

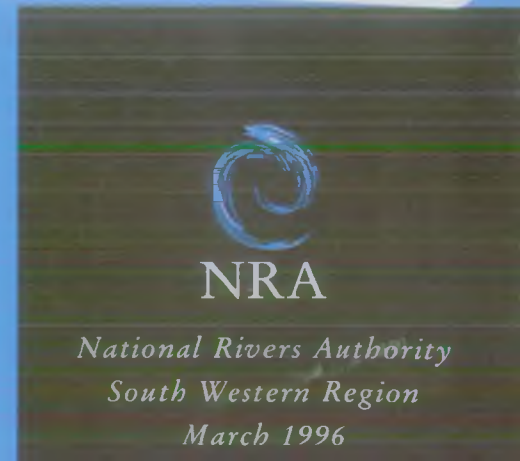
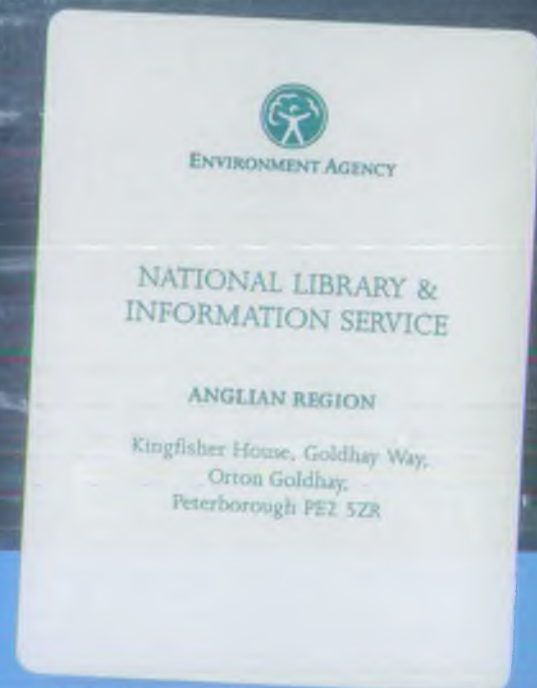
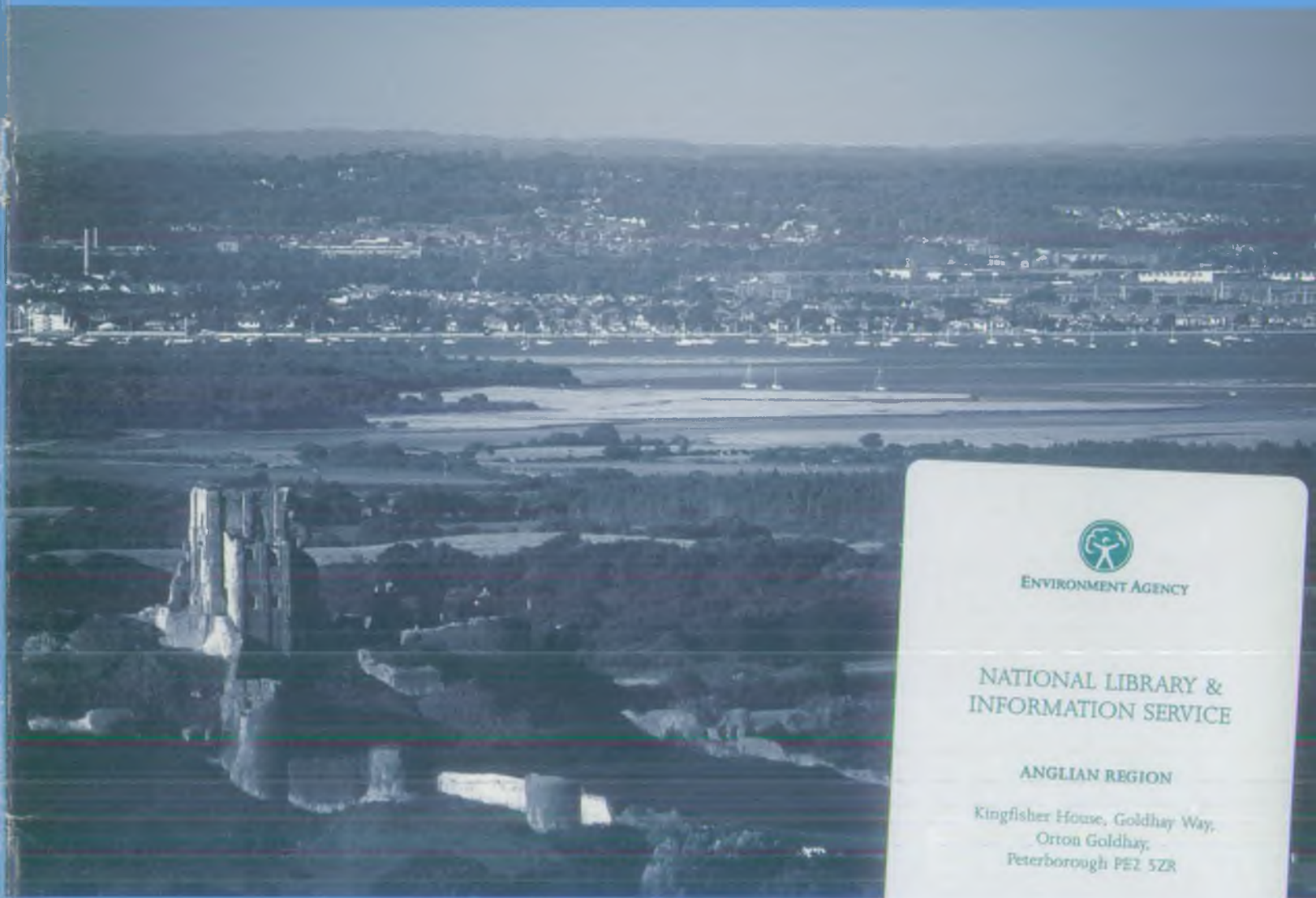
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NRA South West

EA-SOUTH WEST LEAP

98

THE POOLE HARBOUR & PURBECK CATCHMENT MANAGEMENT PLAN ACTION PLAN



Telephone the emergency hotline to report all environmental incidents, such as pollution, poaching and flooding, or any signs of damage or danger to our rivers, lakes and coastal waters. Your prompt action will help the NRA to protect water, wildlife, people and property.

