



2 OVERVIEW OF STRATEGY DEVELOPMENT

2.1 Identification And Establishment Of Boundaries

The primary driver for the development of strategies for future management of the shoreline is the Shoreline Management Planning process. Walney Island lies within the boundaries of major Sediment Cell 11, as defined in the 1993 HR Wallingford Report (SR 328) - 'The Mapping of Littoral Cells'. This cell includes the coastline between the Great Orme at Llandudno and the Solway Firth. For the purposes of shoreline management planning, Cell 11 was sub divided into five sub-cells. This defined Walney Island as effectively being the boundary between the inlet of Morecambe Bay and the open shoreline of Cumbria.

For the process of Plan preparation the island was divided between the following two sub cells:

- Sub-cell 11c River Wyre (Fleetwood) to Walney Island
- Sub-cell 11d Walney Island to St. Bees Head

Initially the island was divided at a line running east west at Mill Scar, just south of Earnse Point, with the shoreline to the south included in sub cell 11c and that to the north, within 11d. This point had previously been identified as representing a 'null' drift point on the west facing coast of the island, with littoral drift believed to be occurring in a southerly direction to the south of this point and in the opposite direction to the north. Notwithstanding the above, the shoreline to the north was included within the SMP for sub cell 11d, whilst the whole of the island was included in the Plan for sub-cell 11c.

The Shoreline Management Plan for sub cell 11c, identified that the whole of the island, together with that part of the mainland of Cumbria that was effectively sheltered by the island (the Barrow to Roa Island frontage) should be considered as a single unit in respect of coastal process behaviour. Further sub-division of the shoreline considering land use, conservation interest, hinterland topography, and other specific local criteria defined future management units within the overall coastal process unit defined above. This provided eight separate management units for Walney Island and another three for the mainland frontage.

The Shoreline Management Plan prepared for sub cell 11d provided six management units for the frontage covered by this plan. The sections of the island covered are from the Walney Airfield on the Barrow side of the island to Mill Scar on the west facing coast.

Furthermore, the plan for sub cell 11c recommended that the Walney Island frontage would most appropriately be considered as a single entity as it met a number of the criteria for strategy development identified in MAFF 's Interim Guidance for the Strategic Planning and Appraisal of Flood And Coastal Defence Schemes, 1997, specifically:

- It would be advantageous to consider problems and solutions in the longer term and over a wide geographic area;
- Implementation of a programme of works or management is, due to the relatively low level of assets at risk adjacent to the shoreline, most likely to be carried out over a long rather than short timescale;



- There is a hydraulic or process connection between management units;
- There is a potential physical interconnection between potential benefit areas, particularly where the island is narrow;
- Problems require addressing in an integrated manner; and
- The island is environmentally important on an international, national, regional and local scale. Future intervention may affect the integrity of a site designated under the Habitats Directive or other protected area.

The boundaries of the management units on the island are shown in Figure 2.1 with details of the preferred policies recommended in the Shoreline Management Plans for sub cells 11c & 11d respectively are shown in Tables 2.1 & 2.2.

Table 2.1 - Sub Cell 11c SMP - Walney Island - Management Unit Policy Definition				
No.	MANAGEMENT UNIT		SMP Preferred Policy	
	LENGTH	Approx. Length	SHORT TERM	ANTICIPATED LONG TERM
1/1	North Walney	7.8 km	Do- nothing	Do- nothing
1/2	West Shore Park to Mill Scar	1.5 km	Hold the Line	Hold the Line
1/3	Mill Scar to Nanny Point Scar	1.9 km	Do- nothing	Do- nothing
1/4	Nanny Point Scar to Hillock Whins	2.8 km	Selective Hold the Line/ Do- nothing	Do- nothing
1/5	Hillock Whins to Hare Hill	2.0 km	Selective Hold the Line/ Do- nothing	Selective Hold the Line/ Do- nothing
1/6	South Walney (Hare Hill to South End Haws)	5.8 km	Selective Hold the Line/ Do- nothing	Selective Hold the Line/ Do- nothing
1/7	South End Haws to Biggar	6.5 km	Selective Hold the Line/ Do- nothing	Selective Hold the Line/ Do- nothing
1/8	Biggar to Walney Airfield South Boundary	6.2 km	Selective Hold the Line/ Do- nothing	Selective Hold the Line/ Do- nothing

