

CATCHMENT ACTION PLAN



National Rivers Anthority South West Region

CONTENTS

MAP OF NRA SW REGION SHOWING TARGET CATCHMENT

1. INTRODUCTION

2. ROUTINE SERVICES

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PAGE 1 - 2

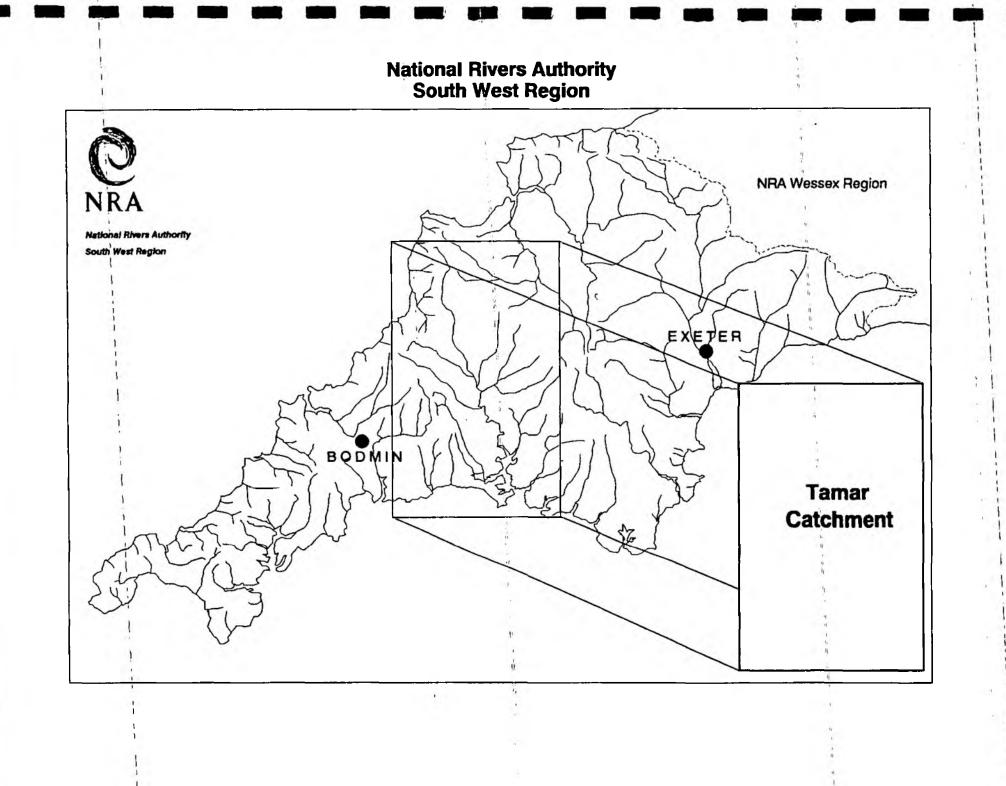
PAGE 1

3. CHALLENGES & PROPOSED ACTIONS PAGE 3

APPENDIX 1 - CATCHMENT MAPS

APPENDIX 2 - NRA DUTIES, POWERS AND TARGETS





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 and 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 a elitended within minutes and most within a few holds. 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 PROPOSED ACTIONS

The River Tamar is one of the premier salmon rivers with good runs of spring and summer salmon. It has four major tributaries the Rivers Lyd, Inny, Kensey and Ottery. The Roadford Dam is on the River Wolf, a tributary of the Lyd, and as part of the mitigation programme for loss of production, salmon and sea trout are trapped, ova obtained and 30,000 juveniles are reared at Endsleigh and are annually stocked into the system. Fifteen miles of the Upper Tamar have been adversely affected by farm pollution and abstractions resulting in poor salmonid production and deterioration of spawning gravels.

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	TIMETA	BLE (BAR	CHART)			
	1991	1992	1993	1994	1995	
FISHERIES			_			
Enforce and monitor fixed net legislation.						
Enforce and monitor netting ban for sea fish in estuary.						
Review Net Limitation Order by December 1991.		_			- 14 ⁻	3.5
Introduce byelaw banning use of natural baits for rod fishing after 31 August.						
Survey all weirs and fish passes. Plan and implement fish pass installation/ maintenance.			-			
Repair Cornwall pass — Gunnislake.						
Survey for trash dams/plan/ clearance.						
Plan and implement spawning gravel rehabilitation work in various tributaries upstream Launceston.						
Construct artificial spawning beds/maintain existing - North Tamerton, Burmsdon, Two Bridges other sites in tribs upstream Launceston.						

ACTION

TIMETABLE (BAR CHART)

1991 1992 1993 1994 1995

Monitor major roadworks planned Wolf/Thrushel valley.

Determine sources of acid run-off in Kensey and Ottery seek control measures to protect fish stocks.

Work in unison with Water Quality staff to recover fish stocks where affected by farm pollution - upstream Launceston in particular.

Seek to reduce estuary adult SS and ST mortalities.

Press for improvements to headwater flows from Lower Tamar Lake.

Regular full juvenile fish population survey.

Specific annual juvenile monitoring Lyd catchment.

Annual redd counts - particular attention upstream Launceston and to improved areas.

Introduce dual checking system for assessing accuracy rod catch returns.

Survey possible fish counter sites. Install counter in Cornish pass - Gunnislake.

Continue Roadford investigations including programme of radio tracking of fish tagged at Gunnislake and from estuary netting.

Assess causes of poor recruitment upstream Launceston

Continue Roadford mitigation programme using traps at Hartley, Roadford, Cookworthy and Milford. Programme to be determined

 ACTION	1991	BLE (BAF		1994	1995
	1771	1 <i>336</i>	1773	1334	1333
Investigate rearing-on potential at Roadford installation and operate smolt release unit.				_	
 Surplus Tamar stock for experimental stocking tributaries upstream Launceston				्र २ २ म १।	
POLLUTION CONTROL					
Carry out review of water quality in the catchment.					
Followed by completion of Farm Campaign and Task Force programme of remedial action.					
Assess impact of 1990 drought at 2 chemical and 2 biological sites.					
Assess quality of enclosed waters at 2 locations - Upper and lower Tamar lake.					
 Undertake blue-green algae action_plan_and monitor 2 locations.		ere er	الحاج مع		a zren -
Develop water quality management plan for the catchment.					
Prepare catchment description.			_		
Assess impact of Roadford Reservoir and water resources scheme on water quality.					
Develop catchment quality model using QUASAR.					
Assess impact of historic mining activities on water quality.		· ·	<u></u>		

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ACTION

TIMETABLE (BAR CHART)

Assess impact of acidic run-off

Monitor environmental survey of estuary.

Pre-scheme appraisal of proposed SWWS sewerage improvements in the estuary.

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 agreements for Roadford Reservoir and take action as appropriate.

Promote low flow protection arrangement below Lower Tamar dam.

Assess need for and install additional river gauging stations, including inflows to Roadford Reservoir

Audit abstraction at Gunnislake intake.

