

RIVER HAYLE

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

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**National Rivers Authority
South West Region**



NRA

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South West Region*

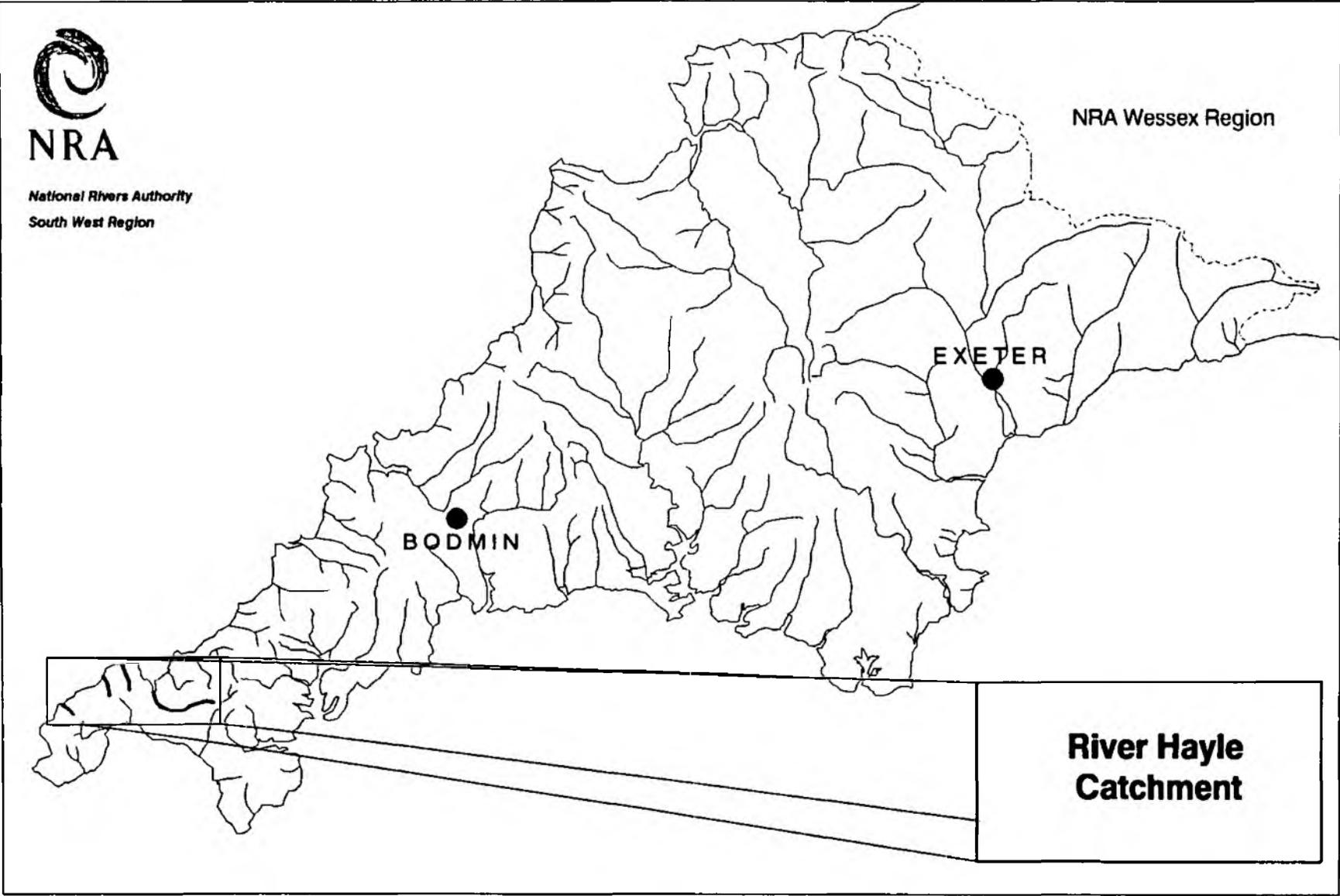
NRA Wessex Region

EXETER

BODMIN

River Hayle Catchment

**River Hayle
Catchment**



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.

