NRA

National Rivers Authority

South West Region

ENVIRONMENTAL PROTECTION

River Exe Catchment

River Water Quality

Classification 1990

NOVEMBER 1991
WQP/91/005
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R. Broome - Co-ordinator and Editor
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Field Control and Wardens
Water Resources

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Suggestions for improvements that could be incorporated in the production of the next Classification report would be welcomed.

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RIVER WATER QUALITY IN THE RIVER EXE CATCHMENT

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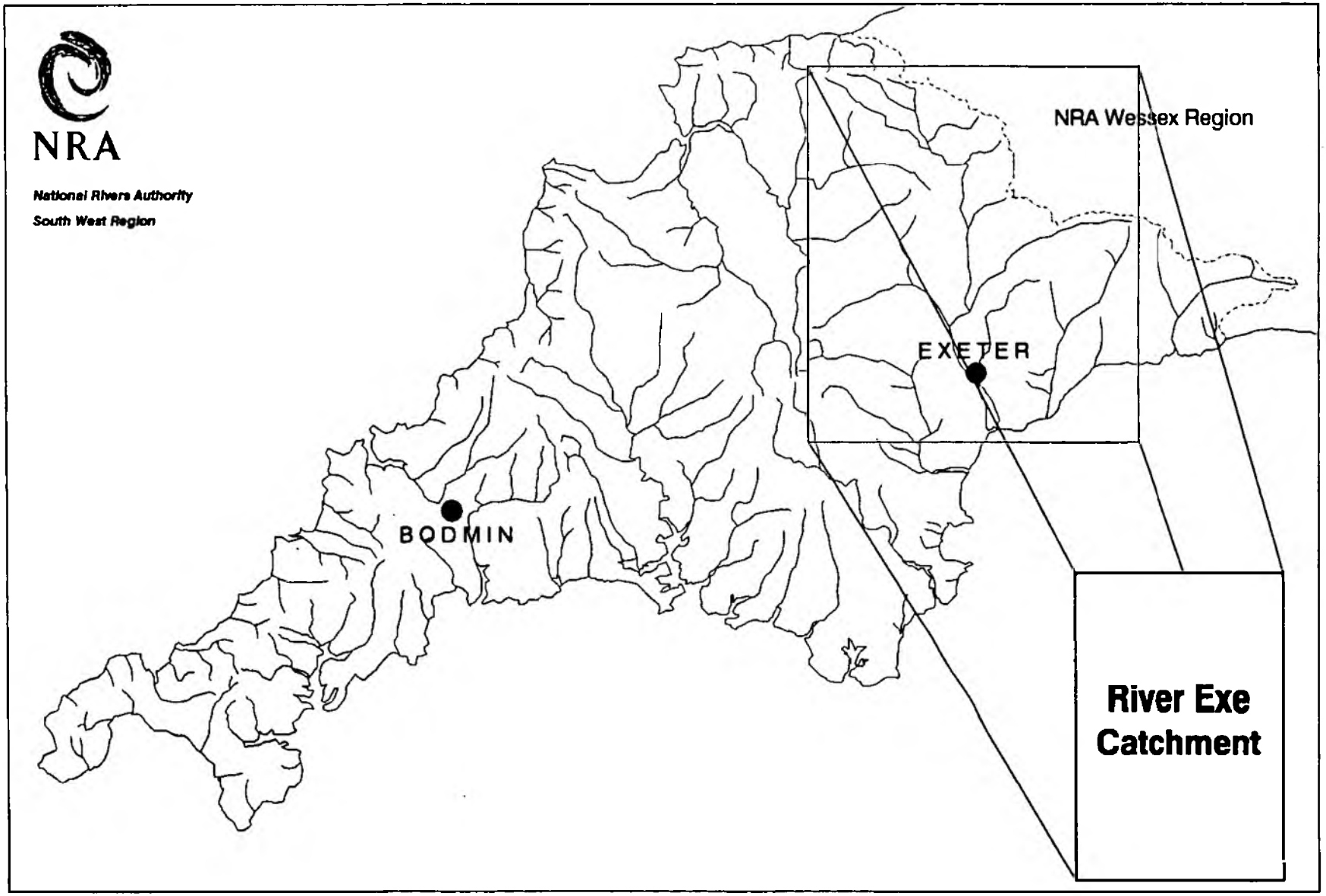

River Exe Catchment

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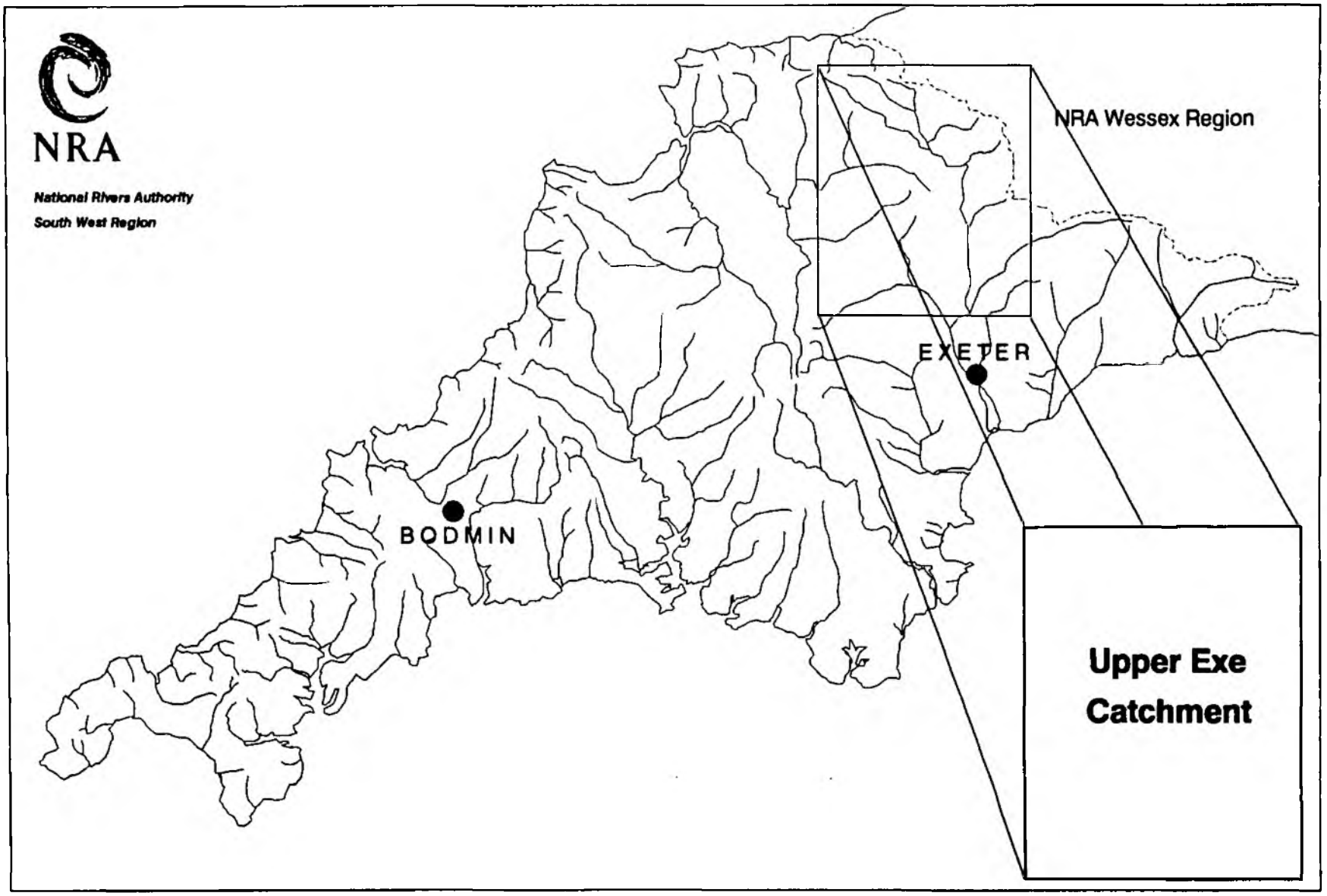

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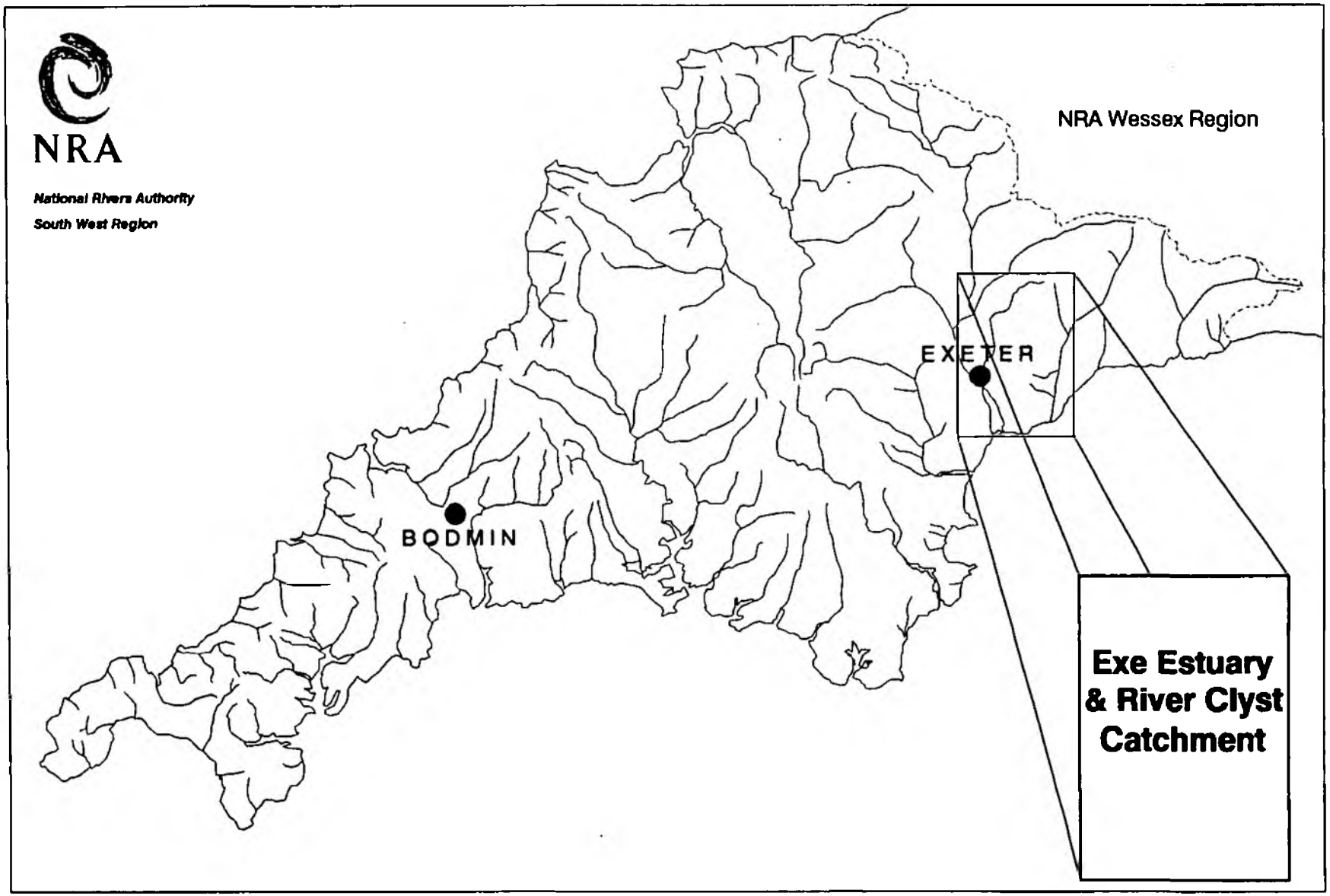

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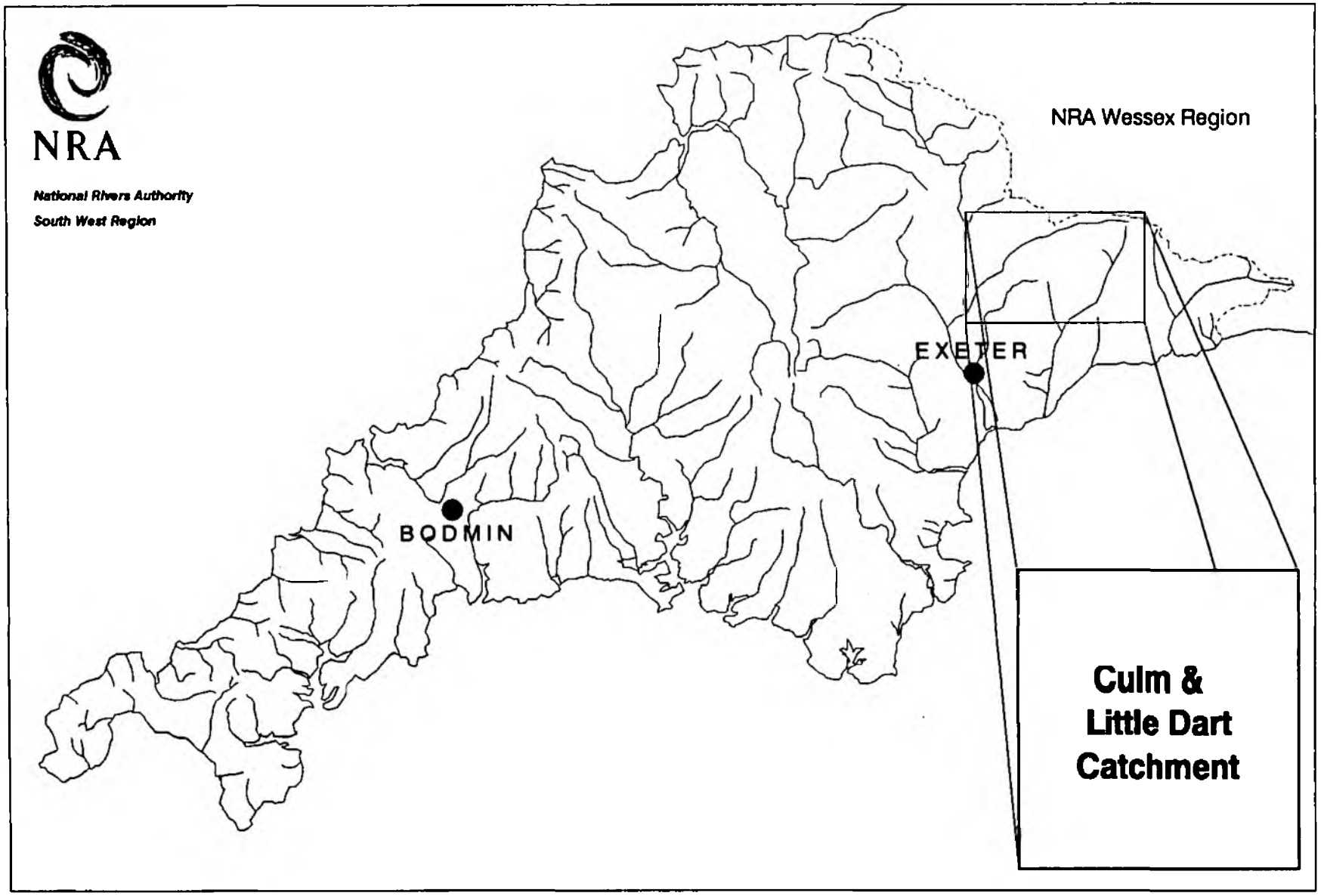

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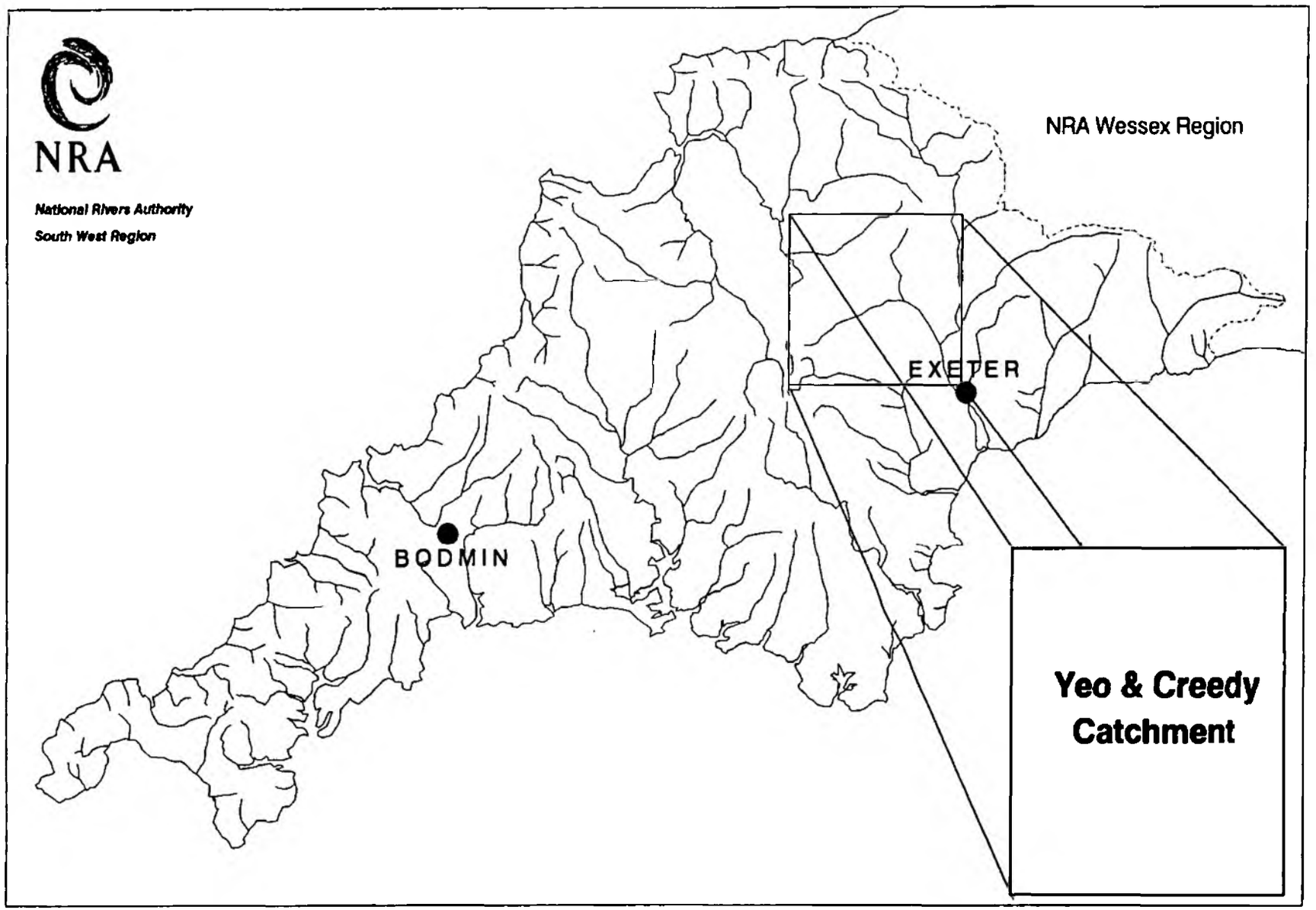


Yeo & Creedy Catchment

1. INTRODUCTION

Monitoring to assess the quality of river waters is undertaken in thirty-two catchments within the region. As part of this monitoring programme samples are collected routinely from selected monitoring points at a pre-determined frequency per year, usually twelve spaced at monthly intervals. Each monitoring point provides data for the water quality of a river reach (in kilometres) upstream of the monitoring point.

River lengths have been re-measured and variations exist over those recorded previously.

Each water sample collected from each monitoring point is analysed for a range of chemical and physical constituents or properties known as determinands. The analytical results for each sample are entered into a computer database called the Water Quality Archive.

Selected data are accessed from the Archive so that the quality of each river reach can be determined based on a River Classification System developed by the National Water Council (NWC), (9.1).

This report presents the river water quality classification for 1990 for monitored river reaches in the River Exe catchment.

2. RIVER EXE CATCHMENT

For reasons of clarity the following Monitoring summary is not broken up into four separate sub-catchments of the River Exe as represented by the Water Quality Maps attached.

The River Exe flows over a distance of 87.2 km from its source to the tidal limit, (Appendix 10.1). Water quality was monitored at fourteen locations on the main river; ten of these sites were sampled at approximately monthly intervals. Sites at Thorverton and Trews Weir, which are National Water Quality monitoring points, were sampled fortnightly. Sites at Lythecourt and Warmore were sampled on twenty occasions during 1990 because of no recent water quality data.

Dawlish Water flows over a distance of 9.7 km from its source to the tidal limit, (Appendix 10.1) and was monitored on twenty occasions during 1990 because of no recent water quality data.

The River Clyst flows over a distance of 25.1 km from its source to the tidal limit in the River Exe Estuary, (Appendix 10.1) and was monitored at seven locations.

The River Kenn (14.7 km) and Alphin Brook (14.6 km) were both monitored at two locations between their source and the tidal limits, (Appendix 10.1).

Throughout the Exe catchment eighteen secondary tributaries (plus the Tiverton and Exeter Canals), fourteen tertiary, six quarternary and one quinary tributary of the River Exe were monitored. In addition Wimbleball Reservoir was sampled at approximately monthly intervals during 1990.

The following twenty-eight tributaries were sampled on twenty occasions during 1990 because of no recent water quality data: North Brook, Grindle Brook, Pin Brook, Aylesbeare Stream, Ford Stream, River Culm (R05C043), River Weaver, Rull Leat, River Madford (R05C028), River Burn, Thorverton Stream, Calverleigh Stream, River Lowman (R05E010), River Uplowman, River Batherm (R05F001), River Haddeo (R05G004), River Barle (R05H001), Sherdon Water, River Creedy (R05J014), Holly Water, Binneford Water, Shobrooke Lake, Jackmoor Brook, Ford Brook, River Culvery, River Troney, Yeo (Creedy R05K003) and Cole Brook.