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APPENDIX 1

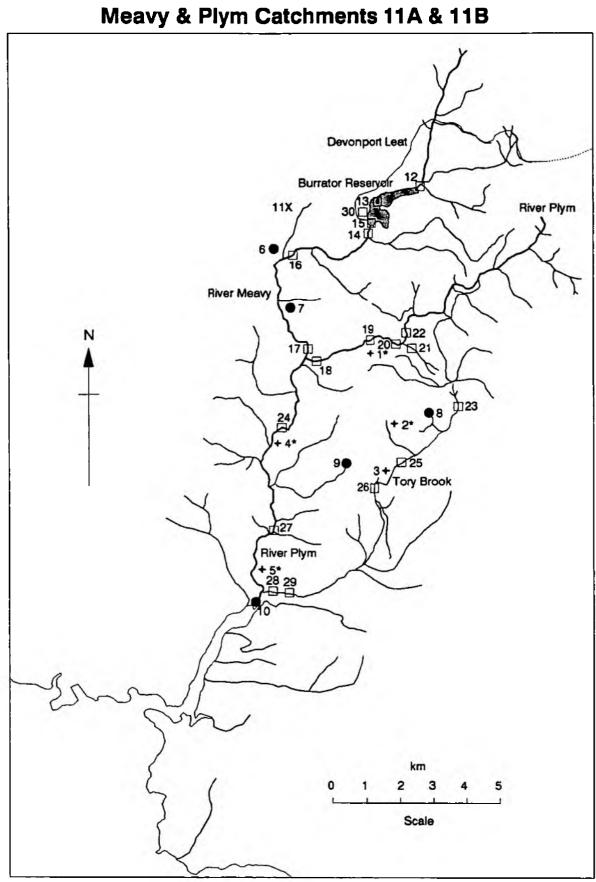
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CATCHMENT MAPS

KEY

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



Version 3 / June 1991

MEAVY & PLYM CATCHMENTS 11A & 11B

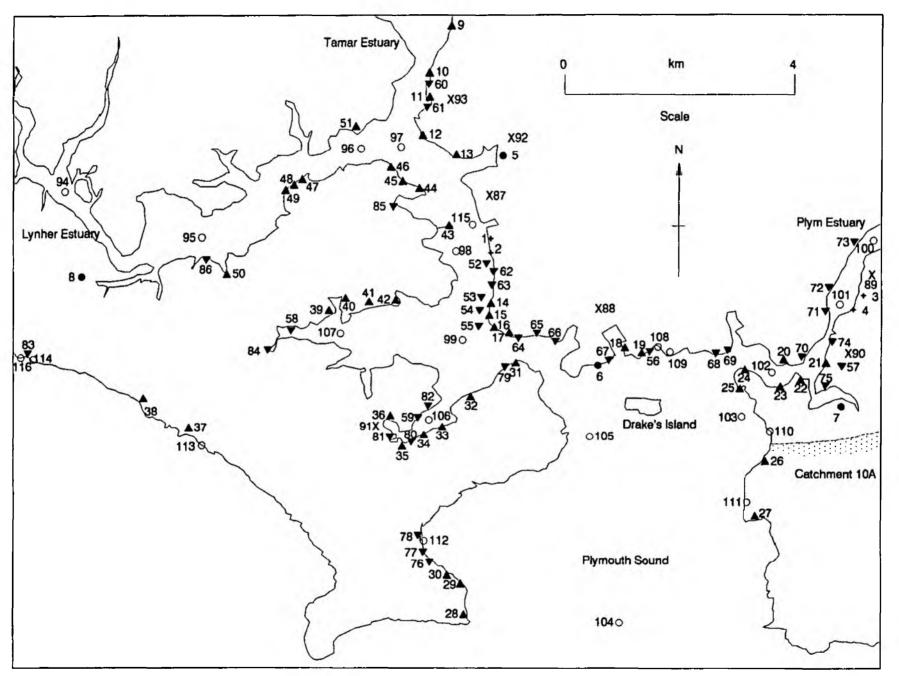
						- 100 million (100 million)
_	NO	REFERENCE	NGR	_LOCATION	ADDITIONAL-DETAIL	S
	DIS	CHARGES NON	PLC			
	1*	P11B/P/9	5X55806450	Shaugh Lake	China clay works	
	2*	P11A/P/14		Lee Moor Plant	CP 38/6 China cla	y works
	3	P11A/P/4		Portworthy Dam	China clay works	-
	4	P11B/P/1		Bickleigh	Sewage treatment	works
	5	P11B/P/6	SX52005750	Marsh Mills	CP 39/1 China cla	
1	DTC	CHARGES PLC				
		WSTW4594FE	5x 52306690	Gratton	Sewage treatment	works
	6 7	WSTW4594FE		Clearbrook	Sewage treatment	
-		WSTW4650FE			Sewage treatment	
- 2				Lee Moor	Sewage treatment	
		WSTW4830FE WSTW4728FE	SX55520148	Wotter Marsh Mills	Sewage treatment	
	10	WSIW4/ZOLE	5852005050	Maish Mills	Red list site	WULKS
					Paris commission	eita
					Falls commission	516
	WAS	TE DISPOSAL	SITES			
	11	11GJ	SX527681	Higher Lake Farm, I	Dousland	
	BOIL	TINE RIVER M				
		R11B008	SX56696925	Weir/Burrator Res	Chemical/biologic	al cito
	13	R11B028	SX55516856	Burrator Res	Chemical site	al sile
	12	RIIBU20	2732210020	Buildloi Res	Freshwater Fish D	irective
	14	R11B009	SX55146791	Below Burrator Res		
-	15	R11B009	SX55140791	Burrator Reservoir		
	12	R11B029	3732000	Builator Reservoir	directive monitor	
-		R11B030			difective monitor	ing site
			SX551680	Burrator Reservoir	Algological site	
	16	R11B010	SX52956704	Gratton Ford Bridge		al site
	17	R11B011	SX53306375	Confluence/R Plym		
					Freshwater Fish D	
	18	R11B004	\$x53356368	Shaugh Bridge	Chemical/biologic	
	19	R11B003	SX55566465	Cadover Bridge	Chemical/biologic	
					Freshwater Fish D	
	20	R11B002	SX56396450	Below Blackabrook	Chemical/biologic	al site
	21	R11B007	SX56466441	Blackabrook	Chemical/biologic	
	22	R11B001	SX56486446	Above Blackabrook	Chemical/biologic	al ⁻ site
					Dangerous Substan	
-	23	R11A001	SX57866173	Tolchmoor Bridge	Chemical/biologic	
	24	R11B018	SX52706181	Bickleigh	Chemical/biologic	
•	25	R11A002	SX56556075	Coleland Bridge	Chemical/biologic	
	26	R11A003	SX55656008	Portworthy Bridge	Chemical/biologic	
	27	R11B006	SX52375867	Plym Bridge	Chemical/biologic	
				1	Red list site	
-					Freshwater Fish D	irective
-					Dangerous substan	
					Harmonised monito	
	28	R11A005	sx52755660	Marsh Mills Bridge		
	29	R11A004	SX53925655	Station Rd Plympton		
	30	R11B032	SX55006837	Devonport Leat	EC Surface water	
	20				directive monitor	
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Version 3 / July 1991

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Lower Tamar Estuary 11A & 12A



