

NRA South West 99

RIVER AVON

CATCHMENT ACTION PLAN



NRA

*National Rivers Authority
South West Region*

10/11/99
10/11/99
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C O N T E N T S

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NRA SOUTH WESTERN REGION
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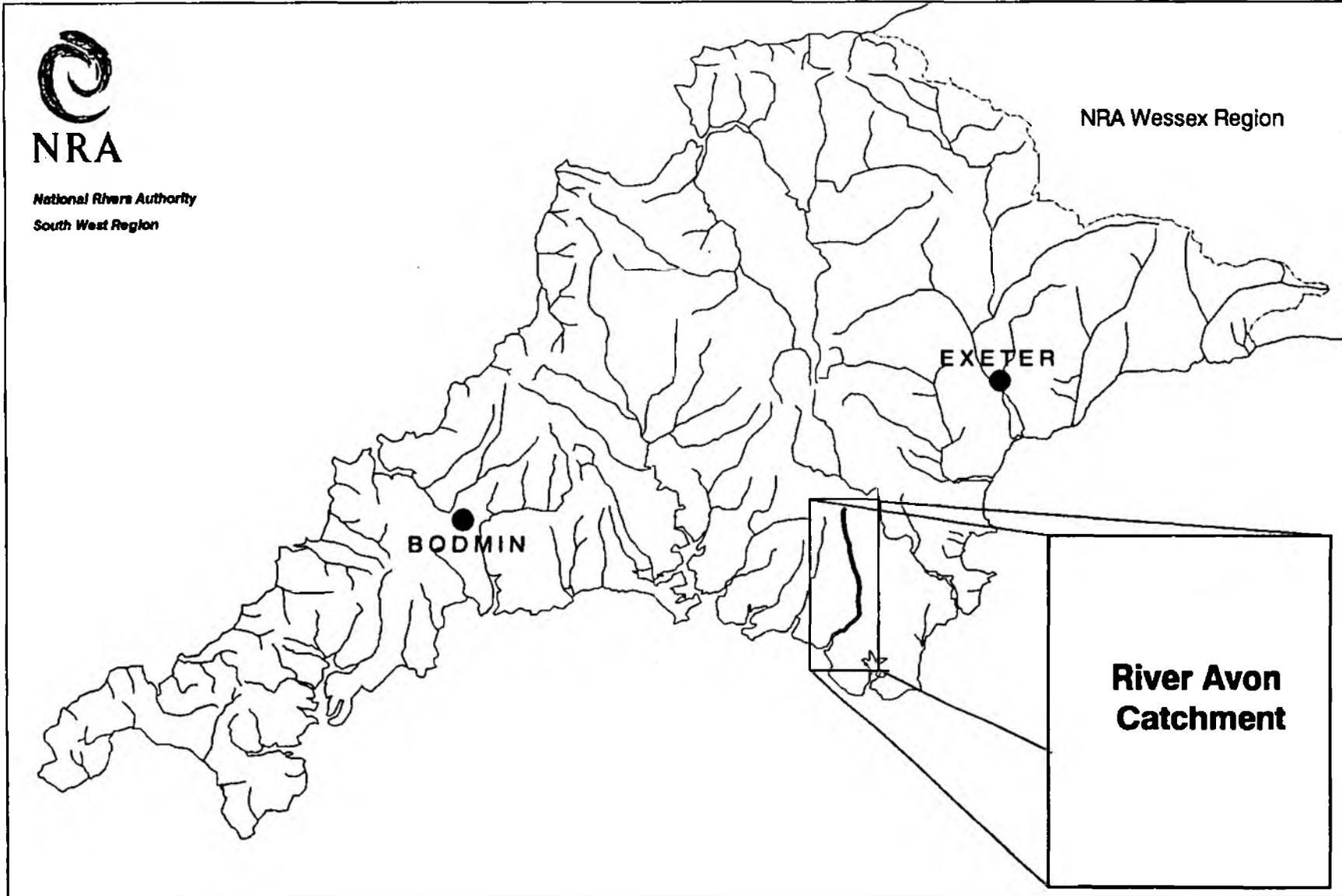


National Rivers Authority South West Region



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River Avon Catchment

**River Avon
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 Avon in South Devon is an important salmon river. The catchment also includes Slapton Ley which is of international importance as a field study centre and a Site of Special Scientific Interest.

