637				1.45	1.86		3.79			10,235	14,997		24,229	
5C17	Inchmery to Salternshill	0-20													0.09		0.70		4.57		614		4,475		29,700
		20-50													0.22		1.11				1,553		7,096		
		50-100													0.45		2.00				3,176		12,786		
5C18	Salternshill to Park Shore	0-20															0.42		2.65				2,685		16,941
		20-50															0.69						4,411		
		50-100															1.54						9,845		
5C19	Park Shore to Sowley	0-20																	0.79						5,576
		20-50													0.19						1,341				
		50-100													0.60						4,235				

			Residential			Commercial			Total Residential & Commercial					Agricultural Land (ha)						Agricultural Land (£)					
Policy Unit		per epoch	Number of Properties	Total CV value	PV	Number of Properties	Total CV value	PV	Number of Properties	Total CV value	PV	total CV per PU	total PV per PU	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Total area of Agricultural Land Lost (ha)	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Total CV Cost of Agricultural Land Lost (£) per PU
5C20	Sowley to Elmer's Court	0-20													0.20				7.29		1,412				55,886
		20-50													0.59						4,164				
		50-100													2.09	4.41					14,752	35,558			
5C21	Elmer's Court to Lymington Yacht Haven	0-20																							
		20-50																							
		50-100																							
5C22	Lymington Yacht Haven to Saltgrass Lane	0-20																							
		20-50																							
		50-100																							
5F01	Hurst Spit	0-20																							
		20-50																							
		50-100																							
5API01	Langstone Harbour entrance (west) (harbour) to Portsmouth Harbour	0-20										141,195	13,272												
		20-50																							
		50-100	1	141,195	13,272				**1**	**141,195**	13,272														
5API02	Langstone Harbour entrance (west) (open coast) to Portsmouth	0-20										268,750	82,506												
		20-50				1	268750	82,506	**1**	**268,750**	82,506														
		50-100																							
5AHI01	Langstone Bridge to Northney Farm	0-20																							
		20-50																							
		50-100																							
5AHI02	Northney Farm	0-20																							
		20-50																							
		50-100																							
5AHI03	Northney Farm to Mengham	0-20																							
		20-50																							
		50-100																							
5AHI04	Mengham to Chichester Harbour entrance (west)	0-20																							
		20-50																							
		50-100																							
5AHI05	Chichester Harbour entrance (west) to Langstone Harbour	0-20										36,810,618	7,103,075												
		20-50	92	17,102,708	5,250,531				**92**	**17,102,708**	5,250,531														
		50-100	103	19,147,597	1,799,874	9	560312.5	52,669	**112**	**19,707,910**	1,852,543														
5AHI06	Langstone Harbour entrance (east) to North Shore Road, New Town	0-20																							
		20-50																							
		50-100																							
5AHI07	North Shore Road, New Town to West Lane (Stoke)	0-20																							
		20-50																							
		50-100																							
5AHI08	West Lane (Stoke) to Langstone Bridge	0-20																							
		20-50																							
		50-100																							

ANNEX H4: NAI FLOOD LOSSES

Policy Unit		2007														
		Residential			Commercial			Total Residential & Commercial			Agricultural Land (£)					
		Number of Properties	Total CV value	PV	Number of Properties	Total CV value	PV	Number of Properties	Total CV value	PV	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Total CV value
5A01	Selsey West Beach to Bracklesham (Medmerry)	78	19,903,182	3,920,927	9	388,030	76,442	87	20,291,212	3,997,369		992,311	4,338,374	7,882		5,338,567
5A02	Bracklesham to East Wittering	257	65,578,433	12,918,951	1	5,855	1,153	258	65,584,288	12,920,105		19,622	397,655			417,277
5A03	East Wittering to Cakeham	51	13,013,619	2,563,683	2	43,125	8,496	53	13,056,744	2,572,179			181,622			181,622
5A04	Cakeham (including East Head) to Ella Nore Lane	14	3,572,366	703,756				14	3,572,366	703,756		75,199	444,070			519,269
5A05	Ella Nore Lane to Fishbourne	65	16,585,985	3,267,439	15	744,701	146,706	80	17,330,686	3,414,145	336,116	635,528	425,734			1,397,378
5A06	Fishbourne										254,098	3,247				257,345
5A07	Fishbourne to west of Cobnor Point	43	10,972,267	2,161,537	2			45	10,972,267	2,161,537	502,691	84,205	220,608			807,504
5A08	west of Cobnor Point to Chidham Point										8,230	329,008				337,238
5A09	Chidham Point to Nutbourne										16,869	115,897				132,766
5A10	Nutbourne	3	765,507	150,805	1	34,868	6,869	4	800,375	157,674	3,529					3,529
5A11	Nutbourne to Prinsted	29	7,399,901	1,457,780	16	1,715,316	337,917	45	9,115,217	1,795,698	139,754	126,555		130,927		397,236
5A12	Prinsted to Stanbury Point				1			1				4,376		208,665		213,041
5A13	Stanbury Point to Marker Point	5	1,275,845	251,341	1			6	1,275,845	251,341						
5A14	Marker Point to Wickor Point	159	40,571,871	7,992,659	2			161	40,571,871	7,992,659				3,452		3,452
5A15	Wickor Point to Emsworth Yacht Haven	50	12,758,450	2,513,415	5	232,065	45,717	55	12,990,515	2,559,131	86,676	32,962		536,175		655,813
5A16	Emsworth Yacht Haven to Maisemore Gardens	246	45,731,154	9,009,037	17	859,258	169,274	263	46,590,412	9,178,311		2,541		6,265		8,806
5A17	Maisemore Gardens to Wade Lane										64,075	5,950				70,025
5A18	Wade Lane to Southmoor Lane	101	18,775,799	3,698,832	31	19,995,209	3,939,056	132	38,771,008	7,637,889	230,608					230,608
5A19	Southmoor Lane to Farlington Marshes (east)	55	10,224,445	2,014,216	25	4,728,475	931,510	80	14,952,920	2,945,725	156,136					156,136
5A20	Farlington Marshes (east) to Farlington Marshes (west)	294	41,511,330	8,177,732	20	5,185,769	1,021,596	314	46,697,099	9,199,329						
5A21	Farlington Marshes (west) to Cador Drive	4,351	614,339,445	121,024,871	364	1,859,800,004	366,380,601	4,715	2,474,139,449	487,405,471		141				141
5A22	Cador Drive to A27											52,711				52,711
5A23	A27 to Fleetlands (MOD boundary)											3,466				3,466
5A24	Fleetlands (MOD Boundary) to Quay Lane (MOD boundary)															
5A25	Quay Lane (MOD boundary) to Portsmouth Harbour entrance (west)	750	110,408,250	21,750,425	92	20,497,970	4,038,100	842	130,906,220	25,788,525						
5B01	Portsmouth Harbour entrance to Gilkicker Point															
5B02	Gilkicker Point to Meon Road, Titchfield Haven	110	16,193,210	3,190,062	3	107,887	21,254	113	16,301,097	3,211,316						
5B03	Meon Road, Titchfield Haven to Hook Park	53	11,665,618	2,298,127				53	11,665,618	2,298,127		91,003	61,336	394,546		546,885
5C01	Hook Park to Warsash North				7	369,211	72,734	7	369,211	72,734		122,094	445,247	612,743		1,180,084
5C02	Warsash North to Swanwick Shore Road	9	1,980,954	390,248	2	139,130	27,409	11	2,120,084	417,657						
5C03	Swanwick Shore Road to Bursledon Bridge	11	2,421,166	476,970	14	1,916,190	377,489	25	4,337,356	854,459						