Version 3 / June 1991

LOWER TAMAR ESTUARY 11A & 12A

DIS	CHARGES NON I				
1	OUT4939	SX44405630	Devonport Dockyard		dangerous
				substances	_
2	OUT4937	5X44505620	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	
DTC	CHARGES PLC				
5	WSTW4722FE	SX44505712	Camels Head	Sewage treatment	works
	* ***********	DATTOUTIN	Camera nead	Site for current	
				dangerous substan	
				Red list site	
				Paris commission	site
6	OUT4940	SX46715346	Eastern Kings	Outfall	
	U1171V			Site for current	dangerous
				substances	
7	WSTW4726FE	SX50195283	Radford	Sewage treatment	works
÷				Red list site	
8	wstw4765fe	SX37405490	Sheviock	Sewage treatment	works
-	CHARGES WITH		ENTS - COPA VARIATIO		
9	P12A/P/146	SX44015926			
10	P12A/P/58		Ferndale Saltash Pa 900/902 Wolseley Re		
	P12A/P/59	SX43705851	891 Wolseley Rd	4	
	P12A/P/100	SX43655860 SX43705849	898 Wolseley Rd		
	P12A/P/61		904/906 Wolseley Rd	4	
11	P12A/P/69	SX43705052	863 Wolseley Rd	2	
T T	P12A/P/60	SX43605840	885 Wolseley Rd		
	P12A/P/70 P12A/P/71		865/867 Wolseley R	and the second second second	
			RNAD Bullpoint	-	
12 13	P12A/P/145 P12A/P/155		RNAD Bullpoint		
14	P12A/P/133		Morice Yard Devonp	~rt	
14	P12A/P/112	SX44075500	Morice Yard Devonp		
	P12A/P/112	SX44745503	Morice Yard Devonp		
15	P12A/P/123	SX44745505	Morice Yard Devonp		
T J	P12A/P/129	SX44735480	Morice Yard Devonp		
16	P12A/P/114	SX44735467	South Yard Devonpo		
10	P12A/P/115	SX44725465	South Yard Devonpo		
	P12A/P/116	SX44705459	South Yard Devonpo		
	P12A/P/117	SX44705452	South Yard Devonpo		
	P12A/P/118	SX44695443	South Yard Devonpo		
	P12A/P/119	SX44685433	South Yard Devonpo		
	P12A/P/120	SX44785421	South Yard Devonpo		
	P12A/P/121	SX44815433	South Yard Devonpo		
	P12A/P/131	SX44815495	South Yard Devonpo		
	P12A/P/132	SX44805414	South Yard Devonpo		
	P12A/P/123	SX44875404	South Yard Devonpo		

Version 3 / July 1991

LOWER TAMAR ESTUARY 11A & 12A (cont)

DICCURDCEC MIDU		
17 P12A/P/124	DEEMED CONS	ENTS - COPA VARIATION ORDER NON PLC
· ·	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
18 P11A/P/92	SX47015360	Millbay Pier
19 P11A/P/48	SX47755360	Hoe Swimming Pool
20 P11A/P/18	SX49085357	Cattewater Harbour
21 P11A/P/100	sx 50105385	DWO Depot
22 P11A/P/98	SX49445323	Turnchapel
23 P11A/P/90	SX49055317	Mountbatten
24 P11A/P/89	SX48955323	Mountbatten
P11A/P/85	SX48825305	Mountbatten
P11A/P/86	SX48705310	Mountbatten
25 P11A/P/88	SX48615337	Mountbatten
P11A/P/87	SX48585337	Mountbatten
26 P10A/P/29	SX49155196	Fort Stadden
27 P10A/P/28	SX48675070	Fort Bovisand
28 P12A/P/49	SX44334890	Penlee Point Fog signal station
29 P12A/P/153	SX44134949	Pier Cellars
30 P12A/P/151	SX44074957	Pier Cellars
P12A/P/152	SX44104955	Pier Cellars
31 P12A/P/55	SX45305350	Cremyll Shipyard
32 P12A/P/52	SX44505290	Bay Cottage & Mount Edgcumbe Fm
P12A/P/53	SX44505310	Empacombe House
P12A/P/54	SX44605310	Empacombe Cottage
33 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
34 P12A/P/73	SX43535220	Woodpark Millbrook
35 P12A/P/57	SX43175224	1 Foss Cottage
36 P12A/P/50	SX42905250	Mill Fm Mill Lane
37 P12A/P/95	SX39865198	Chalets at Freathy
38 P12A/P/154	SX38255280	Tregantle Fort
39 P12A/P/33	SX42005456	HMS Raleigh Fire Pan
40 P12A/P/147	SX42205462	HMS Raleigh
41 P12A/P/148	SX4275448	HMS Raleigh
42 P12A/P/149	SX42905450	HMS Raleigh
43 P12A/P/150	SX44105592	Yonderbury Point
44 P12A/P/92	SX43475643	1-4 Pato Point Wilcove
45 P12A/P/101	SX43255675	Point Bullock Diamond Works
46 P12A/P/76	SX43295670	Point Bullock Diamond Works
P12A/P/80	SX43295667	Cove Lodge Defiance site
47 P12A/P/93	SX41505689	Jupiter Point Ctge Nr Antony
48 P12A/P/156	SX41305660	Antony House Torpoint
49 P12A/P/56	SX41135655	Antony House Torpoint
50 P12A/P/77	SX40195517	Clift, Antony
51 P12A/P/94	SX42955769	1-3 Wearde Quay, Cliff Ctge
		Maryfield View, Weare
		- ,

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Version 3 / July 1991

LOWER TAMAR ESTUARY 11A & 12A (cont)

				and a second	
				ENTS - COPA_VARIATIC	
1	-52-	OUT4972	SX44565590	St Levan Road	Outfall
					Site for current and proposed
	F 2	our (0.2.2	ov 44735535	Albert Beed	dangerous substances
-	53	OUT4922	SX44735535	Albert Road	Outfall
					Site for current dangerous
-		00004053	CT 4 4 7 7 5 4 0 0	Maglherough Street	substances
	54	OUT4952	SX44775498	Marlborough Street	
					Site for current dangerous substances
		01104040	5¥44655420	Edinburgh Stroot	Outfall
-	55	OUT4942	SX44655420	Edinburgh Street	Site for current dangerous
-					substances
	== = =	OUT4978	CV47105725	West Noo	Outfall
	20	0014978	584/195555	West noe	Site for current and proposed
					dangerous substances
					Red list site
	57		sx50105402	Billacombe	Sewage treatment works
	57	WSIW4/2016	2220102402	BIIIacompe	Site for current dangerous
-					substances
	58	wemu1796#F	SX41465405	Torpoint (Trevol)	Sewage treatment works
-	20	WOIW4/OUTE	2741402402	iorpoine (mevor)	Site for current and proposed
2.21					dangerous substances
	59	OUT4920	SX30269909	Millbrook	Outfall
	39	0014920	5X30207307	1111102000	Site for current dangerous
					substances
	60	OUT4964	SX43685865	Normandy Hill	Outfall
	61	OUT4968	SX43655844	St Budeaux Wharf	Outfall
-	•	OUT4951	SX43615841	Little Ash Gardens	
	62	OUT4962	SX44785525	Pottery Road	Outfall
	63	OUT4936	SX44795469	Cornwall Street	Outfall
	64	OUT4956	SX45295394	Mutton Cove	Outfall
	65	OUT4954	SX45685398	Mountwise Plymouth	Outfall
	66	OUT4958			Outfall
	67	OUT4980	SX46795365	West Millbay	Outfall
		OUT4934	SX48085365	Citadel	Outfall
14	69	OUT4926	SX48345360	Fishers Nose	Outfall
	70	OUT4953	sx49675359	Prince Rock	Outfall
	71	OUT4950	SX50035438	St-Judes	Outfall
	72	OUT4974	SX50005466	Stenlake Terrace	Outfall
	73	OUT4924	SX50425534	Arnolds Point	Outfall
	74	OUT4930	SX50065396	Cattedown Wharf	Outfall
-					Site for current dangerous
-					substances
	75	OUT4960/1-5		Oreston	Five outfalls
	76	OUT4911	SX43505015	Cawsand/South	Outfall
		OUT4910	SX43505029	Cawsand/Criterion	Outfall
	77	OUT4919	SX43525048	Kingsand/South	Outfall
	78	OUT4918	SX43635058	Kingsand/North	Outfall
	79	OUT4912	SX45395350	Cremyll	Outfall
-	80	OUT4921	SX43305220	Millbrook/Anderton	
	81	OUT4917	SX43095222	Millbrook Village	Outfall
-	82	OUT4986	SX43515261	Southdown B	Outfall
		OUT4987	SX43625261	Southdown C	Outfall

