



## **Environment and Sustainability Committee**

### **E&S(4)-20-12 paper 9**

#### **Inquiry into Coastal Protection – Evidence from National Trust**

##### **1. Executive Summary**

- 1.1. The character of the coast of Wales is defined by continuous change, erosion and accretion, a dynamism that will increase in the future with climate change driven sea level rise and the possibility of increased storminess. These pressures will lead to the continuing breakdown of existing engineering works, resulting in an increase to the footprint of the coastal risk zone, in turn posing greater risk to coastal communities, squeezing coastal habitats and species and challenging our current approach to coastal protection
- 1.2. Investment in coastal defence schemes will remain important in the right location but as the Welsh Government's Strategy acknowledges: engineering solutions are time limited, costly and in some instances counter productive. Public policy tends to be framed by an approach often described as 'defend or do nothing'. If the cost benefits do not stack up in favour of defence then public policy has little else to offer, leaving communities feeling abandoned.
- 1.3. To move beyond 'defend or do nothing' it will become increasingly essential to invest in and develop adaptive responses to coastal change, working with, not against, nature and raising public awareness of the validity of this approach. Policies such as roll-back, managed re-alignment and removal of failed sea defences (to reinstate natural coastal processes) need to come to the fore and be embedded in both land-use planning and marine planning. In the context of land use planning TAN14 should be reviewed.
- 1.4. The Government has an important role to play in providing leadership and coordination of coastal change management in Wales, helping us move beyond the defend or do nothing stalemate. To this end the National Trust welcomed the publication in 2011 of the National Strategy for Flood and Coastal Erosion Risk Management in Wales.
- 1.5. The Strategy sets out some important principles about developing a more adaptive approach to coastal change management but we are concerned that there is a lag effect between establishing a strategy and seeing an adaptive approach to practice emerge on the ground. Coastal protection remains the preserve of engineers when in fact an adaptive response would see the land-use planning system and forward planning in particular become the focal point for coastal change management.
- 1.6. The current review of Shoreline Management Plans in Wales is welcomed, particularly as the plans help us take a long term view and work at an appropriate geographic scale linked to the functioning of coastal cells. However there is a sense emerging that the SMP process can lead to difficult and

uncomfortable decisions being put off for the future, raising questions of intergenerational equity.

## **2. Introduction**

2.1 The National Trust welcomes the opportunity to contribute evidence to the Inquiry into Coastal Protection. The National Trust owns some 230kms or one fifth of the coast of Wales, representing all the different coastal typologies and including key access points, natural habitats, heritage sites, popular beaches, visitor centres and coastal settlements.

2.2 In 2007 we published '*Shifting Shores*' explaining how much of this coastline may be affected by climate change. In 2009 we published a companion document '*Coastal Risk Assessment Phase 2*', copies of which have been provided to the Inquiry.

2.3 Our Coastal Risk Assessment document details how we have been working to better understand how the coast will change and what is at risk. Our Risk Assessment tells us that when managing the coast:

- **long-term planning is essential**
- **we need to think and act in a wider context**
- **we have to work with nature not against it**
- **solutions need partnership**
- **involving the public is critical**

2.4 Having assessed risk we can now work to address it. This means changing the way we manage the coast and plan for the future. Our approach to managing coastal change is based on these key principles:

- **understand what change will mean**
- **prepare for change through adaptation and remain adaptive**
- **embrace sustainable development**
- **create the best possible future for our coast and coastal communities.**

## **3. Progressing implementation of The National Strategy for Flood and Coastal Erosion Risk Management in Wales**

3.1 The National Trust was pleased to be able to contribute over the past few years to the development of The National Strategy for Flood and Coastal Erosion Risk Management in Wales

3.2 The Strategy has a strong resonance with our approach set out in section 2 above and we believe the Strategy sets out some important principles about developing a more adaptive approach to coastal change management

3.3 We are concerned however that there is a lag effect between establishing a sound Strategy and seeing an adaptive approach being applied to practice on the ground.