Policy Unit		2025														
		Residential			Commercial			Total Residential & Commercial			Agricultural Land (£)					
		Number of Properties	Total CV value	PV	Number of Properties	Total CV value	PV	Number of Properties	Total CV value	PV	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Total CV value
5A01	Selsey West Beach to Bracklesham (Medmerry)	83	21,127,993	4,162,215	9	388,030	76,442	**92**	**21,516,023**	**4,238,657**		1,322,997	4,498,282	4,729		5,826,009
5A02	Bracklesham to East Wittering	445	113,448,137	22,349,283	2	38,731	7,630	**446**	**113,486,868**	**22,356,913**		157,307	683,736			841,043
5A03	East Wittering to Cakeham	97	24,751,393	4,876,024	6	246,717	48,603	**103**	**24,998,110**	**4,924,628**			238,819			238,819
5A04	Cakeham (including East Head) to Ella Nore Lane	18	4,593,042	904,829				**18**	**4,593,042**	**904,829**		77,475	434,316			511,791
5A05	Ella Nore Lane to Fishbourne	120	30,569,246	6,022,142	21	1,203,545	237,098	**140**	**31,772,791**	**6,259,240**	440,889	784,825	486,175			1,711,890
5A06	Fishbourne	8	1,939,284	382,039	0			**8**	**1,939,284**	**382,039**	304,720	17,476				322,197
5A07	Fishbourne to west of Cobnor Point	246	62,720,540	12,355,946	14	840,514	165,581	**260**	**63,561,055**	**12,521,528**	984,310	153,619	249,564			1,387,493
5A08	west of Cobnor Point to Chidham Point	1	204,135	40,215				**1**	**204,135**	**40,215**	78,937	301,870				380,807
5A09	Chidham Point to Nutbourne	14	3,572,366	703,756	1	91,250	17,976	**15**	**3,663,616**	**721,732**	134,912	123,774				258,686
5A10	Nutbourne	18	4,644,076	914,883	3	158,988	31,321	**21**	**4,803,064**	**946,204**	20,384	395				20,780
5A11	Nutbourne to Prinsted	46	11,686,740	2,302,288	19	1,924,536	379,134	**65**	**13,611,276**	**2,681,421**	158,142	128,334		130,007		416,483
5A12	Prinsted to Stanbury Point				1			**1**				4,037		207,054		211,091
5A13	Stanbury Point to Marker Point	3	765,507	150,805	1			**4**	**765,507**	**150,805**						
5A14	Marker Point to Wickor Point	170	43,429,764	8,555,663	2			**172**	**43,429,764**	**8,555,663**				3,196		3,196
5A15	Wickor Point to Emsworth Yacht Haven	51	13,064,653	2,573,737	5	218,913	43,126	**57**	**13,283,566**	**2,616,862**	104,322	60,998		534,308		699,627
5A16	Emsworth Yacht Haven to Maisemore Gardens	284	52,795,316	10,400,677	17	981,335	193,323	**301**	**53,776,651**	**10,594,000**		5,534		3,759		9,293
5A17	Maisemore Gardens to Wade Lane										85,761	10,880				96,641
5A18	Wade Lane to Southmoor Lane	108	20,114,272	3,962,512	31	19,410,186	3,823,807	**140**	**39,524,458**	**7,786,318**	295,099					295,099
5A19	Southmoor Lane to Farlington Marshes (east)	65	12,009,075	2,365,788	23	4,588,258	903,887	**88**	**16,597,333**	**3,269,675**	230,110					230,110
5A20	Farlington Marshes (east) to Farlington Marshes (west)	299	42,189,066	8,311,246	20	5,185,769	1,021,596	**319**	**47,374,835**	**9,332,842**						
5A21	Farlington Marshes (west) to Cador Drive	4,975	702,501,603	138,392,816	406	1,208,378,137	238,050,493	**5,381**	**1,910,879,740**	**376,443,309**		3,823				3,823
5A22	Cador Drive to A27	0	88,042	17,344	1			**1**	**88,042**	**17,344**		115,519				115,519
5A23	A27 to Fleetlands (MOD boundary)	137	30,198,543	5,949,113	30	13,662,786	2,691,569	**168**	**43,861,329**	**8,640,682**		14,914				14,914
5A24	Fleetlands (MOD Boundary) to Quay Lane (MOD boundary)															
5A25	Quay Lane (MOD boundary) to Portsmouth Harbour entrance (west)	1,655	243,604,763	47,990,138	175	31,015,277	6,110,010	**1,830**	**274,620,040**	**54,100,148**						
5B01	Portsmouth Harbour entrance to Gilkicker Point	1	117,769	23,200				**1**	**117,769**	**23,200**						
5B02	Gilkicker Point to Meon Road, Titchfield Haven	226	33,269,686	6,554,128	6	237,350	46,758	**232**	**33,507,036**	**6,600,886**						
5B03	Meon Road, Titchfield Haven to Hook Park	64	14,130,805	2,783,769	6	527,151	103,849	**71**	**14,657,956**	**2,887,617**		111,260	67,674	399,576		578,510
5C01	Hook Park to Warsash North	2	528,254	104,066	8	453,483	89,336	**11**	**981,737**	**193,402**	1,575	149,489	485,830	621,742		1,258,636
5C02	Warsash North to Swanwick Shore Road	7	1,452,700	286,182	2	139,130	27,409	**9**	**1,591,830**	**313,591**						
5C03	Swanwick Shore Road to Bursledon Bridge	16	3,477,675	685,102	16	2,095,103	412,735	**31**	**5,572,778**	**1,097,837**						

Policy Unit		2108/2115																
		Residential			Commercial			Total Residential & Commercial			Agricultural Land (£)							
		Number of Properties	Total CV value	PV	Number of Properties	Total CV value	PV	Number of Properties	Total CV value	PV	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Total CV value of Agricultural Land Lost £	Total CV value of Agricultural Land Lost £	Total PV Value of Agricultural Land Lost £
5A01	Selsey West Beach to Bracklesham (Medmerry)	90	22,965,210	4,524,146	**9**	**388,030**	76,442	**99**	**23,353,240**	**4,600,588**		1,819,027	4,738,144			6,557,172	17,721,747	3,491,184
5A02	Bracklesham to East Wittering	726	185,252,694	36,494,781	**3**	**88,043**	17,345	**729**	**185,340,737**	**36,512,125**		363,834	1,112,859			1,476,692	2,735,012	538,797
5A03	East Wittering to Cakeham	166	42,358,054	8,344,537	**11**	**552,104**	108,764	**177**	**42,910,158**	**8,453,301**			324,614			324,614	745,055	146,776
5A04	Cakeham (including East Head) to Ella Nore Lane	24	6,124,056	1,206,439				**24**	**6,124,056**	**1,206,439**		80,888	419,687			500,575	1,531,634	301,732
5A05	Ella Nore Lane to Fishbourne	202	51,544,138	10,154,195	**29**	**1,891,810**	372,687	**231**	**53,435,948**	**10,526,882**	598,049	1,008,771	576,837			2,183,657	5,292,924	1,042,706
5A06	Fishbourne	19	4,848,211	955,098	**1**			**20**	**4,848,211**	**955,098**	380,654	38,821				419,474	999,016	196,806
5A07	Fishbourne to west of Cobnor Point	550	140,342,950	27,647,561	**32**	**2,101,286**	413,953	**582**	**142,444,236**	**28,061,514**	1,706,737	257,741	292,998			2,257,476	4,452,473	877,137
5A08	west of Cobnor Point to Chidham Point	2	510,338	100,537				**2**	**510,338**	**100,537**	184,998	261,164				446,162	1,164,207	229,349
5A09	Chidham Point to Nutbourne	35	8,930,915	1,759,390	**2**	**228,125**	44,941	**37**	**9,159,040**	**1,804,331**	311,976	135,590				447,566	839,019	165,287
5A10	Nutbourne	41	10,461,929	2,061,000	**5**	**345,167**	67,998	**46**	**10,807,096**	**2,128,998**	45,667	988				46,655	70,964	13,980
5A11	Nutbourne to Prinsted	71	18,116,999	3,569,049	**24**	**2,238,365**	440,958	**95**	**20,355,364**	**4,010,007**	185,725	131,002		128,626		445,352	1,259,072	248,037
5A12	Prinsted to Stanbury Point				**1**			**1**				3,529		204,638		208,167	632,299	124,563
5A13	Stanbury Point to Marker Point				**4**	**765,507**	150,805	**4**	**765,507**	**150,805**								
5A14	Marker Point to Wickor Point	187	47,716,603	9,400,171	**2**			**189**	**47,716,603**	**9,400,171**				2,813		2,813	9,462	1,864
5A15	Wickor Point to Emsworth Yacht Haven	53	13,523,957	2,664,220	**6**	**199,185**	39,239	**59**	**13,723,142**	**2,703,459**	130,790	103,051		531,508		765,349	2,120,789	417,795
5A16	Emsworth Yacht Haven to Maisemore Gardens	341	63,391,559	12,488,137	**17**	**1,164,450**	229,397	**358**	**64,556,009**	**12,717,534**		10,023				10,023	28,122	5,540
5A17	Maisemore Gardens to Wade Lane										118,290	18,274				136,564	303,230	59,736
5A18	Wade Lane to Southmoor Lane	119	22,121,981	4,358,030	**32**	**18,532,652**	3,650,932	**151**	**40,654,633**	**8,008,963**	391,834					391,834	917,541	180,756
5A19	Southmoor Lane to Farlington Marshes (east)	79	14,686,021	2,893,146	**20**	**4,377,932**	862,453	**99**	**19,063,953**	**3,755,599**	341,071					341,071	727,317	143,281
5A20	Farlington Marshes (east) to Farlington Marshes (west)	306	43,205,670	8,511,517	**20**	**5,185,769**	1,021,596	**326**	**48,391,439**	**9,533,113**								
5A21	Farlington Marshes (west) to Cador Drive	5912	834,744,840	164,444,733	**469**	**231,245,337**	45,555,331	**6381**	**1,065,990,177**	**210,000,065**		9,345				9,345	13,309	2,622
5A22	Cador Drive to A27	1	220,106	43,361	**2**			**3**	**220,106**	**43,361**		209,730				209,730	377,960	74,458
5A23	A27 to Fleetlands (MOD boundary)	343	75,496,358	14,872,783	**76**	**34,156,965**	6,728,922	**419**	**109,653,323**	**21,601,705**		32,087				32,087	50,467	9,942
5A24	Fleetlands (MOD Boundary) to Quay Lane (MOD boundary)																	
5A25	Quay Lane (MOD boundary) to Portsmouth Harbour entrance (west)	3012	443,399,532	87,349,708	**300**	**46,791,237**	9,217,874	**3312**	**490,190,769**	**96,567,581**								
5B01	Portsmouth Harbour entrance to Gilkicker Point	2	294,422	58,001				**2**	**294,422**	**58,001**								
5B02	Gilkicker Point to Meon Road, Titchfield Haven	400	58,884,400	11,600,227	**10**	**431,546**	85,015	**410**	**59,315,946**	**11,685,241**								
5B03	Meon Road, Titchfield Haven to Hook Park	81	17,828,586	3,512,231	**16**	**1,317,878**	259,622	**97**	**19,146,464**	**3,771,853**	3,939	190,581	546,705	635,240		1,376,464	2,501,859	492,866
5C01	Hook Park to Warsash North	6	1,320,636	260,165	**10**	**579,891**	114,239	**16**	**1,900,527**	**374,404**							2,438,720	480,428
5C02	Warsash North to Swanwick Shore Road	3	660,318	130,083	**3**	**139,130**	27,409	**6**	**799,448**	**157,491**				122,111		122,111	122,111	24,056
5C03	Swanwick Shore Road to Bursledon Bridge	23	5,062,438	997,300	**18**	**2,363,473**	465,604	**41**	**7,425,911**	**1,462,904**				48,279		48,279	48,279	9,511