The Tiverton Canal (Grand Western) flows over a distance of 18.3 km from its source to the end of the Canal, (Appendix 10.1) and was monitored at two locations. Samples were collected at monthly intervals.

2.1 SECONDARY TRIBUTARIES

The River Culm flows over a distance of 45.3 km from its source to the confluence with the River Exe, (Appendix 10.1) and was monitored at fourteen locations.

The River Creedy flows over a distance of 24.3 km from its source to the confluence with the River Exe, (Appendix 10.1) and was monitored at six locations.

The Cranny Brook flows over a distance of 11.4 km before joining the River Clyst, (Appendix 10.1) and was monitored at four locations.

The River Lowman (15.5 km), River Batherm (16.7 km) and River Barle (38.8 km) were all monitored at three locations between their source and the confluence with the River Exe, (Appendix 10.1).

The River Haddeo (13.8 km) was monitored at two locations between their source and confluence with the River Exe, (Appendix 10.1).

The North Brook (6.8 km), River Burn (8.9 km), Thorverton Stream (6.6 km), Calverleigh Stream (7.0 km), Iron Mill Stream (10.1 km), Brockey River (8.4 km), River Dart (Exe) (14.6 km), Grindle Brook (9 km), Aylesbeare Stream (8 km), Pin Brook (6.6 km) and River Quarme (12.3 km) were all monitored at one location. Monitoring points were all located in the lower reaches of these streams.

2.2 TERTIARY TRIBUTARIES

The River Madford (8.1 km), Spratford River (19.3 km) and River Yeo (Creedy - 19.6 km), were all monitored at three locations between their source and confluence with the River Clyst.

The River Weaver (12.3 km), Sheldon Stream (9.8 km), Uplowman (8 km), Pulham River (9 km), Danes Brook (12.1 km), Sherdon Water (9.4 km), Jackmoor Brook (7.6 km), Shobrooke Lake (9.6 km), Ford Stream (6.1 km) Binneford Water (8.9 km) and Holly Water (11.5 km) were all monitored at one location. Monitoring points were located in the lower reaches of these streams.

2.3 QUARTERNARY TRIBUTARIES

The River Troney flows over a distance of 14.1 km before joining the River Yeo (Creedy), (Appendix 10.1) and was monitored at two locations.

Ford Brook (6.6 km), River Culvery (9.4 km), Bolham River (6 km), Heron's Bank (6.7 km) and Dunkeswell River (2.8 km) were all monitored at one location. Monitoring points were all located in the lower reaches of these streams.

2.4 QUINARY TRIBUTARIES

The Cole Brook flows over a distance of 5.5 km before joining the River Troney, (Appendix 10.1) and was monitored at one location.

Each sample was analysed for a minimum number of determinands (Appendix 10.2) plus additional determinands based on local knowledge of the catchment. In addition, at selected sites, metal analyses were carried out.

The analytical results from all of these samples have been entered into the Water Quality Archive and can be accessed through the Water Act Register (9.2).

3. NATIONAL WATER COUNCIL'S RIVER CLASSIFICATION SYSTEM

3.1 River Quality Objectives

In 1978 river quality objectives (RQOs) were assigned to all river lengths that were part of the routine monitoring network and to those additional watercourses, which were not part of the routine network, but which received discharges of effluents.

For the majority of watercourses long term objectives were identified based on existing and assumed adequate quality for the long term

protection of the watercourse. In a few instances short term objectives were identified but no timetable for the achievement of the associated long term objective was set.

The RQOs currently in use in the River Exe catchment are identified in Appendix 10.1.

3.2 River Quality Classification

River water quality is classified using the National Water Council's (NWC) River Classification System (see Appendix 10.3), which identifies river water quality as being one of five quality classes as shown in Table 1 below:

Table 1 - National Water Council - River Classification System

Class	Description
1A	Good quality
1B	Lesser good quality
2	Fair quality
3	Poor quality
4	Bad quality

Using the NWC system, the classification of river water quality is based on the values of certain determinands as arithmetic means or as 95 percentiles (5 percentiles are used for pH and dissolved oxygen) as indicated in Appendices 10.4.1 and 10.4.2.

The quality classification system incorporates some of the European Inland Fisheries Advisory Commission (EIFAC) criteria (Appendix 10.3) recommended for use by the NWC system.

4. 1990 RIVER WATER QUALITY SURVEY

The 1990 regional classification of river water quality also includes the requirements of the Department of the Environment quinquennial national river quality survey. The objectives for the Department of the Environment 1990 River Quality Survey are given below:

1) To carry out a National Classification Survey based on procedures used in the 1985 National Classification Survey, including all regional differences.

2) To classify all rivers and canals included in the 1985 National Classification Survey.

3) To compare the 1990 Classification with those obtained in 1985.

In addition, those watercourses, which were not part of the 1985 Survey and have been monitored since that date, are included in the 1990 regional classification of river water quality.

5. 1990 RIVER WATER QUALITY CLASSIFICATION

Analytical data collected from monitoring during 1988, 1989 and 1990 were processed through a computerised river water quality classification programme. This resulted in a quality class being assigned to each monitored river reach as indicated in Appendix 10.5.

The quality class for 1990 can be compared against the appropriate River Quality Objective and previous annual quality classes (1985–1989) also based on three years combined data, for each river reach in Appendix 10.5.

The river water classification system used to classify each river length is identical to the system used in 1985 for the Department of the Environment's 1985 River Quality Survey. The determinand classification criteria used to determine the annual quality classes in 1985, subsequent years and for 1990 are indicated in Appendices 10.4 and 10.4.1.

Improvements to this classification system could have been made, particularly in the use of a different suspended solids standard for Class 2 waters. As the National Rivers Authority will be proposing new classification systems to the Secretary of State in the near future, it was decided to classify river lengths in 1990 with the classification used for the 1985–1989 classification period.

The adoption of the revised criteria for suspended solids in Class 2 waters would have affected the classification of the River Clyst at Clyst Hydon and the Grand Western Canal at Fenacre Bridge.

The river quality classes for 1990 of monitored river reaches in the catchment are shown in map form in Appendix 10.6.

The calculated determinand statistics for pH, temperature, dissolved oxygen, biochemical oxygen demand (BOD), total ammonia, un-ionised ammonia, suspended solids, copper and zinc from which the quality class was determined for each river reach, are indicated in Appendix 10.7.

6. NON-COMPLIANCE WITH QUALITY OBJECTIVES

Those monitored river reaches within the catchment, which do not comply with their assigned (RQO), are shown in map form in Appendix 10.8.

Appendix 10.9 indicates the number of samples analysed for each determinand over the period 1988 to 1990 and the number of sample results per determinand, which exceed the determinand quality standard.

For those non-compliant river reaches in the catchment, the extent of exceedance of the calculated determinand statistic with relevant quality standard (represented as a percentage), is indicated in Appendix 10.10.

7. CAUSES OF NON-COMPLIANCE

For those river reaches, which did not comply with their assigned RQOs, the cause of non-compliance (where possible to identify) is indicated in Appendix 10.11.

8. GLOSSARY OF TERMS

RIVER REACH	A segment of water, upstream from sampling point to the next sampling point.
RIVER LENGTH	River distance in kilometres.
RIVER QUALITY OBJECTIVE	That NWC class,which protects the most sensitive use of the water.
95 percentiles	Maximum limits, which must be met for at least 95% of the time.
5 percentiles	Minimum limits, which must be met for at least 95% of the time.
BIOLOGICAL OXYGEN DEMAND (5 day carbonaceous ATU)	A standard test measuring the microbial uptake of oxygen - an estimate of organic pollution.
pH	A scale of acid to alkali.
UN-IONISED AMMONIA	Fraction of ammonia poisonous to fish, NH^3.
SUSPENDED SOLIDS	Solids removed by filtration or centrifuge under specific conditions.
USER REFERENCE NUMBER	Reference number allocated to a sampling point.
INFERRED STRETCH	Segment of water, which is not monitored and whose water quality classification is assigned from the monitored reach upstream.

9. REFERENCES

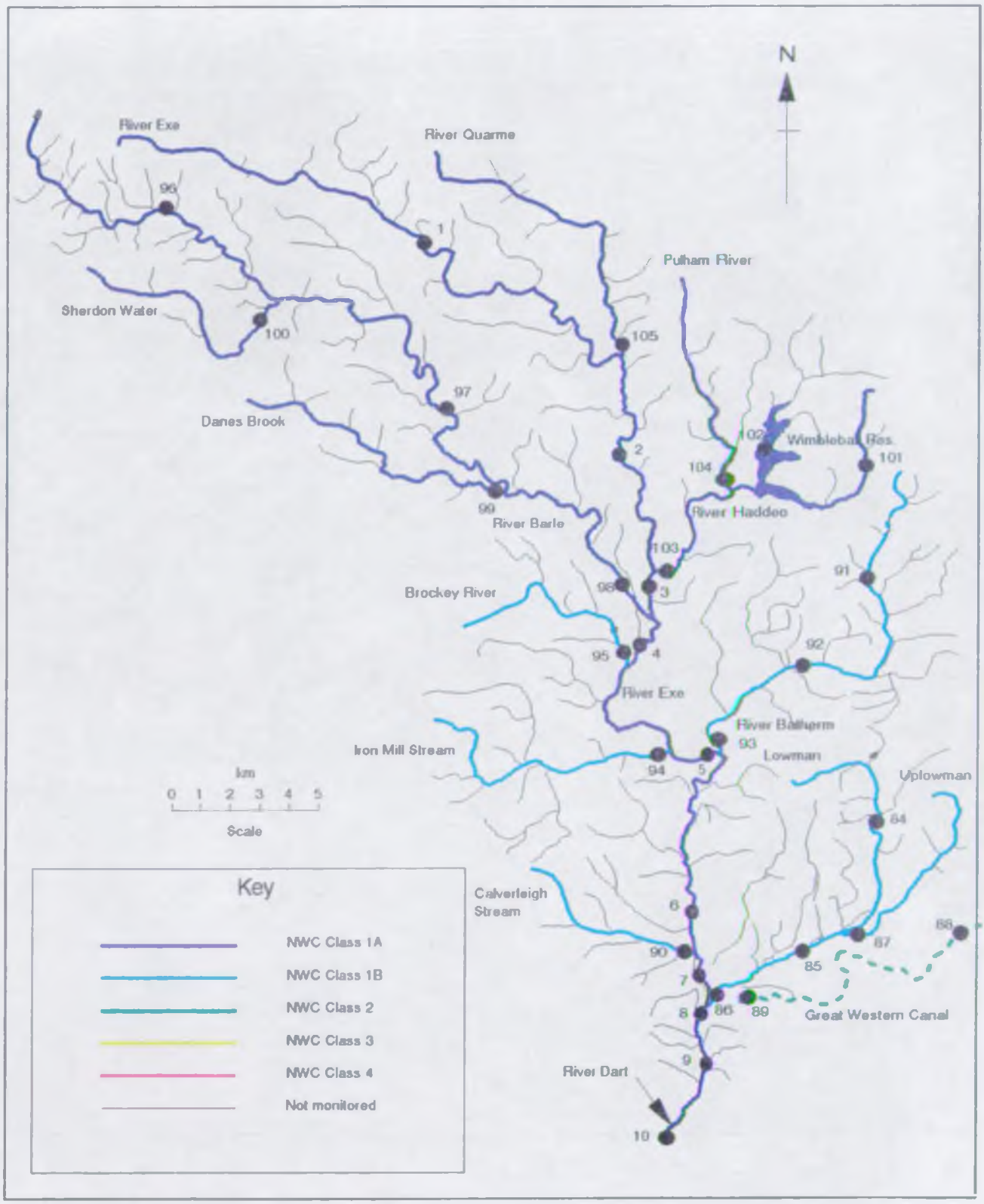
Reference

9.1 National Water Council (1977). River Water Quality: The Next Stage. Review of Discharge Consent Conditions. London.

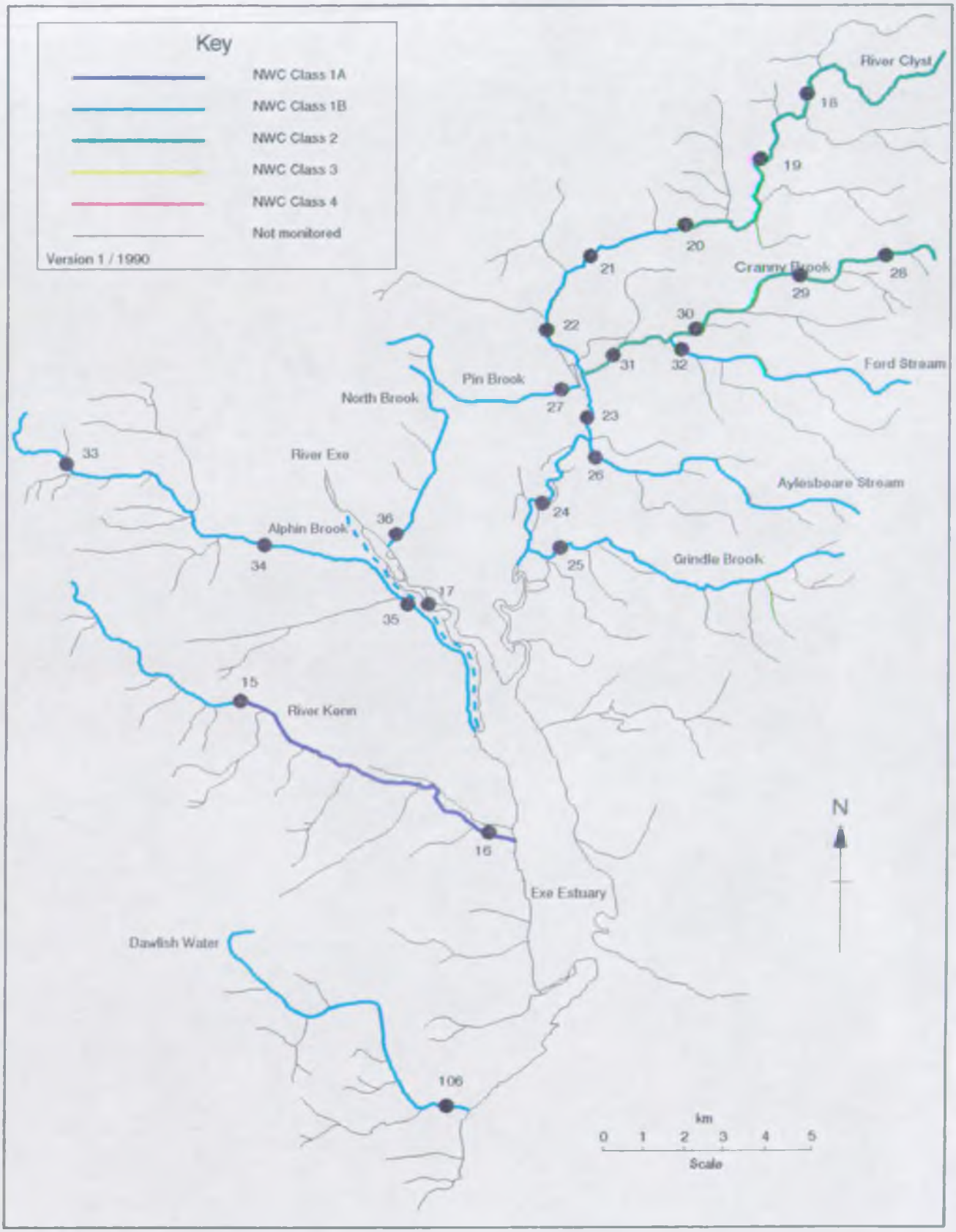
9.2 Water Act 1989 Section 117

9.3 Alabaster J. S. and Lloyd R. Water Quality Criteria for Freshwater Fish, 2nd edition, 1982. Butterworths.

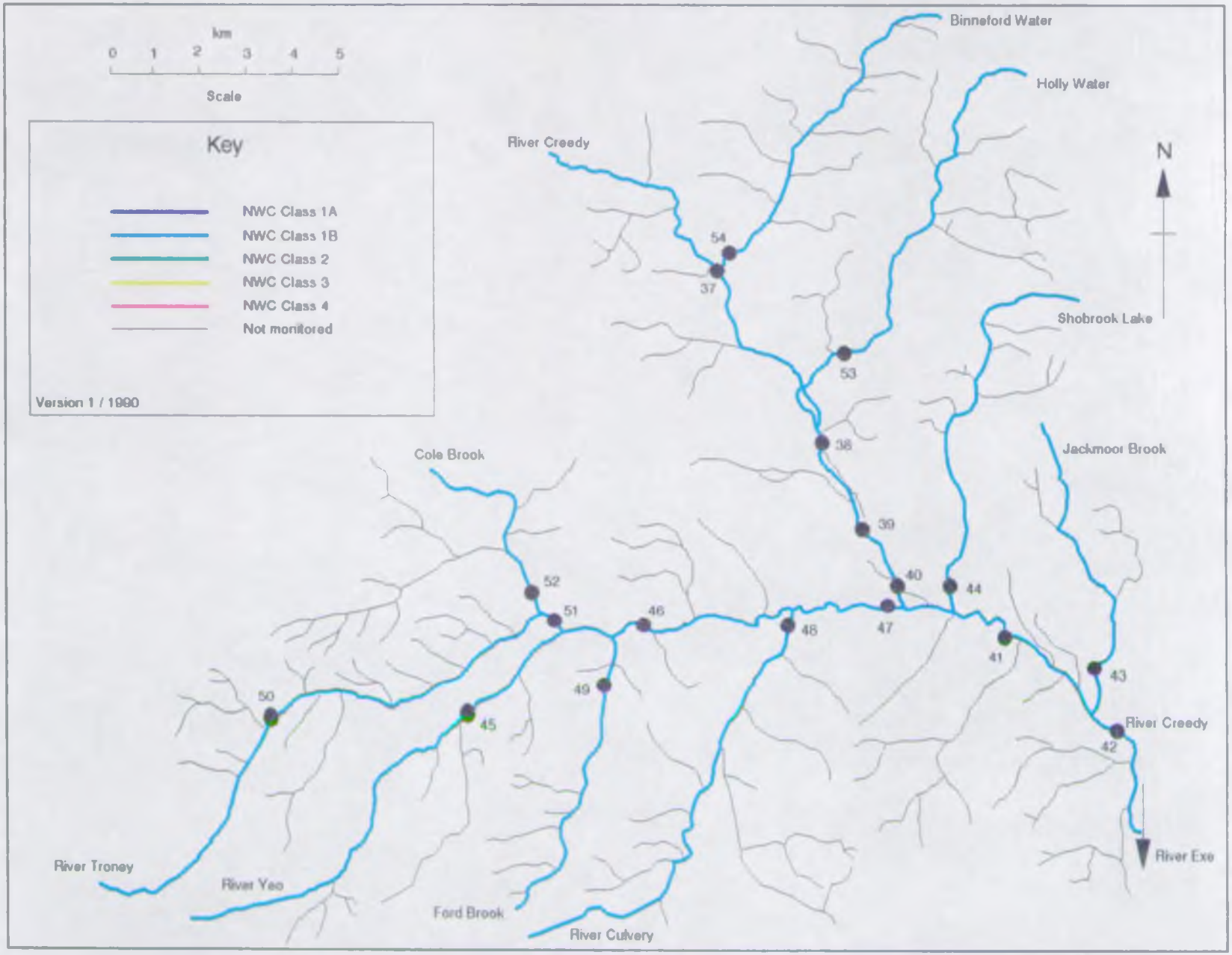
Upper Exe Catchment
River Quality Objectives



Exe Estuary and Clyst Catchments
River Quality Objectives

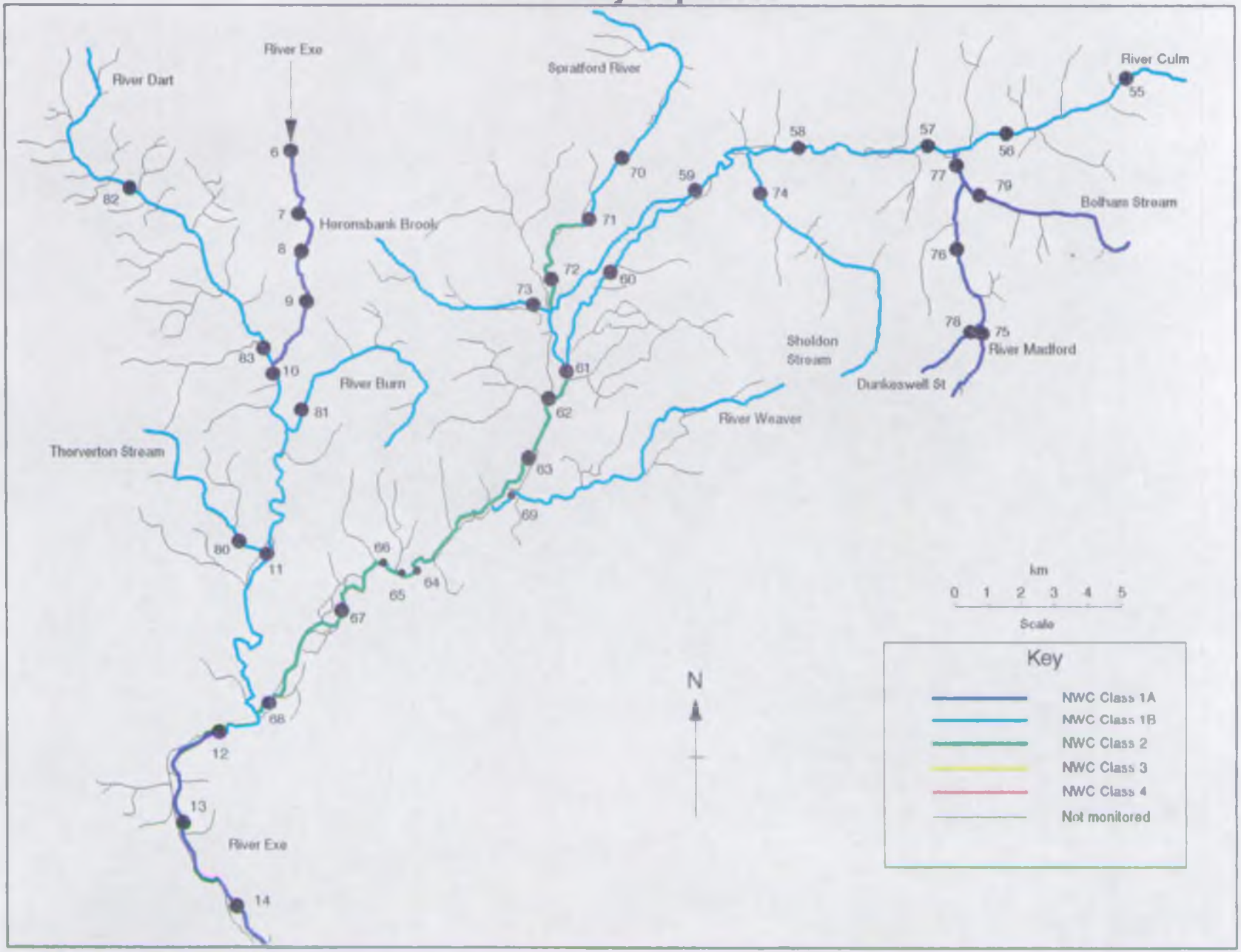


Yeo & Creedy Catchments
River Quality Objectives



Appendix 10.1

Culm and Little Dart Catchments
River Quality Objectives



Appendix 10.1

BASIC DETERMINAND ANALYTICAL SUITE FOR ALL CLASSIFIED RIVER SITES

pH as pH Units

Conductivity at 20 C as uS/cm

Water temperature (Cel)

