



One of the Defra sponsored Coastal Change Pathfinder projects

Somerset Coastal Change Pathfinder Report on Project at Porlock Weir

February 2011



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**SOMERSET COASTAL CHANGE PATHFINDER
REPORT ON PROJECT AT PORLOCK WEIR**

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1. INTRODUCTION AND BACKGROUND

1.1 Introduction

The Coastal Change Pathfinder programme is a Department of the Environment, Food and Rural Affairs (Defra) sponsored initiative designed to help local authorities explore new ways of adapting to coastal change.

The Defra Pathfinder programme is intended to improve understanding of how coastal communities can adapt to coastal change, and what assistance and advice can be given to help achieve this objective. The intentions are that it will identify what the costs and benefits of different approaches are and provide practical lessons and examples that can be shared with other practitioners, particularly of community adaptation planning and engagement and delivery of adaptive solutions. It is a learning programme, and throughout this time Defra is keen to capture and share lessons learned from Pathfinder projects.

15 local authorities were successful in securing Defra grants to assist them in their programme of work exploring new approaches to planning for, and managing, adaptation to coastal change in partnership with their communities. These 15 Coastal Change Pathfinder projects will run from December 2009 to Spring 2011.

As one of the successful Coastal Change Pathfinder authorities, Somerset County Council received £235,000 to develop tools and scenarios for communicating with communities about coastal change, and to support business adaptation planning.

1.2 Background to Project

Following the success of obtaining a Defra grant, the Somerset Coastal Change Pathfinder Project was established to help those communities within Somerset that were most at risk of coastal change.

The North Devon and Somerset Shoreline Management Plan (SMP) identified Porlock Weir, Steart, and Brean & Berrow as 'hotspot' at-risk areas. The SMP policy for these locations in the medium to long term recommends either 'No Active Intervention' or Managed Realignment with regard to sea defences. Consequently, the Somerset Coastal Change Pathfinder Project aims to ensure that these three communities increase their resilience to coastal change.

1.3 Purpose of Report

This report is a critique of the Somerset Coastal Change Pathfinder Project, focusing on the work that has been undertaken with the community of Porlock Weir. The report examines both the successes and lessons learnt during the course of the project, and provide practical lessons and examples for sharing with other practitioners.

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2. AIMS AND OBJECTIVES

2.1 Aims of the Coastal Change Pathfinder Projects

The aims of the Defra Coastal Change Pathfinder projects are to:

- Improve understanding of how coastal communities can adapt to coastal change, and what the costs and benefits of different approaches are; and
- Provide practical lessons and examples that can be shared with other practitioners, particularly on community adaptation planning and engagement and delivery of adaptive solutions.

In line with this; the aim of the Somerset Coastal Change Pathfinder Project was to:

- Ensure that coastal communities are well informed about the natural processes which are likely to impact upon coastal change in their area and how they can engage with a positive adaptation process for their area.

2.2 Objectives of the Pathfinder Project in Porlock Weir

In order to achieve the above aims, the Pathfinder project in Porlock Weir had the following objectives:

- To bring together the community of Porlock Weir and surrounding area to discuss with them the changes that are likely to take place due to natural processes and climate change which will lead to increasing risk of failure of the flood defences and flood damage to properties and infrastructure.
- To develop a new innovative communication tool to convey these changes to ensure clear messages are delivered and to enable discussion, thoughts and local information to be gathered; and to focus on adaptation.
- To compile the discussions, thoughts and local information into a meaningful output (an action plan), which will outline a way forward for helping the community of Porlock Weir and the surrounding area adapt for the future.

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3. POLICY, CURRENT SITUATION AND SPECIAL INTERESTS OF PORLOCK WEIR

3.1 Shoreline Management Plan Policy

The North Devon & Somerset SMP outlines the coastal defence policy for the next 100 years. For Porlock Weir (policy unit 7d16), the policy in the short, medium and long term is 'No Active Intervention'.

The policy has been drawn up in recognition of a number of pressures:

- Climate change will lead to increased sea levels and storminess, which would lead to failure of the defences without major intervention.
- Increasing the height and size of defences would have a detrimental effect on the landscape character of the area.
- Maintaining the integrity of the defences is unlikely to be justified under normal benefit cost analyses tests required for public funding of flood defences.
- Long term maintenance of the defence line would have a detrimental impact on Porlock Bay.

The policy recognises the effect on socio-economic and heritage assets that will arise, both from the uncertainty prior to failure of the defences and the reality once they have failed that the low standard of protection could make the community unsustainable. Measures will be required to manage the risk, and help the community prepare for and deal with change.

3.2 Current Situation in Porlock Weir

Porlock Weir is a picturesque harbour (see photo on front cover) nestled beneath the Exmoor hills on the Bristol Channel. Quaint stone buildings and thatched cottages, a selection of shops, and the 15th century Ship Inn are clustered around the harbour, whilst Andrew's on the Weir restaurant and Millers at the Anchor hotel make the village a significant tourist attraction within Exmoor National Park.

Minor flooding occurs in Porlock Weir almost every year. For some residents and traders, this appears to have led to a feeling of complacency. Many residents and traders assume that they will be able to cope with a flood event in the same manner as they do on almost an annual basis. However, there is also a risk that much more severe events may occur, similar to the one experienced in 1981, which affected many communities along the north and west facing Somerset coast or the 1996 storm which significantly affected Porlock Weir.

Extreme events are likely to occur when a storm surge coincides with a high spring tide and gale or storm force winds, which are most likely to occur during the autumn and winter. Such events will bring a high risk of flooding to properties and also of structural damage to walls and timber groynes in the vicinity of the harbour.

The probability of such events occurring is predicted to increase as a result of climate change, which would lead to an unavoidable rise in sea levels and increased storminess.

3.3 Special Interests of Porlock Weir

Porlock Weir is located within the boundaries of Exmoor National Park. This means that there are planning regulations which must be adhered to. The Exmoor National Park Authority Local Plan 2001-2011 (Exmoor National Park Authority, 2005) (including mineral and waste policies) was adopted by the Exmoor National Park Authority on 1st March 2005.

Porlock Weir is designated as a Conservation Area under the Exmoor National Park Authority Local Plan. Conservation Area designation provides control over the demolition of some buildings, the felling of trees and the right to display certain types of illuminated advertisement with the aim of preserving the important historic built environment of Porlock Weir. Conservation Area designation also encourages positive measures of preservation and enhancement, and financial assistance for repairs to important buildings.

Exmoor National Park Authority is currently reviewing its Local Plan and will be looking at coastal considerations and local, regional and national policies on coastal change.

Porlock Weir is also part of the Porlock Manor Estate, which has a great deal of local and wider support as its leading role as a community-minded landowner. The vast majority of shops and a significant number of residential properties are owned by the Estate and rented out to traders and residents. Renovations and repairs of many properties are therefore the responsibility of Porlock Manor Estate, as is maintenance of the harbour and the timber groynes which maintain the entrance to the harbour. As a result, whilst the Estate has a vision for the future sustainability of the community of Porlock Weir, and is working hard to secure benefits for the community to this end, there are limitations which govern the Estate's responses in practical and financial terms.

The timber groyne (Figure 3.1) at the end of the harbour retains the shingle ridge to the west which would otherwise spill into the harbour. The coastal change issue in relation to the groyne is one of natural deterioration, rather than relating to erosion processes or rising sea levels. Were the timber groyne to collapse, the effect on the small harbour would be dramatic with the loss of the small boats reducing the amenity value and relaxed atmosphere of the harbour.



Figure 3.1. Timber groyne protecting the harbour at Porlock Weir

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4. STAKEHOLDER ENGAGEMENT ACTIVITIES

4.1 Introduction

The community engagement programme for the Pathfinder project in Porlock Weir was designed to ensure that trust was built with the community by working with them and engaging them at an early stage, and throughout the project, to ensure that their concerns, interests and priorities were understood. The activities listed in Sections 4.2 to 4.7 were undertaken specifically for Porlock Weir as they were tailored to the unique community.

Further to this, some stakeholder engagement activities were part of the wider Somerset Pathfinder project and are applicable to Steart and Brean & Berrow as well as Porlock Weir.

Somerset County Council commissioned the production of a Somerset Coastal Change Pathfinder website. The website provides an introduction to the project lists public consultation events and includes an interactive timeline highlighting key events throughout Somerset's history that have affected the shape of the coastline. The intention of the website is that it will outlive the specific Pathfinder project and act as a mechanism for communities to share information and experiences regarding coastal change and adaptation to that coastal change.

Somerset County Council has also started work on the establishment of a Community Coastal Team. The scheme will be composed of the historical archiving of local people's knowledge and experience of changes at the coast and coastal monitoring of day-to-day changes. Over time, the subtle changes that occur following each tide or storm event could be documented into a powerful tool that can be used to show how dynamic the coastline really is.

Somerset County Council also commissioned the production of a DVD as an educational tool, to help introduce the project and explain the issues surrounding coastal change to the local communities that were involved in the Somerset Coastal Change Pathfinder Project. The DVD covered all three communities involved in the Somerset Pathfinder project: Porlock Weir, Steart and Brean & Berrow. The DVD included a general introduction and a specific focus on each community. The Porlock Weir section of the DVD was used at the Porlock Weir drop-in sessions (see Section 4.8) and served as a useful introduction to the project.

4.2 Stakeholder Mapping and Interviews with Key Stakeholders

At the outset of the project, the key organisations, stakeholder and community representatives in Porlock Weir and the surrounding area were identified. This was based on sources of information for the community, and what influences them. These groups and individuals were identified by considering:

- What organisations and individuals have an interest in the issues and decision areas?
- Who could represent their interests?
- What are their likely information needs?
- Who holds that information?

- Who are the key 'movers and shakers' who can help marshal resources for implementation?
- Who are the opponents or blockers?

This analysis assisted with identifying the list of individuals and groups to be interviewed (see Section 4.3 below).

In order to assist with development of the Scenario (see Section 4.5 below) which took into consideration the existing environment of Porlock Weir and the surrounding area, including housing and population, access and tourism, economic and social considerations and planning considerations; interviews were undertaken with representatives of the key stakeholder groups listed below:

- Environment Agency
- Exmoor National Park Authority
- Natural England
- Porlock Manor Estate
- West Somerset District Council
- Porlock Weir Traders' Association
- National Trust
- Porlock Parish Council
- Porlock Visitors' Centre

In most instances, the interviews were held face-to-face and other questions were asked via telephone or email. Questions were targeted appropriately to the organisation being interviewed. The interview records are presented in Appendix A. These are not intended to be direct transcripts of conversations, but rather a record of key points made.

The interviews assisted with understanding the historical coastal change and the social, economic and environmental implications of the SMP policy of 'No Active Intervention' on the community of Porlock Weir and the surrounding area. Furthermore, it helped to verify the draft Scenario (see Section 4.5 below) and identify possible adaptation measures for discussion during the subsequent phases of stakeholder and community engagement.

4.3 Informal communication with local residents and traders

In order to build trust with the community of Porlock Weir, the Somerset County Council Pathfinder Project Officer (Paul Jones) made regular visits to the village. At the beginning of the project he visited local businesses, and knocked on residents' doors to introduce himself and the project to local traders and residents. Paul continued these visits to the community throughout the course of the project and got to know the local residents and traders on a personal level, getting involved in the community by visiting the local museum to speak to long standing members of the community and even helping the local visitor centre put up their Christmas tree.

Paul also ran a Pathfinder project stand at the Porlock Weir 'Help for Heroes' fair. The intention of this was to raise awareness of the project and to get to know the community better.

Throughout the course of the project Paul has been a common sight in Porlock Weir and as a result, practically everyone in the small community knows his name or

recognises him. As one resident commented at the third and final drop-in session (see Section 4.6); 'Paul is one of us now'.

4.4 Newsletters

Throughout the course of the project, a series of one-page newsletters were produced and placed in prominent locations in Porlock Weir. These introduced the project to the community and kept the community updated with progress.

4.5 Storm Event Scenario – Newspaper Article

In order to explain to the community the vulnerability of Porlock Weir to coastal change, a 'Scenario' was developed and communicated to the community using a mock newspaper article (see Appendix B).

The Scenario was developed using the following technical information and analysis to determine flood routes within Porlock Weir and the sequence of flooding:

- A review of flood risk studies;
- A knowledge of coastal processes;
- Historic flood events and tide levels;
- Topographic information and a site visit;
- Information from residents and local organisations.

The mock newspaper article detailed a fictitious, future flood event occurring in 2014 but the effects on the community of Porlock Weir that were described in the article were predictions based on the above technical information and analysis. The mock newspaper article explained that a severe storm has the potential to flood properties and businesses in low-lying areas of the village (see Figure 4.3). In addition, shingle material thrown up by the storm would be likely to cause damage to properties, vehicles and boats, as well as affect the operation of the harbour. All residents and visitors to Porlock Weir would be indirectly affected due to disruptions to power supplies and as a result of access roads being cut-off by shingle and floodwater.

Turkey Island (Figure 4.1) and Gibraltar Cottages (Figure 4.2) would be likely to be most affected due to their location on top of the shingle ridge and closest to the sea. Other low-lying residential properties behind the public car-park would also be likely to be flooded. A number of local businesses such as Millers at The Anchor Hotel, Exmoor Glass, Pieces of Eight ladies clothing shop, the Harbour Café and the Ship Inn are also at risk.

Importantly, a storm event may also affect the structural integrity of the timber groynes (Figure 3.1) at Porlock Weir harbour, resulting in shingle spilling into the harbour and affecting the operation of the harbour.

The Scenario was presented in the form of a mock newspaper article. The style and format was produced to imitate a local newspaper and included advertisements of the businesses located in Porlock Weir. The article was illustrated using photographs, modified photographs, maps and graphics, and once completed it was hand-delivered to residents of Porlock Weir with a covering letter explaining the project and the purpose of the article.



Figure 4.1. Cottages on Turkey Island.



Figure 4.2. Gibraltar Cottages on the shingle ridge.

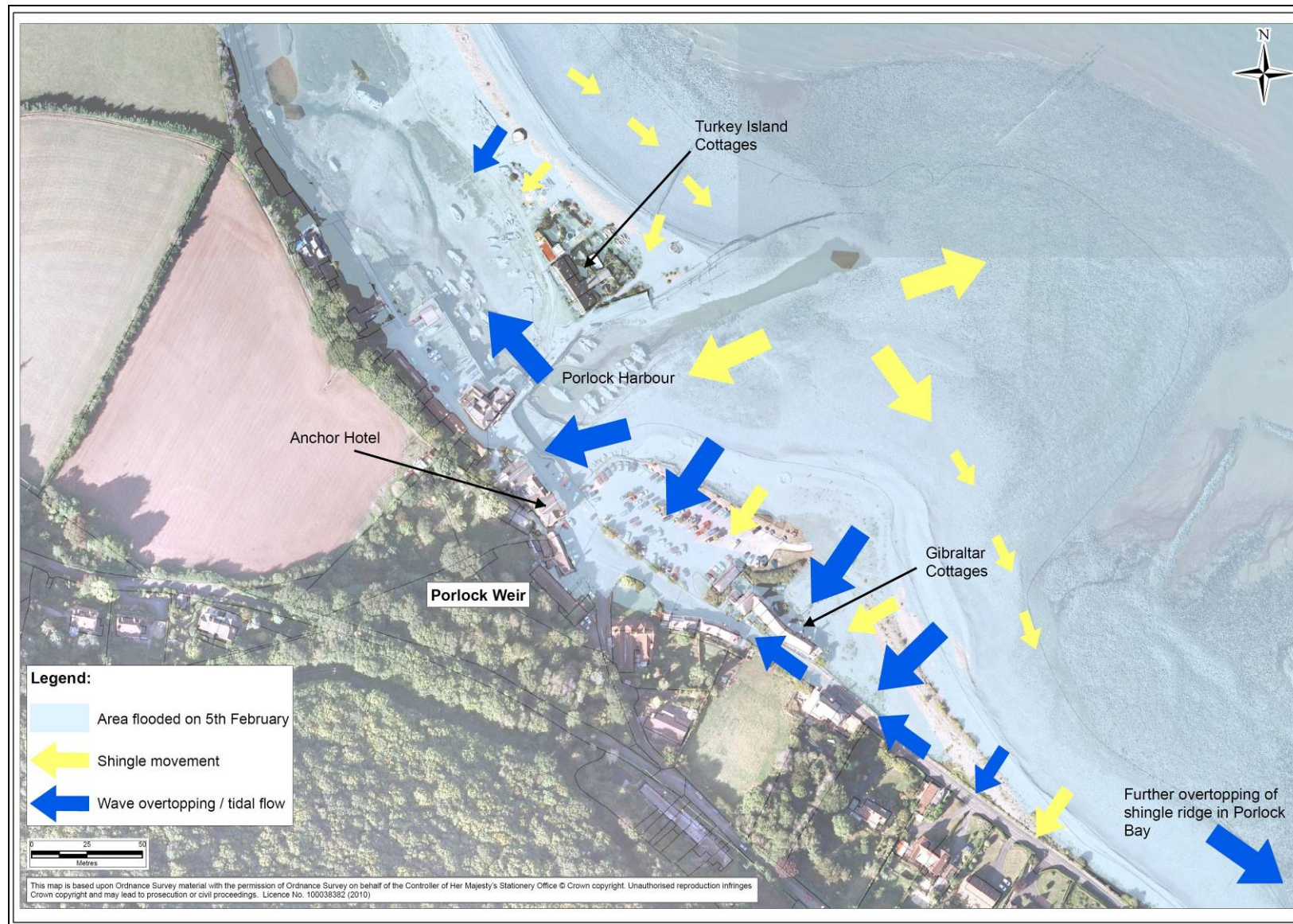


Figure 4.3 Map showing the effect of the Scenario on Porlock Weir.

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4.6 Drop-in Sessions

The community engagement programme for the project included three drop-in sessions in Porlock Weir. The purpose of the drop-in sessions were as follows:

- Drop-in session 1 explained the Scenario and sought suggestions for potential adaptation measures to coastal change
- Drop-in session 2 sought views on suggested adaptation measures and developed the discussion regarding these measures
- Drop-in session 3 presented the draft Porlock Weir Adaptation Action Plan and sought feedback on its content.

Reports from each of the drop-in sessions are provided in Appendix C.

(a) Drop-in Session 1



Figure 4.4. Andrew's on the Weir location of drop-in session 1

The first drop-in session was held at Andrew's on the Weir (figure 4.4) restaurant in Porlock Weir from 1pm – 6pm on Monday 4th October 2010. Drop-in session 1 focused on explaining the Scenario and its economic, social and environmental implications.

One week in advance of the drop-in session, a hard copy of the Scenario and a covering letter were distributed to all residents and traders in Porlock Weir and also to some others in West Porlock and Porlock. Paul Jones also spoke to the majority of

Porlock Weir residents and traders to ensure that they were aware of the drop-in session.

During the drop-in session, a presentation was given at 1.30pm, 3.30pm and 5.30pm. The presentation introduced the Pathfinder project; explained the Scenario and introduced a range of potential adaptation measures which could be adopted by the community of Porlock Weir. Posters introducing the Pathfinder project were displayed alongside suggestions for adaptation measures.