Policy Unit		2007														
		Residential			Commercial			Total Residential & Commercial			Agricultural Land (£)					
		Number of Properties	Total CV value	PV	Number of Properties	Total CV value	PV	Number of Properties	Total CV value	PV	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Total CV value
5C04	Bursledon Bridge to Curbridge to Botley to Satchell Marshes	3	644,721	127,010	10	1,345,655	265,094	13	1,990,376	392,104				99,966		99,966
5C05	Satchell Marshes to Hamble Common Point	9	1,934,163	381,030	18	399,718	78,744	27	2,333,881	459,774				42,519		42,519
5C06	Hamble Common Point to Hamble Oil Terminal				54	6,229,096	1,227,132	54	6,229,096	1,227,132	110,745	11,364	203,594	43,536	93,912	463,151
5C07	Hamble Oil Terminal to Ensign Industrial Park															
5C08	Ensign Industrial Park to Cliff House															
5C09	Cliff House to Netley Castle	9	1,934,163	381,030				9	1,934,163	381,030						
5C10	Netley Castle to Weston Point	191	30,600,874	6,028,372				191	30,600,874	6,028,372						
5C11	Weston Point to Woodmill Lane	235	37,650,290	7,417,107	61	15,190,338	2,992,497	296	52,840,628	10,409,604						
5C12	Woodmill Lane to Redbridge	1,283	205,554,562	40,494,249	581	226,922,852	44,703,802	1,864	432,477,414	85,198,051						
5C13	Lower Test Valley															
5C14	Redbridge to Calshot Spit	566	147,253,390	29,008,918	214	44,802,702	8,826,132	780	192,056,092	37,835,050						
5C15	Calshot Spit														879,616	879,616
5C16	Calshot Spit to Inchmery	1	260,165	51,253				1	260,165	51,253			2,911	389,527		392,438
5C17	Inchmery to Salternshill	1	260,165	51,253				1	260,165	51,253			653			653
5C18	Salternshill to Park Shore	16	4,162,640	820,040	1			17	4,162,640	820,040		28,939	3,951		208,409	241,299
5C19	Park Shore to Sowley	9	2,341,485	461,273				9	2,341,485	461,273		35,997		89,885		125,882
5C20	Sowley to Elmer's Court	3	780,495	153,758				3	780,495	153,758			57,893	681,230		739,124
5C21	Elmer's Court to Lymington Yacht Haven	70	18,211,550	3,587,675	22	1,980,964	390,250	92	20,192,514	3,977,925		122,320				122,320
5C22	Lymington Yacht Haven to Saltgrass Lane	109	28,357,985	5,586,523	23	1,177,736	232,014	132	29,535,721	5,818,537		87,593	215,770			303,363
5F01	Hurst Spit	61	15,870,065	3,126,403	7	373,783	73,635	68	16,243,848	3,200,038		45,928	324,171	98,189		468,288
5API01	Langstone Harbour entrance (west) (harbour) to Portsmouth Harbour entrance (east)	5,181	731,531,295	144,111,665	607	231,873,451	45,679,070	5,788	963,404,746	189,790,735		1,147,078		352,934	452,491	1,952,504
5API02	Langstone Harbour entrance (west) (open coast) to Portsmouth Harbour entrance (east)	5,028	709,928,460	139,855,907	404	45,014,907	8,867,937	5,432	754,943,367	148,723,843						
5AHI01	Langstone Bridge to Northney Farm	48	8,923,152	1,757,861	12	695,252	136,965	60	9,618,404	1,894,826		67,597			229,302	296,899
5AHI02	Northney Farm	7	1,301,293	256,355	1	52,632	10,368	8	1,353,925	266,723						
5AHI03	Northney Farm to Mengham	38	7,064,162	1,391,640	8	1,393,922	274,603	46	8,458,084	1,666,243						
5AHI04	Mengham to Chichester Harbour entrance (west)	504	93,693,096	18,457,540	4	134,868	26,569	508	93,827,964	18,484,109						
5AHI05	Chichester Harbour entrance (west) to Langstone Harbour entrance (east)	501	93,135,399	18,347,674	32	1,526,783	300,776	533	94,662,182	18,648,450						
5AHI06	Langstone Harbour entrance (east) to North Shore Road, New Town	66	12,269,334	2,417,059	1			67	12,269,334	2,417,059	120,697	349,950				470,647
5AHI07	North Shore Road, New Town to West Lane (Stoke)	30	5,576,970	1,098,663	1	5,600	1,103	31	5,582,570	1,099,766		272,591		552,093		824,684
5AHI08	West Lane (Stoke) to Langstone Bridge	89	16,545,011	3,259,367	2	775,493	152,772	91	17,320,504	3,412,139		1,645				1,645

Policy Unit		2025														
		Residential			Commercial			Total Residential & Commercial			Agricultural Land (£)					
		Number of Properties	Total CV value	PV	Number of Properties	Total CV value	PV	Number of Properties	Total CV value	PV	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Total CV value
5C04	Bursledon Bridge to Curbridge to Botley to Satchell Marshes	13	2,707,828	533,442	17	807,393	159,056	**29**	**3,515,221**	**692,499**				108,824		108,824
5C05	Satchell Marshes to Hamble Common Point	8	1,676,275	330,226	17	386,022	76,046	**25**	**2,062,296**	**406,272**				44,823		44,823
5C06	Hamble Common Point to Hamble Oil Terminal				45	5,686,773	1,120,294	**45**	**5,686,773**	**1,120,294**	137,566	13,397	237,427	60,260	105,726	554,376
5C07	Hamble Oil Terminal to Ensign Industrial Park				4	704,130	138,714	**4**	**704,130**	**138,714**						
5C08	Ensign Industrial Park to Cliff House															
5C09	Cliff House to Netley Castle	21	4,427,084	872,136				**21**	**4,427,084**	**872,136**						
5C10	Netley Castle to Weston Point	134	21,500,719	4,235,642				**134**	**21,500,719**	**4,235,642**						
5C11	Weston Point to Woodmill Lane	446	71,487,487	14,083,035	84	19,847,184	3,909,895	**530**	**91,334,671**	**17,992,930**						
5C12	Woodmill Lane to Redbridge	2,502	400,887,471	78,974,832	838	1,870,801,433	368,547,882	**3,340**	**2,271,688,903**	**447,522,714**						
5C13	Lower Test Valley															
5C14	Redbridge to Calshot Spit	810	210,629,584	41,494,028	237	46,686,542	9,197,249	**1,046**	**257,316,126**	**50,691,277**						
5C15	Calshot Spit														945,828	945,828
5C16	Calshot Spit to Inchmery	1	260,165	51,253				**1**	**260,165**	**51,253**			3,411	452,940		456,351
5C17	Inchmery to Salternshill	15	3,798,409	748,287	2	276,413	54,453	**17**	**4,074,822**	**802,740**			947			947
5C18	Salternshill to Park Shore	16	4,162,640	820,040	1			**17**	**4,162,640**	**820,040**		57,709	30,172		349,489	437,369
5C19	Park Shore to Sowley	12	3,174,013	625,281				**12**	**3,174,013**	**625,281**		55,139		152,612		207,751
5C20	Sowley to Elmer's Court	4	1,092,693	215,261				**4**	**1,092,693**	**215,261**		113	74,245	708,797		783,155
5C21	Elmer's Court to Lymington Yacht Haven	192	49,951,680	9,840,481	34	3,622,076	713,549	**226**	**53,573,756**	**10,554,030**		180,085				180,085
5C22	Lymington Yacht Haven to Saltgrass Lane	197	51,252,505	10,096,743	23	1,189,692	234,369	**220**	**52,442,197**	**10,331,113**		135,279	276,308			411,587
5F01	Hurst Spit	85	22,114,025	4,356,463	17	907,058	178,690	**102**	**23,021,083**	**4,535,153**		55,765	328,363	58,913		443,042
5API01	Langstone Harbour entrance (west) (harbour) to Portsmouth Harbour entrance (east)	8,052	1,136,930,379	223,975,285	719	252,316,915	49,706,432	**8,771**	**1,389,247,294**	**273,681,717**		1,452,589		397,933	323,748	2,174,270
5API02	Langstone Harbour entrance (west) (open coast) to Portsmouth Harbour entrance (east)	6,632	936,461,718	184,482,958	519	58,023,845	11,430,697	**7,151**	**994,485,563**	**195,913,656**						
5AHI01	Langstone Bridge to Northney Farm	56	10,410,344	2,050,838	19	1,351,144	266,175	**75**	**11,761,488**	**2,317,013**		74,167			137,581	211,748
5AHI02	Northney Farm	37	6,803,903	1,340,369	2	55,849	11,002	**39**	**6,859,752**	**1,351,371**						
5AHI03	Northney Farm to Mengham	95	17,697,585	3,486,424	8	1,368,974	269,688	**103**	**19,066,559**	**3,756,112**						
5AHI04	Mengham to Chichester Harbour entrance (west)	694	129,013,906	25,415,739	7	184,700	36,386	**701**	**129,198,606**	**25,452,125**						
5AHI05	Chichester Harbour entrance (west) to Langstone Harbour entrance (east)	626	116,409,954	22,932,761	34	1,533,158	302,032	**660**	**117,943,112**	**23,234,793**						
5AHI06	Langstone Harbour entrance (east) to North Shore Road, New Town	90	16,805,270	3,310,638	1			**91**	**16,805,270**	**3,310,638**	226,066	366,946				593,012
5AHI07	North Shore Road, New Town to West Lane (Stoke)	53	9,815,467	1,933,647	1	5,600	1,103	**54**	**9,821,067**	**1,934,750**		468,289		584,035		1,052,324
5AHI08	West Lane (Stoke) to Langstone Bridge	146	27,178,434	5,354,151	3	775,493	152,772	**149**	**27,953,927**	**5,506,924**		2,435				2,435