Version 3 / July 1991

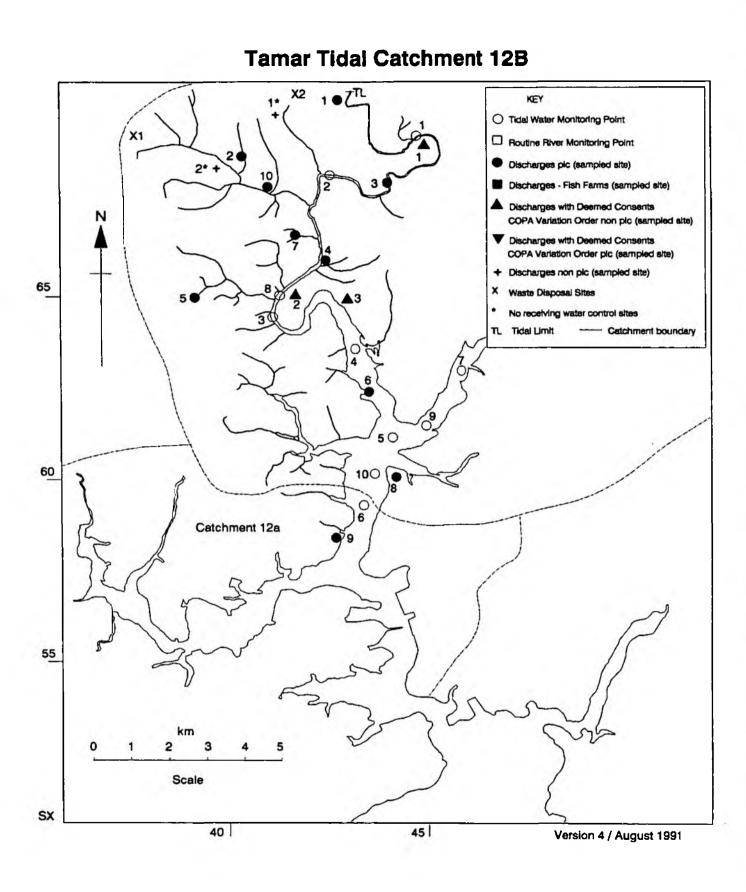
LOWER TAMAR ESTUARY 11A & 12A (cont)

	DISC	CHARGES WITH	DEEMED CONSE	NTSCOPA_VARIATIC	DN_ ORDER-PLC
	83	OUT5064	SX35625366	Portwrinke	Outfall
	84	WSTW4756FE	SX40945374	St John	Sewage treatment works
-		OUT4982			Outfall
-		WSTW4502FE		Antony	Sewage treatment works
	WAST	TE DISPOSAL S	SITES		
	-	11AM	SX448568	North Down Crescent	. Plymouth
-			SX465547	Stonehouse Playing	
	89	11FT 11BZ	SX510548	Chelston Meadow, Pl	vmouth
		11AN	SX511543	Plymstock Works, Pl	
		08NL	SX425525	Millpool, Millbrook	
		11FL	SX457578 -	Weston Mill, Plymou	There release to be a second to the
	93	11FM	SX447586	Weston Mill Road, S	t Budeaux
-	53	TTL	38447300	Heston Mili Roda, L	
	TIDA			ING POINT - ESTUARY	QUALITY
	94	E12A13	SX37455625	By Sheviock Wood	Routine monitoring site
	95	E12A11	SX42205735	By Antony Passage	Routine monitoring site
6	96	E12A12	SX40005600	Mid Estuary	Routine monitoring site
	97	E12A7	SX43255730	Off Wilcove	Routine monitoring site
	98	E12A6	SX44255580	Dockyard	Routine monitoring site
	99	E12A5	SX44505400	Lower Estuary	Routine monitoring site
	100	E11A3	5X51355580	By Saltram House	Routine monitoring site
	101	E11A2	SX50155436	Laira Bridge	Routine monitoring site
	102	E11A1	SX49005340	Cattewater	Routine monitoring site
	103	E12A8	SX48305215	Jennycliff Bay	Routine monitoring site
	104	E12A3	SX46824950	Plymouth Sound	Routine monitoring site
1		E12A4	SX46505215	Br/Plymouth Sound	Routine monitoring site
	106	E12A9	5X43605240	Millbrook Lake	Routine monitoring site
		E12A10	SX42555425	St Johns Lake	Routine monitoring site
Ĉ.					-
				ING POINT - BATHING	
		ECB0421	SX475537	Plymouth Hoe/West	EC identified bathing_water
	109	ECB0420		Plymouth Hoe/East	EC identified bathing water
		B0415	SX49155225	Jennycliff Bay	Non-identified bathing water
		ECB0410	SX493505	Bovisand Beach	EC identified bathing water
	112	B0425	SX43425020	Cawsand Bay	Non-identified bathing water
	113	B0426	SX39605205	Whitsand Bay	Non-identified bathing water
	114	ECB0430	SX359538	Portwrinkle Beach	EC identified bathing water
	TID	AL WATER OUA	LITY MONITOR	ING POINT - BIOTA SA	AMPLING
t		SF023	SX44105600	Hamoaze	Bioaccumulation Programme
		SF002	sx35305390		Bioaccumulation Programme