Oxygen dissolved % saturation

Oxygen dissolved as mg/l O

Biochemical oxygen demand (5 day total ATU) as mg/l O

Total organic carbon as mg/l C

Nitrogen ammoniacal as mg/l N

Ammonia un-ionised as mg/l N

Nitrate as mg/l N

Nitrite as mg/l N

Suspended solids at 105 C as mg/l

Total hardness as mg/l CaCO3

Chloride as mg/l Cl

Orthophosphate (total) as mg/l P

Silicate reactive dissolved as mg/l SiO2

Sulphate (dissolved) as mg/l SO4

Sodium (total) as mg/l Na

Potassium (total) as mg/l K

Magnesium (total) as mg/l Mg

Calcium (total) as mg/l Ca

Alkalinity as pH 4.5 as mg/l CaCO3

NWC RIVER QUALITY CLASSIFICATION SYSTEM

River Class	Quality criteria	Remarks	Current potential uses
	Class limiting criteria (95 percentile)		
1A Good Quality	(i) Dissolved oxygen saturation greater than 80% (ii) Biochemical oxygen demand not greater than 3 mg/l (iii) Ammonia not greater than 0.4 mg/l (iv) Where the water is abstracted for drinking water, it complies with requirements for A2* water (v) Non-toxic to fish in EIFAC terms (or best estimates if EIFAC figures not available)	(i) Average BOD probably not greater than 1.5 mg/l (ii) Visible evidence of pollution should be absent	(i) Water of high quality suitable for potable supply abstractions and for all abstractions (ii) Game or other high class fisheries (iii) High amenity value
1B Good Quality	(i) DO greater than 60% saturation (ii) BOD not greater than 5 mg/l (iii) Ammonia not greater than 0.9 mg/l (iv) Where water is abstracted for drinking water, it complies with the requirements for A2* water (v) Non-toxic to fish in EIFAC terms (or best estimates if EIFAC figures not available)	(i) Average BOD probably not greater than 2 mg/l (ii) Average ammonia probably not greater than 0.5 mg/l (iii) Visible evidence of pollution should be absent (iv) Waters of high quality which cannot be placed in Class 1A because of the high proportion of high quality effluent present or because of the effect of physical factors such as canalisation, low gradient or eutrophication (v) Class 1A and Class 1B together are essentially the Class 1 of the River Pollution Survey (RPS)	Water of less high quality than Class 1A but usable for substantially the same purposes
2 Fair Quality	(i) DO greater than 40% saturation (ii) BOD not greater than 9 mg/l (iii) Where water is abstracted for drinking water it complies with the requirements for A3* water (iv) Non-toxic to fish in EIFAC terms (or best estimates if EIFAC figures not available)	(i) Average BOD probably not greater than 5 mg/l (ii) Similar to Class 2 of RPS (iii) Water not showing physical signs of pollution other than humic colouration and a little foaming below weirs	(i) Waters suitable for potable supply after advanced treatment (ii) Supporting reasonably good coarse fisheries (iii) Moderate amenity value

3 Poor quality	(i) DO greater than 10% saturation (ii) Not likely to be anaerobic (iii) BOD not greater than 17 mg/l. This may not apply if there is a high degree of re-aeration		Similar to Class 3 of RPS	Waters which are polluted to an extent that fish are absent only sporadically present. May be used for low grade industrial abstraction purposes. Considerable potential for further use if cleaned up
4 Bad quality	Waters which are inferior to Class 3 in terms of dissolved oxygen and likely to be anaerobic at times		Similar to Class 4 of RPS	Waters which are grossly polluted and are likely to cause nuisance
X	DO greater than 10% saturation			Insignificant watercourses and ditches not usable, where the objective is simply to prevent nuisance developing

Notes (a) Under extreme weather conditions (eg flood, drought, freeze-up), or when dominated by plant growth, or by aquatic plant decay, rivers usually in Class 1, 2, and 3 may have BODs and dissolved oxygen levels, or ammonia content outside the stated levels for those Classes. When this occurs the cause should be stated along with analytical results.

(b) The BOD determinations refer to 5 day carbonaceous BOD (ATU). Ammonia figures are expressed as NH_4. **

(c) In most instances the chemical classification given above will be suitable. However, the basis of the classification is restricted to a finite number of chemical determinands and there may be a few cases where the presence of a chemical substance other than those used in the classification markedly reduces the quality of the water. In such cases, the quality classification of the water should be down-graded on the basis of biota actually present, and the reasons stated.

(d) EIFAC (European Inland Fisheries Advisory Commission) limits should be expressed as 95 percentile limits.

EEC category A2 and A3 requirements are those specified in the EEC Council directive of 16 June 1975 concerning the Quality of Surface Water intended for Abstraction of Drinking Water in the Member State.

Ammonia Conversion Factors

($mg\ NH_4/l$ to $mg\ N/l$)

Class 1A	0.4 $mg\ NH_4/l$	= 0.31 $mg\ N/l$
Class 1B	0.9 $mg\ NH_4/l$	= 0.70 $mg\ N/l$
	0.5 $mg\ NH_4/l$	= 0.39 $mg\ N/l$

NWC RIVER CLASSIFICATION SYSTEM

CRITERIA USED BY NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION FOR NON-METALLIC DETERMINANDS

River Class	Quality Criteria
1A	Dissolved oxygen % saturation greater than 80% BOD (ATU) not greater than 3 mg/l O Total ammonia not greater than 0.31 mg/l N Non-ionised ammonia not greater than 0.021 mg/l N Temperature not greater than 21.5 C pH greater than 5.0 and less than 9.0 Suspended solids not greater than 25 mg/l
1B	Dissolved oxygen % saturation greater than 60% BOD (ATU) not greater than 5 mg/l O Total ammonia not greater than 0.70 mg/l N Non-ionised ammonia not greater than 0.021 mg/l N Temperature not greater than 21.5 C pH greater than 5.0 and less than 9.0 Suspended solids not greater than 25 mg/l
2	Dissolved oxygen & saturation greater than 40% BOD (ATU) not greater than 9 mg/l O Total ammonia not greater than 1.56 mg/l N Non-ionised ammonia not greater than 0.021 mg/l N Temperature not greater than 28 C pH greater than 5.0 and less than 9.0 Suspended solids not greater than 25 mg/l
3	Dissolved oxygen % saturation greater than 10% BOD (ATU) not greater than 17 mg/l O
4	Dissolved oxygen % saturation not greater than 10% BOD (ATU) greater than 17 mg/l O

STATISTICS USED BY NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION

Determinand	Statistic
Dissolved oxygen	5 percentile
BOD (ATU)	95 percentile
Total ammonia	95 percentile
Non-ionised ammonia	95 percentile
Temperature	95 percentile
pH	5 percentile
	95 percentile
Suspended solids	arithmetic mean

NWC RIVER CLASSIFICATION SYSTEM

CRITERIA USED BY NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION FOR METALLIC DETERMINANDS

SOLUBLE COPPER

Total Hardness (mean) mg/l CaCO3	Statistic	Soluble Copper* ug/l Cu Class 1	Class 2
0 - 10	95 percentile	< = 5	> 5
10 - 50	95 percentile	< = 22	> 22
50 - 100	95 percentile	< = 40	> 40
100 - 300	95 percentile	< = 112	> 112

* Total copper is used for classification until sufficient data on soluble copper can be obtained.

TOTAL ZINC

Total Hardness (mean) mg/l CaCO3	Statistic	Total Zinc ug/l Zn Class 1	Class 2	Class 3
0 - 10	95 percentile	< = 30	< = 300	> 300
10 - 50	95 percentile	< = 200	< = 700	> 700
50 - 100	95 percentile	< = 300	< = 1000	> 1000
100 - 300	95 percentile	< = 500	< = 2000	> 2000

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION
1990 RIVER WATER QUALITY CLASSIFICATION
CATCHMENT : EXE (05)

1990 Map Position Number	River	Reach upstream of	User Reference Number	National Grid Reference	Reach Length (km)	Distance from source (km)	River Quality Objective	85 NWC Class	86 NWC Class	87 NWC Class	88 NWC Class	89 NWC Class	90 NWC Class
1	EXE	COURT FARM EXFORD	R05G001	SS 8572 3806	12.9	12.9	1A	1A	1A	1A	1A	1B	1A
2	EXE	CHILLY BRIDGE	R05G002	SS 9237 3068	16.2	29.1	1A	1A	1A	1A	1A	1A	2
3	EXE	WARMORE	R05G003	SS 9347 2599	6.0	35.1	1A	1A	1A	1A	1A	1A	1B
4	EXE	EXEBRIDGE	R05E001	SS 9301 2447	2.0	37.1	1A	1A	1A	1A	1A	1A	1A
5	EXE	HALFPENNY BRIDGE	R05E002	SS 9525 2053	7.7	44.8	1A	1A	1A	1A	1A	1B	1B
6	EXE	LYTHECOURT	R05E003	SS 9486 1532	7.7	52.5	1A	2	3	3	2	2	1A
7	EXE	TIVERTON NEW BRIDGE	R05E004	SS 9491 1308	2.5	55.0	1A	2	3	3	2	2	2
8	EXE	COLLIPRIEST TIVERTON	R05E005	SS 9517 1165	1.8	56.8	1A	1B	1A	1A	1A	1A	2
9	EXE	ASHLEY	R05E006	SS 9528 0990	2.0	58.8	1A	1B	1A	1A	1B	2	2
10	EXE	BICKLEIGH CASTLE	R05E007	SS 9368 0683	3.9	62.7	1A	1B	1A	1A	1B	1B	1B
11	EXE	THORVERTON GAUGING STATION	R05D001	SS 9358 0167	7.1	69.8	1B	1B	1A	1B	1B	1B	1B
12	EXE	STAFFORD BRIDGE	R05D002	SX 9222 9635	8.8	78.6	1B	1B	1B	1B	1B	1B	1B
13	EXE	EXWICK	R05D003	SX 9105 9360	3.9	82.5	1A	1B	1B	1B	1B	1B	2
14	EXE	TREWS WEIR EXETER	R05D004	SX 9255 9147	3.0	85.5	1A	2	1B	1B	1B	1B	1B
	EXE	NORMAL TIDAL LIMIT (INFERRED STRETCH)			1.7	87.2	1A	2	1B	1B	1B	1B	1B
15	KENN	A38 BRIDGE KENNFORD	R05A001	SX 9132 8662	6.9	6.9	1B	2	3	3	3	3	3
16	KENN	POWDERHAM CASTLE	R05A002	SX 9660 8343	6.8	13.7	1A	1A	1B	1B	3	2	2
	KENN	EXE CONFLUENCE (INFERRED STRETCH)			1.0	14.7	1A	1A	1B	1B	3	2	2
17	EXETER CANAL	A38 BRIDGE COUNTESS WEAR	R05A006	SX 9401 8942	3.0	3.0	1B	1B	3	3	3	3	3
	EXETER CANAL	NORMAL TIDAL LIMIT (INFERRED STRETCH)			4.2	7.2	1B	1B	3	3	3	3	3
18	CLYST	CLYST HYDON	R05B001	ST 0363 0156	4.9	4.9	2	3	4	4	4	3	3
19	CLYST	CLYST ST LAWRENCE	R05B002	ST 0275 0003	2.4	7.3	2	3	3	3	3	3	3
20	CLYST	ASHCLYST FARM	R05B003	SY 0105 9833	3.6	10.9	2	2	3	3	4	3	2
21	CLYST	A38 BRIDGE BROADCLYST	R05B004	SX 9842 9760	3.2	14.1	1B	2	3	3	4	3	2
22	CLYST	WITHY BRIDGE	R05B005	SX 9752 9570	2.6	16.7	1B	2	3	3	4	3	2
23	CLYST	A30 BRIDGE CLYST HONITON	R05B006	SX 9850 9347	2.9	19.6	1B	1B	3	3	3	2	2
24	CLYST	CLYST ST MARY	R05B007	SX 9722 9170	3.6	23.2	1B	1B	3	3	3	2	3
	CLYST	NORMAL TIDAL LIMIT (INFERRED STRETCH)			1.9	25.1	1B	1B	3	3	3	2	3
25	GRINDLE BROOK	WINSLADE PARK	R05A028	SX 9751 9033	8.3	8.3	1B						3
	GRINDLE BROOK	CLYST CONFLUENCE (INFERRED STRETCH)			0.7	9.0	1B						3
26	AYLESBEARE STREAM	DYMONDS FARM	R05B013	SX 9867 9267	7.6	7.6	1B						3
	AYLESBEARE STREAM	CLYST CONFLUENCE (INFERRED STRETCH)			0.4	8.0	1B						3
27	PIN BROOK	MOSSHAYNE	R05B012	SX 9813 9437	5.6	5.6	1B						1B
	PIN BROOK	CLYST CONFLUENCE (INFERRED STRETCH)			1.0	6.6	1B						1B
28	CRANNY BROOK	YELLANDS	R05B008	SY 0590 9788	1.3	1.3	2	2	2	2	2	2	1B
29	CRANNY BROOK	BARNSHAYES	R05B009	SY 0378 9710	2.7	4.0	2	3	3	3	3	3	4
30	CRANNY BROOK	CRANNAFORD CROSSING	R05B010	SY 0133 9599	3.5	7.5	2	4	3	3	3	3	3
31	CRANNY BROOK	WISHFORD FARM	R05B011	SX 9905 9545	3.0	10.5	2	3	3	3	3	2	2
	CRANNY BROOK	CLYST CONFLUENCE (INFERRED STRETCH)			0.9	11.4	2	3	3	3	3	2	2

Appendix 10.5

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION
1990 RIVER WATER QUALITY CLASSIFICATION
CATCHMENT : EXE (05)

1990 Map Position Number	River	Reach upstream of	User Reference Number	National Grid Reference	Reach Length (km)	Distance from source (km)	River Quality Objective	85 NWC Class	86 NWC Class	87 NWC Class	88 NWC Class	89 NWC Class	90 NWC Class
32	FORD STREAM	A30 BRIDGE, NEAR ROCKBEARE	R05B014	SY 0090 9525	5.7	5.7	1B						2
	FORD STREAM	CRANNY BROOK CONFL. (INFERRED STRETCH)			0.4	6.1	1B						2
33	ALPHIN BROOK	DYMONDS BRIDGE	R05A003	SX 8672 9287	2.2	2.2	1B	2	1B	1B	2	2	3
34	ALPHIN BROOK	FOOTBRIDGE ALPHINGTON	R05A004	SX 9122 9030	6.2	8.4	1B	1B	1B	1B	2	3	3
35	ALPHIN BROOK	COUNTESS WEAR BRIDGE	R05A005	SX 9399 8938	3.1	11.5	1B	1B	1B	3	3	3	3
	ALPHIN BROOK	NORMAL TIDAL LIMIT (INFERRED STRETCH)			0.2	11.7	1B	1B	1B	3	3	3	3
36	NORTH BROOK	NORTHBROOK PARK	R05A026	SX 9389 9057	6.5	6.5	1B						3
	NORTH BROOK	EXE CONFLUENCE (INFERRED STRETCH)			0.3	6.8	1B						3
37	CREEDY	ASHRIDGE BRIDGE	R05J001	SS 8188 0620	5.7	5.7	1B	1B	1B	2	2	2	3
38	CREEDY	VENN BRIDGE	R05J014	SS 839 024	5.9	11.6	1B	2	1B	1B	1B	1B	1B
39	CREEDY	CREEDY BRIDGE	R05J002	SS 8460 0118	1.9	13.5	1B	2	1B	1B	1B	1B	1B
40	CREEDY	WESTACOTT COTTAGES	R05J003	SX 8550 9985	1.9	15.4	1B	2	2	1B	1B	1B	2
41	CREEDY	NEWTON ST CYRES	R05J013	SX 8808 9856	4.2	19.6	1B	2	1B	1B	1B	1B	1B
42	CREEDY	OAKFORD FARM	R05J004	SX 9005 9675	3.1	22.7	1B	1B	1B	1B	1B	1B	1B
	CREEDY	EXE CONFLUENCE (INFERRED STRETCH)			1.6	24.3	1B	1B	1B	1B	1B	1B	1B
43	JACKMOOR BROOK	LANGFORD	R05J018	SX 8981 9772	6.6	6.6	1B						1B
	JACKMOOR BROOK	CREEDY CONFLUENCE (INFERRED STRETCH)			1.0	7.6	1B						1B
44	SHOBROOK LAKE	CREEDY BARTON	R05J017	SX 8681 9953	9.0	9.0	1B						1B
	SHOBROOK LAKE	CREEDY CONFLUENCE (INFERRED STRETCH)			0.6	9.6	1B						1B
45	YEO (CREEDY)	BINNEFORD	R05K003	SX 7601 9685	7.7	7.7	1B	1B	1B	2	2	2	3
46	YEO (CREEDY)	GUNSTONE MILLS	R05K004	SX 8055 9847	6.0	13.7	1B	1B	1B	2	2	2	1B
47	YEO (CREEDY)	DOWNES MILLS PRIOR TO RIVER CREEDY	R05K005	SX 8560 9910	5.6	19.5	1B	1B	1B	1B	1B	1B	1B
	YEO (CREEDY)	CREEDY CONFLUENCE (INFERRED STRETCH)			0.1	19.6	1B	1B	1B	1B	1B	1B	1B
48	CULVERY RIVER	UTON	R05K011	SX 8343 9859	8.8	8.8	1B						2
	CULVERY RIVER	YEO CONFLUENCE (INFERRED STRETCH)			0.6	9.4	1B						2
49	FORD BROOK	FORD FARM	R05K010	SX 7938 9769	5.6	5.6	1B						4
	FORD BROOK	YEO CONFLUENCE (INFERRED STRETCH)			1.0	6.6	1B						4
50	TRONEY	EASTERBROOK	R05K008	SX 7232 9707	6.4	6.4	1B	1B	1B	2	2	2	2
51	TRONEY	YEOFORD	R05K002	SX 7827 9897	7.6	14.0	1B	1B	1B	2	2	2	1B
	TRONEY	YEO CONFLUENCE (INFERRED STRETCH)			0.1	14.1	1B	1B	1B	2	2	2	1B
52	COLE BROOK	COLEBROOKE	R05K009	SX 7779 9957	5.0	5.0	1B						1B
	COLE BROOK	TRONEY CONFLUENCE (INFERRED STRETCH)			0.5	5.5	1B						1B
53	HOLLY WATER	HEATH BRIDGE	R05J015	SS 8443 0450	10.0	10.0	1B						2
	HOLLY WATER	CREEDY CONFLUENCE (INFERRED STRETCH)			1.5	11.5	1B						2

Appendix 10.5

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION
1990 RIVER WATER QUALITY CLASSIFICATION
CATCHMENT : EXE (05)