Policy Unit		2108/2115																
		Residential			Commercial			Total Residential & Commercial			Agricultural Land (£)							
		Number of Properties	Total CV value	PV	Number of Properties	Total CV value	PV	Number of Properties	Total CV value	PV	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Total CV value of Agricultural Land Lost £	Total CV value of Agricultural Land Lost £	Total PV Value of Agricultural Land Lost £
5C04	Bursledon Bridge to Curbridge to Botley to Satchell Marshes	27	5,802,489	1,143,090	**27**			**54**	**5,802,489**	**1,143,090**	177,798	16,446	288,177	85,346	123,447	691,214	900,004	177,301
5C05	Satchell Marshes to Hamble Common Point	6	1,289,442	254,020	**15**	**365,478**	71,999	**21**	**1,654,920**	**326,019**							87,343	17,207
5C06	Hamble Common Point to Hamble Oil Terminal				**32**	**4,873,289**	960,038	**32**	**4,873,289**	**960,038**							1,017,527	200,453
5C07	Hamble Oil Terminal to Ensign Industrial Park				**11**	**1,760,326**	346,784	**11**	**1,760,326**	**346,784**								
5C08	Ensign Industrial Park to Cliff House																	
5C09	Cliff House to Netley Castle	38	8,166,466	1,608,794				**38**	**8,166,466**	**1,608,794**								
5C10	Netley Castle to Weston Point	49	7,850,486	1,546,546				**49**	**7,850,486**	**1,546,546**								
5C11	Weston Point to Woodmill Lane	763	122,243,282	24,081,927	**119**	**26,832,454**	5,285,993	**882**	**149,075,736**	**29,367,920**								
5C12	Woodmill Lane to Redbridge	4331	693,886,834	136,695,706	**1224**	**4,336,619,304**	854,314,003	**5555**	**5,030,506,138**	**991,009,709**								
5C13	Lower Test Valley														1,045,148	1,045,148	1,045,148	205,894
5C14	Redbridge to Calshot Spit	1175	305,693,875	60,221,693	**271**	**49,512,301**	9,753,923	**1446**	**355,206,176**	**69,975,617**			4,161	548,059		552,220	552,220	108,787
5C15	Calshot Spit												1,387			1,387	1,826,831	359,886
5C16	Calshot Spit to Inchmery	1	260,165	51,253				**1**	**260,165**	**51,253**		100,863	69,504		561,107	731,474	1,580,264	311,312
5C17	Inchmery to Salternshill	35	9,105,775	1,793,838	**5**	**691,033**	136,133	**40**	**9,796,808**	**1,929,971**		83,852		246,703		330,556	332,155	65,435
5C18	Salternshill to Park Shore	16	4,162,640	820,040	**1**			**17**	**4,162,640**	**820,040**		282	98,773	750,146		849,202	1,527,871	300,991
5C19	Park Shore to Sowley	17	4,422,805	871,293				**17**	**4,422,805**	**871,293**		266,733				266,733	600,366	118,272
5C20	Sowley to Elmer's Court	6	1,560,990	307,515				**6**	**1,560,990**	**307,515**		206,808	367,115			573,923	2,096,201	412,952
5C21	Elmer's Court to Lymington Yacht Haven	375	97,561,875	19,219,689	**52**	**6,083,743**	1,198,497	**427**	**103,645,618**	**20,418,187**		70,519	334,653			405,172	707,577	139,393
5C22	Lymington Yacht Haven to Saltgrass Lane	329	85,594,285	16,862,074	**24**	**1,207,627**	237,903	**353**	**86,801,912**	**17,099,977**		1,910,855		465,431	130,633	2,506,919	3,221,869	634,708
5F01	Hurst Spit	121	31,479,965	6,201,553	**32**	**1,706,970**	336,273	**153**	**33,186,935**	**6,537,826**		84,022				84,022	995,351	196,084
5API01	Langstone Harbour entrance (west) (harbour) to Portsmouth Harbour entrance (east)	12359	1,745,029,005	343,770,714	**886**	**282,982,112**	55,747,476	**13245**	**2,028,011,117**	**399,518,190**							4,126,773	812,974
5API02	Langstone Harbour entrance (west) (open coast) to Portsmouth Harbour entrance (east)	9039	1,276,261,605	251,423,536	**691**	**77,537,251**	15,274,838	**9730**	**1,353,798,856**	**266,698,375**								
5AHI01	Langstone Bridge to Northney Farm	68	12,641,132	2,490,303	**29**	**2,334,983**	459,992	**97**	**14,976,115**	**2,950,295**	78,629	308,165				386,794	895,441	176,402
5AHI02	Northney Farm	81	15,057,819	2,966,390	**4**	**60,675**	11,953	**85**	**15,118,494**	**2,978,343**	384,119	392,441				776,560	776,560	152,982
5AHI03	Northney Farm to Mengham	181	33,647,719	6,628,601	**8**	**1,331,553**	262,316	**189**	**34,979,272**	**6,890,917**		761,836		631,947		1,393,784	1,393,784	274,575
5AHI04	Mengham to Chichester Harbour entrance (west)	979	181,995,121	35,853,039	**11**	**259,447**	51,111	**990**	**182,254,568**	**35,904,150**		3,621				3,621	3,621	713
5AHI05	Chichester Harbour entrance (west) to Langstone Harbour entrance (east)	814	151,321,786	29,810,392	**36**	**1,542,721**	303,916	**850**	**152,864,507**	**30,114,308**								
5AHI06	Langstone Harbour entrance (east) to North Shore Road, New Town	127	23,609,173	4,651,007	**1**			**128**	**23,609,173**	**4,651,007**		494				494	1,064,153	209,638
5AHI07	North Shore Road, New Town to West Lane (Stoke)	87	16,173,213	3,186,123	**1**	**5,600**	1,103	**88**	**16,178,813**	**3,187,226**		248,572				248,572	2,125,580	418,739
5AHI08	West Lane (Stoke) to Langstone Bridge	232	43,128,568	8,496,328	**4**	**775,493**	152,772	**236**	**43,904,061**	**8,649,100**	326,001	239,001				565,002	569,082	112,109

EXPLANATIONS OF COLUMN HEADINGS FOR DEFENCE WORK COSTS AND SENSITIVITY TESTING DEFENCE WORK COSTS TABLES

a	Policy Unit	These relate to the shoreline frontages defined in main SMP document
b	Epoch	These relate to time periods used for policy setting (0-20 yrs; 20-50 yrs; 50-100 yrs)
c	Notes	Additional information on assumptions made
d	Replacement Length (B, L, G)	The length of shoreline (km) over which certain defence replacement activities are required during each epoch. B = beach schemes; L=linear defences; G=groynes or lower cost protection measures
e	Replacement Costs (£)	The cost of providing the replacement works in (d) during each epoch
f	Maintenance Length (B, L, G)	The length of shoreline (km) over which certain maintenance activities are required during each epoch. B = beach schemes; L=linear defences; G=groynes or lower cost protection measures
g	Maintenance Costs (£)	The cost of providing the maintenance works in (f) during each epoch
h	Transitional freshwater habitat creation (£/hectare)	The cost of creating transitional freshwater compensation habitat (includes secondary defences)
i	Offsetting HTL coastal squeeze (£/km of defence)	The cost of offsetting coastal squeeze caused by proposed HTL
j	Habitat creation costs (£)	The total cost of creating compensation habitat. Total of (h + i)
k	Total Cost (£m)	The total replacement, maintenance and habitat creation costs for epoch. This is the sum of (e + g + j)
l	Total with Optimism Bias (£m)	Optimism bias (at 60%) applied to all costs when examining viability, to reflect uncertainty in broad level analysis at SMP scale
m	Final Total (cumulative) (£m)	The cumulative total costs (including optimism bias)
n	PV Costs: Replacement (£m)	The Present Value of the costs of providing the Preferred Plan, in terms of replacement works. i.e. the values from (e) discounted to reflect timing of activities. This is a cumulative measure

0	PV Costs: Maintenance (£m)	The Present Value of the costs of providing the Preferred Plan, in terms of maintenance works. i.e. the values from (g) discounted to reflect timing of activities. This is a cumulative measure
p	PV Costs: Habitat Creation (£)	The Present Value of the costs of providing the Preferred Plan, in terms of habitat creation works. i.e. values from (j) discounted to reflect timing of activities. This is a cumulative measure
q	PV Cost: cumulative total (£m)	The sum of (n + o + p) per epoch
r	PV Cost: total (£m) per Policy Unit	The sum of (q) per policy unit