Table 2.2 - Sub Cell 11d SMP - Walney Island - Management Unit Policy Definition				
No.	MANAGEMENT UNIT		SMP Preferred Policy	
	LENGTH	Approx. Length		
40	Lenny Hill	0.65 km	Do- nothing	
41	North Walney (Estuarine)	3.0 km	Do- nothing	
42	North Walney Spit	1.2 km	Do- nothing	
43	North End (Coastal)	1.6 km	Do- nothing	
44	Walney Airfield	1.4 km	Do- nothing	
45	Earnse Bay to Mill Scar	1.5 km	Hold the line	



It can be seen from comparison of the two tables that the frontage at the north end of the island is covered by two units in the sub cell 11c plan, and by five units in the sub cell 11d plan.

Comparison of the boundaries of the units confirms that the boundary between units 1/1 and 1/2 of the Morecambe Bay Plan corresponds to that between 44 and 45 in the South Cumbria Plan. Hence the following applies:

- MU 1/1 (11c) is equivalent to units 40, 41, 42, 43 & 44 (11d)
- MU 1/2 (11c) is equivalent to unit 45 (11d)

From this comparison it can be seen that both plans, although identifying different management boundaries, have essentially confirmed the same policies for the lengths of shoreline in question.

It will be appropriate to review these boundaries with regard to Strategy development in the light of detailed data examination (see section 5.3).



2.2 Identification Of Problems And Key Issues

Consultation

Consultation and the identification of specific problems associated with Walney Island is a key part of Strategy development.

Although many of the problems and key issues associated with future management of the shoreline of Walney Island were identified during preparation of the Shoreline Management Plan for sub cell 11c, key consultees with a specific interest in management of the island have been contacted and invited to participate in development of the Strategy. The names and addresses of these consultees are provided in Appendix B.

Consultation for the first stage of strategy development with these key stakeholders was agreed by the Steering Group set up to oversee preparation of the Strategy. The Steering Group comprises of representatives of Barrow BC, Cumbria CC, Environment Agency and English Nature. In addition, Dr P.C. Barber of Shoreline Management Partnership has been appointed to act as advisor on technical matters to the group and a representative from MAFF's Regional Engineer's Office in York is acting as an observer. The approach that was agreed for consultation on the first stage of strategy development was that it would take place in two stages, as described below:

- Provision of a scoping brief for development of the Strategy, requesting identification of additional issues and / or problems if not already identified during the SMP preparation process. A copy of the scoping brief is provided in Appendix C.
- An invitation to attend a forum to hear a presentation on the development of the strategy to date, to discuss the findings of the first stage of Strategy development and to comment on the options identified for shoreline management and the way forward for development of the strategy. This forum was held on Walney on Wednesday 26th July 2000.

As a result of this first phase of consultation only four comments have been received in writing, which are reproduced in Appendix D. The minutes of the public forum are included in Appendix Q.

Issues and Problems

No further issues have been identified by consultees in development of the Strategy to date. A summary of the problems and issues that are directly relevant to Walney Island, extracted from the SMP are provided in Table 2.3 categorised under six headings, i.e.:

- Coastal and Geomorphological Processes
- Coastal Defence
- Conservation
- Amenity, Recreation and Tourism
- Land Use and Development
- Commerce and Industry



