

# Environmental Protection Report

## River Tavy Catchment River Water Quality Classification 1991

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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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ENVIRONMENT AGENCY



110230

# RIVER WATER QUALITY IN THE RIVER TAVY CATCHMENT

## LIST OF CONTENTS

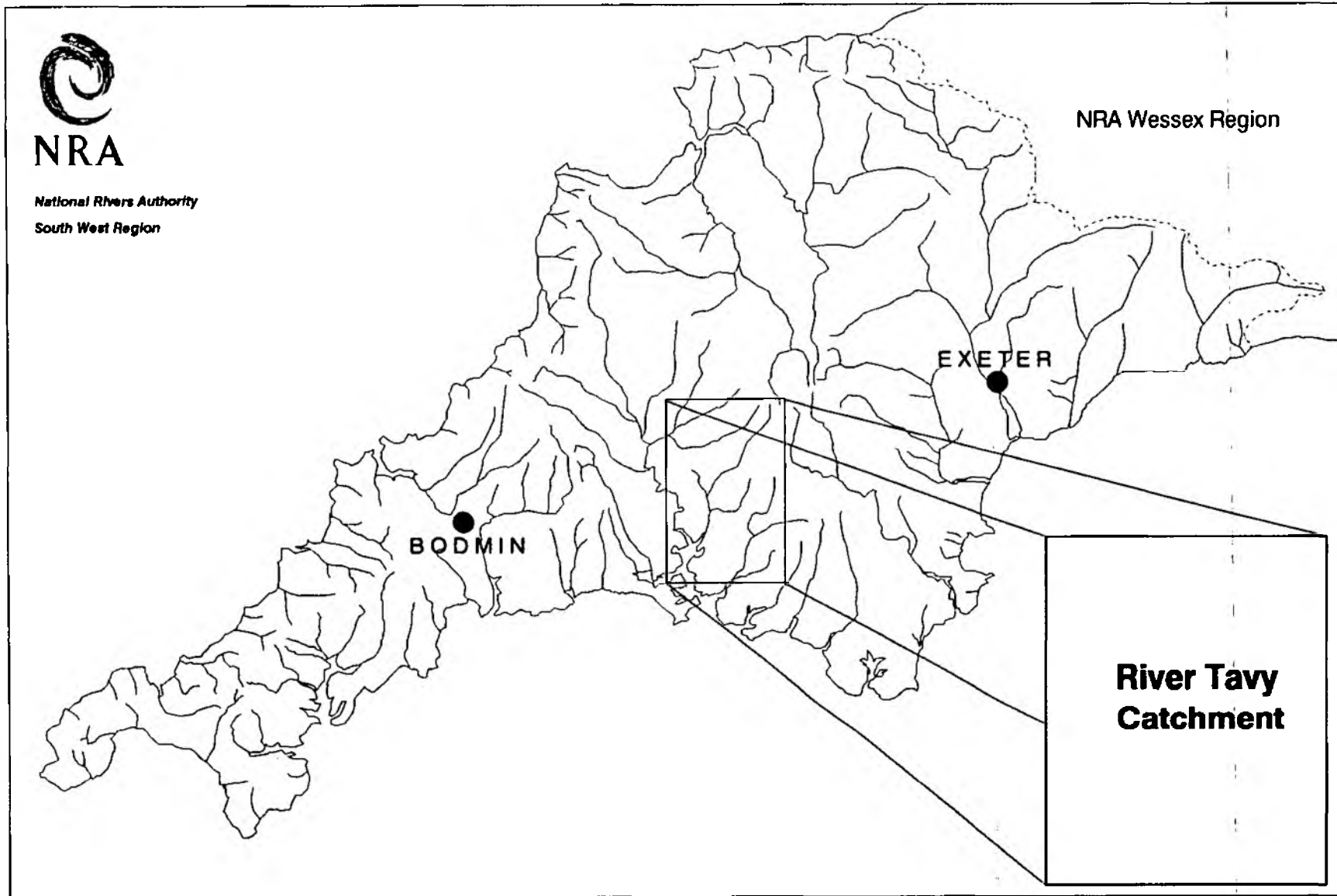
	Page No.
1 Introduction	1
2 River Tavy Catchment	1
3 National Water Council's River Classification System	2
4 1991 River Water Quality Classification	3
5 Non-compliance with Quality Objectives	3
6 Glossary of Terms	4
7 References	4
8 Appendices:	
8.1 River Quality Objectives including Monitoring points - map format	
8.2 Basic Determinand Analytical Suite	
8.3 National Water Council (NWC) River Classification System	
8.4 NWC Criteria for Non-Metallic Determinands - Regional Variation	
8.4.1 NWC Criteria for Metallic Determinands - Regional Variation	
8.5 1991 River Water Quality Classification - tabular format	
8.6 1991 River Water Quality Classification - map format	
8.7 Calculated Determinand Statistics used for Quality Assessment - tabular format	
8.8 Compliant/Non-Compliant River Reaches - map format	
8.9 Number of Samples Results exceeding quality standards - tabular format	
8.10 Percentage Exceedance of Determinand Statistics from Quality Standard - tabular format	