ANNEX H5: DEFENCE WORK COSTS

a	b	c	d			e	f			g	h	i	j	k	l	m	n	o	p	q	r
Policy Unit	Epoch	Notes	Replacement Length (B, L, G)			Replacement Costs (£)	Maintenance Length (B, L, G)			Maintenance Costs (£)	transitional freshwater habitat Creation (£/hectare)	offsetting HTL coastal squeeze (£/km of defence)	Habitat Creation Costs £	Total Cost (£m)	Total with Optimism Bias (£m)	Final Total (cumulative) (£m)	PV Costs: Replacement (£m)	PV Costs: Maintenance (£m)	PV Costs: Habitat Creation (£)	PV Cost: cumulative total (£m)	PV Cost: total (£m) per Policy Unit
			Replacement Length				Maintenance Length							Total Cost			PV Costs				Cumulative PV Total
Policy Unit	Epoch	Notes	B	L	G	Costs	B	L	G	Costs	Transitional freshwater habitat Creation (£/hectare)	Offsetting HTL coastal squeeze (£/km of defence)	Habitat Creation Costs £	Total Cost	With Optimism Bias	Cumulative Total	Replacement	Maintenance	Habitat Creation	Cumulative PV Total	
5A01		MR (localised HTL Medmerry Cliffs)																			35,687,300
Selsey West Beach to Bracklesham (Medmerry)	0-20			5		13,500,000		5		1,000,000				14,500,000	23,200,000	49,920,000	9,571,500	709,000		10,280,500	
	20-50	HTL		1		4,050,000		5		2,250,000				6,300,000	10,080,000		1,243,350	690,750		12,214,600	
	50-100	HTL		1		5,400,000		5		5,000,000				10,400,000	16,640,000		507,600	470,000		13,192,200	
5A02	0-20	HTL		3.34	3.36	11,032,890	0.06	3.34	3.36	1,365,494		701,338	701,338	13,099,721	20,959,554	50,331,443	7,822,319	968,135	497,248	9,287,702	33,123,269
Bracklesham to East Wittering	20-50	HTL			3.36	3,023,540	0.06	3.34	3.36	3,072,361		701,338	701,338	6,797,238	10,875,581		928,227	943,215	215,311	11,374,454	
	50-100	HTL			3.36	4,031,386	0.06	3.34	3.36	6,827,469		701,338	701,338	11,560,193	18,496,308		378,950	641,782	65,926	12,461,112	
5A03	0-20	HTL			1.54	925,004		1.48	1.54	604,603		311,434	311,434	1,841,041	2,945,666	25,706,680	655,828	428,664	220,806	1,305,298	9,962,705
East Wittering to Cakeham	20-50	HTL		1.48	1.54	7,393,725		1.47	1.54	1,354,500		308,700	308,700	9,056,925	14,491,080		2,269,874	415,832	94,771	4,085,774	
	50-100	HTL			1.54	1,850,009		1.47	1.54	3,010,000		308,700	308,700	5,168,709	8,269,934		173,901	282,940	29,018	4,571,633	
5A04	0-20	AM		1.70	1.12	5,259,418	1.70	1.70	1.12	1,242,663		357,000	357,000	6,859,081	10,974,530	30,972,635	3,728,928	881,048	253,113	4,863,088	19,914,856
Cakeham (including East Head) to Ella Nore Lane	20-50	AM	0.50		1.12	4,829,128	1.70	1.70	1.12	2,795,991		357,000	357,000	7,982,118	12,771,390		1,482,542	858,369	109,599	7,313,599	
	50-100	AM			1.12	1,344,000		1.70	1.12	2,815,697		357,000	357,000	4,516,697	7,226,716		126,336	264,676	33,558	7,738,168	
5A05	0-20	HTL (NPFA)		6.82		18,414,000		6.82		1,364,000		1,432,200	1,432,200	21,210,200	33,936,320	54,341,760	13,055,526	967,076	1,015,430	15,038,032	48,653,539
	20-50	HTL (NPFA)						6.82		3,069,000		1,432,200	1,432,200	4,501,200	7,201,920			942,183	439,685	16,419,900	
Ella Nore Lane to Fishbourne	50-100	HTL (NPFA) (localised MR Horse Pond)						6.82		6,820,000		1,432,200	1,432,200	8,252,200	13,203,520			641,080	134,627	17,195,607	
5A06	0-20	HTL (NPFA)		1.50		4,050,000		1.50		300,000		315,000	315,000	4,665,000	7,464,000		2,871,450	212,700	223,335	3,307,485	10,700,925
	20-50	HTL (NPFA)						1.50		675,000		315,000	315,000	990,000	1,584,000			207,225	96,705	3,611,415	
Fishbourne	50-100	HTL (NPFA)						1.5		1,500,000		315,000	315,000	1,815,000	2,904,000	11,952,000		141,000	29,610	3,782,025	
5A07																					69,340,603
Fishbourne to west of Cobnor Point	0-20	HTL (NPFA) (localised MR East Chidham)		9.72		26,244,000		9.72		1,943,800		2,040,990	2,040,990	30,228,790	48,366,064	77,445,312	18,606,996	1,378,154	1,447,062	21,432,212	
	20-50	HTL (NPFA)						9.72		4,373,550		2,040,990	2,040,990	6,414,540	10,263,264			1,342,680	626,584	23,401,476	
	50-100	HTL (NPFA)						9.72		9,719,000		2,040,990	2,040,990	11,759,990	18,815,984			913,586	191,853	24,506,915	
5A08	0-20	MR (NPFA)						2		400,000				400,000	640,000	5,280,000		283,600		283,600	1,591,400
west of Cobnor Point to Chidham Point	20-50	HTL (NPFA)						2		900,000				900,000	1,440,000			276,300		559,900	
	50-100	HTL (NPFA)						2		2,000,000				2,000,000	3,200,000			188,000		747,900	
5A09	0-20	HTL (NPFA)		0.86		2,322,000		0.86		171,075		179,629	179,629	2,672,705	4,276,327	6,835,616	1,646,298	121,292	127,357	1,894,948	6,128,766
Chidham Point to Nutbourne	20-50	HTL (NPFA)						0.86		384,920		179,629	179,629	564,549	903,278			118,170	55,146	2,068,264	
	50-100	HTL (NPFA)						0.86		855,377		179,629	179,629	1,035,006	1,656,010			80,405	16,885	2,165,555	
5A10	0-20	HTL (NPFA)		1.6		4,320,000		1.6		320,000		336,000	336,000	4,976,000	7,961,600		3,062,880	226,880	238,224	3,527,984	11,414,320
	20-50	HTL (NPFA)						1.6		720,000		336,000	336,000	1,056,000	1,689,600			221,040	103,152	3,852,176	
Nutbourne	50-100	HTL (NPFA)						1.6		1,600,000		336,000	336,000	1,936,000	3,097,600	12,748,800		150,400	31,584	4,034,160	
5A11	0-20	HTL		1.26		3,391,338		1.26		251,210		263,771	263,771	3,906,319	6,250,111	10,008,216	2,404,459	178,108	187,013	2,769,580	8,960,607
	20-50	HTL						1.26		565,223		263,771	263,771	828,994	1,326,390			173,523	80,978	3,024,082	
Nutbourne to Prinsted	50-100	HTL						1.26		1,256,051		263,771	263,771	1,519,822	2,431,715			118,069	24,794	3,166,945	
5A12	0-20	HTL		1.27		3,427,599		1.27		253,896		266,591	266,591	3,948,087	6,316,939	9,688,681	2,430,168	180,012	189,013	2,799,194	9,031,356
Prinsted to Stanbury Point	20-50	HTL						1.27		571,267		266,591	266,591	837,858	1,340,572			175,379	81,843	3,056,416	
	50-100	HTL						1.27		1,269,481				1,269,481	2,031,170			119,331		3,175,747	
5A13	0-20	HTL		2.18		5,886,000		2.18		436,000		457,800	457,800	6,779,800	10,847,680	17,370,240	4,173,174	309,124	324,580	4,806,878	15,552,011
Stanbury Point to Marker Point	20-50	HTL						2.18		981,000		457,800	457,800	1,438,800	2,302,080			301,167	140,545	5,248,590	
	50-100	HTL						2.18		2,180,000		457,800	457,800	2,637,800	4,220,480			204,920	43,033	5,496,543	
5A14	0-20	HTL		2		5,400,000		2		400,000		420,000	420,000	6,220,000	9,952,000	15,936,000	3,828,600	283,600	297,780	4,409,980	14,267,900
Marker Point to Wickor Point	20-50	HTL						2		900,000		420,000	420,000	1,320,000	2,112,000			276,300	128,940	4,815,220	
	50-100	HTL						2		2,000,000		420,000	420,000	2,420,000	3,872,000			188,000	39,480	5,042,700	
5A15	0-20	HTL		1.53		4,122,361		1.53		305,360		320,628		4,427,721	7,084,354	11,139,535	2,922,754	216,500		3,139,254	10,180,003
Wickor Point to Emsworth Yacht Haven	20-50	HTL						1.53		687,060		320,628	320,628	1,007,688	1,612,301			210,927	98,433	3,448,615	
	50-100	HTL						1.53		1,526,800				1,526,800	2,442,881			143,519		3,592,134	
5A16	0-20	HTL		2.98		8,056,952		2.98		596,811		626,652	626,652	9,280,415	14,848,664	23,776,960	5,712,379	423,139	444,296	6,579,814	21,288,108
Emsworth Yacht Haven to Maisemore Gardens	20-50	HTL						2.98		1,342,825		626,652	626,652	1,969,477	3,151,163			412,247	192,382	7,184,444	
	50-100	HTL						2.98		2,984,056		626,652	626,652	3,610,708	5,777,133			280,501	58,905	7,523,850	
5A17	0-20	HTL		1.43		3,865,925		1.43		286,365		300,683	300,683	4,452,973	7,124,757	11,408,775		203,033	213,184	416,217	4,365,417
Maisemore Gardens to Wade Lane	20-50	HTL*						1.43		644,321		300,683	300,683	945,004	1,512,006		1,186,839	197,807	92,310	1,893,172	
	50-100	HTL*						1.43		1,431,824		300,683	300,683	1,732,507	2,772,012			134,591	28,264	2,056,028	
5A18	0-20	HTL		3.19		8,618,340		3.19		638,396		670,315	670,315	9,927,051	15,883,282	27,228,879	6,110,403	452,622	475,254	7,038,279	23,082,798
Wade Lane to Southmoor Lane	20-50	HTL*						3.79		1,706,390		796,315	796,315	2,502,705	4,004,329			523,862	244,469	7,806,610	
	50-100	HTL*						3.79		3,791,978		796,315	796,315	4,588,293	7,341,269			356,446	74,854	8,237,909	
5A19	0-20	HTL		2.90		7,830,000		2.90		580,000		609,000	609,000	9,019,000	14,430,400	23,107,200	5,551,470	411,220	431,781	6,394,471	20,688,455
Southmoor Lane to Farlington Marshes (east)	20-50	HTL						2.90		1,305,000		609,000	609,000	1,914,000	3,062,400			400,635	186,963	6,982,069	
	50-100	HTL						2.90		2,900,000		609,000	609,000	3,509,000	5,614,400			272,600	57,246	7,311,915	

