

RIVER PLYM

CATCHMENT ACTION PLAN



NRA

*National Rivers Authority
South West Region*

C O N T E N T S

MAP OF NRA SW REGION SHOWING TARGET CATCHMENT

- | | | |
|----|-------------------------------|------------|
| 1. | INTRODUCTION | PAGE 1 |
| 2. | ROUTINE SERVICES | PAGE 1 - 2 |
| 3. | CHALLENGES & PROPOSED ACTIONS | PAGE 3 |

APPENDIX 1 - CATCHMENT MAPS

APPENDIX 2 - NRA DUTIES, POWERS AND TARGETS

ENVIRONMENT AGENCY



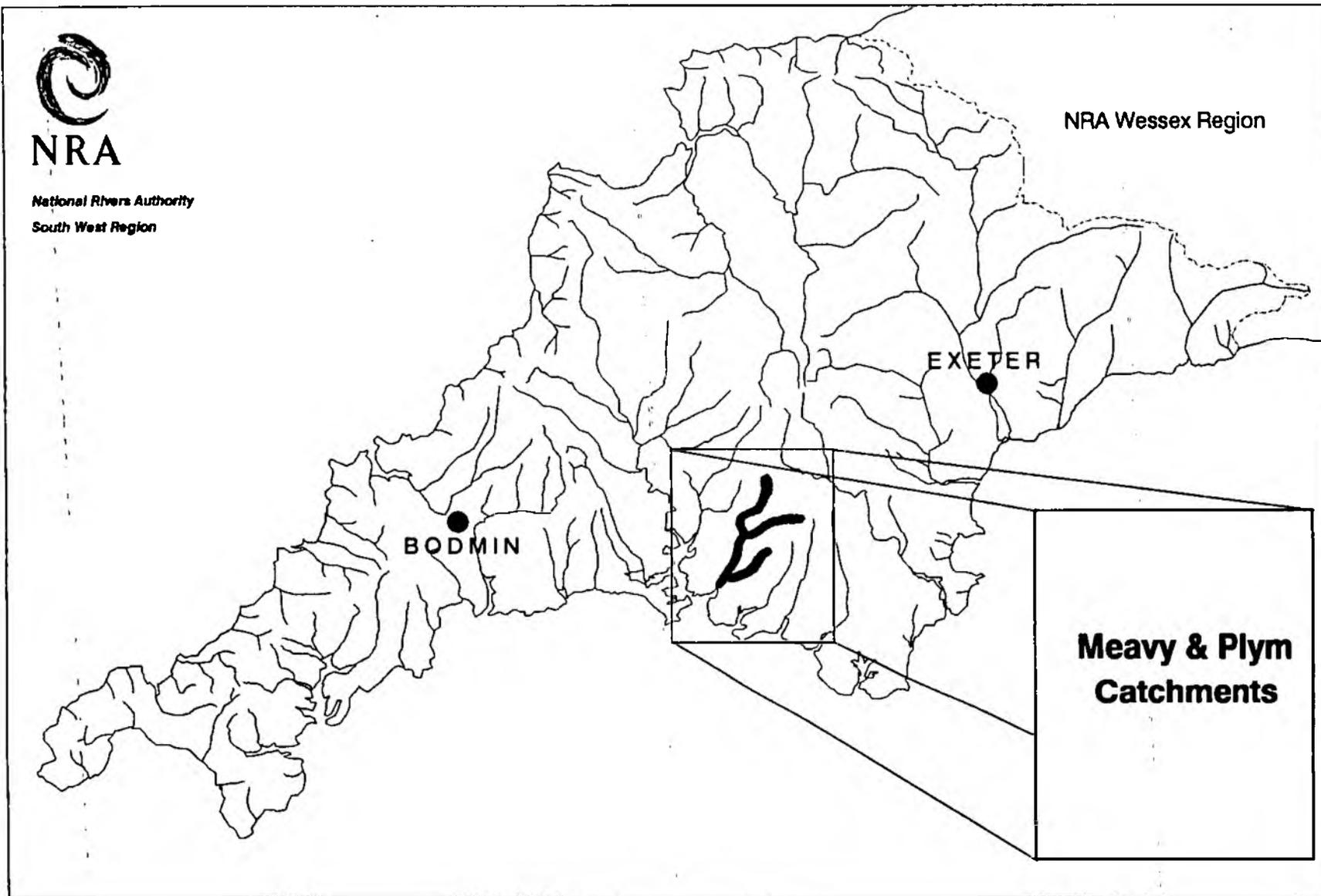
125132

National Rivers Authority South West Region



NRA

*National Rivers Authority
South West Region*



1. INTRODUCTION

CATCHMENT ACTION PLANS are designed to be a simple, practical means of directing resources to achieve environmental improvements on a priority basis, between and within catchments. They set out the essential routine tasks, and a five year programme of specific actions for each catchment to meet regional and national targets. Changes may occur where unplanned work such as an extreme drought requires priority.