NRA Emergency Hotline

0800 80 70 60



Further copies of this Action Plan can be obtained from

Catchment Planner
South Wessex Area
NRA South Western Region
Rivers House
Sunrise Business Park
Blandford Forum
Dorset DT11 8ST
Tel: 01258 456 080

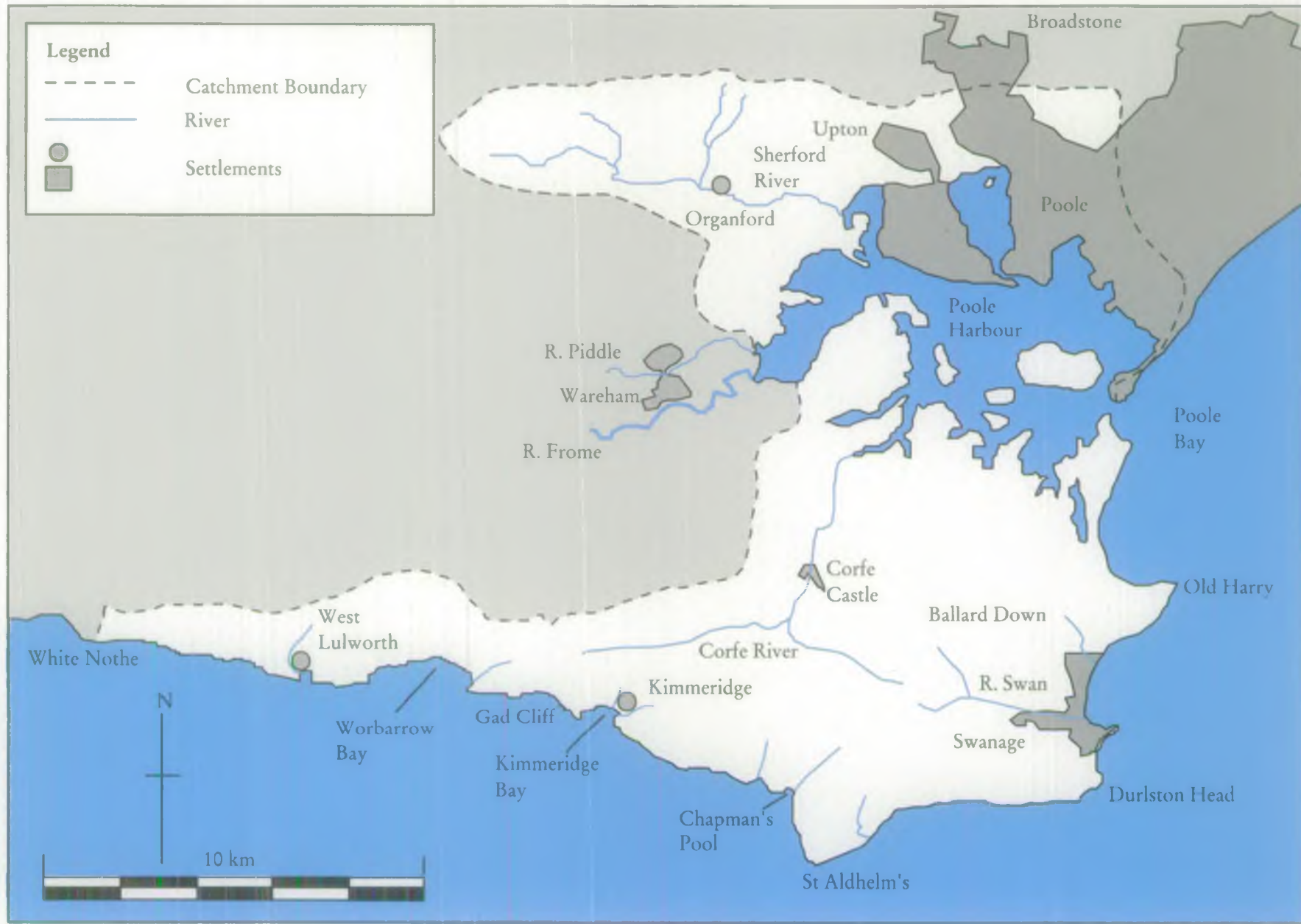
The NRA and the Environment Agency

The NRA will form the major part of a new organization which will have responsibilities for the environmental protection of water, land and air. The new Environment Agency starts its work of managing the environment in England and Wales on 1 April 1996.



Awarded for excellence

MAP1: THE POOLE HARBOUR & PURBECK CATCHMENT



This map is schematic not definitive

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FOREWORD

*Leave me neat and leave me clean
And for many years I'll still be seen
But if we fail to work together
Then the splendour of Purbeck may be lost forever*

*Linda Allan (aged 11), from The Purbeck Ghost
Published in Purbeck in Pen by BP Exploration*

Poole Harbour with its variety of wetland habitats, and the Purbeck coast with its exceptional bathing beaches, are greatly valued by locals and visitors alike.

The ecological, recreational and commercial importance of this catchment means that the water environment is subject to considerable pressures.

Our management of the catchment must recognise the needs of water users and the needs of the water environment itself, and seek to balance them.

This Action Plan recognises the delicate balance between these needs, and emphasises the importance of working together with all water users to achieve sustainable improvements.



*Howard Davidson
Area Manager, South Wessex Area*

ENVIRONMENT AGENCY



029884

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Cover Illustration : Corfe Castle and the southern shores of Poole Harbour. © Dave Cooling

Published March 1996

1. INTRODUCTION

This Action Plan outlines how the NRA and other organisations plan to tackle issues that affect the water environment in this catchment. We identify 25 Issues which are summarised in Activity Tables.

The Issues listed in this Action Plan were first identified in our Poole Harbour & Purbeck Catchment Management Plan Consultation Report, published in November 1995.

About 500 copies of the Report were distributed to organisations and individuals, and we received 36 formal responses. We also sent out a questionnaire to 150 people who had requested a copy of the Consultation Report, and this produced a further 24 responses. All these responses were taken into consideration in the production of this Plan, and they are summarised in Appendix 4.

We have set up a Catchment Steering Group to help us produce this Plan and carry out the Actions. The membership of this group, which will also help with the Frome & Piddle and the West Dorset Rivers Plans, reflects as many interests as possible in the catchment, and includes members of Local and Regional NRA Committees.

Our aim is to harness local knowledge for the benefit of our activities, and to provide a forum for the distribution of information to those interested in the catchment.

An Annual Review will be published to report on progress to the Catchment Steering Group. The Review will also examine the need to update the Catchment Management Plan (CMP) in the light of changes in the catchment. The period between major revisions will normally be five years.

2. VISION FOR THE CATCHMENT

The Poole Harbour & Purbeck Catchment is an area of high amenity and ecological importance, greatly valued by locals and visitors alike. The Harbour, with its variety of wetlands, and the Purbeck coast are protected by a number of conservation designations. The Harbour with its sheltered waters and the Purbeck coast with its exceptional bathing beaches make an important contribution to the local economy through recreation and tourism. Poole town is located on the northern shores of the Harbour, and includes the commercial port.

The ecological, recreational and commercial importance of the catchment means that the water environment is subject to considerable pressures. Our management of the catchment must recognise the needs of water users and the needs of the water environment itself, and seek to balance these needs.

Our vision for the catchment is towards a future where:

- *using the natural cleansing capacity of rivers and coastal waters to assimilate treated sewage effluents does not impair their considerable recreational and amenity value and potential*

- *abstractions of water are in balance with the ecological needs of rivers and wetlands*
- *there is minimal risk to people and property from flooding*
- *the abundance and diversity of wildlife in the catchment is maintained and increased*
- *people's enjoyment and appreciation of the rivers and coastal waters continues to grow*

The realisation of this vision will involve the commitment of all those who have an interest in the water environment, and we recognise the importance of establishing links with the local communities and their representatives. It is important that local authorities include policies in their local plans which protect and enhance the water environment. We have a commitment to work with all relevant parties to implement the principles of sustainable development.

