



11d4 Drigg Point to Seascale

(Technical report by Jacobs)

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Policy Area: 11d4 Drigg Point to Seascale

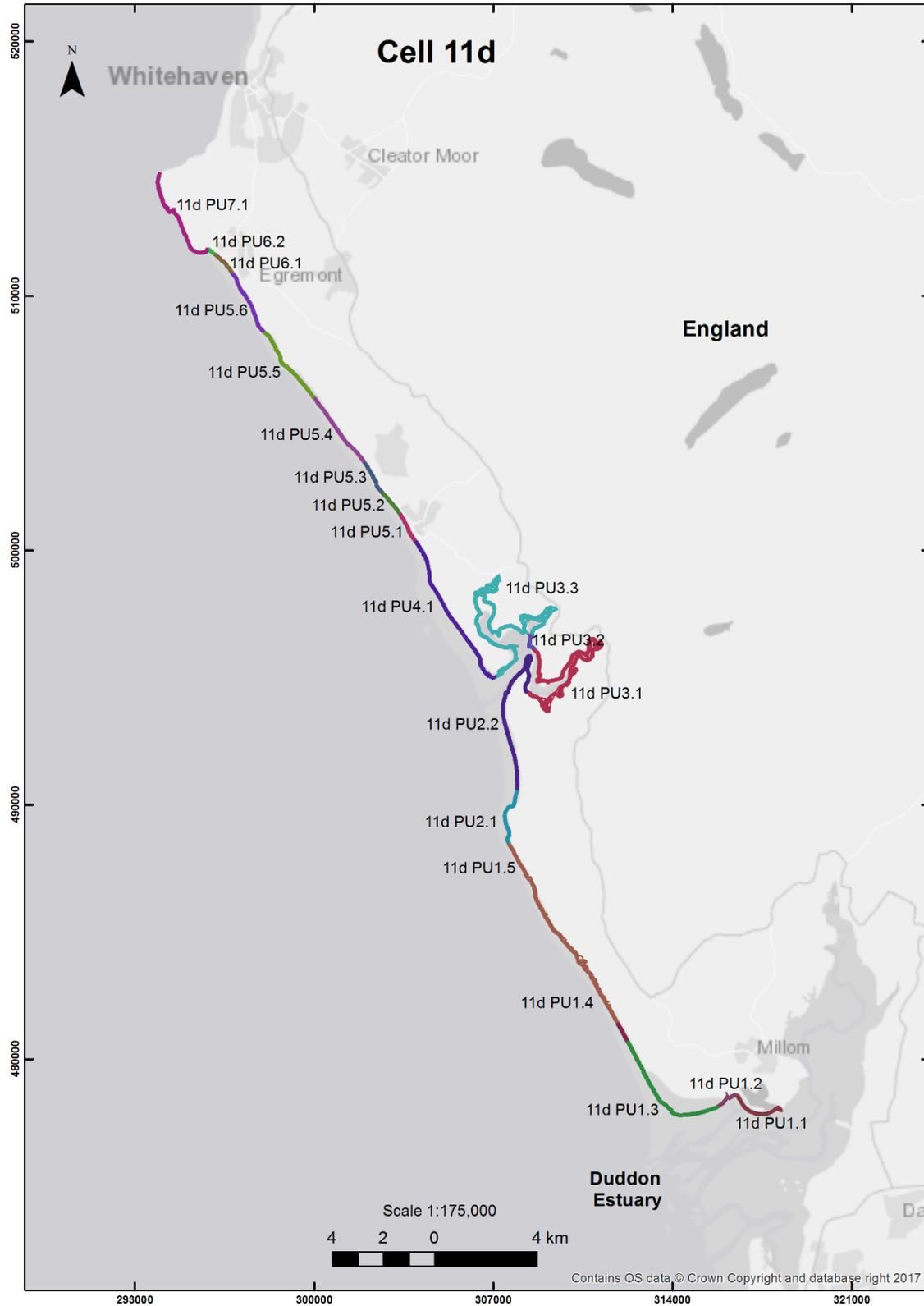


Figure 1 Sub-Cell 11d Hodbarrow Point to St Bees Head Location Plan of Policy Units. Baseline mapping © Crown copyright and database rights, 2019. Ordnance Survey licence number: 1000019596.