3. CHALLENGES AND ACTIONS

The River Hayle Catchment drains an area in west Cornwall with a rich mining history. The catchment includes St Ives, a popular tourist centre, and minor streams to the sea. The River Hayle meets the sea at the once thriving port town of Hayle. Historic mining activity affects the river water quality together with current farming and land use practices. Water is abstracted for public supply at St Erth. A major sewage treatment scheme has been proposed to improve the quality of bathing waters at the popular holiday beaches.

The aims of the plan are to achieve water quality objectives and identify an economic recovery of contaminated land to minimise nuisance and help to develop the potential amenity of the area.

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.

ACTION

TIMETABLE

1991 1992 1993 1994 1995

POLLUTION CONTROL

Review water quality in the catchment.

Investigate causes of non-compliance with water quality objectives and carry out remedial action as appropriate.

Assess importance of Tregembo Marsh in acting as a buffer/sink for contaminants.

Prepare and carry out blue-green algae action plan; identify abundance and diversity of algae.

Prepare Catchment description.

Identify impact of agriculture in the catchment and promote remedial action.

ACTION

TIMETABLE

1991 1992 1993 1994 1995

POLLUTION CONTROL Cont'd

Assess impact of any future SWWS water resources schemes on water quality.

Pre and post scheme appraisal if SWWS capital improvement programme.

Carry out pollution risk assessment for St Erth public water supply abstraction.

Assess impact of historic mining on water quality and carry out remedial action as appropriate.

Develop Hayle estuary management plan.

Review Hayle Harbour Development on water quality.

Determine deemed discharge consents.

Liaise with Environmental Health Officers to identify private potable supplies and develop database.

Baseline survey of groundwater quality to assess:

- a) suitability for potable use
- b) compliance with appropriate E.C. directive standards.

Programme to be determined.

Programme to be determined.

ACTION

TIMETABLE

1991 1992 1993 1994 1995

WATER RESOURCES

Plan, design and install river gauging station in Penberth Stream.

Review impact of mine closures on groundwater levels, audit discharges and catchment drainage patterns.

Review operating agreements at St Erth abstraction.

Review low flow problem sites and promote alleviation schemes for priority sites.

CONSERVATION

Identify potential enhancement areas and implement schemes where appropriate.