3. CATCHMENT MANAGEMENT PLANS & DEVELOPMENT PLANS

Although we can control some things that influence the quality of the water environment or affect flood risk, we have very little direct control over the way that land is developed; this is the responsibility of local planning authorities.

Local planning authorities prepare statutory development plans, and the policies in these plans will guide the way that land is developed in the future. We have published guidance for local planning authorities to encourage them 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 when we are making our own decisions.

4. THE POOLE HARBOUR & PURBECK CATCHMENT

Poole Harbour is centrally located on the south coast of England, and is one of the largest and shallowest natural harbours in the world. It has an area of approximately 38km² at high water spring tides despite land having been reclaimed on the northern margins in both historic and recent times. Within the Harbour there are three main channel systems, the Wareham and North Channel, the South Deep and the Wych Channel. There are several islands in the Harbour, of which Brownsea is the largest.

Urban and industrial development in the catchment is largely centred on the north and east shores of the Harbour, with the town and port of Poole. There are also industrial estates on the north-western shores at Holton Heath, and major BP oil workings on the southern shores with well sites at Furzey Island and Goathorn, and the BP gathering station at Wytch Farm. There is also a small well site on the open coast at Kimmeridge.

The Harbour is of exceptional ecological value and is protected by a range of conservation designations. Central to the ecological value are the intertidal mudflats, sandflats and marshes (80% of the area at low water) and the diversity of shoreline ranging from reed and marsh to sand and shingle.

The main freshwater inputs to the Harbour are the Rivers Frome and Piddle, which enter at Swineham Point; these rivers are the subject of a separate Action Plan which was published in February 1996. There are two other significant freshwater inputs, the Corfe and Sherford Rivers.

The Corfe rises north-west of Kimmeridge and runs parallel to the Purbeck Ridge to Corfe Castle. Here it turns north to flow across the heath, being joined by a number of streams, and drains into the Harbour through the Wych Channel. The Sherford rises in the coniferous plantations of Wareham Forest and flows south-east to Organford, eventually draining to Lytchett Bay.

Few watercourses cross the remaining catchment area; the Swan flows across the Isle of Purbeck into Swanage Bay and several smaller streams drain to the southern coastal strip, including those at Lulworth and Kimmeridge.

In the west of the catchment, the Purbeck coast between White Nothe and Gad Cliff is characterised by vertical cliffs topped with open grassland. A softer coastline with extensive tidal ledges is found between Gad Cliff and Chapman's Pool. East of St. Aldhelm's Head, the remains of Purbeck limestone quarries can be seen in the cliff faces. Chalk re-emerges at Ballard Down, north of Swanage, terminating at the well-known landmark, Old Harry. From here the coast is lower-lying with bays and sandy beaches.

4.1. Catchment Facts

Land area	220km ²
Poole Harbour area below high water mark	38km ²
Population (1991 census)	82,600

FLOOD DEFENCE

Length of statutory main river	3.1km
Length of tidal defences	4.7km

RIVER WATER QUALITY

General Quality Assessment (1994 GQA)

Chemical	A (Excellent)	None
	B (Good)	17.8km
	C (Fair)	None
	D (Fair)	None
	E (Poor)	None
	F (Bad)	None

WATER RESOURCE LICENCES

Surface water abstractions	22
Groundwater abstractions	42
Surface water abstraction volume	4.9Ml/d
Groundwater abstraction volume	14.5Ml/d

EC FRESHWATER FISHERIES

Salmonid fishery	5.0km
Cyprinid fishery	None

WILDLIFE

Sites of Special Scientific Interest (SSSI)	29
SSSIs with wetland interest	22

5. ACTIVITY TABLES

The Activity Tables outline detailed proposals for resolving the Issues identified in the Consultation Report and the public consultation.

The Actions contained in these Tables are as clear, specific and time-bounded as possible, allowing ourselves as well as external organisations and individuals to monitor progress.

The costs identified represent our planned expenditure over the next five years. However our policy and priorities may change during this time which may affect how much we will actually be able to spend on specific Issues.

The financial years covered by this Plan are represented by a single date, for example, '96' represents the financial year April 1996 to March 1997.

Our everyday work also commits substantial resources to managing the water environment; the scope of that work has been explained in the Consultation Report.

5.1. Water quality

We aim to maintain and, where appropriate, improve the quality of water for all those who use it. This is achieved by setting water quality targets for the catchment based on:

- standards laid down in EC Directives
- reducing the amounts of Annex 1A substances entering tidal waters
- setting River Quality Objectives which aim to protect water quality for recognised uses

5.1.1. EC Directives

There are five EC Directives which currently apply to water quality in this catchment: the EC Freshwater Fish Directive, the EC Bathing Waters Directive, the EC Dangerous Substances Directive, the EC Shellfish Waters Directive, and the EC Urban Waste Water Treatment Directive (UWWTD).

The Sherford from Sherford Bridge to Poole Harbour has been designated as a salmonid fishery under the EC Freshwater Fish Directive; it has met the imperative standards in 1992, 1993 and 1994.

Ten sites in the catchment have been identified under the EC Bathing Waters Directive; in recent years, the only failures have been at Swanage in 1993 (Issue 1) and at Kimmeridge in 1993 and 1994 (Issue 2).

There have been no failures under the EC Dangerous Substances Directive in recent years.

The standard set for copper in Poole Harbour under the EC Shellfish Waters Directive was exceeded in 1992 at Salterns and

South Deep, and at Hutchins in 1994 (Issue 3). This Directive contains no bacteriological standards for water.

Shellfish harvesting areas in the catchment are regulated under the EC Shellfish Hygiene Directive, which includes bacteriological standards for shellfish flesh. The Ministry of Agriculture, Fisheries & Food (MAFF) and the Department of Health (DoH) share responsibility for this Directive in England and Wales. We have only a minor role in implementing this Directive, by providing information on the location of discharges that may affect harvesting areas, and controlling the quality of polluting discharges to ensure no deterioration in the quality of shellfish. However, we cannot require improvements to discharges to secure a higher quality of shellfish.

The relationship between levels of bacteria in shellfish and water quality is unclear, and we are contributing through our National R&D programme to a Scottish & Northern Ireland Forum for Environmental Research (SNIFFER) project to investigate this

issue (Action 3.3). The proposed EC Ecological Quality of Waters Directive may introduce new water quality standards to protect shellfish waters.

We are studying Poole Harbour to investigate whether it is eutrophic. If the Department of the Environment (DoE) were to designate it as a sensitive area under the UWWTD, Wessex Water Services (WWS) would be required to install appropriate nutrient removal facilities (Issue 4). There is one direct qualifying discharge at Poole Sewage Treatment Works (STW), and indirect qualifying discharges at Dorchester STW and Wareham STW.

The area around Swanage outfall has been designated as a High Natural Dispersion Area, and the outfall has been identified as needing primary treatment by 2000 and possible outfall relocation by 2005. Studies will be carried out by WWS to establish whether primary treatment will cause any adverse effects compared to secondary treatment (Issue 5).