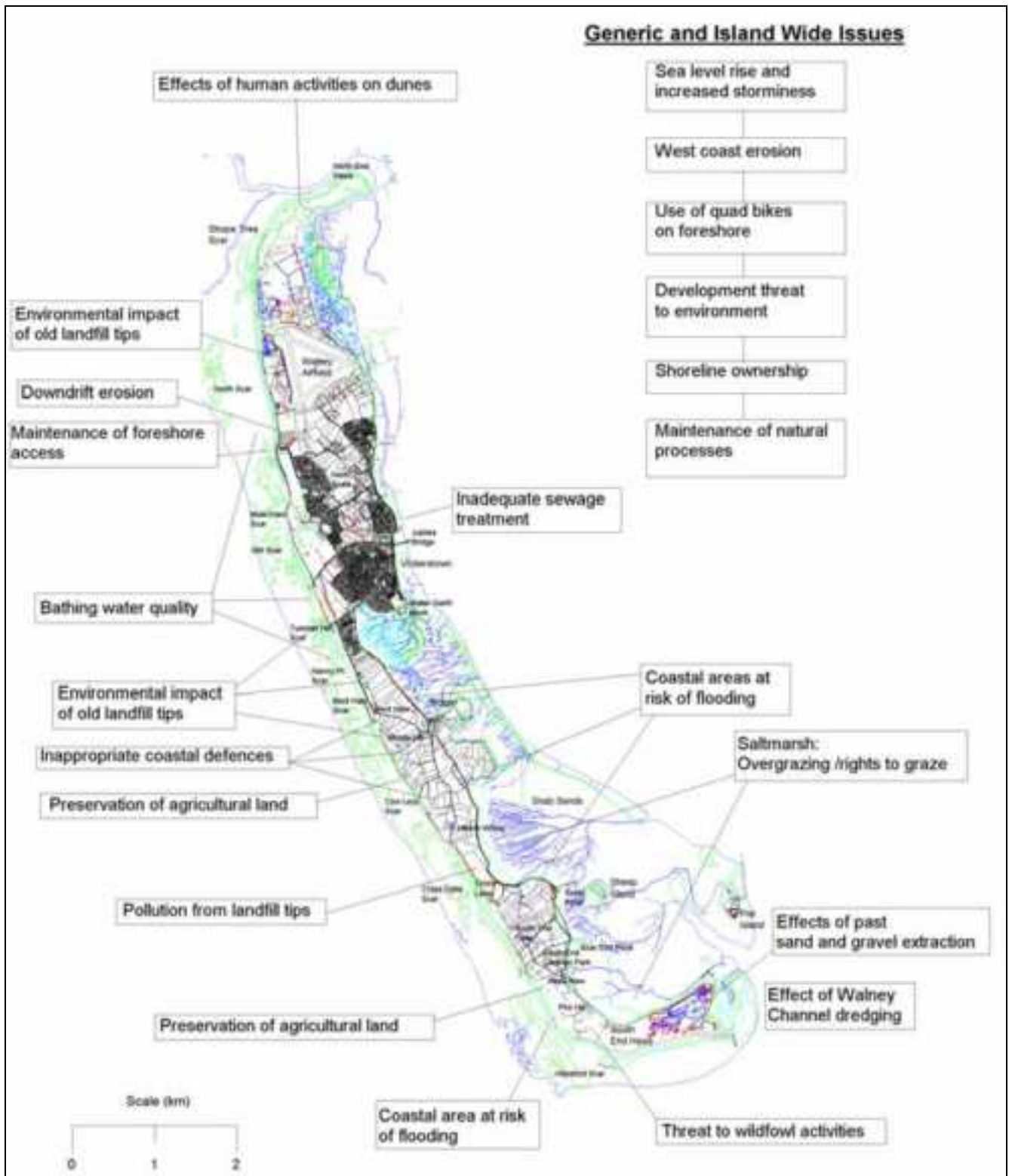
Table 2.3 – Summary of Key Local Issues and Problems			
Issue			
Ref. No.	Description	Raised By	Comment
Coastal and Geomorphological Processes			
CP1	Dredging of Walney Channel and disposal of soil	<ol style="list-style-type: none"> 1. ABP 2. Cumbria Wildlife Trust 3. RSPB 4. Environment Agency 5. English Nature 	<ol style="list-style-type: none"> 1. On-going requirement 2. Effect on marine communities 3. Impacts on natural processes must not occur on inter-tidal habitats 4. Affect on coastal defences/assets 5. Impacts on communities that rely on hard substrata within channel. Implications for coastal process behaviour. Sustainable options for disposal need identifying.
CP2	Erosion of west facing coast	<ol style="list-style-type: none"> 1. Cumbria Wildlife Trust 	<ol style="list-style-type: none"> 1. Prevention affects natural processes and natural habitats
CP3	Down drift erosion at Earnse Point	<ol style="list-style-type: none"> 1. Mr. Miller (local resident via EN) 	<ol style="list-style-type: none"> 1. Concerns that this has been caused by construction of groyne.
CP4	Legacy of defence works which have disrupted sediment transport or promoted erosion	<ol style="list-style-type: none"> 1. Environment Agency 	
Coastal Defence			
CD1	Storm/flood damage to highway infrastructure	<ol style="list-style-type: none"> 1. Cumbria CC 	
CD2	Artificial defences cause loss of habitats	<ol style="list-style-type: none"> 1. Cumbria Wildlife Trust 2. RSPB 	<ol style="list-style-type: none"> 1. Coastal squeeze 2. Loss of feeding grounds for birds
CD3	Coastal Defences affecting Walney GCR site	<ol style="list-style-type: none"> 1. RSPB 	
CD4	Inappropriate coastal defences	<ol style="list-style-type: none"> 1. Walney Island Wildfowlers Assoc. 	
CD5	Effects of coastal defences	<ol style="list-style-type: none"> 1. ABP 	<ol style="list-style-type: none"> 1. Affects of coastal defences on Walney navigation channel
CD6	Coastal areas at risk of flooding	<ol style="list-style-type: none"> 1. Environment Agency 	<ol style="list-style-type: none"> 1. South Cumbria LEAP Issue No. 3
CD7	Private sea defence embankments	<ol style="list-style-type: none"> 1. Environment Agency 	Liability for the defences
CD8	Provision of appropriate Flood Warning System	<ol style="list-style-type: none"> 1. Environment Agency 	Warning for people and properties
CD9	Opportunities for managed retreat and soft engineering	<ol style="list-style-type: none"> 1. English Nature 	Possibilities on Walney?