In recent years water quality of the river and eutrophic conditions, including development of blue-green algae, have given cause for concern in Slapton Ley.

The aims of the plan are to maintain satisfactory salmonid stocks; investigate and remedy water quality problems; achieve water quality objectives and protect the catchment from environmental abuse.

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.					
Assist DSFC to enforce bass legislation.					
Review NLO by December 1991. Replace with byelaw.					
Monitor sea fishing activity in the estuary and introduce closure byelaw if necessary (DSFC byelaw).					
Implement new rod season change by byelaw.					
Survey all weirs/fish passes. Plan and implement fish pass installation/improvements.					
Improve and maintain fish passage at Curtisknowle Weir.					

ACTION

TIMETABLE

1991 1992 1993 1994 1995

FISHERIES Continued

Survey for trash dams and clear.

Plan and implement spawning gravel rehabilitation.

Pay particular attention to the protection of the Glaze Brook - the major spawning tributary for salmonids.

Undertake regular full juvenile surveys commencing 1991.

Consider installation of fish counter at Aveton Gifford.

Assess health of brown trout stocks.

Undertake annual redd count.

POLLUTION CONTROL

Review water quality in the catchment.

Investigate causes of non-compliance with fresh and tidal water quality objectives and direct task force programme of remedial action, initially to Bala Brook.

Review management of Slapton Ley with local interests.

Pre and post scheme appraisal of SWWS capital improvement programme.

_____ Programme to be determined

_____ Programme to be determined

_____ - - - - -

_____ - - - - -

ACTION

TIMETABLE

1991 1992 1993 1994 1995

POLLUTION CONTROL Cont.

Undertake R & D project to assess phosphate control in Slapton Ley.

Assess impact of 1990 drought at five locations and consider mitigation.

Assess impact of acidic run-off on water quality in headwaters of the catchment and consider remedy.

Review and assess impact of Molescombe Quarry on water quality and take remedial action as appropriate.

_____ - - - - -

Ensure adequate control of fish farm discharges.

Develop catchment water quality model using QUASAR.

Prepare catchment description.

Baseline survey of groundwater quality to assess:-

a) suitability for potable use.

b) compliance with appropriate E.C. directives.

Determine deemed discharge consents.

ACTION

TIMETABLE

1991 1992 1993 1994 1995

WATER RESOURCES

Complete rating of gauging station at Loddiswell.