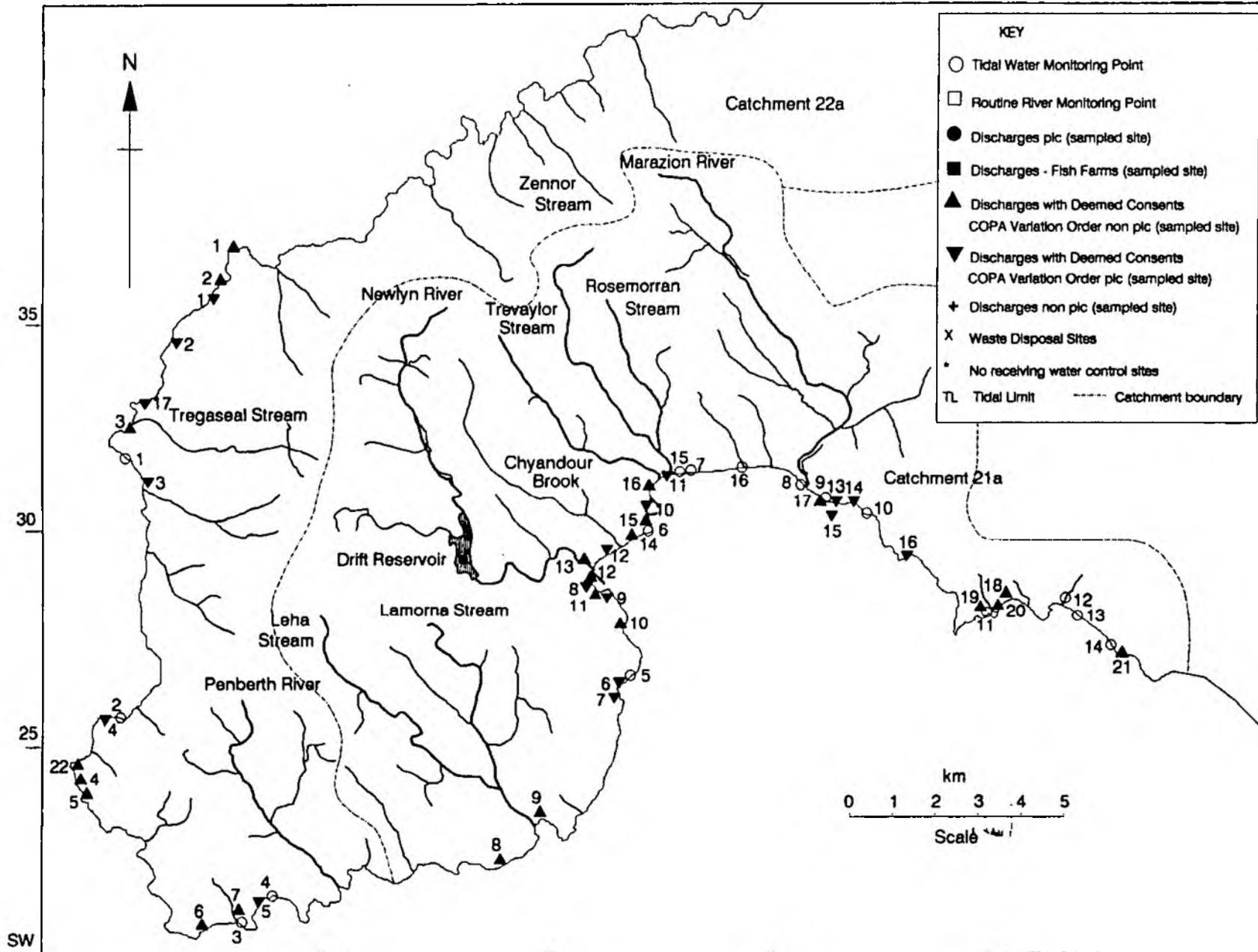
APPENDIX 1

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 with 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

Lands End Streams 21A & 22A (1)



LANDS END STREAMS 21A & 22A (1)

NO	REFERENCE	NGR	LOCATION	ADDITIONAL DETAILS
DISCHARGES WITH DEEMED CONSENTS - COPA VARIATION ORDER PLC				
1	OUT0547	SW37153453	Pendeen	Outfall
2	OUT0502	SW36173311	Botallack	Outfall
3	OUT0586	SW35493100	Cot Valley	Outfall
5	OUT0590	SW34952642	Sennen Cove	Outfall
5	OUT0566	SW38972207	Porthcurno	Outfall
6	OUT0536	SW47072613	Mousehole	Outfall
7	OUT0504	SW46932637	Mousehole Culvert	Outfall
8	OUT0543	SW46362893	Newlyn River	Site for current dangerous substances Outfall
	OUT0541	SW46432906	Newlyn Art Gallery	Outfall
9	OUT0548	SW46702837	Penlee	Outfall
	OUT0505	SW46352855	Opp.Smugglers Hotel	Outfall
10	OUT0550	SW47733039	Albert Pier	Site for current and proposed dangerous substances
	OUT0549	SW47493023	Abbey Basin	Outfall
	OUT0557	SW47583014	Ross Bridge	Outfall
	OUT0559	SW47702995	South Pier	Outfall
	OUT0552	SW47712989	Battery Rocks	Outfall
11	OUT0554	SW48033078	Chyandour	Outfall Site for current and proposed dangerous substances
