

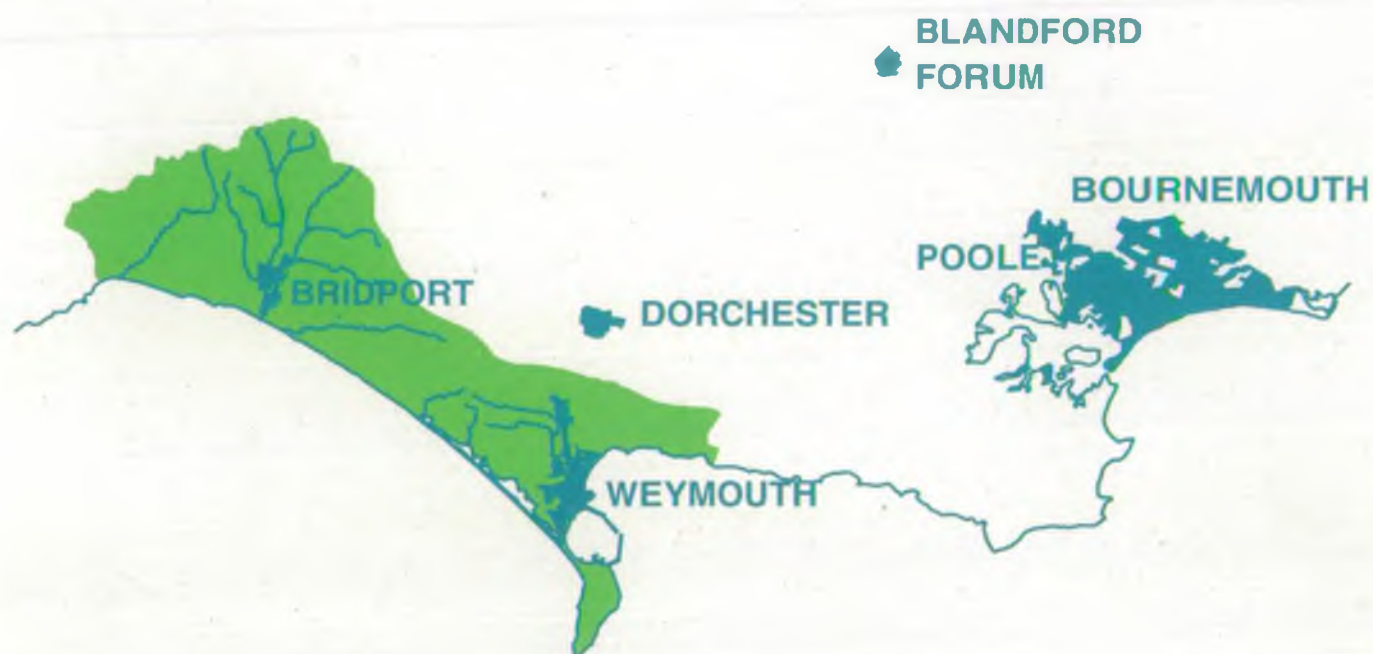


local environment agency plan

WEST DORSET

ACTION PLAN

MARCH 1999



ENVIRONMENT
AGENCY

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ENVIRONMENT AGENCY

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Published March 1999



**ENVIRONMENT
AGENCY**

Our ref: WDAP1
Your ref:

Date: March 1999

Tina Hoswill
National Information Centre
Bristol (Rio House)
Head Office

Dear Tina

WEST DORSET LOCAL ENVIRONMENT AGENCY PLAN – ACTION PLAN

In November 1997 we published a Local Environment Agency Plan (LEAP) for the West Dorset rivers area. The LEAP identified a number of key issues affecting the environment and options for future management of the area.

Following consideration of the views expressed during the period of public consultation and those of the South Wessex Area Environment Group, we have now produced an action plan. Your copy is enclosed. Each year we will publish a review of progress and highlight any new issues that need to be incorporated into the LEAP.

The action plan will help form the basis for some of our work in the West Dorset rivers area and we look forward to working in partnership with other organisations and the public to help improve the local environment.

If you require any further information please do not hesitate to contact me.

Yours sincerely

RICHARD THORNTON
Team Leader LEAPs (Acting)
South Wessex

Direct dial 01258 483415

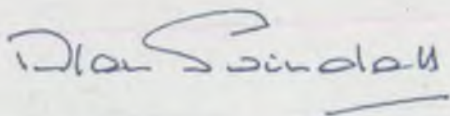


Foreword

This Plan is one of a series that is being prepared to cover the whole of England and Wales. Together they represent a significant step forward in environmental thinking. It has been clear for many years that the problems of land, air and water, particularly in the realms of pollution control, cannot be addressed individually. They are interdependent, each affecting the others. The Government's answer was to create the Environment Agency with an umbrella responsibility for all three. The role and duties of the Agency are set out in this document.

Like most of these Plans, this one covers very contrasting areas. The western part is basically rural while the more urban character of Weymouth and Portland dominates the eastern section. It does, however, differ from most in covering a number of small catchments rather than a single river.

The issues covered in this Plan are central to the future quality of life for all the people who live in the area. They complement the work being done by the local authorities, and are strongly allied to the environmental aims of the various Local Agenda 21 Groups. These Plans influence the priorities of the Environment Agency in the area, and so must be of great importance to the growing number of people who are concerned for the environment.



Alan Swindall

Chairman, South Wessex Area Environment Group of the Environment Agency

ENVIRONMENT AGENCY



032500

Map 1 - West Dorset Plan Area and District and County Boundaries



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Our vision

This Plan covers an area of exceptional natural beauty and diversity, including:

- the urban centres of Weymouth and Bridport
- small coastal rivers like the Char, Brit and Bride
- the important wetland areas of Radipole and Lodmoor
- the Isle of Portland
- Chesil Beach, the Fleet and Lyme Bay, coastal features of international importance

Our vision is of a healthy and diverse area, managed in a sustainable way in which economic and social needs are met in ways which will maintain high environmental quality standards.

Our Plan will help to ensure that:

- discharges to land, air and water do not harm the environment
- biodiversity is maintained and, where appropriate, restored or enhanced
- there is minimal risk to people and property from flooding
- there is environmentally sustainable use of water resources
- waste generation is minimised and the quantity of waste requiring disposal is reduced through the principles of re-use and recovery
- features of archaeological and historical interest are conserved
- people's enjoyment of the environment continues to grow

We cannot realise this vision on our own, and will seek to work in partnership with local authorities, industry, farmers, environmental groups and other interested organisations to turn this vision into reality.



Howard Davidson

Area Manager, South Wessex Area of the Environment Agency

1. Introduction

1.1 The Environment Agency

Our vision is

- a better environment in England and Wales for present and future generations

Our aims

- to achieve major and continuous improvements in the quality of air, land and water
- to encourage the conservation of natural resources, animals and plants
- to make the most of pollution control and river-basin management
- to provide effective defence and warning systems to protect people and property against flooding from rivers and the sea
- to reduce the amount of waste by encouraging people to re-use and recycle their waste
- to improve standards of waste disposal
- to manage water resources to achieve the proper balance between the country's needs and the environment
- to work with other organisations to reclaim contaminated land
- to improve and develop salmon and freshwater fisheries
- to conserve and improve river navigation
- to tell people about environmental issues by educating and informing
- to set priorities and work out solutions that society can afford

We will do this by:

- *being open and consulting others about our work*
- *basing our decisions around sound science and research*
- *valuing and developing our employees*
- *being efficient and businesslike in all we do*

The Environment Agency has a wide range of interests relating to different aspects of environmental management. These duties are described in more detail in Appendix 6.1. While statutory duties and powers support many of these interests, much of the Agency's work is advisory, with the relevant powers resting with other bodies such as local planning authorities.

We are required and guided by Government to use our duties and powers in order to help achieve the objective of sustainable development. The Brundtland Commission defined sustainable development as *development that meets the needs of the present without compromising the ability of future generations to meet their own needs*.

At the heart of sustainable development is the integration of human needs and the environment within which we live. Indeed the creation of the Agency itself was in part a recognition of the need to take a more integrated and longer-term view of environmental management at a national level. The Agency therefore has to reflect this in the way we work and in the decisions we make.

Taking a long-term perspective will require the Agency to anticipate risks and encourage precaution, particularly where impacts on the environment may have long-term effects, or when the effects are not reversible. The Agency must also develop its role to educate and inform society as a whole, as well as carrying out our prevention and enforcement activities, in order to ensure continuing protection and enhancement of the environment.

One of the key outcomes of the United Nations *Earth Summit* held in Rio de Janeiro in 1992 was agreement by governments that, in order to solve global environmental problems, local action is crucial: we must all therefore think globally but act locally.

1.2

Local Environment Agency Plans

For our part we are committed to a programme of Local Environment Agency Plans (LEAP) in order to produce a local agenda of integrated action for environmental improvement. LEAPs help us to identify, assess and solve local environmental issues related to our functions, taking into account the views of external organisations and the general public.

- 1.2.1 The Consultation Report** – We published a Consultation Report for West Dorset in November 1997 which gave an opportunity for external organisations and the public to comment on environmental problems and our work. It described the environmental resources of the area, explained how human uses or pressures affect these resources, and outlined issues where we or others need to take action to address problems in the environment.
- 1.2.2 The Action Plan** – We have collated responses to the Consultation Report (see Section 5) and produced this Action Plan. Each year we will review the progress that has been made with the actions identified in the plan and publish a review. The Annual Review will also identify any additional actions needed to maintain progress in the light of changes in the LEAP area and also whether any actions need removing or amending where they are no longer appropriate.

1.3

The Area Environment Group

This group comments upon the Consultation Report and Action Plan prior to public release and provides us with specific advice on the importance of issues within the plan area.

We regard the Area Environment Group as fundamental in assisting us in building relationships with our customers. The Group has a broad experience and interest in environmental matters. The role of the Area Environment Group is an advisory one.

2. Description of the plan area

The area covered in this plan is a collection of small river catchments sharing the common feature of flowing into the sea on the south coast of West Dorset (see Map 1). There are no large rivers in the area but there are major wetlands at Radipole and Lodmoor, the unique coastal features of Portland Harbour, the Fleet lagoon and Chesil Beach, and the marine zone in Lyme Bay.

The plan area lies entirely within the County of Dorset. It covers the whole of Weymouth & Portland Borough Council area, and a substantial part of the West Dorset District Council area (see Map 1).

The whole of the area, apart from Weymouth and its environs, is in the Dorset Area of Outstanding Natural Beauty designated by the Countryside Commission to conserve and enhance the natural beauty of the landscape. The area also contains sites of regional, national and international importance for wildlife, with a range of habitats supporting a variety of species. Several formal designations apply to parts of the area (see Map 2).

The EC Habitats Directive seeks to protect habitats and species of European importance by designating Special Areas for Conservation (SAC). Three candidate sites fall wholly or partly within the area; Chesil and the Fleet, Isle of Portland to Studland Cliffs and Sidmouth to West Bay. Chesil Beach and the Fleet is also a Special Protection Area (SPA) under the EC Birds Directive which seeks to protect wild birds and their habitats. All these sites are existing Sites of Special Scientific Interest (SSSI) which are statutory sites of national conservation importance; a number of other sites are also covered by this designation. Chesil Beach and the Fleet is also a Ramsar site designated for its internationally important wetland status (see Map 2).