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

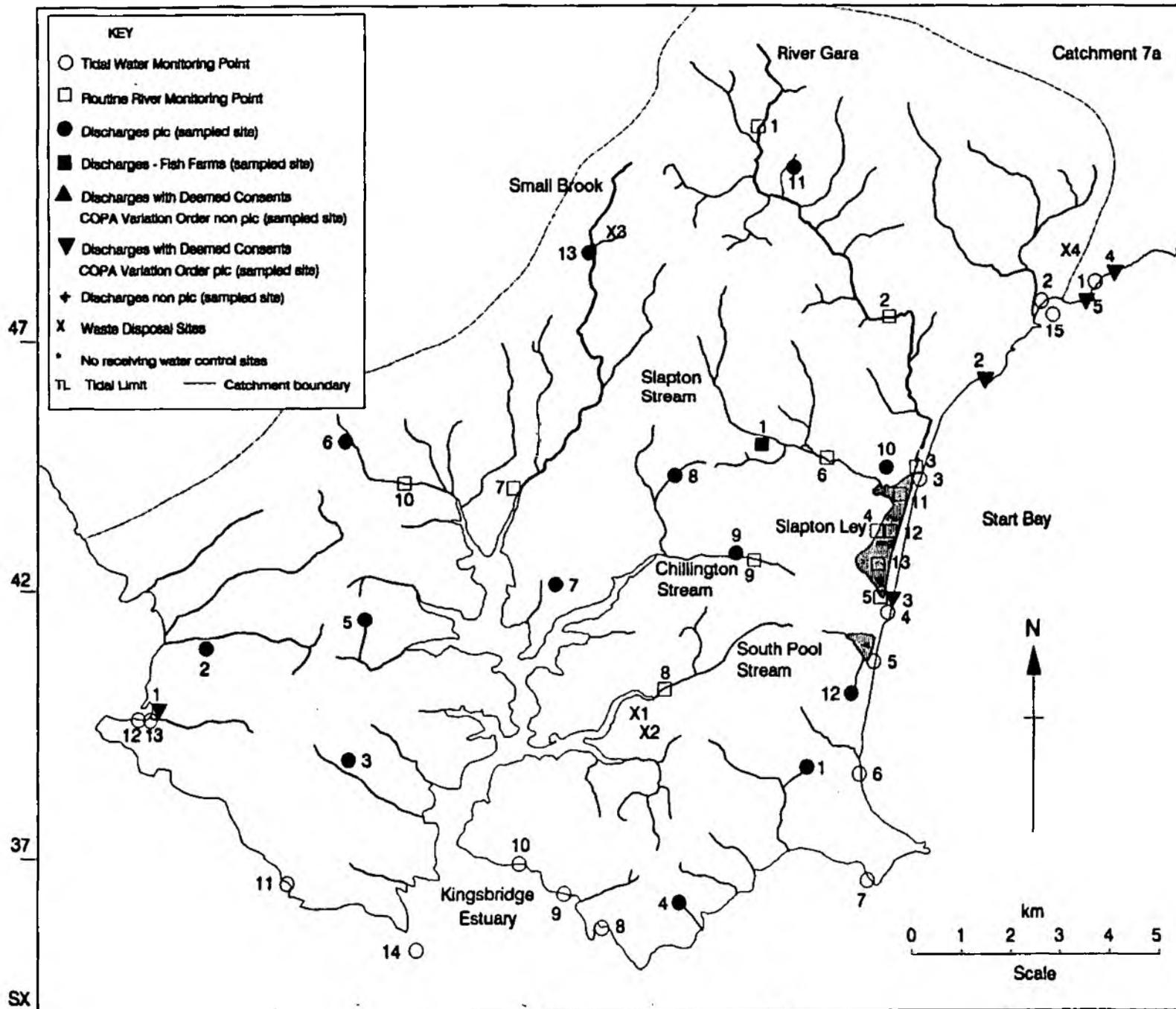
APPENDIX 1

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

Gara & Small Brook Catchments 8A



GARA & SMALL BROOK CATCHMENTS 8A

NO	REFERENCE	NGR	LOCATION	ADDITIONAL DETAILS
DISCHARGES PLC				
1	WSTW6186FE	SX80203895	Kellaton	Sewage treatment works
2	WSTW6302FE	SX68704240	South Milton	Sewage treatment works
3	WSTW6234FE	SX71203890	Malborough	Sewage treatment works
4	WSTW6110FE	SX78355640	East Prawle	Sewage treatment works
5	WSTW6346FE	SX71604160	Woolston	Sewage treatment works
6	WSTW6056FE	SX71654500	Churchstow	Sewage treatment works
7	WSTW6336FE	SX75204240	West Charleton	Sewage treatment works
8	WSTW6290FE	SX77804430	Sherford	Sewage treatment works
9	WSTW6048FE	SX78404270	Chillington/Frogmor	Sewage treatment works
10	WSTW6296FE	SX82054438	Slapton	Sewage treatment works
11	WSTW6026FE	SX80505040	Blackawton	Sewage treatment works
12	WSTW6016FE	SX81324115	Beeson	Sewage treatment works
13	WSTW6102FE	SX76544874	East Allington	Sewage treatment works

DISCHARGES WITH DEEMED CONSENTS - COPA VARIATION ORDER PLC				
1	WSTW6130FE	SX67404001	Galampton(Hope Cove)	Sewage treatment works
2	OUT6572	SX84434662	Strete	Outfall
3	OUT6580	SX82414170	Torcross/Stokenham	Outfall
4	OUT6568	SX86634817	Stoke Fleming	Outfall
5	OUT6569	SX86522804	Stoke Fleming	Outfall

FISH FARMS				
1	PO8A/P/1	SX792458	Vallet Springs Fish Farm, Kingsbridge	

WASTE DISPOSAL SITES				
1	11FAADAL	SX780422	Winslade Farm, Frogmore	
2	11FABWAL	SX782422	Molescombe Quarry, Kingsbridge	
3	11FACVAL	SX768489	Quarry Farm, East Allington	
4	11FADLAL	SX856487	Embridge Hill, Dartmouth	