1990 Map Position Number	River	Reach upstream of	User Reference Number	National Grid Reference	Reach Length (km)	Distance from source (km)	River Quality Objective	85 NWC Class	86 NWC Class	87 NWC Class	88 NWC Class	89 NWC Class	90 NWC Class
54	BINNEFORD WATER	NEAR ASHRIDGE FARM	R05J016	SS 8198 0615	8.8	8.8	1B						2
	BINNEFORD WATER	CREEDY CONFLUENCE (INFERRED STRETCH)			0.1	8.9	1B						2
55	CULM	STRAWBRIDGE'S FARM	R05C001	ST 1962 1593	2.7	2.7	1B	1B	1B	1B	1B	1B	1A
56	CULM	ROSEMARY LANE CLAYHIDON	R05C002	ST 1600 1408	4.6	7.3	1B	2	2	2	1B	1B	1A
57	CULM	HEMYOCK	R05C003	ST 1385 1395	2.3	9.6	1B	2	1B	1B	2	1B	2
58	CULM	CULMSTOCK	R05C004	ST 1012 1372	4.6	14.2	1B	2	2	2	2	1B	2
59	CULM	UFFCULME	R05C005	ST 0700 1257	4.1	18.3	1B	2	1B	1B	1B	1B	1B
60	CULM	SKINNER'S FARM WILLAND	R05C006	ST 0422 1018	4.4	22.7	1B	2	2	1B	2	2	2
61	CULM	HIGHER UPTON FARM	R05C007	ST 0266 0660	4.5	27.2	1B	3	3	3	2	2	2
62	CULM	BELOW CULLOMPTON STW	R05C043	ST 022 060	0.7	27.9	2	2	2	2	2	2	
63	CULM	MERRY HARRIERS INN WESTCOTT	R05C008	ST 0136 0425	2.3	30.2	2	2	2	2	2	2	3
64	CULM	50M BELOW OF WEIR, ABOVE SILVERTON MILL	R05C009	SS 9801 0102	5.9	36.1	2	2	2	2	2	2	2
65	CULM	FOOTBRIDGE ABOVE SILVERTON MILL	R05C010	SS 9767 0107	0.4	36.5	2	2	2	2	2	2	2
66	CULM	POINT 200M BELOW SILVERTON MILL	R05C011	SS 9743 0137	0.4	36.9	2	2	2	3	3	3	2
67	CULM	COLUMBJOHN	R05C012	SX 9580 9975	3.4	40.3	2	2	2	2	3	2	2
68	CULM	A.396 BRIDGE STOKE CANON	R05C013	SX 9380 9760	4.0	44.3	2	2	2	2	2	2	2
	CULM	EXE CONFLUENCE (INFERRED STRETCH)			1.0	45.3	2	2	2	2	2	2	2
69	WEAVER	WEAVER BRIDGE ON B3181	R05C026	ST 0134 0337	10.4	10.4	1B						3
	WEAVER	CULM CONFLUENCE (INFERRED STRETCH)			1.9	12.3	1B						3
70	SPRATFORD STREAM	LEONARD MOOR BRIDGE	R05C015	ST 0450 1413	10.4	10.4	1B	2	4	4	4	2	2
71	SPRATFORD STREAM	B3391 BRIDGE TIVERTON JUNCTION	R05C016	ST 0318 1160	3.3	13.7	1B	2	3	3	3	1B	1B
72	SPRATFORD STREAM	FIVE BRIDGES	R05C017	ST 0260 0958	3.0	16.7	2	2	3	3	3	3	3
	SPRATFORD STREAM	CULM CONFLUENCE (INFERRED STRETCH)			2.6	19.3	2	2	3	3	3	3	3
73	HERONSBANK BROOK	HERONS BANK	R05C027	ST 0243 0885	6.6	6.6	1B						1B
	HERONSBANK BROOK	SPRATFORD STREAM CONFL. (INF. STRETCH)			0.1	6.7	1B						1B
74	SHELDON STREAM	CRADDOCK BRIDGE	R05C014	ST 0873 1242	8.4	8.4	1B	2	3	3	2	2	2
	SHELDON STREAM	CULM CONFLUENCE (INFERRED STRETCH)			1.4	9.8	1B	2	3	3	2	2	2
75	MADFORD RIVER	PRIOR TO DUNKESWELL STREAM	R05C041	ST 1522 0838	1.9	1.9	1A	1B	3	3	3	2	
76	MADFORD RIVER	DUNKESWELL ABBEY	R05C028	ST 1438 1050	2.7	4.6	1A	1B	3	3	3	2	1B
77	MADFORD RIVER	CULM BRIDGE HEMYOCK	R05C019	ST 1435 1352	3.2	7.8	1A	1B	3	3	3	2	2
	MADFORD RIVER	CULM CONFLUENCE (INFERRED STRETCH)			0.3	8.1	1A	1B	3	3	3	2	2
78	DUNKESWELL STREAM	PRIOR TO MADFORD RIVER	R05C042	ST 1492 0829	2.4	2.4	1A						
	DUNKESWELL STREAM	MADFORD CONFLUENCE (INFERRED STRETCH)			0.4	2.8	1A						
79	BOLHAM RIVER	FIVE BRIDGES	R05C018	ST 1500 1253	5.8	5.8	1A	1B	2	2	2	2	2
	BOLHAM RIVER	MADFORD CONFLUENCE (INFERRED STRETCH)			0.2	6.0	1A	1B	2	2	2	2	2
80	THORVERTON STREAM	THORVERTON BRIDGE	R05D009	SS 9265 0206	5.1	5.1	1B						2

Appendix 10.5

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION
1990 RIVER WATER QUALITY CLASSIFICATION
CATCHMENT : EXE (05)

1990 Map Position Number	River	Reach upstream of	User Reference Number	National Grid Reference	Reach Length (km)	Distance from source (km)	River Quality Objective	85 NWC Class	86 NWC Class	87 NWC Class	88 NWC Class	89 NWC Class	90 NWC Class
	THORVERTON STREAM	EXE CONFLUENCE (INFERRED STRETCH)			1.5	6.6	1B						2
81	BURN	BURN MILL FARM	R05D008	SS 9467 0551	8.4	8.4	1B						2
	BURN	EXE CONFLUENCE (INFERRED STRETCH)			0.5	8.9	1B						2
82	DART (EXE)	A373 BRIDGE BRADLEY	R05D006	SS 8958 1245	6.4	6.4	1B	1B	2	2	2	2	3
83	DART (EXE)	DART BRIDGE BICKLEIGH	R05D007	SS 9357 0762	7.8	14.2	1B	2	1B	1B	1B	1B	1B
	DART (EXE)	EXE CONFLUENCE (INFERRED STRETCH)			0.4	14.6	1B	2	1B	1B	1B	1B	1B
84	LOWMAN	HUNTSHAM WOOD	R05E009	ST 0081 1831	4.9	4.9	1B	1B	1A	1A	1B	2	1B
85	LOWMAN	CRAZE LOWMAN	R05E010	SS 9853 1408	6.2	11.1	1B	1B	1A	1A	1B	2	1B
86	LOWMAN	A373 BRIDGE TIVERTON	R05E011	SS 9562 1258	3.6	14.7	1B	2	1B	1A	2	2	2
	LOWMAN	EXE CONFLUENCE (INFERRED STRETCH)			0.8	15.5	1B	2	1B	1A	2	2	2
87	UPLOWMAN STREAM	WIDHAYES	R05E021	ST 0002 1450	7.1	7.1	1B						2
	UPLOWMAN STREAM	LOWMAN CONFLUENCE (INFERRED STRETCH)			0.9	8.0	1B						2
88	GRAND WESTERN CANAL	PENACRE BRIDGE	R05C021	ST 0708 1780	2.0	2.0	2	2	3	3	3	4	4
89	GRAND WESTERN CANAL	THE BASIN TIVERTON	R05E013	SS 9629 1238	16.3	18.3	2	4	4	4	3	4	4
90	CALVERLEIGH STREAM	SWINESBRIDGE	R05E020	SS 9454 1394	6.7	6.7	1B						1B
	CALVERLEIGH STREAM	EXE CONFLUENCE (INFERRED STRETCH)			0.3	7.0	1B						1B
91	BATHERM	RANSCOMBE	R05F001	ST 0043 2679	4.3	4.3	1B	1A	1B	1A	2	2	1A
92	BATHERM	A361 BRIDGE SHILLINGFORD	R05F002	SS 9799 2378	6.9	11.2	1B	1A	1B	1A	2	2	3
93	BATHERM	BOMBIERHILL WOOD	R05F003	SS 9545 2093	5.1	16.3	1B	1B	1A	1A	1B	1B	1B
	BATHERM	EXE CONFLUENCE (INFERRED STRETCH)			0.4	16.7	1B	1B	1A	1A	1B	1B	1B
94	IRON MILL STREAM	PRIOR TO RIVER EXE	R05E008	SS 9380 2085	10.0	10.0	1B	1A	1A	1B	1B	1B	1B
	IRON MILL STREAM	EXE CONFLUENCE (INFERRED STRETCH)			0.1	10.1	1B	1A	1A	1B	1B	1B	1B
95	BROCKEY RIVER	BROCKSBRIDGE COTTAGES	R05E012	SS 9243 2450	7.6	7.6	1B	1A	1A	2	2	2	1B
	BROCKEY RIVER	EXE CONFLUENCE (INFERRED STRETCH)			0.8	8.4	1B	1A	1A	2	2	2	1B
96	BARLE	SIMONSBATH	R05H001	SS 7718 3910	8.4	8.4	1A	1A	1A	1A	1A	1A	1A
97	BARLE	TARR STEPS	R05H002	SS 8675 3215	16.4	24.8	1A	1A	1A	1A	1A	1A	1A
98	BARLE	PIXTON HILL	R05H003	SS 9248 2625	12.5	37.3	1A	1A	1A	1A	1B	1B	1A
	BARLE	EXE CONFLUENCE (INFERRED STRETCH)			1.5	38.8	1A	1A	1A	1A	1B	1B	1A
99	DANE'S BROOK	CASTLE BRIDGE	R05H004	SS 8845 2930	12.1	12.1	1A	1A	1A	1A		1A	1A
100	SHERDON WATER	FERNY BALL	R05H005	SS 8025 3542	8.5	8.5	1A	1B					1A
	SHERDON WATER	BARLE CONFLUENCE (INFERRED STRETCH)			0.9	9.4	1A	1B					1A
101	HADDEO	CUCKWOLDS COMBE	R05G004	ST 0014 3073	2.3	2.3	1A	1A	1A	1A	1A	1A	1B
	HADDEO	INFLOW, WIMBLEBALL RES. (INF. STRETCH)			2.9	5.2	1A	1A	1A	1A	1A	1A	1B

Appendix 10.5

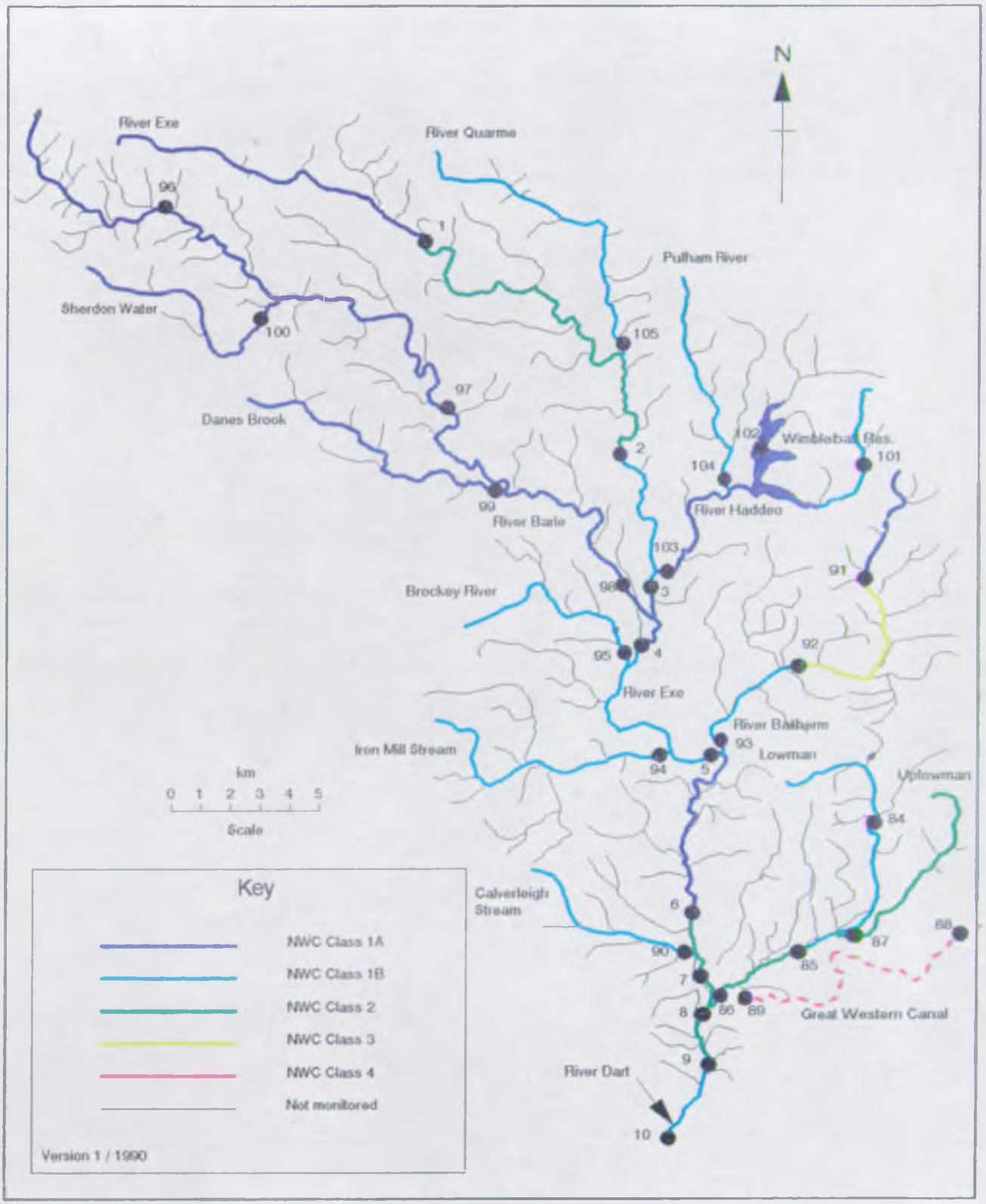
NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION
1990 RIVER WATER QUALITY CLASSIFICATION
CATCHMENT : EXE (05)

1990 Map Position Number	River	Reach upstream of	User Reference Number	National Grid Reference
102	HADDEO	WIMBLEBALL RESERVOIR	R05G010	SS 9700 3100
103	HADDEO	A396 BRIDGE PIXY COPSE	R05G005	SS 9376 2659
	HADDEO	EXE CONFLUENCE (INFERRED STRETCH)		
104	PULHAM	PRIOR TO RIVER HADDEO	R05G009	SS 9591 2948
	PULHAM	HADDEO CONFLUENCE (INFERRED STRETCH)		
105	QUARME	COPPLEHAM BRIDGE	R05G006	SS 9228 3425
	QUARME	EXE CONFLUENCE (INFERRED STRETCH)		
106	DAWLISH WATER	DAWLISH	R05A027	SX 9628 7667
	DAWLISH WATER	MEAN HIGH WATER (INFERRED STRETCH)		

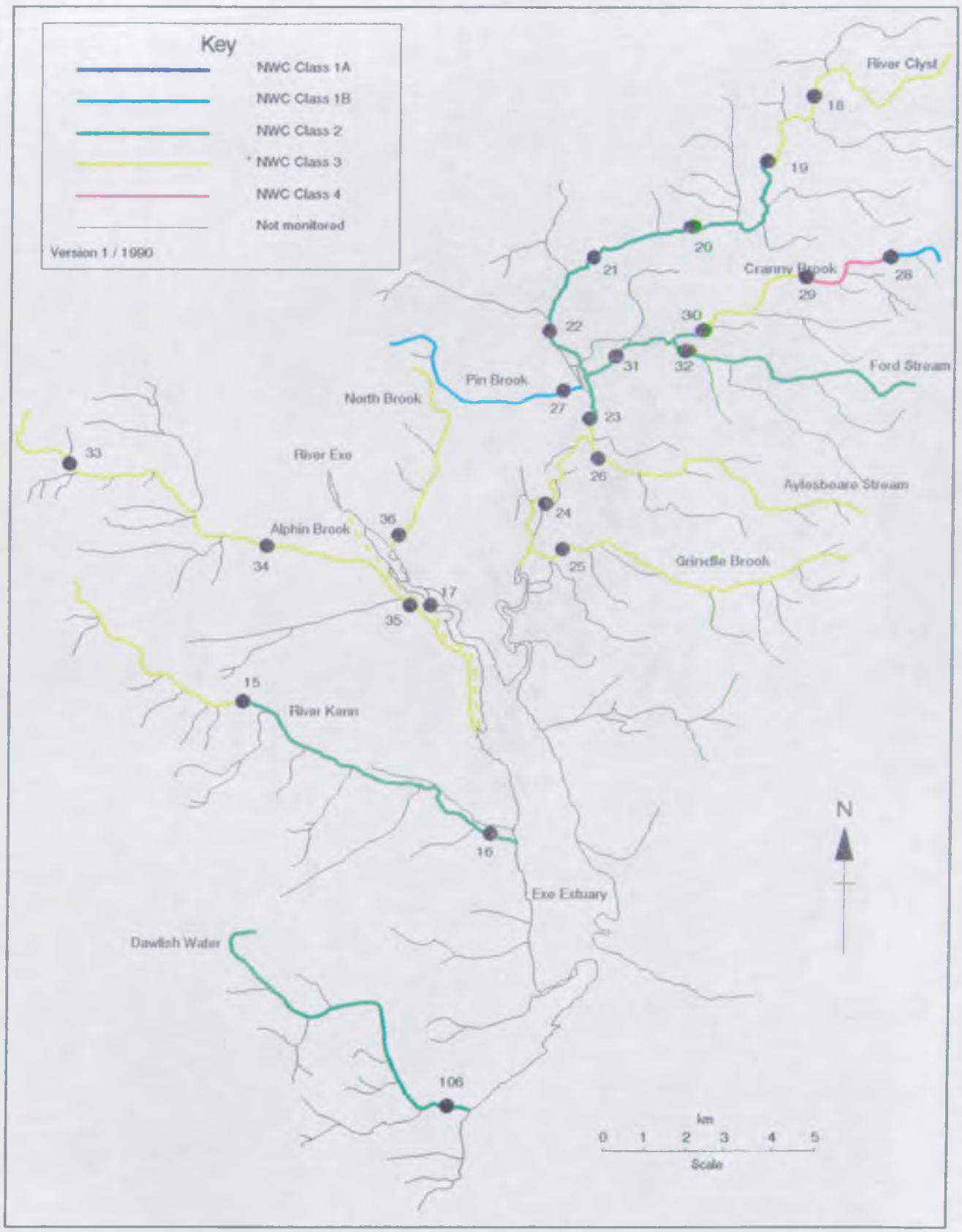
Reach Length (km)	Distance from source (km)	River Quality Objective	85 NWC Class	86 NWC Class	87 NWC Class	88 NWC Class	89 NWC Class	90 NWC Class
2.4	7.6	1A	1A	1A	1A	1A	1A	1A
6.0	13.6	1A	1A	1A	1A	1A	1A	1A
0.2	13.8	1A	1A	1A	1A	1A	1A	1A
8.9	8.9	1A	1B	1A	1A	1A	1A	1B
0.1	9.0	1A	1B	1A	1A	1A	1A	1B
12.1	12.1	1A	1A	1A	1A	1A	1B	1B
0.2	12.3	1A	1A	1A	1A	1A	1B	1B
9.6	9.6	1B						2
0.1	9.7	1B						2

Appendix 10.5

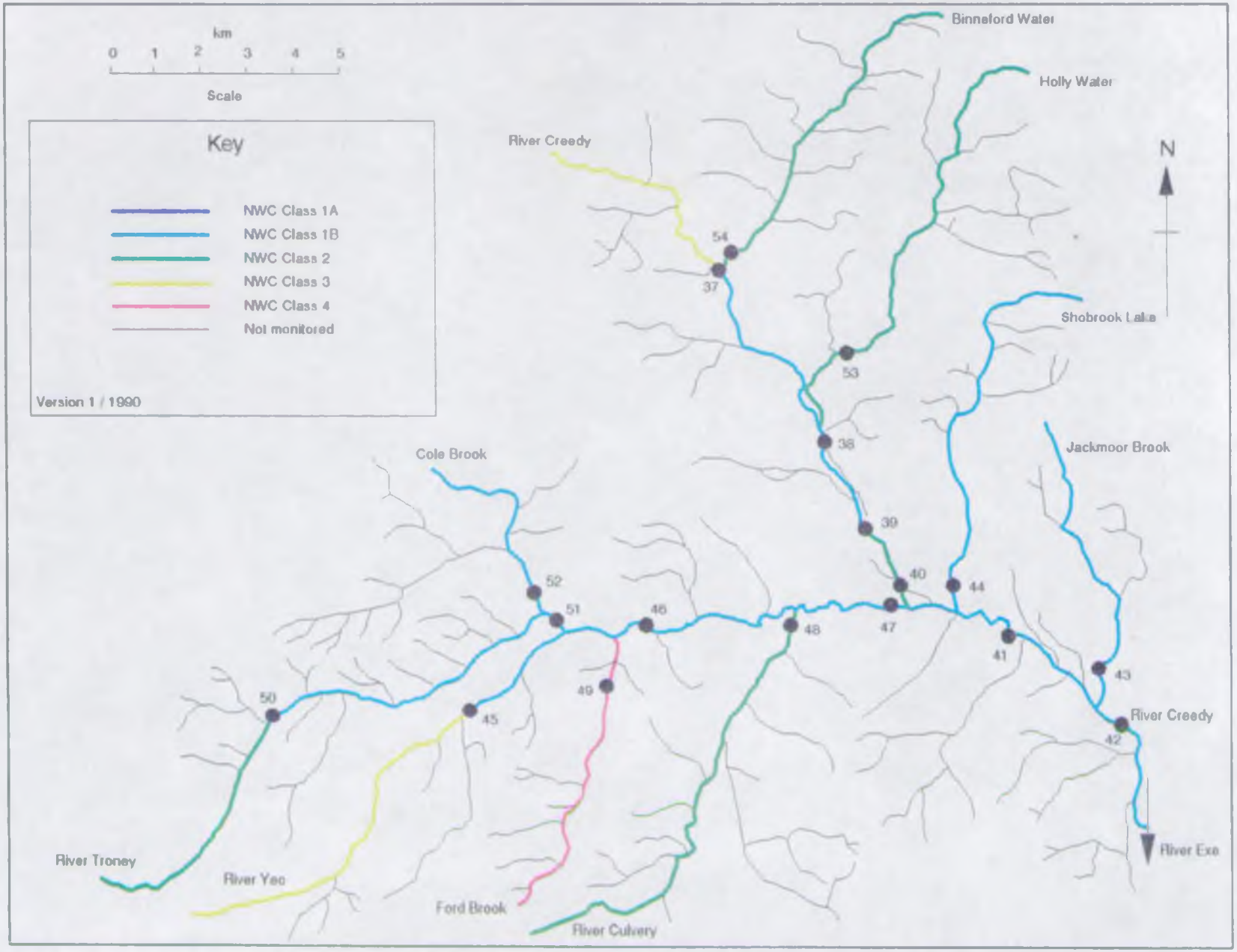
Upper Exe Catchment
Water Quality - 1990