English Nature have identified 120 terrestrial and marine Natural Areas in England defined by their wildlife, habitats, species and physical attributes. They provide a framework with which to focus efforts and resources on nature conservation priorities but are not formal designations. Four Natural Areas are of interest to this plan, the *Isle of Portland and Purbeck*, *Lyme Bay*, the *South Wessex Downs* and the *Wessex Vales*. These English Nature profiles help set out the nature conservation context of the area.

The coastal strip, up to 5 km inland, is designated Heritage Coast and Lyme Bay has been proposed as a World Heritage site.

Development is concentrated in the east of the area around the town of Weymouth, traditionally a holiday resort, but its light industrial and commercial development make it an employment centre for the area. The market town of Bridport is important in the west of the area, and supports a number of light industries as well as its historic role as a centre for rope and net making.

There are three significant harbours in the area: Weymouth is important for commercial, fishing and recreational shipping; Portland Harbour, formerly a major naval harbour, is currently being redeveloped primarily for commercial shipping; and West Bay is predominantly a port for fishing and recreational activity.

Away from the seaside towns the area is largely farmland. The steep slopes and intricate geology have discouraged intensive agriculture, and the unspoilt river valleys are essential components of this landscape which is more suited to quiet enjoyment than the more organised recreation on the coast. Agriculture is predominantly small livestock units and permanent grasslands.

The dramatic peninsula of the Isle of Portland is noted for its geological interest; the well-known Portland Stone has been quarried for centuries and as well as shaping the local landscape, the limestone quarries have made major contributions to the architecture of cities throughout the country. The uncultivated land on Portland supports species-rich grassland on the thin, free-draining, limestone-derived soils and there are many disused quarries in which notable plants and animals have found a refuge. The traditional small field farming system is still practised on areas not quarried.

Lyme Bay encompasses over 150 km of the most varied and ecologically important coastline in England. It is largely undeveloped and provides spectacular scenery with some of the most important geological features including hard and soft rock cliffs, sand dunes, Chesil Beach and the Fleet. There is also a wide range of submerged habitats supporting a wealth of marine life, and four Sensitive Marine Areas have been identified.

The cliffs of Lyme Bay are internationally famous for their fossils, containing a number of important representatives of particular geological periods. West from Charmouth is Europe's largest coastal landslip complex at Black Ven and eastwards the soft cliffs rise to 191 m on the spectacular Golden Cap. At the eastern end of the Bay, the 28 km long Chesil Beach connects the Isle of Portland to the mainland. The shingle ridge is a unique feature that shelters the Fleet, Britain's largest saline lagoon, harbouring unusual communities of plants and animals adapted to the brackish water conditions.

Portland Harbour is a sheltered body of water with important marine communities and rare species unique along the south coast. Portland Bill presents a barrier to the movement of some species and it is here that they reach their western limit of distribution.

3. Activity tables

The following tables outline the actions needed to address the issues identified in the Consultation Report. They also include some additional issues raised during the consultation process, which are:

- *Securing future public water supplies*
- *Flow fluctuations at Upwey Springs*

In addition the Consultation Report issue *Waste minimisation* has been widened in scope and renamed *Developing strategies for sustainable waste management*.

The tables show the following information:

- organisations which will implement the proposed activity
- a timetable for each activity
- an estimate of the cost to us, where available, or an indication of how the work will be funded; *tbd* indicates costs have yet to be determined
- the financial years (April-March) in which the work will be done. A *dot* indicates in which financial year, or over which period of financial years, work is planned to be undertaken. For example '99 is the financial year April 1999 to April 2000

Please refer to the Glossary (Section 7) for the definition of acronyms and abbreviations.

The following points should also be noted:

- our everyday work commits substantial resources to monitoring and managing the environment
- some actions will require feasibility studies and cost-benefit appraisals prior to work commencing. In some cases, depending on the outcome of these studies, further action may not be justified
- both we and other participating organisations have limited resources and powers; some work may take longer than indicated owing to funding availability, Government policy, or more urgent priorities

3.1

The setting and maintenance of river water quality targets

We manage water quality by setting targets called River Quality Objectives (RQOs) which are intended to protect current water quality and future use. We use them as a basis for setting consents for new discharges and planning future water quality improvements. The RQOs we set must be achievable and sustainable; we must be able to identify what needs to be done to meet the target, and to ensure as far as practicable that water quality can be maintained at this level in the future.

The classification scheme known as River Ecosystem (RE) comprises five hierarchical classes. The classes reflect the chemical quality needed by different types of river ecosystem including the types of fishery they can support.

RQO (RE class)	Class Description
RE1	Water of very good quality suitable for all fish species
RE2	Water of good quality suitable for all fish species
RE3	Water of fair quality suitable for high class coarse fish populations
RE4	Water of fair quality suitable for coarse fish populations
RES	Water of poor quality which is likely to limit coarse fish populations

In the Consultation Report we proposed RQOs which have been confirmed following the consultation process. Map 3 shows these targets and the compliance with them.

The water quality assessment in the Consultation Report was based on three years data between 1994-96. We have now updated these assessments for the period 1995-97 and there are no significant failures; the number of marginal failures has increased from two to four for the same period. Following these failures we propose to carry out investigation work on these river reaches.

River Stretch	Parameter causing non-compliance	Reasons contributing to non-compliance
Wey (Downstream Upwey Fish Farm-confluence with Pucksey Brook)	BOD (Marginal failure)	<i>Believed to be related to natural events. Data for 1998 and 1999 will be reviewed and action taken if the problem persists</i>
Wey (Confluence with Pucksey Brook- Nottingham)	BOD (Marginal failure)	<i>Believed to be related to natural events. Data for 1998 and 1999 will be reviewed and action taken if the problem persists</i>
Char* (Charmouth sewage treatment works-sea)	BOD (Marginal failure)	<i>Believed to be due to surface runoff from agricultural land in clay areas and from septic tanks and unconsented discharges. Investigation work is being undertaken (see Sections 3.2 and 3.3)</i>
Wootton Fitzpaine Stream* (Source- confluence with Char)	BOD (Marginal failure)	<i>Believed to be due to septic tank and unconsented discharges and surface runoff from agricultural land in clay areas. Investigation work is being undertaken (see Sections 3.2 and 3.3)</i>

* river reaches that failed based on the assessment used for the Consultation Report

In addition one reach of the River Char and the Wootton Fitzpaine Stream failed their Long Term RQOs; these were the reaches discussed in the Consultation Report. Long-term objectives can be proposed where we are unable to identify solutions or resources to resolve current water quality problems and where applicable are used as the basis for setting consent for new discharges.

The priority will be to resolve existing RQOs, which in turn may resolve Long Term RQO failures. If this is not the case we will investigate further.

Actions	By	Cost to Agency	Financial Year				
			98	99	00	01	02
1a Review 1998 and 1999 sampling data for the River Wey and take action if RQO failures persist	Agency		●	●	●	●	

3.2

Impact of rural land use on water quality

The agricultural community has responded well to our campaigns to reduce acute pollution incidents by improvements to the storage facilities provided for material such as silage and slurry. However changing agricultural land use and increases in the disposal of waste to land have led to other problems including the increased risk of soil erosion and surface runoff from land contaminated with soil particles, pesticide residues and fertilisers.

We will encourage landowners to adopt best practices to minimise soil erosion and to control surface runoff. We will also encourage landowners to establish buffer zones between intensive farmland and watercourses wherever possible and to explore agricultural incentive schemes (see Section 4.8). We will advise farmers to ensure that the risk of pollution from all agricultural activities is minimised, and encourage the active use of Farm Waste Management Plans. Farm waste brokerage schemes and nitrate plans should also be considered.

Surface runoff from agricultural land may be contributing to RQO failures (see Section 3.1) in the Char and the Wootton Fitzpaine Stream as may unidentified domestic sources around Whitchurch Canonicorum. Investigation work into these failures is continuing (see Section 3.3).

The water supply source at Langdon Springs, Beaminster has been designated a Nitrate Vulnerable Zone (NVZ). All agricultural activity within the zone is subject to control defined in an Action Programme, which the Agency is responsible for implementing. Codes of Good Agricultural Practice will continue to apply outside NVZs. Regular reviews must be carried out of existing NVZs, and to identify potential new areas. The next review will be carried out in 2001.

Internationally important conservation sites in the Fleet and Portland Harbour may also be suffering from diffuse inputs of nutrients and pesticides. The Fleet is a candidate SAC (see Section 3.4) and the EC Habitats Directive requires English Nature to develop conservation objectives for the management of these sites; this will involve input from a number of bodies including ourselves.

Routine monitoring of the Fleet continued during 1998 to provide data for the nutrient budget modelling work being undertaken by the Agency, along with additional sediment and continuous water quality monitoring. A contract has also been let to look at diffuse inputs from land to the Fleet.

English Nature have contracted a consultant to produce a final report on the management of the Fleet utilising the Agency monitoring and modelling work. This work will be used to inform the review of authorisations under the EC Habitats and EC Birds Directives (see Section 3.4).

We will consult on the implications of this study on the proposed designation of the Fleet as a polluted water (eutrophic), under the EC Nitrates Directive (*concerning the protection of waters against pollution caused by nitrates from agricultural sources*). In the meantime we will continue monitoring the Fleet in support of the candidate polluted waters (eutrophic) designation. If the Fleet is designated at the next review (2001), areas of land draining to it will be designated as an NVZ.

Actions	By	Cost to Agency	Financial Year				
			98	99	00	01	02
2a Encourage landowners to adopt best management practices to minimise soil erosion and surface runoff from agricultural land. <i>This is seen as part of our routine work</i>	Agency		●	●	●	●	●
2b Enforce Langdon Springs NVZ Action Programme. <i>NVZ action plans are drawn up by the Ministry of Agriculture, Fisheries and Food and undertaken by the landowner. The Agency's costs relate to enforcement of the action plan</i>	Agency	£1k	●	●	●	●	
2c Contribute to the four-yearly review process of NVZs	Agency	tbd			●	●	
2d Continue monitoring the Fleet in support of the candidate polluted waters (eutrophic) designation. <i>This will become part of our statutory workload and will be resourced accordingly</i>	Agency		●	●			

3.3

Impact of sewage and sewerage on water quality

The EC Bathing Waters Directive (*concerning the quality of bathing water*) seeks to protect public health and the amenity value of popular bathing waters by reducing pollution. Following the failure of Bowleaze Cove in 1996 detailed investigations were carried out during 1997. The studies highlighted that storm sewer surcharges were causing contamination of the River Jordan; in order to prevent this an off-line attenuation tank has been installed by Wessex Water Services Ltd (WWSL). The tank should be operational in time for the 1999 bathing season. Farm visits in the area identified no significant agricultural inputs. Bacteriological sampling of the Jordan will continue until the Agency is satisfied that sewer surcharges are no longer a problem. However the bathing water did comply with the directive in 1998.

In 1997 the bathing water at Charmouth West failed to meet the imperative bacteriological standards of the Directive. Investigation has attributed this to contamination of the River Char as a result of unidentified domestic and surface runoff from agricultural land (see Section 3.2). However the bathing water did comply with the directive in 1998.