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Version 3 / July 1991

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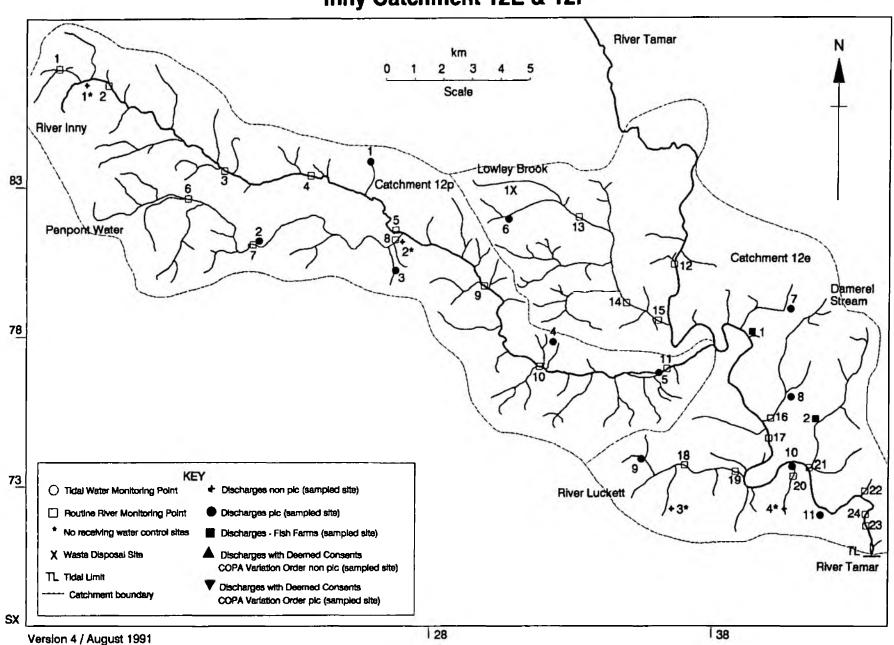


TAMAR TIDAL CATCHMENT 12B

	NO	REFERENCE	NGR	LOCATION	ADDITIONAL DETAILS
	DIS	CHARGES NON	PLC	1. A. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	
				Honicombe	Caravan Site STW
	2*	P12B/P/11	SX41307040 SX39936913	St Dominick	Caravan Site STW
	DIS	CHARGES PLC			
	1		SX43507089	Gunnislake	Sewage treatment works
	2		SX40266974	Harrowbarrow	Sewage treatment works
	3		SX44486860	Calstock	Sewage treatment works
)	4		SX44046635		Sewage treatment works
			SX39096536		Sewage treatment works
		WSTW4537FE	SX43206290	Cargreen	Sewage treatment works
-	- -	WSTW4752FE	SX41906710	St Dominick	Sewage treatment works
	8	WSTW4724FE	SX44246023	Ernesettle	Sewage treatment works
•	Ū				Site for current and proposed dangerous substances
,					Red list
					Paris commission site
	9	wstw4763fe	SX43005820	Saltash (Coombe)	
					Site for current and proposed
					dangerous substances
	10	WSTW4680FE	SX41066928	Metherell	Sewage treatment works
ļ				ENTS – COPA VARIATI	
	1	P12B/P/40	SX44686950	Ferry Farm Harewoo North Huon Farm	d
	2	P12B/P/37	SX42076580	North Huon Farm	
	3	P12B/P/38	SX43306471	Cleave Farm Weir Q	uay
	WAS!	TE DISPOSAL	SITES		
l	1	08PW	SX379695	Fullaford Farm, Ca	llington
	2	08AG	SX425720	North Dimison, Gun	nislake
				ه به محول د ر	NEVERBOOL WE AND A PARTY AND A VERY
	TID	AL WATER QUA	LITY- MONITOR	ING POINT - ESTUARY	QUALITY
(4. ⁴	1	E12B5	SX44706970	Morwellham	Routine monitoring site
	2	E12B4	SX42956880	By Calstock	Routine monitoring site Routine monitoring site Routine monitoring site Routine monitoring site
	3	E12B4 E12B8	SX41206460	Pentillie Castle	Routine monitoring site
	4	E12B3	SX43406395	Mid Estuary	Routine monitoring site
	5	E12B6	SX44056130	Warleigh Point	Routine monitoring site
	6	E12B2	SX43505905	Tamar Bridge	Routine monitoring site
•	7	E12B7	SX46156330	Nr Bere Ferrers	Routine monitoring site
	TID	AL WATER QUA	LITY MONITOR	ING POINT - BIOTA P	ROGRAMME
	8	SF021	SX413655	Halton Quay	Baseline Programme
	9		SX450615	Tavy Bridge	-
	10		SX441606	Warren Point	Baseline Programme
1					

Version 4 / August 1991

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Inny Catchment 12E & 12P

INNY CATCHMENT 12E & 12P

	-NO	-REFERENCE	NGR	LOCATION	ADDITIONAL DETAILS
	DISC	CHARGES NON I	PLC		
	1*	P12P/P/5	SX15808690	Davidstow	Creamery
	-	P12P/P/20	SX15808690	Inny Vale	Holiday village
	2*	P12P/P/24	SX27108170	Launceston	Public toilets
	<u>3</u> *	P12E/P/11	SX36507310	Stokeclimsland	Sewage treatment works
	4*	P12E/P/12	SX41737263	Hingston Quarry	Stone Quarry
	·			J	
		CHARGES PLC			
-	1	WSTW4718FE	SX26068401	Pipers Pool	Sewage treatment works
-	2	WSTW4500FE	SX22408140	Altarnun	Sewage treatment works
-	3	WSTW4652FE	SX26668076	Lewannick	Sewage treatment works
	4	WSTW4788FE	SX32267818	Trebullett	Sewage treatment works
	5	wstw4514fe	SX35947707	Beals Mill	Sewage treatment works
	6	WSTW4767FE	SX31508255	South Petherwin	Sewage treatment works
	7	WSTW4686FE	SX41267921	Milton Abbot	Sewage treatment works
	8	WSTW4775FE	SX40607588	Sydenham Damerel	Sewage treatment works
	9	WSTW4771FE	SX35807400	Stoke Climsland	Sewage treatment works
		WSTW4642FE		Latchley	Sewage treatment works
	11	WSTW4542FE	SX41837256	Chilsworthy	Sewage treatment works
ľ		I FARMS			
1	1	P12E/P/32	SX39327831	Endsleigh Hatchery	
_	2	P12E/P/33	SX41697537	Higher Woodley	
	WAST	TE DISPOSAL S	SITES		
J	1	08NC	SX317834	Bangor Transfer Sta	ation, Launceston
_	BOU	LINE RIVER M			
	1	R12P001	SX15338702	Davidstow Creamery	Chemical/biological site
	2		SX17018650	Trewinnow Bridge	Chemical/biological site
	3	R12P002		St Clether Bridge	Chemical/biological site
ř.		R12P003	SX20618418	Gimbletts Mill	Chemical/biological site
	4 5	R12P012	SX24198339		
	5	R12P004	SX27068175	Two Bridges	Chemical/biological site Freshwater Fish Directive
	6	D10D010	SX20028286	Trelin Bridge	Chemical/biological site
	0 7	R12P010			
		R12P007	SX22338130	Altarnun Bridge	Chemical/biological site
	8	R12P008	SX26958165	Two Bridges	Chemical/biological site
	•	5125005	aw20027007		Freshwater Fish Directive
	9	R12P005	SX30027987	Trekelland Bridge	Chemical/biological site
	10	R12P013	SX32027713	Trecarrell Bridge	Chemical/biological site
	11	R12P006	SX35887706	Beals Mill Bridge	Chemical/biological site
					Freshwater Fish Directive
	12	R12E001	SX36838038	Greystone Bridge	Chemical/biological site
	13	R12E005	SX32878235	Lana Bridge	Chemical/biological site
_	14	R12E017	SX34737970	Landue Bridge	Chemical/biological site
	15	R12E006	SX35937873	Lowley Bridge	Chemical/biological site
					Freshwater Fish Directive
-	16	R12E014	SX39897549	Damerel Stream	Chemical/biological site
	17	R12E002	SX40017486	Horsebridge	Chemical/biological site
	18	R12E016	SX37007385	Old Mill	Chemical/biological site
5	19	R12E007	SX38887368	Luckett Bridge	Chemical/biological site
				2	Dangerous Substances Directive
	20	R12E028	SX40887374	Latchley Brook	Chemical/biological site
				- 0 -	Dangerous Substances Directive