Exe Estuary and Clyst Catchments
Water Quality - 1990

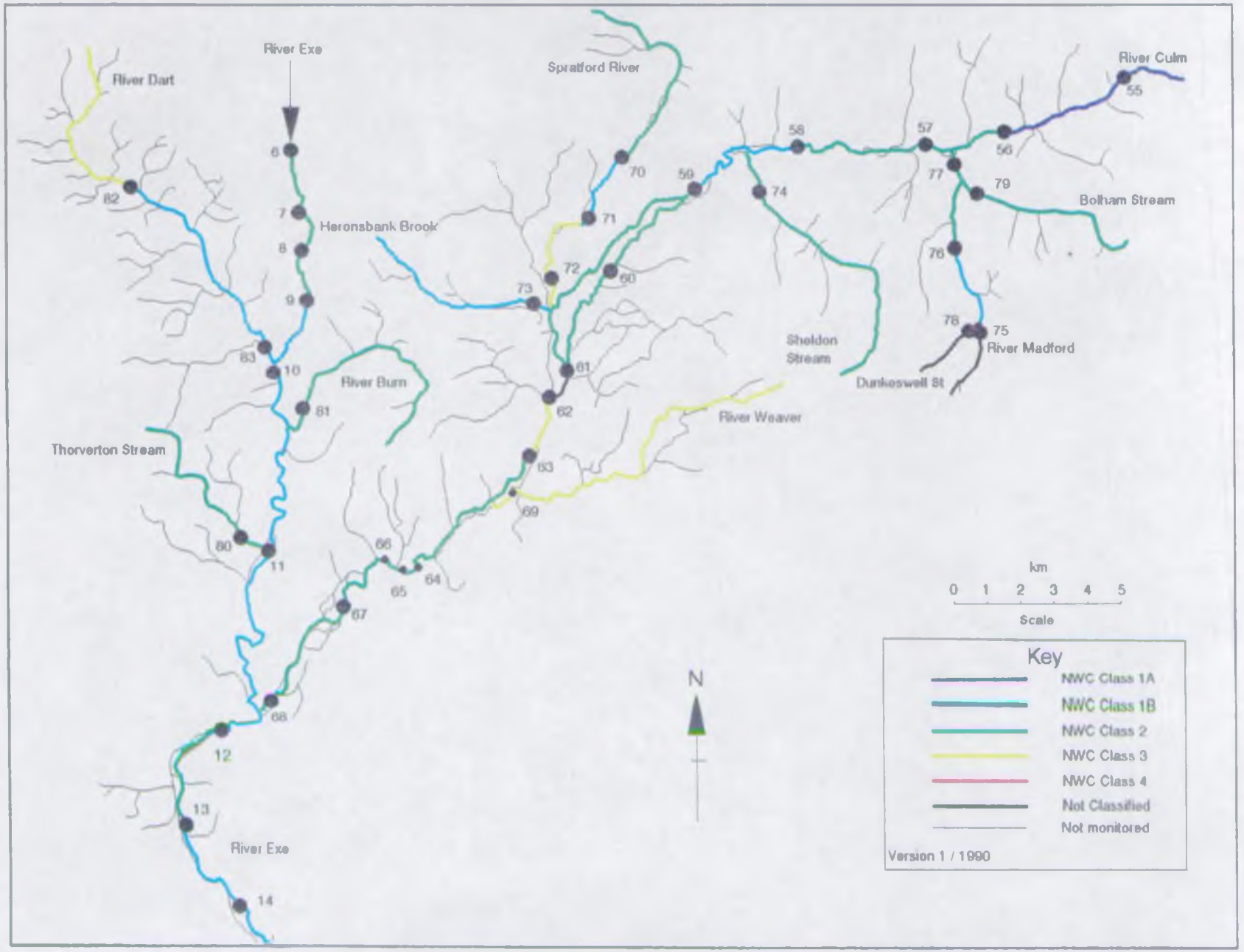


Yeo & Creedy Catchments
Water Quality - 1990



Appendix 10.6

Culm and Little Dart Catchments
Water Quality - 1990



Appendix 10.6

NATIONAL RIVERS AUTHORITY – SOUTH WEST REGION
1990 RIVER WATER QUALITY CLASSIFICATION
CALCULATED DETERMINAND STATISTICS USED FOR QUALITY ASSESSMENT
CATCHMENT : EXE (05)

River	Reach upstream of	User Ref. Number	90 NWC Class	Calculated Determinand Statistics used for Quality Assessment																			
				pH Lower		pH Upper		Temperature		DO (%)		BOD (ATU)		Total Ammonia		Union. Ammonia		S.Solids		Total Copper		Total Zinc	
				Class	5%ile	Class	95%ile	Class	95%ile	Class	5%ile	Class	95%ile	Class	95%ile	Class	95%ile	Class	Mean	Class	95%ile	Class	95%ile
EXE	COURT FARM EXFORD	R05G001	1A	1A	7.0	1A	7.9	1A	16.1	1A	84.2	1A	2.7	1A	0.242	1A	0.010	1A	7.1	1A	10.8	1A	28.6
EXE	CHILLY BRIDGE	R05G002	2	1A	7.0	1A	8.0	1A	17.4	1A	90.6	2	8.3	1A	0.065	1A	0.010	1A	8.0	–	–	–	–
EXE	MARSHORE	R05G003	1B	1A	7.2	1A	7.8	1A	17.0	1A	90.1	1B	3.1	1A	0.050	1A	0.010	1A	6.2	1A	6.0	1A	9.9
EXE	EXEBRIDGE	R05E001	1A	1A	7.0	1A	7.7	1A	17.5	1A	90.0	1A	3.0	1A	0.099	1A	0.010	1A	7.4	1A	6.9	1A	12.0
EXE	HALFPENNY BRIDGE	R05E002	1B	1A	7.0	1A	7.7	1A	18.3	1B	78.8	1A	2.6	1A	0.156	1A	0.010	1A	7.3	–	–	–	–
EXE	LITHECOURT	R05E003	1A	1A	7.1	1A	7.6	1A	18.9	1A	86.1	1A	2.2	1A	0.089	1A	0.010	1A	5.9	–	–	–	–
EXE	TIVERTON NEW BRIDGE	R05E004	2	1A	7.1	1A	8.0	1A	20.1	2	57.6	1A	2.8	1A	0.077	1A	0.010	1A	7.5	1A	5.0	1A	11.8
EXE	COLLIPRIEST TIVERTON	R05E005	2	1A	7.1	1A	8.6	1A	18.0	1A	87.0	1B	3.1	1A	0.189	1A	0.010	1A	13.2	2	40.7	1A	44.3
EXE	ASHLEY	R05E006	2	1A	7.0	1A	8.3	1A	20.1	1A	86.0	2	5.2	1B	0.327	1A	0.010	1A	14.1	1A	26.4	1A	32.4
EXE	BURLEIGH CASTLE	R05E007	1B	1A	7.1	1A	7.9	1A	18.5	1B	76.9	1B	3.4	1A	0.158	1A	0.010	1A	14.3	1A	6.4	1A	26.8
EXE	THORVERTON GAUGING STATION	R05D001	1B	1A	7.1	1A	7.9	1A	18.7	1B	76.8	1B	3.3	1A	0.184	1A	0.010	1A	14.6	1A	8.5	1A	19.5
EXE	STAFFORD BRIDGE	R05D002	1B	1A	7.2	1A	8.0	1A	19.4	1B	69.8	1B	3.9	1A	0.206	1A	0.010	1A	14.9	–	–	–	–
EXE	EXWICK	R05D003	2	1A	7.3	1A	8.3	1A	19.5	1B	70.3	2	7.9	1B	0.365	1A	0.010	1A	19.4	–	–	–	–
EXE	TRENS WEIR EXETER	R05D004	1B	1A	7.3	1A	8.1	1A	18.0	1A	83.6	1B	4.4	1A	0.237	1A	0.010	1A	18.3	1A	10.4	1A	35.5
KENN	A38 BRIDGE KENNFORD	R05A001	3	1A	7.5	1A	8.3	1A	17.1	1B	60.8	3	13.3	2	1.399	3	0.034	1A	18.7	–	–	–	–
KENN	POWDERHAM CASTLE	R05A002	2	1A	7.3	1A	7.9	1A	16.5	1B	68.9	2	6.6	1A	0.138	1A	0.010	1A	9.8	1A	10.7	1A	18.8
EXETER CANAL	A38 BRIDGE COUNTESS WEAR	R05A006	3	1A	7.3	3	9.4	2	22.9	2	58.0	2	6.5	1A	0.185	1A	0.010	1A	5.8	1A	7.4	1A	11.1
CLYST	CLYST HEDON	R05B001	3	1A	7.4	1A	8.0	1A	17.0	3	16.8	3	13.7	3	4.020	3	0.040	3	26.2	–	–	–	–
CLYST	CLYST ST LAWRENCE	R05B002	3	1A	7.5	1A	8.0	1A	16.1	3	34.0	3	11.1	3	2.372	1A	0.021	1A	18.3	–	–	–	–
CLYST	ASHCLYST FARM	R05B003	2	1A	7.5	1A	8.2	1A	17.0	2	52.5	2	7.6	2	1.501	1A	0.011	1A	16.4	–	–	–	–
CLYST	A38 BRIDGE BROADCLYST	R05B004	2	1A	7.5	1A	8.1	1A	17.0	2	40.9	1B	4.9	2	0.790	1A	0.010	1A	19.1	–	–	–	–
CLYST	MITHY BRIDGE	R05B005	2	1A	7.5	1A	8.1	1A	17.0	2	41.8	2	5.1	2	0.840	1A	0.010	1A	19.8	–	–	–	–
CLYST	A30 BRIDGE CLYST HONITON	R05B006	2	1A	7.5	1A	8.1	1A	16.4	1B	62.0	2	5.1	1B	0.690	1A	0.010	1A	13.9	–	–	–	–
CLYST	CLYST ST MARY	R05B007	3	1A	7.5	1A	8.0	1A	18.1	3	39.1	1B	4.2	1B	0.509	1A	0.010	1A	11.2	1A	11.0	1A	17.0
GRINDLE BROOK	WINSLADE PARK	R05A028	3	1A	7.6	1A	8.3	1A	20.8	2	42.6	1B	4.4	1A	0.309	1A	0.010	3	35.9	1A	50.0	1A	50.0
AYLESBEARE STREAM	DIMONDS FARM	R05B013	3	1A	7.7	1A	8.1	1A	16.0	3	39.1	2	6.8	1B	0.428	1A	0.010	1A	10.3	–	–	–	–
PIN BROOK	MOSSHAYNE	R05B012	1B	1A	7.4	1A	8.2	1A	16.0	1B	65.1	1B	4.9	1B	0.410	1A	0.010	1A	17.6	1A	50.0	1A	50.0
CRANNY BROOK	YELLANDS	R05B008	1B	1A	7.6	1A	8.2	1A	16.0	1B	62.9	1B	4.8	1B	0.410	1A	0.010	1A	22.7	–	–	–	–
CRANNY BROOK	BARNHAYES	R05B009	4	1A	7.6	1A	8.3	1A	15.2	3	39.6	4	47.2	3	8.737	3	0.076	1A	19.3	–	–	–	–
CRANNY BROOK	CRANNAFORD CROSSING	R05B010	3	1A	7.6	1A	8.3	1A	17.0	2	59.0	2	7.3	3	1.580	1A	0.021	1A	12.8	–	–	–	–
CRANNY BROOK	MESHFORD FARM	R05B011	2	1A	7.6	1A	8.1	1A	16.5	2	55.8	2	6.2	1B	0.570	1A	0.010	1A	10.9	1A	8.4	1A	18.0
FORD STREAM	A30 BRIDGE, NEAR ROCKBEARE	R05B014	2	1A	7.7	1A	8.8	1A	17.0	2	45.0	2	5.4	1B	0.420	1A	0.010	1A	12.3	–	–	–	–
ALPHIN BROOK	DIMONDS BRIDGE	R05A003	3	1A	7.3	1A	8.4	1A	16.7	1B	60.3	3	10.1	1B	0.568	1A	0.010	3	52.0	–	–	–	–
ALPHIN BROOK	FOXBRIDGE ALPHINGTON	R05A004	3	1A	7.3	1A	8.9	1A	17.8	1B	71.3	3	13.4	1B	0.466	1A	0.010	1A	16.2	–	–	–	–
ALPHIN BROOK	COUNTESS WEAR BRIDGE	R05A005	3	1A	7.4	1A	8.8	1A	19.8	2	57.6	2	7.9	1B	0.640	1A	0.010	3	29.2	1A	15.8	1A	56.6

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1990 RIVER WATER QUALITY CLASSIFICATION
CALCULATED DETERMINAND STATISTICS USED FOR QUALITY ASSESSMENT
CATCHMENT : EXE (05)

River	Reach upstream of	User Ref. Number	90 NWC Class	Calculated Determinand Statistics used for Quality Assessment																			
				pH Lower		pH Upper		Temperature		DO (%)		BOD (ATU)		Total Ammonia		Union. Ammonia		S.Solids		Total Copper		Total Zinc	
				Class	5%ile	Class	95%ile	Class	95%ile	Class	5%ile	Class	95%ile	Class	95%ile	Class	95%ile	Class	Mean	Class	95%ile	Class	95%ile
NORTH BROOK	[illegible] PARK	R05X026	3	1A	7.6	1A	8.2	1A	17.4	1B	68.0	2	5.3	3	1.891	3	0.024	1A	21.6	1A	12.0	1A	37.0
CREEDY	ASHRIDGE BRIDGE	R05J001	3	1A	7.0	1A	8.0	1A	17.7	2	57.1	1B	4.8	1A	0.182	1A	0.010	3	25.7	-	-	-	-
CREEDY	VENN BRIDGE	R05J014	1B	1A	7.0	1A	8.4	1A	18.0	1B	64.5	1B	4.2	1A	0.309	1A	0.010	1A	18.0	1A	8.0	1A	16.0
CREEDY	CREEDY BRIDGE	R05J002	1B	1A	7.2	1A	8.1	1A	19.2	1B	66.6	1A	2.8	1A	0.190	1A	0.010	1A	12.7	1A	5.5	1A	17.4
CREEDY	WESTCOTT COTTAGES	R05J003	2	1A	7.2	1A	8.0	1A	18.8	2	49.8	1B	3.9	1B	0.423	1A	0.010	1A	14.4	1A	26.9	1A	27.6
CREEDY	NEWTON ST CYRES	R05J013	1B	1A	7.0	1A	8.0	1A	19.0	1B	71.0	1A	2.9	1A	0.218	1A	0.010	1A	12.8	1A	15.0	1A	27.8
CREEDY	OAKFORD FARM	R05J004	1B	1A	7.3	1A	8.1	1A	20.1	1B	76.5	1B	3.1	1A	0.142	1A	0.010	1A	12.3	1A	11.2	1A	22.6
JACKCOR BROOK	LANGFORD	R05J018	1B	1A	7.4	1A	8.2	1A	18.0	1B	67.0	1B	3.1	1B	0.312	1A	0.010	1A	13.9	-	-	-	-
SHERCOK LANE	CREEDY BARTON	R05J017	1B	1A	7.2	1A	8.2	1A	17.0	1B	70.0	1A	2.2	1A	0.090	1A	0.010	1A	22.5	-	-	-	-
YEO (CREEDY)	BONNEFORD	R05X003	3	1A	6.8	1A	7.8	1A	16.0	3	23.0	1A	2.3	1A	0.250	1A	0.010	1A	6.3	-	-	-	-
YEO (CREEDY)	CRANSTONE MILLS	R05X004	1B	1A	7.3	1A	8.0	1A	19.7	1B	70.7	1A	2.6	1A	0.237	1A	0.010	1A	12.4	-	-	-	-
YEO (CREEDY)	DOWNES MILLS BRIDGE TO RIVER CREEDY	R05X005	1B	1A	7.2	1A	8.4	1A	19.7	1B	68.5	1A	3.0	1A	0.282	1A	0.010	1A	11.8	1A	8.4	1A	19.6
CULVERY RIVER	UTON	R05X011	2	1A	7.1	1A	7.9	1A	18.0	2	46.6	1A	2.3	1B	0.596	1A	0.010	1A	7.9	1A	6.9	1A	10.0
FORD BROOK	FORD FARM	R05X010	4	1A	7.0	1A	7.8	1A	17.0	4	8.9	2	5.4	1B	0.674	1A	0.010	1A	6.7	1A	7.0	1A	12.0
TRONEY	EASTERBROOK	R05X008	2	1A	7.0	1A	7.6	1A	16.0	2	45.0	1A	2.8	1A	0.160	1A	0.010	1A	6.7	-	-	-	-
TRONEY	YEOFORD	R05X002	1B	1A	7.0	1A	8.2	1A	19.0	1B	72.3	1A	2.6	1A	0.297	1A	0.010	1A	11.0	1A	7.1	1A	40.1
COLE BROOK	COLEBROOKE	R05X009	1B	1A	7.2	1A	8.2	1A	17.0	1B	71.2	1A	2.4	1A	0.306	1A	0.010	1A	12.2	-	-	-	-
HOLLY WATER	HEATH BRIDGE	R05J015	2	1A	7.1	1A	8.2	1A	17.0	2	52.3	2	5.5	1B	0.366	1A	0.010	1A	19.3	-	-	-	-
BONNEFORD WATER	NEAR ASHRIDGE FARM	R05J016	2	1A	7.1	1A	7.9	1A	17.0	1B	67.3	2	6.6	1B	0.380	1A	0.010	1A	14.9	-	-	-	-
CLYM	SHAMBRIDGE'S FARM	R05C001	1A	1A	7.0	1A	7.9	1A	20.1	1A	80.3	1A	2.6	1A	0.062	1A	0.010	1A	11.0	-	-	-	-
CLYM	ROSEMARY LANE CLAYHIDON	R05C002	1A	1A	7.2	1A	8.1	1A	19.0	1A	86.0	1A	3.0	1A	0.310	1A	0.010	1A	9.7	-	-	-	-
CLYM	HEMHOCK	R05C003	2	1A	7.2	1A	7.9	1A	18.1	1B	73.9	2	7.9	2	0.722	1A	0.010	1A	15.6	-	-	-	-
CLYM	CLYMSTOCK	R05C004	2	1A	7.2	1A	8.4	1A	18.2	1A	80.1	2	5.7	1B	0.379	1A	0.010	1A	15.7	-	-	-	-
CLYM	UFFCLYME	R05C005	1B	1A	7.3	1A	8.0	1A	18.0	1B	79.5	1B	4.8	1A	0.250	1A	0.010	1A	12.6	1A	7.0	1A	15.0
CLYM	SKINNER'S FARM WILLAND	R05C006	2	1A	7.3	1A	8.4	1A	20.0	1A	84.0	2	5.9	1A	0.300	1A	0.010	1A	13.9	1A	11.8	1A	22.6
CLYM	HIGHER UPTON FARM	R05C007	2	1A	7.4	1A	8.3	1A	19.9	1B	68.2	2	6.7	2	0.772	1A	0.010	1A	19.2	-	-	-	-
CLYM	MERRY HARRIERS INN WESTCOTT	R05C008	3	1A	7.4	1A	8.4	1A	18.9	2	57.5	3	9.1	1B	0.399	1A	0.010	1A	23.5	1A	10.0	1A	42.9
CLYM	50M BELOW OF WEIR, ABOVE SILVERTON MI	R05C009	2	1A	7.5	1A	8.1	1A	19.0	2	56.4	2	6.9	1B	0.460	1A	0.012	1A	13.5	-	-	-	-
CLYM	FOOTBRIDGE ABOVE SILVERTON MILL	R05C010	2	1A	7.3	1A	8.0	1A	19.0	1B	70.0	2	6.9	1B	0.460	1A	0.010	1A	19.1	-	-	-	-
CLYM	POINT 200M BELOW SILVERTON MILL	R05C011	2	1A	7.4	1A	7.9	1A	20.0	2	43.0	2	8.0	1B	0.560	1A	0.013	1A	18.0	-	-	-	-
CLYM	COLLUMPTON	R05C012	2	1A	7.4	1A	8.1	1A	19.5	2	53.0	2	6.1	1B	0.370	1A	0.010	1A	18.4	-	-	-	-
CLYM	A.396 BRIDGE STOKE CANON	R05C013	2	1A	7.5	1A	8.3	1A	19.5	2	46.8	2	5.7	1B	0.380	1A	0.010	1A	16.7	1A	14.3	1A	29.6
WEAVER	WEAVER BRIDGE ON B3181	R05C026	3	1A	7.3	1A	8.4	1A	19.9	3	36.2	2	5.7	3	2.240	1A	0.020	1A	9.5	-	-	-	-

Appendix 10.