The NRA has inherited a legacy of environmental challenges arising from the use and abuse of our natural resources. Although significant progress has already been made it will be many years before all the work needed can be assessed, funded and carried out.

To achieve the environmental objectives will require not just the clear, vigorous direction of the NRA towards priority work but the help and support of the whole community.

The NRA has consulted with the Regional Advisory Board and Advisory Committees and the local interests about the draft action plans and the format is the outcome of those discussions.

Progress to achieve the Action Plan objectives will normally be reviewed on an annual basis but more frequently where severe problems have been identified.

2. ROUTINE SERVICES

Despite the fact that the NRA is largely a reactive, regulatory body it is possible to plan for much of the environmental protection work even the fact that unpredictable events will occur!

Much of the routine workload such as monitoring, enforcement of statutes and dealing with pollution and flooding incidents needs to have clear priority to ensure that it is dealt with to satisfactory standards throughout the region.

This essential work is carried out according to need in all catchments.

The NRA SW handles over 3000 pollution incidents a year, the majority of which are reported by members of the public. Many are attended within minutes and most within a few hours. In some cases major operations are undertaken to control the pollution and minimise impact on the environment.

Several thousand routine inspections of industrial premises, farms, weirs, fish passes and treatment works are also undertaken. In many cases improvements are required to minimise the risk of pollution or to ensure protection of fish and conservation of the water environment.

As part of the overall environmental protection exercise many flood defence schemes and thousands of planning applications are screened; hundreds of farm pollution grant proposals and effluent discharge applications are processed each year. Many new or varied abstraction licences and drilling consents are also processed to protect surface and underground waters.

Each year about 67,000 samples of rivers, lakes, ground and tidal waters and effluents are taken. Around 1.25 million chemical tests are made on these samples to ensure water quality standards are met and to identify where enforcement action is needed.

In addition detailed studies of samples of invertebrates, fish, algae and plants are undertaken to provide information on the status of the aquatic communities and to test the accuracy of the conclusions of chemical monitoring.

The key abstractions, discharges and monitoring sites for this catchment are marked on map(s) in Appendix 1.

Routine regulatory action is taken to ensure the conditions of thousands of discharges, abstractions and other legal requirements are enforced and illegal fishing is curtailed.

The NRA SW also handles many hundreds of letters and enquiries for information from the Water Act Register and provides press releases, reports and other information to a wide range of interests in the community.

RIVER PLYM CATCHMENT ACTION PLAN

3. CHALLENGES AND ACTIONS

The River Plym drains a catchment area to the east of Plymouth and the Tamar and shares a joint estuary. There is significant impoundment and abstraction in the headwaters but a healthy fish population.

The aims of the plan are to improve fish stocks to pre-1980 levels, extend the range of salmon spawning, ensure healthy fish production is maintained, achieve water quality objectives, review water abstraction arrangements and enforce pollution and water resources legislation.

Functional officers have identified the main challenges to the achievement of environmental objectives. Where solutions are clear they have been programmed. In other cases further investigations are needed to determine the way forward.

<u>ACTION</u>	<u>TIMETABLE</u>				
	1991	1992	1993	1994	1995
<u>FISHERIES</u>					
Enforce and monitor fixed net legislation.					
Enforce and monitor netting ban for sea fish in estuary.					
Consider byelaw to stop snatching for sea fish in tidal waters (DSF).					
Survey all weirs and fish passes. Plan and implement fish pass installation and improvements.					
Survey for trash dams/plan/clearance.					
Plan and implement spawning gravel rehabilitation R Meavy.					
Ensure control of sand erosion upstream Cadover Bridge.					
Investigate and take remedial action to prevent loss of smolts at Ditsworthy Warren Leat.					

ACTION

TIMETABLE

1991 1992 1993 1994 1995

Review fisheries protection arrangements for Burrator releases and promote increase in prescribed flow for fisheries purposes

Programme to be determined

Annual juvenile fish population surveys Meavy and regular full surveys.

Assess acid run-off effects on fish from moorland and forestry areas.

Annual redd count particularly Meavy and upstream Cadover Bridge.

Assess effects of Power Station re-opening on migratory fish.

Survey possible fish counter site.

Continue experiments to introduce salmon to Cad.

POLLUTION CONTROL

Carry out review of water quality in the catchment.

Followed by investigation of causes of non-compliance with water quality objectives and task force programme of remedial action.