3.4 One barrier we perceive to progress in delivering the Strategy is that in practice, and at a local level, coastal protection remains the preserve of engineers working in

reactive responses to coastal erosion. In contrast an adaptive response to coastal change management, part of the ambition of the Strategy, would see the land-use planning system and forward planning in particular become the focal point for coastal change management. Therefore we would recommend that TAN14, which was published in 1998, should be reviewed, along with relevant parts of Planning Policy Wales, as part of the integration of the Strategy with the land use planning system.

3.5 Review of the planning system should seek to embed within it policies and guidance that encourage and support adaptive responses to coastal change management. Such an approach would help to guard against communities becoming blighted if they are no longer deemed as economically viable to defend. Coastal erosion threatening settlements can take decades to unfold before the housing and infrastructure is lost to the sea. Coastal communities will be blighted by the threat of loss and will decline through this blight and through the loss as it occurs. The blight on communities takes the form of unsaleable houses, threats to livelihoods, loss of community facilities and infrastructure. In combination these can lead to marginalised communities with accompanying deprivation and social exclusion. Embedding adaptive approaches in land use planning is a means of tackling this blight.

3.6 Policies need to be put in place to mitigate these consequences, but not policies that seek merely to prop up failing sea defences. SMP and local FCEMS have a significant role to play in this respect – see 4.0 below

3.7 To move beyond ‘defend or do nothing’ it will become increasingly essential to invest in and develop adaptive responses to coastal change management – working with not against nature. Policies such as roll-back, managed re-alignment and removal of failed sea defences to reinstate natural coastal processes need to come to the fore and be embedded in both land-use planning and marine planning

#### **4. Improving delivery of the objectives of the Strategy through SMP and local Flood and Coastal erosion Risk Management Strategies**

4.1 The review of Shoreline Management Plans in Wales is welcomed, particularly as the plans help us take a long term view and work at an appropriate geographic scale linked to the functioning of coastal cells. However there is a sense emerging that the SMP process can lead to difficult and uncomfortable decisions being put off into the future

4.2 The Strategy may be contributing to this problem as it talks rather loosely about the effects of climate change not being felt for many years, suggesting variously this might not be for 20, 30 or even 100 years. This in turn fuels the temptation to fail to grapple with tricky decisions that would be better made now. This can lead to a ‘not on my watch’ mind set that may be palatable at present but one that does raise questions of intergenerational equity.

4.3 Shoreline Management Plans provide a factual baseline of geomorphological information that in turn helps set the high level policy of: Hold the Line, Managed Realignment etc. But this is indeed high level policy not designed to deal with the nuances associated with coastal change management that occur at a local level or connections with other plans such as catchment management plans. This is where local flood and coastal erosion management strategies have a major part to play. Providing a mechanism for engagement with local communities at a scale that makes sense to the people that live there and offering the possibility for individuals to contribute their

knowledge and experience. In theory at least, enabling communities to become part of the solution rather than part of the problem.

4.4 To date however there seems to have been a reluctance to deploy local flood and coastal erosion management strategies. The case study below for Llandanwg highlights the value of developing more local strategies in the future as a means to reflect the objectives and principles of the Wales Strategy at a local level

### **Case Study - Llandanwg**

The National Trust owns 30 acres of maritime grassland and sand dunes at Llandanwg near Harlech. The dune system is a designated SSSI important for species such as the sea holly and rare sharp rush. It is a popular place for visitors, with parking and facilities nearby. The dunes are subject to erosion which is likely to continue and increase, resulting in the river breaking through the dunes and creating an island.

At present, sea defences protect adjacent land, including houses and the site of the medieval church of Llandanwg.. Some of the important conservation features of the site depend on the coast being dynamic. These will require space to move inland as the shoreline changes. It is possible that there are historic structures associated with the church buried under the sand. These will need to be recorded.