Version 4 / August 1991

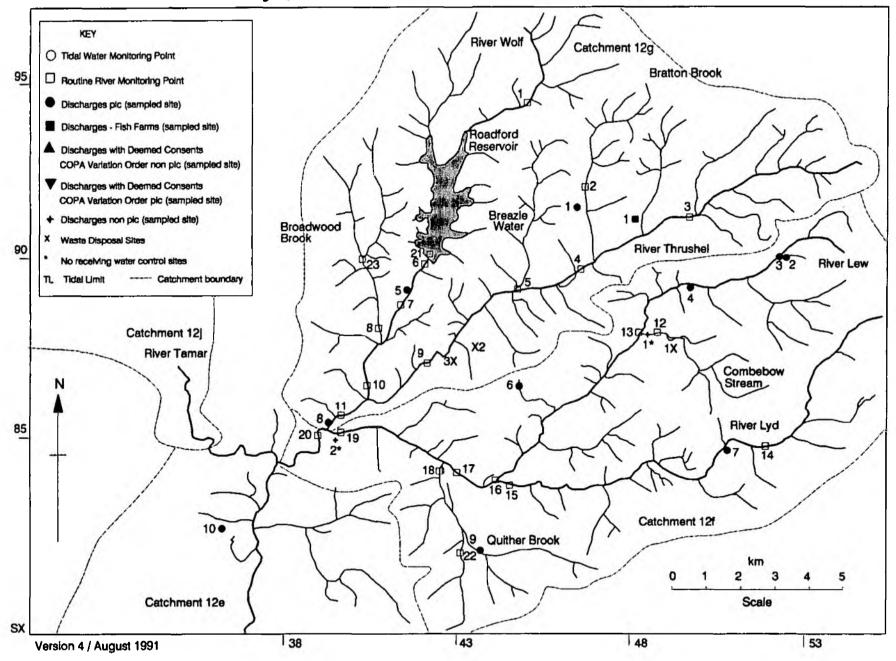
INNY CATCHMENT 12E & 12P (cont)

RO	JTINE RIVER	MONITORING		the state of the s	ارت المراجع بتراجي بالمراجع المراجع الم
- 21	-R1-2E034	SX41437373	Portontown	Stream	Chemical/biological site Dangerous Substances Directive
22	R12E004	SX43257291	Blanchdown	Stream	Chemical/biological site Dangerous Substances Directive
23	R12E003	SX43327224	Gunnislake	Bridge	Chemical/biological site Red list site Freshwater Fish Directive Dangerous substances site Harmonised monitoring point
24	R12E035	SX43377235	Gunnislake		EC Surface water abstraction directive monitoring site

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Version 4 / August 1991

Lyd, Thrushel & Wolf Catchments 12F & 12G

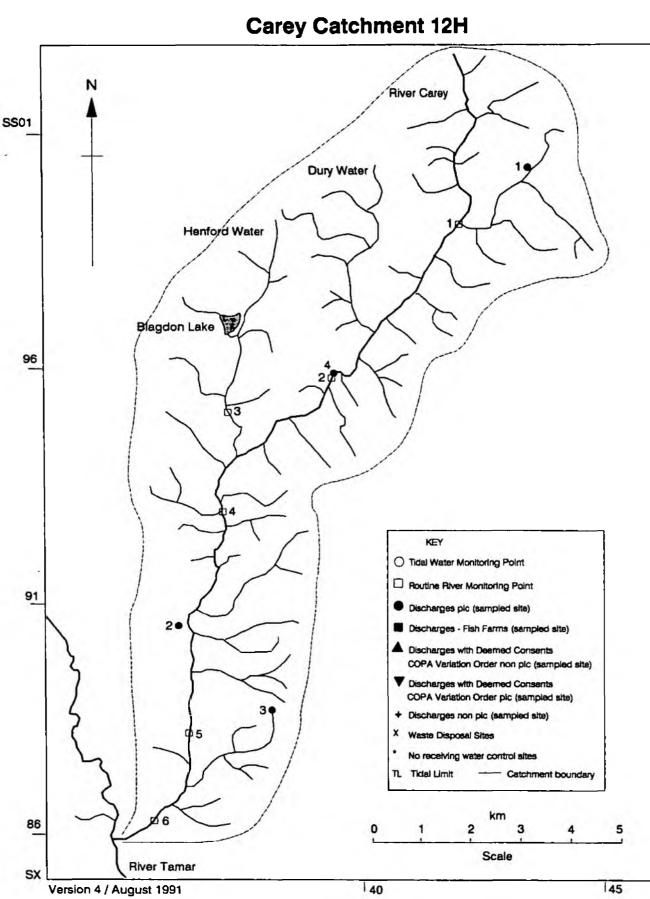


LYD, THRUSHEL & WOLF CATCHMENTS 12F & 12G

	NO	REFERENCE	NGR	LOCATION	ADDITIONAL DETAILS
	DIS	CHARGES NON	PLC		
	1*	R12F008	SX48758793	Combebow Quarry	River sampling site
	2*	P12F/P/7		Ambrosia Creamery	
1	۷.				
		P12F/P/10	SX39708495	Ambrosia Creamery	Trade effluent
	DIS	CHARGES PLC			
1.1	1	WSTW3035FE	SX46489175	Bratton Clovelly	Sewage treatment works
	2	WSTW3277FE	SX53219025	Sourton	Sewage treatment works
	3	WSTW3278FE	SX54329130	Sourton Down	Sewage treatment works
	4	WSTW3042FE	SX50008926	Bridestowe	Sewage treatment works
	5		SX41368884	Broadwoodwidger	Sewage treatment works
-	5 6	WSTW4654FE	SX44808680	Lewdown	Sewage treatment works
	7	WSTW4664FE	SX50868479	Lydford	Sewage treatment works
	8	WSTW4656FE	SX39278508	Lifton	Sewage treatment works
	9	WSTW4540FE	SX43138235	Chillaton	Sewage treatment works
	10	WSTW4646FE	SX35948243	Lawhitton	Sewage treatment works
					2
		H FARMS			
	1	P12G/P/1	SX49449122	Bratton Clovelly	
	WAS	TE DISPOSAL	SITES		
	1	11CA	SX491878	Combebow, Bridesto	we
	2	11CH	SX435876	Wreys Quarry, Stow	
	3	11GD	SX432872	Stowford Quarry, L	
		TINE RIVER M		·····	
	1	R12G005	SX44619423	Weeks Mill Bridge	Chemical/biological site
	2	R12G009	SX46769202	Bratton Clovelly	Chemical/biological site
÷ .	3	R12G001	SX49889128	Rivermead Bridge	Chemical/biological site
	4	R12G002	SX46558985	Wrixhill Bridge	Chemical/biological site
	5	R12G010	SX44768917	Breazle Water	Chemical/biological site
-	- 6-	R12G084	SX419898		eChemical/biological site
	7	R12G006	SX41338885	Rexon Bridge	Chemical/biological site
	8	R12G012	SX40668799	Kellacott Bridge	Chemical/biological site
	9	R12G003	SX42808735	Stowford Bridge	Chemical/biological site
	10	R12G007	SX40318629	River Wolf	Chemical/biological site
÷.,					Freshwater Fish Directive
	11	R12G004	SX39388538	Tinhay Bridge	Chemical/biological site
1.1					Freshwater Fish Directive
6	12	R12F010	SX48818796	Combebow Stream	Chemical/biological site
	13	R12F003	SX48538793	Combebow Bridge	Chemical/biological site
	14	R12F012	SX52058446	Lydford	Chemical/biological site
	15	R12F001	SX44368325	Greenlanes Bridge	Chemical/biological site
	16	R12F004	SX44108340	River Lew	Chemical/biological site
	10		0744100340		Freshwater Fish Directive
	17	R12F011	SX42888388	Sydenham Bridge	Chemical/biological site
	18	R12F013	SX42658398	Quither Brook	Chemical/biological site
	19	R12F015	SX393849	River Lyd	Chemical/biological site
	20	R12F010	SX38928480	Lifton Bridge	Chemical/biological site
	20	R121002	3730370400	BILLON BILLUYE	Freshwater Fish Directive
					rieshwater rish Directive