TIDAL WATER QUALITY MONITORING POINT - BATHING WATERS				
1	B0285	SX86554810	Leonards Cove	Non-identified bathing water
2	ECB0290	SX85504875	Blackpool Sands	EC identified bathing water
3	ECB0300	SX82954430	Slapton Sands	EC identified bathing water
4	ECB0301	SX82354195	Slapton Sands	EC identified bathing water
5	B0302	SX82054050	Bee Sands	Non-identified bathing water
6	B0303	SX81803880	Hall Sands	Non-identified bathing water
7	B0305	SX81683698	Great Mattiscombe	Non-identified bathing water
8	B0306	SX76663583	Gammons Head	Non-identified bathing water
9	B0308	SX76233633	Pigs Nose Beach & Venerick Cove	Non-identified bathing water
10	B0309	SX75223691	Abrahams Hole	Non-identified bathing water
11	B0335	SX69753755	Soar Mill Cove	Non-identified bathing water
12	ECB0340	SX67553975	Hope Cove Beach	EC identified bathing water
13	ECBRO340	SX67503968	Bolberry Stream	Watercourse to beach

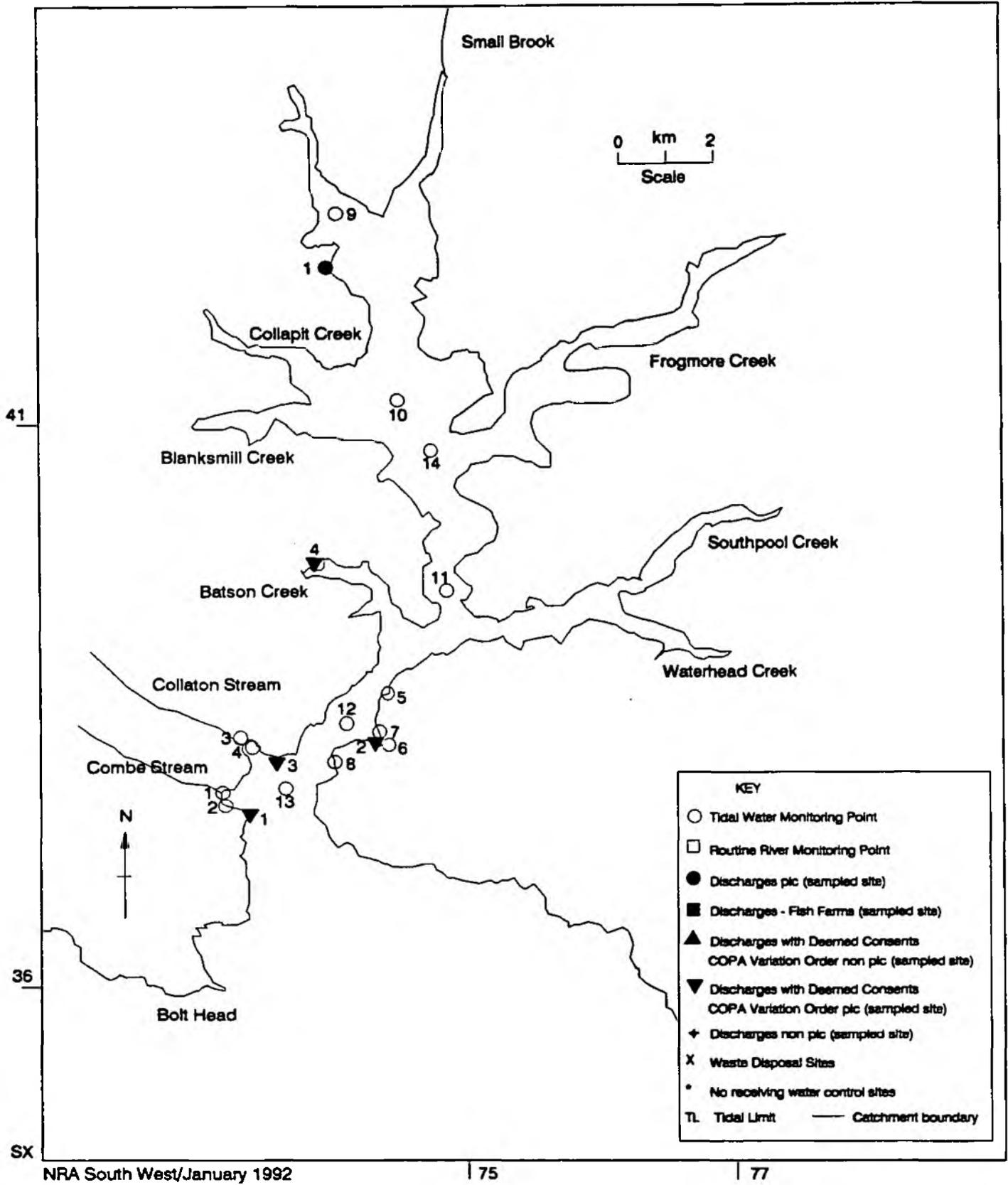
TIDAL WATER QUALITY MONITORING POINT - ESTUARY QUALITY				
14	EO8A6	SX73353565	Off Bolt Head	Routine monitoring site