Develop catchment quality model using QUASAR.

Prepare catchment description.

ACTION

TIMETABLE

1991 1992 1993 1994 1995

Assess impact of acidic run-off on water quality in headwaters of the catchment and take appropriate action where possible.

Pre and post scheme appraisal of SWW Services Ltd STW's capital improvement programme.

Review consent for china clay discharges and ensure remedial action is taken.

Develop estuary water quality management plan.

Determine deemed discharge consents.

Baseline water quality survey of groundwater to establish:

a) suitability for potable use.

b) extent of contamination by substances controlled by EC directives.

WATER RESOURCES

Review operating arrangements for Burrator reservoir including inter-catchment transfer via Devonport leat and take appropriate action.

Review Ditsworthy Leat abstraction arrangements and promote remedial action.

ACTION

TIMETABLE

1991 1992 1993 1994 1995

Re-open Carnwood river
gauging station.

Construct on River
Gauging Station on the
River Meavy

1991	1992	1993	1994	1995

_____		-----		

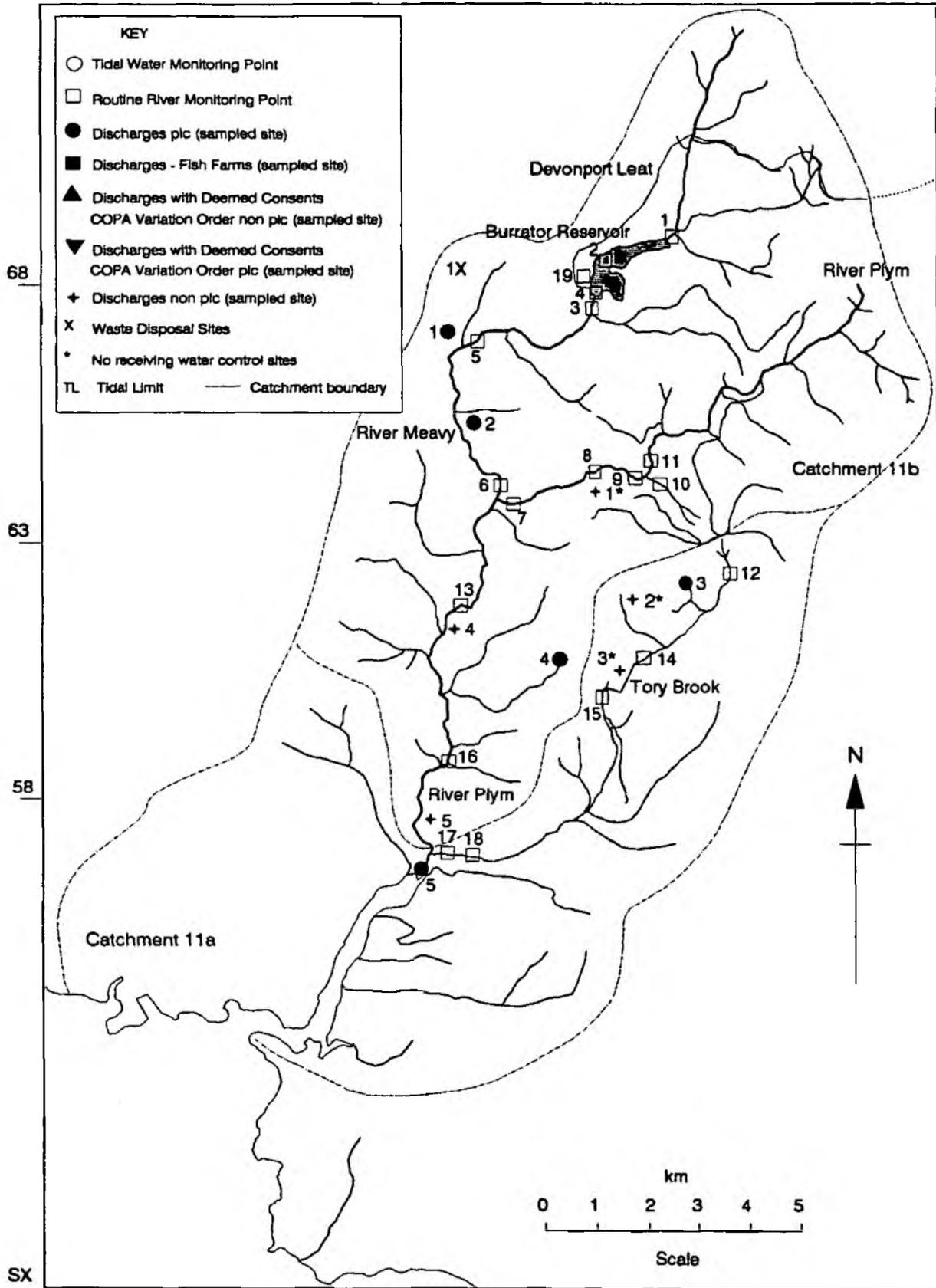
APPENDIX 1

CATCHMENT MAPS

KEY

- Tidal Water Monitoring Point
- Routine River Monitoring Point
- Discharges plc (sampled site)
- Discharges - Fish Farms (sampled site)
- ▲ Discharges with Deemed Consents - COPA Variation Order non plc (sampled site)
- ▼ Discharges with Deemed Consents - COPA Variation Order plc (sampled site)
- + Discharges non plc (sampled site)
- X Waste Disposal Sites
- TL Tidal Limit
- * No receiving water control sites