Issues and Actions	By	Cost	96	97	98	99	00	Notes
1. Non-compliance with EC Bathing Water Directive at Swanage								
1.1 Carry out improvements to 15 Combined Sewer Overflows (CSOs) in the Swanage sewerage system	WWS	£4M	●					
1.2. Investigate the impact of Swanage outfall on water quality at the Swanage Bathing Water site	NRA	£5K	●	●				
1.3. Continue to monitor non-identified bathing water sites, the River Swan and Uwell Stream, for two seasons	NRA	£2K	●	●	●			This will help us to assess whether the improvements to the CSOs have been successful
2. Non-compliance with EC Bathing Water Directive at Kimmeridge								
2.1. Progress improvements to sewerage system at Gaulter Cottages and Toilets and eliminate discharges to Kimmeridge Stream	NRA Smedmore Estate			●	●			
2.2. Progress improvements to Kimmeridge Village sewerage system and eliminate discharges to Kimmeridge Stream	NRA Smedmore Estate			●	●	●		
2.3. Monitor non-identified bathing water sites until the end of this project	NRA	£1K	●	●	●			

Issues and Actions	By	Cost	96	97	98	99	00	Notes
3. Non-compliance with EC Shellfish Waters Directive								
3.1. Extensive sampling of water and sediments as part of a general Poole Harbour Survey	NRA	£1K	●					This should provide information on water column and sediment contaminant levels
3.2. Bioaccumulation Programme	See 7							
3.3. Contribute through our National R&D programme to a project to investigate the relationship between levels of bacteria in shellfish and water quality	SNIFFER NRA	£15K	●					This may help in the understanding of water quality requirements for the EC Shellfish Hygiene Directive
4. Determine whether Poole Harbour is a Sensitive Area under UWWTD								
4.1. Investigate whether Poole Harbour is eutrophic; this will include nutrients and dissolved oxygen in the water, phytoplankton, and aerial surveys of macro-algae. Identify the principal sources of nutrients	NRA	£15K	●					If DoE were to designate the Harbour as a sensitive area in 1997, WWS would be required to install appropriate nutrient removal at relevant STWs
5. Establish Level of Treatment needed at Swanage under UWWTD								
5.1. Install primary treatment of sewage at Swanage	WWS	£12M	●	●				The area around Swanage is proposed as a High Natural Dispersion Area (HNDA). We must check if the lower level of treatment for discharges in these areas is acceptable
5.2. Undertake a Comprehensive Study to determine whether there is an environmental need under the UWWTD for secondary treatment in addition to the proposed primary treatment	WWS	£50K	●					
5.3. Audit the findings of the Comprehensive Study	NRA	£5K	●					

5.1.2. Annex 1A Reduction Programme

The Annex 1A Reduction Programme is a commitment that we have made with other North Sea countries to reduce the amounts of certain substances entering tidal waters. We have

reported significant loads of gamma HCH and nickel under Annex 1A for Poole STW, and have issued revised consents to ensure that loads of these substances do not increase; WWS have appealed against the organic chemical limits (Issue 6).

Issues and Actions	By	Cost	96	97	98	99	00	Notes
6. Annex 1A Reduction Programme								
6.1. DoE to determine the appeal against revised consent standards for Poole STW	DoE							We have set revised consent standards to help meet this international commitment

5.1.3. River Quality Objectives

The water quality targets that we use in all rivers are known as River Quality Objectives (RQOs). They are used for managing water quality, and are based on the River Ecosystem (RE) classification scheme; they are generally only applied to rivers with average flows above 26.8Ml/d.

There are five water quality classes (shown below) which reflect the chemical quality needed by different types of river ecosystem including the types of fishery they can support. The RE classification scheme replaces the National Water Council (NWC) system.

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
RE5	Water of poor quality which is likely to limit coarse fish populations

The Consultation Report introduced proposals for RQOs based on RE classes for monitored stretches of the Corfe and Sherford Rivers. As a result of this, the RQOs for these rivers have been set at RE2 to be met from 1 January 1995. All monitored stretches complied with these RQOs in 1994.

5.1.4. Other Water Quality issues

The existing coastal bioaccumulation programme is to be extended to include a number of additional sites around Poole Harbour to provide information on the bioaccumulation of metals and organics (Issue 7). This information is also used in conjunction with monitoring for the EC Dangerous Substances and EC Shellfish Waters Directives, and to provide information on the effectiveness of STW improvement schemes.

We will continue to monitor the environmental impact of sea outfalls at Holes Bay, Swanage and Lulworth (Issue 8).

Issues and Actions	By	Cost	96	97	98	99	00	Notes
7. Bioaccumulation								
7.1. Extend the existing coastal bioaccumulation programme to include a number of additional sites around Poole Harbour	NRA	£2K	●					
8. Environmental impact of sea outfalls								
8.1. Repeat environmental impact survey of Holes Bay following extensions to Poole STW	NRA	£4K		●	●			This will compare macroinvertebrate distributions and sedimentary contaminants
8.2. Swanage	See 1 and 5							
8.3. Repeat benthic diver survey at Lulworth following installation of screens	NRA	£5K	●					This will assess whether there has been an improvement in the biological communities close to the outfall in addition to an improvement in aesthetics

5.2. Water Resources

We aim to manage water resources to achieve the right balance between the needs of the environment and those of legitimate abstractors.

Tomorrow's Water, our Water Resources Development Strategy, provides the framework for our future management of water resources. Any new developments should fully address environmental needs and provide an element of protection e.g.

protective abstraction licence provisions such as prescribed flow conditions and the transfer of licensed resources from environmentally sensitive locations.

Initial test pumpings have taken place at the proposed water supply boreholes at Bulbury and Lytchett, and no adverse impact was observed. We will negotiate with WWS the further detailed assessments which will be required before these sources can be used.

Issues and Actions	By	Cost	96	97	98	99	00	Notes
9. Impact of development of water resources at Bulbury and Lytchett								
9.1. Determine the scale of further assessment needed at these sites and undertake groundwater modelling to predict likely impacts	NRA WWS	Unknown	●	●				

5.3. Flood Defence

We aim to provide effective defence for people and property against flooding from rivers and the sea (Issue 11) and to provide adequate arrangements for flood forecasting and warning (Issue 14). We take account of economic and environmental considerations when assessing flood defence operations.

We will implement a national Flood Defence Management System which we will use to determine the need for maintenance and capital works (Issue 10).

All rivers are classified as either *main river* or *ordinary watercourses*; there is only 3.1km of designated main river in the catchment, the lower reaches of the Sherford. We supervise all flood defence matters, but have special powers to carry out or control work on main rivers and sea defence; local authorities are responsible for flood defence on ordinary watercourses.

There are a number of flood defence schemes in the tidal waters

of this catchment. We are investigating a new scheme for Town Quay at Poole, and have responsibility for the maintenance of the embankments on the lower Frome and Piddle and the western end of Poole Harbour (Issue 12). We review our maintenance practices to take account of conservation where appropriate.