TIDAL WATER QUALITY MONITORING POINT - WATER CONTACT SPORTS				
15			Blackpool Sands	

GARA & SMALL BROOK CATCHMENTS 8A (cont)

NO	REFERENCE	NGR	LOCATION	ADDITIONAL DETAILS
ROUTINE RIVER MONITORING				
1	RO8A002	SX79865103	Woodford	Chemical/biological site
2	RO8A004	SX82524765	Higher North Mill	Chemical/biological site Freshwater Fish Directive
3	RO8A006	SX82824435	Slapton Bridge	Chemical/biological site
4	RO8A011	SX82304335	Slapton Ley	Chemical/biological site Freshwater Fish Directive
5	RO8A007	SX82224207	Torcross	Chemical/biological site Freshwater Fish Directive
6	RO8A012	SX81314455	Deer Bridge	Chemical/biological site
7	RO8A013	SX75034438	Bowcombe	Chemical/biological site
8		SX77734025	South Pool	Biological site
9		SX79254265	Chillington	Biological site
10		SX72294434	Redford	Biological site
11	RO8A018	SX82514391	Slapton Ley 1	Chemical site
12	RO8A019	SX82384336	Slapton Ley 2	Chemical site
13	RO8A020	SX82154272	Slapton Ley 3	Chemical site