At the first drop-in session, an evaluation questionnaire was distributed. The questionnaire sought stakeholder and community aspirations for the area and initial views and suggestions for potential adaptation measures. The questionnaire responses as well as informal responses provided during drop-in session 1 were used to plan and develop drop-in session 2.

(b) Drop-in Session 2



Figure 4.5. Bottom Ship – Coastal Coffees location of drop-in sessions 2 & 3

The second drop-in session was held at the Bottom Ship – Coastal Coffees (Figure 4.5), a coffee shop in Porlock Weir, from 5.00pm – 8.30pm on Wednesday 3rd November 2010. Drop-in session 2 focused on the suggested community adaptation measures to coastal change in Porlock Weir, and also provided information on Flood Warnings, Emergency Action Plans, and Flood Resistance and Resilience Measures.

During the drop-in session a presentation was given at 5.30pm and 7.00pm. The presentation explained to attendees that the primary focus of the project is on a large flood event, such as the 1981 flood in Porlock Weir, and not the more regular, smaller floods. The presentation also made it clear that there may be some small grants available from government agencies for adaptation measures but that the best way to access these was to input to the Adaptation Action Plan in order to identify the needs of the community.

A variety of adaptation measures were discussed including Flood Warning, Emergency Action Plans, Resistance and Resilience Measures and alternative housing outside of the flood risk area. Posters with information on these adaptation measures were displayed, and leaflets on preparing for floods and how to produce an emergency action plan from the Environment Agency and Somerset County Council Civil Contingencies team were available.

Informal responses provided during drop-in session 2 were used to plan and develop drop-in session 3.

(c) Drop-in Session 3

The third and final drop-in session was also held at the Bottom Ship – Coastal Coffees from 5.00pm to 8.30pm on Monday 6th December 2010. Drop-in session 3 presented the draft Porlock Weir Adaptation Action Plan (see Section 4.7 below) which incorporated all the community's suggested adaptation measures, as well as advice and recommendations from experts in the field of coastal flooding.

During the drop-in session, a single presentation was given at 7.00pm. The presentation explained the draft Porlock Weir Adaptation Action Plan to the community. A variety of adaptation measures were discussed including Flood Warning, Emergency Action Plans, Resistance and Resilience Measures and alternative housing. Posters with information on these adaptation measures were displayed, and literature and samples from manufacturers of resistance and resilience products were available for attendees to take away. Leaflets on preparing for floods and how to produce an emergency action plan from the Environment Agency and Somerset County Council Civil Contingencies team were available.

4.7 Porlock Weir Adaptation Action Plan

The Porlock Weir Adaptation Action Plan (see Appendix D) is a tool designed to assist the community of Porlock Weir in coping with the flood risk in Porlock Weir. It includes the local community's ideas, many of which were gathered during the interviews with individuals, community groups and from the drop-in sessions. The Adaptation Action Plan also incorporates measures identified by experts in the field of coastal flooding including the Flood Incident Management Team at the Environment Agency and the Civil Contingencies Team at Somerset County Council.

This Adaptation Action Plan covers the following issues:

- Flood Warnings
- Emergency Action Plans (individual and community)
- Flood Resistance Measures – to stop flood water entering properties
- Flood Resilience Measures - to minimise damage caused by flood water
- Other Measures (insurance; alternative housing outside of the flood risk area; and actions to be taken in case of major failure of the harbour groyne).

The Adaptation Action Plan is intended as a community guide to 'what needs to happen next' following the completion of the Somerset Coastal Change Pathfinder Project, to ensure that the ideas and actions that the community has identified are put into practice. The Adaptation Action Plan is also intended to be a 'living document' as there may be other measures or actions that the community or individuals might suggest to improve the resilience to coastal change at Porlock Weir.

These could be used to update the plan to support a continuing dialogue into the future.

Within the Adaptation Action Plan it was recommended that the community of Porlock Weir forms a Flood Action Group. This Group would typically involve about four or five members of the community who could work together to carry out the actions in the Porlock Weir Adaptation Action Plan and to update the plan in the light of the community's experience.

The Porlock Weir Adaptation Action Plan has been formatted in such a way as to identify a series of objectives that are designed to improve flood and damage resilience. In order to ensure that the objectives are achieved, it identifies the actions that are required; suggests individual/s or groups who will be responsible for these actions and a target date for completing them. Where possible, references to further information or assistance have been made. Using this approach will ensure that the Adaptation Action Plan is implemented and real progress made in improving the resilience of the community of Porlock Weir to future changes.

5. CRITIQUE OF SUCCESS

5.1 Introduction

This report is a critique of the Somerset Coastal Change Pathfinder Project, focusing on the work that has been undertaken with the community of Porlock Weir. The successes and lessons learnt during the course of the project are examined below in order to permit these findings to benefit future projects.

In examining the success of the project it is necessary to consider the degree to which the following project objectives were achieved:

- To bring together the community of Porlock Weir and surrounding area to discuss with them the changes that are likely to take place due to natural processes and climate change which will lead to increasing risk of failure of the flood defences and flood damage to properties and infrastructure.
- To develop a new innovative communication tool to convey these changes to ensure clear messages are delivered and to enable discussion, thoughts and local information to be gathered; and to focus on adaptation.
- To compile the discussions, thoughts and local information into a meaningful output (an action plan), which will outline a way forward for helping the community of Porlock Weir and the surrounding area adapt for the future.

5.2 Building Trust with the Community

An 'engage-deliberate-decide' (as opposed to 'decide-announce-defend') approach was taken to working with stakeholders and the community. As illustrated by the community engagement programme outlined in Section 4, the project team worked with the community, engaging them at an early stage to understand their concerns, interests and priorities. In taking this approach the project team fully understood the relevant issues which assisted in meeting the subsequent objectives.

(a) Stakeholder mapping

The stakeholder mapping exercise was useful for getting to know the community and type of residents that formed the project's 'target audience'. It also identified the fact that there are a high proportion of elderly residents in the Parish of Porlock Weir and surrounding parishes. Some further research involved looking at the Porlock Parish Plan which stated that "*Most people rely on multiple sources of information*" (see the breakdown below) and that "*The figure that stands out is the very low usage of the website by local residents.*"

Table 5.1 Sources of Information for Porlock Residents

Source of information	Percentage of Porlock residents
Local newspapers	34%
Porlock Vale Newsletter	27%
Public notices	23%
Church newsletter	12%
Porlock Website	4%

Source: Porlock Parish Council, 2008.

With this knowledge the project team was able to appropriately tailor the format of the community engagement activities. This involved the use of media other than a website; including the production of hard copies of the mock newspaper article, questionnaires and notifications of public meetings to ensure that opportunities for engagement with all sectors of the community were maximised. Further to this, drop-in sessions 2 and 3 were advertised in the West Somerset Free Press, the local newspaper. This wide use of media ensured that clear messages were sent to all sectors of the community, and that the entire community had the opportunity to be involved in the project. .

(b) Interviews

Interviewing the key stakeholders was an important tool in understanding historical coastal change and the social, economic and environmental implications of the SMP policy of 'No Active Intervention' on the community of Porlock Weir. This ensured the validity of the Scenario that was developed and communicated to the community. Furthermore, it allowed the project team to understand the concerns, interests and priorities of the different stakeholders and to use this to inform the draft Adaptation Action Plan.

(c) Community Presence

The project officer, Paul Jones, played a vital role in building the community's trust in the Somerset Coastal Change Pathfinder Project, and in bringing the community together to consider how they can adapt to the challenges that the community faces.

By regularly visiting Porlock Weir, knocking on residents' doors, visiting local traders and getting to know them on a personal level, Paul became a regular and trusted face in Porlock Weir. This and the step-by-step approach in which he advertised and invited people to the drop-in sessions bridged the gap between the 'government' funded project and the local community of Porlock Weir, and brought the community along with him on the project's journey. This was an important and invaluable activity in such a small, close-knit community that would not have taken well to 'outsiders' from government organisations coming in and telling them what to do.

5.3 Delivering clear messages and enabling discussion via innovative communication tool

(a) Mock Newspaper Article

The project team used the new and innovative approach of creating a future Scenario and communicating this to the community via a mock newspaper article. This approach was intended to capture the attention of the community of Porlock Weir and make it clear how devastating a large flood event (such as the 1981 event) would be for Porlock Weir in the absence of the employment of suitable adaptation measures. The article was also intended to demonstrate that the community is at risk of an event of this size happening at any time.

The mock newspaper article was delivered alongside an invitation to drop-in session 1. The intention was that the article provided information on the flood risk to allow the community to begin discussions regarding adaptation measures. At drop-in session 1 there was some criticism from the community that the article was 'scaremongering'. However, it was also commented that many of the residents and traders

in Porlock Weir have not experienced a severe flood event, and thus they are unaware of the real risk.

The success of the mock-newspaper article as an engagement method is not clear due to the mixed feedback that was received. In addition, since other communication methods were used simultaneously it is difficult to isolate the success or otherwise of the newspaper article from these other activities.

(b) Drop-in sessions

It was felt that the best way to engage the whole of the community of Porlock Weir together was through use of a series of drop-in sessions. In order to achieve the project objectives the drop-in sessions were carefully planned with drop-in session 1 attempting to raise the community's awareness of the potential coastal changes through use of the Scenario whilst also trying to find out what residents and traders already do to cope with flooding.

Drop-in session 2 then focused on both personal and community adaptation. Promoting those adaptation measures that the community already uses and providing information on other adaptation measures that would also be relevant to Porlock Weir including:

- Flood Warnings;
- Personal and community Emergency Action Plans;
- Flood Resistance and Resilience Measures; and
- Other measures such as insurance and relocation of housing outside of the flood risk area through the building of affordable housing.

Finally, the project team took all of the information gathered from the interviews, informal consultation and the first two drop-in sessions and compiled the draft Porlock Weir Adaptation Action Plan. This was presented and discussed at drop-in session 3.

Although structuring the drop-in sessions in this way was conducive to achieving the project objectives, there were some problems with drop-in session 1 that could have severely hampered the project's ability to achieve its objectives, and ultimately its success. Drop-in session 1 was poorly attended in general, and specifically by Porlock Weir residents and traders. Those that did attend provided a variety of responses ranging from keen interest to apathy and a sense of resignation, to a feeling that the mock newspaper article was 'scare-mongering'. Attendees also commented that most people in Porlock Weir are unaware of the real risk of a severe flood event and that this was why they did not feel the need to get involved in the Somerset Coastal Change Pathfinder Project.

To plan for drop-in session 2, the project team considered the potential reasons for poor attendance and general lack of interest:

- i. **Drop-in session held during day-time** – The Porlock Parish Plan states that 54% of residents of Porlock Parish are retired. It is likely that the percentage of retired residents in Porlock Weir is even higher and thus a large proportion of the 66 residents should have been available to attend.

- ii. **Low awareness of drop-in session** – The mock newspaper article and a covering letter were distributed to all residents and traders in Porlock Weir and also to some others in West Porlock and Porlock. This was undertaken one week in advance of the drop-in session. Paul Jones also spoke to a lot of residents and traders about the drop-in session, ensuring that they were aware of it. An A-frame board outside the venue may have helped to remind people of the event.
- iii. **Lack of knowledge of the risk of a severe flood event** – At drop-in session 1, it was commented that the vast majority of the residents and traders in Porlock Weir have not experienced a severe flood event. It is possible that the residents and traders think that they are able to cope with the small, relatively frequent flood events.

In light of these observations, in order to maximise attendance at the second and third drop-in sessions and enable community discussions to be held, the following actions were undertaken:

- i. **Advertising the drop-in sessions in the West Somerset Free Press** - This newspaper is well read in the community and is published on a Friday. Both drop-in sessions 2 and 3 were advertised for two consecutive weeks before each drop-in session.
- ii. **Visiting residents on a one-to-one basis** – Paul Jones visited residents and traders to discuss the Scenario and ensure that they understood the severity of the flood risk. Paul asked residents and traders to attend the next drop-in sessions and explained that the project will be taken forward in these subsequent sessions.
- iii. **Seeking a few ‘champions’ in the community** – Certain proactive and influential individuals within the local community were asked whether they would act as ‘champions’ for the project and encourage others to attend the subsequent drop-in sessions. These ‘champions’ were provided with a ‘Frequently Asked Questions’ sheet (FAQs) to pass out to people explaining that the project’s objective was to increase the community’s ability to cope with the more severe flood events.
- iv. **Holding subsequent drop-in sessions during the evening** – Both drop-in sessions 2 and 3 were held between 5pm and 8.30pm to allow all residents *and* traders the opportunity to attend.
- v. **Offering snacks and drinks** – Tea, coffee and sandwiches were on offer at drop-in sessions 2 and 3 to encourage attendance.
- vi. **Providing only one presentation during the evening** – During drop-in sessions 2 and 3 it was intended to only give one presentation in order to avoid dilution of ideas and to allow the attendees the chance to hear each others’ views. However, at drop-in session 2 two presentations were given to allow for the fact that groups of people turned up at different times during the evening.
- vii. **Providing answers to the questions which were asked at previous drop-in sessions** – the project team obtained answers to queries raised during the

drop-in sessions and answers were provided at the next drop-in session to demonstrate that the project team was listening to the community.

These measures proved successful and both drop-in sessions 2 and 3 were better attended. Importantly, the majority of the residents most at risk of flooding i.e. the residents from Gibraltar Cottages, Turkey Island and Sea View Cottage attended one or more of the drop-in sessions. By the end of the series of drop-in sessions a total of 31 people had attended, of which 18 either lived in or ran a business in Porlock Weir.

A significant number of the comments made at the drop-in sessions related to the status of Porlock Weir as part of the Porlock Manor Estate. A vast number of the attendees at the drop-in sessions are tenants, rather than owner-occupiers and thus they are reliant on the Porlock Manor Estate to implement some of the suggested adaptation measures. The Estate is aware of the Pathfinder project and drop-in session 2 was attended by Mark Blathwayt, owner of the Porlock Manor Estate. Drop-in session 2 thus served to facilitate discussion between the Estate and the tenants of the Estate.

5.4 Compiling an Adaptation Action Plan

The Porlock Weir Adaptation Action Plan was produced to compile the discussions, thoughts and local information into a meaningful output and outline the way forward for the community of Porlock Weir. The Adaptation Action Plan incorporates many site-specific actions that were identified by the community through the consultation process, resulting in a document which is much more valuable to the community of Porlock Weir than any generic advice or guidance would be.

The Adaptation Action Plan was formatted in such a way that it identifies objectives, what actions are required to achieve the objectives, an individual or group who is responsible for undertaking the actions, sources of additional information and outlines a target date for completion. It is the intention that this user-friendly style will guide the Flood Action Group in pursuing adaptation to coastal change.

The Adaptation Action Plan was presented to the community of Porlock Weir at drop-in session 3. The community demonstrated that it understood the format and agreed with the content of the Adaptation Action Plan.

Within the Adaptation Action Plan it was recommended that the community of Porlock Weir forms a Flood Action Group. The intention is that by 'handing over' the Adaptation Action Plan to a group charged with responsibility for the plan, that this will ensure that the plan is implemented and maintained as a 'live' document based on the community's experience.

The success, or otherwise, of the implementation of the Adaptation Action Plan by the community of Porlock Weir will be determined over the forthcoming months.

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6. FUTURE WORK AND RECOMMENDATIONS

6.1 Future Work

The Adaptation Action Plan sets out the following actions to be carried out by the Somerset Coastal Change Pathfinder Project team between now and Spring 2011:

- Identify individuals within the community of Porlock Weir who are willing to be part of the Porlock Weir Flood Action Group and set-up the Porlock Weir Flood Action Group;
- Facilitate the first Porlock Weir Flood Action Group meeting, and involve the Environment Agency's community flood planning officer in this so that the Porlock Weir Flood Action Group has a point of contact for advice once the Somerset Coastal Change Pathfinder Project has finished;
- Facilitate a link with the groups in Holnicote and Porlock who have already developed Emergency Flood Plans so that they can exchange ideas and experiences;
- Involve the community of Porlock Weir in the Environment Agency facilitated 'Exercise Watermark' in March 2011 to test the community's preparedness for a flood;
- Continue working with Exmoor National Park Authority planning department to investigate opportunities for Porlock Weir to adapt to coastal change within the Local Development Framework; and
- Obtain a contact at the Charity Commission for the Porlock Weir Flood Action Group so that if the community wishes to pursue setting up a charity for fundraising purposes they have someone who can guide them through the process.

6.2 Recommendations

The Somerset Coastal Change Pathfinder Project can also make the following recommendations for those undertaking similar projects elsewhere:

- Use of the 'engage-deliberate-decide' approach to stakeholder engagement;
- Undertaking stakeholder mapping of the community involved. This will help to gain a better understanding of the members of the community with which you are working, which in turn will enable you to communicate and work with them more effectively;
- Interviews with key stakeholders are invaluable in ensuring an understanding of the context of the history of flooding and flood policy within the community and surrounding area. It also enables you to 'ground-truth' any flood modelling work by confirming exactly which areas / properties flood in what size of event, thereby increasing the accuracy of any predictions;

- A dedicated project officer is vital in a project such as this, especially with a small close-knit community in order to gain individual's trust and encourage them to engage with the project;
- The ability of drop-in sessions to bring together and engage communities should not be underestimated. This is especially relevant where there is an elderly population that might be less receptive to other forms of communication. Individuals value highly the experience of a two-way dialogue, as well as the opportunity to ask questions and make suggestions;
- However in using drop-in sessions it is important to consider the following:
 - How to most effectively publicise the event. Consider adverts in local press; personal invitations and the assistance of proactive members of the community to promote the event;
 - Making the event accessible: consider the venue, access for disabled and/or elderly visitors; and the time of the event;
 - Offer hospitality and/or incentives: such as refreshments (tea and coffee as a minimum) and the potential use of freebies, although these need to be appropriately targeted to the audience;
 - The format of the event: i.e. try to avoid an overload of information and allow attendees the opportunity to contribute their thoughts and suggestions; and
 - Provide answers to queries. If you are undertaking more than one drop-in session providing answers to queries from previous sessions is vital to demonstrate that the project is listening to the community, and is sincere in its desire to help.
- Provide a non-technical tangible output (such as the Adaptation Action Plan) that can be forward by the community at the conclusion of the project.

7. REFERENCES

Exmoor National Park Authority, 2005. Exmoor National Park Authority Local Plan 2001– 2011.

Porlock Parish Council, 2008. Porlock Vale Parish Plan: Shaping our Future.

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APPENDICES

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APPENDIX A: RECORDS OF INTERVIEWS

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Coastal Change Pathfinder Project



Interview Questions for the Environment Agency

- Q1. What maintenance activities have you undertaken in recent years at Porlock Weir?
Please refer specifically to timber groynes, the shingle ridge, walls and other defences.

Please provide further details...

The Environment Agency (EA) does not carry out maintenance works to any assets in Porlock Weir. The EA is aware that levels are very critical along this stretch of coastline so it does undertake Tide Watch at Porlock Weir.

- Q2. What is the approximate annual expenditure on each of the defence types referred to in Question 1?

Please provide further details...