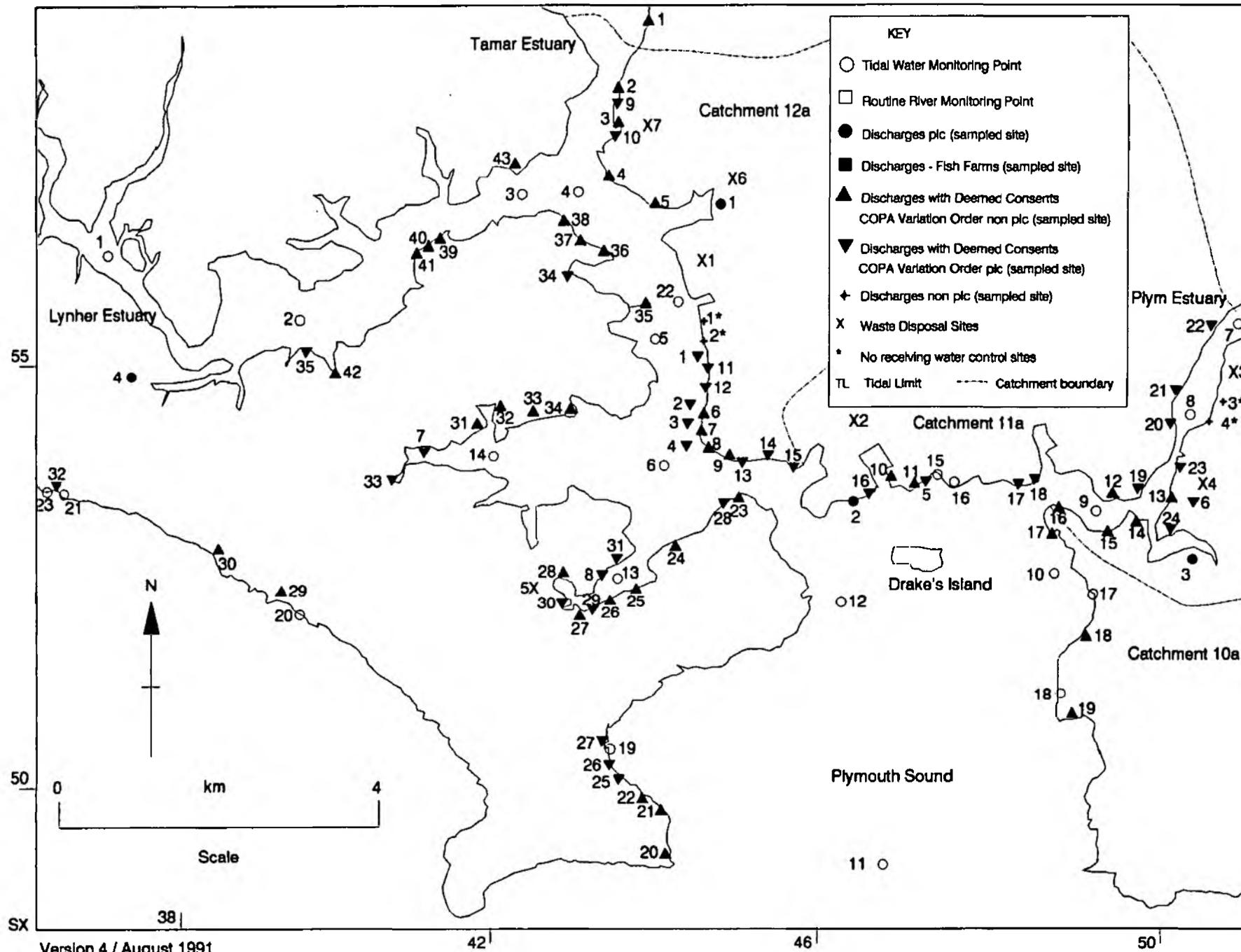
Meavy & Plym Catchments 11A & 11B



MEAVY & PLYM CATCHMENTS 11A & 11B

NO	REFERENCE	NGR	LOCATION	ADDITIONAL DETAILS
DISCHARGES NON PLC				
1*	P11B/P/9	SX55806450	Shaugh Lake	China clay works
2*	P11A/P/14	SX56206120	Lee Moor Plant	CP 38/6 China clay works
3*	P11A/P/4	SX55846020	Portworthy Dam	China clay works
4	P11B/P/1	SX52206160	Bickleigh	Sewage treatment works
5	P11B/P/6	SX52005750	Marsh Mills	CP 39/1 China clay works
DISCHARGES PLC				
1	WSTW4594FE	SX52446678	Gratton	Sewage treatment works
2	WSTW4544FE	SX52606560	Clearbrook	Sewage treatment works
3	WSTW4650FE	SX57286151	Lee Moor	Sewage treatment works
4	WSTW4830FE	SX55526148	Wotter	Sewage treatment works
5	WSTW4728FE	SX52005630	Marsh Mills	Sewage treatment works Red list site Paris commission site
WASTE DISPOSAL SITES				
1	11GJ	SX527681	Higher Lake Farm, Dousland	
ROUTINE RIVER MONITORING				
1	R11B008	SX56696925	Weir/Burrator Res	Chemical/biological site
2	R11B028	SX55516856	Burrator Res	Chemical site Freshwater Fish Directive
3	R11B009	SX55146791	Below Burrator Res	Chemical/biological site
4	R11B029 R11B030 R11B031	SX551680	Burrator Reservoir	EC Surface water abstraction directive monitoring site
5	R11B010	SX551680	Burrator Reservoir	Algological site
6	R11B011	SX52956704	Gratton Ford Bridge	Chemical/biological site
7	R11B004	SX53306375	Confluence/R Plym	Chemical/biological site Freshwater Fish Directive
8	R11B003	SX53356368	Shaugh Bridge	Chemical/biological site
9	R11B002	SX55566465	Cadover Bridge	Chemical/biological site Freshwater Fish Directive
10	R11B007	SX56396450	Below Blackabrook	Chemical/biological site
11	R11B001	SX56466441	Blackabrook	Chemical/biological site
12	R11A001	SX56486446	Above Blackabrook	Chemical/biological site Dangerous Substances Directive
13	R11B018	SX57866173	Tolchmoor Bridge	Chemical/biological site
14	R11A002	SX52706181	Bickleigh	Chemical/biological site
15	R11A003	SX56556075	Coleland Bridge	Chemical/biological site
16	R11B006	SX55656008	Portworthy Bridge	Chemical/biological site Chemical/biological site Red list site Freshwater Fish Directive Dangerous substances site Harmonised monitoring point
17	R11A005	SX52375867	Plym Bridge	Chemical/biological site