a		b	c	d			e	f			g	h	i	j	k	l	m	n	o	p	q	r
Policy Unit		Epoch	Notes	Replacement Length (B, L, G)			Replacement Costs (£)	Maintenance Length (B, L, G)			Maintenance Costs (£)	transitional freshwater habitat Creation (£/hectare)	offsetting HTL coastal squeeze (£/km of defence)	Habitat Creation Costs £	Total Cost (£m)	Total with Optimism Bias (£m)	Final Total (cumulative) (£m)	PV Costs: Replacement (£m)	PV Costs: Maintenance (£m)	PV Costs: Habitat Creation (£)	PV Cost: cumulative total (£m)	PV Cost: total (£m) per Policy Unit
				Replacement Length				Maintenance Length							Total Cost			PV Costs				Cumulative PV Total
	Policy Unit	Epoch	Notes	B	L	G	Costs	B	L	G	Costs	Transitional freshwater habitat Creation (£/hectare)	Offsetting HTL coastal squeeze (£/km of defence)	Habitat Creation Costs £	Total Cost	With Optimism Bias	Cumulative Total	Replacement	Maintenance	Habitat Creation	Cumulative PV Total	
5A20	Farlington Marshes (east) to Farlington Marshes (west)	0-20	HTL		3.44		9,288,000		3.44		688,292		722,706	722,706	10,698,998	17,118,397	21,945,617	6,585,192	487,999	512,399	7,585,590	24,221,477
		20-50	HTL*						3.44		1,548,657		722,706	722,706	2,271,363	3,634,181			475,438	221,871	8,282,898	
		50-100	HTL*						3.44		22,943		722,706	722,706	745,649	1,193,039			2,157	67,934	8,352,989	
5A20	Farlington Marshes (east) to Farlington Marshes (west)	0-20	HTL						3.44		688,292		722,706	722,706	1,410,998	2,257,597	12,554,443		487,999	512,399	1,000,398	4,787,242
		20-50	HTL*						3.44		1,548,657		722,706	722,706	2,271,363	3,634,181			475,438	221,871	1,697,706	
		50-100	HTL*						3.44		3,441,459		722,706	722,706	4,164,165	6,662,665			323,497	67,934	2,089,138	
5A21	Farlington Marshes (west) to Cador Drive	0-20	HTL		13.68		36,936,000		13.68		2,736,000		2,872,800	2,872,800	42,544,800	68,071,680	109,002,240	26,187,624	1,939,824	2,036,815	30,164,263	97,592,436
		20-50	HTL						13.68		6,156,000		2,872,800	2,872,800	9,028,800	14,446,080			1,889,892	881,950	32,936,105	
		50-100	HTL						13.68		13,680,000		2,872,800	2,872,800	16,552,800	26,484,480			1,285,920	270,043	34,492,068	
5A22	Cador Drive to A27	0-20	HTL		3.56		14,410,741		3.56		711,642		747,224	747,224	15,869,606	25,391,370	36,037,528	10,217,215	504,554	529,782	11,251,551	35,601,291
		20-50	HTL*						3.56		1,601,193		747,224	747,224	2,348,417	3,757,467			491,566	229,398	11,972,515	
		50-100	HTL*						3.56		3,558,208		747,224	747,224	4,305,431	6,888,690			334,472	70,239	12,377,225	
5A23	A27 to Fleetlands (MOD boundary)	0-20	HTL		3.31		8,934,096		3.31		661,785		694,874	694,874	10,290,755	16,465,208	26,365,510	6,334,274	469,205	492,666	7,296,145	23,605,701
		20-50	HTL						3.31		1,489,016		694,874	694,874	2,183,890	3,494,224			457,128	213,326	7,966,599	
		50-100	HTL						3.31		3,308,924		694,874	694,874	4,003,799	6,406,078			311,039	65,318	8,342,957	
5A24	Fleetlands (MOD Boundary) to Quay Lane (MOD	0-20	HTL		6.01		16,232,347		6.01		1,202,396		1,262,516	1,262,516	18,697,259	29,915,615	47,903,460	11,508,734	852,499	895,124	13,256,357	42,889,168
		20-50	HTL						6.01		2,705,391		1,262,516	1,262,516	3,967,907	6,348,651			830,555	387,592	14,474,504	
		50-100	HTL						6.01		6,011,980		1,262,516	1,262,516	7,274,496	11,639,194			565,126	118,676	15,158,307	
5A25	Quay Lane (MOD boundary) to Portsmouth Harbour	0-20	HTL		13.87		37,449,000		13.87		2,774,000		2,912,700	2,912,700	43,135,700	69,017,120	110,516,160	26,551,341	1,966,766	2,065,104	30,583,211	98,947,887
		20-50	HTL						13.87		6,241,500		2,912,700	2,912,700	9,154,200	14,646,720			1,916,141	894,199	33,393,551	
		50-100	HTL						13.87		13,870,000		2,912,700	2,912,700	16,782,700	26,852,320			1,303,780	273,794	34,971,125	
5B01	Portsmouth Harbour entrance to Gilkicker Point	0-20	HTL			0.30	180,545		2.67	0.30	594,621		561,161	561,161	1,336,327	2,138,123	44,523,294	128,006	421,586	397,863	947,456	17,082,092
		20-50	HTL		2.67	0.30	20,696,317		2.67	0.30	1,337,897		561,161	561,161	22,595,376	36,152,601		6,353,769	410,734	172,277	7,884,236	
		50-100	HTL			0.30	361,089		2.67	0.30	2,973,105		561,161	561,161	3,895,356	6,232,570		33,942	279,472	52,749	8,250,400	
5B02	Gilkicker Point to Meon Road, Titchfield Haven	0-20	HTL		5.07	2.88	15,428,801		5.07	2.88	1,590,874		1,065,618	1,065,618	18,085,293	28,936,468	118,127,785	10,939,020	1,127,930	755,523	12,822,472	66,207,071
		20-50	HTL	4.71		2.88	38,623,500		5.07	2.88	3,579,467		1,065,618	1,065,618	43,268,585	69,229,735		11,857,415	1,098,896	327,145	26,105,928	
		50-100	HTL			2.88	3,456,000		5.07	2.88	7,954,371		1,065,618	1,065,618	12,475,988	19,961,581		324,864	747,711	100,168	27,278,671	
5B03		0-20	NAI (HTL cross-Solent infrastructure)																			
		20-50	NAI (HTL cross-Solent infrastructure)																			
	Meon Road, Titchfield Haven to Hook Park	50-100	NAI (HTL cross-Solent infrastructure)																			
5C01	Hook Park to Warsash North	0-20	NAI														6,160,000					1,999,900
		20-50	MR		0.7		2,835,000		0.7		315,000				3,150,000	5,040,000		870,345	96,705		967,050	
		50-100	HTL						0.7		700,000				700,000	1,120,000			65,800		1,032,850	
5C02	Warsash North to Swanwick Shore Road	0-20	NAI																			
		20-50	NAI																			
		50-100	NAI																			
5C03	Swanwick Shore Road to Bursledon Bridge	0-20	HTL		0.65		1,750,319		0.65		129,653		136,136	136,136	2,016,108	3,225,773	3,910,342	1,240,976	91,924	96,520	1,429,421	4,550,966
		20-50	HTL						0.65		291,720		136,136	136,136	427,856	684,569			89,558	41,794	1,560,772	
		50-100	NAI																		1,560,772	
5C04	Bursledon Bridge to Curbridge to Botley to Satchell Marshes	0-20	NAI																			
		20-50	NAI																			
		50-100	NAI																			
5C05		0-20	NAI (HTL for Rope Walk and Quay)		1.00		2,700,000		1.00		200,000				2,900,000	4,640,000	6,960,000	1,914,300	141,800		2,056,100	6,538,600
		20-50	NAI (HTL for Rope Walk and Quay)						1.00		450,000				450,000	720,000			138,150		2,194,250	
	Satchell Marshes to Hamble Common Point	50-100	NAI (HTL for Rope Walk and Quay)						1.00		1,000,000				1,000,000	1,600,000			94,000		2,288,250	
5C06	Hamble Common Point to Hamble Oil Terminal	0-20	NAI																			
		20-50	NAI																			
		50-100	NAI																			
5C07	Hamble Oil Terminal to Ensign Industrial Park	0-20	HTL		0.59		1,593,063		0.59		118,005		123,905	123,905	1,834,973	2,935,956	3,559,021	1,129,482	83,665	87,849	1,300,996	4,142,088
		20-50	HTL						0.59		265,510		123,905	123,905	389,415	623,065			81,512	38,039	1,420,546	
		50-100	NAI																		1,420,546	
5C08	Ensign Industrial Park to Cliff House	0-20	NAI																			
		20-50	NAI																			
		50-100	NAI																			