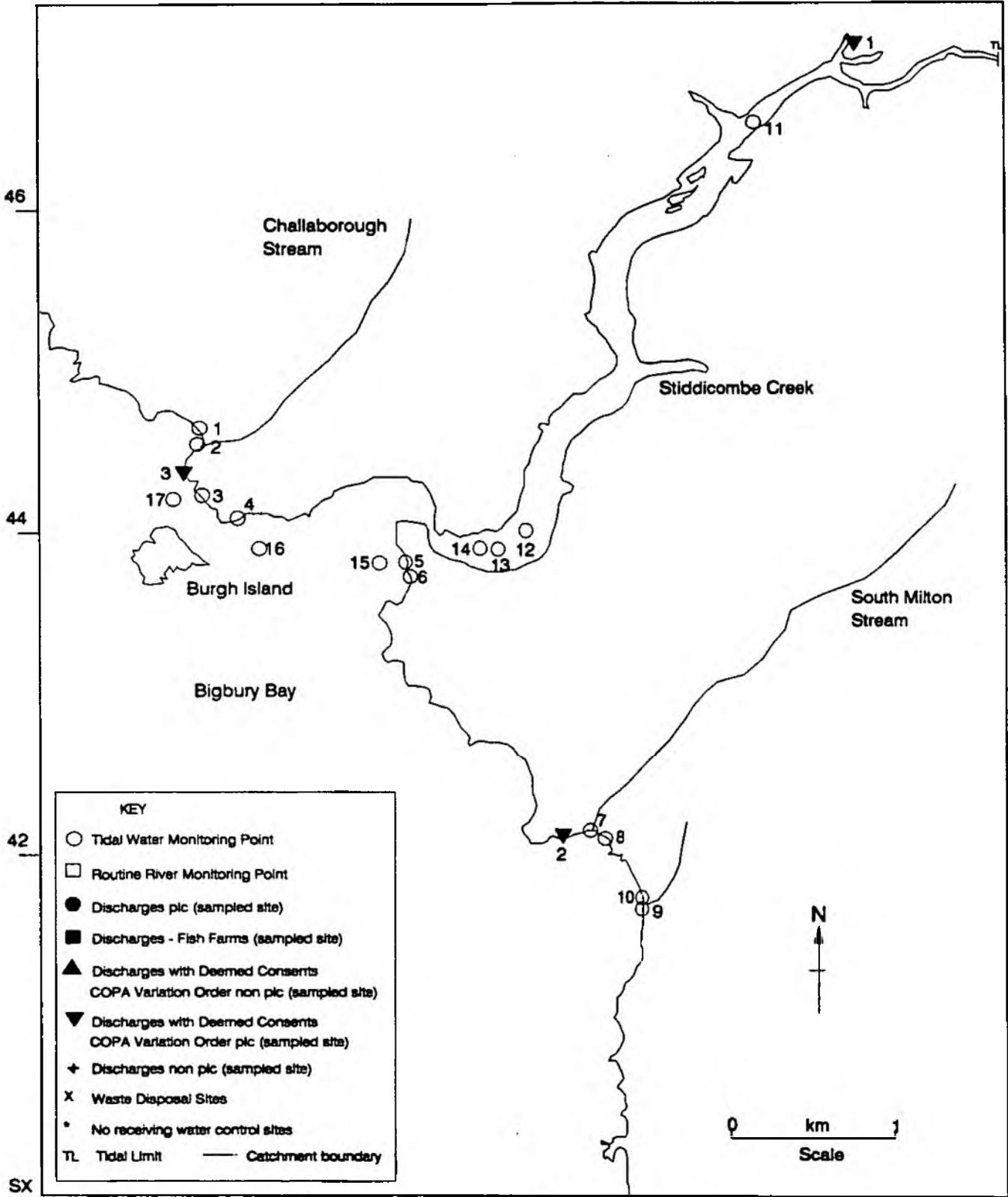
Kingsbridge Estuary 8A



KINGSBRIDGE ESTUARY 8A

NO	REFERENCE	NGR	LOCATION	ADDITIONAL DETAILS
DISCHARGES PLC				
1	WSTW6194FE	SX73804240	Kingsbridge	Sewage treatment works Site for current and proposed dangerous substances
DISCHARGES WITH DEEMED CONSENTS - COPA VARIATION ORDER PLC				
1	OUT6466	SX73103751	South Sands	Outfall
2	OUT6430	SX74063839	East Portlemouth	Outfall
3	OUT6464	SX73373798	North Sands	Outfall
4	OUT6462	SX73603970	Batson	Outfall
TIDAL WATER QUALITY MONITORING POINT - BATHING WATERS				
1	ECB0330	SX72853775	Sth Sands Salcombe	EC identified bathing water
2	ECBR0330	SX72843747	Combe Stream	Watercourse to beach
3	ECBR0320	SX73053818	Collaton Stream	Watercourse to beach
4	ECB0320	SX73103820	Nth Sands Salcombe	EC identified bathing water
5		SX74323875	Ditchend Beach	Non-identified bathing water
6	ECBR0310	SX74053815	Stream A	Watercourse to beach
7	ECB0310	SX74073825	Mill Bay Beach	EC identified bathing water
8		SX73823795	Sunny Cove	Non-identified bathing water
TIDAL WATER QUALITY MONITORING POINT - ESTUARY QUALITY				
9	E08A2	SX73854295	Park Farm	Routine monitoring site
10	E08A1	SX74254130	off Gerston Point	Biota sampling
11	E08A3	SX74703950	Mid Estuary	Routine monitoring site
12	E08A4	SX74003855	Mill Bay	Routine monitoring site
13	E08A5	SX73603785	off South Sands	Routine monitoring site Water contact sports monitoring point
TIDAL WATER QUALITY MONITORING POINT - NON DESIGNATED SHELLFISHERIES				
14		SX74504060	Kingsbridge Estuary	