Sampling was undertaken, concentrating on periods of wet weather, during the 1998 bathing season in the Char catchment to isolate potential bacterial sources. The results are currently being analysed and a full report is due prior to this year's bathing season. This has been combined with the work looking at RQO failures (see Section 3.1). The report will detail causes of the bathing water failure and RQO failures (see Section 3.1) in the Char catchment and help target future work.

It is hoped that the Char will become a study catchment for a national Research and Development (R&D) project investigating the influence of diffuse bacteriological pollution on bathing waters.

Three significant long sea outfalls in the area, Bridport, Charmouth and Weymouth fall under the EC Urban Waste Water Treatment Directive (*concerning urban waste water treatment*) which specifies minimum standards for sewage treatment and collection systems. Recent Government guidance has indicated that all significant discharges (those discharges for which the population exceeds 10,000 population equivalents) to coastal waters will require secondary treatment. Secondary treatment is planned for Bridport and Weymouth by 2000, and Charmouth by 2005. These improvements will be funded under the Asset Management Plan (AMP) programme (see Section 4.6), undertaken by WWSL and consented by the Agency.

Under the EC Shellfish Hygiene Directive (*laying down the health conditions for the production and placing on the market of live bivalve molluscs e.g. oysters and mussels*), shellfish harvesting areas are classified into four categories according to the concentration of bacteria found in the shellfish flesh. The site at Portland Harbour was classified as an A in 1995 and as a B in 1996, 1997 and 1998. The site within the Fleet was classified as an A in 1995 and 1996 and as a B in 1997 and 1998. The site on Shambles Bank has been classified as a B from 1995 to 1998. Weymouth Bay was classified as a Shellfish Hygiene site in 1998 and achieved a B classification. The Ministry of Agriculture, Fisheries and Food (MAFF) and the Department of Health share responsibility for this Directive in England and Wales. Monitoring of shellfish tissue is undertaken by local authority Environmental Health departments. The Agency provides information on discharges that may affect harvesting areas.

Following local concerns regarding the sources of bacteria responsible for the reclassification of the site within the Fleet, additional bacteriological samples have been taken by the Agency from the Fleet and the main inputs to the system. No clear sources of contamination have been found. The closest point source to the shellfish beds is a discharge from Chickerell Army Camp. Work is currently underway to transfer the discharge to the foul sewer and is due for completion by March 1999.

Under the EC Shellfish Waters Directive (*on the quality required of shellfish waters*) we are responsible for monitoring the quality of designated waters and reporting the results. Where standards are not met, we are responsible for identifying sources of pollution and ensuring that improvements are made.

Existing designations are in Portland Harbour: Portland Harbour West and East. Two additional sites, the Fleet and the Shambles are not designated under this Directive; however, the Department of the Environment, Transport and the Regions has consulted on whether waters including these sites should be designated. A decision is expected later this year.

Additional chemical monitoring was undertaken following the failure, in 1996, of sites within Portland Harbour to meet the standards for zinc and copper under the Shellfish Waters Directive. However the sites were compliant in 1997 and 1998. Data is still being studied to ascertain potential reasons for the original failures. This work is currently being undertaken and forms part of the South Wessex Area Shellfish Waters review.

Results of the annual bioaccumulation monitoring programme, which measures the levels of metals and organic residues in mussels, limpets and seaweed, indicated elevated levels of metals (cadmium, copper, chromium, nickel and mercury) around the Weymouth long sea outfall. Sampling of the final effluent has been undertaken to monitor the levels of metals highlighted by the bioaccumulation study. The results are yet to be analysed.

Potential problems with misconnections from the foul sewer to the surface water sewer on Granby Industrial Estate (Weymouth) have been investigated. The surface water sewer discharges to Chafey's Lake, an SSSI. A campaign took place during spring 1998, when every industrial premise on the estate was visited, drains were traced and plans made of their drainage system. A seminar was also held with the participating companies. Where problems were identified the companies concerned were requested to remedy them, and all work should now be completed. We are continuing to monitor the outfall from the estate.

Owners, occupiers and local authorities can apply, under Section 101A of the Water Industry Act 1991, to the sewerage undertaker to provide connection to the foul sewer. This is known as first time sewerage. An application to WWSL has been made for first time sewerage at Ringstead and this will be progressed through AMP3 (see Section 4.6).

Actions	By	Cost to Agency	Financial Year				
			98	99	00	01	02
3a Bacteriological sampling of the River Jordan to monitor improvements to the local sewerage system. <i>Sampling will be undertaken as part of the operational monitoring programme during the bathing season</i>	Agency			●			
3b Complete investigation into bathing water failure and RQO failures in the Char catchment. <i>This will include putting the Char catchment forward for a national R&D project</i>	Agency	tbd	●	●			
3c Progress improvements at Bridport, Charmouth and Weymouth long sea outfalls. <i>This will be funded under the AMP programme (see Section 4.6)</i>	WWSL Agency			●	●	●	●

	Actions	By	Cost to Agency	Financial Year				
				98	99	00	01	02
3d	Investigate causes of historical EC Shellfish Waters Directive failures in Portland Harbour	Agency	tbd		●			
3e	Analyse results of final effluent sampling to examine levels of metals in the Weymouth long sea outfall discharge highlighted by the bioaccumulation study	Agency	tbd		●			
3f	Continue to sample the outfall from Granby Industrial Estate. <i>Sampling is currently undertaken as part of the operational monitoring programme</i>	Agency			●	●	●	
3g	Provide information regarding the installation of first time sewerage as required. <i>The Agency's role is to provide supporting information to the applicant and sewerage undertaker on the environmental impact of any existing facilities and to act as an arbitrator in any dispute</i>	Agency		●	●	●	●	●

3.4

Protection of ecologically important habitats and species

Biodiversity is defined as the variety of life and reflects the huge variation seen in the natural world, between habitats and species, and landscape and genetics. Conservation of biodiversity seeks to safeguard this variety.

In 1994, the Government set up the Biodiversity Steering Group as its response to the Rio Earth Summit held in 1992, an international initiative for conserving biodiversity. The Steering Group led to the production of the *UK Biodiversity Action Plan* (UK BAP) which produced targets for the most threatened species and habitats in the UK. These are known as *priority habitats and species*. In addition plans will also be drawn up for a number of other habitats and species, known as *habitats and species of conservation concern*.

Of those priority habitats and species, the Agency was named as a contact point for chalk river habitats and 12 species, six of which have been recorded in the South Wessex Area. Chalk river habitats and the water vole and the otter are known to be present in the West Dorset LEAP area. In addition the white-clawed crayfish may be present. As a contact point we are responsible for stimulating action to achieve targets, monitoring results and reporting progress to the national groups. The Agency also has responsibilities for other priority habitats and species and habitats and species of conservation concern in order to help ensure their future protection.

Tranche 2 Action Plans, for invertebrates and vascular plants, were published in 1998. These detail distribution and proposed actions for a further 56 species including one further contact species for the Agency, the Marsh Warbler.

Work has also been on-going at a regional level to translate some of the UK actions into specific actions on the ground. This has resulted in the production of the *South West Regional BAP*. This contains 31 target-based action plans for some of the Region's most threatened habitats and species. These spell out in clear terms what needs to be done by whom, if biodiversity in the South West is to be conserved, and where possible enhanced.

UK BAP habitats and species found in the plan area for which the Agency is named as the contact point

Key Habitats and species	Reason for inclusion	Associated LEAP actions
Chalk river habitats	UK BAP priority habitat	4d
Water vole	UK BAP priority species South West BAP Wildlife & Countryside Act (1981)	4k
Otter	UK BAP priority species Wildlife & Countryside Act (1981)	4k
White-clawed crayfish	UK Bap priority species South West BAP Wildlife & Countryside Act (1981)	4i
Marsh warbler	UK BAP phase 2 Wildlife & Countryside Act (1981)	4b, 4f

Chalk river habitats - Several of the smaller streams in the West Dorset area are considered as chalk streams, including the River Wey, River Jordan and River Bride. They have a characteristic plant community often dominated by river water crowfoot (*Ranunculus*), species of starwort, watercress and lesser water parsnip. They are groundwater fed, producing clear waters and a stable flow and temperature regime, providing conditions that support a rich diversity of invertebrate and fish life. In West Dorset tufa springs emerging from the limestone at the source of these rivers are characteristic of the landscape. The springs have also resulted in the formation of fen, reedbed and swamp habitat.

Water voles - The first year of the Dorset Vole and Otter project indicated that water voles were largely absent in this area. Historically, this was probably always the case and may be explained by the higher frequency of wooded watercourses found in West Dorset. No records were confirmed for the River Wey, and few on the Char and the Brit. The extension of suitable habitat on the Bride and promotion of sympathetic management on the Jordan and the Wey may prove beneficial to water voles.

Otters - Formerly widespread throughout the UK, the otter underwent a rapid decline in numbers from the 1950s to 1970s. The Agency commissioned a strategy review for otters in the South Wessex area. This concluded that the otter populations were sparse in West Dorset, with positive records from the Brit, the Bride and the Char. The current status was confirmed as *very low*, and the recolonisation rate *slow*. Site occupation is currently at 9%; the target is to reach 44% site occupation by 2010.

The habitat appears suitable with plenty of tree cover, although mostly in a thin band, and most rivers are relatively undisturbed. Improvements in bankside habitat may assist their spread in this area.

White-clawed crayfish - White-clawed crayfish used to be found in the River Brit and the River Wey, although historic records are scarce for many of the West Dorset streams; a 1996 survey found none. The American crayfish which has been recorded in the area, carries a plague, to which the white-clawed crayfish is susceptible. The habitat in many of these streams is still suitable for native crayfish and further survey work may indicate relic populations.

Marsh warbler - Marsh warblers are occasionally recorded from reedbeds at Lodmoor and Radipole, and reed fringes around the Fleet. They are a scarce migrant however and are reduced in range partly due to the loss of reedbed habitat through land drainage and reclamation.

UK and South West BAP habitats and species found in the plan area for which the Agency has been assigned actions to undertake but is not the contact point

Key Habitats and species	Reason for inclusion	Associated LEAP actions
Reedbed	UK BAP priority habitat South West BAP	4a, 4b, 4c, 4f
Open water	South West BAP	4a, 4b, 4c, 4j
Coastal and floodplain grazing marsh	UK BAP priority habitat South West BAP Dorset County BAP	4b, 4c, 4g
Rivers and streams	South West BAP	4d, 4h, 4k, 5a, 5d, 11d
Seagrass beds	UK BAP priority habitat South West BAP Dorset County BAP	4b, 4e
Rocky seabed	South West BAP	4b
Fens	UK BAP priority habitat South West BAP Dorset County BAP	4b, 4c
Saline lagoons	UK BAP priority habitat South West BAP	4c, 4e, 5a
Urban watercourses	South West BAP	5c, 5d, 11c
Saltmarsh	UK BAP priority habitat	4b, 4c
Bittern	UK BAP priority species	4a, 4b, 4c, 4f
Great crested newt	South West BAP Dorset County BAP Wildlife & Countryside Act (1981)	4a, 4b, 4c, 4k
Starlet sea anemone	UK BAP priority species Wildlife & Countryside Act (1981)	4a, 4b, 4f
Pink sea fan	South West BAP Wildlife & Countryside Act (1981)	4a, 4b
Twaite shad	UK BAP priority species	4l
Brook and sea lamprey	UK BAP species of conservation concern	No actions at present
Harbour porpoise	UK BAP priority species South West BAP	No actions at present
Lesser horseshoe bat	UK BAP phase 2 Wildlife & Countryside Act (1981)	No actions at present
Pipistrelle bat	UK BAP priority species Wildlife & Countryside Act (1981)	No actions at present
Reed bunting	UK BAP phase 2	4a, 4b, 4c, 4f, 4h
Tentacled lagoon worm	UK BAP species of conservation concern Wildlife & Countryside Act (1981)	4c, 4e, 5a
Rock sea lavender	UK BAP phase 2	No actions at present

Other BAP habitat and species for which the Agency has no assigned actions, but which are found in the area, are listed in Appendix 6.2.