A Flood Alleviation Scheme is being constructed at Swanage by Purbeck DC. When this has been completed, we will investigate whether to adopt the scheme ourselves, and what the associated resource needs might be (Issue 13).

Proposals for coastal defence works are considered within an overall integrated strategy that takes due account of coastal processes and ecological and conservation status. The Shoreline Management Plans being progressed provide this context; Bournemouth BC are the lead organisation for the Durlston-Hurst Spit SMP, and Weymouth & Portland BC for the Durlston-Portland Bill SMP. We are contributing members of the Coastal Groups that are promoting these plans (Issue 16).

Issues and Actions	By	Cost	96	97	98	99	00	Notes
10. Review the efficiency and effectiveness of Flood Defence maintenance operations								
10.1. Apply Flood Defence Management System to this catchment	NRA		●					This is a National initiative; local costs are not available
10.2. Review sea defence survey	NRA		●					Condition survey
10.3. Review tidal defence survey	NRA		●					Condition survey
11. Improved identification of flood risk areas								
11.1. Carry out S105 flood risk survey	NRA	£25K	●	●				
12. Investigate, justify and, if appropriate, implement Flood Defence Schemes								
12.1. Liaise with planning authorities	NRA LPAs		→					
12.2. Undertake a pre-feasibility study for Town Quay Sea Defence Scheme, Poole	NRA		●					
12.3. Town Quay Sea Defence Scheme is included in the Medium Term Programme	NRA	£318K		●				

Issues and Actions	By	Cost	96	97	98	99	00	Notes
12.4. Investigate the justification for the proposed Swineham tidal defences (also included in Frome & Piddle CMP)	NRA MAFF							Post 2000. This scheme would cost £275K and is currently low priority
12.5. Investigate the justification for the proposed Arne tidal defences (also included in Frome & Piddle CMP)	NRA MAFF							Post 2000. This scheme would cost £161K and is currently low priority
12.6. Produce Water Level Management Plan for Keysworth Marshes	See 22.9							
12.7. Investigate the justification for continuing maintenance work for tidal defences	NRA						●	
13. The adoption of Swanage FAS								
13.1. Investigate the proposed adoption of this scheme and the associated resource needs	NRA PDC				●			The scheme will have to be operated for 24 months by PDC before we will decide whether to adopt it or not
13.2. Improve telemetry for operation purposes within 2 years of handover	NRA	£5K			●	●		Some telemetry is expected to be provided by PDC
13.3. Establish flood warning rules in draft within 12 months of handover	NRA	£5K			●			
13.4. Implement Operation & Maintenance Manual recommendations immediately	NRA PDC				●			Cost to be agreed with PDC
13.5. Agree operational training and response times within 12 months of handover					●			
14. Ensure the adequate provision of flood warning in the catchment								
14.1. Review flood warning procedures in the catchment	NRA			●	●			Discussions are being undertaken with PHC and PBC. The extent of flood warning equipment is dependent on extending the existing Green Gardens Scheme
15. Operation and manning of Green Gardens FAS								
15.1. No further action is proposed								The present operational response is considered sufficient
16. Development of an integrated coastal defence strategy								
16.1. Two Shoreline Management Plans are proceeding within the catchment: Durlston-Hurst Spit, and Durlston-Portland Bill	Weymouth & Portland BC, Bournemouth BC, NRA	£48K		●	●			Scoping studies are programmed for 1996, with completion of Plans by 1998

5.4. Fisheries

Statutory control of fishing activities for sea fish and shellfish in the tidal waters of this catchment is the responsibility of Southern Sea Fisheries District Committee (SSFDC). A summary of the major fisheries in this catchment is given in Appendix 5. We liaise with SSFDC on all appropriate matters.

We have responsibilities for eels and migratory salmonids in tidal waters; our main concerns are the long-term well-being of the eel fishery and the unhindered passage of salmon and sea trout to and from the rivers in this catchment and the Frome & Piddle.

The Salmon Act (1986) considered fixed nets to be illegal in all

coastal waters, but it contained provisions under which SSFDC was able to make byelaws making these nets legal in Poole Harbour outside the period 1 April to 30 September, and at all times in coastal waters where migratory salmonids were not considered to be at risk.

We have issued licences for eel fyke nets in the tidal waters since 1991. At present a rod licence is technically required to take eels in tidal waters; we have asked MAFF to exempt fishing for eels with a rod and line in Poole Harbour downstream of the White Posts below the Frome and Piddle confluence. This marks the downstream limit of the tidal fishery owned by the NRA. We do not allow any commercial fishing for sea fish or eels within this fishery.

Issues and Actions	By	Cost	96	97	98	99	00	Notes
17. Knowledge of populations of non-salmonid migratory fish								
17.1. Improve eel fishery statistics by taking samples for length, frequency and age each year	NRA	£0.5K pa	●	●				
17.2. Collect estuarine fish species data during checks of eel fyke nets	NRA	£0.2K pa	●	●				
18. Licence requirements for eel fishery								
18.1. Implement findings of eel licence review	NRA			●	●			We have applied to MAFF for an excusal for rod and line fishing for eels in tidal waters below the White Posts on the Frome and Piddle estuaries

5.5. Recreation

Many people spend their spare time enjoying our rivers and coasts. Where we can we try to improve facilities for these people, but we must always safeguard the environment from the damage that they might cause. We will support, where appropriate, any initiatives from landowners or other bodies to improve public access (Issue 19).

The Poole Harbour Steering Group consists of organisations with statutory responsibilities that impact on the management of the Harbour; it has produced an Aquatic Management Plan which aims to promote the sustainable use of the Harbour

(Issue 20). Central to this aim is the recreational zoning plan, which provides a framework for the management of the Harbour that balances the needs of recreational and commercial users with the needs of the environment and other legitimate interests.

We also investigate water quality problems attributed to the discharge of waste from boats (Issue 21). While we have no statutory powers to regulate discharges from boats, we co-operate with Poole Harbour Commissioners who can regulate discharges from vessels within the Harbour under their own byelaws.

Issues and Actions	By	Cost	96	97	98	99	00	Notes
19. Improve public access								
19.1. Assess the scope for improved physical access, especially for disabled and educational use	NRA User groups, Owners, EN, LPAs, PHC	£5K			●	●		Subject to funding
19.2. Review canoeing activity in the catchment	NRA BCU	Unknown	●					This is a Regional initiative
19.3. Promote opportunities for green tourism initiatives which improve recreation and benefit the environment	NRA LPAs Owners	Unknown			●	●		Subject to funding
19.4. Review proposals to extend cycleway, SW Coastal Path, and Purbeck Sustrans route	LPAs Owners NRA		→					We will participate in these reviews, if appropriate, when they are submitted
20. The impact of recreational provision								
20.1. Participate fully in the work of the Poole Harbour Steering Group (PHSG)	NRA, PHC, LPAs EN, SSFDC, RSPB	£3K	→					The £3K is our contribution to the costs of PHSG. Future work will include a review of Harbour management policies
20.2. Promote and monitor the Poole Harbour Aquatic Management Plan	PHSG		→					
20.3. Screen all development proposals for potential impact, and explore ways of improving recreation provision	NRA, LPAs, Owners	Unknown	→					
21. Impact of boat use on water quality								
21.1. Investigate impact of boat use on water quality and take appropriate action	NRA PHC	Unknown						The scope of this work has yet to be determined. A collaborative study with PHC and PHSG is anticipated

5.6. Landscape, Wildlife & Archaeology

We aim to ensure that rivers and wetlands are not degraded through neglect, mismanagement, or insensitive development. The catchment is valued for its beautiful scenery and rich variety of wildlife; much of it is designated as an Area of Outstanding Natural Beauty. Our own conservation duties relate only to the aquatic environment, and are carried out through the work of other NRA functions.