12	OUT0558	SW46782924	Wherrytown	Outfall Site for current and proposed dangerous substances
13	OUT0507	SW52093043	Castle Gayer	Outfall Site for proposed dangerous substances
14	OUT0506	SW52563041	Chymorvah	Outfall
15	OUT0515	SW51333035	The Gwelva	Outfall
	OUT0532	SW51653009	St Michaels Mount	Outfall
16	OUT0562	SW53522912	Perranuthnoe	Outfall
17	OUT0510	SW35423199	Porthledden Cove	Outfall
DISCHARGES WITH DEEMED CONSENTS - COPA VARIATION ORDER NON PLC				
1	P22A/P/406	SW37703600	Pendeen Lighthouse	
2	P22A/P/414	SW37193493	Geevor Tin Mine	Site for current dangerous substances Redlist site Paris Commission
3	P22A/P/407	SW35303190	The Forge, Cape Cornwall	
4	P22A/P/403	SW34172507	Dr Johnson's Head, Lands End	
5	P22A/P/404	SW34242490	North of Greeb Zawn, Lands End	
6	P22A/P/401	SW37182170	Pendower Cottage, Porthgwarra	
7	P21A/P/432	SW38742202	The Minack Theatre, Porthcurno	
8	P21A/P/431	SW44002300	Tater Du Lighthouse	
9	P21A/P/427	SW45022411	Lamorna Cove(Toilets)	
	P21A/P/428	SW44992415	Gilly Cottage, Lamorna Cove	
	P21A/P/429	SW45022411	Morsylla Cottage, Lamorna Cove	
	P21A/P/430	SW45012410	1,2 Cove Cottages, Lamorna Cove	
10	P21A/P/425	SW47002795	Penlee Quarry(Toilets)	
	P21A/P/426	SW47002795	Penlee Quarry, Newlyn	