Version 4 / August 1991

2		R12 R12	E RI G09 G09 G09	2	R		şχ4	425	509	010		bad					đ	irec	rfac tive	mo	onit	or	abst ing	ract site	tion e	
22	22 23					-	SX4 SX4	432 402	208 208	190 990	C] B 1	hil udd	la: lle	ton Brc	Strook	eam	B B	iolo iolo	gica gica	1 :	site site	5				
		æ												2			z 7 *	- 7 7		~ 5			2, 18 18 ⁻			3. A
														1. si ²	5. 17	-		1.07		400 -	<u>ي</u> ب ب	at r	e s = a			
		<u>,</u>		-	-			-				-				2,44	1.1. · ·									

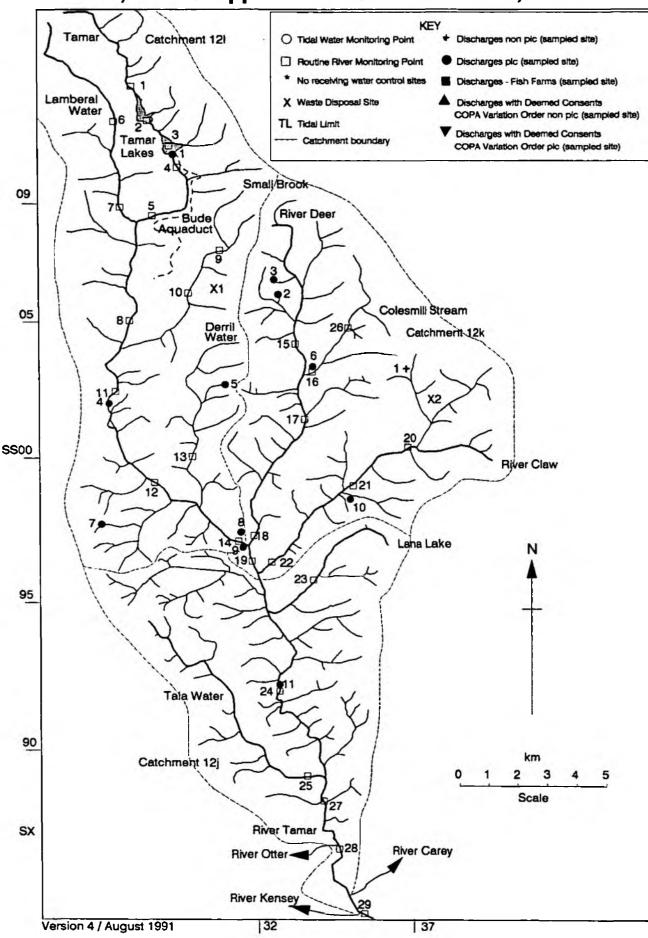


CAREY CATCHMENT 12H

-	NO	REFERENCE	NGR	LOCATION	ADDITIONAL DETAILS
	DIS	CHARGES PLC			
	1	WSTW3124FE	SX42959913	Halwill	Sewage treatment works
	$\overline{2}$	WSTW3259FE	SX36559017	St Giles/Heath	Sewage treatment works
	3	WSTW3090FE	SX38218844	East Kitcham	Sewage treatment works
	4	WSTW3010FE	SX39299530	Ashwater	Sewage treatment works
-	ROU	TINE RIVER M	ONITORING		
	1	R12H006	SX42019850	Halwill Bridge	Chemical/biological site
-	2	R12H001	sx39359534	Ashmill Bridge	Chemical/biological site
	3	R12H005	SX37359472	Henford Water	Chemical/biological site
	4	R12H007	SX37109263	Middle Bridge	Chemical/biological site
	5	R12H008	SX36428828	Boldford Bridge	Chemical/biological site
-	6	R12H002	SX36008631	Heale Bridge	Chemical/biological site Freshwater Fish Directive