18	R11A004	SX52755660	Marsh Mills Bridge	Chemical/biological site
19	R11B032	SX53925655	Station Rd Plympton	Chemical/biological site
		SX55006837	Devonport Leat	EC Surface water abstraction directive monitoring site

Lower Tamar Estuary 11A & 12A



LOWER TAMAR ESTUARY 11A & 12A

NO	REFERENCE	NGR	LOCATION	ADDITIONAL DETAILS
DISCHARGES NON PLC				
1*	OUT4939	SX44405630	Devonport Dockyard	Site for current dangerous substances
2*	OUT4937	SX44505620	Devonport Dockyard	Site for current dangerous substances Red list site
3*	P11A/P/45	SX50405450	Chelson Meadow	Landfill site
4*	P11A/P/12	SX50505440	Plymstock	Cement works STW
DISCHARGES PLC				
1	WSTW4722FE	SX44505712	Camels Head	Sewage treatment works Site for current and proposed dangerous substances Red list site Paris commission site
2	OUT4940	SX46715346	Eastern Kings	Outfall Site for current dangerous substances
3	WSTW4726FE	SX50195283	Radford	Sewage treatment works Red list site
4	WSTW4765FE	SX37405490	Sheviock	Sewage treatment works
DISCHARGES WITH DEEMED CONSENTS - COPA VARIATION ORDER NON PLC				
1	P12A/P/146	SX44015926	Ernesettle Plymouth RNAD	
2	P12A/P/58	SX43725872	Ferndale Saltash Passage	
	P12A/P/59	SX43705851	900/902 Wolseley Rd	
	P12A/P/100	SX43655860	891 Wolseley Rd	
	P12A/P/61	SX43705849	898 Wolseley Rd	
	P12A/P/69	SX43705852	904/906 Wolseley Rd	
3	P12A/P/60	SX43615818	863 Wolseley Rd	
	P12A/P/70	SX43605840	885 Wolseley Rd	
	P12A/P/71	SX43605832	865/867 Wolseley Rd	
4	P12A/P/145	SX43415761	RNAD Bullpoint	
5	P12A/P/155	SX43895731	RNAD Bullpoint	
6	P12A/P/111	SX44875508	Morice Yard Devonport	
	P12A/P/112	SX44785501	Morice Yard Devonport	
	P12A/P/128	SX44745503	Morice Yard Devonport	
7	P12A/P/113	SX44785492	Morice Yard Devonport	
	P12A/P/129	SX44735480	Morice Yard Devonport	
8	P12A/P/114	SX44735467	South Yard Devonport	
	P12A/P/115	SX44725465	South Yard Devonport	
	P12A/P/116	SX44705459	South Yard Devonport	
	P12A/P/117	SX44705452	South Yard Devonport	
	P12A/P/118	SX44695443	South Yard Devonport	
	P12A/P/119	SX44685433	South Yard Devonport	
	P12A/P/120	SX44785421	South Yard Devonport	
	P12A/P/121	SX44815433	South Yard Devonport	
	P12A/P/131	SX44825407	South Yard Devonport	
	P12A/P/122	SX44805414	South Yard Devonport	
	P12A/P/123	SX44875404	South Yard Devonport	