LANDS END STREAMS 21A & 22A (1) (cont)

DISCHARGES WITH DEEMED CONSENTS - COPA VARIATION ORDER NON PLC

11	P21A/P/417	SW46602840	South Pier, Newlyn Harbour
	P21A/P/418	SW46502840	Boat Repair Slip, South Pier, Newlyn
	P21A/P/419	SW46722849	South Pier Toilets, Newlyn
	P21A/P/421	SW46342893	Harbour Office, Newlyn
12	P21A/P/420	SW46512877	North Pier Toilets
13	P21A/P/414	SW46302890	Tolcarne Inn, Newlyn
	P21A/P/415	SW46302880	Fish Market, Newlyn
	P21A/P/416	SW46502890	North Pier, Newlyn Harbour
14	P21A/P/409	SW47672986	Bathing Pool, Promenade, Penzance
	P21A/P/410	SW47817996	South Pier (Toilets)
15	P21A/P/408	SW47533011	Dry Dock Premises, Penzance
	P21A/P/411	SW47643012	Buccaneer Shell Shop, Penzance
	P21A/P/412	SW47623011	Dockers Rest, Penzance
16	P21A/P/413	SW47763032	Commercial Premises(Toilets)
17	P21A/P/407	SW51502980	The Castle, St Michaels Mount
18	P21A/P/406	SW55902807	Coastguard Cottages, Prussia Cove
19	P21A/P/404	SW55652794	Cliff Cottage, Prussia Cove
20	P21A/P/405	SW55862795	Porthenalls Hse, Prussia Cove
21	P21A/A/403	SW58902690	Rinsey Head, Helston
22	P22A/P/402	SW34182525	First & Last House, Lands End