At a local level, we are also involved in work to produce a BAP for Dorset. Partners include Dorset County Council, Dorset Wildlife Trust, English Nature, the Farming and Wildlife Advisory Group, the Royal Society for the Protection of Birds and WWSL. This will provide a focus for biodiversity action in the plan area and will set local targets and priorities for everyone involved in the delivery of biodiversity. The priorities include: fens, coastal and floodplain grazing marsh, urban watercourses and seagrass beds, and pink sea fan and the great crested newt.

Actions	By	Cost to Agency	Financial Year				
			98	99	00	01	02
4a Support Dorset Biodiversity Project in order to progress biodiversity targets	Agency	£5k	●				
4b Map and assess wetland resource; fresh water and marine (seagrass beds, rocky seabeds, coastal and floodplain grazing marsh, reedbeds, fens and open water) through the Dorset Biodiversity project to progress biodiversity targets. <i>This will help identify areas for protection, re-creation and restoration</i>	Agency Partners	£4k	●	●	●		
4c Protect and secure positive conservation management on key wetland sites, including coastal and floodplain grazing marsh, fens, reedbed and marine habitats, as identified by the Dorset Biodiversity project. <i>This will depend on the priorities identified by action 4b</i>	Agency Partners	£10k	●	●	●	●	●
4d Proposed action for chalk river habitats <i>Continue to participate in the Agency chalk stream Biodiversity working group taking UK BAP actions forward in the West Dorset area (see also River Wey action 5b)</i>	Agency	tbd	●	●	●	●	●
4e Proposed action for saline lagoons (starlet sea anemone/seagrass beds) <i>Review all authorisations under the EC Habitats Directive that are adversely affecting the Fleet (see Actions 4m and 4n)</i>	Agency		●	●	●	●	
4f Proposed actions for reedbed <i>Assist in creating further reedbed habitat at Lodmoor</i> <i>Assist in production of a Water Level Management Plan for Radipole Lake. Weymouth and Portland Borough Council are the lead authority and we will provide advice as required</i>	RSPB	£2.5k/yr		●	●	●	●
	Agency WPBC Partners Agency	tbd	●	●			
4g Proposed action for coastal and floodplain grazing marsh <i>Assist in creating further grazing marsh habitat at Lodmoor</i>	RSPB Agency	£2.25k (1999) £1k/yr	●	●	●	●	●
4h Proposed action for rivers and streams <i>Recreate 10 hectares of floodplain woodland by 2005</i>	Agency Partners	tbd	●	●	●	●	●
4i Proposed action for the white-clawed crayfish <i>Implement actions in South Wessex Area Species Action Plan. This includes a survey of West Dorset streams to locate relic populations</i>	Agency	£5k			●	●	
4j Proposed action for the great crested newt <i>Encourage and facilitate habitat management for this species under the Dorset County BAP</i>	Agency	£0.75k	●	●	●		

Actions	By	Cost to Agency	Financial Year				
			98	99	00	01	02
4k Proposed actions for the otter and the water vole <i>Assist in development of Dorset Vole and Otter project</i> <i>Assist in developing habitat enhancement projects for otters, initially targeting the Fleet Streams, the Bride and the Wey and for water voles the Wey, the Char and the Brit</i> <i>Continue to check fyke nets for otter guards</i> <i>Continue to support the Dorset Otter Group to enable regular surveys for otters</i> <i>Identify road black spots for otters by undertaking a survey of all road crossings</i>	DWT	tbd		●	●		
	Agency	£2k		●	●		
	Agency Partners						
	Agency		●	●	●	●	●
	DWT		●	●	●	●	●
	Agency						
	Agency Partners	£1k			●	●	
4l Proposed action for the twaite shad <i>Distribute identification leaflet and recording form to all involved in commercial fishing to confirm identification and distribution. The leaflet will also give details on protected status and rarity.</i>	Agency	tbd		●			

3.4.1 EC Habitats Directive – In addition to our work on the UK BAP, we will play our full part in contributing towards the appropriate management of protected sites in the area. These include SSSIs, Sites of Nature Conservation Interest (designated by the Dorset Wildlife Trust), candidate SACs nominated under the EC Habitats Directive, and SPAs nominated under the EC Birds Directive (transcribed into UK Law as the Conservation Natural Species and Habitats Regulations, 1994). The sites within the plan area are shown in the table below (see Map 2). These will eventually become part of the Natura 2000 network of nature conservation sites.

Area ¹	Designation	Qualifying interests
Chesil and the Fleet	cSAC	Lagoons Annual vegetation of drift lines Mediterranean and thermo-Atlantic halophilous scrubs (Arthrocnemetalia fruticosae) Perennial vegetation of stony banks
Isle of Portland to Studland Cliffs	cSAC	Early gentian Vegetated sea cliffs of the Atlantic and Baltic coasts
Sidmouth to West Bay	cSAC	Vegetated sea cliffs of the Atlantic and Baltic coasts
Chesil Beach and the Fleet	SPA	Wintering Brent goose

¹Sites wholly or partly within the area

It has been decided by the UK Government that as soon as a site has been submitted to Brussels for confirmation (i.e. it has become a candidate site), the regulations will apply. This means that the conservation regulations already apply to the sites listed above.

With regard to SACs and SPAs, the Agency is a competent authority, and has extra responsibilities to safeguard the sites. Any proposals or applications for new authorisations (e.g. consents to discharge, water abstraction licences and waste management licences) which may, either alone or in combination with others, have an effect on the conservation interests of a Natura 2000 site will be subject to a full appropriate assessment of the impact on the interests of the site. The application can only be granted where the Agency has ascertained that it will not adversely affect the integrity of the European site. These authorisations can be either inside or outside the site, as those outside the boundary may have the potential to impact the qualifying interests.

We are also obliged to review all existing authorisations and activities (flood defence work) which may be affecting these sites, taking advice from English Nature fully into account. Stage II of the Agency review procedure is currently underway using a methodology agreed with English Nature to determine which authorisations are likely to be adversely affecting these sites. Bids are currently being made to resource this process, which should be complete by September 1999. Once complete, the review process (Stage III) can begin and it is intended to be complete by 2004.

With regard to the Fleet English Nature chair a Steering Group of all the competent authorities with responsibilities for protecting the site. The Agency are part of this group and the aim is to ensure that all authorities share information and work together to oversee protection of the Fleet.

Actions		By	Cost to Agency	Financial Year				
				98	99	00	01	02
4m	Bid for resources to use Stage II methodology to determine authorisations requiring review under the EC Habitats and EC Birds Directives and undertake work when resources are made available	Agency	tbd	●	●	●	●	●
4n	After completion of Stage II (action 4m), undertake review of identified authorisations (Stage III)	Agency	tbd		●	●	●	●

3.5

Loss and decline in the value of riverine and floodplain habitat

The river floodplain habitat has been significantly reduced, mainly through agricultural intensification, in many places to a narrow strip. This has resulted in patchy habitat that has reduced the value of the remaining habitat and potentially makes the impact of river maintenance work much more severe.

We will encourage actions promoting the aim of linking the remaining valuable habitat. Throughout the area there is potential for restoration and enhancement of the river corridor, particularly to improve sections of the Wey and its tributaries, the Jordan, and streams flowing into the Fleet. Improvements in habitat will require us to review our own flood defence maintenance operations and to work in partnership with riparian owners to secure improvements.

River Habitat Surveys, a standard technique to classify rivers used throughout the Agency, was targeted at West Dorset rivers. This has helped to improve our understanding of the river types and place them in the UK context.

We will also promote agricultural incentive schemes, such as Countryside Stewardship, which can be used to support forms of agriculture which balance the needs of the environment with production (see Section 4.8).

Actions		By	Cost to Agency	Financial Year					
				98	99	00	01	02	
5a	Provide advice and help to develop criteria to define rivers and streams as County Wildlife Sites	DWT Agency	tbd	●	●	●	●	●	
5b	Promote a working partnership on the River Wey to develop a river-based footpath. <i>This will be subject to external funding</i>	Agency Partners	tbd		●	●			
5c	Promote the restoration, where appropriate, of habitat diversity on the Char, the Brit and the Bride	Agency	tbd	●	●	●	●	●	
5d	Develop a strategy to monitor and control invasive plant species in the plan area. <i>Further details on invasive plant species are given in the West Dorset Consultation Report and an Agency leaflet; both are available from the Blandford office (see Section 5.3)</i>	Agency DWT Partners	tbd		●	●			

3.6

Limited distribution of salmonid fish

Populations of salmon and sea trout are possibly limited by poor migration conditions in many of the rivers in this area; these are often man-made obstructions. The potential for these populations to expand should such obstructions be overcome requires investigation.

Actions	By	Cost to Agency	Financial Year				
			98	99	00	01	02
6a Examine the scope, potential benefits and costs involved in a programme of actions to expand the migratory salmonid fisheries of the West Dorset streams. <i>This action is entirely dependent on funding being made available. The funding required being in the order of £10-£15k</i>							

3.7

Need to protect features of archaeological interest

The area has many important archaeological sites, and is likely to contain many more, as yet undiscovered, features. We have a statutory duty to protect and conserve buildings, sites and objects of archaeological, architectural or historic interest.

Archaeological features may be at risk from direct damage by our river maintenance and dredging work, and indirectly through the drying out of organic remains with lowered water tables and the deposition of spoil on sites of historic interest.

As very little is known about this resource, we need to further identify the wetland archaeology of this area, and to ensure that our database is kept updated.

Actions	By	Cost to Agency	Financial Year				
			98	99	00	01	02
7a Review archaeology and water meadows in the South Wessex Area, aiming to target the West Dorset Streams in 2002. <i>This project is currently on hold due to lack of funds. The funding required being in the order of £12k</i>							

3.8

Maintaining our rivers and flood defences

We maintain the natural and artificial drainage system to ensure their efficient working, and to ensure that flood alleviation schemes provide protection up to their design standard.

Historically, 20 km of river in this plan area did not meet the target Standard of Service based on land use values. However the completion of the Bridport, West Bay, Beaminster and Burton Bradstock flood alleviation schemes has resulted in an increase in maintenance work associated with the schemes themselves. Non-routine work is still required periodically to improve the standard on river reaches between these schemes, where it affects their performance.