Avon Estuary 8A



AVON ESTUARY 8A

NO	REFERENCE	NGR	LOCATION	ADDITIONAL DETAILS
DISCHARGES WITH DEEMED CONSENTS - COPA VARIATION ORDER PLC				
1	WSTW6006FE	SX69104729	Aveton Gifford	Sewage treatment works
2	OUT6576	SX67094204	Thurlestone	Sea outfall
3	WSTW6018FE	SX64774440	Bigbury on Sea	Sewage treatment works

TIDAL WATER QUALITY MONITORING POINT - BATHING WATERS

1	ECB0380	SX64924480	Challaborough Beach	EC identified bathing water
2	ECBR0380	SX64854475	Challaborough Str	Watercourse to beach
3	ECB0371	SX64954430	Bigbury on Sea-N	EC identified bathing water
4	ECB0370	SX65104415	Bigbury on Sea-S	EC identified bathing water
5	ECB0360	SX66234380	Bantham Beach	EC identified bathing water
6	RO8A005	SX66304355	Buckland Stream	Watercourse to beach
7	ECBR0350	SX67304215	South Milton Str	Watercourse to beach
8	ECB0351	SX67404210	Thurlestone Beach-N	EC identified bathing water
9	ECB0350	SX67654170	Thurlestone Beach-S	EC identified bathing water
10	ECBR0351	SX67804175	Thurlestone (South)	Watercourse to beach