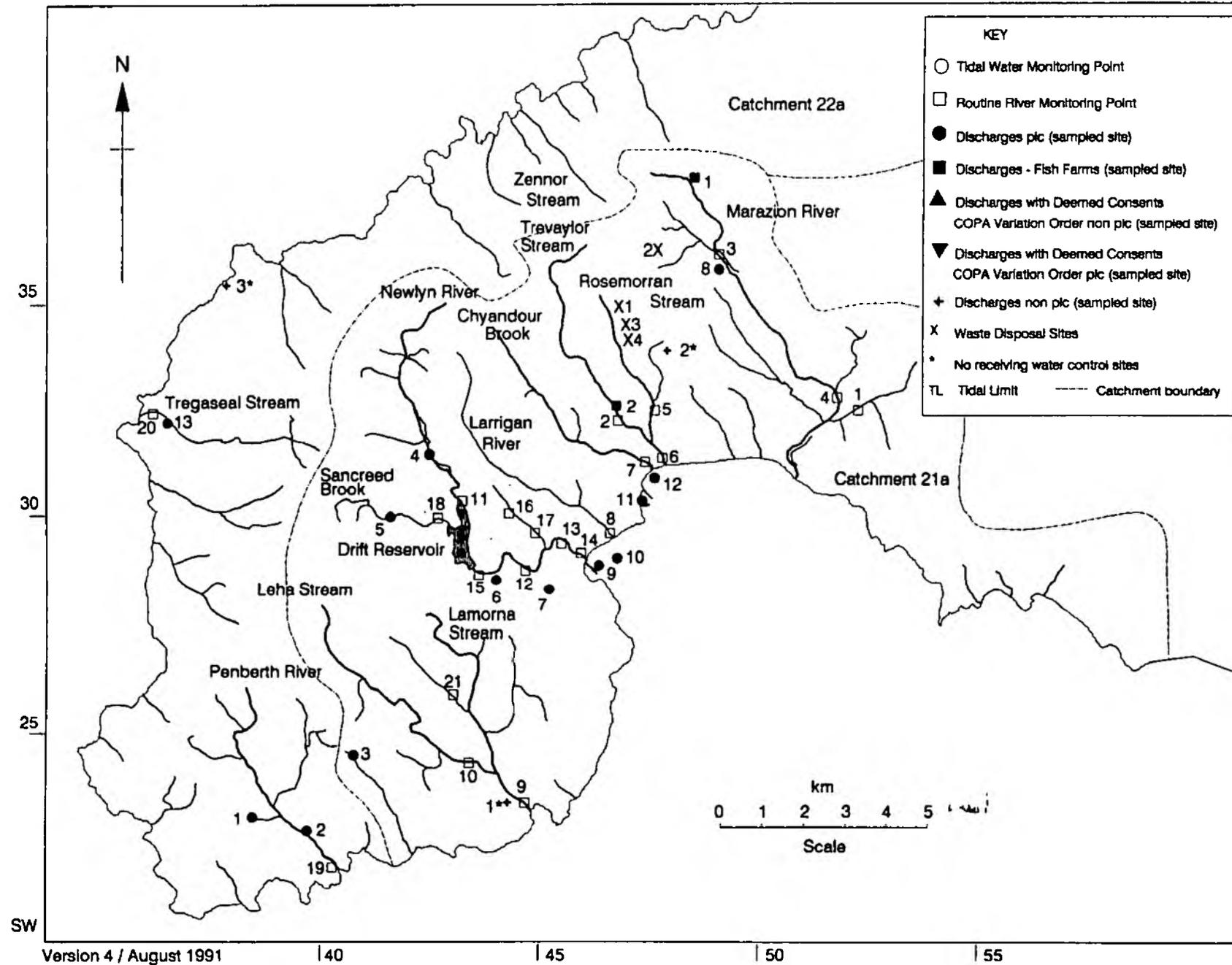
TIDAL WATER QUALITY MONITORING POINT - BATHING WATERS

1		SW35203165	Priests Cove	Non-identified bathing waters
2	ECB0750	SW35522645	Sennen Beach	EC identified bathing waters
3		SW38182186	St Levan Beach	Non-identified bathing waters
4	ECB0740	SW387223	Porthcurno Beach	EC identified bathing waters
5		SW47002630	Mousehole Beach	Non-identified bathing waters
6	ECB0734	SW475298	Penzance	EC identified bathing waters
7	ECB0732	SW485311	Heliport	EC identified bathing waters
8	ECB0731	SW513310	Little Holgus	EC identified bathing waters
	ECBR0730	SW514312	Stream A	Watercourse to beach
9	BO730	SW52103040	Top Tieb	Non-identified bathing waters
10	ECB0720	SW539293	Perran Sands	EC identified bathing waters
11		SW55772785	Prussia Cove	Non-identified bathing waters
12	ECBR0710	SW576283	Praa Stream	Watercourse to beach
13	ECB07011	SW577281	Praa Sands (west)	EC identified bathing waters
14	ECB0710	SW585276	Praa Sands (east)	EC identified bathing waters
15	BO733	SW48003100	Chyandour	Watercourse to beach