LOWER TAMAR ESTUARY 11A & 12A (cont)

DISCHARGES WITH DEEMED CONSENTS - COPA VARIATION ORDER NON PLC

9	P12A/P/124	SX44995398	South Yard Devonport
	P12A/P/125	SX45015395	South Yard Devonport
	P12A/P/126	SX45115393	South Yard Devonport
	P12A/P/127	SX45155393	South Yard Devonport
	P12A/P/130	SX45025392	South Yard Devonport
10	P11A/P/92	SX47015360	Millbay Pier
11	P11A/P/48	SX47755360	Hoe Swimming Pool
12	P11A/P/18	SX49085357	Cattewater Harbour
13	P11A/P/100	SX50105385	DWO Depot
14	P11A/P/98	SX49445323	Turnchapel
15	P11A/P/90	SX49055317	Mountbatten
16	P11A/P/89	SX48955323	Mountbatten
	P11A/P/85	SX48825305	Mountbatten
	P11A/P/86	SX48705310	Mountbatten
17	P11A/P/88	SX48615337	Mountbatten
	P11A/P/87	SX48585337	Mountbatten
18	P10A/P/29	SX49155196	Fort Stadden
19	P10A/P/28	SX48675070	Fort Bovisand
20	P12A/P/49	SX44334890	Penlee Point Fog signal station
21	P12A/P/153	SX44134949	Pier Cellars
22	P12A/P/151	SX44074957	Pier Cellars
	P12A/P/152	SX44104955	Pier Cellars
23	P12A/P/55	SX45305350	Cremyll Shipyard
24	P12A/P/52	SX44505290	Bay Cottage & Mount Edgcumbe Fm
	P12A/P/53	SX44505310	Empacombe House
	P12A/P/54	SX44605310	Empacombe Cottage
25	P12A/P/51	SX43705240	1-3 Wood Park Cottages
	P12A/P/74	SX43825231	Weir Cottage Millbrook
	P12A/P/75	SX43825231	3 Weir Cottages
	P12A/P/96	SX43765225	Sprindthrift Lower Anderton
26	P12A/P/73	SX43535220	Woodpark Millbrook
27	P12A/P/57	SX43175224	1 Foss Cottage
28	P12A/P/50	SX42905250	Mill Fm Mill Lane
29	P12A/P/95	SX39865198	Chalets at Freathy
30	P12A/P/154	SX38255280	Tregantle Fort
31	P12A/P/33	SX42005456	HMS Raleigh Fire Pan
32	P12A/P/147	SX42205462	HMS Raleigh
33	P12A/P/148	SX4275448	HMS Raleigh
34	P12A/P/149	SX42905450	HMS Raleigh
35	P12A/P/150	SX44105592	Yonderbury Point
36	P12A/P/92	SX43475643	1-4 Pato Point Wilcove
37	P12A/P/101	SX43255675	Point Bullock Diamond Works
38	P12A/P/76	SX43295670	Point Bullock Diamond Works
	P12A/P/80	SX43295667	Cove Lodge Defiance site
39	P12A/P/93	SX41505689	Jupiter Point Ctge Nr Antony
40	P12A/P/156	SX41305660	Antony House Torpoint
41	P12A/P/56	SX41135655	Antony House Torpoint
42	P12A/P/77	SX40195517	Clift, Antony
43	P12A/P/94	SX42955769	1-3 Wearde Quay, Cliff Ctge Maryfield View, Weare