a		b	c	d			e	f			g	h	i	j	k	l	m	n	o	p	q	r
Policy Unit		Epoch	Notes	Replacement Length (B, L, G)			Replacement Costs (£)	Maintenance Length (B, L, G)			Maintenance Costs (£)	transitional freshwater habitat Creation (£/hectare)	offsetting HTL coastal squeeze (£/km of defence)	Habitat Creation Costs £	Total Cost (£m)	Total with Optimism Bias (£m)	Final Total (cumulative) (£m)	PV Costs: Replacement (£m)	PV Costs: Maintenance (£m)	PV Costs: Habitat Creation (£)	PV Cost: cumulative total (£m)	PV Cost: total (£m) per Policy Unit
				Replacement				Maintenance							Total Cost			PV Costs				Cumulative PV Total
				Length				Length														
Policy Unit		Epoch	Notes	B	L	G	Costs	B	L	G	Costs	Transitional freshwater habitat Creation (£/hectare)	Offsetting HTL coastal squeeze (£/km of defence)	Habitat Creation Costs £	Total Cost	With Optimism Bias	Cumulative Total	Replacement	Maintenance	Habitat Creation	Cumulative PV Total	
5C09	Cliff House to Netley Castle	0-20	HTL	2.05			10,455,000								10,455,000	16,728,000	29,468,800	7,412,595			7,412,595	23,689,867
		20-50	HTL*						2.05		922,500		430,500	430,500	1,353,000	2,164,800			283,208	132,164	7,827,966	
		50-100	NAI (HTL for Netley Village)		1		5,400,000		1		1,000,000		210,000	210,000	6,610,000	10,576,000		507,600	94,000	19,740	8,449,306	
5C10	Netley Castle to Weston Point	0-20	HTL																			
		20-50	HTL																			
		50-100	HTL																			
5C11	Weston Point to Woodmill Lane	0-20	HTL		8.38		22,618,342		8.38		1,675,433		1,759,204	1,759,204	26,052,979	41,684,767	50,531,052	16,036,405	1,187,882	1,247,276	18,471,562	58,809,449
		20-50	HTL						8.38		3,769,724		1,759,204	1,759,204	5,528,928	8,846,285			1,157,305	540,076	20,168,943	
		50-100	NAI*																		20,168,943	
5C12	Woodmill Lane to Redbridge	0-20	HTL		21.49		58,016,617		21.49		4,297,527		4,512,404	4,512,404	66,826,548	106,922,477	171,213,484	41,133,782	3,046,947	3,199,294	47,380,023	153,291,721
		20-50	HTL						21.49		9,669,436		4,512,404	4,512,404	14,181,840	22,690,944			2,968,517	1,385,308	51,733,847	
		50-100	HTL						21.49		21,487,636		4,512,404	4,512,404	26,000,040	41,600,063			2,019,838	424,166	54,177,851	
5C13	Lower Test Valley	0-20	NAI																			
		20-50	NAI																			
		50-100	NAI																			
5C14	Redbridge to Calshot Spit	0-20	HTL						17.86		3,572,657		3,751,290	3,751,290	7,323,947	11,718,315	180,919,358		2,533,014	2,659,665	5,192,679	69,269,356
		20-50	HTL		17.86		72,346,307		17.86		8,038,479		3,751,290	3,751,290	84,136,076	134,617,721		22,210,316	2,467,813	1,151,646	31,022,454	
		50-100	HTL						17.86		17,863,286		3,751,290	3,751,290	21,614,576	34,583,321			1,679,149	352,621	33,054,224	
5C15	Calshot Spit	0-20	HTL						1.83	1.19	604,471		384,300	384,300	988,771	1,582,034	6,090,000		428,570	272,469	701,039	4,142,025
		20-50	HTL			1.19	1,073,119		1.83	1.19	1,360,060		384,300	384,300	2,817,479	4,507,966		329,448	417,538	272,469	1,720,493	
		50-100	NAI																		1,720,493	
5C16	Calshot Spit to Inchmery	0-20	NAI																			
		20-50	NAI																			
		50-100	NAI																			
5C17	Inchmery to Salternshill	0-20	NAI																			
		20-50	NAI																			
		50-100	NAI																			
5C18	Salternshill to Park Shore	0-20	HTL (NPFA)		5.56		15,012,000		5.56	2.03	1,518,637		1,168,640	1,168,640	17,699,277	28,318,844	54,619,712	10,643,508	1,076,714	828,566	12,548,788	42,525,249
		20-50	HTL (NPFA)			2.03	1,825,407		5.56	2.03	3,416,933		1,168,640	1,168,640	6,410,981	10,257,570		560,400	1,048,999	358,773	14,516,959	
		50-100	HTL (NPFA)			2.03	2,433,876		5.56	2.03	7,593,185				10,027,061	16,043,298		228,784	713,759		15,459,503	
5C19	Park Shore to Sowley	0-20	HTL		2.17	1.98	6,255,164		2.17	1.98	830,164		455,700	455,700	7,541,029	12,065,646	23,153,793	4,434,912	588,587	323,091	5,346,589	17,899,453
		20-50	HTL						2.17	1.98	1,867,870		455,700	455,700	2,323,570	3,717,712			573,436	139,900	6,059,925	
		50-100	HTL*						2.17	1.98	4,150,822		455,700	455,700	4,606,522	7,370,435			390,177	42,836	6,492,938	
5C20	Sowley to Elmer's Court	0-20	NAI																			
		20-50	NAI																			
		50-100	NAI																			
5C21	Elmer's Court to Lymington Yacht Haven	0-20	HTL (potential RTE Lymington Reedbeds)						2.13		426,000	1,246,000	447,300	447,300	873,300	1,397,280	21,572,640		302,034	317,136	619,170	8,259,608
		20-50	HTL		2.13		8,626,500		2.13		958,500		447,300	447,300	10,032,300	16,051,680		2,648,336	294,260	137,321	3,699,086	
		50-100	HTL						2.13		2,130,000		447,300	447,300	2,577,300	4,123,680			200,220	42,046	3,941,352	
5C22	Lymington Yacht Haven to Saltgrass Lane	0-20	HTL						8.14		1,627,170		1,708,529	1,708,529	3,335,699	5,337,118	120,287,896		1,153,664	1,211,347	2,365,010	43,571,515
		20-50	HTL		12.14		49,150,195		12.14		5,461,133		2,548,529	2,548,529	57,159,857	91,455,771		15,089,110	1,676,568	782,398	19,913,087	
		50-100	HTL						12.14		12,135,851		2,548,529	2,548,529	14,684,379	23,495,007			1,140,770	239,562	21,293,418	
5F01	Hurst Spit	0-20	HTL	1.5			7,650,000								7,650,000	12,240,000	54,000,000	5,423,850			5,423,850	19,660,950
		20-50	HTL					2			1,800,000				1,800,000	2,880,000			552,600		5,976,450	
		50-100	HTL	1.50			15,300,000	4.5			9,000,000				24,300,000	38,880,000		1,438,200	846,000		8,260,650	
5API01	Langstone Harbour entrance (west) (harbour) to	0-20	HTL		28.18		76,073,926		28.18		5,635,106		5,916,861	5,916,861	87,625,892	140,201,427	224,502,607	53,936,413	3,995,290	4,195,054	62,126,757	201,002,808
		20-50	HTL						28.18		12,678,988		5,916,861	5,916,861	18,595,848	29,753,358			3,892,449	1,816,476	67,835,683	
		50-100	HTL						28.18		28,175,528		5,916,861	5,916,861	34,092,389	54,547,822			2,648,500	556,185	71,040,367	
5API02	Langstone Harbour entrance (west) (open coast) to Portsmouth	0-20	HTL		7.70	0.49	21,082,464		7.70	0.49	1,638,349		1,616,742	1,616,742	24,337,555	38,940,087	77,629,710	14,947,467	1,161,590	1,146,270	17,255,326	61,205,090
		20-50	HTL	1.05		0.49	8,477,928		7.70	0.49	3,686,286		1,616,742	1,616,742	13,780,955	22,049,528		2,602,724	1,131,690	496,340	21,486,079	
		50-100	HTL			0.49	591,572		7.70	0.49	8,191,746		1,616,742	1,616,742	10,400,060	16,640,095		55,608	770,024	151,974	22,463,685	
5AHI01	Langstone Bridge to Northney Farm	0-20	HTL		2.76		7,445,547		2.76		551,522		579,098	579,098	8,576,167	13,721,868	21,972,637	5,278,893	391,029	410,581	6,080,503	19,672,653
		20-50	HTL						2.76		1,240,925		579,098	579,098	1,820,023	2,912,036			380,964	177,783	6,639,250	
		50-100	HTL						2.76		2,757,610		579,098	579,098	3,336,708	5,338,733			259,215	54,435	6,952,900	
5AHI02	Northney Farm	0-20	HTL (NPFA)						1.7		340,000		357,000	357,000	697,000	1,115,200	28,468,800		241,060	253,113	494,173	3,672,983
		20-50	HTL (NPFA)						1.7		765,000		357,000	357,000	1,122,000	1,795,200			234,855	109,599	838,627	
		50-100	MR		1.4		14,280,000		1.4		1,400,000		294,000	294,000	15,974,000	25,558,400		1,342,320	131,600	27,636	2,340,183	
5AHI03	Northney Farm to Mengham	0-20	HTL (NPFA)		8.94		24,138,000		8.94		1,788,029		1,877,431	1,877,431	27,803,460	44,485,536	71,234,454	17,113,842	1,267,713	1,331,098	19,712,653	63,777,717
		20-50	HTL (NPFA)						8.94		4,023,066		1,877,431	1,877,431	5,900,497	9,440,795			1,235,081	576,371	21,524,106	
		50-100	HTL (NPFA)						8.94		8,940,146		1,877,431	1,877,431	10,817,577	17,308,123			840,374	176,478	22,540,958	

a		b	c	d			e	f			g	h	i	j	k	l	m	n	o	p	q	r
Policy Unit		Epoch	Notes	Replacement Length (B, L, G)			Replacement Costs (£)	Maintenance Length (B, L, G)			Maintenance Costs (£)	transitional freshwater habitat Creation (£/hectare)	offsetting HTL coastal squeeze (£/km of defence)	Habitat Creation Costs £	Total Cost (£m)	Total with Optimism Bias (£m)	Final Total (cumulative) (£m)	PV Costs: Replacement (£m)	PV Costs: Maintenance (£m)	PV Costs: Habitat Creation (£)	PV Cost: cumulative total (£m)	PV Cost: total (£m) per Policy Unit
				Replacement Length				Maintenance Length							Total Cost			PV Costs				Cumulative PV Total
Policy Unit		Epoch	Notes	B	L	G	Costs	B	L	G	Costs	Transitional freshwater habitat Creation (£/hectare)	Offsetting HTL coastal squeeze (£/km of defence)	Habitat Creation Costs £	Total Cost	With Optimism Bias	Cumulative Total	Replacement	Maintenance	Habitat Creation	Cumulative PV Total	
5AHI04	Mengham to Chichester Harbour entrance (west)	0-20	HTL		5.07		13,691,998		5.07		1,014,222		1,064,933	1,064,933	15,771,153	25,233,845	40,406,608	9,707,627	719,083	755,038	11,181,748	36,177,048
		20-50	HTL						5.07		2,282,000		1,064,933	1,064,933	3,346,933	5,355,093			700,574	326,934	12,209,256	
		50-100	HTL						5.07		5,071,110		1,064,933	1,064,933	6,136,044	9,817,670			476,684	100,104	12,786,044	
5AHI05	Chichester Harbour entrance (west) to Langstone Harbour	0-20	HTL		8.19		22,113,000		8.19		1,638,000		1,719,900	1,719,900	25,470,900	40,753,440	147,144,320	15,678,117	1,161,342	1,219,409	18,058,868	82,570,957
		20-50	HTL	7.29			37,179,000		8.19		3,685,500		1,719,900	1,719,900	42,584,400	68,135,040		11,413,953	1,131,449	528,009	31,132,279	
		50-100	HTL					7	8.19		22,190,000		1,719,900	1,719,900	23,909,900	38,255,840			2,085,860	161,671	33,379,810	
5AHI06	Langstone Harbour entrance (east) to North Shore Road,	0-20	HTL		2.96		7,990,273		2.96		591,872		621,466	621,466	9,203,611	14,725,777	23,580,183	5,665,104	419,837	440,619	6,525,360	21,111,929
		20-50	HTL						2.96		1,331,712		621,466	621,466	1,953,178	3,125,085			408,836	190,790	7,124,986	
		50-100	HTL						2.96		2,959,360		621,466	621,466	3,580,826	5,729,322			278,180	58,418	7,461,583	
5AHI07	North Shore Road, New Town to West Lane (Stoke)	0-20	NAI (HTL Newtown)		2.91		7,847,046		2.91		581,263		610,326	610,326	9,038,634	14,461,815	23,157,504	5,563,555	412,115	432,721	6,408,392	20,733,493
		20-50	NAI (HTL Newtown)						2.91		1,307,841		610,326	610,326	1,918,167	3,069,067			401,507	187,370	6,997,269	
		50-100	NAI (HTL Newtown)						2.91		2,906,313		610,326	610,326	3,516,639	5,626,622			273,193	57,371	7,327,833	
5AHI08	West Lane (Stoke) to Langstone Bridge	0-20	HTL*		3.09		8,343,000		3.09		618,000		648,900	648,900	9,609,900	15,375,840	24,621,120	5,915,187	438,162	460,070	6,813,419	22,043,906
		20-50	HTL*						3.09		1,390,500		648,900	648,900	2,039,400	3,263,040			426,884	199,212	7,439,515	
		50-100	HTL*						3.09		3,090,000		648,900	648,900	3,738,900	5,982,240			290,460	60,997	7,790,972	