The Asset Management Plan for the system within which Porlock Weir resides allows for an annual maintenance budget of £4,000 and assumes a minimum need of £2,000. Porlock Weir is a small part of this system.

However, nothing is currently spent on the timber groynes, the shingle ridge, walls and other defences in Porlock Weir.

- Q3. How would you envisage that your maintenance activities will change in view of reduced budgets and the Shoreline Management Plan policy of 'No Active Intervention'?

Please provide further details...

There will be no change. The Shoreline Management Plan confirms that the EA's existing approach is the right approach.

- Q4. What monitoring work do you undertake in Porlock Weir and Porlock Bay and will this change in the future?

Please provide further details...

There is a coastal monitoring programme for Porlock Bay. This is funded by Defra and is a joint initiative with West Somerset District Council and the Environment Agency. Work is undertaken by Plymouth Coastal Observatory and technical reports are provided on an annual basis.

Q5. What arrangements do you have for tide watch and flood warning?

Please provide further details...

All astronomical tide levels are taken from Hinkley Point datum. The criteria for establishing a provisional or definite tide watch are based upon forecast tidal levels at Hinkley Point, forecast surge, wind speed and wind direction. A tide watch will always take place where levels are forecast to exceed 6.6m regardless of any other condition. A tide watch may also be in place at 6.1m and above depending on the forecast wind conditions. Where a tide watch is established, standby staff should inspect tidal defences before, during and after the time of high tide.

Criteria for issuing a flood warning at Porlock Weir are also based upon forecast tidal levels at Hinkley Point, forecast surge, wind speed and wind direction. Where tide levels are forecast to exceed 7.0m a flood warning message will be sent via the EA's automated flood warning system (Floodline Warnings Direct-FWD). This message is disseminated to professional partners, the media and the general public.

Of the 33 properties within the existing flood warning area at Porlock Weir and eligible to receive flood warnings, 28 are currently registered with the EA. Since the introduction of FWD in Jan 2006, the EA has issued a flood warning at Porlock Weir on 15 separate occasions- most recently in March 2010.

Q6. Do you have emergency plans for this length of coastline?

Please provide further details...

There is no Major Incident Plan for this area. Emergency plans are the flood warning (as set out above).

Q7. Do you have records of storm events affecting Porlock, including the 1981 event?

Please provide further details...

[Data and mapping team to provide]

Q8. As a member of the North Devon and Somerset Coastal Advisory Group, what are the effects that the Environment Agency would envisage on Porlock Weir as a result of the Shoreline Management Plan policy of 'No Active Intervention'?

Please provide further details...

The flood risk would remain.

Q9. Would you have any concerns about any proposals by individuals or organisations to carry out works:

To improve flood defences – at community or property level?

To the terminal groyne at the harbour?

To reshape / improve shingle ridges?

Yes No



If 'Yes', please provide further details...

The EA would have concerns regarding other parties moving the shingle around in terms of effects on coastal processes. The EA might be able to provide support in terms of data, technical knowledge, officer time or a local levy for any flood risk management works. However, there is unlikely to be any funding. The EA may also be able to set up a Flood Warden system via a Flood Action Group.

In preparation for answering Questions 10 and 11, please refer to the Draft Scenario plan accompanying this questionnaire.

Q10. Do you agree with the effects we have identified in the draft scenario?

Please provide further details...

Yes, the scenario is accurate. Could consider including the equestrian centre. Make it clear that water may not come in to Porlock Weir at all locations, it may just be some of them.

EA suggested not using the word 'scenario', use a simpler term instead.

Q11. Should the draft scenario occur, to what extent would the Environment Agency be involved in any clearance or emergency measures required?

Please provide further details...

This would depend on what effects the storm event has had on Minehead, Burnham, Severn Beach, Avonmouth and possible Bridgwater. The EA would need to check the flood defences in these locations first. If it is only Porlock that has been affected, then the EA will help as much as possible.

EA assistance will also depend on how the EA can get to Porlock Weir. The EA would work strategically with West Somerset District Council to deal with the incident. The EA would likely visit Porlock Weir, assess the damage and advise on clean-up, such as where the shingle should be placed.

A No Active Intervention policy does not apply to emergency response. If the EA has the resources it will do what it can to support.



Coastal Change Pathfinder Project



Interview Questions for Exmoor National Park: Recreation Representative

N.B. The figures provided are generally estimates based on the STEAM trend data. Figures relate to 2008 – 2009 figures TBC shortly. Further detail can be found in the STEAM (2008) figures and the State of Tourism reports published by ENPA.

<http://www.exmoor-nationalpark.gov.uk/sustainable-tourism/research.htm>

Q1. How many visitors are there to Exmoor National Park each year?

No. of Visitors

Q2. How do visitor numbers vary throughout the year?

Please provide further details...

See attached sheet. As with most rural areas the peaks occur during school holidays. The winter months tend to be significantly lower than the national average occupancy due to lack of city breaks, business tourism etc.

Q3. Do you have visitor numbers specifically for Porlock Weir?

Yes No

Please provide further details...

We collect estimated trend data for the National Park as a whole via the STEAM model – it would not be viable for us to collect detailed robust data at each settlement. We do know however that Porlock Weir has 91 known bed spaces – approx 0.01% of the total known bed spaces on Exmoor (6716). However Porlock Weir is a popular destination for both day visitors to the area and those staying elsewhere in the area on trips out. Porlock Manor Estates would have some information I imagine on car parking at Porlock Weir which would begin to provide a clearer picture of actual numbers.

Q4. Are the majority of the visitors day-visitors?

Yes No

Within Exmoor NP it is estimated that visitor numbers consist of 1.08m day visitors vs 908,000 staying visitors a year.

If not, how long do they tend to stay for?

2-3 Days 4-7 Days 7+ Days

Average length of stay for staying visitors in Exmoor is 2.2 nights for serviced accommodation, 5.3 nights for non-serviced accommodation. Of course some stay for a few weeks, some just for the night.

Q5. Where do the majority of visitors tend to stay? Do any visitors stay in Porlock Weir?

Please provide further details...

Visitors visiting Porlock Weir could be staying at any number of locations within the Greater Exmoor area (aside from day visitors). Porlock is the closest larger town and has a large bed-stock but people will travel from across the area.

Clearly some do stay at Porlock Weir given the establishment of a number of businesses. We are aware of 91 bed spaces between 6 establishments in the area, however occupancy rates can vary dramatically between one business and another. For exact figures you'd need to approach the businesses themselves (perhaps through Porlock Weir Traders Association and / or Porlock tourism Association).

Anchor Hotel & Ship Inn	39
Andrews-on-the-Weir	10
Porlock Vale House	30
Seaview Cottage B&B	4
Chapel Knap (cottage)	4
Woodlands (Cottage)	4
Total	91

Q6. Do you have figures relating to visitors staying longer than a day?

Yes No

Please provide further details...

Yes – see Q4 above. If you require further information (e.g. breakdown of expenditure for staying visitors to Exmoor) please let me know.

Q7. What attracts visitors to Exmoor National Park? What activities do visitors undertake when visiting Exmoor National Park?

Please provide further details...

We are currently conducting an updated visitor survey – the information below refers to 2005:

Top 10 Attractors to Exmoor:

- Scenery – 93%
- Tranquillity 76%
- National Park 63%
- Outdoor activities 59%
- Coast 57%
- Wildlife 53%
- Easy to get to 39%
- Quality of accommodation 31%
- History and heritage 30%
- Access to local produce 26%

Top 10 Activities undertaken:

- Visiting towns and villages 79%
- Short walks 76%
- Eating Out 71%
- Sightseeing by car 68%
- Relaxing 50%
- =Long walk 47.5%
- =Shopping 47.5%
- Visiting attractions 42%
- Wildlife watching 39%
- Swimming 11%

Q8. Please rank in order (1-6) of importance the amenities in Porlock Weir which attract visitors (with 1 being the most important):

Harbour and boats	[4]
Shops	[6]
Restaurant/Pub	[3]
Ambiance	[1]
Proximity to Porlock Village	[5]
Walks	[2]

N.B. I've provided a personal opinion above based on knowledge of the visitor economy – however really this is something that should be tested in a specific visitor focused survey.

In preparation for answering Questions 9, 10, 11 and 12, please refer to the Draft Scenario plan accompanying this questionnaire.

Q9. Are visitors to Exmoor National Park likely to be aware of what the effects of a storm at Porlock Weir may be?

Yes No ?

Please provide further details...

This has not been tested by ENPA so I can't really say. Having said that many of our visitors tend to be older and well educated. I sit on the tourism sector group for Climate South West and regularly promote climate change adaptation messages and resources (e.g. climateprepared.com) to the tourism sector through training events and briefings.

Q10. Should the draft scenario occur, what immediate effects would this have on services provided to visitors to Exmoor National Park?

Please provide further details...

Lack of parking and access to Porlock Weir along with a loss of accommodation facilities and the general resources. However outside of this area visitor facilities would continue as normal.

Q11. Should the draft scenario occur, what effects do you think this would have on subsequent annual visitor numbers to Exmoor National Park?



Please provide further details...

Clearly this could potentially have a negative impact on visitor numbers to Porlock Weir itself in the short term. The longer term is less predictable. The floods at Boscastle and at Lynmouth on Exmoor have shown that they have raised significant awareness of the areas as visitor destinations and indeed even today Lynmouth is often visited by those wanting to discover the story of the floods. In the instance of Boscastle I know the floods prompted collective action from a number of tourism providers which has benefited the area post the floods. However if coastal flooding is to increase in regularity this would clearly pose a long term threat to the visitor economy of Porlock Weir.

Across Exmoor the impact of coastal flooding at Porlock Weir alone is unlikely to have a significant impact on the tourism economy of the area and visitor numbers. There are lessons to be learnt following the recent Cumbria floods to ensure the media represent the correct information at the time (e.g. just because floods have strongly impacted on some areas and visitor infrastructure the whole area is not necessarily closed).

- Q12. Should the draft scenario occur, what measures would Exmoor National Park Authority take to continue to achieve National Park purposes (*'To conserve and enhance the natural beauty, wildlife and cultural heritage of the National Parks'* and *'To promote opportunities for the understanding and enjoyment of the special qualities of the Parks by the public'*)?

Please provide further details...

Cannot answer without further research.

- Q13. How important is Exmoor National Park to the community and economy of Porlock Weir?

Please provide further details...

Tourism is the dominating sector of the economy in Porlock Weir (as it is across the National Park) and many local residents have jobs that are directly or indirectly related to tourism (approximately just over 2000 FTE jobs are supported by tourism – and with a total population of less than 11,000 this is clearly a big sector).

The NPA does not have a direct promotional remit with regards to tourism but works in partnership with others through the Exmoor Tourism Partnership. Principally the Authority's support for tourism is within 4 key areas:

- Taking a lead role in the conservation and enhancement of the special qualities of Exmoor on which the tourism economy is wholly dependent upon.
- Taking a lead in maintaining the recreational and tourism infrastructure such as public rights of way, access to open areas, car parks and maintenance of regional and national trails
- Visitor information and guidance on places to visit and things to do via National Park centres, Local Information Points, ranger service, publications etc
- Support and development of sustainable tourism activities through training sessions, information briefings, research and monitoring of trends, facilitating improved public transport etc.

The top reasons for visiting the area (see Q7) demonstrate the importance of the high quality natural environment, now protected as an NP, and the opportunities afforded within that environment.

- Q14. How have previous flood events affected Exmoor National Park and its purposes (*'To conserve and enhance the natural beauty, wildlife and cultural heritage of the National Parks'* and *'To promote opportunities for the understanding and enjoyment of the*



special qualities of the Parks by the public)?

Please provide further details...

Don't have information in my area to answer this question (Please see other questionnaires from ENPA representatives)

Q15. How much involvement does Exmoor National Park have in local decision making in Porlock Weir?

Much Involvement Some Involvement No Involvement

If you indicated involvement above, is this involvement via committees, local groups or other means? Please provide further details...

Don't have information in my area to answer this question (Please see other questionnaires from ENPA representatives)

Monthly visitor statistics to Exmoor National Park (derived from STEAM 2008 report)

Visitor Days 000's	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
Serviced Accommodation	18.5	20.5	19.2	19.9	31.0	32.3	40.2	45.5	38.4	28.4	11.5	11.9	317
Non-Serviced Accommodation	7.1	11.7	22.2	47.5	67.4	68.6	84.0	96.3	66.2	48.9	15.7	15.3	551
SFR	5.9	1.9	2.2	5.0	3.3	2.5	4.1	4.3	2.3	2.4	1.6	4.8	40
Day Visitors	15.0	21.4	29.7	101.9	111.9	115.6	148.6	173.2	229.2	71.2	29.6	35.6	1,083
Total Tourist Days 000's	46.5	55.6	73.3	174.2	213.6	219.0	276.8	319.3	336.1	150.9	58.4	67.6	1,991

Visitor Numbers 000's	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
Serviced Accommodation	13.1	11.5	8.5	8.7	13.0	12.6	14.2	17.7	14.2	11.0	7.5	4.9	137
Non-Serviced Accommodation	1.2	2.2	4.4	9.1	13.0	14.0	15.8	17.5	13.2	9.2	2.9	2.9	105
SFR	2.4	0.9	1.0	1.8	1.5	1.2	1.7	1.7	1.0	1.1	0.8	1.9	17
Day Visitors	15.0	21.4	29.7	101.9	111.9	115.6	148.6	173.2	229.2	71.2	29.6	35.6	1,083
Total Tourist Numbers 000's	31.6	36.1	43.6	121.4	139.5	143.4	180.2	210.0	257.7	92.5	40.8	45.2	1,342



Coastal Change Pathfinder Project



Interview Questions for Exmoor National Park: Landscape Representative

- Q1. Please describe the value of the landscape of Exmoor National Park? Please focus specifically on the Porlock Weir area.

Please provide further details...

Exmoor was designated a National Park because of the natural beauty of the landscape. Its designation was not only because of the open moorland and beautiful wooded valleys but also the picturesque villages and dramatic coast, offering opportunities for riding, walking and driving.

The area surrounding the Weir lies within a small and particularly unique landscape character type (C. Low Farmed Coast and Marsh). This is described in the Exmoor Landscape Character Assessment 2007 – see below

http://www.exmoor-nationalpark.gov.uk/index/learning_about/looking_after/landscape/landscape_character_assessment_2007.htm

This is a landscape of exceptionally high value. It is an informal “honeypot site”, well visited and one of the most important sites for visitors in the National Park.

- Q2. How important is the coastal protection of Porlock Weir to the landscape of Exmoor National Park?

Please provide further details...

I do not consider that I have sufficient evidence to answer this question as I would need to know the nature of the “coastal protection” and its cost implications.

- Q3. What are your thoughts on the preferred Shoreline Management Plan policy of ‘No Active Intervention over all epochs?

Please provide further details...

I would support low key management / maintenance of the harbour carried out in a way that is in keeping with its historic character – using local materials and traditional techniques. Larger scale, hard sea defences may themselves have significant and intrusive visual impacts.

In preparation for answering Questions 4, 5, 6 and 7 please refer to the Draft Scenario plan accompanying this questionnaire.

Q4. Are you aware of what the effects of a storm may be on Porlock Weir?

Yes

No

Please provide further details...

I have looked at the scenario map provided.

Q5. Should the draft scenario occur, what immediate effects would this have on the landscape of Exmoor National Park?

Please provide further details...

Mud, debris, litter, shingle would be spread across the site. Could be offensive smells from sewage / rotting vegetation. Loss of historic buildings and surrounding gardens / walls. Longer term saltwater inundation will mean trees and other vegetation die.

Q6. Should the draft scenario occur, what longer term effects would this have on the landscape of Exmoor National Park?

Please provide further details...

Tree loss.
Buildings will become uninhabitable – boarded up? Loss of the honeypot site.

Q7. Should the draft scenario occur, what measures would Exmoor National Park Authority take to continue to achieve National Park purposes ('To conserve and enhance the natural beauty, wildlife and cultural heritage of the National Parks' and 'To promote opportunities for the understanding and enjoyment of the special qualities of the Parks by the public')?

Please provide further details...

Can't answer this question at this stage.

Q8. How might adaptation measures (such as construction of flood defences) affect the landscape of Exmoor National Park?

Please provide further details...

See above – large scale engineering solutions may have negative impacts.

Q9. How important is Exmoor National Park to the community and economy of Porlock Weir?

Please provide further details...



Cannot answer.

Q10 How have previous flood events affected Exmoor National Park and its purposes (*'To conserve and enhance the natural beauty, wildlife and cultural heritage of the National Parks'* and *'To promote opportunities for the understanding and enjoyment of the special qualities of the Parks by the public'*)?

Please provide further details...

Breach in the shingle ridge mid 1990s. NPA heavily involved in negotiating outcomes with National Trust, Porlock Manor Estate and local people.
ENPA supported "Managed Retreat"

Q11 How much involvement does Exmoor National Park have in local decision making in Porlock Weir?

Much Some None

If you indicated involvement above, is this involvement via committees, local groups or other means? Please provide further details...

Occasional involvement through Management Planning for Porlock Marsh (NPMP target)
Planning Authority for area
National Park Management Plan / Local Plan consultations – every 5 years
Volunteers operate in area (e.g. beach clean)
ENPA own the toilets and let part of the building to the Exmoor Natural History Society
ENPA owns nearby woodlands at Culbone
Involved with monitoring archaeology of shingle ridge



Coastal Change Pathfinder Project



Interview Questions for Exmoor National Park: Land Agent Representative

- Q1. How much land does the Exmoor National Park Authority own? Is any of the land rented out? If so to whom?

Please provide further details...

- 4,713 ha (11,647 acres)
- Driver Farm, Mr B Owen
- Hoarok, Mr P Wyatt
- North Hill, Mr & Mrs R Webber
- Land at Warren, Mr & Mrs Hawkins
- Larkbarrow, Mr P Burge, Mrs C Burge & Mr T Burge
- Mill Hill, Mr B Woollacott,
- Land at Exmoor Forest, Hon Dr G & Mr A Greenall
- Long Holcombe, Mr C Stanbury
- Burcombe, Mr & Mrs J Tucker
- East Anstey Common, Messrs N & C Holland

- Q2. What is the range of landuse of Exmoor National Park Authority's land? Please focus particularly on the landuse of the National Park in the vicinity of Porlock Weir.

Please provide further details...

The most distinctive elements of the Exmoor landscape are its moors and heaths that afford a sense of wildness that is very rare in southern Britain. Approximately 19,300ha (28%) of Exmoor National Park is specifically designated by UK and European law to protect its distinctive wildlife. 8,400ha is covered by woodland with about 3,000ha of forestry plantations in the National Park.

The majority of land on Exmoor is in private ownership and the activities of farmers and landowners have a major impact on the landscape which we see today. More than 80% of the land area of the National Park is farmed and farmers make the most important contribution to environmental management on Exmoor. The latest figures (2005) show a total of 864 registered farm holdings managing just under 53,000ha of which 22.5% is classed as rough grazing. However the farming landscape has potential to change rapidly as farmers respond to economic pressures and changing agricultural practices e.g. the changing economics of farming have led to many changes in farm management and the growth of previously smaller scale activities such as game bird shoots. There are more than 70 commercial game bird shoots in the greater Exmoor area and management of approximately 37% of the land area of the National Park is undertaken wholly, or in part, by shooting providers.

