WATER PAPER

CONTENTS

APPENDICES

1. PLANNING POLICY STATEMENT 25 (PPS25): DEVELOPMENT AND FLOOD RISK

PPS25 sets out the principle of a Strategic Flood Risk Assessment SFRA) for all Local Authorities. Purbeck published its SFRA in 2007, which is constantly updated as new information is taken into account. The SFRA can be found on Purbeck District Council's website.

PPS25 takes a risk-based approach, with minimum requirements for flood risk assessment, a sequential test in determining the suitability of land for development, and an exception test for very exceptional circumstances.

The aim of the sequential test is to steer new development to areas at the lowest probability of flooding (Zone 1).

Flood zone maps are updated quarterly by the EA and sent on DC to all local authorities. These flood maps are incorporated into Purbeck's SFRA.

2. CATCHMENT FLOOD MANAGEMENT PLANS

The main aims of Catchment Flood Management Plans are to:

- understand the factors that contribute to Flood Risk within a catchment, such as how the land is used
- recommend the best ways of managing the risk of flooding within the catchment over the next 50 to 100 years

The following text is taken from the Environment Agency's website:

Sometimes it might be best to increase flooding in one area to reduce it in a more sensitive area. This is just one of the many options we consider when creating our Catchment Flood Management Plans (CFMPs). Instead of just building flood defences, we are looking at land use across a larger area - seeing if we can move the water to where it will do least harm to people and the environment.

Should we build a flood defence near a town and increase the water levels all along the river; or let excess water drain naturally across uninhabited agricultural land?

All land use changes will be decided in full consultation with those affected, such as local authorities which have responsibility for planning permission in these catchments and land owners. We hope to have the majority of our CFMPs written and ready for consultation by 2008.

Consultation on the draft Frome and Piddle CFMP (which covers all of Purbeck) should be ready by 2008.

3. WATER FRAMEWORK DIRECTIVE

The WFD is a set of guidelines for managing large bodies of water. Its main aims are to improve water quality while reducing any danger a water body poses, such as flooding. It is also designed to stop the deterioration of wetlands and improve aquatic habitats for wildlife.
The main objectives of the WFD are to:

- Enhance the status and prevent further deterioration of aquatic ecosystems and associated wetlands - there is a requirement for nearly all inland and coastal waters to achieve 'good status' by 2015;
- Promote the sustainable use of water
- Lessen the effects of floods and droughts
- Rationalise and update existing water legislation and introduce a co-ordinated approach to water management based on the concept of river basin planning.
- Reduce pollution of water

The first step is to identify water bodies and the surrounding land area - these are called River Basin Districts. These areas are then characterized by assessing the

pressures and impacts on the water environment, such as overuse or pollution. Once that is complete, we can use our knowledge of the area to prepare a River Basin Management Plan. This tailored plan sets out how we will improve water quality and reduce the risk it poses.

England Catchment Sensitive Farming Delivery Initiative (ECSFDI)

In order to comply with WFD, the UK must protect, enhance and restore all surface and groundwater bodies and aim to achieve good ecological status by 2015. Many rivers, lakes coastal areas and groundwater are currently at risk of failing WFD standards and diffuse pollution from Agriculture is a significant cause.

The England Catchment Sensitive Farming Delivery Initiative (ECSFDI) started on 1 April 2000 to raise awareness of diffuse water pollution and encourage early voluntary action by farmers to tackle the problem through Education rather than regulation, with aim to raise awareness of the problems. Training is available for farmers on soil, manure and nutrient management in the form of free workshops, demonstrations. Visits from specialists and a small capital grant scheme from 2007 will look at tackling issues such as clean and dirty water separation and river fencing. This will be a matched grant of up to £5000 per farm. The Frome and Piddle have been designated as priority areas under Defra's ECSFDI.

4. RIVER BASIN MANAGEMENT PLANS

The Water Framework Directive requires that River Basin Management Plans (RBMP) are produced for each River Basin District by 2009. These will be strategic management documents, developed via the River Basin Planning process, which will integrate the management of the water and land environment. Preparation will involve a process of analysis, monitoring, objective setting and consideration of the measures to maintain or improve water status. RBMPs will have a number of functions, but are primarily intended:

- To establish a strategic plan for the long term management of the River Basin District.
- To set out objectives for waterbodies and in broad terms what measures are planned to meet these objectives
- Act as the main reporting mechanism to the European Commission

In order to deliver this integrated approach to river basin management, the Environment Agency will work with other organisations in a participatory manner.

The WFD stipulates a cyclical process, where RBMPs are prepared, implemented and then reviewed every six years.