The recently published *Biodiversity: the UK Steering Group Report* contains Action Plans for conserving key habitats and species. Further Action Plans will be published, and all must be implemented at a local level. We are committed to playing our part in developing and implementing Local Action Plans, but it is not yet clear what approach will be taken. English Nature is the overall lead agency for Biodiversity, but we are the lead agency for some aquatic species, for example the otter.

Independently, but with the same overall aim, the EC Birds Directive and the EC Habitats Directive will establish Special Protection Areas (SPAs) and Special Areas for Conservation (SACs) respectively, which we must play our part in conserving.

When these plans and sites are established we can promote them while carrying out our own duties. Meanwhile, we will continue to encourage sound management of rivers and wetlands to promote wildlife conservation in balance with other river uses. Under the EC Habitats Directive, we may be required to review consented activities which affect SACs.

We support the work of other agencies such as English Nature and the Dorset Wildlife Trust to help gather information on wildlife in the catchment. Sometimes we can initiate measures which contribute directly to the survival or recovery of rare species; for example in this catchment we will promote special measures to conserve otters (Issue 22).

MAFF requires Water Level Management Plans for river SSSIs on which we have a major influence (Action 22.9).

agreed conservation strategies and consenting protocols for river SSSIs and SACs; there are no river SSSIs in this catchment, but the MoU will provide a model for SPAs and Ramsar sites where we have a significant consenting or operational role (Issue 23).

We have signed a Memorandum of Understanding (MoU) with English Nature which will lead initially to the production of

Issues and Actions	By	Cost	96	97	98	99	00	Notes
22. Biodiversity Targets								
22.1. Work with other agencies to establish Local Biodiversity Action Plans for habitats and species with a high dependency on the aquatic environment	NRA, EN, DWT, RSPB, LPAs, etc	£6K pa	●	●	●			Actions, once identified, can be implemented in future years
22.2. Investigate pesticide levels in eels, the major food source of otters	NRA	£1K	●					
22.3. Repeat otter population survey and make initial survey of selected non-main river tributaries	NRA	£15K		●				Subject to funding
22.4. Continue enforcement action for otter guards on fyke nets	NRA		→					
22.5. Advise on otter underpasses on appropriate bridge improvements to limit accidental killing	See 25.3							
22.6. Carry out bioassays and post mortems on dead otters	NRA		→					Contact our Blandford office should a dead otter be found
22.7. Regional survey to investigate existing range of water voles	NRA	Unknown	●	●	●			
22.8. Prepare Local Action Plans for aquatic species for which we have a lead responsibility	NRA Others	Unknown	●	●	●			May include white clawed crayfish, salmon, lampreys, twaite, shad, <i>Zostera</i> , etc
22.9. Produce a Water Level Management Plan for the tidal Frome & Piddle and adjacent areas of Poole Harbour, and advise responsibilities for other areas of flood plain grazing marsh in the Harbour	NRA, EN, RSPB, MAFF	Unknown	●	●				WLMP will recommend action over the next 10 years; other targets will emerge from this
22.10. Promote schemes that support Action Plans for the management of target habitats	NRA, MAFF, EN	Unknown	→					

Issues and Actions	By	Cost	96	97	98	99	00	Notes
23. Impact of EC Birds Directive and EC Habitats Directive								
23.1. Produce conservation strategy and consenting protocol for relevant SACs, Ramsar sites and SPAs	EN NRA	Unknown		●	●			We need to agree which sites would benefit from this process. The implementation phase will follow
23.2. Establish management and standards for the aquatic environment which are appropriate for maintaining habitats and species at favourable conservation status in designated areas	NRA Others	Unknown	→					

5.7. Integrated Management of the Coastal Zone

Local authorities, environmental agencies and central Government departments all have their own statutory responsibilities to control activities in the coastal zone (Appendix 6). There is concern that this sectoral approach allows organisations to take single issue views, discouraging an integrated approach. The Government view is that voluntary co-operation, with local authorities taking the lead role, is the best way to control activity and development.

In response, Dorset County Council have taken a lead role in setting up the Dorset Coast Forum, consisting of local authorities, environmental agencies, central Government departments, business and other user groups. The aim of the Forum is to promote a sustainable approach to the management

of the coastal zone and to develop an integrated coastal zone management policy (Issue 24).

The Aquatic Management Plan produced by Poole Harbour Steering Group aims to promote the sustainable use of Poole Harbour, and is a practical example of the multi-agency approach.

We are a member of the Dorset Coast Forum, Poole Harbour Steering Group, and Coastal Groups promoting the Durlston-Hurst Spit and the Durlston-Portland Bill Shoreline Management Plans. We support the aims of these groups, and the Poole Harbour & Purbeck CMP is intended to contribute towards the integrated management of the coastal zone.

Issues and Actions	By	Cost	96	97	98	99	00	Notes
24. Integrated management of the coastal zone								
24.1. Participate fully in Dorset Coast Forum	NRA	Unknown	→					The Forum consists of local authorities, environmental agencies, central Government departments, business and other user groups
24.2. Participate fully in Shoreline Management Plans	See 16.1		→					
24.3. Participate fully in Poole Harbour Steering Group	See 20.1		→					
24.4. Take a lead role in organising the Poole Harbour Oil Pollution Response	NRA PHC, DCC, BP	Unknown		●				The group is clarifying responsibilities and actions for response to oil-related pollution in Poole Harbour

5.8. Development Control

We have wide-ranging responsibilities for the protection and enhancement of the water environment, but limited control over land use change and allocation. This is largely the responsibility of local planning authorities through the implementation of the Town and Country Planning Acts, and specifically through the production of statutory Development Plans.

We are a consultee of the local planning authorities, and work with them to ensure that policies to protect and enhance the water environment are included in Development Plans and addressed in our responses to planning applications.

On new road schemes, we specify our requirements to the promoters at an early stage to enable them to be incorporated into the design of the road and implemented during construction.