There are 24 Settlements in Exmoor National Park, the 3 main settlements are Dulverton, Lynton and Lynmouth and Porlock. Overall there are around 4,900 occupied households. The Exmoor economy is characterised by a high proportion of micro-businesses with less than 5 employees and a high proportion of self-employed.

The area around Porlock weir is low farmed coast and marsh. In the Porlock Vale and on the Brendon Hills – arable crops are grown and there are a few dairy farms on the perimeter of the area.

- Q3. How important is the coastal protection of Porlock Weir to the Exmoor National Park Authority?

Please provide further details...

Exmoor National Park Authority sat on the Steering Group for the Shoreline Management Plan and is as such signed up to the Shoreline Management Plan. Exmoor National Park Authority is also sitting on the steering group for the Porlock Weir Pathfinder programme. As such, Exmoor National Park Authority aims to work in partnership to protect the coast of Porlock Weir and indeed the whole of the Exmoor coast in line with national policy and the National Park's statutory purposes and aims and objectives as set out in the National Park Management Plan and the Local Plan.

- Q4. What are your thoughts on the preferred Shoreline Management Plan policy of 'No Active Intervention' across all epochs?

Please provide further details...

See Above (Q3)

In preparation for answering Questions 5, 6, 7 and 8, please refer to the Draft Scenario plan accompanying this questionnaire.

- Q5. Are you aware of what the effects of a storm may be on Porlock Weir?

Yes No

Please provide further details...



Have seen the map proposed by Black and Veatch, created for the Pathfinders project accompanying this questionnaire.

- Q6. Should the draft scenario occur, what effects would this have on the land and properties owned by Exmoor National Park Authority?

Please provide further details...

We own the toilets adjacent to the car park, there would be a loss of this asset due to this scenario.

- Q7. Should the draft scenario occur, what measures would Exmoor National Park Authority take to continue to achieve National Park purposes ('To conserve and enhance the natural beauty, wildlife and cultural heritage of the National Parks' and 'To promote opportunities for the understanding and enjoyment of the special qualities of the Parks by the public')?

Please provide further details...

Further research required to answer this question

- Q8. Would the Exmoor National Park Authority consider developing its own flood defences to avoid such a scenario occurring?

Yes No

If you answered 'Yes' to Question 8, please provide further details. If you answered 'No, please explain why...

Further research required to answer this question

- Q9. Bearing Question 8 in mind, would the Exmoor National Park Authority consider other adaptation measures?

Please provide further details...

We are currently reviewing our Local Plan and will be looking at coastal considerations and local, regional and national policies on coastal change. The findings of this study will also be taken into account.

- Q10. How important is Exmoor National Park to the community and economy of Porlock Weir?

Please provide further details...

As Porlock Weir is designated part of the Exmoor National Park, its land and landscape is protected under national park purposes. National Parks have a statutory duty to:

- Conserve and enhance the natural beauty, wildlife and cultural heritage of the area
- To promote opportunities for the understanding and enjoyment of its special qualities by the public

The Exmoor National Park Management Plan has objectives under employment and community to (p.85-86):

H1- to ensure housing needs are adequately met to sustain local communities and the landscape and facilities of the National Park

H2- to support the provision and retention of community facilities and services that are reasonably accessible and affordable to Exmoor's residents

H3- to develop the greater Exmoor economy in ways that will increase the range and scope of employment and training opportunities for local people, particularly those that benefit people with relatively low household incomes and that relate to or further conservation and enhancement of Exmoor's special qualities.

As such the Exmoor National Park Authority works in partnership to fulfil these aims and objectives to ensure the economic and community wellbeing of Porlock Weir.

- Q11. How have previous flood events affected Exmoor National Park and its purposes ('To conserve and enhance the natural beauty, wildlife and cultural heritage of the National Parks' and 'To promote opportunities for the understanding and enjoyment of the special qualities of the Parks by the public')?

Please provide further details...

The shingle ridge breach affected the recreational enjoyment of the area by making part of the South West Coast path inaccessible. Although this is an issue, realignment of the coastal path is possible.

p.29 SFRA details previous flood events in Exmoor which include the:

- 1952 Lynmouth, Dulverton fluvial flood event from River Barle where 34 lives were claimed, 93 houses and 123 vehicles in Lynmouth. 35 properties were affected in Dulverton.
- 1960 Brendon fluvial flood event from River Heddon with 1 life lost
- 1981 Porlock tidal event caused localised flooding.
- 1985 fluvial flood event from River Barle with more than 135 properties affecting the Dulverton area.
- 1990 Minehead, Blue Anchor and Porlock, tidal flooding caused localised flooding.

- Q12. How much involvement does Exmoor National Park have in local decision making in Porlock Weir?

Much Involvement Some Involvement No Involvement

If you indicated involvement above, is this involvement via committees, local groups or other means? Please provide further details...

Exmoor National Park has involvement in local decision making through the following:

- Implementation of the Local Plan
- Implementation of the National Park Management Plan
- Through working with the local Parish Council
- Facilitating 'shared space' aspirations with parish council involving members of the community
- Support for Exmoor Natural History Society to establish a new centre
- Support for Porlock TIC to enable tourism business activity
- Working with farmers and landowners considering land management issues and concerns
- Rights of Way and Access arrangements and maintenance
- Partnership working with the National Trust - wildlife and access management
- Porlock planning surgery
- Input in to parish plan
- SDF sponsored projects



Coastal Change Pathfinder Project



Interview Questions for Natural England

- Q1. What particular features of the Porlock Ridge and Saltmarsh SSSI is the site designated for?

Please provide further details...

Whole SSSI: This site is notified for its nationally important active coastal geomorphological features. It is also nationally important for the saltmarsh and coastal vegetated shingle habitats which occur here.
158.45ha

Porlock Ridge And Saltmarsh - Unit 2
Unit ID: 1027002
Unit area: 47.33 hectares
Main habitat: Supralittoral sediment
Condition: Unfavourable recovering

Porlock Ridge And Saltmarsh - Unit 6
Unit ID: 1026989
Unit area: 3.48 hectares
Main habitat: Littoral sediment
Condition: Favourable

- Q2. What is the current condition of the SSSI unit at Porlock Weir?

Please provide further details...

Unit 2

"The assessment here is a complex one. The geomorphological interest is being allowed to develop naturally and is unfavourable recovering. The vegetated shingle interest is unfavourable because of insufficient frequency of characteristic species in the SD areas and also in the small areas of U1 grassland. Te grassland areas have also deteriorated since grazing was removed from the area and a widespread litter layer has built up. This makes this feature unfavourable declining but the conservation objective here is to allow the natural development of the ridge geomorphologically and botanically and this is what is happening hence overall assessment of unfavourable recovering."

Unit 6

"Fine, footpath on SW boundary is still heavily trampled but this is a small part of overall area."

SSSI Unit information: 13 September 2006

- Q3. Are there any existing operations or practices which affect the current condition of the SSSI unit at Porlock Weir?

Please provide further details...

See above

- Q4. What public access is provided within the vicinity of Porlock Weir?

Please provide further details...

SW Coast Path National Trail
Also other PRow in vicinity

- Q5. With regards to Question 4, how well used is this access?

Please provide further details...

- Q6. How have previous storm events affected the nature conservation value and access provision at Porlock Weir?

Please provide further details...

The SSSI site was notified in 1990.
The subsequent big storm resulted in severe realignment of the shingle bank. The EA piled up the bank with a bulldozer and NE didn't prevent this. There were then a long series meetings regarding what would happen if there was another storm event. Most parties agreed that natural processes should prevail.
The Porlock Manor Estate then move large amounts of shingle to bolster the ridge at the Western end of the ridge. This breached in 1996.
The SSSI was then renotified with a different set of biological interests – as a result of natural processes. This is a significant issue as such a change hadn't been done before.

- Q7. How important is the maintenance of the shingle ridge to Natural England?

Please provide further details...

The intention of NE is to allow natural processes to operate. If the ridge breaches again then NE would be quite happy with this. If anything was proposed against natural processes then NE would object.

- Q8. What are your thoughts on the preferred Shoreline Management Plan policy of 'No Active Intervention' across all epochs?

Please provide further details...

NE has been involved in developing the Shoreline Management Plan and the Habitats Regulations Assessment of this is nearly completed. NE is happy with the policy on the assumption that this is the most sustainable solution. This is the most appropriate response in terms of coastal squeeze.

In preparation for answering Questions 9, 10 and 11, please refer to the Draft Scenario plan accompanying this questionnaire.

- Q9. Are you aware of what the effects of a storm may be?

Please provide further details...

Yes

- Q10. Should the draft scenario occur, what short term effects would this have on the nature conservation value and access provision at Porlock Weir?

Please provide further details...

The shingle would be disrupted – uncertain how the barrier would function in the future. No management works would be undertaken and access arrangements would be addressed at some point.

- Q11. Should the draft scenario occur, what longer term effects would this have on the nature conservation value and access provision at Porlock Weir?

Please provide further details...

See above.

- Q12. How might adaptation measures (such as construction of flood defences, reinstatement of the terminal groyne at the harbour) affect the nature conservation value and access provision at Porlock Weir?

Please provide further details...

This depends on exactly what the proposals are. NE would need to understand how it might affect coastal processes and would want to know extent and scale. NE would not rule anything out if it has little impact on the SSSI.

If a storm event led to the harbour being filled with shingle, then NE would come to some arrangement with the Porlock Manor Estate. NE would not want to inconvenience the Porlock Manor Estate and is willing to discuss such issues.



Coastal Change Pathfinder Project



Interview Questions for Porlock Manor Estate

Q1. How many properties does the Porlock Manor Estate own in the Porlock Weir area?

Please provide further details...

24 residential lets and all commercial properties.
Residential rents are below market rates and the rent from the commercial properties subsidises this.

Q2. In relation to Question 1, how many of these properties are residential and how many are commercial? And how are they divided between long-term and short-term lets?

Please provide further details...

See above.
The Porlock Manor Estate also owns and managed the car park which brings in a good revenue. Limited revenue is gained from the harbour.

Q3. What does the Porlock Manor Estate value about Porlock Weir? Please comment both from a purely commercial and also non-commercial point of view, including the harbour, properties and tourist attractions.

Please provide further details...

A beacon rural community and the ups and downs that go with a community.
'People – first and last'.

Q4. How much involvement does Porlock Manor Estate have in local decision making?

Much Involvement Some Involvement No Involvement

If you indicated involvement above, is this involvement via committees, local groups or other means? Please provide further details...

The Porlock Manor Estate has regular communication with the Exmoor National Park Authority.
The Porlock Manor Estate Harbour Master is involved in the Porlock Weir Sailing Club and Fishermen's Group, regarding decision-making involving the harbour.

Q5. What are the arrangements for the management and operation of the harbour?

Please provide further details...

The channel into the harbour is dredged at the beginning of each season and the channel is kept open via the sluicing of the gates or digging out. 10 000 tonnes are removed per year.

Q6. How are the tidal gates operated and has this changed in recent years?

Please provide further details...

The Porlock Manor Estate staff operate the gates. The gates do not act as a defence; they are designed to hold water in the inner harbour.

Q7. Please comment on dredging of the harbour. See also questions 8, 9 and 10.

See above.

Q8. What size of material accumulates in the harbour? Is it mostly shingle or smaller sediment type?

Please provide further details...

Mud accumulates in the harbour, mixed with pebbles and boulders from cliff falls to the west.

Q9. How often is the harbour dredged? When was dredging last undertaken?

Please provide further details...

See above.

Q10. Where is the dredged material taken?

Please provide further details...

Q11. What other operations and services does the Porlock Manor Estate currently provide for Porlock Weir?

Please provide further details...

Q12. How important is the coastal protection and sea defence of Porlock Weir to the Porlock Manor Estate?



Please provide further details...

Porlock Weir community has a future and it is worth fighting for.

- Q13. What are your thoughts on the preferred Shoreline Management Plan policy of 'No Active Intervention' for all epochs? Note we have seen your consultation response.

Please provide further details...

We need to think positively – it is not possible to write off all coastal areas. Appropriate expenditure is needed at appropriate levels – such as rebuilding the timber groyne.

In preparation for answering Questions 14, 15 and 16, please refer to the Draft Scenario plan accompanying this questionnaire.

- Q14. What major storm events have had a significant effect at Porlock Weir in the last decades?

Please provide further details...

- Q15. Are you aware of what the effects of a major storm surge combined with heavy wave action may be?

Please provide further details...

- Q16. Should the draft scenario occur and public bodies did not intervene would you:

Repair the harbour groyne?

Comment if minor or major rebuild was required.

Repair walls if damaged?

Improve the standard of flood defences?

Take steps to keep the harbour operational, including a major dredge?

Take steps to improve the flood resilience of residential or commercial Properties?

Abandon any of these?

Please provide further details...

The groyne in the vicinity of Porlock Weir are not all working as they should. If the timber groyne failed, then the Porlock Manor Estate would not do anything immediately. And if it were to be rebuilt then it might not be on the same alignment. The Porlock Manor Estate might choose to make the groyne behind Turkey Island more curved and not so long.

Adapting the electrics / drains in the residential properties owned by Porlock Manor Estate is an ongoing process. The Porlock Manor Estate would aim to avoid abandonment of cottages and instead use the first floor only.

Porlock Weir comprises an older community and there is a limit to what they are able to do. Need the right houses, in the right place at the right time. The Porlock Manor Estate would encourage the building of affordable housing further up the hill in Porlock Weir.

Adaptation measures which go against natural processes would not be favoured. Mark Blathwayt commented that he would support the injection of inert material into the beginning of the sediment cell system.

A Local Action Group (such as civic response teams) is needed. Mark Blathwayt was very interested in Porlock's emergency response plan which is being drafted at present.



Coastal Change Pathfinder Project



Interview Questions for West Somerset District Council

Q1. What services does/has West Somerset District Council provide(d) for Porlock Weir?

Please provide further details...

West Somerset District Council (WSDC) does not provide any scheduled services for Porlock Weir.

Commercial waste collection is undertaken by Veolia
Domestic waste collection is undertaken under a Somerset Waste Partnership contract.
Some street cleaning and some cleaning of the toilet in the car park is undertaken by WSDC via Veolia

All Town Planning is undertaken by Exmoor National Park Authority.

Q2. When was the last time that work was carried out on the timber groyne at the harbour mouth?

Please provide further details...

The timber groyne is not on the WSDC asset database. WSDC has never undertaken flood risk management works in Porlock Weir.

Q3. How often are repairs carried out on the timber groyne?

Please provide further details...

N/A

Q4. Have you undertaken other work on: defences, groynes, the harbour, shingle in Porlock Weir?

Please provide further details...

None undertaken.

Q5. Is any coastal monitoring (of shingle) undertaken at Porlock Weir?

Yes No

If you answered 'Yes' to Question 5, how long has this record been kept?

Please provide further details...

N/A

Q6. Do you have any emergency plans for this length of coastline?

Yes No

If 'Yes', please provide further details...

In the past, WSDC has provided sandbags in response to flood warnings. However there is no formal policy and this may not happen in the future.

Q7. Where is the emergency sewage outfall? Is it located near the harbour?

Please provide further details...

Suggest asking Wessex Water.

Q8. How have previous storm events affected the services provided to Porlock Weir by West Somerset District Council?

Please provide further details...

No effect as very little services provided.

Q9. As a member of the North Devon and Somerset Coastal Advisory Group, what are the effects that West Somerset District Council would envisage on Porlock Weir as a result of the Shoreline Management Plan policy of 'No Active Intervention' across all epochs?

Please provide further details...

The draft scenario is accurate.

With regards the Shoreline Management Plan, the operating authorities are signing off the document at present – this is just a formality. WSDC is considering doing a SMP Policy Assessment Study for Porlock Weir and is discussing this with Environment Agency.

Q10. Would you have any concerns about any proposals by individuals or organisations to carry out works:
To improve flood defences – at community or property level?
To the terminal groyne at the harbour?
To reshape / improve shingle ridges?

Yes No

If 'Yes', please provide further details...

Please provide further details...

WSDC could fill in the gaps with regards civil contingencies. WSDC would like to be involved in discussions but does not have any funds available to undertake flood risk management works.

In preparation for answering Questions 11, 12, 13 and 14, please refer to the Draft Scenario plan accompanying this questionnaire.

Q11. Do you agree with the effects we have identified in the draft scenario?

Please provide further details...

Yes, the scenario is accurate.

Q12. Should the draft scenario occur, what immediate effects would this have on the services provided to Porlock Weir by West Somerset District Council?

Please provide further details...

Waste collections would be affected.

Q13. Should the draft scenario occur, what long term effects would this have on the services provided to Porlock Weir by West Somerset District Council?

Please provide further details...

None

Q14. Would West Somerset District Council consider supporting (financial or otherwise) adaptation measures for Porlock Weir?

Yes No

If you answered 'Yes' to Question 14, please provide further details. If you answered 'No, please explain why...

WSDC would consider supporting adaptation measures. This could be put forward to the Asset Management Group, however there is unlikely to be any funding. It should be noted that the WSDC corporate priority is tourism / regeneration and WSDC believes that Porlock Weir does bring in a lot of money for the area.

Q15. How might the implementation of adaptation measures (such as construction of flood defences) affect the services provided by West Somerset District Council?

Please provide further details...

N/A



Coastal Change Pathfinder Project



Interview Questions for the Traders' Association

Attended by:

Suzanne Addlington (SA) – Exmoor Glass

Sara & Robert Goodson (SG/RG) – No. 7 Studio

Bill – Exmoor Cooking Company

Derek Purvis (DP) – long term local resident, in charge of Boat Shed Museum, local fisherman.

Andrew and Sarah Dixon (AD/SD) – Andrew's on The Weir

Joe Roake (JR) – Porlock Parish Council

Q1. How many commercial properties are there in Porlock Weir?

Please provide further details...

- Food related: Andrews-on-the-Weir, Millers at the Anchor, the Ship Inn, Harbour Stores (general store with residence above), Exmoor Cooking Company.
- Exmoor Glass
- Museum
- Aquarium
- Pieces of Eight (holiday flat above this)
- Estate Office / Workshop
- Glass Blowing Studio
- Mary Collins' studio – exhibitions / jewellery / paintings
- No. 4 Studio – 2 artists' work
- Pieces of 8 stockroom
- Exmoor Horse Boxes – build horse boxes

Q2. What commercial use do the properties fulfil? Restaurants, services etc.

Please provide further details...

- See above answers.
- Coastguard went from Porlock Weir (PW) approx. 2 years ago.

Q3. Who owns these commercial properties?

Please provide further details...

- Traders rent the commercial properties from Porlock Manor Estate (PME).

Q4. What other commercial enterprises are there in Porlock Weir? Such as boat hire, ice cream van etc.

Please provide further details...

There aren't really any mobile traders that could easily relocate elsewhere.

Q5. Are the commercial enterprises patronised by locals or visitors?

Locals Visitors Both

What is the approximate split?