The River Frome and Piddle catchment will be included within the larger River Basin, which will comprise several other catchments in the south west area.

5. CATCHMENT ABSTRACTION MANAGEMENT PLANS (CAMS)

Work is complete on the Frome, Piddle and Purbeck CAMS, which states: "The catchment is predominantly rural but experiences some urban influences at Dorchester and downstream at Wareham. Water is abstracted throughout this area for a variety of uses including agriculture, fisheries, and industry. The largest abstractions though are required for public water supply. The rivers in this catchment are enjoyed both by tourists and among the angling community for the high quality of their fishing. A small stretch of the River Frome is also navigable up to Wareham. The Isle of Purbeck is an important tourist location containing numerous designated environmental sites whilst the majority of the catchment is also classified as an area of outstanding natural beauty (AONB)".

6. WATER LEVEL MANAGEMENT PLANS (WLMPs)

The Environment Agency has the responsibility for producing WLMPs for all SSSIs where the EA is the drainage authority. The outcome is a plan which highlights impacts on the SSSI in relation to water levels, including identifying structures and operations which are currently causing harm. The River Frome is one of the remaining plans to be completed that the EA has responsibility for.

7. GROUNDWATER PROTECTION

(Appendix 1: Groundwater Source Protection Zones)

The following text is adapted from the Environment Agency's website:

Groundwater provides a third of drinking water in England and Wales, and it also maintains the flow in many of rivers. In some areas of Southern England, groundwater supplies up to 80% of the drinking water.

We have defined Source Protection Zones (SPZs) for groundwater sources such as wells, boreholes and springs used for public drinking water supply. These zones show the risk of contamination from any activities that might cause pollution in the area. The closer the activity, the greater the risk.

The shape and size of a zone depends on the condition of the ground, how the groundwater is removed, and other environmental factors. When we define a zone we find out how the groundwater behaves in that area, what constructions there are to get the water out into the public water supply, and the process for doing this. From this we can develop a model of the groundwater environment on which to define the zones.

The zones are divided as follows:

Zone 1 (Inner protection zone): Any pollution that can travel to the borehole within 50 days from any point within the zone is classified as being inside zone 1. This applies at and below the water table. This zone also has a minimum 50 metre protection radius around the borehole. These criteria are designed to protect against the transmission of toxic chemicals and water-borne disease.

Zone 2 (Outer protection zone): The outer zone covers pollution that takes up to 400 days to travel to the borehole, or 25% of the total catchment area – whichever area is the biggest. This travel time is the minimum amount of time that we think pollutants need to be diluted, reduced in strength or delayed by the time they reach the borehole.

Zone 3 (Total catchment): The total catchment is the total area needed to support removal of water from the borehole, and to support any discharge from the borehole.

Zone of special interest: Sometimes, we define a fourth zone. This is usually where local conditions mean that industrial sites and other polluters could affect the groundwater source even though they are outside the normal catchment area.

Groundwater Protection Zones (GPZs) are updated infrequently when re-modelling is carried out. There are several GPZs in Purbeck, in particular in the north west of the district.

8. SHORELINE MANAGEMENT PLANS

(Appendix 2: letter from District Engineer and Appendix 3: additional information on coastal erosion from PDC website)

The following text is taken from the website “Dorset For You”

Originally, coastal defences were constructed on an ad hoc basis over discrete lengths of coastline. In recent years, the Department for Environment, Food and Rural Affairs (DEFRA), formerly the Ministry of Agriculture, Fisheries and Food (MAFF), the government body that sanctions public sector expenditure on coastal defence, have required economic, environmental and technical assessments to demonstrate the viability of any proposed scheme. However, it was not unusual for little consideration to be given to the possible effects of the new works on the adjoining frontages or those further along the coast. In addition, the division of coastal responsibility has not always encouraged co-operation over the defence of neighbouring frontages. In the absence of any strategic planning, there were concerns about the sustainability of coastal defences, their long-term effects on adjacent lengths of coastline, the lack of communication between those with coastal interests, and other similar issues. The SMP represents an attempt to deal with these issues.

As a non-statutory document, the SMP does not have the legal status of Local or Structure Plans, and may be among a number of non-statutory plans relating to a particular length of coastline. With respect to Local and Structure plans, the SMP should strive to ensure that, as far as possible, its recommendations are generally in accordance with relevant planning policies.

With respect to non-statutory plans, the SMP should aim to encompass and develop the ideas set out in such plans, while reflecting awareness of the policies and any potential areas of conflict in them. It is unlikely that all these plans will be in preparation at the same time, so it is important that the regular review process is used to inform and amend, as appropriate.