Version 4 / August 1991

Claw, Deer & Upper Tamar Catchments 12J, 12K & 12L



CLAW, DEER & UPPER TAMAR CATCHMENTS 12J, 12K & 12L

NO	REFERENCE	NGR	LOCATION	ADDITIONAL DETAILS
DIS	CHARGES NON	PLC		
1*	R12K010	SS37400330	Hollacombe	Landfill site
				River sampling point
DIS	CHARGES PLC			
1	WWTW3838D	SS29381080	Tamar	Water treatment works
2	WSTW3067FE	SS33080584	Chilsworthy/South	Sewage treatment works
3	wstw3066fe	SS32860651	Chilsworthy/North	Sewage treatment works
4	WSTW3044FE	SS27170236	Bridgerule	Sewage treatment works
5	WSTW3242FE	SS30800320	Pyworthy	Sewage treatment works
6	wstw3139fe	SS33970318	Holsworthy	
7	WSTW3323FE	SX27119786	Whitstone	Sewage treatment works
8	WSTW3222FE	SX31649760	North Tamerton	Sewage treatment works
9	WSTW3223FE	SX31479737	North Tamerton	Sewage treatment works
	WSTW3074FE	SX35359910	Clawton	Sewage treatment works
11	WSTW3029FE	SX32829230	Boyton	Sewage treatment works
WAS	TE DISPOSAL	SITES		
1	11DH	SS312051	Thorne Farm, Holsw	
2	11CN	SS379020	Anvil Corner, Hols	worthy
ROU	TINE RIVER M	IONITORING		
1	R12L001	SS28081338	Buses Bridge	Chemical/biological site
2	R12L017	SS28911188	Upper Tamar Res	Chemical/biological site
				Freshwater Fish Directive
	R12L020	SS289118	Upper Tamar Res	Algological site
	R12L021	SS289118	Upper Tamar Res	EC Surface water abstraction
				directive monitoring site
			_	Algological site
3	R12L018	SS29621085	Lower Tamar Res	Chemical/biological site
	A1		and the second second	Freshwater Fish Directive
	-101000	00005(1070		Algological site
4	R12L009	SS29561070	Footbridge/ Res	Chemical/biological site Chemical/biological site
5	R12L006 R12L010	SS29530895 SS27711119	Dexbeer Bridge Lamberal Water	Chemical/biological site
6		SS27580893	Moreton Pound Br	Chemical/biological site
7 8	R12L007 R12L002	SS28350548	Tamarstone Bridge	Chemical/biological site
0	RIZLUUZ	2270720740	lamarscone bridge	Freshwater Fish Directive
9	R12L011	SS31000731	Headon Bridge	Chemical/biological site
í0	R12L008	SS29950528	Youldon Bridge	Chemical/biological site
11	R12L015	SS27480288	Bridgerule	Chemical/biological site
12	R12L003	SX28739944	Crowford Bridge	Chemical/biological site
13	R12L005	SS30130058	Dualstone Bridge	Chemical/biological site
14	R12L004	SX31769738	Tamerton Bridge	Chemical/biological site
15	R12K003	SS33560415	Rydon Bridge	Chemical/biological site
16	R12K007	\$\$33870317	Colesmill Stream	Chemical/biological site
				Dangerous substances site
17	R12K004	SS33860142	Winscott Bridge	Chemical/biological site
18	R12K005	SX31959741	Deer Bridge	Chemical/biological site
			-	Freshwater Fish Directive
19	R12L013	SX31909726	Below con/R Deer	Chemical/biological site
20	R12K016	SS37460071	Claw bridge	Chemical/biological site
21	R12K001	sx35339932	Clawton Bridge	Chemical/biological site
22	R12K002	SX327969	Tetcott bridge	Chemical/biological site
				Freshwater Fish Directive

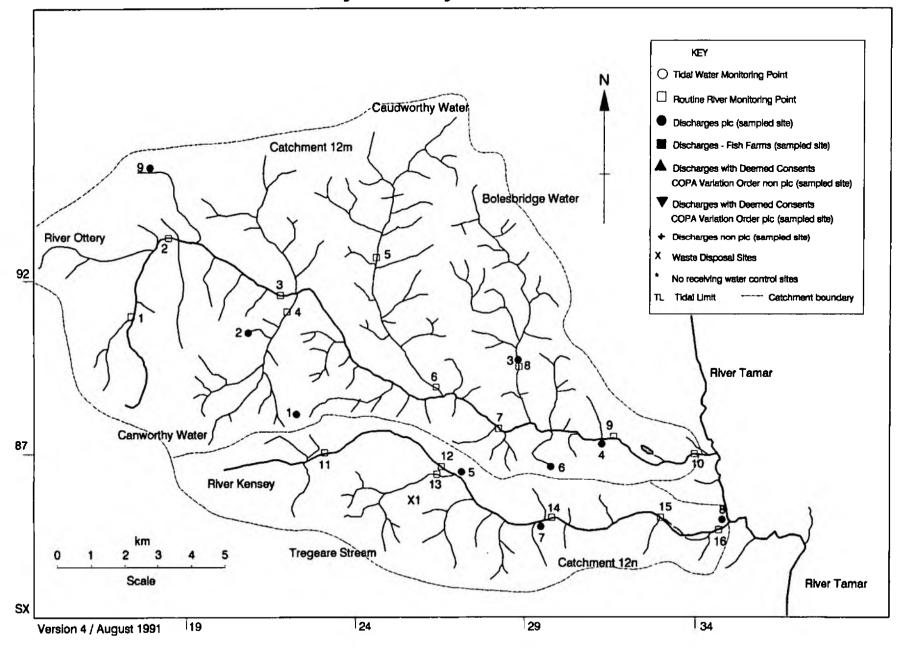
Version 4 / August 1991

CLAW, DEER & UPPER TAMAR CATCHMENTS 12J, 12K & 12L (cont)

_	8 011	THE DIVED	MONITORING		
-				Lana-Bridge Boyton Bridge Bridgetown	 Chemical/biological-site- Chemical/biological site Chemical/biological site
	26 27 28	R12J002 R12J003	SX352047 SX34448833 SX34838675	Dunstaple Brook Druxton Bridge Netherbridge	Biological site Chemical/biological site Chemical/biological site Dangerous substances control
	29	R12J004	SX35598490	Polson Bridge	sité Chemical/biological site Dangerous substances site

Version 4 / August 1991

Ottery & Kensey Catchments 12M & 12N



OTTERY & KENSEY CATCHMENTS 12M & 12N

NO	REFERENCE	NGR	LOCATION	ADDITIONAL DETAILS
DIS	CHARGES PLC			
1	P12M/P/6	SX22248855	Tresmeer (Splatt)	Sewage treatment works
2	WSTW4822FE	SX20829060	Warbstow	Sewage treatment works
3	WSTW3220FE	SX28808940	North Petherwin	Sewage treatment works
4	WSTW3342FE	SX31428733	Yeolmbridge	Sewage treatment works
5	WSTW4576FE	SX27068635	Egloskerry	Sewage treatment works
6	WSTW4638FE	SX29908660	Langore	Sewage treatment works
7	WSTW4794FE	SX29848498	Tregadillett	Sewage treatment works
8	WSTW4644FE	SX35238491	St Leonards	Sewage treatment works
9	WSTW3306FE	SX18209530	Wainhouse Corner	Sewage treatment works
				and a set and a set of
- WAS	STE DISPOSAL	SITES	1 10	
1	08PY	SX261855	Red Down Quarry, La	aunceston
BOI	JTINE RIVER A	ONTTORING		
	R12M004	SX17459095	Otterham Mill	Chemical/biological site
2	R12M005	SX18899328	Trengune Bridge	Chemical/biological site
3	R12M001	SX22409173	Canworthy Water	Chemical/biological site
4	R12M008	SX22409147	Canworthy Water	Chemical/biological site
5	R12M010	SX24709263	Canworthy Water	Chemical/biological site
6	R12M011	SX26768887	Caudworthy Water	Chemical/biological site
7	R12M002	SX28558777	Hellescott Bridge	Chemical/biological site
8	R12M012	SX28958920	Bolesbridge Water	Chemical/biological site
- ŭ	R12M006	SX31828738	Yeolmbridge	Chemical/biological site
1 0	R12M007	SX34458682	Ham Mill Bridge	Chemical/biological site
10	RILINOV/	0/10/0002		Freshwater Fish Directive
1 1	R12N003	sx23178692	Badgall Bridge	Chemical/biological site
12	R12N001	SX26758643	Badharlick Bridge	Chemical/biological site
13	R12N006	SX26718628	Tregeare Stream	Chemical/biological site
14	R12N004	5X29878499	Truscott Bridge	Chemical/biological site
15	R12N005	SX32708511	Newport	Chemical/biological site
16	R12N002	SX35178478	St Leonards Bridge	Chemical/biological site
				Freshwater Fish Directive

Version 4 / August 1991

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.