ANNEX H6: SENSITIVITY TESTING DEFENCE WORK COSTS

a		b	c	d			e	f			g	h	i	j	k	l	m	n	o	p	q	r
				Replacement Length (B, L, G)			Replacement Costs (£)	Maintenance Length (B, L, G)			Maintenance Costs (£)	transitional freshwater habitat Creation (£/hectare)	offsetting HTL coastal squeeze (£/km of defence)	Habitat Creation Costs £	Total Cost (£m)	Total with Optimism Bias (£m)	Final Total (cumulative) (£m)	PV Costs: Replacement (£m)	PV Costs: Maintenance (£m)	PV Costs: Habitat Creation (£)	PV Cost: cumulative total (£m)	PV Cost: total (£m) per Policy Unit
				Replacement				Maintenance							Total Cost			PV Costs				
				Length				Length				Transitional freshwater habitat Creation (£/hectare)	Offsetting HTL coastal squeeze (£/km of defence)									Cumulative PV Total
	Policy Unit	Epoch	Notes	B	L	G	Costs	B	L	G	Costs			Habitat Creation Costs £	Total Cost	With Optimism Bias	Cumulative Total	Replacement	Maintenance	Habitat Creation	Cumulative PV Total	
5A05		0-20	HTL		6.82		18,414,000		6.82		1,364,000	203,000	1,432,200	1,635,200	21,413,200	34,261,120	54,606,720	13,055,526	967,076	1,159,357	15,181,959	49,074,940
		20-50	HTL (potential MR Ella Nore)						6.80		3,060,000		1,428,000	1,428,000	4,488,000	7,180,800			939,420	438,396	16,559,775	
	Ella Nore Lane to Fishbourne	50-100	HTL (potential MR Horse Pond)						6.80		6,800,000		1,428,000	1,428,000	8,228,000	13,164,800			639,200	134,232	17,333,207	
5A06		0-20	HTL						0.66		132,000	745,500	138,600	884,100	1,016,100	1,625,760			93,588	626,827	720,415	2,549,023
		20-50	HTL						0.66		297,000		138,600	138,600	435,600	696,960			91,179	42,550	854,144	
	Fishbourne	50-100	MR		0.2		1,080,000		0.2		200,000				1,280,000	2,048,000	4,370,720	101,520	18,800		974,464	
5A07																						69,334,860
		0-20	HTL (potential MR East Chidham & Bosham)		9.72		26,241,300		9.72		1,943,800		2,040,990	2,040,990	30,226,090	48,361,744	77,440,992	18,605,082	1,378,154	1,447,062	21,430,298	
	Fishbourne to west of Cobnor Point	20-50	HTL						9.72		4,373,550		2,040,990	2,040,990	6,414,540	10,263,264			1,342,680	626,584	23,399,562	
		50-100	HTL						9.72		9,719,000		2,040,990	2,040,990	11,759,990	18,815,984			913,586	191,853	24,505,001	
5A10		0-20	MR		0.5		1,350,000		0.5		100,000	168,000		168,000	1,618,000	2,588,800		957,150	70,900	119,112	1,147,162	3,626,636
		20-50	MR (HTRL)						0.5		225,000				225,000	360,000			69,075		1,216,237	
	Nutbourne	50-100	MR (HTRL)						0.5		500,000				500,000	800,000	3,748,800		47,000		1,263,237	
5A12		0-20	HTL		1.27		3,427,599		1.27		253,896	3,325,000	266,591	3,591,591	7,273,087	11,636,939	17,281,511	2,430,168	180,012	2,546,438	5,156,619	16,237,160
	Prinsted to Stanbury Point	20-50	HTL						1.27		571,267		266,591	266,591	837,858	1,340,572			175,379	81,843	5,413,841	
		50-100	MR						2.69		2,690,000				2,690,000	4,304,000			252,860		5,666,701	
5A14		0-20	MR						2		400,000	2,215,500		2,215,500	2,615,500	4,184,800	8,824,800		283,600	1,570,790	1,854,390	6,303,769
	Marker Point to Wickor Point	20-50	MR (HTRL)						2		900,000				900,000	1,440,000			276,300		2,130,690	
		50-100	MR (HTRL)						2		2,000,000				2,000,000	3,200,000			188,000		2,318,690	
5A15	Wickor Point to Emsworth Yacht Haven	0-20	HTL		1.53		4,122,361		1.53		305,360	3,325,000	320,628		4,427,721	7,084,354	13,000,655	2,922,754	216,500		3,139,254	10,289,343
		20-50	HTL						1.53		687,060		320,628	320,628	1,007,688	1,612,301			210,927	98,433	3,448,615	
		50-100	MR						2.69		2,690,000				2,690,000	4,304,000			252,860		3,701,475	
5A17																						4,664,128
		0-20	HTL (potential MR Conigar)		1.43		3,865,925		1.43		286,365	168,000	300,683	300,683	4,452,973	7,124,757	12,187,175		203,033	213,184	416,217	
		20-50	HTL						1.43		644,321		300,683	787,183	1,431,504	2,290,406		1,186,839	197,807	241,665	2,042,528	
	Maisemore Gardens to Wade Lane	50-100	HTL (potential MR Warblington)						1.43		1,431,824		300,683	300,683	1,732,507	2,772,012			134,591	28,264	2,205,383	
5A20		0-20	HTL						3.44		688,292	2,590,000	722,706	722,706	1,410,998	2,257,597	20,245,645		487,999	512,399	1,000,398	6,249,200
	Farlington Marshes (east) to Farlington Marshes (west)	20-50	HTL						3.44		1,548,657		722,706	2,665,206	4,213,863	6,742,181			475,438	818,218	2,294,054	
		50-100	MR full back to motorway		1.3		7,020,000		1.3		8,667				7,028,667	11,245,867		659,880	815		2,954,748	
5A20	Farlington Marshes (east) to Farlington Marshes (west)	0-20	HTL						3.44		688,292	1,942,500	722,706	722,706	1,410,998	2,257,597	34,563,778		487,999	512,399	1,000,398	6,080,290
		20-50	HTL						3.44		1,548,657		722,706	722,706	2,271,363	3,634,181			475,438	221,871	1,697,706	
		50-100	MR partial		2.8		15,120,000		2.8		2,800,000				17,920,000	28,672,000		1,421,280	263,200		3,382,186	
5C16		0-20	NAI																			
	Calshot Spit to Inchmery	20-50	NAI																			
		50-100	NAI																			
5C18		0-20	HTL						5.56	2.03	1,518,637	8,305,500	1,168,640	1,168,640	2,687,277	4,299,644	23,776,584		1,076,714	828,566	1,905,280	10,193,820
	Salternshill to Park Shore	20-50	HTL			2.03	1,825,407		5.56	2.03	3,416,933		1,168,640	1,168,640	6,410,981	10,257,570		560,400	1,048,999	358,773	3,873,451	
		50-100	MR			2.03	2,433,876		1.30	2.03	3,328,230				5,762,107	9,219,371		228,784	312,854		4,415,089	
5C20		0-20	NAI														1,993,600					765,044
	Sowley to Elmer's Court	20-50	NAI											1,246,000	1,246,000	1,993,600				382,522	382,522	
		50-100	NAI																		382,522	
5C22																						43,571,515
		0-20	HTL (potential MR at Saltgrass Lane)						8.14		1,627,170	1,424,500	1,708,529	1,708,529	3,335,699	5,337,118	120,287,896		1,153,664	1,211,347	2,365,010	
	Lymington Yacht Haven to Saltgrass Lane	20-50	HTL (potential RTE Avon Water)		12.14		49,150,195		12.14		5,461,133		2,548,529	2,548,529	57,159,857	91,455,771		15,089,110	1,676,568	782,398	19,913,087	
		50-100	HTL						12.14		12,135,851		2,548,529	2,548,529	14,684,379	23,495,007			1,140,770	239,562	21,293,418	
5AHI02		0-20	MR						1.4		280,000	1,610,000			280,000	448,000	6,440,000		198,520		198,520	2,166,990
		20-50	MR (HTRL)						1.4		630,000			1,715,000	2,345,000	3,752,000			193,410	526,505	918,435	
	Northney Farm	50-100	MR (HTRL)						1.4		1,400,000				1,400,000	2,240,000			131,600		1,050,035	
5AHI03		0-20	HTL						8.94		1,788,029	1,715,000	1,877,431	1,877,431	3,665,460	5,864,736	25,705,531		1,267,713	1,331,098	2,598,811	12,030,338
	Northney Farm to Mengham	20-50	HTL						8.94		4,023,066		1,877,431	1,877,431	5,900,497	9,440,795			1,235,081	576,371	4,410,264	
		50-100	MR						6.5		6,500,000				6,500,000	10,400,000			611,000		5,021,264	
5AHI08																						22,043,906
		0-20	HTL (potential MR West Northney & Stoke)		3.09		8,343,000		3.09		618,000		648,900	648,900	9,609,900	15,375,840	24,621,120	5,915,187	438,162	460,070	6,813,419	
	West Lane (Stoke) to Langstone Bridge	20-50	HTL						3.09		1,390,500		648,900	648,900	2,039,400	3,263,040			426,884	199,212	7,439,515	
		50-100	HTL						3.09		3,090,000		648,900	648,900	3,738,900	5,982,240			290,460	60,997	7,790,972	