The SMP provides broad guidance on the strategic coastal defence options that are appropriate for the frontage under consideration and compatible with adjacent frontages and the processes operating. The SMP takes a holistic view; so detailed data and analyses are not required at this level. DEFRA intends that, in many cases, the SMP process will be followed successively by the development of strategy plans and the detailed individual schemes.

Once the SMP is finalised, agreed and adopted by those with coastal defence responsibilities, future coastal defence works proposed within the study area should be carried out in accordance with the recommendations made in the SMP. Where a defence scheme is required and is to be submitted with an application for grant aid, the detailed evaluations of that scheme should comply with the 1993 MAFF Flood and Coastal Defence Project Appraisal Guidance Notes. Where a coastal defence option involves a scheme that is not eligible for grant aid, nevertheless it would need to comply with the strategic needs and objectives of the SMP. The local SMPs for Purbeck are discussed below.

9. SHORELINE MANAGEMENT PLAN: PORTLAND BILL TO DURLSTON HEAD

The following covers the Purbeck area and proposals for the area.

MU7a White Nothe to Bat's Head
Tall chalk cliffs with limited access front agricultural land. Do nothing.

MU7b Bat's Head to Man O' War Rocks
Tall cliffs with beach with publicly accessible beaches and the Durdle Door formation fronting mainly agricultural land. Do nothing.

MU7c Man O' War Rocks to Stair House
Tall cliffs with beach giving way to plunging cliffs at Dungy Head, fronting agricultural land with a few individual properties. Do nothing.

MU8a Stair House to Lulworth Cove (West)
Unstable cliffs with restricted access. Take consideration of LA policies on conservation of the 'undeveloped' coast. Do nothing.

MU 8b – Lulworth Cove (West) to Lulworth Cove (East)
Lulworth Cove with properties and beach access, backed by unstable inclined slopes with a beach at the toe. Retreat the line. This policy allows Purbeck District Council the degree of management flexibility required to selectively 'protect' built assets without extensive intervention into the processes that have formed the Cove. This policy is consistent with the strategies identified for adjacent units. The method of implementing this defence option will require further detailed technical, environmental and cost benefit consideration.

MU 9 – Lulworth Cove (East) to Bacon Hole
Fossil Forest on the stable limestone cliffs with no beach, front the MOD range. Do nothing.

MU 10a – Bacon Hole to Mackerel Rock
Mupe Bay, MOD range with a restricted beach access and unstable inclined slopes. Do nothing.

MU 10b – Mackerel Rock to Arish Mell (West)
MOD range with tall chalk cliffs. Do nothing.

MU 10c – Arish Mell (West) to Arish Mell (East)
Arish Mell, MOD range and Winfrith Outfall at beach with no public access, backed by low unstable inclined slopes. Do nothing. Pending investigations in the future and dependent upon the redevelopment time frame at for the Winfrith site, the Retreat the Line option may warrant further technical and environmental investigation. Currently, however, Do Nothing continues the policy of the MOD and PDC.

MU 10d – Arish Mell (East) to Worbarrow Tout
Worbarrow Bay, MOD range with restricted beach access, archaeological interest above the steep inclined slopes. Do nothing.

MU 11 – Worbarrow Tout to Broad Bench
Gad Cliff, narrow ridge of high unstable cliffs, MOD range with restricted access with wave cut platform at Broad Bench. Do nothing.

MU 12a – Broad Bench to Kimmeridge Bay (West)
MOD range with restricted access, with the wave cut platform protecting low stable cliffs. Do nothing. With relation to MU 12b however careful consideration will be required to enable the successful transition of strategies to one of a controlled retreat of the line in the future.

MU 12b – Kimmeridge Bay (West) to White House
Kimmeridge Bay, road access to properties, car park and oil well, at risk from erosion. Steep cliffs with beach access at Gaulters Gap. The preferred coastal defence option for the unit is retreat the line through a sensitively designed erosion regulation scheme, avoiding the use of substantial hard defences. This option provides Purbeck District Council with a flexible management policy, capable of achieving the majority of the unit objectives without detrimental impacts on the natural environment. This will however require a detailed appraisal of the processes taking place, and of technical and environmental factors pertinent to the bay and adjacent units. Particular attention will be required to the transition zones with adjacent units.