- Mixture of tourists / locals – locals stay away during tourist season so at that time of year traders make the most money from tourists.
- A large percentage of tourism comes from the Midlands / M5 and M6 corridor.
- Each business sends trade to each other and supports one another's business as much as possible.
- Currently there is no genuine connection between Porlock (P) and PW but the Traders Assoc. is trying to address this. Business referrals between P and PW are starting to happen more.

Q6. How much do visitors to Porlock Weir contribute to the local economy?

Please provide further details...

- Locals bring friends to PW who spend money.
- Hard to say whether locals / tourists bring in more money to PW.

Q7. How important is the economy of Porlock Weir to the wider region?

Please provide further details...

The higher the amount of trade that occurs in PW the more supplies etc the businesses in PW have to buy in from the wider region.

Q8. How has the economy of Porlock Weir fared in recent economic times? Has it

declined, been steady or increased?

Please provide further details...

Trade is quite unpredictable.
The economic downturn has affected the businesses.
The fuel crisis and foot & mouth have affected trade. The flooding in Gloucestershire also blocked tourist access to PW.

The Traders Assoc. was formed because businesses in PW felt like they were on their own and weren't getting any external support. By working together through the Traders Assoc. they can have more influence.

PW Traders Assoc. now [at the time of the interview] has a representative on the Porlock Parish Council which has raised the profile of PW. JR has also helped the connection of PW with P and the Parish Council.

There have been discussions to ensure that the PME to helps local businesses e.g. the PME sign on the wall by The Anchor Hotel prevent visitors from walking further round i.e. to the Harbour studios etc. as they think that access past that point is not allowed. PME is intending to draw up a map of businesses within the village.

Communication with PME is improving. Paul Smalley, Savills is proactive and gets things done. He also attends the Traders Assoc. meetings sometimes.

In preparation for answering Questions 9, 10, 11 and 12, please refer to the Draft Scenario plan accompanying this questionnaire.

Q9. Are traders aware of the Shoreline Management Plan Policy for Porlock Weir?

Please provide further details...

Yes they are aware if this, some attended the consultation on the SMP. Were also aware that the policy had been altered since the public consultation exercise.

Q10. Are traders of Porlock Weir likely to be aware of what the effects of a storm may be?

Please provide further details...

- Following the 1996 floods the beach was on the car park the following morning due to shingle being moved.
- They can get flood warnings automatically from the EA.
- A boat was washed by one wave into the harbour studios, and this could happen again at any time.
- There used to be a house on the seaward side of Turkey Island which was washed away in one night during a flood.
- Gibraltar Cottages the water comes up through the floor as water seeps under the shingle ridge.
- Gore Point (more westerly facing) shingle ridge has got thinner and could breach, if it does it would wash out PW.
- This year the harbour hasn't filled with shingle at all because there is no shingle to fill it. The sediment system along this section of the coast is changing, the sediment bank offshore is moving and the beach is also getting thinner in places. The Bristol Channel sediment dynamics seem to be altering very quickly.

Q11. Should the draft scenario occur, what immediate effects would this have on traders of Porlock Weir?

Please provide further details...

When it floods the community doesn't get help from anyone – not Porlock, the Environment Agency or the Council. PW residents tend to look after themselves and are proactive in doing things for themselves.

Following a flood event those traders that have businesses in Porlock Weir but live in Porlock wouldn't be able to get to their businesses unless they walked; which may or may not be possible.

During prolonged wet weather water flows down slope over the coastal path in torrents so that it is impassable.

Q12. Should the draft scenario occur, what long term effects would this have on traders of Porlock Weir?

Please provide further details...

It would not be sustainable to have a business in PW if flooding became more frequent. Ultimately business owners are there to make money and if they can't do that then there would be a serious problem.

If they kept getting flooded then No 7 Studios would have to think about moving as it would not be feasible to maintain a business in these circumstances.

It is important to make PME aware of the implications of losing their residents / traders which could be an implication of more frequent flooding.

Q13. Would traders have the opportunity to trade elsewhere outside of Porlock Weir?

Please provide further details...

There aren't really any mobile traders that could easily relocate elsewhere.

There are other empty PME properties within PW such as the sheds opposite Andrews' on-the-Weir that could be used. However, they would need doing up by PME.

Q14. What adaptation measures would local traders consider adopting to ensure continuation of trade? For example resilience and resistance measures to commercial properties or contributions towards hard or soft defences?

Please provide further details...

It is not possible to be totally prepared. There are no youth or fishermen in the village anymore, and the population of PW is getting older so it would be difficult to find enough people to help out. Unless you have lived through a flood event then you can't appreciate the implications. In DP's experience the villagers get no help / assistance.

Those people that want to remain in PW will undoubtedly be those who are most willing to adapt.

There is a need to devise an emergency action plan like the one in Porlock that JR explained. It also needs to be something that PW residents can put in place themselves.

There was some discussion about the possibility of using PW Village Hall as an 'emergency centre' should flooding occur. However:

- Some suggestion that PW Village Hall is owned by PME who would need to be consulted over its use / any necessary upgrades.
- Brian Star used to manage the Village Hall.
- Feeling that PME could assist with upgrading the Village Hall to allow multiple uses for the benefit of all residents.

The biggest problem is that flooding has always occurred after dark and PW has no street lighting (National Park won't allow it). Therefore the village would need some kind of emergency lighting.

Requested that the Somerset Coastal Change Pathfinder Project suggest to PME that installing concrete floors in their properties would be useful.

It will be very important to get PME on-board with the project because a lot of things can't happen in PW without their assistance / approval / support. Once PME is on-board the community can 'get on with it'.

Currently the harbour gates are not operating; these should be repaired / replaced.



Coastal Change Pathfinder Project



Interview Questions for The National Trust

Q1. How much land does the National Trust own in the vicinity of Porlock Weir?

Please provide further details...

The National Trust does not own any land in Porlock Weir.
The National Trust owns half of Porlock Bay and around the edge of Porlock village.

Q2. With regards to Question 1, Is any of the land rented out? If so, to whom?

Please provide further details...

N/A

Q3. What public access is there to National Trust land in the vicinity of Porlock Weir?

Please provide further details...

The National Trust manages the South West Coast National Trail on behalf of Exmoor National Park Authority when the path runs through National Trust land.
In Porlock Weir, the path is managed by Exmoor National Park Authority.

Q4. How many properties does the National Trust own in the Porlock Weir?

Please provide further details...

None

Q5. With regards to Question 4, are these properties rented out?

Please provide further details...

N/A

Q6. What operations and services does the National Trust currently provide for Porlock

Weir?

Please provide further details...

The National Trust does not directly provide any operations or services for Porlock Weir. However, National Trust land is a big attraction in the wider region and the National Trust thus provides for residents and visitors to Porlock Weir in this way. The Holnicote Estate receives 1.2mil visitors per year. This includes repeat visits. The National Trust also runs a local Arts Festival on an annual basis.

Q7. How much involvement does the National Trust have in local decision making in Porlock Weir?

Much Involvement Some Involvement No Involvement

If you indicated involvement above, is this involvement via committees, local groups or other means? Please provide further details...

The National Trust does not have any direct involvement in local decision making.

In 1990, the former NRA (now the Environment Agency) approached the National Trust regarding the transfer of shingle from the eastern end of Porlock Bay (National Trust land) and build up a weaker section near the equestrian centre in Porlock Weir. Following consultation, the consensus was that this would be unsustainable due to coastal processes and thus this was not undertaken. At this stage the National Trust produced a paper setting out its policy that this stretch of coastline should be left to natural processes. The National Trust maintained this policy following the breach of the shingle ridge in 1996.

The National Trust is part of the Porlock Bay Management Group which is also comprised of the Exmoor National Park Authority, Porlock Manor Estate, MAFF (now Defra), West Somerset District Council, Porlock Parish Council, Natural England and the NRA (now the Environment Agency). This Management Group is not particularly active at present. However, should there be another flood event in Porlock Bay (including at Porlock Weir) then this group would likely reform and the National Trust would be happy to provide technical advice.

The National Trust has produced a Policy Document: Shifting Shores in the South West (2008). This includes Porlock Bay. At a national level, Porlock Bay is a good example of what can be done with regards working with natural processes in terms of adapting to coastal change and sea level rise. The allowance of development of salt marsh and a lower profile shingle ridge has provided greater resilience to storms.

Q8. How important is the coastal protection of Porlock Weir to the National Trust?

Please provide further details...

The protection of Porlock Weir is important as it is a neighbouring estate. The National Trust recognises the value of Porlock Weir for tourism and the people who live there. The National Trust would not want to see lives or livelihoods at risk.

The National Trust would urge the Porlock Manor Estate to protect Porlock Weir where it can but also to work with the National Trust and to continue their existing partnership. The National Trust could not provide any funds to protect Porlock Weir, but it would be happy to offer advice.

The National Trust would have an interest in any reprofiling of the shingle ridge at Porlock Weir if there is to be an effect on longshore drift and the supply of shingle to the eastern end of Porlock Bay.



Q9. What are your thoughts on the preferred Shoreline Management Plan policy of 'No Active Intervention' across all epochs?

Please provide further details...

The National Trust agrees with the Shoreline Management Plan policy as this is in accordance with National Trust policy. However, the National Trust would urge the community of Porlock Weir to explore every avenue to protect their community.

In preparation for answering Questions 10, 11, 12 and 13, please refer to the Draft Scenario plan accompanying this questionnaire.

Q10. Are you aware of what the effects of a storm may be?

Please provide further details...

Yes. The National Trust is in agreement with the draft scenario plan.

The National Trust recommends including the equestrian centre on the edge of Porlock Weir on the plan. This is where the fields are eroding and this is historically the weakest part of the whole of Porlock Bay.

With regards access the higher road to Porlock Weir would be unlikely to be affected and this access for emergency vehicles etc could still take place.

With regards the harbour walls, a study has been undertaken which shows that they are in poor condition. These could collapse in a storm event. This could result in the undermining of the hotel and some of the cottages.

Q11. Should the draft scenario occur, what effects would this have on the land and properties owned by the National Trust?

Please provide further details...

Under such a scenario, the storm would not be limited to Porlock Weir and Porlock Bay would be affected too.

Q12. Would the National Trust consider developing its own flood defences to avoid such a scenario occurring?

Please provide further details...

This is not National Trust policy.

Q13. Would the National Trust consider other adaptation measures, such as resilience and resistance measures for properties?

Please provide further details...

Not applicable as the National Trust does not own properties in Porlock Weir.



Coastal Change Pathfinder Project



Interview Questions for Porlock Parish Council

Parish Council representative interviewed was Joe Roake. Present were Paul Jones (Somerset County Council), interview conducted by Lara Ball and notes taken by Kerry Quinton (Black & Veatch).

Q1. How many residents are there in Porlock Weir?

Please provide further details...

- 66 residents on Register of Electors
- 37 registered properties

Q2. Are the residents present all year round or are some properties 'summer houses'?

Please provide further details...

- 5 commercial holiday lets
- 10 holiday homes

Q3. What is the age range of the residents of Porlock Weir?

Please provide further details...

- For age distribution statistics call Taunton Council on 0845 345 9166.
- Generally older people, would estimate that retirees over age of 60 probably form approximately 70% of Porlock Weir (PW) population.
- There are some widows / widowers.
- A few young people supporting businesses as staff and some younger couples running businesses.

Q4. What is the split between owner occupiers and tenants?

Please provide further details...

- Most properties are tenanted through Mark Blathwayt's Porlock Manor Estate (PME).
- There are some privately owned properties in PW – not sure which ones. Paul Smalley should be able to provide this info.
- Paul Smalley runs the estate through his property management company, he will be able to provide more info to answer this question.

Q5. What do residents of Porlock Weir value about their community?

Please provide further details...

- Unique scenery
- Mild climate
- Very friendly people
- Residents value tourism for economic reasons and they don't appear to get annoyed with tourists coming to PW.

Q6. Can you please list previous flood events which affected Porlock Weir and describe what the effects were on the Parish?

Please provide further details...

- Breach in Porlock Bay occurred in 1996, other floods in PW include 1981, 1964, 1910.
- JR suggested speak to local residents i.e. Derek Purvis (local fisherman) who has experienced the floods in PW first hand, he may be able to answer this question more fully and also have photographs of flood events.
- Geoff who owns 'Pieces of Eight' shop may also be able to help answer.
- Local professional historian Phillip Ashford is likely to have the dates of all the floods.
- Porlock Museum may also have a timeline of the flood events that have occurred.

In preparation for answering Questions 7, 8 and 9, please refer to the Draft Scenario plan accompanying this questionnaire.

Q7. Are residents of Porlock Weir likely to be aware of what the effects of a storm may be?

Please provide further details...

- The older residents have experienced storms and are aware of the vulnerable areas.
- Local residents are aware there is a flood risk as there have been a couple of community meetings on the subject with the EA. However, the meetings addressed coastal and river flood risk within the same meeting so there may be some confusion between the two.
- Gibraltar Cottages residents are used to flooding they 'open the front and back door and allow the water to flow through'.
- The Anchor (now Millers at The Anchor) has been flooded several times in the past.
- Anyone buying a property now should be aware of the flood risk from the property survey / using the EA flood maps on their website / and local advertisement of the fact that there is a flood risk.
- The scenario will not come as a shock to people

Q8. Should the draft scenario occur, what immediate effects would this have on the Parish of Porlock Weir?

Please provide further details...

- The local residents are very proactive, 'self-starters', a lot of the older people are still very able and hard workers.
- The residents, as a result of being part of a farming community, are used to moving things. They would rush around and clean up as quickly as possible.
- Residents of Porlock would assist as there is a big affinity between the two settlements.
- This proactive attitude may encourage local business owners to take the same attitude.
- Several local business owners (Roystons of the Ship Inn, Geoff & Jenny who own 'Pieces of Eight', Sara from Studio No. 7) all live in Porlock.
- Getting equipment in to remove sediment / pump out water may be difficult.
- Local residents would probably get on and clear the road themselves.
- The top back road into PW has historically remained flood free and so this could be used by emergency vehicles to access the village. There is also the toll road that could be used to this end.
- Those residents of PW living higher up the hill would not be so vulnerable and could get out using the higher road into the village or the toll road.
- Joe Roake will find out which residents live higher up the hill, and which are lower within the flood risk areas.

Q9. Should the draft scenario occur, what longer term effects would this have on the Parish of Porlock Weir?

Please provide further details...

- Mark Blathwayt is already looking towards the longer term with regard to preparedness of the community to deal with flooding.

LB additional question – ‘Would the community take measures of their own?’

- Probably down to cost, but they would probably pull together to do something if they could see the benefit of doing it.
- Ben Hammett used to be employed to clear the harbour of silt every 6 months approx. 5-10 years ago, but hasn't been employed to do this for several years now.
- More recently PME paid for the harbour to be cleared.
- Have to be careful what they do – for example historically the line of the harbour was altered, and this has been blamed for effects occurring on National Trust land further east along the coast.
- Ben Hammett would probably be able to provide details on what used to be maintained and this knowledge mustn't be lost.
- Most properties used to have flood boards (to go across doors).
- Problem with sandbags is that you need somewhere dry to store them.
- Mark Blathwayt would be responsible for provision of concrete floors / raising electrics etc as the owner of the properties in PW. Some properties on the PME still run on generators and don't have mains electricity therefore money for adaptation measures could be in short supply.
- Doesn't know whether Gibraltar Cottages already have raised electrics.
- Paul Jones thinks that some properties on Turkey Island already have raised electrics.

LB additional question – ‘Is there a chance that elderly residents could be trapped upstairs in properties?’

- Would have to employ an emergency plan ‘model’ such as that being developed in Porlock for residents there.
- Porlock emergency plan for fluvial flooding – have a flood warden per 10 houses as organised with the Environment Agency (EA), and for every property affected to have sandbags. Porlock Village Hall would act as a refuge for those flooded, providing water, heat etc. Has taken approx. 1 year to devise the emergency plan, should be finalised early next year. This ‘model’ could be used to develop a similar system in PW.

Q10. Are residents likely to be aware of the Shoreline Management Plan Policy for Porlock Weir?

Please provide further details...

- Will be aware of the SMP policy because consultation on the SMP was held within the Village Hall.
- However, the message may have been confused with the message about river flooding as both were communicated at the same meeting.
- Not sure that local people know that the policy changed recently, but thinks they are aware that the policy is ‘No Active Intervention’.

Q11. How receptive would the residents within Porlock Weir be to developing adaptation measures? Suggestions include flood defences / flood boards, alterations to electrics etc.

Please provide further details...

- In January when there was high-tide warnings the Parish council offered to provide marine boards to go across doors, and sand bags to PW residents. However, this offer of assistance was refused as PW residents were happy to organise themselves.
- JR interested in demountables defences.

Q12. Do you think that residents would consider moving out of Porlock Weir if they are aware of the Shoreline Management Plan Policy for Porlock Weir?

Please provide further details...

There is very little affordable housing within Porlock, therefore residents of PW might find it difficult to relocate should their properties be damaged beyond repair. This is because within the National Park you can only build affordable housing, any new houses built within PW would have to adhere to this.



Coastal Change Pathfinder Project



Interview Questions for The Visitors' Centre

Q1. How many visitors to Porlock Weir are there each year?

Please provide further details...

Based on the door clicker at the Visitors' Centre, there are 66,000 visitors to Porlock each year. Approximately 20% of these will visit Porlock Weir. The majority of these are return visits.

Q2. How do visitor numbers vary over the year?

Please provide further details...

September / October are the busiest, once the schools go back. May / June have been busy in the past, but not in 2010. Weekends are always busy.

Q3. How many visitors to Porlock Weir are repeat visitors (i.e. every summer etc)?

Please provide further details...

Approximately 50% are repeat visitors.

Q4. Are the majority of the visitors day-visitors or do they stay overnight in Porlock Weir?

Please provide further details...

There is very little accommodation in Porlock Weir. There are no B&Bs and approximately 12 self catering apartments and two hotels. So most of the visitors are day visitors. They may stay in Porlock.

Q5. For those that stay overnight, where do they stay?

Please provide further details...

In the Exmoor area.

Q6. For those that stay overnight, how many days do they stay for?

2-3 Days In hotels 4-7 Days If self-catering 7+ Days

Q7. What is the usual age range of visitors to Porlock Weir?

Please provide further details...

50-70

It is not a family area. Most visitors come for the walking or a day out driving to the National Trust villages.

Q8. What attracts visitors to Porlock Weir?

Please provide further details...

The scenic, traditional harbour.
Andrews-on-the-Weir restaurant and the pub
Porlock Weir is a focal point for people to walk to.

Q9. What activities do visitors undertake when visiting Porlock Weir?

Please provide further details...

Visit the free museum
Walk around the harbour
Go to the pub or have a picnic
Visit Gore Point
Visit the Exmoor Natural History Museum which is located near the toilets
Visit the glass shop.

Q10. How much economic value do visitors bring to Porlock Weir on an annual basis?

Please provide further details...

It is difficult to quantify, but if Porlock Weir was not there, there would be an economic loss to the region.
Porlock Weir brings people to the area. They might not spend any money in Porlock Weir itself, but they will spend it in the area.