Issues and Actions	By	Cost	96	97	98	99	00	Notes
25. Impact of development, including road schemes and minerals and waste developments								
25.1. Incorporate flood protection measures in all new developments, as necessary	NRA DoT LPAs Developers		→					
25.2. Incorporate pollution control measures in all new developments, as necessary	NRA DoT LPAs Developers		→					
25.3. Ensure the wildlife and landscape of river corridors are protected and enhanced in all new developments, as necessary	NRA DoT LPAs Developers		→					
25.4. Implement NRA Policy and Practice for the Protection of Groundwater	NRA		→					

APPENDIX 1: GLOSSARY OF TERMS

BC	Borough Council
BP	British Petroleum Plc
CMP	Catchment Management Plan
CSO	Combined Sewer Overflow
DC	District Council
DCC	Dorset County Council
DoE	Department of the Environment
DoH	Department of Health
DoT	Department of Transport
DWT	Dorset Wildlife Trust
EC	European Community
EEC	European Economic Community
EN	English Nature
FAS	Flood Alleviation Scheme
gamma HCH	Lindane
GQA	General Quality Assessment
HNDA	High Natural Dispersion Area
LPA	Local Planning Authority
MAFF	Ministry of Agriculture, Fisheries and Food
NRA	National Rivers Authority
NWC	National Water Council
pa	per annum
PDC	Purbeck District Council
PHSG	Poole Harbour Steering Group
PHC	Poole Harbour Commissioners
Ramsar site	Sites identified by the UK Government under the Convention on Wetlands of International Importance
RE	River Ecosystem
RSPB	Royal Society for the Protection of Birds
RQO	River Quality Objective
RYA	Royal Yachting Association
SAC	Special Area of Conservation (EC Habitat Directive)
SNIFFER	Scottish & Northern Ireland Forum for Environmental Research
SPA	Special Protection Area (EC Birds Directive)
SSFDC	Southern Sea Fisheries District Committee
SSSI	Site of Special Scientific Interest
STW	Sewage Treatment Works
UWWTD	Urban Waste Water Treatment Directive
WLMP	Water Level Management Plan
WWS	Wessex Water Services Ltd

APPENDIX 2: UNITS

MI/d	millions of litres per day
km	kilometre
km ²	square kilometre
£K	thousands of pounds
£M	millions of pounds

APPENDIX 3: REFERENCES

- Biodiversity : the UK Steering Group Report. London, HMSO, 1995. 2 Vols.
- EC Directive concerning the Quality of Bathing Water (76/160/EEC)
- EC Directive on Pollution Caused by the Discharge of Certain Dangerous Substances into the Aquatic Environment (76/464/EEC)
- EC Directive on Freshwater Fish (78/659/EEC)
- EC Directive on the Conservation of Wild Birds (79/409/EEC)
- EC Directive on the Quality Required of Shellfish Waters (79/923/EEC)
- EC Directive concerning Urban Waste Water Treatment (91/271/EEC)
- EC Directive laying down the Health Conditions for the Production and the Placing on the Market of Live Bivalve Molluscs (91/492/EEC).
- EC Directive on Species and Habitats (92/43/EEC)
- The Frome & Piddle Catchment Management Plan Consultation Report, NRA South Western Region, March 1995, SW-3/95-1k-E-ANAO
- The Frome & Piddle Catchment Management Plan Action Plan, NRA South Western Region, February 1996, SW-2/96-0.8k-E-ASZK
- The Poole Harbour & Purbeck Catchment Management Plan Consultation Report, NRA South Western Region, March 1995, SW-11/95-0.8k-E-AQJQ
- Policy and Practice for the Protection of Groundwater. NRA, 1992
- Tomorrow's Water, NRA South Western Region Water Resources Strategy, April 1995, SW-4/95-1k-B-ANOQ
- Salmon Act. London, HMSO, 1986
- Water Resources Act. London, HMSO, 1991

APPENDIX 4: SUMMARY OF PUBLIC CONSULTATION

Approximately 500 Consultation Reports were circulated, and we received 36 responses, including those from:

National Organisations

British Canoe Union
Forestry Authority
Royal Society for the Protection of Birds
Ministry of Agriculture, Fisheries & Food
British Geological Survey
National Association of Water Power Users
Royal Yachting Association
Pure Rivers Society
National Trust
National Farmers Union
English Nature
Friends of the Earth

Regional and Local Organisations

Dorset County Council
Poole Harbour Commissioners
Wessex Water Services Ltd
Dorset Wildlife Trust
Durlston Country Park
Waste Regulation Authority
Society of Poole Men
Swanage Fishermans' Association
Poole & District Fisherman's Association
Southern Sea Fisheries District Committee
Dorset Natural History & Archaeological Society

Parish and District Councils

Purbeck District Council
Corfe Castle Parish Council
West Lulworth Parish Council

Six responses were also received from individual members of the public. Some of the comments and concerns are summarised below.

Water Quality

A number of disparate issues were raised regarding water quality in the catchment. Concern was expressed as to how we determined the level of sewage treatment required considering the enormous influx of tourists in the summer.

Our comment: The population figures used to determine the level of sewage treatment required under the EC Urban Waste Water Treatment Directive take into account seasonal changes in population.

Some consultees were disappointed that the plan identified water quality issues irrespective of nature conservation interest. For example, Kimmeridge issues relate to Bathing Water standards, not to its value as a Marine Nature Reserve.

Our comment: We have certain statutory powers to improve water quality through the Water Resources Act 1991, which includes the regulation of effluent discharges to achieve water

quality targets to meet the requirements of EC Directives and other international commitments. This includes water quality targets for freshwater fisheries, bathing waters, shellfish waters, controlling dangerous substances and Annex 1A substances. However, to date, we have no specific water quality targets for the protection of nature conservation interest alone. The EC is proposing the development of a new Directive setting out water quality targets for ecological quality throughout the Communities' waters.

Several respondents identified problems associated with discharges from boats, particularly those moored just offshore at Studland. Both the RYA and PHC identified the need to negotiate an appropriate method of resolving this problem, and emphasised the value of publicising it to boat owners.

Our comment: We have no powers to regulate discharges from boats in coastal waters; Poole Harbour Commissioners have some powers within the Harbour through their byelaws. We will contribute to the resolution of these problems by discussion with Poole Harbour Commissioners and liaison with boating organisations.

Recreation

The need for improved recreational access was clearly identified, with canoeing seen as a particularly appropriate form of access. Other respondents identified that improved access must not be at the cost of conservation.

Our comment: There will be a Regional review of canoeing in this and other catchments in 1996. We will also collaborate over recreational provision in Poole Harbour through our work with the Poole Harbour Steering Group.

Fisheries

The importance of commercial fisheries in both the Harbour and in the coastal waters was raised by several respondents, and particular emphasis was placed on the importance of water quality for shell fisheries. Concern was expressed about the use of gill nets in the Harbour, and about the extent of bait digging.

Our comment: We recognise the importance of commercial fishing, and will continue to liaise with the appropriate bodies, primarily Southern Sea Fisheries District Committee, wherever appropriate. Appendix 5 gives a fuller description of the sea fishery in this catchment. We have a National R&D project to investigate the relationship between the levels of bacteria in shellfish and water quality.

Conservation

The importance of conservation issues in this catchment was raised by many respondents, with concerns being expressed about archaeology and landscape, but particularly wildlife. The need for clear statements of intent from the NRA regarding its willingness to set and achieve biodiversity targets was identified, as was the need to clarify our responsibilities under the EC Habitats Directive.