MU12c White House to Clavell Tower
Vehicle access to beach, fisherman's huts and car parking located on remains of man-made defence structures. The preferred coastal defence option for the unit, pending a more detailed investigation into the environmental implications, cost benefits and practicality is retreat the line

MU 12d – Clavell Tower to Egmont Bight
Kimmeridge Ledges protect steep cliffs backed by agricultural land. Do nothing.

MU 13a – Egmont Bight to Chapman's Pool (West).
Unstable inclined slip slopes in front of agricultural land. Do nothing.

MU 13b – Chapman's Pool (West) to Boat House
Unstable inclined slip slopes in front of agricultural land, with beach access, slipway and boat house. Do nothing.

MU 13c Boat House to St. Aldhelm's Head (East)
Westward orientated inclined slip slopes, agricultural land with archaeological interest particularly at St. Aldhelm's Head. Do nothing.

MU 14a – St. Aldhelm's Head (East) to Seacombe Cliff
South easterly facing vertical cliffs fronting agricultural land, with redundant coastal quarries. Do nothing.

MU 14b – Seacombe Cliff to Anvil Point
South facing vertical cliffs, fronting agricultural land, with several redundant coastal quarries. Do nothing.

MU 14c – Anvil Point to Durlston Head
South easterly facing vertical cliffs, fronting Durlston Country Park facilities, a lighthouse, with redundant coastal quarries. Do nothing.

10. SHORELINE MANAGEMENT PLAN: POOLE AND CHRISTCHURCH BAYS

This SMP is divided into 4 volumes and covers the area between Durlston Head and Hurst Spit in Hampshire. Volume 3 is of particular relevance to this Natural Environment document in that it reviews habitat and landscape of the area. As with the Portland Bill to Durlston Head SMP, most of the actions are to "do nothing".

11. DURSTON BAY COASTAL STRATEGY STUDY

This came out of the SMP. The boundaries of the strategy are between Peveril Point and Durlston Bay. Its summary states that the recession of cliffs and shoreline is being driven by erosional forces. This exacerbates the inherent instability of the coastal cliffs and slopes that are prone to landslide activity. "Do nothing" is recommended, but the centre of the bay has residential properties. Inspection and monitoring programme is recommended. Page 94 states that poor drainage in the cliff top area will be contributing to the instability and a policy is recommended to prevent use of soakaway drainage in future developments.

12. POOLE HARBOUR AQUATIC MANAGEMENT PLAN

(Appendix 4: Non-Technical Summary and Appendix 5: Base Document)

The following text is taken from the Poole Harbour Aquatic Management Plan website:

The Harbour Poole Harbour is one of the outstanding natural features of Southern England and one of the largest natural harbours in the world. The Harbour is of exceptional ecological value with, National, European and International nature conservation designations. It also supports significant commercial and recreational activities and the need to manage these different uses has long been recognised.

The Aquatic Management Plan Its overall aim is: ***"To promote the safe and sustainable use of Poole Harbour, balancing the demands on its natural resources, minimising risk and resolving conflicts of interest."***

The Plan looks at ways of maintaining sustainable levels of economic and social activity within the Harbour and its hinterland, while protecting its natural environment. It considers the activities of all those involved in the development, management and use of the Harbour within a framework that facilitates the integration of their interests and responsibilities.

Management Framework The plan is supported by the Poole Harbour Steering Group, which is a voluntary partnership that provides a framework for coordination between statutory bodies with responsibilities in Poole Harbour. Its members work together to review, prepare and implement common plans and policies, with a view to promoting the sustainable use of Poole Harbour, whilst securing the long-term conservation of its internationally important wildlife and natural habitats.

Membership of the Steering Group consists of; Borough of Poole, Dorset County Council, Natural England, Environment Agency, Poole Harbour Commissioners, Purbeck District Council, Southern Sea Fisheries District Committee and Wessex Water Services Ltd.

It is not a statutory plan for the Harbour but contains guidelines, policies and principles to inform and advise. Of particular note is paragraph 5.8.5 on refuge areas and anchorages sensitive zones. Fig 2 of the document shows proposed winter refuges areas which correspond to shellfish lease beds and known areas of eelgrass. Through voluntary cooperation and education, it is proposed that all human activity be restricted from these areas between 1 November and 31 March for the benefit of bird populations.

13. WAREHAM TIDE BANKS STRATEGY

(Appendix 6: Map of Strategy)

The Wareham Tide Banks Strategy is being undertaken by the Environment Agency. They have carried out an inception study to examine the future of the tidal defences at the western end of the Harbour, including those on the Rivers Frome and Piddle up to Wareham. The objective is to identify the strategic options for the future management of these defences in a way that recognises the interests of different parties and the environment and reduces the cost of maintenance.