Table 2.3 – Summary of Key Local Issues and Problems			
Issue			
Ref. No.	Description	Raised By	Comment
CD10	Reinforcement of scars for coastal defence purposes	1. English Nature	Possibilities off west coast of Walney?
Conservation			
C1	Threat to wildfowling activities	1. Walney Island Wildfowlers Assoc.	1. Inability of conservation bodies to stop threats to natural environment
C2	Maintain integrity of dune systems	1. Environment Agency	1. For protection of wildlife and provision of flood defence
C3	Habitat Damage	1. English Nature	Continuing damage to fragmented coastal habitats .e.g. dunes and shingle on Walney
C4	Encroachment of defences onto landward edges of shingle	1. English Nature	Damage to vegetated shingle habitats
C5	Scrub Encroachment at North Walney	1. English Nature	Reductions in grazing pressure leading to dune stabilisation have led to a decrease in the extent of open dune habitat.
C6	Recreational disturbance to coastal habitats & wildlife	1. English Nature	Activities should be zoned / controlled
C7	South Walney Lagoons	1. English Nature	Habitats at risk from engineering works being undertaken
Amenity, Recreation and Tourism			
ART1	Bathing water standards	1. Furness Tourism Partnership	
ART2	Maintenance of access ramp at Earnse Point	1. Furness Fishing Association	
ART3	Use of quad bikes on the foreshore	1. Walney Island Wildfowlers Assoc.	1. Threat to environment
Land Use and Development			
LUD1	Right for landowners to graze saltmarsh	1. ADAS	
LUD2	Ownership of shoreline	1. Boughton Estates 2. Holker Estates	1. Claim to own all of shoreline 2. Claim to own shoreline at south end
LUD3	Overgrazing of Saltmarsh	1. Cumbria Wildlife Trust 2. RSPB	2. Reduces effectiveness of natural defences and destroys habitats
LUD4	Development threat to the environment	1. Walney Island Wildfowlers Assoc.	



Table 2.3 – Summary of Key Local Issues and Problems			
Issue			
Ref. No.	Description	Raised By	Comment
LUD5	Pollution of foreshore from landfill tips	1. Walney Island Wildfowlers Assoc.	
LUD6	Environmental impact of old landfill sites	1. Environment Agency	1. South Cumbria LEAP Issue No. 6
LUD7	Preservation of agricultural land	1. National Farmers Union	1. Concern that Conservation interests take precedence over economic considerations and livelihoods of farmers
LUD8	Lack of co-ordination between coastal defence strategies and land use planning	1. Environment Agency	
Commerce and Industry			
CI1	Inadequate sewage treatment	1. Environment Agency	1. South Cumbria LEAP Issue No. 19 - Effects on bathing water standards and pollution problems. Options include upgrading treatment at Walney STW.
CI2	Reintroduction of Dynamic launching of ships at Barrow	1. English Nature	Environmental assessment of proposals would be required to evaluate effects on ecosystem.



BBC OS Licence No. LA077062

Figure 2.2 – Issues & Problems