LOWER TAMAR ESTUARY 11A & 12A (cont)

DISCHARGES WITH DEEMED CONSENTS - COPA VARIATION ORDER PLC

1	OUT4972	SX44565590	St Levan Road	Outfall Site for current and proposed dangerous substances
2	OUT4922	SX44735535	Albert Road	Outfall Site for current dangerous substances
3	OUT4952	SX44775498	Marlborough Street	Outfall Site for current dangerous substances
4	OUT4942	SX44655420	Edinburgh Street	Outfall Site for current dangerous substances
5	OUT4978	SX47195335	West Hoe	Outfall Site for current and proposed dangerous substances
6	WSTW4720FE	SX50105402	Billacombe	Red list site Sewage treatment works Site for current dangerous substances
7	WSTW4786FE	SX41465405	Torpoint (Trevol)	Sewage treatment works Site for current and proposed dangerous substances
8	OUT4920	SX30269909	Millbrook	Outfall Site for current dangerous substances
9	OUT4964	SX43685865	Normandy Hill	Outfall
10	OUT4968	SX43655844	St Budeaux Wharf	Outfall
	OUT4951	SX43615841	Little Ash Gardens	Outfall
11	OUT4962	SX44785525	Pottery Road	Outfall
12	OUT4936	SX44795469	Cornwall Street	Outfall
13	OUT4956	SX45295394	Mutton Cove	Outfall
14	OUT4954	SX45685398	Mountwise Plymouth	Outfall
15	OUT4958	SX45845386	Ocean Court	Outfall
16	OUT4980	SX46795365	West Millbay	Outfall
17	OUT4934	SX48085365	Citadel	Outfall
18	OUT4926	SX48345360	Fishers Nose	Outfall
19	OUT4953	SX49675359	Prince Rock	Outfall
20	OUT4950	SX50035438	St Judes	Outfall
21	OUT4974	SX50005466	Stenlake Terrace	Outfall
22	OUT4924	SX50425534	Arnolds Point	Outfall
23	OUT4930	SX50065396	Cattedown Wharf	Outfall Site for current dangerous substances
24	OUT4960/1-5	SX499532	Oreston	Five outfalls
25	OUT4911	SX43505015	Cawsand/South	Outfall
	OUT4910	SX43505029	Cawsand/Criterion	Outfall
26	OUT4919	SX43525048	Kingsand/South	Outfall
27	OUT4918	SX43635058	Kingsand/North	Outfall
28	OUT4912	SX45395350	Cremyll	Outfall
29	OUT4921	SX43305220	Millbrook/Anderton	Outfall
30	OUT4917	SX43095222	Millbrook Village	Outfall
31	OUT4986	SX43515261	Southdown B	Outfall
	OUT4987	SX43625261	Southdown C	Outfall

LOWER TAMAR ESTUARY 11A & 12A (cont)

DISCHARGES WITH DEEMED CONSENTS - COPA VARIATION ORDER PLC

32	OUT5064	SX35625366	Portwrinke	Outfall
33	WSTW4756FE	SX40945374	St John	Sewage treatment works
34	OUT4982	SX43205645	Willcove	Outfall
35	WSTW4502FE	SX39605520	Antony	Sewage treatment works

WASTE DISPOSAL SITES

1	11AM	SX448568	North Down Crescent, Plymouth
2	11FT	SX465547	Stonehouse Playing Field, Stonehouse
3	11BZ	SX510548	Chelston Meadow, Plymouth
4	11AN	SX511543	Plymstock Works, Plymouth
5	08NL	SX425525	Millpool, Millbrook
6	11FL	SX457578	Weston Mill, Plymouth
7	11FM	SX447586	Weston Mill Road, St Budeaux

TIDAL WATER QUALITY MONITORING POINT - ESTUARY QUALITY

1	E12A13	SX37455625	By Shevioc Wood	Routine monitoring site
2	E12A11	SX42205735	By Antony Passage	Routine monitoring site
3	E12A12	SX40005600	Mid Estuary	Routine monitoring site
4	E12A7	SX43255730	Off Wilcove	Routine monitoring site
5	E12A6	SX44255580	Dockyard	Routine monitoring site
6	E12A5	SX44505400	Lower Estuary	Routine monitoring site
7	E11A3	SX51355580	By Saltram House	Routine monitoring site
8	E11A2	SX50155436	Laira Bridge	Routine monitoring site
9	E11A1	SX49005340	Cattewater	Routine monitoring site
10	E12A8	SX48305215	Jennycliff Bay	Routine monitoring site
11	E12A3	SX46824950	Plymouth Sound	Routine monitoring site
12	E12A4	SX46505215	Br/Plymouth Sound	Routine monitoring site
13	E12A9	SX43605240	Millbrook Lake	Routine monitoring site
14	E12A10	SX42555425	St Johns Lake	Routine monitoring site