The higher standard of maintenance meets the target Standard of Service for the urban flood alleviation schemes. We need to review whether the historical maintenance undertaken outside the flood alleviation schemes, for example weedcutting to maintain agricultural land drainage schemes, is justifiable or whether this maintenance effort should be solely restricted to urban areas. This is considered as part of our on-going work programme.

We must, and do, take account of our conservation duty when undertaking maintenance work and when we review Standards of Service for historical land drainage schemes. This will ensure that a balance is achieved consistent with the need to protect and enhance biodiversity and the natural environment.

The works undertaken to strengthen the flood wall at Melplash showground were successfully completed prior to the winter bad weather. Much of the stone recovered from the works has been re-used in other works to minimise the use of new materials.

Actions		By	Cost to Agency	Financial Year				
				98	99	00	01	02
8a	Prepare operational and maintenance plan to cover routine flood defence maintenance on three sites within the coastal SSSI. <i>Burton Bradstock, West Bay and Preston Beach</i>	Agency	£1k					

3.9

Provision of new flood alleviation facilities

We can build new defences if flooding is a serious problem in a particular area, but nowadays we usually only build new defences to protect built-up areas. All schemes must be proven to be technically, economically and environmentally sound.

Following public consultation the proposed preferred option for the West Bay Outer Harbour Scheme has been modified. The scheme, now called the West Bay Coastal Defence Scheme, is being managed by West Dorset District Council and the Agency is contributing financially. A report on the preferred option is due in 1999, with the construction phase commencing in 2001-02.

Flooding in the vicinity of Weymouth's Town Bridge along Custom House Quay and Commercial Road is a frequent event, with five major flood events within the past three years alone. Over 200 commercial and residential properties are estimated to be at risk. The Agency has proposed a new flood defence scheme following consultation with a wide range of statutory organisations, interested groups and the public. Public consultation was carried out in November 1998 and the scheme received a very positive response.

The favoured option is to raise defences along the quay wall to take into account extreme tide levels. The scheme is designed to fit in with Weymouth and Portland Borough Council's proposal for a harbourside walk between the outer harbour and the Swannery. The materials to be used will be selected to blend in with the local surroundings. Subject to approvals and grant-aid the construction phase is planned from Autumn 1999 to Easter 2000.

Local flood defence staff are actively involved in the development of both schemes to help ensure that local interests are given due consideration.

Actions	By	Cost to Agency	Financial Year				
			98	99	00	01	02
9a Promote West Bay Coastal Defence Scheme. The cost shown is the gross construction cost which will be met partly by MAFF grant aid with the balance jointly funded by the Agency and WDDC	WDDC Agency	£2400k				●	●
9b Promote Weymouth Harbour Tidal Defence Scheme. The cost shown will be met partly by MAFF grant aid with the balance funded by the Agency	Agency	£850k		●	●		

3.10

The adequate provision of flood warning and emergency response

Absolute flood protection is not possible; because of this we need to warn people when there is a risk of flooding. Since September 1996, the Agency has had the lead role in passing flood warnings to people who are at risk so that they can take action to protect themselves and their properties. Where there is a risk that flooding could occur, flood warnings are issued for the area affected. These warnings are issued to the Police, Local Authorities, media and those in high-risk properties. Detailed arrangements are documented in the *Dorset Floodwarning Dissemination Plan* which can be viewed at our offices.

Flood warning accuracy for the river catchments in this plan is the most difficult in the South Wessex Area as river response to rainfall is very rapid and sea conditions are not easily predictable. Examples of this include the Wey, where a rise in level from below a Yellow warning to above a Red in less than one hour can occur in some extreme events, and at Chiswell, where the Meteorological Office can underpredict surges and extreme wave heights.

Where possible the Agency aims to issue a warning at least two hours in advance of flooding. A survey into the level of flood warning service is currently being carried out in the South West to determine whether the target standard of two hours is being met; it is expected to be completed in this area by spring 1999.

Actions		By	Cost to Agency	Financial Year				
				98	99	00	01	02
10a	Complete survey into the level of service of flood warning in the South West. <i>Results will identify possible additions and other improvements to the system, including new flood detection sites and increasing the number of properties receiving direct warnings. The cost of the survey for the whole region is in the order of £525k</i>	Agency		●	●			

3.11

Potential impact of development on the environment

Local planning authorities control development through the land use planning system. The Agency, as a statutory consultee, advises the planning authorities on the impact of proposed development together with our requirements for environmental protection. We also work with the planning authorities to ensure that suitable policies to protect and enhance the environment are incorporated within their local development plans.

As a result of the Agency's concerns relating to development in the Chiswell area and the ability of existing sea defences to protect it against flooding, the Chiswell Flood Risk Appraisal was commissioned. The appraisal relates to the area between the southern end of the concrete sea wall and the Royal Naval Air Station and identified that there is a high risk to property and people resulting from flood and storm events in Chiswell. The area would be extremely vulnerable in the event of the defence embankment or sea wall being breached, in particular because of the speed of flooding in those circumstances. Copies of the Chiswell Flood Risk Appraisal can be viewed at the Agency's Blandford office or at Weymouth and Portland Borough Council offices.

Existing sea defences provide protection for events up to a 1 in 10 year return period and it is highly unlikely that a viable scheme will be forthcoming to increase this level of protection. Flood risk issues will become increasingly important due to expected sea-level rises and increases in storm severity arising from predicted global climate changes. Current flood warning procedures are detailed in the leaflet *Portland (Chiswell) Flood Warning Arrangements* and a survey into the level of service of flood warning in the South West is currently being undertaken (see Section 3.10).

In the 1 in 200 year return period flood risk areas identified, the risks from flooding are such that these areas are not suitable for development. It is, however, appreciated that any individual proposals need to be considered in recognition of the existing community that live there. The Agency maintains, however, that development plans should not provide for inappropriate development in areas that are at risk from flooding.

The conclusions of the Chiswell Flood Risk Appraisal have been discussed with Weymouth and Portland Borough Council and the Agency will be closely involved in the Local Plan revision which will commence in Spring 1999. This will also include a development/regeneration plan for the Chiswell area that accords with the findings of the flood risk appraisal, DoE Circular 30/92 (*Development and Flood Risk*) and promotion of the principles of sustainability.

Following concerns about the potential impact on Portland Harbour with the increased commercial activity of the port, a baseline study was undertaken during 1997. This investigated any historical impacts from the naval base and long-term impacts in relation to the change of use on water quality, sediment chemistry and biological communities. Operational monitoring will continue, in conjunction with the statutory shellfish waters sampling (see Section 3.3), to monitor nutrient levels to assess any impacts of the harbour's change in use. The Agency is also consulted on development proposals within the Portland Harbour complex.

The Agency has also provided comments on studies that have been commissioned by the Ministry of Defence (MoD), for the possible land uses for the Royal Naval Air Station when this becomes surplus to the Navy's requirements in late 1999.

The Agency are also working closely with West Dorset District Council and developers at two sites; South West Quadrant (Bridport) and Pymore. Both involve floodplain and flooding issues and the Agency is working towards ensuring sustainable flood protection policies are incorporated at these sites. The sites also offer significant opportunities to improve the environment and to encourage its sustainable use as an amenity by the community.

We will also be promoting the use of *source control techniques*. These are techniques and approaches that can help minimise the effects of development on the environment, for example to help reduce the risk of pollution and also flooding by preventing rapid surface water runoff or maintaining flood storage capacity. Examples of surface water drainage techniques include soakaways, infiltration devices and attenuation ponds.

Actions	By	Cost to Agency	Financial Year				
			98	99	00	01	02
11a Work closely with Weymouth and Portland Borough Council over the local plan revision, particularly with regard to the Chiswell area. <i>This will be undertaken through our role as a statutory consultee to the development planning process</i>	WPBC Agency		●	●	●		
11b Analyse results of the 1997 Portland Harbour baseline study and continue operational monitoring. <i>This will become part of the operational monitoring programme</i>	Agency		●	●	●	●	●
11c Assist local authority with the strategy for development of the South West Quadrant (Bridport) to explore opportunities to improve the amenity and wildlife value of the River Brit	WDDC Agency	tbd		●	●	●	●
11d Explore opportunities to work with the Brit Valley project and develop a sustainable use of the river valley. <i>This relates to the whole of the river valley</i>	Agency WDDC Heritage Coast	£0k (at present)					
11e Continue to work closely with local authorities on all development proposals especially those involving floodplain and flooding issues, source control techniques will be promoted where appropriate. <i>This will be undertaken through our role as a statutory consultee to the development planning process</i>	Agency LAs		●	●	●	●	●

The availability of water resources is an increasingly important issue across England and Wales. Whilst the Government has said that it does not expect water resources to be a reason for development proposals being rejected, the provision of adequate water supplies could have an influence on the timing of developments. The Agency comments on all county and district plans, and any individual planning applications that will have a significant water use, with respect to water resources and indeed water efficiency (as all new homes are now metered, water efficiency can reduce customer's bills). However we can only comment on water resources in general as the specifics depend on which sources the relevant water company would plan to use to supply the development. In the light of this we would wish to see water companies added to the consultation list.

3.12

Developing strategies for sustainable waste management

The Government is currently working on a new waste strategy for England and Wales. When complete it will replace the current waste strategy set out in the White Paper, *Making Waste Work*, published in December 1995. The Government has published a consultation paper, *Less Waste More Value*, prior to the new White Paper to be published in 1999, which will set out the National Waste Management Strategy.

The Agency has a formal role to play in providing advice on the Government's waste strategy. The Agency is carrying out the first national survey of commercial and industrial waste arisings and facilities. The information collected will inform the Government's waste strategy and will also be supplied to waste planning authorities.

In addition decisions need to be made about the type of waste management facilities required. The Agency is developing a decision-making aid that uses Life Cycle Assessment techniques; this is a technique where the inputs and outputs of a particular process or practice are systematically identified and quantified from the extraction of raw materials to the assimilation back into the environment of the emissions and residues produced. The Best Practicable Environmental Option for a particular waste in one area will not necessarily be the same in another.

The Agency is to release a software tool early in 1999 which is intended to inform planners and policy makers in local government as well as the waste management industry of the environmental burdens of options available to them for managing household waste. Economic considerations will be incorporated in later versions.

Waste minimisation is the reduction of waste at source. The Government in its strategy recognises that the best way to reduce the impact of waste on the environment can be simply to avoid producing it. The South Wessex Waste Minimisation Group was set up in December 1996 in order to develop and promote the use of best practical techniques for the profitable and economic minimisation of all waste arising from South Wessex businesses. The group is a partnership involving some 100 local businesses as well as local authorities, Local Agenda 21 groups, Business Link and an Environmental Trust.

The *Producer Responsibility Obligations (Packaging Waste) Regulations* are designed to implement the recovery and recycling targets in the EC Directive on Packaging and Packaging Waste. The regulations require businesses to recover and recycle specified tonnage of packaging waste on the amount of packaging they handle. The Agency is charged with implementing, monitoring and enforcing this legislation.

The Agency is also responsible for the accreditation of reproprocessors; it is felt that it will assist businesses if they are able to show that their obligations have been discharged, by obtaining evidence of recovery and recycling to support their certificate of compliance from accredited UK reproprocessors.