Q11. Where else do visitors spend their time and money in addition to Porlock Weir?

Please provide further details...

Porlock itself
The other National Trust villages do not have any pubs, only tea rooms, so visitors do not really spend much money there.

In preparation for answering Questions 12, 13, 14, 15 and 16, please refer to the Draft Scenario plan accompanying this questionnaire.

Q12. Are visitors to Porlock Weir likely to be aware of what the effects of a storm may be?



Please provide further details...

The visitors who have visited for many years would know about the effects of a storm, but others would not be so sure. Visitors often go to visit Porlock Weir on a high tide, so this is well recognised locally by people who come to visit regularly.

The breach changed the dynamics of peoples' understanding. Visitors are very aware of what is happening in Porlock Weir.

- Q13. Should the draft scenario occur, what immediate effects would this have on services provided to visitors to Porlock Weir?

Please provide further details...

The pub and the hotel would be flooded. Visitors would have difficulty getting to Porlock Weir and the whole place would grind to a halt. After a few days, some visitors would go there out of curiosity.

- Q14. Should the draft scenario occur, what effects would this have on subsequent annual visitor numbers to Porlock Weir?

Please provide further details...

Visitors would be more aware of the high tide. If they thought that the storm was a one-off, then visitor numbers might therefore increase. If there were repeat events, then visitor numbers would probably stay the same. Visitors might be cautious about staying overnight and particularly worried about cars being flooded, but they might do a short visit.

- Q15. Should the draft scenario occur, would the Porlock Weir continue to be an attraction to visitors?

Please provide further details...

Yes, but perhaps not in the same way. They might visit out of curiosity of the high tide, rather than for the scenery or peacefulness. If Gibraltar Cottages or Turkey Island cottages were damaged then this would reduce the attraction. It would be detrimental for visitors if the harbour was lost.

- Q16. Should the draft scenario occur, would visitors decide to visit alternative locations? If so, where?

Please provide further details...

Yes, Lynmouth.

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APPENDIX B: NEWSPAPER ARTICLE

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NEWS

The future for Porlock Weir

Four years ago the North Somerset and Devon Shoreline Management Plan was updated.

This set out how the coast including Porlock Weir was to be managed over the next 100 years. The adopted policy for Porlock Weir is 'No Active Intervention', which means that no government money from either the Environment Agency or Local Authorities will be invested in flood defences for this section of the coast. As a result, defending Porlock Weir from coastal flooding is up to private landowners and local residents.

John Buttivant from the Environment Agency added "Just because there will be no capital investment in defences does not mean that nothing can be done to help Porlock Weir during times of flooding. For example, an Emergency Action Plan, like the one devised by residents with Somerset County Council and West Somerset District Council for Porlock village, can vastly reduce the damage and disruption caused by a flood. We also offer a flood warning service called 'Floodline' that residents in flood-prone areas can sign up to."

Porlock Weir is quite unusual in being almost entirely owned by Porlock Manor Estate, with the properties in the village being rented to local residents, traders and tourists.

In response to the recent floods, Mark Blathwayt of Porlock Manor Estate said "This is a big blow to the Estate and to Porlock Weir and I am trying to assess what the costs will be to get it back to a position where it will once again be the jewel on the Somerset coast. The damage is much less where I had already taken steps to make buildings more flood resilient by changes to floors and electrical fittings in particular. One cottage has most of its living accommodation on the first floor and this is almost back to normal already."

There will be many people thinking about adapting in the future to deal with increasing risks. Everyone we spoke to is determined to make sure Porlock Weir returns to its position as one of the favourite havens of relaxation in the West Country.

Miller's at the Anchor Porlock Weir, Somerset



For over 200 years the Anchor has served Porlock Weir's 15th century harbour for sailors, walkers and huntsmen alike.

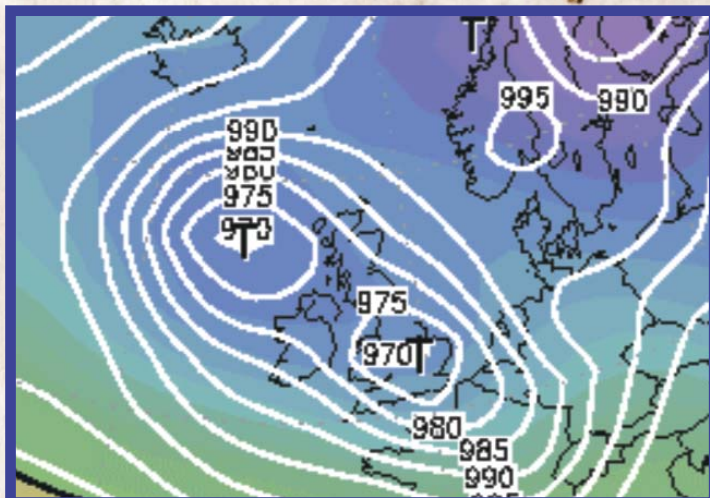
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exmoorglassltd@hotmail.co.uk

The Exmoor Glass Cranberry Range

From our Science Correspondent



The complex low pressure system that caused the wide scale damage across Somerset.

The storm on Wednesday night that caused such devastation in Porlock Weir and many communities on the Somerset coastline, followed a pattern which has become more frequent in recent years. A complex low pressure system moving into Ireland developed a secondary low to the south, which moved from the south west up the Bristol Channel. The pressure chart for 10pm on the 5th February is shown above.

Low atmospheric pressure causes tide levels to rise above those predicted by the position of the moon and planets and Wednesday night's tide surged by over a metre above the level shown in the tide tables for West Somerset. The track of the depression meant that winds which had been from the east for most of the day,

swung to the north-west and reached gale force eight by early evening.

The combination of a surge tide with onshore gales is one which tests the strongest of sea defences and natural shingle ridges such as those in Porlock Bay are particularly vulnerable to overtopping and damage in this type of event.

Whilst there can be no certainty that the storm was a result of climate change, it is entirely consistent with the predictions of rising sea levels and increasing storminess. The tide on the 2nd of February was the highest predicted for 2014 and had the same surge and wave action occurred then, the effects could have been even worse. Scientists generally agree that sea levels will rise by at least 0.4m by 2100 and this will increase risks further.

PORLOCK NEWS

THE Coastal

Friday 7th February 2014

www.somersetcoastalchange.org.uk

No 7

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'DEVASTATION'



Porlock Weir hit by massive storm on Wednesday night

Reporter Paul Jones

The idyllic coastal setting that brings thousands of tourists to Porlock Weir each year turned into a scene of devastation on Wednesday night. A storm surge

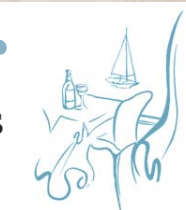
coincided with high tides and gale force winds to cause flooding and severe damage which has driven local people from their homes.

CONTINUED next page



Andrews on the Weir Restaurant & Rooms

Tel: 01643 863300
info@andrewsontheweir.co.uk



NEWS

■ **CONTINUED from cover**

The tide was due to peak at 9pm, but levels continued to rise until 9.30pm, by which time waves were crashing over the shingle ridge and harbour wall. The storm had cut electricity to the village an hour before the peak of the tide, which hampered attempts to rescue residents of flooded properties, many of whom are elderly.

The surge tide and storm continued up the Bristol Channel and also led to flooding and damage to sea defences in Blue Anchor, Llistock, Brean and Avonmouth. Residents and businesses registered for the Environment Agency's flood warning service received notice that flooding could be expected, but the severity of the storm still left many in a state of shock.

The widespread problems along the Somerset coast stretched emergency services to their limit and the fire and rescue service, West Somerset

District Council, Somerset County Council and Environment Agency teams sent out to give some assistance were forced to concentrate on the communities with the highest numbers of properties affected.

In Porlock Weir itself, fallen trees, flood waters and shingle thrown onto the road also made it difficult for emergency services to reach the scene of the flooding and damage to help residents. It was midnight before the first fire engine could get to the village to help pump out floodwater and assist with evacuation. They found that villagers had started to organise themselves and their resources to help each other out and they quickly realised who was most in need.

During the storm, large sections of the timber groyne that holds back the shingle ridge to the west of the village, collapsed, spilling shingle into the harbour and damaging the boats that were moored there.

Hardest hit by the storm were the cottages on Turkey Island and Gibraltar Cottages

The diagram below shows how the storm affected Porlock Weir by overtopping of the high tide driven by heavy waves and the movement of shingle.

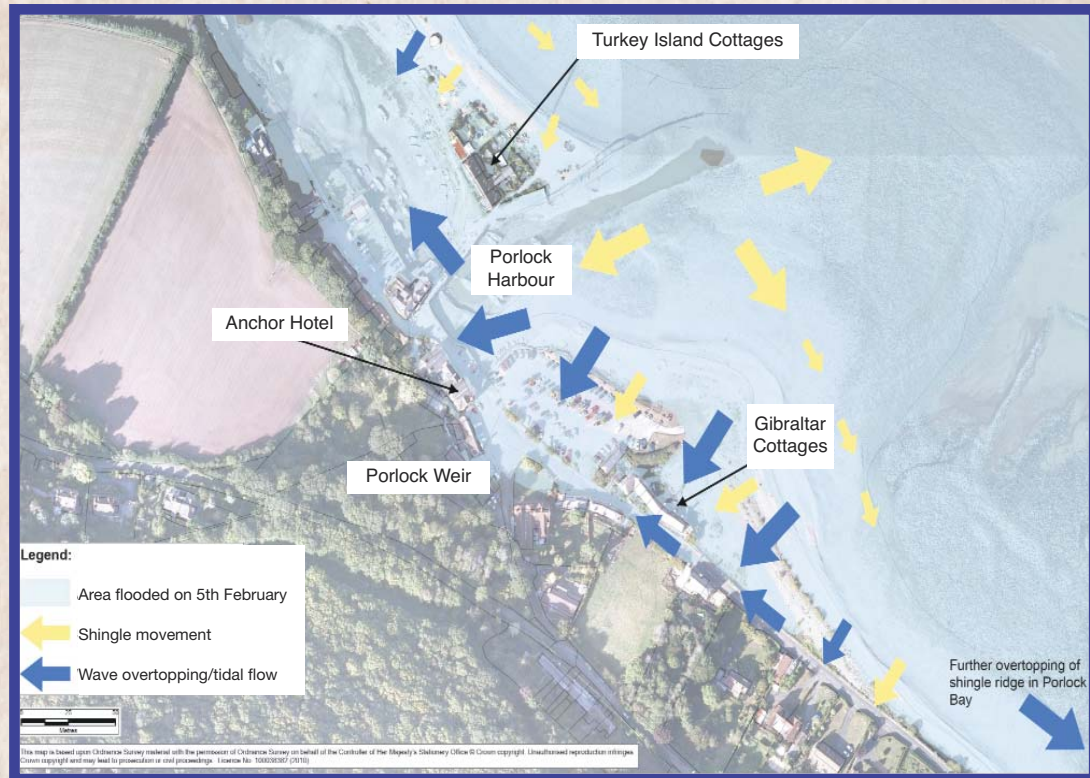
Hardest hit by the storm were the cottages on Turkey Island and Gibraltar Cottages on the shingle ridge which suffered structural damage and flooding. Several local businesses including Millers at The Anchor Hotel, Exmoor Glass, Pieces of Eight ladies clothing shop and the Harbour Café were also affected, suffering both structural damage and flooding. The Ship Inn and No. 7 Harbour Studios, as well as several other residential properties all suffered flooding, and the public car park and toilet block were completely inundated.

The shingle which fell into the harbour after the

collapse of the timber groyne, combined with the giant waves to damage many of the boats in the harbour and waves breaking onto the car park sent cars crashing into each other and across the road.

Porlock Weir is no stranger to flooding. The 1981 event which hit most of the Somerset coast breached the shingle ridge in Porlock Bay. Since then there have been major flood events in 1990 and 1996.

The storm in 1996 also led to the breaching of the shingle ridge in Porlock Bay. The Environment Agency had decided that it was not sustainable to maintain the shingle ridge and although the Porlock Manor Estate had tried to use their own resources, they were also forced to accept that 'nature must take its course' and high tides have flowed into the marshland since then.



HARBOUR STUDIOS

Contact Mary Collins: 01643 863430
email: collins@porlockweir.fsnet.co.uk

Diagram showing the areas affected by storm water and shingle

NEWS



■ Residents muck in to help clean up the village.

The clean up

The emergency services and the local authority have instigated a recovery plan, but they also have other priorities. Residents have had to take on most of the clean up themselves, although they have had very welcome help from nearby communities, including Porlock village. They have used everything from mops to farm machinery. A digger was used to help clear the road of shingle and a farm slurry spreader was used to help pump out floodwater.

Joe Roake, a member of Porlock Parish Council, said "Traditionally this is a farming community, so local residents here are used to getting on with things and helping each other. Everyone has been very pro-active in getting the clean-up underway, and we must thank residents of Porlock and other communities who have been helping out.

Owners of local businesses are now assessing the damage to their businesses, and starting the slow painstaking task of removing the water, debris and ruined stock from their premises.

The effects on Porlock Weir

Porlock Weir, with its scenic harbour, pub,

restaurants and shops situated on the edge of Exmoor National Park, is normally a busy tourist destination throughout the year for both day visitors and holiday-makers.

A visitor to the village who was attending a birthday celebration in the Ship Inn said "I normally see Porlock Weir at its best, having a pint looking onto the harbour in the summer, but this was definitely the Bristol Channel at its worst. I will never forget the sound of the wind, the waves crashing and the rolling of the shingle and once the sea came in, with all the lights out it was very frightening."

The long clean-up operation ahead will have far-reaching consequences for months to come for this small, tight-knit community of just 66 residents

Sara Goodson, owner of No. 7 Harbour Studios said "It will take months to repair the damage to my shop. By that time the peak tourist season [traditionally in early Autumn] will be over for this year."

Suzanne Addlington, co-owner of Exmoor Glass and Chair of the local Traders Association, added "This is devastating for local businesses, no tourists will want to come here with all this mess, especially if shops and businesses are out of

John Buttivant, a spokesperson for the Environment Agency said **"Unfortunately, with climate change and sea level rise, storms and flooding, like those experienced along the Bristol Channel earlier this week, may become more common."**

action for months to come."

Denise Sage from Porlock Visitors' Centre also commented that although some people may now be drawn to Porlock Weir out of curiosity, the damage to the idyllic harbour, Turkey Island and Gibraltar Cottages which have traditionally attracted many visitors may mean that tourists will choose to spend their time in alternative locations such as Lynmouth unless things can be returned to normal.

With the harbour full of shingle, local fishermen are also facing difficult times ahead. Derek Purvis who has been fishing the waters off the coast of Porlock Weir for many years, said "The harbour is totally out of action until they can dredge it and remove all the shingle. I and the other fishermen will have to use Lynmouth harbour down the coast once we have repaired the damage to our boats."

pieces of eight
www.piecesofeight.co.uk



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APPENDIX C: REPORTS FROM DROP-IN SESSIONS

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Porlock Weir Drop-in Session 1: Report on Progress

Event: Porlock Weir drop-in session 1

Location: Andrews-on-the-Weir, Porlock Weir

Date: 4th October 2010

Time: 1pm – 6pm

Presentations at: 1.30pm, 3.30pm and 5.30pm

Staffed by: Paul Jones, Somerset County Council
Alan Lovell, Independent Chairman
John Buttivant, Environment Agency
Jessica Harrison, Somerset County Council
Jane Moon, Black & Veatch Ltd
Lara Ball, Black & Veatch Ltd

Attended by: Sarah Dixon – Part owner of Andrews-on-the-Weir
Mr and Mrs Wilkies - Residents of No. 3 Gibraltar Cottages
Councillor Angela Palmer
Ben Hammett (ex-Estate Foreman, lives in West Porlock)
West Porlock resident
Derek Purvis (lives in Porlock, works in Porlock Weir)
Mr & Mrs Sage, Porlock Visitors' Centre (live in Porlock)
Porlock Weir resident

Summary:

The drop-in session was poorly attended in general and specifically by Porlock Weir residents and traders. However one apology was received and two business owners were away. Those that did attend provided a variety of responses ranging from keen interest, to apathy and a sense of resignation, to a feeling that the article is scare-mongering. At the last presentation, the attendees commented that most people in Porlock Weir are unaware of the real risk of a severe flood event and this is why they do not feel that they need to get involved in the Pathfinder project.

Potential reasons for poor attendance and general lack of interest:

Drop-in session held during day-time – The Porlock Parish Plan states that 54% of residents of Porlock Parish are retired. It is likely that the percentage of retired residents in Porlock Weir is even higher. Thus a large proportion of the 66 residents should have been available to attend.

Low awareness of drop-in session – The scenario and a covering letter was distributed to all residents and traders in Porlock Weir and also to some others in West Porlock and Porlock. This was undertaken one week in advance of the drop-in session. Paul Jones also spoke to a lot of residents and traders about the drop-in session, ensuring that they were aware of it. An A-frame board outside the venue may have helped to remind people of the event.

Unawareness of the risk of a severe flood event – At the drop-in session, it was commented that the vast majority of the residents and traders in Porlock Weir have not experienced a severe flood event. It is possible that the residents and traders think that they are able to cope with the small, relatively frequent flood events.

Way forward for drop-in session 2:

- Advertise the next drop-in session in the West Somerset Free Press. This newspaper is well read in the community and is published on a Friday. Note that there will be lead-in times for such an advert. Consider whether an advert in more than one issue is needed.
- Consider visiting residents on a one-to-one basis to discuss the scenario and ensure that they understand the severity of the risk. Attempt to have them complete a questionnaire so that they have the opportunity to contribute. Ask them to attend the next drop-in session and explain that we will be taking the project forward at that time.
- Seek a few 'champions' in the community who are able to encourage others to attend. If several presentations are to be held, champions could attend them all to ensure a lively debate. Apathetic residents are more likely to listen to the opinions of other long term residents that recognise the necessity and benefit of the Pathfinder.
- Hold the next drop-in session during an evening (say 5pm – 8pm). This will allow all residents and traders the opportunity to attend.
- Maybe arrange a drop in session around an already community organised event e.g. November 5th – Bonfire night. Pathfinder could potentially contribute to this financially.
- Offer snacks and drinks (including wine?) at the drop-in session to encourage attendance. This has proven effective in other drop in sessions held nearby.
- Provide only one presentation during the evening to avoid dilution of ideas and to allow the attendees to hear each others' views.
- Provide answers to the questions which were asked at drop-in session 1 to demonstrate that we are listening to the community.
- Repeat the first drop in session to ensure more people are fully aware of the project. This would mean adding an additional drop in session, possibly in January.