Our comment: We are working to identify the most effective way in which we can contribute to conservation in the catchment

through the Biodiversity Initiative and the EC Habitats Directive. When specific targets and actions have been identified, they will be published through the Annual Reviews of this Catchment Management Plan.

Coastal Zone Management

The need for a unified, co-ordinated approach to coastal zone management was clearly identified in many responses.

Our comment: We support the concept of integrated coastal zone management, and are working with the two lead bodies in this catchment, Bournemouth BC and Weymouth & Portland BC, in the development of Shoreline Management Plans. We are also members of the Dorset Coast Forum and Poole Harbour Steering Group.

Flood Alleviation and Control

Many respondents identified concerns regarding the possible nature of the proposed flood defence scheme for Town Quay, Poole, particularly with respect to aesthetic and navigational considerations.

Our comment: We recognise the sensitivity of developments in this area, and are currently evaluating a range of options, including, amongst others, a wall along the existing Quay and an offshore breakwater. Whichever is finally chosen must be environmentally acceptable, economically viable, and technically sound.

Questionnaire

A simple questionnaire was sent out to 150 individuals who had requested copies of the Plan but had not made a formal response. The questionnaire was distributed at the end of the consultation period, and constraints on time meant that we could only allow two weeks to collect responses. Despite this, we still received 24 responses.

Of the 24 responses, 21 agreed with our Vision Statement, and 18 considered that all the Issues had been addressed. Eleven found the Plan *Easy to Read*, a further eleven found it *Moderate*, and only two found it *Difficult to Read*.

The Most Important Issues identified included: Integrated Management of the Coastal Zone, Impact of Sea Outfalls, Integrated Coastal Defence Strategy, and Whether Poole Harbour is a Sensitive Area under UWWTD.

The respondents generally found it more difficult to identify the *Least Important Issues*, but the following were indicated: *Knowledge of Non-Salmonid Migratory Fish, Operation of Green Gardens FAS, Flood Protection at Town Quay Poole, Licensing of the Eel Fishery, and the Operation of Swanage FAS.*

Further concerns identified by respondents included: protection of stream flow from the effects of abstraction at Lulworth, the need for more geological information, gill netting in Poole Harbour, the absence of an RQO for the River Swan, and the likely cost of improving water quality at Kimmeridge.

APPENDIX 5: SEA FISHERIES IN THE CATCHMENT

The sea fishing industry in this catchment is important to the local economy.

Within Poole Harbour, the shellfish layings are the most important fishery element, producing a harvest worth £1.5M to £2M per annum. The mussels which make up the bulk of these layings are fished from a ground off Portland.

The second biggest element of the fishery within the Harbour is that involving drift and ring-netting for mullet. Six boats depend on this fishery entirely, while up to ten more are partly dependent. The Harbour is a nursery area for young sea fish of several species, including bass, plaice and sole; it is a designated statutory Nursery Area for bass.

Outside the Harbour in the coastal waters west of Studland, important fisheries exist for lobster, brown, spider and velvet crab. These fisheries extend along the whole of the coastal area and many miles out into the Channel.

Trawling for mixed species takes place between Kimmeridge and Lulworth out to the 12 mile limit. A little trawling takes place within Studland Bay for mixed species, and an important sand eel fishery exists just outside the Harbour mouth, on the Hooke Sands.

Important commercial bass fisheries based on rod-and-line tackle extend from the Harbour entrance as far west as St. Aldhelm's Head.

Finally, mention should be made of bait dragging, which takes place only within the Harbour. This is not technically a form of fishing as it takes place to harvest the ragworm from the Harbour mud. The activity appears to be unique to Poole, and it helps to support a number of small vessels.

APPENDIX 6: ORGANISATIONS WITH STATUTORY RESPONSIBILITIES ON THE COAST

Department of the Environment	General policy responsibility for environmental matters; responsibility for town and country planning which regulates the development and use of land in the public interest, and for landscape and wildlife conservation
Department of National Heritage	General policy responsibility for our national heritage including listed buildings, scheduled ancient monuments and historic wreck sites; sport and recreation policy including water sports in particular and coastal recreation in general; policy responsibility for domestic and inward tourism, including interests in seaside resorts and waterfront areas
Department of Trade & Industry	Planning matters affecting both public and private sector industries; the exploitation of industrial mineral resources; the exploitation of coal resources; the licensing of oil and gas exploration and production; the development of coastal power stations
Department of Transport	All aspects of marine safety, including safety of navigation throughout UK waters; responsibility for harbour authorities
Ministry of Agriculture, Fisheries & Food	Responsibilities on the coast include fisheries management and regulatory powers over the disposal of wastes at sea; developments below the high water mark require a licence from MAFF under Part II of the Food and Environmental Protection Act 1985; policy responsibility for flood defence and coast protection in England
Crown Estate Commissioners	Landlords of much of the foreshore and seabed with responsibilities to maintain and enhance the value of the estate and the return obtained from it, but with due regard to the requirements of good management
Poole Harbour Commissioners	The competent Harbour Authority, exercising navigational control of the water area; owners and operators of the port, and have powers to create byelaws and issue licences which control activities on the water and permit works and moorings within the Harbour limits.
Local Authorities	County and District Councils have many duties and powers which may affect the coast, in particular the control of developments through the planning system. In addition, the Government has proposed that local authorities should take the lead in preparing coastal zone management plans
English Heritage	Responsibility for historic buildings, monuments and archaeology
English Nature	The statutory advisor to the Government on nature conservation in England, responsible for promoting the conservation of wildlife and natural features, including the selection, establishment and management of National Nature Reserves and Marine Nature Reserves; the identification and notification of Sites of Special Scientific Interest; the provision of advice about nature conservation; the support and conduct of research relevant to these features; administration of proposed Special Areas of Conservation
Countryside Commission	Landscape conservation; advises local authorities on where to define Heritage Coast, works with local authorities and others to implement landscape protection and improvement policies, to safeguard existing opportunities for public access and recreation and to provide new ones
Health & Safety Executive	All significant matters relating to health and safety, including development, at or near to a harbour area
HM Inspectorate of Pollution	Control of land-based pollution of coastal waters; regulation of pollutants for land and air. Will join with NRA to become part of Environment Agency on 1 April 1996

National Rivers Authority	Management of inshore coastal water quality, having statutory responsibilities relating to the environmental quality of controlled waters; overall supervisory responsibility for flood defence and a large number of sea defences and some tidal barriers; conservation and recreation responsibilities in coastal waters and land associated with such waters; maintaining, improving and developing fisheries in freshwaters, and for migratory salmonids and eels in coastal waters
Sports Council	Sport and recreation; through the Regional Councils for Sport and Recreation which act as a forum for discussion; strategic guidance for sport and recreation in coastal areas
Regional Tourist Board	Proposals likely to relate to matters covered by regional tourism, including development strategies
Water Companies	Water and sewerage service generally and retention, treatment or disposal of sewage, trade waste or sludge
Port Authorities	Statutory duties controlling all major ports and some developments in port areas; responsible for navigation and discharges within port areas
Sea Fisheries District Committee	Coastal fisheries enforcement for species other than migratory salmonids and eels; funded by local government