Actions	By	Cost to Agency	Financial Year				
			98	99	00	01	02
12a Undertake the National Waste Survey	Agency	tbd	●	●			
12b Supply information to waste planning authorities. <i>The County Council or Unitary Authority are the waste planning authority and are responsible for producing waste strategies and waste local plans</i>	Agency	tbd	●	●			
12c Assist waste planning authorities in determining Best Practicable Environmental Option for waste management options	Agency	tbd	●	●	●	●	●
12d Promote and support the South Wessex Waste Minimisation Group. <i>We will endeavour to encourage industry and commerce in this area to join the group</i>	Agency	tbd	●	●	●	●	●
12e Provide advice to commerce and industry on waste minimisation. <i>Promote the South Wessex Industrial and Commercial Waste Minimisation and Recycling Directory; includes contacts for the re-use and recovery of wastes, and waste minimisation and recycling information</i>	Agency	tbd	●	●	●	●	●
12f Monitor compliance with Producer Responsibility Regulations. <i>Certificates of compliance are required for registered schemes and businesses from 31/1/99. Each company/scheme will be visited once every three years</i>	Agency	tbd	●	●	●	●	●
12g Continue accreditation of reprocessors. Accredited reprocessors to be re-accredited every year. <i>Accreditation to continue as and when a reprocessor applies to the Environment Agency</i>	Agency	tbd	●	●	●	●	●
12h Check company registrations. <i>Ensuring companies who are affected by the Producer Responsibility Regulations are registered</i>	Agency	tbd	●	●	●	●	●
12i Raise business awareness of the Producer Responsibility Regulations through telephone calls, visits and seminars. <i>Businesses affected must handle more than 50 tonnes of packaging material per year and have a turnover of more than £5 million. The turnover threshold drops to £1 million from the year 2000</i>	Agency	tbd	●	●	●	●	●

Illegal tipping of waste or fly-tipping is a problem that affects the rural as well as the urban environment. It makes the environment unattractive and in some cases can cause land and water pollution and hazards to people.

There is a proposal to investigate fly-tipping in the West Dorset and Purbeck area; this may include sites within the plan area. It is planned to use aerial surveys and partnerships with District, Town and Parish councils in order to identify and reduce the incidence of fly-tipping within the area.

Actions	By	Cost to Agency	Financial Year				
			98	99	00	01	02
12j Investigate fly-tipping within the West Dorset and Purbeck area. <i>This project is entirely dependent on funding being made available. The funding required being in the order of £5k</i>							

3.13

Contaminated land

The Environment Act 1995 contains new provisions for dealing with contaminated land which should be enacted in July 1999. Local authorities are the key regulators under the Act and will carry out surveys to identify contaminated land, and will then, in collaboration with the polluters and/or landowners, ensure that works are carried out to remove the identified risks. The Agency will act as a consultee and advisor, although some sites will be designated as *special sites* for which we will take responsibility.

Most contaminated sites are improved during redevelopment, with the cost of the work paid for by the development and the details of the clean-up controlled through planning permission. This is the best means of achieving re-use and will continue wherever possible. Larger or more heavily contaminated sites require preliminary work before developers take over, this may be undertaken by national owners or Government-sponsored bodies such as Development Agencies or English Partnerships.

Ministry of Defence (MoD) land, if identified as contaminated, will be designated as special sites. This potentially has implications for the plan area and we will work closely with the MoD and local authorities to deal with any issues that may arise.

Actions	By	Cost to Agency	Financial Year				
			98	99	00	01	02
13a Contribute to the development planning process to ensure effective improvement of contaminated sites proposed for development. <i>This will be undertaken through our role as a statutory consultee to the development planning process</i>	Agency		●	●	●	●	●
13b Assist local authorities to implement their responsibilities under the new regime for the improvement of contaminated land. <i>The resources required will depend on the number of sites identified</i>	LAs Agency	tbd		●	●	●	●
13c In consultation with local authorities manage contaminated land sites identified as special under the new regime. <i>The resources required will depend on the number of sites identified</i>	Agency LAs	tbd		●	●	●	●

3.14

Securing future public water supplies

Water company supply zones cover a wide geographical area and therefore we are unable to identify public water supply demands on a LEAP area basis. As a consequence the precise impact of new development on water resources in the plan area is difficult to predict. In addition water can be imported from or exported to other zones. West Dorset falls within the WWSL South Supply Zone. At present the Agency is debating nationally its role in advising local planning authorities on this matter (see Section 3.11). Currently there appears to be adequate developed resources to meet the demands indicated within the local plan periods.

Before there is any further development of new resources we would have to be satisfied that the water companies have implemented a range of appropriate demand-management and resource-management options and have reduced their leakage to an economic level. Demand management involves a number of initiatives including metering; all new domestic properties are metered and customers can have their homes metered free should they wish. The water company also has a duty to apply and demonstrate water efficiency to its customers and to promote the efficient use of water by its customers.

The current periodic review, AMP3, (see Section 4.6) requires the water companies to revise their demand forecasts, review their resource availability and consider any potential resource options to meet forecasted deficits within the planning horizon. In parallel with this the Agency required the water companies to complete draft water resource plans by summer 1998. These have been received and work is continuing to complete the final plans by April 1999.

The water resource plans require water companies to produce demand forecasts and compare them with their available resources for up to the next 25 years. Potential demand or resource-management options, including leakage reduction, have to be considered, and, if necessary, any resource-development options which may be required to meet the forecast demand.

Actions	By	Cost to Agency	Financial Year				
			98	99	00	01	02
14a Revise the Regional Water Resources Development Strategy based on information received in the companies' water resources plans	Agency	tbd		●	●		
14b Supply information on demand management and water saving measures in conjunction with the National Waste Survey. <i>This is being done in conjunction with the national waste survey (see action 12a)</i>	Agency		●	●			

3.15

Flow fluctuations at Upwey Springs

The Wey rises at the village of Upwey, which is located between Dorchester and Weymouth. Its sources are two springs which emerge from Portland Stone but which are recharged by drainage from chalk to the north. The springs also supply the flow to a fish farm established immediately downstream. Attention was drawn to the prolonged occurrence of low flows and to sudden fluctuations in river flows which were affecting the upper reaches of the Wey.

A study concluded by the former National Rivers Authority in 1991 found that the Friar Waddon groundwater abstraction, operated by WWSL, exerted a direct and immediate influence on the Upwey Springs. Fluctuations in flow were attributable to changes in pumping operations at the Friar Waddon source. Extensive enquiries confirmed that the problem was confined to the vicinity of Upwey Springs and not the Wey in general.

WWSL received money through the AMP2 process (see Section 4.6) to resolve the low flow problem caused by their Friar Waddon source. The work that has been done so far has resulted in modifications to the pumping regime at the source. The aim of these modifications is to smooth out the effects of pumping on stream flows at Upwey which in turn affect operations at the fish farm. The Agency welcomes the work done to date by the company which has resulted in less fluctuation from the Upwey Springs. The Agency would expect to finally solve this low flow problem by March 2000.

Actions	By	Cost to Agency	Financial Year				
			98	99	00	01	02
15a Monitor the outcome of modified pumping at Friar Waddon. <i>The cost shown is for data collection and quality assessment, and maintenance of the monitoring site. The use of this site will be reviewed after March 2000</i>	Agency	£1k/yr	●	●			

4. Protection through Partnership

We need to work in partnership with local authorities, industry, farmers, environmental groups and other interested organisations to resolve the issues identified and to protect the West Dorset plan area. This section outlines some of our work with other organisations.

4.1 Development Plans

While we can control some of the things that influence the quality of the environment, we have only limited control over the way that land is developed. This is the responsibility of local planning authorities.

Local authorities prepare statutory development plans; the policies in these plans will guide the way that land is developed in the future. We advise and guide local planning authorities to adopt policies that protect the water environment from harmful development. Where we can, we will reinforce these policies when we comment on planning matters or if we are making our own decisions. We will also advise these authorities about the impacts of proposed developments on the environment, and identify opportunities for environmental improvement.

4.2 Shoreline Management Plans

Shoreline Management Plans set out the coastal defence strategy for lengths of coast, taking into account natural coastal processes, human and other environmental influences and needs. They are promoted by coastal defence authorities such as the Agency, and District and Borough Councils, and used in local authority development plans and coastal zone management. The objectives of these plans are to improve our understanding of coastal processes, develop sustainable coastal defence policies, and set out arrangements for continued consultation with interested parties.

Shoreline Management Plans are part of an initiative on the future planning of our coastline, backed by MAFF, the Association of District Councils, English Nature and ourselves. There are two plans in preparation for the coastal zone in this area; we work in partnership with other organisations in the development of these plans.

Consultation on the Durlston Head to Portland Bill Shoreline Management Plan was extended to the end of December 1998. The plan is being managed by West Dorset District Council and is due to be adopted by operating authorities by spring 1999.

Stage 2 of the Lyme Bay & South Devon Shoreline Management Plan (Portland Bill to Rame Head, Cornwall) was managed by West Dorset District Council and has been adopted by the Agency and is in the process of being adopted by the other operating authorities.

It must be ensured by the Agency and other operating authorities that the plans take into account the requirements of the rock sea lavender, a biodiversity species (see Section 3.4), which is endemic to Portland.

4.3

Coastal Zone Management Plans

The Town & Country Planning system provides the means of regulating development above the low water mark; regulation of development below the low water mark is controlled by a number of Government departments.

Dorset County Council have taken the lead role in setting up a Coast Forum for Dorset, consisting of local authorities, environmental agencies, central Government departments, businesses and other interest groups. Their aim is to promote a sustainable approach to the management of the coastal zone and to develop an integrated coastal zone management policy. We are a member of this Forum and support its aims.

The Forum has been successful in securing European funding from the EU Life Demonstration Programme on Coastal Zone Management; the total project value is £330k, half of which is being met from European funds. The project is being co-ordinated by Dorset County Council with support from other partners including ourselves, English Nature, WWSL, British Petroleum, Amoco, Poole Borough Council, Bournemouth Borough Council, West Dorset District Council and Dorset Wildlife Trust. In December 1998 the Forum published a draft Dorset Coast Strategy which is currently subject to consultation. Comments from the consultation will be incorporated into the final strategy which is scheduled for publication in May 1999. We will be providing comments on the draft strategy. The draft strategy has been sent to the EU as an example of a consensus approach to coastal zone management.

4.4

West Dorset Heritage Coast Management Plan

A consultation document, *The West Dorset Heritage Coast, Today and Tomorrow*, was published in March 1996 by Dorset County Council, West Dorset District Council and Weymouth & Portland Borough Council. It provided a focus for debate on the future of the Heritage Coast prior to the preparation of a revised management plan by these three authorities. The document examined a number of issues affecting the Heritage Coast including transport, sewage treatment and water quality, coastal defence, local industries including farming, fishing and tourism, and the recreational use of the area. A draft plan will be published later this year.

4.5

Development of recreation

Many people use water areas such as rivers, canals, still waters and the coast for a variety of recreational activities. Water related activities include both those which are land based and water based such as angling, cycling, bird watching, walking, canoeing, water skiing and surfing.