We are currently working to maintain a healthy dune system by planting marram grass and defining footpaths. In the longer term, we and other local stakeholders will need to agree an approach to managing this section of coast which creates the best possible future for people and the environment.

The Shoreline management Plan is the starting point for consideration of future management but a local flood and coastal erosion strategy would be a valuable next step.

## **5. Coastal Protection funding**

5.1 As an NGO the National Trust would not seek to express any particular views on the detail of how coastal change management funding is managed.

5.2 Our interest would be to ensure that funding was not just restricted to being made available for construction of sea defence works but that coastal protection funding should be equally available for encouraging and supporting adaptive responses to coastal change management including stakeholder engagement.

5.3 To move beyond 'defend or do nothing' it will become increasingly essential to invest in and develop adaptive responses to coastal change management through approaches such as roll-back, managed re-alignment and removal of failed sea defences (to reinstate natural coastal processes)

5.4 The National Trust was involved in a number of the recent Coastal Change Pathfinder projects initiated by Defra in England. Whilst Defra is still evaluating the lessons learnt from Pathfinder it is clear to us as participants that the focus on enhancing community understanding of coastal change is an important step to take towards delivering more adaptive responses to coastal change management.

5.5 The National Trust would welcome a programme of pilot projects in Wales along the lines of Pathfinder. A recent positive collaborative experience of a novel approach to managing coastal change at Abereiddi is a case in point:

### **Case Study – Abereiddi, Pembrokeshire**

The beach at Abereiddi near St David's is a rolling shingle barrier beach. It is an important geological site, famous for its graptolite fossils.

There is a car park behind the beach, serving both the beach and the Blue Lagoon, a flooded former slate quarry and one of Pembrokeshire's best-known beauty spots. The National Trust owns the Blue Lagoon, the adjacent coastal land and a small section of the car park.

In the 1960s a sea defence was built by Preseli RDC to protect the car park, using the rails and sleepers from the disused railway track that connected the quarry to the slate works at Porthgain. This prevented the natural evolution of the beach, and as it was incorrectly aligned caused longshore drift from north to south. By the late 1990s the sea defence was being undermined at the north end, fine material was being washed out from behind it and Pembrokeshire County Council who had inherited the liability backfilled it with imported boulders. In time the iron and wood uprights deteriorated to the point where the entire structure was in danger of collapse.

Shoreline Management Plan 2 provided an opportunity to identify a solution. Issues included multiple ownership, the greatly increased use of the car park, and the perceived consequences of the removal of the sea defence for the 3-4 cottages behind the car park.

Standard SMP2 process did not allow for sufficient detail, so the National Trust and PCC jointly funded an additional study by the SMP2 consultants Royal Haskoning to review all the historical, geomorphological, mapping and anthropogenic data, and to produce a plan. The result of this was a study which was used in stakeholder consultations.

PCC removed the sea defence in April 2012 because it was becoming dangerous (see Annex 1 before and after photos). The remainder of the plan, to be implemented later in the year, is for natural processes to be restored to most of the beach but for the introduced boulders to be used to defend a smaller, shaped car park area at the south end. LiDAR confirms that the cottages would be safe from a sea level rise of 2 metres, even without the sea defence.

The agreed plan is a compromise reached through consultation among the stakeholders. The ideal solution, which may become unavoidable in the future, would be for the car park to be removed altogether from the beach area.

## **6.0 Suggestions on how delivery and funding of coastal protection in Wales could be improved.**

6.1 The Executive Summary at the beginning of this paper sets out a number of suggestions about how the delivery of coastal change management in Wales could be improved and it is hoped that the Committees Inquiry will find these suggestions of value.

## **Annex 1 – Abereiddi before and after photos**

**Before** – Showing the failed sea wall and unsightly imported boulder back fill



**After** – Phase 1 of the beach restoration complete restoring the natural function of the barrier beach and enhancing access and amenity of the beach for beach users.