TIDAL WATER QUALITY MONITORING POINT - BATHING WATERS

15	ECB0421	SX475537	Plymouth Hoe/West	EC identified bathing water
16	ECB0420	SX478537	Plymouth Hoe/East	EC identified bathing water
17	B0415	SX49155225	Jennycliff Bay	Non-identified bathing water
18	ECB0410	SX493505	Bovisand Beach	EC identified bathing water
19	B0425	SX43425020	Cawsand Bay	Non-identified bathing water
20	B0426	SX39605205	Whitsand Bay	Non-identified bathing water
21	ECB0430	SX359538	Portwrinkle Beach	EC identified bathing water

TIDAL WATER QUALITY MONITORING POINT - BIOTA SAMPLING

22	SF023	SX44105600	Hamoaze	Bioaccumulation Programme
23	SF002	SX35305390	Port Wrinkle Beach	Bioaccumulation Programme

NRA DUTIES AND POWERS

The Authority has statutory duties and powers in relation to water resources, pollution control, flood defence, fisheries, recreation, conservation and navigation along with various other functions given under the 1989 Water Act.

Whilst most of the Authority's duties and powers are exercised in respect of inland waters in England and Wales, it also has substantial responsibilities for the marine environment around the coast of England and Wales. For pollution control and fisheries purposes it has duties and powers out to distances of three nautical miles and six nautical miles respectively, the six miles being for salmonid protection. For flood defence it is responsible for a large number of sea defences (but not coastal protection which falls within the remit of local authorities).

As well as new duties, the NRA has also inherited other duties and powers under earlier legislation such as the 1963 Water Resources Act, 1975 Salmon and Freshwater Fisheries Act, and 1976 Land Drainage Act.

The Authority also has responsibility for implementing a number of Statutory Instruments, Orders, Notices and Directives relating to the 1989 Water Act. Various European Community Directives on the protection of the aquatic environment eg. Bathing Water Quality, Surface Water Quality, and Freshwater Fishlife also strongly influence its work.

NRA MISSION STATEMENT

The National Rivers Authority will protect and improve the water environment. This will be achieved through effective management of water resources and by substantial reductions in pollution. The Authority aims to provide effective defence for people and property against flooding from rivers and the sea. In discharging its duties it will operate openly and balance the interests of all who benefit from and use rivers, ground waters, estuaries and coastal waters. The Authority will be businesslike, efficient and caring towards its employees.

NRA AIMS

To achieve a continuing improvement in the quality of rivers, estuaries and coastal waters, through the control of water pollution.

To assess, manage, plan and conserve water resources and to maintain and improve the quality of water for all those who use it.

To provide effective defence for people and property against flooding from rivers and the sea.

To provide adequate arrangements for flood forecasting and warning.

To maintain, improve and develop fisheries.

To develop the amenity and recreation potential of waters and lands under NRA control.

To conserve and enhance wildlife, landscape and archaeological features associated with waters under NRA control.

To ensure that dischargers pay the costs of the consequences of their discharges, and as far as possible, to recover the costs of water environment improvements from those who benefit.

To improve public understanding of the water environment and the NRA's work.

REGIONAL PRIORITIES

The overall priority is to continue the improvements which were started in the last year in the following key areas.

WATER RESOURCES

- Develop regional strategy document.
- Improve response to licence applications.
- Establish Water Resources planning forum.
- Progress schemes to ameliorate low flows.
- Implement groundwater protection policy.

POLLUTION CONTROL

- Develop regional strategy document.
- Introduce charging for discharges scheme.
- Implement new consenting policy; begin review of deemed consents.
- Complete 1990/91 survey and consult on water quality objectives.
- Carry out EC Directive requirements.
- Introduce new monitoring programmes for effluents and controlled waters.
- Establish a regional laboratory service.

FISHERIES

- Develop regional strategy document.
- Review licence and other charging schemes.
- Harmonise stock assessment techniques.
- Extend programme of restoration and rehabilitation of fish stocks.
- Increase action to control illegal fishing.
- Submit new fishery byelaws to MAFF for confirmation.

RECREATION

- Continue implementations of Water Act Code of Practice.
- Produce strategy for regional sites.
- Improve cost recovery from the recreation service.

CONSERVATION

- Establish database for regulatory purposes.
- Produce strategy for regional sites.
- Promote conservation schemes.