Ideas for adaptation measures received during drop-in session 1:

- Ensure supply of better sandbags – perhaps these need to be replaced each winter.
- Provide information regarding flood risk for those occupying short-term holiday lets – such as a standard information sheet which can be left in each property
- Consider installation of a shed on the old allotment field to store emergency kit. Kit to include generator, lamps, blankets, food etc.
- Identify which farmer(s) would have a tractor parked nearby, in a safe location, to assist with clearance post-flood.
- Development of an emergency plan to identify all old / vulnerable residents and also to set out which properties are holiday lets. Divide Porlock Weir into sectors and identify a 'warden' for each area to ensure that the emergency plan remains a living document.
- Learn lessons from the already developed river flood plan at Porlock.
- Flood prevention/alleviation:
 - Fix the non-return valve on the quay wall that leads to the drainage gullies outside the Ship Inn
 - Reinstatement of easily erectable flood boards at the top of the slip way into harbour
 - Signage during floods to redirect traffic away from affected areas and highlight alternative routes.
 - Emergency generator for use if power fails to the Weir, directly effecting rescue efforts and electric pumps fitting at properties.

Queries to follow up:

- Ask West Somerset District Council whether it would consider a refund on Council Tax as some properties cannot be lived in year-round.
- Discuss with National Park the re-zoning/re-designation of Porlock Weir from 'open countryside' to 'village' to permit the construction of affordable homes and ensure better access for emergency vehicles on Lane Head (the alternative route if the main route to the Weir is taken out during a storm) in the National Park.
- Ask Wessex Water if it is aware of erosion risk to the sewage pipeline which transfers sewage from Porlock Weir to Porlock for treatment.
- John Buttivant to identify how many properties in Porlock Weir are signed up to the flood warning system. John also to investigate why some residents are no longer receiving the alerts.
- Identify who is the Porlock Parish Council representative for Porlock Weir now that Joe Roake has resigned. The role is currently being advertised.

Lara Ball
Black & Veatch Ltd.
4th October 2010

Porlock Weir Drop-in Session 2: Report on Progress

Event: Porlock Weir drop-in session 2

Location: Bottom Ship – Coastal Coffees, Porlock Weir

Date: 3rd November 2010

Time: 5.00 – 8.30pm

Presentations at: 5.30pm and 7.00pm

Staffed by: Rebecca Seaman, Somerset County Council
Alan Lovell, Independent Chairman
John Buttivant, Environment Agency
Jessica Harrison, Somerset County Council
Kerry Quinton, Black & Veatch Ltd
Lara Ball, Black & Veatch Ltd

Attended by: Jane Harding, resident of one of Gibraltar Cottages
Kim Fry, resident of Porlock Weir (out of flood risk area)
Sara and Robert Goodson, owners of no.7 Harbour Studios
Derek Purvis, local fisherman
Mark Blathwayt, Porlock Manor Estate
Step-son of local fisherman, name unknown
2 x Geography teachers (not residents of Porlock Weir)

Summary

The number of attendees at drop-in session 2 was approximately the same as for drop-in session 1; although the individuals who attended were different. The informal comments received regarding the project were generally positive although some attendees did express an opinion that the residents and traders of Porlock Weir will continue to 'look after themselves' during a flood event.

At drop-in session 1, it was commented that the vast majority of the residents and traders in Porlock Weir have not experienced a severe flood event. It is possible that the residents and traders think that they are able to cope with the small, relatively frequent flood events. The presentations at drop-in session 2 therefore made it clear to all attendees that the primary focus of the adaptation measures is on a large flood event, such as the 1981 storm, and not the more regular, smaller floods.

During the presentation at drop-in session 2 it was also made clear that there may be the potential for some grants from various government agencies, but in order to apply for these, the community must input to an Adaptation Action Plan. A variety of adaptation measures were discussed, including Flood Warning, Emergency Planning, Resistance and Resilience Measures and alternative housing. Attendees at drop-in session 2 actively contributed and advised which adaptation measures would be appropriate for implementation in Porlock Weir. These are not listed here, but are instead recorded in the first draft of the Porlock Weir Adaptation Action Plan. The interest in the Adaptation Action Plan was generally positive and a marked improvement on drop-in session 1.

Attendance

The following activities were undertaken to encourage attendance:

- Two advertisements in the West Somerset Free Press.
- Advertising posters were produced and displayed in local shops and the Bottom Ship Inn
- Paul Jones visited residents on a one-to-one basis to deliver questionnaires and asked them to attend the next drop-in session.
- Lara Ball and Paul Jones identified some 'champions' in the community and asked them to encourage others to attend.
- The drop-in session was held during the evening, allowing all residents and traders the opportunity to attend.
- Snacks and drinks were provided at the drop-in session.
- An 'A frame' was displayed outside the venue to encourage impromptu attendance.

The drop-in session was attended by approximately the same number of people as attended drop-in session 1. However, with the exception of Derek Purvis, none of the attendees had attended drop-in session 1. A total number of 17 people have therefore attended a drop-in session, of which eight either live or run businesses in Porlock Weir.

Way forward for drop-in session 3

- The venue and the timings of drop-in session 2 seem appropriate and they provide a fair way to allow all residents and business owners an opportunity to attend. There should be no change to the venue or timings.
- At drop-in session 2, the supply of sandwiches did not appear to make any difference to the number of attendees. The supply of tea and coffee only for drop-in session 3 will suffice.
- Place two advertisements in the West Somerset Free Press and deliver posters to shops and the Bottom Ship Inn in Porlock Weir as for drop-in session 2.
- Continue to actively visit residents on a one-to-one basis to explain about the Porlock Weir Adaptation Action Plan and that the purpose of drop-in session 3 is to present the Action Plan.
- Continue to approach 'champions' in the community and ask them to encourage others to attend.

Queries to follow up

At drop-in session 2, the questions which were raised at drop-in session 1 were answered.

- Q: Ask West Somerset District Council whether it would consider a refund on Council Tax as some properties cannot be lived in year-round. A: Under normal Council Tax regulations, a property which is vacated for short periods of the year is still deemed to be the 'sole or main residence' of the person. This means that they are generally liable for Council Tax for the full year. However, if the person occupies another property, is liable for Council Tax and removes the furniture from the dwelling, an empty exemption may apply. An exemption for uninhabitable dwellings exists where a dwelling substantially unfurnished and is requiring or undergoing major repairs or structural alterations to make it habitable. However this exemption can only be applied once for a period of up to a year. It is unlikely that this exemption would be applicable if a dwelling would be reoccupied each year once the weather improves. Legislation also exists which empowers a billing authority discretion to reduce the amount payable to such extent as it thinks fit. The cost of any reduction awarded under Section 13A of the Local Government

Finance Act 1992 falls on West Somerset Council; there is no cost to Somerset County Council, ASPA etc. The Council has adopted a policy for determining applications for reductions under this legislation.

- Q: Discuss with National Park the re-zoning of Porlock Weir to permit the construction of affordable homes in the National Park. A: The provision of affordable housing is controlled by ENPA planning policies. Porlock Weir is not an identified settlement within the current Local Plan, but it is possible this could change as part of the LDF process. However, even if it does, it seems unlikely that much would happen, as affordable housing in the National Park is highly dependent on grant from the Homes and Communities Agency. Current cutbacks will reduce the availability of that, and there are currently over 30 rural housing schemes ahead of any new schemes in Somerset. There might be a small need for affordable home ownership. This could be done by individuals, or possibly by the estate. There are four examples of affordable self-builds at Cutcombe in Exmoor.
- Q: Ask Wessex Water if it is aware of erosion risk to the sewage pipeline which transfers sewage from Porlock Weir to Porlock for treatment. A: In progress
- Q: John Buttivant to identify how many properties in Porlock Weir are signed up to the flood warning system. John also to investigate why some residents are no longer receiving the alerts. A: 34 properties receive this Flood Warning, of which 23 are fully registered to Floodline Warnings Direct (FWD), our flood warning service, and 11 are part of the Extended Direct Warnings (EDW) project. Some customers haven't received a Flood Warning when they possibly expected one might be because the EA has recently changed the criteria for when it issues the warning for Porlock Weir.
- Q: Identify who is the Porlock Parish Council representative for Porlock Weir now that Joe Roake has resigned. A: Position is being advertised.

Further queries were subsequently made, which should be answered during drop-in session 3. This will continue to demonstrate that we are listening to the community.

- Provide graphs of sea level rise projections. Lara Ball to discuss with Chris Bown.
- Provide details on the Environment Agency's flood warning system, specifically the warning symbols and what they mean. John Buttivant to identify a member of the Flood Incident Management (FIM) team who can attend drop-in session 3.

Lara Ball
Black & Veatch Ltd.
3rd November 2010

Porlock Weir Drop-in Session 3: Report on Progress

Event: Porlock Weir drop-in session 3

Location: Bottom Ship – Coastal Coffees, Porlock Weir

Date: 6th December 2010

Time: 5.00 – 8.30pm

Presentation at: 7.00pm

Staffed by: Alan Lovell, Independent Chairman
John Buttivant, Environment Agency
Tessa Saunders, Exmoor National Park Authority
Paul Jones, Pathfinder Project Officer
Kerry Quinton, Black & Veatch Ltd
Lara Ball, Black & Veatch Ltd
Vanessa Leavy, Environment Agency (in part)
Nigel Hester, National Trust (in part)
Tim McGrath, Wildfowl and Wetlands Trust (in part)

Attended by: Barbara & Bryan Star (Seaview Cottage)
Sara Goodson (No. 7 Harbour Studios)
Robert Hewett (No. 7 Harbour Studios)
Colin & Ann Strange (Western Cottage)
Geoff & Jennifer Carrel (Pieces of Eight)
Suzanne Adlington (Exmoor Glass Ltd)
Sarah Dixon (Andrews on The Weir)
Kim Fry (Oyster Perch)
Jane Harding (3 Gibraltar Cottage)
Alex Pattendan (5 Gibraltar Cottage)
Keith Jacobs (Porlock Parish Council)
Denise Sage (Porlock Visitor Centre)
Matthew Keal & friend (restoring Porlock Ford Community Hall)
Chris Morris & husband (Gibraltar Cottage)
Residents from Steart

Summary

The drop-in session was attended by a wide range of the Porlock Weir community, including traders and residents of Turkey Island, Gibraltar Cottages and Seaview Cottages. The majority of attendees stayed for the presentation and actively engaged in the debate.

The draft Porlock Weir Adaptation Action Plan was explained to the community. A variety of adaptation measures were discussed, including Flood Warning, Emergency Planning, Resistance and Resilience Measures and alternative housing. The majority of attendees took a copy of the Adaptation Action Plan and agreed to supply any comments to Paul Jones.

Denise Sage (Porlock Visitors' Centre) described the Emergency Action Plan for fluvial flooding which has been put in place in Porlock. John Buttivant explained the new Flood Warning symbols and related this to specific levels at Porlock Weir.

Tessa Saunders explained the planning policy associated with affordable housing in Porlock Weir.

Attendees at drop-in session 3 expressed an interest in all of these topics, and also started a discussion about the difficulty of obtaining insurance against flooding, especially for those properties that were both at risk of flooding and have thatched roofs.

The informal comments received regarding the project and the Adaptation Action Plan were generally positive although some attendees did continue to express an opinion that the residents and traders of Porlock Weir will continue to 'look after themselves' during a flood event. The attendees also expressed a view that they already do a lot of the actions that would be written into a Community Emergency Flood Plan. When it was suggested that a Community Emergency Flood Plan would help to formalise what is already done, attendees did appreciate that one might be useful.

Attendance

The following activities were undertaken to encourage attendance:

- Two advertisements ran on consecutive weeks in the West Somerset Free Press.
- A newspaper article in the West Somerset Free Press.
- Advertising posters were produced and displayed in local shops and the Bottom Ship Inn.
- Paul Jones visited residents on a one-to-one basis and asked them to attend the next drop-in session, both in the run up to the event and on the night itself.
- Lara Ball and Paul Jones identified some 'champions' in the community and asked them to encourage others to attend.
- The drop-in session was held during the evening, allowing all residents and traders the opportunity to attend.
- Snacks and drinks were provided at the drop-in session.
- An 'A frame' was displayed outside the venue to encourage impromptu attendance.
- Attendance may also have been encouraged by a Traders' Association meeting being held on the same evening in the neighbouring venue of Andrews on The Weir. The majority of the traders came to the drop-in session after their meeting.

The drop-in session was well attended. A total number of 31 people have therefore attended a drop-in session, of which 18 either live or run businesses in Porlock Weir.

Way forward following drop-in session 3

- Continue to actively visit residents on a one-to-one basis to explain about the Porlock Weir Adaptation Action Plan.
- Continue to approach 'champions' in the community and ask them if they would like to be part of the Porlock Weir Flood Action Group.
- Set up a Porlock Weir Flood Action Group which is responsible for implementing the Adaptation Action Plan supported by the Environment Agency and others.

Queries to follow up

No queries were raised at drop-in session 3, although some further ideas for the Adaptation Action Plan were discussed. These will be added to the draft, along with any further comments that the community send to Paul Jones.

At drop-in session 3, a question which was raised at drop-in session 2 was answered. John Buttivant presented on the Environment Agency's new flood warning system which changed on the 30th November, specifically the warning symbols and what they mean.

At drop-in session 2, a member of the community queried sea level rise projections. It was the intention to show graphs of these projections at drop-in session 3, but it was felt that this would extend the length of the presentation and distract from discussions of the Adaptation Action Plan. These graphs will be supplied to Paul Jones who can use them in on-going discussions with members of the community.

Lara Ball
Black & Veatch Ltd.
16th December 2010

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APPENDIX D: PORLOCK WEIR ADAPTATION ACTION PLAN

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One of the Defra sponsored Coastal Change Pathfinder projects

Porlock Weir Adaptation Action Plan Final Version



Porlock Weir Adaptation Action Plan

Welcome to the Porlock Weir Adaptation Action Plan which has been developed through the community-led Somerset Coastal Change Pathfinder Project.

As you will know, minor flooding occurs in Porlock Weir almost every year. There is also a risk that much more severe events may occur, similar to the one experienced in 1981, which affected many communities along the north and west facing Somerset coast or the 1996 storm which significantly affected Porlock Weir. Extreme events are likely to occur when a storm surge coincides with a high spring tide and gale or storm force winds, which are most likely to occur during the autumn and winter. Such events will bring a high risk of flooding to properties and also of structural damage to walls and timber groynes in the vicinity of the harbour. The probability of such events occurring is predicted to increase as a result of climate change, which would lead to an unavoidable rise in sea levels and increased storminess.

Importantly, however, the policy for Porlock Weir, developed through the Shoreline Management Plan (SMP) review process and published in the North Devon and Somerset Shoreline Management Plan in summer 2010, is one of 'no active intervention'. The effect of this is that public funding for improvements or repairs in anticipation of, or following severe events, is most unlikely.

This Adaptation Action Plan is a tool designed to assist you (the community of Porlock Weir) in coping with the flood risk in Porlock Weir. It includes your ideas, many of which were gathered during interviews with individuals, community groups and a series of public drop-in sessions. The Adaptation Action Plan also incorporates measures identified by experts in the field of coastal flooding including the Flood Incident Management Team at the Environment Agency and the Civil Contingencies Team at Somerset County Council.

This Adaptation Action Plan covers the following issues:

- Flood Warnings
- Emergency Action Plans
- Flood Resistance Measures – to stop flood water entering properties
- Flood Resilience Measures - to minimise damage caused by flood water
- Other Measures

This Adaptation Action Plan is intended as a guide, and your actions need not be restricted only to the contents of the plan. It can be treated as a 'living document' as there may be other measures or actions that the community or individuals might suggest to improve the resilience to coastal change at Porlock Weir. These could be used to update the plan to support a continuing dialogue into the future.

We recommend that the community of Porlock Weir forms a Flood Action Group. This Group would typically involve about four or five members of the community who could work together to carry out the actions in the Porlock Weir Adaptation Action Plan and to update the plan in the light of your own experience.

You – the community of Porlock Weir – are best placed to know how you can adapt to coastal change. Your input has been essential to the formation of this plan. Working together as a community will help you respond quickly and efficiently when flooding occurs. The Adaptation Action Plan is intended as a community guide to 'what needs to happen next' following the completion of the Somerset Coastal Change Pathfinder Project, to ensure that the ideas and actions that you have identified are put into practice.

The Porlock Weir Adaptation Action Plan is set out in the table below. It identifies a series of objectives that are designed to improve flood and damage resilience. In order to ensure that the objectives are achieved, it identifies the actions that are required; suggests individual/s or groups who will be responsible for these actions and a target date for completing them. Where possible, references to further information or assistance have been made. Using this approach will ensure that the Adaptation Action Plan is implemented and real progress made in improving the resilience of your community to future changes.

	Objective	Action	Responsibility	Target completion date	Reference to further information	Status (completed / in progress)
0.0	General					
0.1	Community of Porlock Weir to form a Flood Action Group to carry forward the actions in the Porlock Weir Adaptation Action Plan. This Group will be linked to Porlock Parish Council, Porlock Emergency Planning Sub-Committee and Holnicote Flood Action Group to draw on their experience and support.	Coastal Change Pathfinder Project to speak to individuals to identify interest and to set up first meeting.	Local residents / traders	February 2011	Porlock Emergency Flood Plan and the Porlock Emergency Planning Sub-Committee. National Flood Forum provides advice to communities / individuals that have been flooded or are at risk of flooding: http://www.floodforum.org.uk/	
1.0	Flood Warnings					
1A	All residents at risk of flooding to be fully registered with Environment Agency Floodline Warnings Direct.	<ul style="list-style-type: none"> Environment Agency to identify the properties at risk of flooding which are not registered. Environment Agency to contact residents of properties that are not signed up. Residents to call Floodline Warnings Direct (0845 988 1188) to register, or sign-up online. 	Environment Agency / Residents	March 2011	http://www.environment-agency.gov.uk/homeandleisure/floods/38289.aspx	In progress

	Objective	Action	Responsibility	Target completion date	Reference to further information	Status (completed / in progress)
1B	Owners of boats docked in Porlock Weir Harbour to register with Environment Agency Floodline Warnings Direct.	<ul style="list-style-type: none"> • Porlock Weir Flood Action Group to contact boat owners to request that they sign up to Floodline Warnings Direct. • Boat owners to call Floodline Warnings Direct (0845 988 1188) to register, or sign-up online. 	Porlock Weir Flood Action Group / Boat owners	March 2011	http://www.environment-agency.gov.uk/homeandleisure/floods/38289.aspx	
1C	Mark Blathwayt, Porlock Manor Estate to be registered with Environment Agency Floodline Warnings Direct.	Environment Agency to investigate and discuss with Mark Blathwayt.	Environment Agency / Mark Blathwayt	January 2011	http://www.environment-agency.gov.uk/homeandleisure/floods/38289.aspx	
1D	All residents / traders within flood risk area to be aware of how the revised flood warning system works (new system being implemented on 30 th November 2010).	<ul style="list-style-type: none"> • Representative from Floodline Warnings Direct to attend the 3rd drop-in session. • Environment Agency to mail-drop all properties in flood risk area in Porlock Weir with information regarding new system. 	Environment Agency	Drop-in session 3 6 th December 2010 February 2011	http://www.environment-agency.gov.uk/homeandleisure/floods/31620.aspx	In progress