Sustainability is an underlying theme to the activities of the Agency and the promotion of recreation and management needs to be balanced with other interests. There are a number of organisations with an interest in countryside and water recreation and we will work in partnership, where appropriate, to promote and develop the recreational use of the area where this can contribute to a balance of uses. Further information on our recreational remit is given in Appendix 6.1.

We will support projects such as the West Dorset Heritage Coast Management Plan (see Section 4.4) to promote the sustainable use of the coastal zone and we will also support initiatives to reduce litter nuisance, especially on coastal sites.

4.6

Working with the water industry

Strategic business planning known as an Asset Management Plan (AMP) is the process by which water companies obtain funding for improvements primarily intended to deliver environmental benefits. These schemes have cost implications for customers' water bills and as a consequence the AMP must be agreed and approved by the Government through the Office of Water Services (OFWAT). Effective Agency input into the AMP process is vital if money is to be targeted to schemes that will ensure the delivery of maximum, cost-effective, environmental benefits.

The water companies' improvement plan for the period 1995-2000 is known as AMP2. AMP2 was developed in 1994 along guidelines agreed between the former National Rivers Authority and Department of the Environment, the water services companies and OFWAT.

OFWAT is undertaking a review of water prices that will result in a review of improvements required for the period 2000-2005; the outcome of this will be AMP3. The Agency's proposals for the National Environment Programme for water companies 2000 - 2005 was submitted to Government in May 1998 in the document *A Price Worth Paying*. The Agency is currently reviewing, for agreement with the Department of the Environment, Transport and the Regions, those sewage discharges where improvement is required subject to funding being approved. The document also highlighted where investigation and investment is required to protect rivers and wetlands from the effects of abstraction.

4.7

Local Agenda 21

Local authorities are assisting their communities in developing local strategies and action plans for sustainable development. The approach adopted varies, but many Local Agenda 21 groups set up working groups to look at specific issues. Government guidance expects each local authority to produce a Local Agenda 21 plan by the year 2000.

The Agency contributes indirectly to Local Agenda 21 by considering sustainability whilst carrying out all its activities. Links with other organisations such as the Local Government Management Board and the Government Office for the South West also ensure involvement in Local Agenda 21 at a regional level.

In the plan area we are involved with Local Agenda 21 activity in a number of instances, including:

- membership of the Dorset Environmental Co-ordinators group
- contributing £10,000 to the Dorset and Wiltshire *Action at Home* programme in 1998/99
- providing educational materials for the Dorset *Action at Home* packs
- establishment of individual staff contacts for each local authority via our Local Agenda 21 seminar held in October 1997
- attendance by staff contacts at Local Agenda 21 forum meetings and assistance in specific projects by providing technical expertise and funding

4.8

Working with farmers

We promote agricultural incentive schemes as a means of supporting forms of agriculture which can protect and enhance wildlife habitats and landscape. There are no Environmentally Sensitive Areas in this plan area, but other schemes may be available including Countryside Access, Farm Woodland Premium and Countryside Stewardship Scheme from MAFF; the Wildlife Enhancement Scheme for Sites of Special Scientific Interest from English Nature; the Sites of Nature Conservation Interest Grant Scheme from West Dorset District Council; and the Woodland Grant Scheme from the Forestry Authority. We also encourage the active use of farm waste management plans developed with farmers and the Farming and Rural Conservation Agency.

Since the Consultation Report was published, several areas within West Dorset have been selected as Target Areas under the Countryside Stewardship Scheme. Of these, the Fleet Hinterland and Old Meadows and Pastures are particularly appropriate to areas within the Agency's interest. Used effectively, improvements to several river corridors and the Fleet should be possible.

4.9

Working with business

We are working with local businesses and their representatives to promote waste minimisation and pollution prevention. Recent waste minimisation initiatives, our oil care campaign and our training video for construction workers are practical examples of how we intend to combine education and communication to prevent pollution.

4.10

Education

We recognise that broad-based education covering the community, educational and industrial sectors will result in a more informed society that is better able to understand the environment, its needs, and the impact of society's activities upon it. In particular, we must:

- educate young people to help them to make informed judgements about future environmental decisions
- educate industry through consultation, collaborative activities and targeted campaigns to promote a culture of prevention rather than cure
- raise public awareness of environmental issues to engender in society a common ownership of the environment and its challenges

One example of where the Agency is encouraging young people (10 to 18 year olds) to learn more about the environment is through the CREST Environment Research Challenge which invites them to become researchers in projects linked to real life situations in their local environment. We are one of three sponsoring partners along with the National Environment Research Council and Unilever, representing regulation, research and industry.

Challenges are divided into eight topics including natural resources, global change, biodiversity and energy. A unique feature of the scheme is that it is accredited, which means work will count towards qualifications including Key Stage 3, General National Vocational Qualification and A level. Further details on how to register can be obtained from the Agency's Blandford office.

The Agency is also promoting an initiative by the Tidy Britain Group, called *Eco-Schools*. The Eco-Schools award scheme can help schools to:

- improve the school environment
- reduce litter and waste
- reduce fuel and water bills
- increase environmental awareness and create links with other schools in the UK and Europe

We also provide a wide range of information to all sectors of society and, in addition, give many talks and presentations.

4.11

Public Registers and access to environmental information

We maintain several public registers that can be inspected at most Agency offices. Information is usually provided free of charge, but for large and complex requests we may charge for staff time and materials. There are also standard charges for some specific searches. Confidential information, incomplete or draft reports, and information where disclosure may lead to environmental damage are generally not available.

Some environmental details and information about our public registers are available on the Internet at <http://www.environment-agency.gov.uk>. Further information is provided in the Agency's leaflet *A Guide to Information Available to the Public*.

5. Summary of public consultation

Approximately 250 Consultation Reports were circulated, and we received 47 responses, including those from:

National Organisations

Farming and Wildlife Advisory Group
Institute of Freshwater Ecology
Department of Trade and Industry
Forestry Authority
The National Trust
HM Coastguard
Royal Society for the Protection of Birds
Department of the Environment, Transport and the Regions
MAFF
The Inland Waterways Association
Institute of Hydrology
Country Landowners Association
Farming and Rural Conservation Authority
National Farmers Union
Office of Water Services
British Marine Federation
Countryside Commission
English Nature

Local Organisations

Bath & Portland Natural Stone
Jeremy Powne Associates
Durlston Country Park Coastwatch
Dorset Important Geological Sites
Freshwater Caravan Park
Weymouth Port Health Authority
Tecan Components Ltd
Bournemouth University
Wessex Water
Dorset Wildlife Trust
DEK Printing Machines
Upwey Society
Abbotsbury Oysters
Fleet Study Group
Kenneth Spencer Ltd
Dorset Coast Forum
Charmouth Society

Councils

Dorset County Council
West Dorset District Council
Weymouth & Portland Borough Council
Beaminster Town Council
Char Valley Parish Council
Shipton Gorge Parish Council

Thirty-two responses were also received from individual members of the public. Two well-attended public meetings were also held:

- 30 July 1997 at Bridport
- 20 January 1998 on the Isle of Portland

Some of the comments and concerns are summarised below.

5.1

Consultation

Several consultees asked the question; how extensive is the consultation process?

Our comment: we try and disseminate the plan to all interested individuals, organisations, groups and authorities within the plan area and also to those outside it. We are continually trying to improve this process and broaden the range of consultees and welcome views and ideas on this.

5.2 Flood defence

Several consultees expressed concern that the flood alleviation scheme (FAS) at Burton Bradstock had resulted in the flooding of five farms upstream.

Our comment: the construction of the Burton Bradstock FAS included channel improvements to increase conveyance through the village. Rather than increasing flood risk upstream, this will reduce it. The more likely explanation for the flooding is due to the intensity and duration of rainfall within the period since the scheme was built.

Concern was also expressed that Amber flood warnings on the River Bride are not received soon enough.

Our comment: the flood warnings are generated from the water level recorder in the village. In the longer term, we may be able to install a new flood warning site in the upper reaches of the Bride which would provide more reliable advance warning of flooding both to the village of Burton Bradstock and farms upstream. This will depend on results of a strategic survey called the Flood Warning Levels of Service survey (see Section 3.10 for further information).

5.3 Conservation

Several consultees were concerned over the impact of mink on the distribution and numbers of water voles and otters in the plan area.

Our comment: the result of the Dorset study on the relationship between mink and water voles states '...although there is no evidence from the present project to suggest mink have significantly influenced the distribution of water voles in Dorset, it cannot be assumed that mink are not a significant factor...'. It goes on to say that, given the weight of evidence elsewhere, mink should still be considered as a serious threat.

There is limited information on the relationship between mink and otters. It has been suggested that otters will outcompete mink, they are bigger, stronger and occupy different breeding habitats. It seems unlikely, therefore, that mink have a detrimental effect on otters. However, there is no specific information relating to this area (see Section 3.4).

A number of consultees raised the issue of invasive plant species.

Our comment: some invasive plant species occur in the area, but our knowledge of their distribution is patchy (we would be pleased to receive confirmed records of invasive species especially giant hogweed, Himalayan balsam and Australian stonecrop). When our maintenance staff are working on site on main river we will take appropriate action to control stands of these plants. On non-main river this responsibility rests with the riparian owner; a leaflet is available from local Agency offices. Giant hogweed can also pose a risk to human health, and local authority Environmental Health Officers should be notified in public areas. Dorset Wildlife Trust river monitors are also collecting records on these species (see Section 3.5).

5.4

Rural land use

A number of consultees asked whether a scheme could be introduced to reduce the impact of rural activities on water quality and issues such as topsoil erosion.

Our comment: the upper Hampshire Avon Landcare project aims to reduce agricultural non-point source pollution and alleviate problems such as: reduced salmon spawning success due to siltation, nutrient enrichment and occasional peaks in pesticide concentrations in river water. The aim of the project is to influence widespread change towards more sustainable farming practices and the Agency is consequently trying to identify the most cost-effective methods of influencing farmers. However, this approach is new to pollution control management in the South of England. As a consequence the project is initially being piloted in the upper Hampshire Avon Catchment. If successful the approach may be extended, if resources allow, to other catchments in the South Wessex Area.

Further information is given in the Hampshire Avon LEAP Consultation Draft (December 1998), available from the Agency's Blandford office

5.5

Water quality

The potential problem of spillages from industrial estates polluting Chafey's Lake, and Radipole, was raised by the consultees.

Our comment: in the Chickerell to Chafey's area the foul drainage scheme to relay the sewer was completed in 1997 specifically to address the issue of blowing sewers. We are also carrying out a Pollution Prevention and Control campaign on the Granby Industrial Estate, a seminar was held in March 1998 with the participating companies (see Section 3.3).

5.6

Development

The question of housing was raised and that the LEAP only refers to it in passing; through the Agency's statutory role in the Town and Country planning process, is it likely to take the attitude that development on a greenfield site is unacceptable because it is a greenfield site and nothing else?

Our comment: in 1992 household projections produced by central government indicated that there could be up to 4.4 million more households in England between 1991 and 2016. There is a continuing debate about the future housing demand and how much of this will be located on brownfield rather than greenfield land. Identification of land suitable for housing is being addressed via the local plans process to which the Agency is a statutory consultee.

The Agency supports the preferred approach that optimal use is made of existing urban areas in planning for the projected increase in housing and will be promoting the concepts of sustainability regarding proposed housing land allocations.