NATIONAL RIVERS AUTHORITY – SOUTH WEST REGION
1990 RIVER WATER QUALITY CLASSIFICATION
CALCULATED DETERMINAND STATISTICS USED FOR QUALITY ASSESSMENT
CATCHMENT : EXE (05)

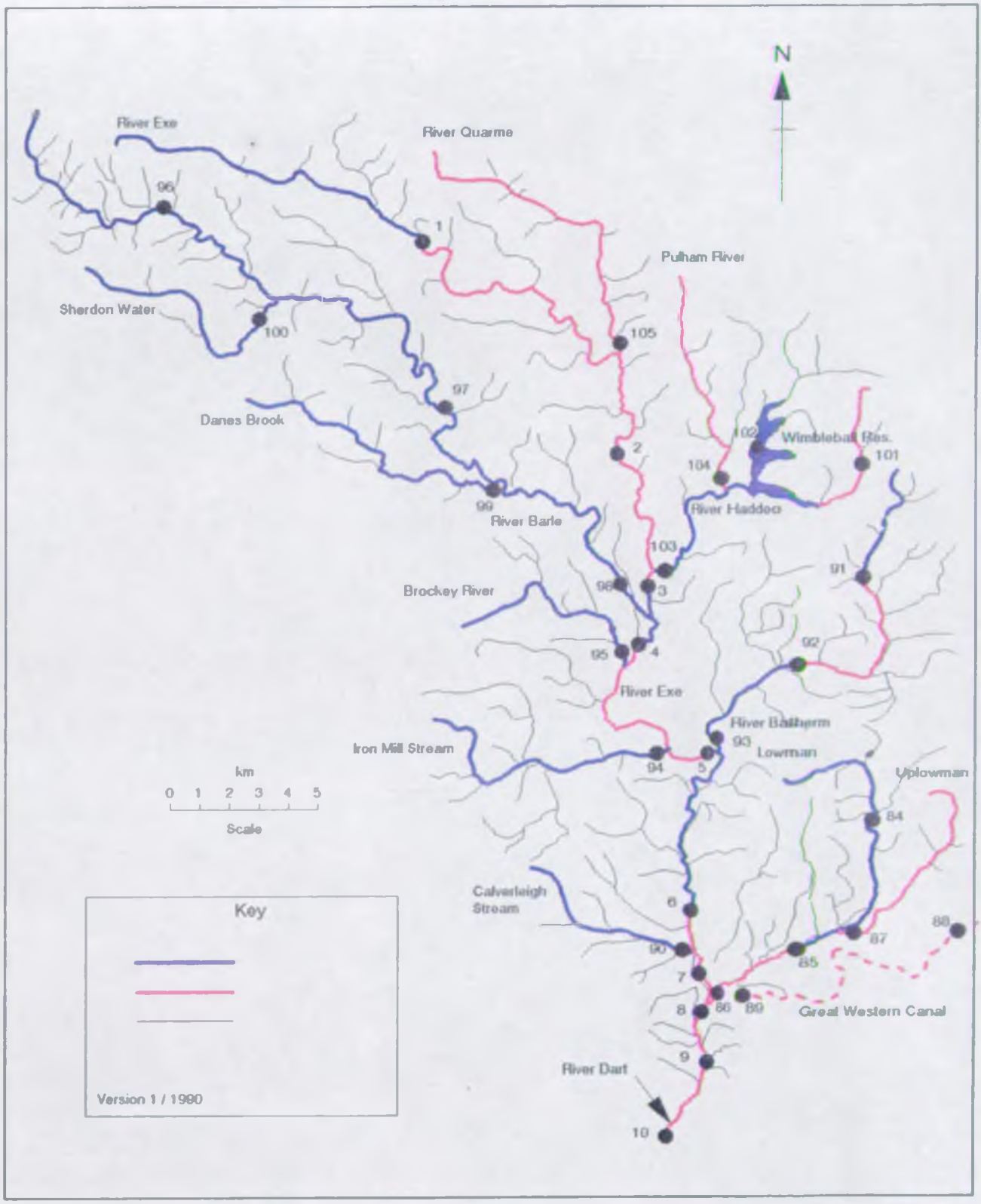
River	Reach upstream of	User Ref. Number	90 NWC Class	Calculated Determinand Statistics used for Quality Assessment																			
				pH Lower		pH Upper		Temperature		DO (%)		BOD (ATU)		Total Ammonia		Union. Ammonia		S.Solids		Total Copper		Total Zinc	
				Class	5%ile	Class	95%ile	Class	95%ile	Class	5%ile	Class	95%ile	Class	95%ile	Class	95%ile	Class	Mean	Class	95%ile	Class	95%ile
HERONSBANK BROOK	HERONS BANK	R05C027	1B	1A	7.5	1A	8.2	1A	18.0	1A	85.2	1B	4.8	1A	0.130	1A	0.010	1A	8.6	–	–	–	–
SPRATFORD STREAM	LEONARD MOOR BRIDGE	R05C015	2	1A	7.6	1A	8.5	1A	16.7	2	56.7	2	5.7	2	0.762	1A	0.010	1A	15.2	–	–	–	–
SPRATFORD STREAM	B3391 BRIDGE TIVERTON JUNCTION	R05C016	1B	1A	7.6	1A	8.4	1A	17.0	1B	65.9	1B	4.0	1A	0.294	1A	0.010	1A	12.4	1A	50.0	1A	59.0
SPRATFORD STREAM	FIVE BRIDGES	R05C017	3	1A	7.6	1A	8.2	1A	17.7	3	37.6	1B	4.7	3	2.200	3	0.030	1A	14.2	–	–	–	–
SHELDON STREAM	CRADDOCK BRIDGE	R05C014	2	1A	7.3	1A	8.2	1A	17.0	1B	60.7	2	7.5	2	0.910	1A	0.010	1A	23.4	1A	7.3	1A	36.8
MADFORD RIVER	DUNKESWELL ABBEY	R05C028	1B	1A	7.1	1A	7.8	1A	16.8	1B	75.4	1A	2.1	1A	0.185	1A	0.010	1A	7.3	1A	18.5	1A	122.0
MADFORD RIVER	CULM BRIDGE HEMYOCK	R05C019	2	1A	7.2	1A	8.2	1A	17.8	2	55.6	2	9.0	2	0.702	1A	0.010	1A	19.3	1A	8.6	1A	28.2
HOLCOMBE RIVER	FIVE BRIDGES	R05C018	2	1A	7.2	1A	8.1	1A	18.3	2	57.0	2	5.9	1B	0.661	1A	0.010	1A	11.2	1A	5.0	1A	20.6
THORVERTON STREAM	THORVERTON BRIDGE	R05D009	2	1A	7.2	1A	8.3	1A	19.0	1B	71.7	1B	3.6	2	1.002	1A	0.010	1A	11.2	–	–	–	–
BURN	BURN MILL FARM	R05D008	2	1A	7.3	1A	8.2	1A	19.0	1B	78.0	2	5.4	1B	0.360	1A	0.010	1A	13.9	1A	6.0	1A	22.0
DART (EXE)	A373 BRIDGE BRADLEY	R05D006	3	1A	7.0	1A	7.9	1A	17.0	3	39.6	2	6.4	1A	0.309	1A	0.010	1A	22.3	–	–	–	–
DART (EXE)	DART BRIDGE BICKLEIGH	R05D007	1B	1A	7.2	1A	8.4	1A	17.3	1A	83.1	1B	3.6	1B	0.402	1A	0.010	1A	16.3	1A	19.2	1A	31.8
LOMAN	HUNTSHAM WOOD	R05E009	1B	1A	7.3	1A	8.5	1A	19.4	1B	65.8	1B	3.2	1B	0.372	1A	0.010	1A	10.8	–	–	–	–
LOMAN	CRAZE LOMAN	R05E010	1B	1A	7.5	1A	8.2	1A	18.0	1B	61.5	1B	3.9	1B	0.358	1A	0.010	1A	11.5	–	–	–	–
LOMAN	A373 BRIDGE TIVERTON	R05E011	2	1A	7.5	1A	8.4	1A	19.8	1B	66.4	2	5.5	1B	0.542	1A	0.010	1A	15.4	1A	6.4	1A	14.4
UPLOMAN STREAM	MILLHAYES	R05E021	2	1A	7.5	1A	8.0	1A	18.0	2	47.7	1B	3.4	1A	0.089	1A	0.010	1A	12.7	–	–	–	–
GRAND WESTERN CANAL	FENACRE BRIDGE	R05C021	4	1A	7.5	1A	8.2	1A	19.2	3	32.0	4	22.5	3	4.235	3	0.042	1A	23.5	1A	10.5	1A	20.1
GRAND WESTERN CANAL	THE BASIN TIVERTON	R05E013	4	1A	7.5	1A	8.9	2	22.4	2	40.8	4	26.4	1B	0.417	1A	0.010	3	51.6	1A	53.5	1A	184.4
CALVERLEIGH STREAM	SWINESBRIDGE	R05E020	1B	1A	7.4	1A	8.2	1A	20.9	1A	86.1	1B	3.1	1B	0.435	1A	0.010	1A	21.2	1A	47.9	1A	53.8
BROTHERN	RANSCOMBE	R05F001	1A	1A	7.0	1A	7.9	1A	17.4	1A	85.3	1A	2.2	1A	0.199	1A	0.010	1A	6.1	1A	7.0	1A	8.0
BROTHERN	A361 BRIDGE SHILLINGFORD	R05F002	3	1A	7.5	1A	8.1	1A	17.7	1A	84.6	1B	4.9	1B	0.332	1A	0.010	3	28.8	–	–	–	–
BROTHERN	BOWDENHILL WOOD	R05F003	1B	1A	7.2	1A	8.4	1A	16.8	1B	77.0	1B	3.7	1A	0.222	1A	0.010	1A	14.9	1A	8.0	1A	11.2
IRON MILL STREAM	PRIOR TO RIVER EXE	R05E008	1B	1A	7.0	1A	7.9	1A	17.2	1A	81.3	1B	3.3	1A	0.189	1A	0.010	1A	9.4	1A	6.4	1A	16.1
BROCKEY RIVER	BROCKSBRIDGE COTTAGES	R05E012	1B	1A	7.3	1A	8.0	1A	17.4	1A	81.9	1B	3.5	1A	0.087	1A	0.010	1A	9.6	1A	6.5	1A	25.8
BARLE	SIMONSBATH	R05H001	1A	1A	6.7	1A	7.9	1A	17.0	1A	89.1	1A	1.9	1A	0.245	1A	0.010	1A	5.7	1A	6.0	1A	7.9
BARLE	TARR STEPS	R05H002	1A	1A	6.7	1A	7.5	1A	17.2	1A	88.6	1A	2.1	1A	0.056	1A	0.010	1A	6.7	1A	5.0	1A	13.6
BARLE	PIXTON HILL	R05H003	1A	1A	6.7	1A	7.5	1A	16.9	1A	91.7	1A	2.8	1A	0.064	1A	0.010	1A	9.2	1A	11.6	1A	21.0
DANE'S BROOK	CASTLE BRIDGE	R05H004	1A	1A	6.1	1A	7.2	1A	16.0	1A	88.2	1A	2.3	1A	0.054	1A	0.010	1A	5.2	1A	16.2	1A	16.4

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION
1990 RIVER WATER QUALITY CLASSIFICATION
CALCULATED DETERMINAND STATISTICS USED FOR QUALITY ASSESSMENT
CATCHMENT : EXE (05)

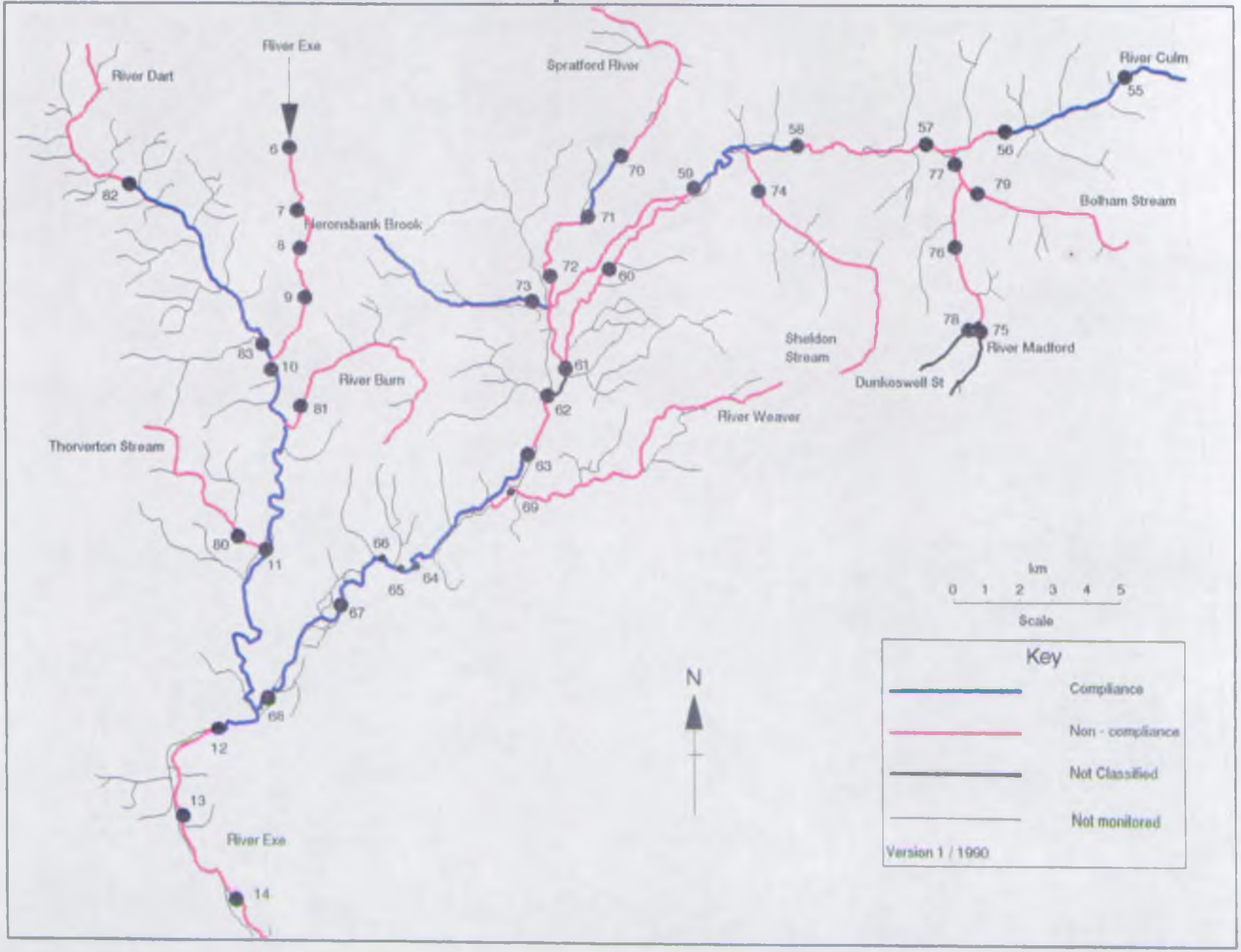
River	Reach upstream of	User Ref. Number	90 NWC Class	Calculated Determinand Statistics used for Quality Assessment																			
				pH Lower		pH Upper		Temperature		DO (%)		BOD (ATU)		Total Ammonia		Union. Ammonia		S.Solids		Total Copper		Total Zinc	
				Class	5%ile	Class	95%ile	Class	95%ile	Class	5%ile	Class	95%ile	Class	95%ile	Class	95%ile	Class	Mean	Class	95%ile	Class	95%ile
SHERCOM WATER	PERRY HALL	R05H005	1A	1A	6.4	1A	7.6	1A	16.4	1A	86.6	1A	2.2	1A	0.100	1A	0.010	1A	4.0	1A	5.0	1A	15.5
HADDO	CLICKWOLDS COMBE	R05G004	1B	1A	6.7	1A	7.6	1A	18.0	1B	76.0	1A	2.2	1A	0.080	1A	0.010	1A	5.7	1A	8.0	1A	13.0
HADDO	WIMBLEBALL RESERVOIR	R05G010	1A	1A	7.0	1A	7.5	1A	17.0	1A	83.0	1A	2.1	1A	0.050	1A	0.010	1A	4.2	-	-	-	-
HADDO	A396 BRIDGE PIXY COPSE	R05G005	1A	1A	7.1	1A	7.7	1A	16.8	1A	86.4	1A	2.8	1A	0.072	1A	0.010	1A	9.0	1A	13.2	1A	40.4
FULHAM	PRIOR TO RIVER HADDO	R05G009	1B	1A	6.9	1A	7.7	1A	16.9	1A	91.0	1B	3.1	1A	0.094	1A	0.010	1A	8.6	1A	7.2	1A	8.2
CLARME	COPPLEHAM BRIDGE	R05G006	1B	1A	7.1	1A	8.0	1A	15.4	1B	77.0	1B	3.3	1A	0.118	1A	0.016	1A	9.7	1A	11.2	1A	30.0
DANLISH WATER	DANLISH	R05A027	2	1A	7.3	1A	8.5	2	22.0	1B	74.0	1B	3.3	1A	0.150	1A	0.010	1A	6.7	-	-	-	-

Appendix 10.7

Upper Exe Catchment Compliance - 1990

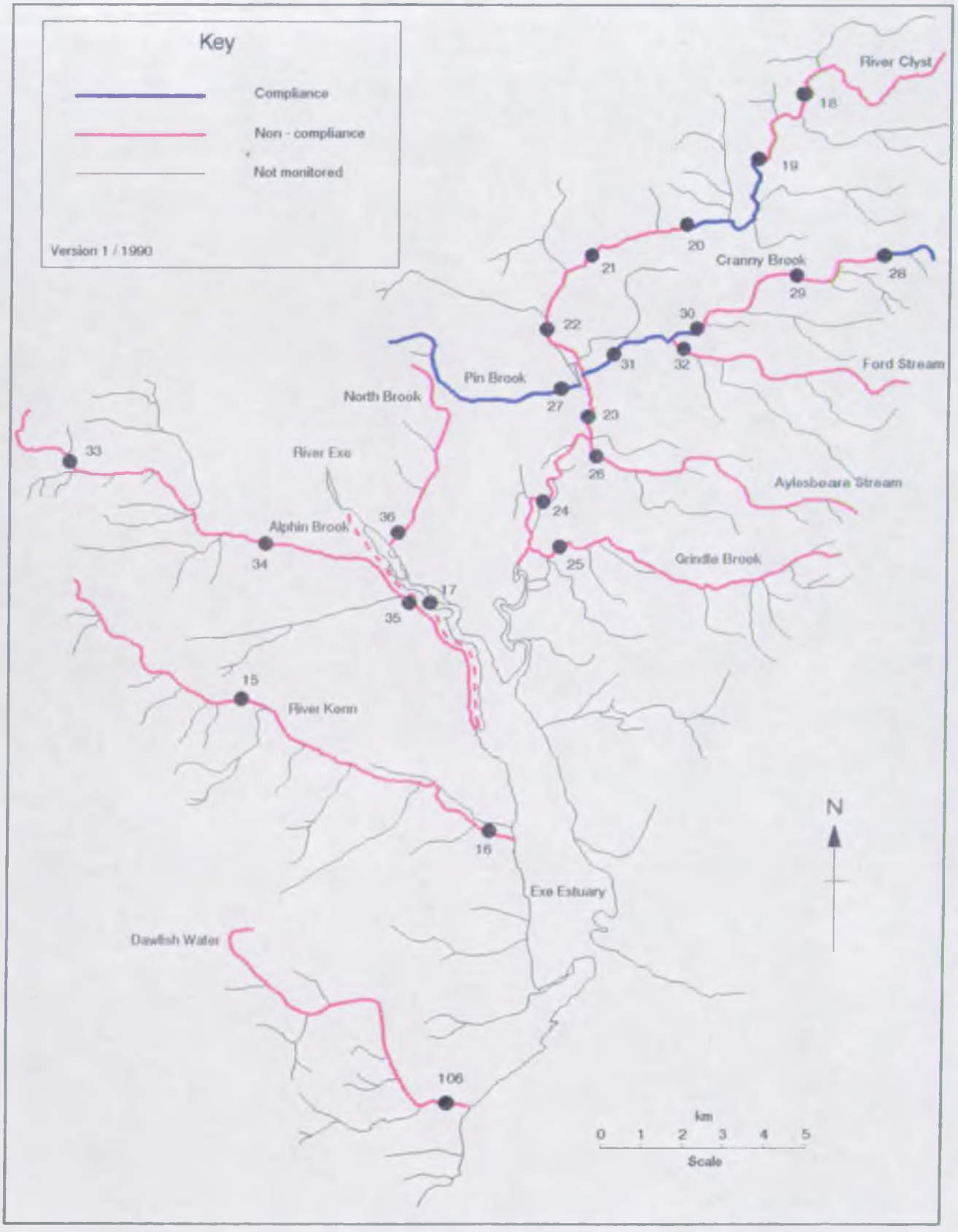


Culm and Little Dart Catchments
Compliance - 1990

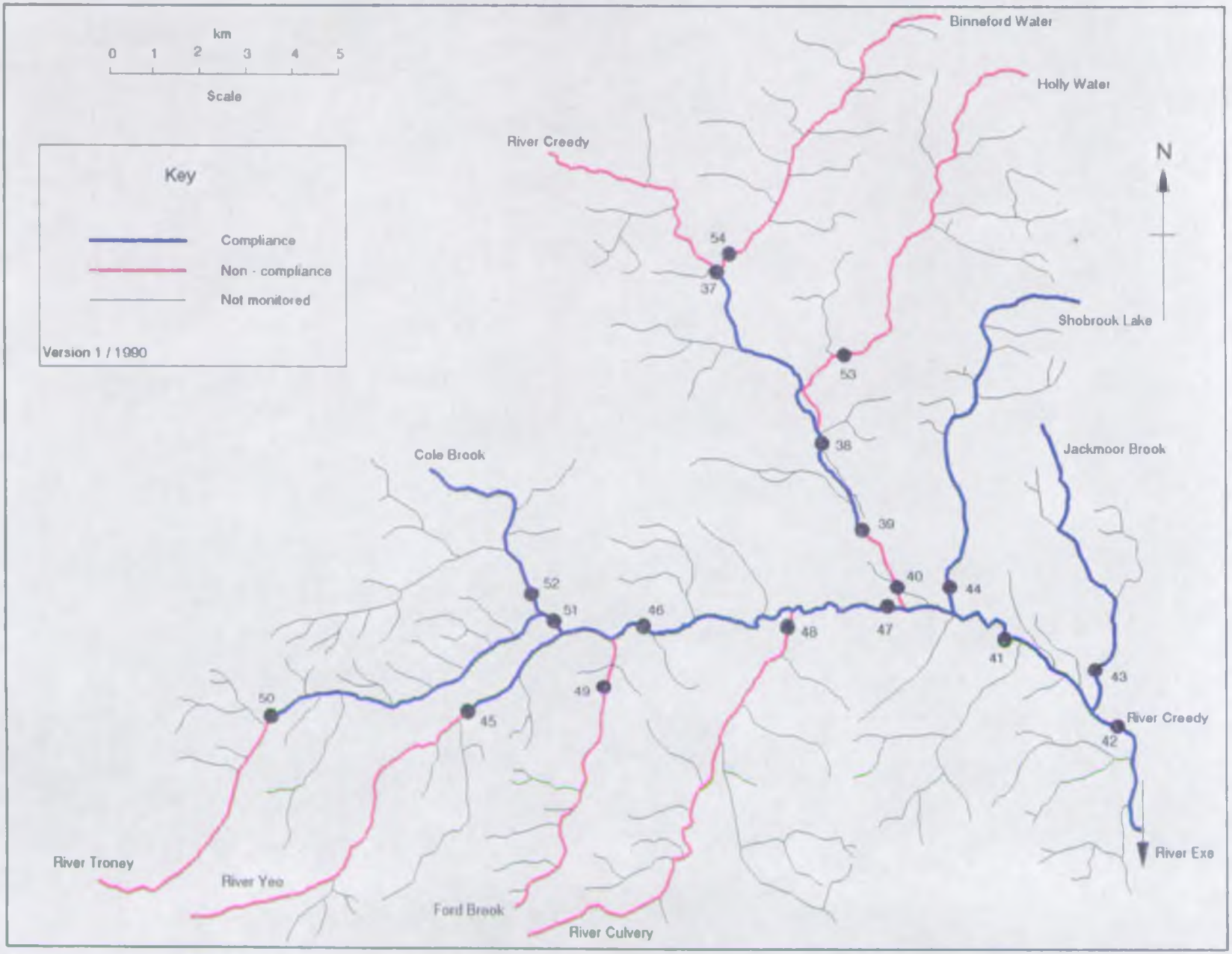


Appendix 10.8

Exe Estuary and Clyst Catchments
Compliance - 1990



Yeo & Creedy Catchments
Compliance - 1990



Appendix 10.8

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION
1990 RIVER WATER QUALITY CLASSIFICATION
NUMBER OF SAMPLES (N) AND NUMBER OF SAMPLES EXCEEDING QUALITY STANDARD (F)
CATCHMENT : EXE (05)