TIDAL WATER QUALITY MONITORING POINT - BIOTA SAMPLING

16		SW500310	Longrock
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Lands End Streams 21A & 22A (2)



LANDS END STREAMS 21A & 22A (2)

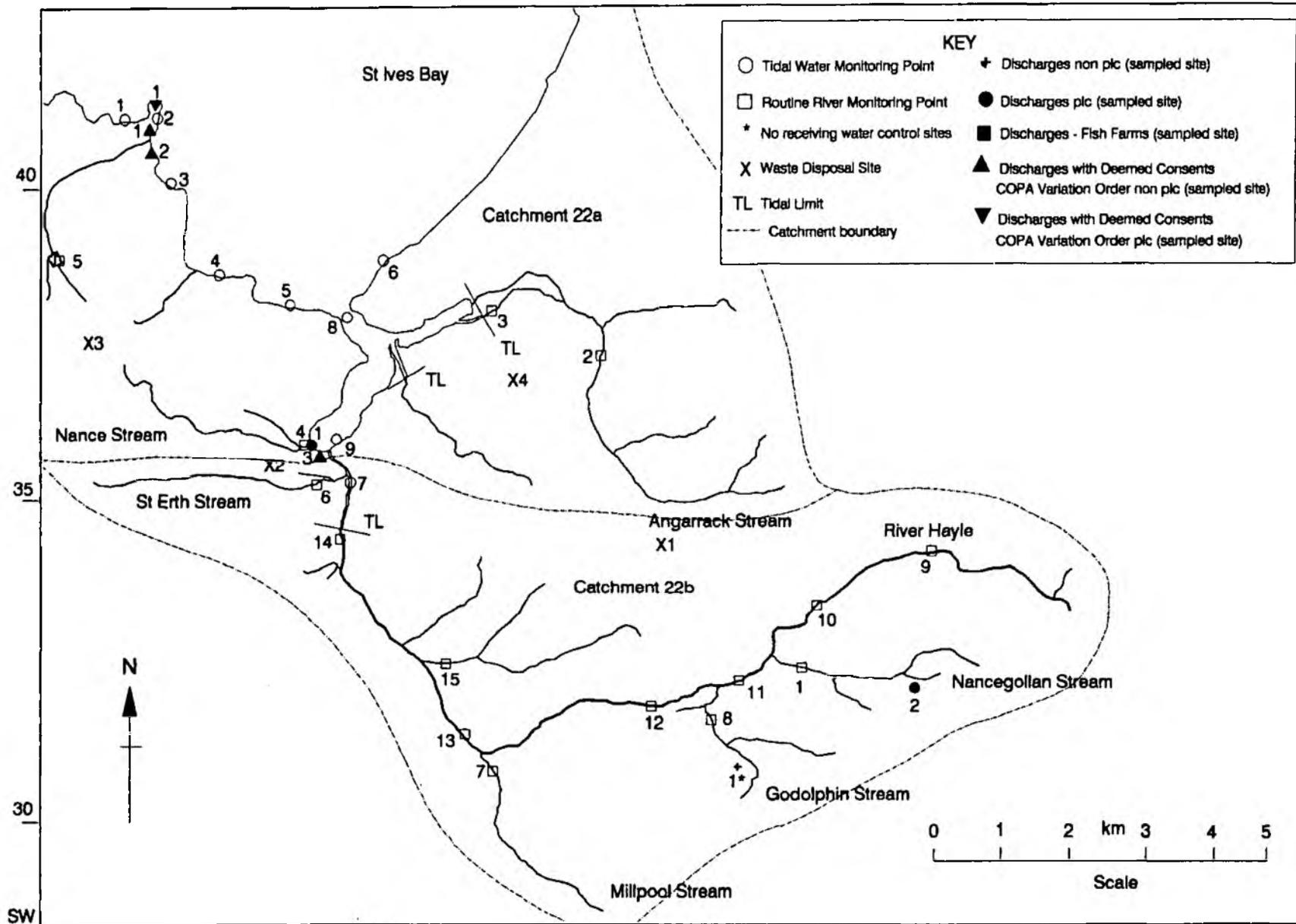
NO	REFERENCE	NGR	LOCATION	ADDITIONAL DETAILS
DISCHARGES NON PLC				
1*	P21A/P/9	SW44862429	Lamorna Hotel	Sewage treatment works
2*	P21A/P/25	SW48803390	Castle An Dinas Qy	Quarry
3*	P22A/P/44	SW37103498	Geevor Tin Mine	Mine Discharge
DISCHARGES PLC				
1	WSTW0176FE	SW38202389	Polgigga	Sewage treatment works
2	WSTW0234FE	SW39292325	Treen	Sewage treatment works
3	WSTW0208FE	SW40802525	St Buryan	Sewage treatment works
4	WSTW0154FE	SW42553148	Newbridge	Sewage treatment works
5	WSTW0218FE	SW41902980	Sancreed	Sewage treatment works
6	WSTW0042FE	SW44002877	Drift	Sewage treatment works
7	WSTW0232FE	SW45392876	Trevadoc	Sewage treatment works
8	WSTW0152FE	SW49723585	Nancledra	Sewage treatment works
9	OUT0543	SW46362893	Newlyn River	Outfall
10	OUT0558	SW46782924	Wherrytown, Penzance	Outfall
11	OUT0550	SW47733039	Albert Pier	Outfall
12	OUT0554	SW48033078	Chyandour, Penzance	Outfall
13	WSTW0235FE	SW36803190	Tregaseal	Sewage treatment works
FISH FARMS				
1	P21A/P/1	SW48403780	Sweetwater Trout Fm	
2	P21A/P/2	SW47403200	Little Rosemorrán, Gulval, Penzance	
WASTE DISPOSAL SITES				
1	08AD	SW470348	Chysauster Farm, Gulval	
2	08AK	SW485363	Middle Georgia Fm, Nancledra	
3	08NX	SW471342	Boscreege Farm, Madron	
4	08PD	SW473340	Trezelah, Gulval	
ROUTINE RIVER MONITORING				
1	R21A026	SW52563213	Gwallon	Chemical/biological site Dangerous Substances Directive
2	R21A022	SW47693180	Trythogga	Chemical/biological site Red list site
3	R21A028	SW49653603	Nancledra	Chemical/biological site
4	R21A002	SW52373247	Truthwell Mill Br	Chemical/biological site
5	R21A021	SW47883220	Kenegie Cottage	Chemical/biological site
6	R21A008	SW48123115	Chyandour	Chemical/biological site Freshwater Fish Directive Tidal water quality point - bathing waters
7	R21A006	SW47853102	Chyandour Brook	Chemical/biological site Freshwater Fish Directive Tidal water quality point - bathing waters
8	R21A007	SW46752945	Wherry Town Bridge	Chemical/biological site Tidal Water Quality Mon Pt.- bathing waters
9	R21A011	SW45022410	Lamorna	Chemical/biological site Freshwater Fish Directive