It was suggested that reference should have been made to major road schemes.

Our comment: as a statutory consultee we will formulate a view on particular major schemes, including roads, at the appropriate time. However the Agency has no specific remit for transport.

Concern was expressed that no mention was made of the old landfill at Lodmoor, which was understood to be giving rise to concerns over landfill gas and contamination.

Our comment: the bulky household waste site at Lodmoor is licensed by the Agency and operates under the statutory Waste Management Licensing controls for the keeping and transfer of waste. The Agency has no control over the site in respect of past operations, unless they give rise to pollution. In which case the Agency would become involved with the current landowner.

There are proposals to improve and relocate the Bulky Household Waste site, which the Agency has pressed for. The provision of an up-to-date site will result in remediation of part of the old landfill site.

5.7 Water resources

Concern was expressed that the LEAP emphasised water quality and not quantity. Additionally queries were also raised about the Agency's view on the use of desalination.

Our comment: the Agency as part of its National Strategy has already identified that desalination is currently not a cost-effective option, certainly in terms of providing a significant alternative resource. However there may be instances in the future where desalination is used to meet demands if costs of alternative supplies are excessive.

Some of our rivers have suffered/are suffering from low flows and we have been working for the last six to seven years towards putting this right. For example modifications to the pumping regime on the upper Wey (see Section 3.15). In general the West Dorset rivers and streams are not unduly impacted by abstractions.

The South West region has produced a regional water resource strategy which adopts a number of key policies. Foremost amongst these are sustainable development, the precautionary principle and demand management. The strategy will be revised for republication in 2000 (see Section 3.14).

5.8 The questionnaire

A simple questionnaire was sent out with the Consultation Reports; 55 of the 79 responses included questionnaires.

Of the 55 responses, 30 considered that all the issues had been addressed; 9 responses believed that we had not included all the issues. This can be explained in part by the fact that many of the consultees did not believe that they had enough local, or scientific knowledge, to be able to express an opinion. Although 42 respondents found the plan *Easy to Understand*, 12 found it *Moderate*, the remaining one did not express a preference.

The Most Important Issues identified included: Protection of ecologically important habitats and species, Potential impact of development on the environment, Proposed targets for river water quality, Impact of sewage and sewerage on river water quality, and Impact of rural landuse on water quality.

The respondents generally found it more difficult to identify the Least Important Issues, but the following were indicated: The adequate provision of flood warning and emergency response in the area, Limited distribution of salmonid fish, and the Need to protect features of archaeological interest.

Further concerns identified by respondents included:

- the lack of coarse fishing

Our comment: the nature of the streams of the area and of other natural water bodies are such that natural coarse fisheries are limited in their occurrence. Where there is potential for the creation of new and sustainable coarse fisheries which will complement the existing fisheries and ecology of the area, the Agency will provide support in the form of advisory services.

- river flows are not really mentioned, but relevant to water quality

Our comment: there are several continuous gauging stations operated by the Agency in the plan area; further information is available in the original Consultation Report or direct from the Agency.

The issue of the revised pumping regime on the upper Wey has been raised as an issue in the Action Plan (see Section 3.15).

- water abstraction and monitoring of abstraction is not fully covered

Our comment: the Agency has a rolling programme of water abstraction licence enforcement throughout the South Wessex area to ensure compliance with licence conditions and to enable us to monitor the volumes abstracted. This is considered as part of our on-going work programme.

- the impact of recreation on coastal footpaths, for example by horse riding and motorcycling

Our comment: we have no remit for this unless areas fall under the responsibility of the Agency, for example if sea defences are being eroded.

6. Appendices

6.1 The role of the Environment Agency

The Environment Protection function includes:

- integrated pollution control - regulating the potentially most polluting industrial processes
- water quality - a duty to monitor, protect, manage and where possible enhance the quality of all controlled waters including rivers, groundwaters, lakes, canals, estuaries and coastal waters through the prevention and control of pollution
- radioactive substances - a duty to regulate the disposal of radioactive waste (on all licensed sites) and the keeping and use of radioactive material and accumulation of radioactive waste (non-nuclear sites only)
- waste management and regulation - we regulate and influence the organisations and individuals that produce, collect and transport waste, deal with the handling of waste, its treatment, disposal, recovery, and re-use and decide policy
- air quality - in discharging pollution control functions, the Agency must have regard to the National Air Quality Strategy

The Water Management function includes:

- water resources - a duty to conserve, redistribute, augment and secure the proper use of water resources
- flood defence - aim to provide effective defence for people and the developed and natural environment against flooding from rivers and the sea. In practice, flood defence operates in three activity areas: alleviation, physical works and emergency response
- fisheries - a duty to maintain, improve and develop salmon, trout, freshwater and eel fisheries in order to optimise the social and economic benefits from their sustainable exploitation. The Agency is also the sea fisheries committee for some estuaries. We have statutory duties with respect to commercial fishing for sea fish and shellfish in these waters
- conservation - a duty to further wherever possible the conservation of special features when carrying out water-management activities, to have regard for conservation as part of Environment Protection activities, and generally to promote the conservation of natural beauty and amenity and the wildlife dependent on the aquatic environment
- recreation - a duty to promote the use of inland and coastal waters and associated land for recreational purposes. We also have a duty to consider the need to maintain public access at sites of conservation or historic interest and to make best recreational use of Agency owned land. We must also have regard to preserving access to places of natural beauty and to take account in all aspects of our work the needs of the sick or disabled
- archaeology - a duty to consider the impact of all regulatory, operational and advisory activities upon archaeology and heritage, and implement mitigation and enhancement measures where appropriate
- navigation - we have no navigation responsibilities in the South West Region

We do not cover all aspects of environmental legislation and service to the general public. Your local authority deals with:

- noise and odour problems
- litter
- air pollution from vehicles, household areas, small businesses and small industries
- planning permission (they will contact us when necessary)
- contaminated land issues (at present in liaison with ourselves)
- environmental health issues including control of invasive weeds on non-main river and notification of health risks from blue-green algae
- coastal erosion, and most flood defence matters on ordinary watercourses

Additionally the responsibility for drinking water quality rests with water companies and, in the case of private supplies, local authorities.

6.2

Other BAP habitats and species in the West Dorset area

Habitats	Species
Lowland farmland	Skylark
Unimproved neutral grassland	Grey partridge
Calcareous grassland	Bearded tit
Lowland heathland	Cetti's warbler
Sea cliff and slope	Redshank
Shingle	Lapwing
Caves (pits and quarries)	Wintering wildfowl and waders
Wet woodland (alder/willow carr)	Little tern
	Barn owl
	Swallow
	Silver-studded blue butterfly
	Worm anemone
	Lagoon sandworm
	de folin's snail
	Lagoon sea slug
	Sea slug
	Ross coral
	Surfet coral
	Foxtail stonewort
	Stinking goosefoot
	Slender centaury

7. Glossary

Abstraction - Removal of water from surface or groundwater

BOD - Biochemical Oxygen Demand, a measure of the amount of dissolved oxygen consumed in water, usually as a result of organic pollution

DoE - The former Department of the Environment

Development - With certain exceptions means the carrying out of building, engineering, mining or other operations, in on over or under land or the making of any material change in the use of any buildings or other land

DCC - Dorset County Council

DoE Circular 30/92 - Directs local authorities to use their planning powers to guide development away from areas that may be affected by flooding, both from fluvial and tidal effects, and to restrict development that would itself increase the risk of flooding

DWT - Dorset Wildlife Trust

EC - European Community

EN - English Nature

EU - European Union

Farming and Rural Conservation Agency - They assist the Government in the design, development and implementation of policies on the integration of farming and conservation, environmental protection and the rural economy

Flood warnings - The Agency operates a colour-coded flood warning system. The colour indicates the expected severity of a flood event. Yellow warnings are the least severe, red warnings are the most severe

Floodplain - All land adjacent to a watercourse over which water flows in times of flood or would flow but for the presence of flood defences where they exist

Greenfield site - Land on which no urban development has previously taken place, usually understood to be on the periphery of the existing built-up area

Heritage Coast - Non-statutory site delineated by the Countryside Commission in consultation with Local Authorities. They are selected areas of undeveloped coastline that are given a special designation to protect the coast's vulnerable beauty and enhance enjoyment in accordance with conservation

HM - Her Majesty's

HMSO - Her Majesty's Stationery Office

LAs - Local authorities

Local Plan - A local planning authority statutory document which elaborates the broad policies and proposals set out in the Structure Plan

National Rivers Authority - One of three predecessor bodies to the Environment Agency

Nitrate Vulnerable Zone - The major source of nitrate is from agricultural activity and the EC Nitrates Directive requires member states to identify waters (ground and surface) that are or could be affected in this way. If waters are clearly demonstrated to be affected, under the guidelines the land draining to these must be designated as nitrate vulnerable zones.

Office of Water Services - The Government regulatory agency for the water industry

Population Equivalent - A measure of the polluting load of an organic discharge. One population equivalent is defined as the organic degradable load with a BOD of 60g of oxygen per day. This corresponds to the domestic effluent load produced by one person

Ramsar site - International designation (on wetlands) named after the town in Iran where the text on the convention was agreed. The full title of the Ramsar Convention is the 'Convention on Wetlands of International Importance, especially as Waterfowl Habitat'

Return Period - Relates to the long-term average time interval between events of a particular magnitude, i.e. 1 in 200 year return period is an event which, on average, will occur at least once in every two hundred years (it may also occur more or less frequently)

River Catchment - Whole area which drains either naturally or with artificial assistance to a river

RSPB - Royal Society for the Protection of Birds

Secondary treatment - The treatment of sewage, usually after the removal of suspended solids

Sensitive Marine Area - An area of importance for marine plant and animal communities, populations of seabirds, sea mammals or sea and migratory fish that they can support, as identified by English Nature

Special site - A site must be identified as contaminated before it can be designated a special site. The Special Site Regulations categorise land under a number of headings by the type of process/activity which might lead to special site status e.g. former MoD land and nuclear establishments

Standard of Service - An economic method of working out the damage prevented by the undertaking of flood defence maintenance work

Structure Plan - A statutory document which sets out the County Council's policies and general proposals in respect to development and other use of land in a county

WDDC - West Dorset District Council

Tributary - A stream or river which feeds into a larger one

Watercourse - The term includes all rivers, streams, ditches, drains, cuts, dykes, sluices, sewers (other than public sewers) and passages through which water flows

World Heritage Site - Protected under the World Heritage Convention, which aims to protect natural and cultural areas of outstanding universal value. These sites are selected by the World Heritage Committee and make up the World Heritage List. They are recognised by the international community as possessing international value

WPBC - Weymouth & Portland Borough Council

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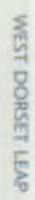
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Map 2 - Conservation Designations



Map 3



MANAGEMENT AND CONTACTS:

The Environment Agency delivers a service to its customers, with the emphasis on authority and accountability at the most local level possible. It aims to be cost-effective and efficient and to offer the best service and value for money.

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For general enquiries please call your local Environment Agency office. If you are unsure who to contact, or which is your local office, please call our general enquiry line.

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0645 333 111

The 24-hour emergency hotline number for reporting all environmental incidents relating to air, land and water.

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