	Objective	Action	Responsibility	Target completion date	Reference to further information	Status (completed / in progress)
1E	Environment Agency to continue with work to improve accuracy of flood warnings for Porlock Weir.	Monitoring of actual water levels in Porlock Weir during high tides to compare with Environment Agency predictions. Members of the Flood Action Group can also monitor tide heights in harbour using the gauge on the quay wall and pass this information to the Environment Agency.	Environment Agency / Flood Action Group	Ongoing		In progress
2.0	Emergency Action Plan					
2A	<p>Complete a Community Emergency Flood Plan for Porlock Weir. Consider the following actions:</p> <ul style="list-style-type: none"> Secure a supply of sandbags (or bags, sand and self-filling device) from West Somerset District Council Identify and secure a covered, local storage area above flood level for sandbags, generators, emergency lights etc. Potential for a shed to be installed on the allotment field to store these items. Identify and secure a suitable venue to act as an emergency evacuation centre. There is potential to use the Porlock Ford Community Hall. Ensure that emergency evacuation centre could quickly organise heat, blankets, food etc. To this end, contact Somerset County Council Civil Contingencies team to investigate getting involved in a local scheme designed to facilitate emergency access to provisions from local supermarkets. Identify funding for, and purchase emergency lights and generators. Note those properties that are at risk of flooding and potential flow routes. Make a list of important contact numbers. 		Porlock Weir Flood Action Group	October 2011 (this is a challenging target, but it would be beneficial for the community if this emergency action plan could be completed before winter)	<p>Somerset County Council Civil Contingencies Team: Tel: 01823 356792</p> <p>Environment Agency Guidance on creating a Community Emergency Flood Plan: http://www.environment-agency.gov.uk/homeandleisure/floods/38329.aspx</p> <p>Obtain a copy of the Porlock Community Flood Action Plan and use any 'lessons learnt' in developing it.</p> <p>Somerset County Council Guidance on how to prepare for a Major Emergency:</p>	Somerset County Council making enquiries about the management of Porlock Ford Community Hall

	Objective	Action	Responsibility	Target completion date	Reference to further information	Status (completed / in progress)
	<ul style="list-style-type: none"> Obtain signs to direct traffic away from affected areas during a flood and highlight alternative routes. Ensure cars are parked sensibly to allow emergency vehicles to pass. Identify a method of clearing the coastal road from within Porlock Weir; such as the use of a tractor owned by a local farmer or Porlock Manor Estate. Identify an individual who will undertake this task. Identify all vulnerable residents who may need assistance. Provide information regarding flood risk to those people occupying short-term holiday lets e.g. a standard information sheet. Divide Porlock Weir into sectors and identify a flood 'warden' for each area to ensure the flood plan remains a living document. Make a list of reputable contractors that may be required after a flood 				<p>http://www.somerset.gov.uk/ir/go/km/docs/CouncilDocuments/SCC/Documents/Environment/Civil%20Contingencies/EmergencyActionChecklist-ZCard.pdf</p> <p>http://www.somerset.gov.uk/ir/go/km/docs/CouncilDocuments/SCC/Documents/Environment/Civil%20Contingencies/20080400EmergencyPlanning-ABriefGuide.pdf</p> <p>Somerset Flood Guide: http://www.somerset.gov.uk/ir/go/km/docs/CouncilDocuments/SCC/Documents/Environment/Civil%20Contingencies/20090400SomersetFloodGuideVersion1.pdf</p> <p>National Flood Forum provides advice to communities / individuals that have been flooded or are at risk of flooding: http://www.floodforum.org.uk/</p>	
2B	Ensure all members of the community are aware of the Community Emergency Flood Plan	<ul style="list-style-type: none"> Supply a copy of the Community Emergency Flood Plan to all residents and traders of Porlock 	Porlock Weir Flood Action Group / Somerset County Council	October 2011		

	Objective	Action	Responsibility	Target completion date	Reference to further information	Status (completed / in progress)
		Weir and other relevant parties. <ul style="list-style-type: none"> • Consider holding a 'Flood Fair' to publicise launch. • Upload the Community Emergency Flood Plan to the Somerset Coastal Change Pathfinder website. 				
2C	Porlock Weir community to get involved in Exercise Watermark.	Consider enrolling the Porlock Weir community in the 'Exercise Watermark' emergency flooding exercise.	Somerset County Council Coastal Change Pathfinder project team	4 – 11 March 2011	Exercise Watermark website: http://www.exercisewatermark.co.uk/en/homepage.aspx	In progress
2D	Consider setting up a registered charity which would allow any fundraising income to be free of income tax; any property the charity might own to be eligible for council tax relief; and open other funding streams from grant-giving charities. The charity could make use of community fundraising events to provide a fund that could be used to pay for items, services or repairs required as part of the Community Emergency Flood Plan.	Porlock Weir Flood Action Group to consider use of fundraising events, and consider setting up a Porlock Weir Charity.	Porlock Weir Flood Action Group	Ongoing	Charity Commission guidance on how to set up a charity: http://www.charitycommission.gov.uk/Start_up_a_charity/default.aspx	Somerset County Council in progress of finding a contact within the Charity Commission
2E	Ensure that the Environment Agency is aware that a Community Emergency Flood Plan has been	Notify the Environment Agency through their website or by phoning Floodline	Porlock Weir Flood Action Group	October 2011	http://www.environment-agency.gov.uk/homeandleisure/floods/38329.aspx	

	Objective	Action	Responsibility	Target completion date	Reference to further information	Status (completed / in progress)
	produced for Porlock Weir.	Warnings Direct.			Floodline: 0845 988 1188	
2F	Ensure Community Emergency Flood Plan remains a 'living document'.	Review Community Emergency Flood Plan periodically to ensure that it remains up-to-date and accurate. Make use of forum facility on Somerset Coastal Change Pathfinder website to gain views on how other coastal communities plan to cope with flood events.	Porlock Weir Flood Action Group	Post-October 2011		

	Objective	Action	Responsibility	Target completion date	Reference to further information	Status (completed / in progress)
2G	Residents / traders to complete a Personal Flood Plan for their property / business. Consider the following actions:	<ul style="list-style-type: none"> • Check your insurance covers you for flooding. • Put important documents out of reach of flood waters and protect with polythene. • Look at the best way of stopping water entering your property / business. • Find out where you can get sandbags. • Prepare an emergency flood kit: torch, warm, waterproof clothes, medication etc. • Identify who can help you / who you can help. • Understand the flood warning codes. • Identify what you would need to take with you if you had to leave your home. • Know how to turn off your gas, electricity and water mains supplies. • Agree where you will go and how you will contact each other if you have to evacuate your home / business. • Create a list of important contact numbers including Floodline Warnings Direct. • Think about what you can move to a safe place now (treasured possessions etc). • Think about what you would want to move to safety during a flood (car, pets, furniture etc). 	Residents / traders	June 2011	<p>Environment Agency guide to creating a Personal Flood Plan: http://www.environment-agency.gov.uk/homeandleisure/floods/38329.aspx</p> <p>Information on what the Environment Agency's Flood warnings mean: http://www.environment-agency.gov.uk/homeandleisure/floods/58417.aspx</p> <p>National Flood Forum provides advice to communities / individuals that have been flooded or are at risk of flooding: http://www.floodforum.org.uk/</p>	

	Objective	Action	Responsibility	Target completion date	Reference to further information	Status (completed / in progress)
3.0	Resistance Measures					
3A	Ensure supply of sandbags (or sand, bags and self-filling device) for community use.	<ul style="list-style-type: none"> Secure supply from West Somerset District Council Identify and secure a covered, local storage area above flood level for sandbags. 	Porlock Weir Flood Action Group	March 2011	Environment Agency leaflet on how to make best use of sandbags: http://publications.environment-agency.gov.uk/pdf/FLHO0309/BPSL-e-e.pdf	
3B	Determine need / demand for resistance measures to those residential / commercial properties that are at risk of flooding.	<ul style="list-style-type: none"> Canvas need for specific resistance measures with local residents / traders. Liaise with Porlock Manor Estate. 	Porlock Weir Flood Action Group	May 2011		
3C	Investigate whether planning permission / Listed Building Consent is required to install flood resistance measures on properties in Porlock Weir.	Contact the Development Control Planning Department at Exmoor National Park Authority.	Porlock Weir Flood Action Group	May 2011	Listed Building Consent is likely to be required for any changes to listed buildings. For other buildings, planning permission is not required for internal changes but in some cases it may be required for external changes. For further advice contact Development Control Planning Department (Exmoor National Park Authority): plan@exmoor-nationalpark.gov.uk or telephone: 01398 323665 English Heritage guidance note on protecting listed buildings:	

	Objective	Action	Responsibility	Target completion date	Reference to further information	Status (completed / in progress)
					http://www.english-heritage.org.uk/publications/flooding-and-historic-buildings/flooding-and-historic-buildings-2nd-ed.pdf	
3D	<p>Install appropriate resistance measures to residential and commercial properties which could include:</p> <ul style="list-style-type: none"> • Raising door thresholds to prevent water entering the property through doorway. • Raising floor levels within properties. • Flood boards for doors and windows. • Air brick covers (for those properties that have cavity walls). • Fitting one way valves onto water outlet pipes to prevent water backing up into the property. • Raising damp-proof brick courses, sealing floors or replacing wooden or other flooring with concrete. • Use silicone sealants around door / window frames. • Tanking (waterproofing) of floors. • Possible cut off barriers in permeable ground or shingle 	<ul style="list-style-type: none"> • Manufacturer to attend the 3rd drop-in session to demonstrate products. • Consider whether this is a viable option for properties / businesses. • Investigate with manufacturer which flood boards and air brick covers are suitable for use within a Built Conservation Area / for Listed Buildings • Source a supplier of flood resistance products who is willing to offer the community a bulk discount for resistance products. • Consider approaching other organisations or individuals for sources of funding including Defra grants which may be available through the local authority. 	Residents / traders / Porlock Manor Estate	Ongoing during 2011	<p>Environment Agency guidance on resistance measures: http://www.environment-agency.gov.uk/homeandleisure/floods/106769.aspx</p> <p>National Flood Forum Blue Pages Directory of flood protection services and products: http://www.floodforum.org.uk/index.php?option=com_content&view=article&id=9&Itemid=40</p>	Ongoing

	Objective	Action	Responsibility	Target completion date	Reference to further information	Status (completed / in progress)
	<ul style="list-style-type: none"> • Pump and sump systems to remove groundwater. • Landscaping gardens or driveways to divert flood waters. 					
3E	Fix the non-return valve on the quay wall that leads to the drainage gullies outside the Ship Inn.	Investigate who owns / operates these and request that they are repaired.	Porlock Weir Flood Action Group	December 2011	Contact Development Control Planning Department to check whether a Conservation Area Consent is required for this (see contact details under 3C).	
3F	Reinstate the easily erectable flood boards at the top of the slip way into the harbour.	<ul style="list-style-type: none"> • Order new boards and install. 	Porlock Manor Estate	December 2011		
4.0	Resilience Measures					
4A	Determine need / demand for resilience measures to those residential / commercial properties that are at risk of flooding.	<ul style="list-style-type: none"> • Canvas need for specific resistance measures with local residents / traders. • Liaise with Porlock Manor Estate. 	Porlock Weir Flood Action Group	May 2011	Environment Agency guidance on resilience measures: http://www.environment-agency.gov.uk/homeandleisure/floods/113213.aspx	

	Objective	Action	Responsibility	Target completion date	Reference to further information	Status (completed / in progress)
4B	Investigate whether planning permission / Listed Building Consent is required for flood resilience measures on properties in Porlock Weir.	Contact the Development Control Planning Department at Exmoor National Park Authority.	Porlock Weir Flood Action Group	May 2011	<p>Listed building consent is likely to be required for any changes to listed buildings. For other buildings, planning permission is not required for internal changes but in some cases it may be required for external changes. For further advice contact Development Control Planning Department (Exmoor National Park Authority): plan@exmoor-nationalpark.gov.uk or telephone: 01398 323665</p> <p>English Heritage guidance note on protecting listed buildings: http://www.english-heritage.org.uk/publications/flooding-and-historic-buildings/flooding-and-historic-buildings-2nd-ed.pdf</p>	
4C	<p>Install appropriate resilience measures which could include:</p> <ul style="list-style-type: none"> • Raising electrics above anticipated flood level. • Moving expensive electrical equipment out of harm's way. • Using higher strength screeds on concrete floors. • Replace wooden door frames / 	<ul style="list-style-type: none"> • Consider whether this is a viable option for properties / businesses. • Source a qualified builder who is willing to offer the community a bulk discount on making resilience adjustments to properties. • Consider approaching 	Residents / traders / Porlock Manor Estate	Ongoing during 2011	<p>Environment Agency guidance on how to find flood protection products and services: http://www.environment-agency.gov.uk/homeandleisure/floods/105979.aspx</p> <p>National Flood Forum Blue Pages Directory of flood</p>	

	Objective	Action	Responsibility	Target completion date	Reference to further information	Status (completed / in progress)
	<p>windows with plastic where possible.</p> <ul style="list-style-type: none"> • Replace perishable materials such as wood, chipboard or carpet with plastic, steel, concrete or tiles. • Use high-mounted shelves to store irreplaceable or valuable items. • Use horizontal plasterboard or lime-based plaster to dry-line walls (instead of gypsum). • Replace mineral insulation with cell insulation. • Install a chemical damp proof course to protect joists. • Fit synthetic or waxed instead of wooden internal doors, or ensure they are easily removable. • Raise floor levels. • Use large sealable bags to protect items that can't easily be moved. 	other organisations for sources of funding,			<p>protection services and products:</p> <p>http://www.floodforum.org.uk/index.php?option=com_content&view=article&id=9&Itemid=40</p>	
5.0	Other					
5A	All residents and traders to ensure that they have adequate insurance for flooding.	Residents / traders to check their building and contents insurance policies to ensure that they are covered for flooding.	Residents / traders	February 2011	Defra, the National Flood Forum, the Environment Agency. Local government and representatives from the insurance industry are working in partnership to ensure that insurance remains widely available:	

	Objective	Action	Responsibility	Target completion date	Reference to further information	Status (completed / in progress)
					http://ww2.defra.gov.uk/news/2010/09/17/flood-summit/	
5B	Investigate opportunities for Porlock Weir to adapt to coastal change within the Local Development Framework.	<ul style="list-style-type: none"> • Discuss with Exmoor National Park Authority the opportunities for Porlock Weir to adapt to coastal change within the Local Development Framework. • Investigate possible need for relocation of buildings at high risk of coastal flooding. • Identify any potential need for local affordable housing in Porlock Weir. • Investigate PPS 25 Supplement and assess its usefulness in helping in the relocation of homes. • Liaise with Porlock Manor Estate. 	Somerset County Council / West Somerset District Council / Exmoor National Park Authority	December 2010	Exmoor National Park Authority guidance on affordable housing: http://www.exmoor-nationalpark.gov.uk/index/living_in/affordable-housing.htm	
5C	Discuss actions to be taken in case of major failure of the harbour groyne which may mean that the amenity value of the harbour could be lost.	Flood Action Group to raise awareness and facilitate discussions regarding funding sources.	Porlock Weir Flood Action Group	December 2011		

The timeline below sets out when we recommend that each of the items listed above is considered and implemented. These dates are not set in stone, but they provide a good indication of how long each action might take in order for it to meet the target completion date set out in the Porlock Weir Adaptation Action Plan. Actions can be undertaken in any order and can be undertaken at the same time.

Action	2011												2012											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
0 General																								
0.1 Community of Porlock Weir to form a Flood Action Group.	■	■																						
1 Flood Warnings																								
1A All residents at risk of flooding to be fully registered with Environment Agency Floodline.	■	■	■																					
1B Owners of boats docked in Porlock Weir Harbour to register with Environment Agency Floodline.	■	■	■																					
1C Mark Blathwayt, Porlock Manor Estate to be registered with Environment Agency Floodline.	■																							
1D All residents / traders within flood risk area to be aware of how the revised flood warning system works.	■	■																						
1E Environment Agency to continue with work to improve accuracy of flood warnings for Porlock Weir.	■	■	■	■	■	■	■	■	■	■	■	■												
2 Emergency Action Plan																								
2A Complete a Community Emergency Flood Plan for Porlock Weir.			■	■	■	■	■	■	■	■	■	■												
2B Ensure all members of the community are aware of the Community Emergency Flood Plan.										■	■													
2C Porlock Weir community to get involved in Exercise Watermark.	■	■	■																					
2D Consider creating a charity and using fundraising to pay for items required by the Community Emergency Flood Plan.	■	■	■	■	■	■	■	■	■	■	■	■												
2E Ensure that the Environment Agency is aware that a Community Emergency Flood Plan has been produced.										■	■													
2F Ensure Community Emergency Flood Plan remains a 'living document'.										■	■													
2G Residents / traders to complete a Personal Emergency Flood Plan for their property / business.	■	■	■	■	■	■	■	■	■	■	■	■												
3 Resistance Measures																								
3A Ensure supply of sandbags (or sand, bags and self-filling device) for community use.	■	■	■																					
3B Determine need / demand for resistance measures to residential / commercial properties at risk of flooding.			■	■	■																			
3C Investigate whether planning permission / Listed Building Consent is required for flood resistance measures.			■	■	■																			
3D Install appropriate resistance measures to residential and commercial properties.			■	■	■	■	■	■	■	■	■	■												
3E Fix the non-return valve on the quay wall that leads to the drainage gullies outside the Ship Inn.			■	■	■	■	■	■	■	■	■	■												
3F Reinstate the easily erectable flood boards at the top of the slip way into the harbour.			■	■	■	■	■	■	■	■	■	■												
4 Resilience Measures																								
4A Determine need / demand for resilience measures to residential / commercial properties at risk of flooding.			■	■	■																			
4B Investigate whether planning permission / Listed Building Consent is required for flood resilience measures.			■	■	■																			
4C Install appropriate resistance measures.			■	■	■	■	■	■	■	■	■	■												
5 Other Measures																								
5A Ensure all residents and traders have adequate insurance for flooding.	■	■																						
5B Re-classify Porlock Weir as a 'settlement' within the Local Development Framework.			■	■	■	■	■	■	■	■	■	■												
5C Discuss actions to be taken in case of major failure of the harbour groyne.			■	■	■	■	■	■	■	■	■	■												

Appendix A

Contact List for Porlock Weir Adaptation Action Plan

Name	Role / Organisation	Telephone Number	Email Address
Somerset County Council			
Rebecca Seaman	Coastal Change Pathfinder Project Manager	01823 355281	RSeaman@somerset.gov.uk
Paul Jones	Coastal Change Pathfinder Project Officer	01823 357337	PXJones@somerset.gov.uk
Environment Agency			
John Buttivant	Environment Agency - Coastal Engineer	01278 484665	john.buttivant@environment-agency.gov.uk
Exmoor National Park Authority			
Poie Li	Assistant Planning Officer (Policy)	01398 322258	PLi@exmoor-nationalpark.gov.uk
West Somerset District Council			
Steve Watts	Coastal Protection	01984 635261	swatts@westsomerset.gov.uk
Porlock Manor Estate			
Mark Blathwayt	Landlord Porlock Manor Estate	01225 425051	mark@porlockmanortestate.org
Paul Smalley	Savills	01598 760336	psmalley@savills.com
National Trust			
Nigel Hester	Countryside Manager	01643 863905	Nigel.Hester@nationaltrust.org.uk