Figure 2 Location of Policy Area 11d4: Drigg Point to Seascale. Baseline mapping © Crown copyright and database rights, 2019. Ordnance Survey licence number: 1000019596.

1 Introduction

1.1 Location and site description

Policy units:	11d4.1 Drigg Point to Seascale
Responsibilities:	Copeland Borough Council
Location:	The Policy Area covers the shoreline between Drigg Point and Seascale and extends from the mouth of the Ravenglass Estuary, known as Drigg Point, to the southern limit of the village of Seascale.
Site overview:	<p>The shoreline is backed by the expansive Drigg sand dune system in the south and till cliffs in the north. Most of the frontage is undefended except for a small section of frontage near Seascale (CH2M 2017a), which is considered as part of the appraisal of the adjacent policy area (11d5).</p> <p>Across the frontage, the pattern appears to be one of growth in the far south of the area with increases both to the foredunes and the upper beach, but a more variable pattern of change further north (CH2M, 2017b). The sand-capped cliffs to the north are susceptible to both weathering and wave erosion, with slumping a key failure mechanism and erosion rates believed to be around 0.1 and 0.5 m/year (Halcrow, 2002), although this is likely to be storm-driven, when the majority of change may occur during a single event, but with little year-on-year variation during quiescent periods.</p> <p>Erosion of the beach and cliff deposits are the key contemporary sources of sediment and contribute a wide range of sediments to the beach systems from muds to boulders (Halcrow 2002) to feed adjacent frontages, once it becomes broken down by waves. Any fine sediments are, however, likely to be lost offshore due to the exposed nature of this shoreline.</p> <p>Most of the frontage is designated as a SSSI and SAC with additional designations at Drigg Dunes which is a Local Nature Reserve providing habitats for rare and protected species including the Natterjack Toad. The nearshore zone was designated as a Marine Conservation Zone (MCZ) in 2013, covering the Cumbria Coast, to protect the diversity of habitats found along the headland and to retain its natural character.</p> <p>Part of the site lies within the Lake District National Park and World Heritage Site. There are no scheduled monuments or listed buildings within the frontage, but there remains potential for buried archaeology within the dunes.</p> <p>It is a popular area for bird watchers and dog walkers. Part of the Drigg Coast SAC (on the northern side of the River Irt) is already designated as CROW access land. The proposed route of the England Coast Path follows the toe of the dunes from Seascale to Drigg Dunes car park/ Shore Road, where it turns inland to follow an existing trail through the dunes. A new bridge crossing is proposed at the River Irt.</p>

1.2 Current SMP policy

The policy details for the whole policy area are shown in the table below, taken directly from the SMP2 (Halcrow, 2011).

Table 1 Current SMP Policy for Policy Area 11d4.

<p>Overview: <i>The long term vision here is for a naturally functioning system without any defences or interventions. This will promote a naturally functioning coastline helping to maintain a number of habitats and SSSIs and preventing coastal squeeze in the long term. A limited number of properties and a strip of agricultural land will be at increasing risk of flooding and erosion. The Cumbrian Coastal Way may also be at greater risk of erosion and therefore require sections re-routing in the long term.</i></p>				
Location		Policy and Approach (from 2010)		
		0-20 years	20-50 years	50-100 years
d4.1	Drigg Point to Seascale	<p>No Active Intervention – Continued natural erosion of cliffs and evolution of dune system.</p>	<p>No Active Intervention – Continued natural erosion of cliffs and evolution of dune system.</p>	<p>No Active Intervention – Continued natural erosion of cliffs and evolution of dune system.</p>

2 Appraisal of non-priority units

There is only one unit within this policy area: this has been defined as a non-priority unit.

A light-touch review has been undertaken of current SMP recommendations, taking into account conclusions from option appraisals for the adjacent frontages, where appropriate.

2.1 11d4.1 Drigg Point to Seascale

2.1.1 11d4.1 - Existing approach to flood and coastal erosion risk management

The existing SMP2 policy along this frontage is No Active Intervention through to the long term, to “allow continued natural erosion of the cliffs and evolution of dune system”. The primary justification for the policy was that continued erosion supports the SAC and SSSI designations and there is also no economic justification for intervention.