LANDS END STREAMS 21A & 22A (2)(cont)

ROUTINE RIVER MONITORING

10	R21A015	SW44012524	Trewoofe	Chemical/biological site
11	R21A003	SW43353018	Skimmel Bridge	Chemical/biological site
12	R21A004	SW44752908	Buryas Bridge	Chemical/biological site Dangerous substances control site
13	R21A027	SW45502931	Stable Hobba	Chemical/biological site Dangerous Substances Directive
14	R21A005	SW46252903	Newlyn Bridge	Chemical/biological site Freshwater Fish Directive Red list site Tidal water quality point - bathing waters
15	R21A018	SW43812878	Drift Reservoir	Chemical site Freshwater Fish Directive Algological site EC surface water abstraction directive monitoring site
16	R21A019	SW44613005	Dennis Place	Chemical/biological site Dangerous substances control site
17	R21A020	SW45202928	Prior/Newlyn River	Chemical/biological site Dangerous substances directive
18	R21A017	SW42562975	Little Sellan Br	Chemical/biological site
19	R22A009	SW401229	Penberth Bridge	Chemical/biological site
20	R22A007	SW357325	Prior to Sea	Chemical/biological site
21		SW432266	Fiddlers Brook	Biological site

Hayle Catchment 22A & 22B



HAYLE CATCHMENT 22A & 22B

NO	REFERENCE	NGR	LOCATION	ADDITIONAL DETAILS
DISCHARGES NON PLC				
1*	P22B/P/8	SW60703150	Godolphin Cross	Sewage treatment works
DISCHARGES PLC				
1	WSTW0084FE	SW54683634	Hayle	Sewage treatment works Site for current and proposed dangerous substances
2	WSTW0150FE	SW63523251	Nancegollan	Sewage treatment works
DISCHARGES WITH DEEMED CONSENT - COPA VARIATION ORDER NON PLC				
1	P22A/P/408	SW52104070	Smeatons Pier	
2	P22A/P/409	SW51944037	15A The Warren, St Ives	
	P22A/P/410	SW51964036	25 The Warren, St Ives	
	P22A/P/411	SW51974035	27 The Warren, St Ives	
	P22A/P/412	SW51994034	Pedn-Olva Hotel, Porthminster	
3	P22A/P/415	SW54563639	Old Quay Hse Inn, Hayle	
DISCHARGES WITH DEEMED CONSENT - COPA VARIATION ORDER PLC				
1	OUT0584	SW52284102	Balmaluz Point	Outfall Site for proposed dangerous substances

WASTE DISPOSAL SITES

1	08NH	SW607350	Gwinear Downs, Leedstown
2	08NN	SW543358	Transfer St, St Erth
3	08NP/08PB	SW509379	Balnoon, St Ives
4	08PT	SW578372	Wheal Alfred, Hayle

TIDAL WATER QUALITY MONITORING POINT - BATHING WATERS

1	ECB0760	SW51504103	Porthmeor Beach	EC identified bathing waters
2	ECB0770	SW522411	Porthgwiddeen Beach	EC identified bathing waters
3	ECB0780	SW52204025	Porthminster Beach	EC identified bathing waters
4	ECB0790	SW528389	Station Beach	EC identified bathing waters
5	ECB0791	SW540385	Porth Kidney Sands	EC identified bathing waters
6	ECB0800	SW563395	The Towans, Hayle	EC identified bathing waters

TIDAL WATER QUALITY MONITORING POINT - ESTUARY QUALITY

7	E22A3	SW55003570	By St Erth	Routine monitoring site
8	E22A2	SW54983800	Estuary Mouth	Routine monitoring site

TIDAL WATER QUALITY MONITORING POINT - BIOTA SAMPLING

9		SW55003650	Lelant Sands
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ROUTINE RIVER MONITORING

1	R22B016	SW61453307	Trenwheal	Chemical/biological site
2	R22A014	SW58853737	Nanpusker	Chemical/biological site
3	R22A001	SW56873810	Phillack-Copperhouse	Chemical/biological site Freshwater Fish Directive
4	R22A005	SW54113650	Lelant	Chemical/biological site
5	R22A013	SW50153915	Bussow Reservoir	Chemical site Freshwater Fish Directive Algological site

HAYLE CATCHMENT 22A & 22B (cont)

ROUTINE RIVER MONITORING

6	R22B018	SW54303556	Treloweth	Chemical/biological site Dangerous Substances Directive
7	R22B013	SW57153138	Millpool	Chemical/biological site Dangerous Substances Directive
8	R22B017	SW60403212	Gwedna	Chemical/biological site Dangerous Substances Directive
9	R22B014	SW63823466	Crowan	Chemical/biological site
10	R22B015	SW62053380	Drym Farm	Chemical/biological site
11	R22B001	SW61103273	Binner Bridge	Chemical/biological site Dangerous substances control site
12	R22B002	SW59613241	Godolphin Bridge	Chemical/biological site Dangerous Substances Directive
13	R22B003	SW56613196	Relubbus	Chemical/biological site
14	R22B004	SW54903508	St Erth Gauging St	Chemical/biological site National network site Red list site
	R22B023	SW54953490	River Hayle	EC surface water abstraction directive monitoring programme
15		SW561330	Bosworgy Stream	Biological site

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.