River	Reach upstream of	User Ref. Number	pH Lower		pH Upper		Temperature		DO (%)		BOD (ATU)		Total Ammonia		Union. Ammonia		S.Solids		Total Copper		Total Zinc	
			N	F	N	F	N	F	N	F	N	F	N	F	N	F	N	F	N	F	N	F
EXE	COURT FARM EXFORD	R05G001	31	-	31	-	31	-	31	-	31	1	31	-	30	-	31	1	30	-	30	-
EXE	CHILLY BRIDGE	R05G002	25	-	25	-	25	-	25	-	25	1	25	-	24	-	25	2	1	-	1	-
EXE	WARMORE	R05G003	20	-	20	-	20	-	20	-	20	1	20	-	19	-	20	-	20	-	20	-
EXE	EXEBRIDGE	R05E001	40	-	40	-	40	-	40	-	40	-	40	-	39	-	40	3	40	-	40	-
EXE	HALFPENNY BRIDGE	R05E002	26	-	26	-	26	-	26	1	26	-	26	-	26	-	26	2	0	-	0	-
EXE	LYTHECOURT	R05E003	20	-	20	-	20	-	20	-	20	-	20	-	20	-	20	1	1	-	1	-
EXE	TIVERTON NEW BRIDGE	R05E004	24	-	24	-	25	-	25	1	25	-	25	-	24	-	25	2	25	-	25	-
EXE	COLLEPRIEST TIVERTON	R05E005	25	-	25	-	25	-	25	-	25	1	25	-	25	-	25	4	25	1	25	-
EXE	ASHLEY	R05E006	30	-	30	-	30	1	30	-	30	3	30	1	30	-	30	4	30	1	30	-
EXE	BICKLEIGH CASTLE	R05E007	25	-	25	-	25	-	25	1	25	3	25	-	25	-	25	3	25	-	25	-
EXE	THORVERTON GAUGING STATION	R05D001	71	-	71	-	70	-	70	1	71	1	71	-	69	-	71	8	69	-	69	-
EXE	STAFFORD BRIDGE	R05D002	25	-	25	-	24	-	24	-	25	-	25	-	24	-	25	2	0	-	0	-
EXE	EXWICK	R05D003	25	-	25	-	25	-	25	2	25	5	25	1	24	-	25	4	0	-	0	-
EXE	TRENG WEIR EXETER	R05D004	72	-	72	-	71	-	71	1	72	10	72	1	71	-	72	8	72	-	72	-
KENN	A38 BRIDGE KENNFORD	R05A001	25	-	25	-	25	-	25	1	25	2	25	3	25	1	25	3	1	-	1	-
KENN	POWDERHAM CASTLE	R05A002	30	-	30	-	30	-	30	9	30	2	30	-	29	-	30	2	30	-	30	-
EXETER CANAL	A38 BRIDGE COUNTESS WEAR	R05A006	32	-	32	3	31	1	29	2	32	2	32	-	29	-	32	-	32	-	32	-
CLYST	CLYST HYDON	R05B001	38	-	38	-	38	-	38	11	38	5	38	9	38	7	38	11	0	-	0	-
CLYST	CLYST ST LAWRENCE	R05B002	38	-	38	-	38	-	38	3	38	2	38	6	38	1	38	7	0	-	0	-
CLYST	ASHCLYST FARM	R05B003	38	-	38	-	38	-	37	-	38	1	38	1	37	-	38	5	0	-	0	-
CLYST	A38 BRIDGE BROADCLYST	R05B004	39	-	39	-	39	-	38	13	39	1	39	2	38	-	39	5	0	-	0	-
CLYST	WITHY BRIDGE	R05B005	39	-	39	-	39	-	38	7	39	2	39	2	37	-	39	6	0	-	0	-
CLYST	A30 BRIDGE CLYST HONITON	R05B006	40	-	40	-	40	-	39	1	40	2	40	1	38	-	40	4	28	-	28	-
CLYST	CLYST ST MARY	R05B007	38	-	38	-	38	-	37	6	38	-	38	-	34	-	38	5	12	-	12	-
GRINDLE BROOK	WINSLADE PARK	R05A028	20	-	20	-	20	-	20	3	20	-	20	-	20	-	20	6	20	-	20	-
AYLESBEARE STREAM	DIMONDS FARM	R05B013	20	-	20	-	20	-	20	9	20	1	20	-	19	-	20	2	0	-	0	-
PIN BROOK	MOSSHAYNE	R05B012	20	-	20	-	20	-	20	-	20	-	20	-	20	-	20	5	19	-	19	-
CRANNY BROOK	YELLANDS	R05B008	38	-	38	-	38	-	38	-	38	-	38	-	38	-	38	11	1	-	1	-
CRANNY BROOK	BANNSHAYES	R05B009	37	-	37	-	36	-	36	1	37	6	37	6	35	7	37	10	1	-	1	-
CRANNY BROOK	CRANNAFORD CROSSING	R05B010	39	-	39	-	39	-	39	-	39	-	39	2	38	1	39	4	0	-	0	-
CRANNY BROOK	WISHFORD FARM	R05B011	38	-	38	-	38	-	38	-	38	1	38	1	38	-	38	5	38	-	38	-
FORD STREAM	A30 BRIDGE, NEAR ROCKBEARE	R05B014	19	-	19	-	19	-	19	3	19	1	19	-	19	-	19	2	0	-	0	-
ALPHIN BROOK	DIMONDS BRIDGE	P05A003	25	-	25	-	25	-	24	-	25	5	25	-	24	-	25	7	0	-	0	-
ALPHIN BROOK	FOOTBRIDGE ALPHINGTON	P05A004	26	-	26	-	26	-	25	-	26	3	26	-	22	-	26	5	0	-	0	-
ALPHIN BROOK	COUNTESS WEAR BRIDGE	P05A005	27	-	27	-	27	-	26	1	27	2	27	-	27	-	27	2	27	-	27	-

Appendix 10.9

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION
1990 RIVER WATER QUALITY CLASSIFICATION
NUMBER OF SAMPLES (N) AND NUMBER OF SAMPLES EXCEEDING QUALITY STANDARD (F)
CATCHMENT : EXE (05)

River	Reach upstream of	User Ref. Number	pH Lower		pH Upper		Temperature		DO (%)		BOD (ATU)		Total Ammonia		Union. Ammonia		S.Solids		Total Copper		Total Zinc	
			N	F	N	F	N	F	N	F	N	F	N	F	N	F	N	F	N	F	N	F
NORTH BROOK	NORTHBROOK PARK	R05A026	32	-	32	-	32	-	32	-	32	1	32	5	31	1	32	3	17	-	17	-
CREEDY	ASHRIDGE BRIDGE	R05J001	26	-	26	-	26	-	26	2	26	-	26	-	25	-	26	5	0	-	0	-
CREEDY	VENN BRIDGE	R05J014	20	-	20	-	20	-	20	-	20	-	20	-	20	-	20	3	19	-	19	-
CREEDY	CREEDY BRIDGE	R05J002	38	-	38	-	38	1	38	1	38	-	38	-	38	-	38	3	38	-	38	-
CREEDY	WESTACOTT COTTAGES	R05J003	37	-	37	-	37	-	37	3	37	-	37	-	37	-	37	3	37	-	37	-
CREEDY	NEWTON ST CYRES	R05J013	40	-	40	-	39	-	39	-	40	-	40	-	38	-	40	5	40	-	40	-
CREEDY	OAKFORD FARM	R05J004	38	-	38	-	38	-	38	-	38	1	38	-	37	-	38	4	38	-	38	-
JACKMOOR BROOK	LANGFORD	R05J018	20	-	20	-	20	-	19	-	20	-	20	-	20	-	20	3	0	-	0	-
SHOBROOK LAKE	CREEDY BARTON	R05J017	19	-	19	-	19	-	18	-	19	-	19	-	18	-	19	3	0	-	0	-
YEO (CREEDY)	BINNEFORD	R05K003	19	-	19	-	19	-	19	4	19	-	19	-	17	-	19	-	0	-	0	-
YEO (CREEDY)	GUNSTONE MILLS	R05K004	26	-	26	-	26	-	26	-	26	-	26	-	26	-	26	3	1	-	1	-
YEO (CREEDY)	DOWNES MILLS PRIOR TO RIVER CREEDY	R05K005	46	-	46	-	46	-	46	1	45	-	45	-	40	-	46	4	45	-	45	-
CULVERY RIVER	UTON	R05K011	20	-	20	-	20	-	20	2	20	-	20	-	18	-	20	2	20	-	20	-
FORD BROOK	FORD FARM	R05K010	20	-	20	-	20	-	20	4	20	1	20	-	19	-	20	-	19	-	19	-
TRONEY	EASTERBROOK	R05K008	17	-	17	-	17	-	17	3	17	-	17	-	14	-	17	1	0	-	0	-
TRONEY	YEOFORD	R05K002	25	-	25	-	25	-	24	-	25	-	25	-	24	-	25	3	25	-	25	-
COLE BROOK	COLEBROOKE	R05K009	20	-	20	-	20	-	20	-	20	-	20	-	20	-	20	2	0	-	0	-
HOLLY WATER	HEATH BRIDGE	R05J015	20	-	20	-	20	-	20	1	20	2	20	-	20	-	20	3	1	-	1	-
BINNEFORD WATER	NEAR ASHRIDGE FARM	R05J016	20	-	20	-	20	-	20	-	20	1	20	-	19	-	20	3	0	-	0	-
CULM	STRAWBRIDGE'S FARM	R05C001	38	-	38	-	38	-	38	1	38	-	38	-	36	-	38	2	0	-	0	-
CULM	ROSEMARY LANE CLAYHIDON	R05C002	39	-	39	-	39	-	39	1	39	-	39	-	38	-	39	2	0	-	0	-
CULM	HEMYOCK	R05C003	38	-	38	-	38	-	38	1	38	2	38	2	37	-	38	4	0	-	0	-
CULM	CULMSTOCK	R05C004	38	-	38	1	38	-	37	1	38	2	38	1	37	-	38	3	0	-	0	-
CULM	UFFCULME	R05C005	39	-	39	-	39	-	38	1	39	1	39	-	37	-	39	4	39	-	39	-
CULM	SKINNER'S FARM WILLAND	R05C006	39	-	39	-	39	-	39	-	39	2	39	-	39	-	39	4	20	-	20	-
CULM	HIGHER UPTON FARM	R05C007	40	-	40	-	40	-	40	1	40	5	40	2	38	-	40	9	0	-	0	-
CULM	MERRY HARRIERS INN WESTCOTT	R05C008	40	-	40	-	40	-	40	-	40	2	40	-	37	-	40	5	40	-	40	-
CULM	50M BELOW OF WEIR, ABOVE SILVERTON MILL	R05C009	39	-	39	1	39	-	38	-	39	-	39	-	38	1	39	4	1	-	1	-
CULM	FOOTBRIDGE ABOVE SILVERTON MILL	R05C010	39	-	39	-	39	-	39	-	39	-	39	-	38	-	39	7	1	-	1	-
CULM	POINT 200M BELOW SILVERTON MILL	R05C011	39	-	39	-	39	-	39	1	39	-	39	-	33	-	39	7	2	-	2	-
CULM	CULLMJOHN	R05C012	39	-	39	-	39	-	39	-	39	-	39	-	39	-	39	5	6	-	6	-
CULM	A.396 BRIDGE STONE CROSS	R05C013	36	-	36	-	34	-	34	1	36	-	36	-	33	-	36	4	36	-	36	-
WEAVER	WEAVER BRIDGE N 83191	R05C026	20	-	20	-	20	-	20	1	20	2	20	2	19	-	20	2	0	-	0	-

Appendix 10.9

NATIONAL RIVERS AUTHORITY – SOUTH WEST REGION
1990 RIVER WATER QUALITY CLASSIFICATION
NUMBER OF SAMPLES (N) AND NUMBER OF SAMPLES EXCEEDING QUALITY STANDARD (F)
CATCHMENT : EXE (05)

River	Reach upstream of	User Ref. Number	pH Lower		pH Upper		Temperature		DO (%)		BOD (ATU)		Total Ammonia		Union. Ammonia		S.Solids		Total Copper		Total Zinc	
			N	F	N	F	N	F	N	F	N	F	N	F	N	F	N	F	N	F	N	F
HERONSBANK BROOK	HERONS BANK	R05C027	20	–	20	–	20	–	20	–	20	–	20	–	20	–	20	–	0	–	0	–
SPRATFORD STREAM	LEONARD MOOR BRIDGE	R05C015	25	–	25	–	25	–	25	1	25	1	25	2	25	–	25	3	0	–	0	–
SPRATFORD STREAM	83391 BRIDGE TIVERTON JUNCTION	R05C016	26	–	26	–	26	–	26	–	26	–	26	–	26	–	26	2	16	–	16	–
SPRATFORD STREAM	FIVE BRIDGES	R05C017	25	–	25	–	25	–	25	1	25	–	24	2	24	2	25	2	15	–	15	–
SHELDON STREAM	CRADDOCK BRIDGE	R05C014	26	–	26	–	26	–	25	1	26	2	26	2	25	–	26	4	26	–	26	–
MADFORD RIVER	DUNKESWELL ABBEY	R05C028	24	–	24	–	23	–	22	1	24	–	24	–	21	–	24	–	24	–	24	–
MADFORD RIVER	CULM BRIDGE HEMYOCK	R05C019	27	–	27	–	27	–	27	2	27	3	27	3	27	–	27	4	27	–	27	–
DUNKESWELL STREAM	PRIOR TO MADFORD RIVER	R05C042	6	–	6	–	6	–	6	–	6	–	6	–	6	–	6	–	6	–	6	–
BOLHAM RIVER	FIVE BRIDGES	R05C018	26	–	26	–	26	–	26	1	26	3	26	3	26	–	26	1	26	–	26	–
THORVERTON STREAM	THORVERTON BRIDGE	R05E009	20	–	20	–	20	–	20	–	20	–	20	1	19	–	20	3	0	–	0	–
BURN	BURN MILL FARM	R05E008	19	–	19	–	18	–	18	–	19	1	19	–	18	–	19	2	19	–	19	–
DART (EXE)	A373 BRIDGE BRADLEY	R05E006	25	–	25	–	25	–	25	1	25	1	25	–	25	–	25	3	0	–	0	–
DART (EXE)	DART BRIDGE BICKLEIGH	R05E007	33	–	33	–	33	–	33	–	32	–	33	–	33	–	33	4	33	1	33	–
LOWMAN	HUNTSHAM WOOD	R05E009	20	–	20	–	20	–	20	–	20	–	20	–	20	–	20	2	0	–	0	–
LOWMAN	CRAZE LOWMAN	R05E010	25	–	25	–	25	–	25	1	24	–	25	–	25	–	25	3	0	–	0	–
LOWMAN	A373 BRIDGE TIVERTON	R05E011	32	–	32	–	31	–	31	1	31	1	32	1	31	–	31	6	32	–	32	–
UPLOWMAN STREAM	WITHAVES	R05E021	20	–	20	–	20	–	20	1	20	–	20	–	20	–	20	3	0	–	0	–
GRAND WESTERN CANAL	PENCRE BRIDGE	R05C021	32	–	32	–	32	–	32	3	32	2	32	3	32	1	32	8	32	–	32	–
GRAND WESTERN CANAL	THE BASIN TIVERTON	R05E013	32	–	32	–	32	–	32	1	32	13	32	–	27	–	32	22	32	–	32	–
CALVERLEIGH STREAM	SWINESBRIDGE	R05E020	20	–	20	–	20	–	20	–	20	–	20	–	20	–	20	1	20	–	20	–
BATHERM	RANSCOMBE	R05F001	20	–	20	–	20	–	20	–	20	–	20	–	18	–	20	–	20	–	20	–
BATHERM	A361 BRIDGE SHILLINGFORD	R05F002	25	–	25	–	25	–	25	–	25	1	25	–	25	–	25	5	0	–	0	–
BATHERM	BOWDENHILL WOOD	R05F003	43	–	43	–	43	–	43	1	31	–	31	–	31	–	31	7	31	–	31	–
IRON MILL STREAM	PRIOR TO RIVER EXE	R05E008	32	–	32	–	32	–	32	–	32	–	32	–	27	–	32	4	32	–	32	–
BROCKEY RIVER	BROCKSBRIDGE COTTAGES	R05E012	25	–	25	–	25	–	25	–	25	–	25	–	21	–	25	2	24	–	24	–
BATTLE	STONEBATH	POSH001	30	–	30	–	30	–	30	–	19	–	30	–	19	–	30	1	30	–	30	–
BATTLE	TOAD STEPS	POSH002	31	–	31	–	31	–	31	–	31	–	31	–	22	–	31	2	31	–	31	–
BATTLE	PILTON HILL	POSH003	31	–	31	–	30	–	30	–	31	1	31	–	26	–	31	2	31	–	31	–

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NATIONAL RIVERS AUTHORITY – SOUTH WEST REGION
1990 RIVER WATER QUALITY CLASSIFICATION
NUMBER OF SAMPLES (N) AND NUMBER OF SAMPLES EXCEEDING QUALITY STANDARD (F)
CATCHMENT : EXE (05)

River	Reach upstream of	User Ref. Number	pH Lower		pH Upper		Temperature		DO (%)		BOD (ATU)		Total Ammonia		Union. Ammonia		S.Solids		Total Copper		Total Zinc	
			N	F	N	F	N	F	N	F	N	F	N	F	N	F	N	F	N	F	N	F
DANE'S BROOK	CASTLE BRIDGE	R05H004	31	–	31	–	31	–	31	–	31	–	31	–	21	–	31	1	31	–	31	–
SHERDON WATER	FERRY HALL	R05H005	25	–	25	–	25	–	25	–	25	–	25	–	20	–	25	–	25	–	25	–
HADDEO	CUCKWOLDS COMBE	R05G004	19	–	19	–	19	–	19	1	19	–	19	–	17	–	19	–	19	–	19	–
HADDEO	WIMBLEBALL RESERVOIR	R05G010	12	–	12	–	12	–	12	–	12	–	12	–	11	–	12	–	12	–	12	–
HADDEO	A396 BRIDGE PIXY COPSE	R05G005	31	–	31	–	31	–	31	–	31	–	31	–	30	–	31	3	31	–	31	–
FULHAM	PRIOR TO RIVER HADDEO	R05G009	27	–	27	–	27	–	27	–	27	1	27	–	24	–	27	1	27	–	27	–
QUARME	COPPLEHAM BRIDGE	R05G006	31	–	31	–	31	–	31	2	31	2	31	–	26	–	31	2	31	–	31	–
DWELISH WATER	DWELISH	R05A027	19	–	19	–	18	1	18	–	19	–	19	–	17	–	19	–	4	–	4	–

Appendix 10.9

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION
1990 RIVER WATER QUALITY CLASSIFICATION
PERCENTAGE EXCEEDENCE OF DETERMINAND STATISTICS FROM QUALITY STANDARDS
CATCHMENT : EXE (05)