Most of the frontage (Figure 3, Figure 4) is undefended except for a small section at the very southern end of Seascale which contains a masonry wall which has collapsed exposing the soft cliffs behind (CH2M 2017a). This has been considered within Policy Area 11d5 Seascale to St Bees – Seascale.



Figure 3 Overview map of Policy Unit 11d4.1.



Figure 4 Oblique aerial looking north from Barn Scar to Seascale. Photograph ©North West Regional Monitoring Programme.

2.1.2 11d4.1 - Strategy considerations

Since the SMP2 was adopted, the intertidal and nearshore zone of the Cumbria coast has been designated as a Marine Conservation Zone (MCZ) (designated in 2013) to protect a wide range of habitats found within the site.

The status of the SSSI sites are favourable and the SMP policy is in accordance with the management principles for this designation, which is to allow “coastal processes to proceed freely”, which is considered essential for the “for maintaining the range of habitats and associated species” (Natural England Views About Management (VAM) statement, 2005¹).

The Low Level Waste Repository (LLWR) at Drigg is located just inland of the SSSI area and undertakes monitoring of the nature and extent of coastal erosion along the 11d4.1 policy unit as a requirement to inform its Environmental Safety Case (ESC). The Environment Agency regulates both the monitoring and update of the ESC. The most recent published review of coastal erosion risk to the LLWR in 2010 (Fish et al. 2010) concluded that there was no significant erosion risk to the site within the strategy lifetime (i.e. 100 years) with timescales for the start of erosion of the disposal area estimated to range from a few hundred to a few thousand years.

2.1.3 11d4.1 - Discussion

There have been no significant changes to coastal risks since the SMP and therefore there is no justification for any change in policy, which supports the SSSI designation for this frontage. Therefore, the recommendation would be for the policy to remain.

2.1.4 11d4.1 - Strategic way forward

The preferred strategic approach is to implement the SMP policy of No active intervention through Do nothing, with ongoing monitoring of risk to the Low Level Waste Repository (LLWR) at Drigg as part of the Environmental Safety Case (ESC).

¹ The VAM is available online: <https://designatedsites.naturalengland.org.uk>

Future activities include:

- Continued monitoring of foreshore and dune change, as part of the Northwest Regional Monitoring Programme. This could also consider evidence of impacts of any works undertaken along the adjacent frontage of Seascale.
- Through liaison with LLWR Ltd, ensure coastal monitoring information collated as part of the environmental permit for the LLWR site is incorporated into future appraisals of coastal change undertaken as part of the Northwest Regional Monitoring Programme. In turn this should inform any future strategy or Shoreline Management Plan review.
- If societal changes occur that lead to a desire to actively defend the LLWR national asset, then this will be incorporated within any future strategy or Shoreline Management Plan Review.

3 Summary of proposed strategy: 11d4

		Next 10 years	Beyond 10 years
Preferred strategic approach: Environmental enhancement – allow the area to function naturally.			
11d4.1	Drigg Point to Seascale	Allow area to function as naturally as possible, through implementing no active intervention (no new defences).	
Key actions and activities (next 10 years):			
		<ul style="list-style-type: none"> • Continued coastal monitoring, as part of LLWR Environmental Safety Case and Northwest Regional Monitoring Programme 	

Further details on actions and responsibilities are provided in the **Action Plan**.

4 References

CH2M (2017a). Copeland Asset Inspection Report 2017. Produced for Copeland Borough Council. North West Regional Monitoring Programme.

CH2M (2017b). Copeland Analytical Report 2016. Produced for Copeland Borough Council. North West Regional Monitoring Programme.

Fish P, Thorne M, Moore R, Penfold J, Richards L, Lee M and Pethick J (2010). Forecasting the Development of the Cumbrian Coastline in the Vicinity of the LLWR Site, Quintessa Report QRS-1443X-1 Version 1, September 2010. Available from: llwrsite.com/national-repository/key-activities/esc/escdocumentation.

Halcrow (2002). Futurecoast. CD produced as part of the Futurecoast project for Defra.

Halcrow (2011). North West England and North Wales Shoreline Management Plan SMP2. North West & North Wales Coastal Group. Main report and appendices.