TIDAL WATER QUALITY MONITORING POINT - ESTUARY QUALITY

11	E08A7	SX68504682	Upper Estuary	Routine monitoring site
12	E08A8	SX67004425	Lower Estuary	Routine monitoring site

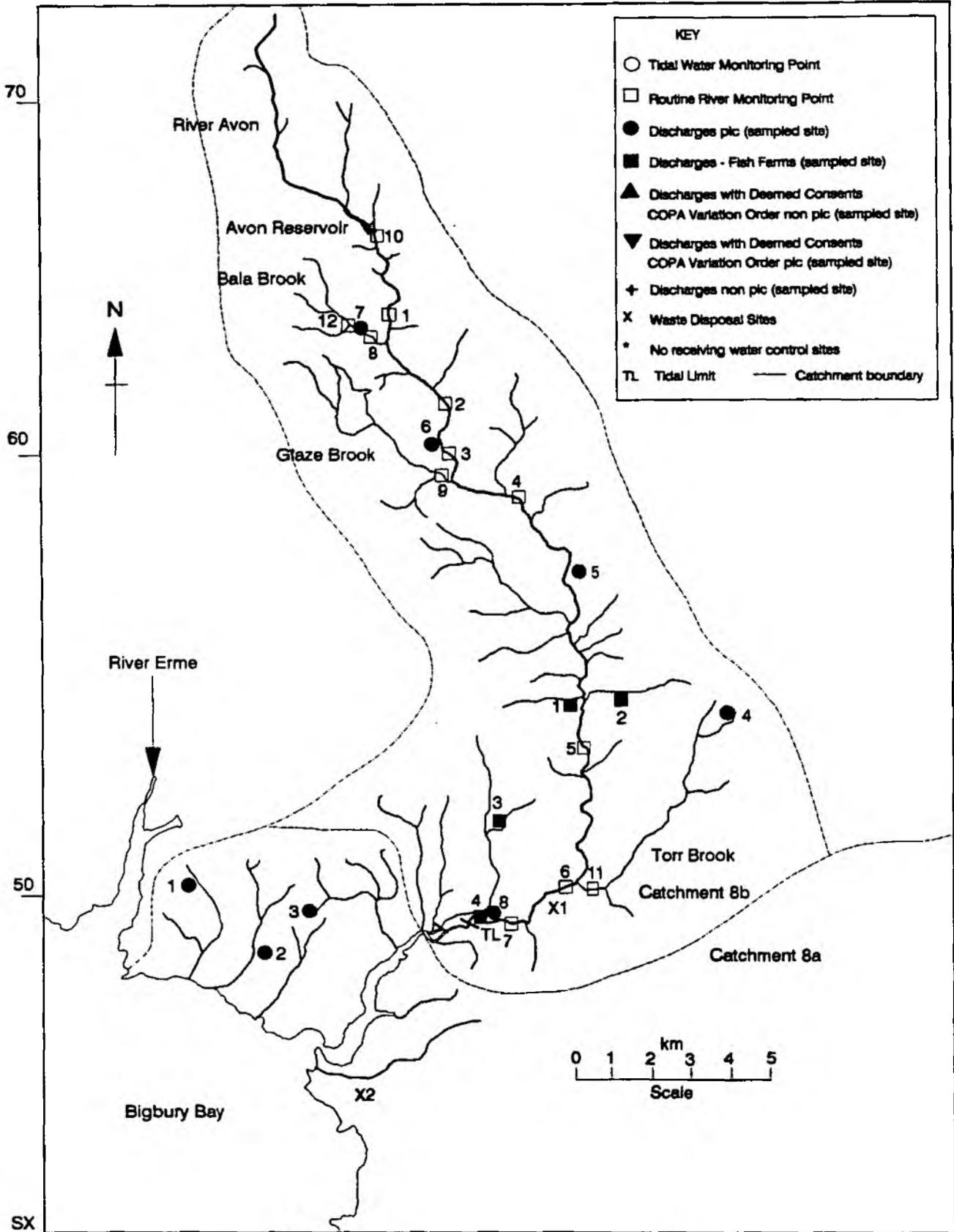
TIDAL WATER QUALITY MONITORING POINT - BIOTA SAMPLING

13	SF016	SX669438	Cockleridge	Bioaccumulation Programme
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TIDAL WATER QUALITY MONITORING POINT - WATER CONTACT SPORTS

14			Avon estuary mouth	
15			Bantham Beach	
16			Bigbury on Sea - North	
17			Bigbury on Sea - South	

Avon Catchment 8A & 8B



AVON CATCHMENT 8A & 8B

NO	REFERENCE	NGR	LOCATION	ADDITIONAL DETAILS
DISCHARGES PLC				
1	WSTW6204FE	SX63804740	Kingston	Sewage treatment works
2	WSTW6276FE	SX64664580	Ringmore	Sewage treatment works
3	WSTW6284FE	SX66504740	St Anns Chapel	Sewage treatment works
4	WSTW6240FE	SX76405260	Moreleigh	Sewage treatment works
5	WSTW6082FE	SX72775661	Diptford	Sewage treatment works
6	WSTW6298FE	SX69805940	South Brent	Sewage treatment works
7	WWTW6802D2	SX67556290	Avon	Water treatment works
8	WSTW6222FE	SX72204810	Loddiswell	Sewage treatment works
FISH FARMS				
1	PO8B/P/1	SX72975365	Gara Bridge	
2	PO8B/P/2	SX74005340	Moreleigh	
3	PO8B/P/3	SX71104980	Loddiswell	
4	PO8B/P/4	SX72004790	Loddiswell	
WASTE DISPOSAL SITE				
1	11FAARAL	SX724478	Rake Farm, Loddiswell	
2	11FAJBAL	SX670430	Thurleston Hotel, Thurleston	
ROUTINE RIVER MONITORING				
1	RO8BO07	SX68106290	Shipleigh Bridge	Chemical/biological site Dangerous Substances Directive
2	RO8BO01	SX69566070	Lydia Bridge	Chemical/biological site Dangerous substances control site
3	RO8BO08	SX69785925	A38 Br/South Brent	Chemical/biological site Dangerous substances site
4	RO8BO02	SX71265845	Horsebrook	Chemical/biological site Freshwater Fish Directive
5	RO8B003	SX72905347	Gara Bridge	Chemical/biological site
6	RO8BO04	SX72724822	Loddiswell	Chemical/biological site
7	RO8B005	SX71454725	Hatch	Chemical/biological site Freshwater Fish Directive Dangerous substances site Harmonised monitoring site
8	RO8BO11	SX67926244	Zeal	Chemical/biological site
9	RO8B009	SX69795878	Higher Turtley	Chemical/biological site
10	RO8BO10	SX678654	Avon Reservoir	Chemical site Freshwater Fish Directive
	RO8B022	SX679651	Avon Reservoir	EC Surface water abstraction directive monitoring site
	RO8B023			
	RO8B24	SX67906510	Avon Reservoir	Algological site
11	RO8B015	SX73344832	Loddiswell	Chemical/biological site
12	RO8B025	SX67156294	Bala Brook	EC Surface water abstraction directive monitoring 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.