River	Reach upstream of	User Ref. Number	PERCENTAGE EXCEEDENCE OF		
			pH Lower	pH Upper	Temperature
EXE	COURT FARM EXFORD	R05G001	-	-	-
EXE	CHILLY BRIDGE	R05G002	-	-	-
EXE	WARMORE	R05G003	-	-	-
EXE	EXEBRIDGE	R05E001	-	-	-
EXE	HALFPENNY BRIDGE	R05E002	-	-	-
EXE	LYTHECOURT	R05E003	-	-	-
EXE	TIVERTON NEW BRIDGE	R05E004	-	-	-
EXE	COLLIPRIEST TIVERTON	R05E005	-	-	-
EXE	ASHLEY	R05E006	-	-	-
EXE	BICKLEIGH CASTLE	R05E007	-	-	-
EXE	THORVERTON GAUGING STATION	R05D001	-	-	-
EXE	STAFFORD BRIDGE	R05D002	-	-	-
EXE	EXWICK	R05D003	-	-	-
EXE	TREWS WEIR EXETER	R05D004	-	-	-
KENN	A38 BRIDGE KENNFORD	R05A001	-	-	-
KENN	POWDERHAM CASTLE	R05A002	-	-	-
EXETER CANAL	A38 BRIDGE COUNTESS WEAR	R05A006	-	4	7
CLYST	CLYST HYDON	R05B001	-	-	-
CLYST	CLYST ST LAWRENCE	R05B002	-	-	-
CLYST	ASHCLYST FARM	R05B003	-	-	-
CLYST	A38 BRIDGE BROADCLYST	R05B004	-	-	-
CLYST	WITHY BRIDGE	R05B005	-	-	-
CLYST	A30 BRIDGE CLYST HONITON	R05B006	-	-	-
CLYST	CLYST ST MARY	R05B007	-	-	-
GRINDLE BROOK	WINSLADE PARK	R05A028	-	-	-
AYLESBEARE STREAM	DYMONDS FARM	R05B013	-	-	-
PIN BROOK	MOSSHAYNE	R05B012	-	-	-
CRANNY BROOK	YELLANDS	R05B008	-	-	-
CRANNY BROOK	BARNSHAYES	R05B009	-	-	-
CRANNY BROOK	CRANNAFORD CROSSING	R05B010	-	-	-
CRANNY BROOK	WISHFORD FARM	R05B011	-	-	-
FORD STREAM	A30 BRIDGE, NEAR ROCKBEARE	R05B014	-	-	-
ALPHIN BROOK	DYMONDS BRIDGE	R05A003	-	-	-
ALPHIN BROOK	FOOTBRIDGE ALPHINGTON	R05A004	-	-	-
ALPHIN BROOK	COUNTESS WEAR BRIDGE	R05A005	-	-	-

STATISTIC FROM QUALITY STANDARD						
DO (%)	BOD (ATU)	Total Ammonia	Un-ionised Ammonia	Suspended Solids	Total Copper	Total Zinc
-	-	-	-	-	-	-
-	177	-	-	-	-	-
-	2	-	-	-	-	-
-	-	-	-	-	-	-
2	-	-	-	-	-	-
-	-	-	-	-	-	-
28	-	-	-	-	-	-
-	4	-	-	-	2	-
-	74	5	-	-	-	-
4	12	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
12	163	18	-	-	-	-
-	47	-	-	-	-	-
-	167	100	62	-	-	-
14	122	-	-	-	-	-
3	29	-	-	-	-	-
58	53	158	93	5	-	-
15	24	52	-	-	-	-
-	-	-	-	-	-	-
32	-	13	-	-	-	-
30	2	20	-	-	-	-
-	1	-	-	-	-	-
35	-	-	-	-	-	-
29	-	-	-	44	-	-
35	36	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
1	424	460	262	-	-	-
-	-	1	-	-	-	-
-	-	-	-	-	-	-
25	8	-	-	-	-	-
-	101	-	-	108	-	-
-	167	-	-	-	-	-
[illegible]	57	-	-	17	-	-

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION
1990 RIVER WATER QUALITY CLASSIFICATION
PERCENTAGE EXCEEDENCE OF DETERMINAND STATISTICS FROM QUALITY STANDARDS
CATCHMENT : EXE (05)

River	Reach upstream of	User Ref. Number	PERCENTAGE EXCEEDENCE OF STATISTIC FROM QUALITY STANDARD									
			pH Lower	pH Upper	Temperature	DO (%)	BOD (ATU)	Total Ammonia	Un-ionised Ammonia	Suspended Solids	Total Copper	Total Zinc
NORTH BROOK	NORTHBROOK PARK	R05A026	-	-	-	-	5	170	14	-	-	-
CREEDY	ASHRIDGE BRIDGE	R05J001	-	-	-	5	-	-	-	3	-	-
CREEDY	VENN BRIDGE	R05J014	-	-	-	-	-	-	-	-	-	-
CREEDY	CREEDY BRIDGE	R05J002	-	-	-	-	-	-	-	-	-	-
CREEDY	WESTACOTT COTTAGES	R05J003	-	-	-	17	-	-	-	-	-	-
CREEDY	NEWTON ST CYRES	R05J013	-	-	-	-	-	-	-	-	-	-
CREEDY	OAKFORD FARM	R05J004	-	-	-	-	-	-	-	-	-	-
JACKMOOR BROOK	LANGFORD	R05J018	-	-	-	-	-	-	-	-	-	-
SHOBROOK LAKE	CREEDY BARTON	R05J017	-	-	-	-	-	-	-	-	-	-
YEO (CREEDY)	BINNEFORD	R05K003	-	-	-	62	-	-	-	-	-	-
YEO (CREEDY)	GUNSTONE MILLS	R05K004	-	-	-	-	-	-	-	-	-	-
YEO (CREEDY)	DOWNES MILLS PRIOR TO RIVER CREED	R05K005	-	-	-	-	-	-	-	-	-	-
CULVERY RIVER	UTON	R05K011	-	-	-	22	-	-	-	-	-	-
FORD BROOK	FORD FARM	R05K010	-	-	-	85	9	-	-	-	-	-
TRONEY	EASTERBROOK	R05K008	-	-	-	25	-	-	-	-	-	-
TRONEY	YEOFORD	R05K002	-	-	-	-	-	-	-	-	-	-
COLE BROOK	COLEBROOKE	R05K009	-	-	-	-	-	-	-	-	-	-
HOLLY WATER	HEATH BRIDGE	R05J015	-	-	-	13	10	-	-	-	-	-
BINNEFORD WATER	NEAR ASHRIDGE FARM	R05J016	-	-	-	-	32	-	-	-	-	-
CULM	STRAWBRIDGE'S FARM	R05C001	-	-	-	-	-	-	-	-	-	-
CULM	ROSEMARY LANE CLAYHIDON	R05C002	-	-	-	-	-	-	-	-	-	-
CULM	HEMYOCK	R05C003	-	-	-	-	57	3	-	-	-	-
CULM	CULMSTOCK	R05C004	-	-	-	-	13	-	-	-	-	-
CULM	UFFCULME	R05C005	-	-	-	-	-	-	-	-	-	-
CULM	SKINNER'S FARM WILLAND	R05C006	-	-	-	-	18	-	-	-	-	-
CULM	HIGHER UPTON FARM	R05C007	-	-	-	-	34	10	-	-	-	-
CULM	MERRY HARRIERS INN WESTCOTT	R05C008	-	-	-	-	1	-	-	-	-	-
CULM	50M BELOW OF WEIR, ABOVE SILVERTO	R05C009	-	-	-	-	-	-	-	-	-	-
CULM	FOOTBRIDGE ABOVE SILVERTON MILL	R05C010	-	-	-	-	-	-	-	-	-	-
CULM	POINT 200M BELOW SILVERTON MILL	R05C011	-	-	-	-	-	-	-	-	-	-
CULM	COLUMBJOHN	R05C012	-	-	-	-	-	-	-	-	-	-
CULM	A.396 BRIDGE STOKE CANON	R05C013	-	-	-	-	-	-	-	-	-	-
WEAVER	WEAVER BRIDGE ON B3131	R03C029	-	-	-	40	14	220	-	-	-	-

Appendix 10.10

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION
1990 RIVER WATER QUALITY CLASSIFICATION
PERCENTAGE EXCEEDENCE OF DETERMINAND STATISTICS FROM QUALITY STANDARDS
CATCHMENT : EXE (05)

River	Reach upstream of	User Ref. Number	PERCENTAGE EXCEEDENCE OF STATISTIC FROM QUALITY STANDARD									
			pH Lower	pH Upper	Temperature	DO (%)	BOD (ATU)	Total Ammonia	Un-ionised Ammonia	Suspended Solids	Total Copper	Total Zinc
HERONSBANK BROOK	HERONS BANK	R05C027	-	-	-	-	-	-	-	-	-	-
SPRATFORD STREAM	LEONARD MOOR BRIDGE	R05C015	-	-	-	7	13	9	-	-	-	-
SPRATFORD STREAM	B3391 BRIDGE TIVERTON JUNCTION	R05C016	-	-	-	-	-	-	-	-	-	-
SPRATFORD STREAM	FIVE BRIDGES	R05C017	-	-	-	6	-	41	43	-	-	-
SHELDON STREAM	CRADDOCK BRIDGE	R05C014	-	-	-	-	49	30	-	-	-	-
MADFORD RIVER	DUNKESWELL ABBEY	R05C028	-	-	-	6	-	-	-	-	-	-
MADFORD RIVER	CULM BRIDGE HEMYOCK	R05C019	-	-	-	31	199	126	-	-	-	-
DUNKESWELL STREAM	PRIOR TO MADFORD RIVER	R05C042	-	-	-	-	-	-	-	-	-	-
BOLHAM RIVER	FIVE BRIDGES	R05C018	-	-	-	29	95	113	-	-	-	-
THORVERTON STREAM	THORVERTON BRIDGE	R05D009	-	-	-	-	-	43	-	-	-	-
BURN	BURN MILL FARM	R05D008	-	-	-	-	8	-	-	-	-	-
DART (EXE)	A373 BRIDGE BRADLEY	R05D006	-	-	-	34	29	-	-	-	-	-
DART (EXE)	DART BRIDGE BICKLEIGH	R05D007	-	-	-	-	-	-	-	-	-	-
LOWMAN	HUNTSHAM WOOD	R05E009	-	-	-	-	-	-	-	-	-	-
LOWMAN	CRAZE LOWMAN	R05E010	-	-	-	-	-	-	-	-	-	-
LOWMAN	A373 BRIDGE TIVERTON	R05E011	-	-	-	-	10	-	-	-	-	-
UPLOWMAN STREAM	WIDHAYES	R05E021	-	-	-	20	-	-	-	-	-	-
GRAND WESTERN CANAL	FENACRE BRIDGE	R05C021	-	-	-	20	149	171	98	-	-	-
GRAND WESTERN CANAL	THE BASIN TIVERTON	R05E013	-	-	-	-	193	-	-	106	-	-
CALVERLEIGH STREAM	SWINESBRIDGE	R05E020	-	-	-	-	-	-	-	-	-	-
BATHERM	RANSCOMBE	R05F001	-	-	-	-	-	-	-	-	-	-
BATHERM	A361 BRIDGE SHILLINGFORD	R05F002	-	-	-	-	-	-	-	15	-	-
BATHERM	BOWBIERHILL WOOD	R05F003	-	-	-	-	-	-	-	-	-	-
IRON MILL STREAM	PRIOR TO RIVER EXE	R05E008	-	-	-	-	-	-	-	-	-	-
BROCKEY RIVER	BROCKSBRIDGE COTTAGES	R05E012	-	-	-	-	-	-	-	-	-	-
BARLE	SIMONSBATH	R05H001	-	-	-	-	-	-	-	-	-	-
BARLE	TARR STEPS	R05H002	-	-	-	-	-	-	-	-	-	-
BARLE	PINTON MILL	R05H003	-	-	-	-	-	-	-	-	-	-

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION
1990 RIVER WATER QUALITY CLASSIFICATION
PERCENTAGE EXCEEDENCE OF DETERMINAND STATISTICS FROM QUALITY STANDARDS
CATCHMENT : EXE (05)

River	Reach upstream of	User Ref. Number	PERCENTAGE EXCEEDENCE OF STATISTIC FROM QUALITY STANDARD									
			pH Lower	pH Upper	Temperature	DO (%)	BOD (ATU)	Total Ammonia	Un-ionised Ammonia	Suspended Solids	Total Copper	Total Zinc
DANE'S BROOK	CASTLE BRIDGE	R05H004	-	-	-	-	-	-	-	-	-	-
SHERDON WATER	FERNY BALL	R05H005	-	-	-	-	-	-	-	-	-	-
HADDEO	CUCKWOLDS COMBE	R05G004	-	-	-	5	-	-	-	-	-	-
HADDEO	WIMBLEBALL RESERVOIR	R05G010	-	-	-	-	-	-	-	-	-	-
HADDEO	A396 BRIDGE PIXY COPSE	R05G005	-	-	-	-	-	-	-	-	-	-
PULHAM	PRIOR TO RIVER HADDEO	R05G009	-	-	-	-	3	-	-	-	-	-
QUARME	COPPLEHAM BRIDGE	R05G006	-	-	-	4	10	-	-	-	-	-
DAWLISH WATER	DAWLISH	R05A027	-	-	2	-	-	-	-	-	-	-

Appendix 10.10

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION
IDENTIFICATION OF POSSIBLE CAUSES OF NON-COMPLIANCE WITH RQO
CATCHMENT : EXE (05)

* = WORK ALREADY IN HAND

1990 Map Position Number	River	Reach upstream of	User Reference Number	Reach Length (km)	Possible causes of non-compliance
2	EXE	CHILLY BRIDGE	R05G002	16.2	DROUGHT, UP-STREAM ABSTRACTIONS
3	EXE	WARMORE	R05G003	6.0	DROUGHT, UP-STREAM ABSTRACTIONS
5	EXE	HALFPENNY BRIDGE	R05E002	7.7	DROUGHT, FISH FARM EFFLUENT
7	EXE	TIVERTON NEW BRIDGE	R05E004	2.5	DROUGHT, UP-STREAM ABSTRACTIONS
8	EXE	COLLIPRIEST TIVERTON	R05E005	1.8	INDUSTRIAL DISCHARGE, SEWAGE TREATMENT WORKS
9	EXE	ASHLEY	R05E006	2.0	SEWAGE TREATMENT WORKS, TIP
10	EXE	BICKLEIGH CASTLE	R05E007	3.9	SEPTIC TANK, EUTROPHICATION, LOW FLOWS
13	EXE	EXWICK	R05D003	3.9	URBANISATION, UP-STREAM ABSTRACTIONS, RIVER CULM IN-FLOW
14	EXE	TREWS WEIR EXETER	R05D004	3.0	URBANISATION
15	KENN	* A38 BRIDGE KENNFORD	R05A001	6.9	SEWAGE TREATMENT WORKS (PRIVATE), FARMING ACTIVITIES
16	KENN	POWDERHAM CASTLE	R05A002	6.8	FARMING ACTIVITIES
17	EXETER CANAL	A38 BRIDGE COUNTESS WEAR	R05A006	3.0	LAND RUN-OFF, URBANISATION, CANALISATION
18	CLYST	CLYST HYDON	R05B001	4.9	SEPTIC TANK, SMALL SEWAGE TREATMENT WORKS
19	CLYST	CLYST ST LAWRENCE	R05B002	2.4	SEPTIC TANK, FARMING ACTIVITIES, EUTROPHICATION, LOW FLOWS
21	CLYST	A38 BRIDGE BROADCLYST	R05B004	3.2	FARMING ACTIVITIES, LOW/SLOW FLOWS
22	CLYST	WITHY BRIDGE	R05B005	2.6	FARMING ACTIVITIES, SEPTIC TANK (PAST)
23	CLYST	A30 BRIDGE CLYST HONITON	R05B006	2.9	FARMING ACTIVITIES
24	CLYST	CLYST ST MARY	R05B007	3.6	SHALLOW, SLOW FLOW
25	GRINDLE BROOK	WINSLADE PARK	R05A028	8.3	DROUGHT
26	AYLESBEARE STREAM	DYMONDS FARM	R05B013	7.6	INDUSTRIAL DISCHARGES, FARMING ACTIVITIES
29	CRANNY BROOK	* BARNSHAYES	R05B009	2.7	FARMING, INDUSTRIAL DISCHARGE
30	CRANNY BROOK	CRANNAFORD CROSSING	R05B010	3.5	FARMING ACTIVITIES
32	FORD STREAM	A30 BRIDGE, NEAR ROCKBEARE	R05B014	5.7	FARMING ACTIVITIES, SOAKAWAYS
33	ALPHIN BROOK	DYMONDS BRIDGE	R05A003	2.2	FARMING ACTIVITIES
34	ALPHIN BROOK	FOOTBRIDGE ALPHINGTON	R05A004	6.2	URBANISATION, CULVERTING
35	ALPHIN BROOK	COUNTESS WEAR BRIDGE	R05A005	3.1	URBANISATION, POLLUTION (ONE OFF)

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION
IDENTIFICATION OF POSSIBLE CAUSES OF NON-COMPLIANCE WITH RQO
CATCHMENT : EXE (05)

* = WORK ALREADY IN HAND

1990 Map Position Number	River	Reach upstream of	User Reference Number	Reach Length (km)	Possible causes of non-compliance
36	NORTH BROOK	NORTHBROOK PARK	R05A026	6.5	URBANISATION, STORMWATER DISCHARGES
37	CREEDY	ASHRIDGE BRIDGE	R05J001	5.7	FARMING ACTIVITIES
40	CREEDY	WESTACOTT COTTAGES	R05J003	1.9	FARMING ACTIVITIES
45	YEO (CREEDY)	BINNEFORD	R05K003	7.7	FARMING ACTIVITIES, SEPTIC TANKS
48	CULVERY RIVER	UTON	R05K011	8.8	FARMING ACTIVITIES
49	FORD BROOK	FORD FARM	R05K010	5.6	DROUGHT
50	TRONEY	EASTERBROOK	R05K008	6.4	DROUGHT, FARMING ACTIVITIES
53	HOLLY WATER	HEATH BRIDGE	R05J015	10.0	DROUGHT, FARMING ACTIVITIES
54	BINNEFORD WATER	NEAR ASHRIDGE FARM	R05J016	8.8	FARMING ACTIVITIES
57	CULM	HEMYOCK	R05C003	2.3	FARMING ACTIVITIES, EUTROPHICATION, INDUSTRIAL DISCHARGE
58	CULM	CULMSTOCK	R05C004	4.6	FARMING ACTIVITIES
60	CULM	SKINNER'S FARM WILLAND	R05C006	4.4	FARMING ACTIVITIES
61	CULM	HIGHER UPTON FARM	R05C007	4.5	FARMING ACTIVITIES, INDUSTRIAL DISCHARGE, URBANISATION
63	CULM	MERRY HARRIERS INN WESTCOTT	R05C008	2.3	FARMING ACTIVITIES (HISTORIC)
69	WEAVER	WEAVER BRIDGE ON B3181	R05C026	10.4	FARM DISCHARGE
70	SPRATFORD STREAM	LEONARD MOOR BRIDGE	R05C015	10.4	SEWAGE TREATMENT WORKS
72	SPRATFORD STREAM	FIVE BRIDGES	R05C017	3.0	FARMING ACTIVITIES, INDUSTRIAL DISCHARGE
74	SHELDON STREAM	CRADDOCK BRIDGE	R05C014	8.4	FARMING ACTIVITIES
76	MADFORD RIVER	DUNKESWELL ABBEY	R05C028	2.7	DROUGHT
77	MADFORD RIVER	CULM BRIDGE HEMYOCK	R05C019	3.2	FARMING ACTIVITIES
79	BOLHAM RIVER	FIVE BRIDGES	R05C018	5.8	FARMING ACTIVITIES
80	THORVERTON STREAM	THORVERTON BRIDGE	R05D009	5.1	URBANISATION, SEWAGE TREATMENT WORKS
81	BURN	BURN MILL FARM	R05D008	8.4	FISH FARM EFFLUENT, UP-STREAM ABSTRACTION
82	DART (EXE)	A373 BRIDGE BRADLEY	R05D006	6.4	DROUGHT, FARMING ACTIVITIES, POLLUTIONS
86	LOWMAN	* A373 BRIDGE TIVERTON	R05E011	3.6	CULVERTING, FARMING ACTIVITIES

Appendix 10.11

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION
IDENTIFICATION OF POSSIBLE CAUSES OF NON-COMPLIANCE WITH RQO
CATCHMENT : EXE (05)

* = WORK ALREADY IN HAND

1990 Map Position Number	River	Reach upstream of	User Reference Number	Reach Length (km)	Possible causes of non-compliance
87	UPLOWMAN STREAM	WIDHAYES	R05E021	7.1	DROUGHT, FARMING ACTIVITIES, SEPTIC TANKS
88	GRAND WESTERN CANAL	FENACRE BRIDGE	R05C021	2.0	FARMING ACTIVITIES, EUTROPHICATION, BLUE-GREEN ALGAE, CANALISATION
89	GRAND WESTERN CANAL	THE BASIN TIVERTON	R05E013	16.3	FARMING ACTIVITIES, URBANISATION, NO FLOW
92	BATHERM	* A361 BRIDGE SHILLINGFORD	R05F002	6.9	URBANISATION, CANALISATION, FARM DISCHARGES
101	HADDEO	CUCKWOLDS COMBE	R05G004	2.3	DROUGHT
104	PULHAM	PRIOR TO RIVER HADDEO	R05G009	8.9	FARM DISCHARGES (SPORADIC)
105	QUARME	* COPPLEHAM BRIDGE	R05G006	12.1	POLLUTION (ONE OFF), SEPTIC TANK
106	DAWLISH WATER	DAWLISH	R05A027	9.6	CANALISATION, URBANISATION