**National Rivers Authority  
South West Region**



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**River Tavy Catchment**

**River Tavy  
Catchment**

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EXETER

BODMIN

## 1. INTRODUCTION

Monitoring to assess the quality of river waters is undertaken in thirty-four 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.

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), (7.1).

This report presents the river water quality classification for 1991 for monitored river reaches in the River Tavy catchment.

## 2. RIVER TAVY CATCHMENT

The River Tavy flows over a distance of 35.2 km from its source to the tidal limit, (Appendix 8.1). Water quality was monitored at eight locations on the main river; seven of these sites were sampled at approximately monthly intervals. The site at Denham Bridge, which is a National Water Quality monitoring point, was sampled fortnightly.

Tamerton Foliot Stream and Milton Brook flow over a distance of 4.3 km and 5.3 km respectively from their source to tidal limit in the Tavy/Tamar Estuary, (Appendix 8.1) and were both monitored at one location.

Throughout the Tavy catchment five secondary tributaries of the River Tavy were monitored at approximately monthly intervals.

### 2.1 SECONDARY TRIBUTARIES

The River Walkham flows over a distance of 22.1 km from its source to the confluence with the River Tavy, (Appendix 8.1) and was monitored at four locations.

The River Lumburn flows over a distance of 9.2 km from its source to the confluence with the River Tavy, (Appendix 8.1) and was monitored at two locations.

Walla Brook (5.6 km), River Burn (9.3 km) and Cholwell Brook (4.8 km), were all monitored at one location. Monitoring points were all located in the lower reaches of these streams, (Appendix 8.1).

Each sample was analysed for a minimum number of determinands (Appendix 8.2) plus additional determinands based on local knowledge of the catchment. In addition, at selected sites, certain 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 Resources Act Register, (7.2).

### 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 Tavy catchment are identified in Appendix 8.1.

#### 3.2 River Quality Classification

River water quality is classified using the National Water Council's (NWC) River Classification System (see Appendix 8.3), 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

<u>Class</u>	<u>Description</u>
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 8.4 and 8.4.1.

The quality classification system incorporates some of the European Inland Fisheries Advisory Commission (EIFAC) criteria (Appendix 8.3) recommended for use by the NWC system.

#### 4. 1991 RIVER WATER QUALITY CLASSIFICATION

Analytical data collected from monitoring during 1989, 1990 and 1991 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 8.5.

The quality class for 1991 can be compared against the appropriate River Quality Objective and previous annual quality classes (1985-1990) also based on three years combined data, for each river reach in Appendix 8.5.

The river water classification system used to classify each river length is identical to the system used both in 1985 and 1990 for the Department of the Environment's Quinquennial River Quality Surveys. The determinand classification criteria used to determine the annual quality classes in 1985, subsequent years and for 1991 are indicated in Appendices 8.4 and 8.4.1.

The river quality classes for 1991 of monitored river reaches in the catchment are shown in map form in Appendix 8.6.

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 8.7.

#### 5. 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 8.8.

Appendix 8.9 indicates the number of samples analysed for each determinand over the period 1989 to 1991 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 the relevant quality standard (represented as a percentage), is indicated in Appendix 8.10.

6. 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, $\text{NH}^3$ .
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.

7. REFERENCES

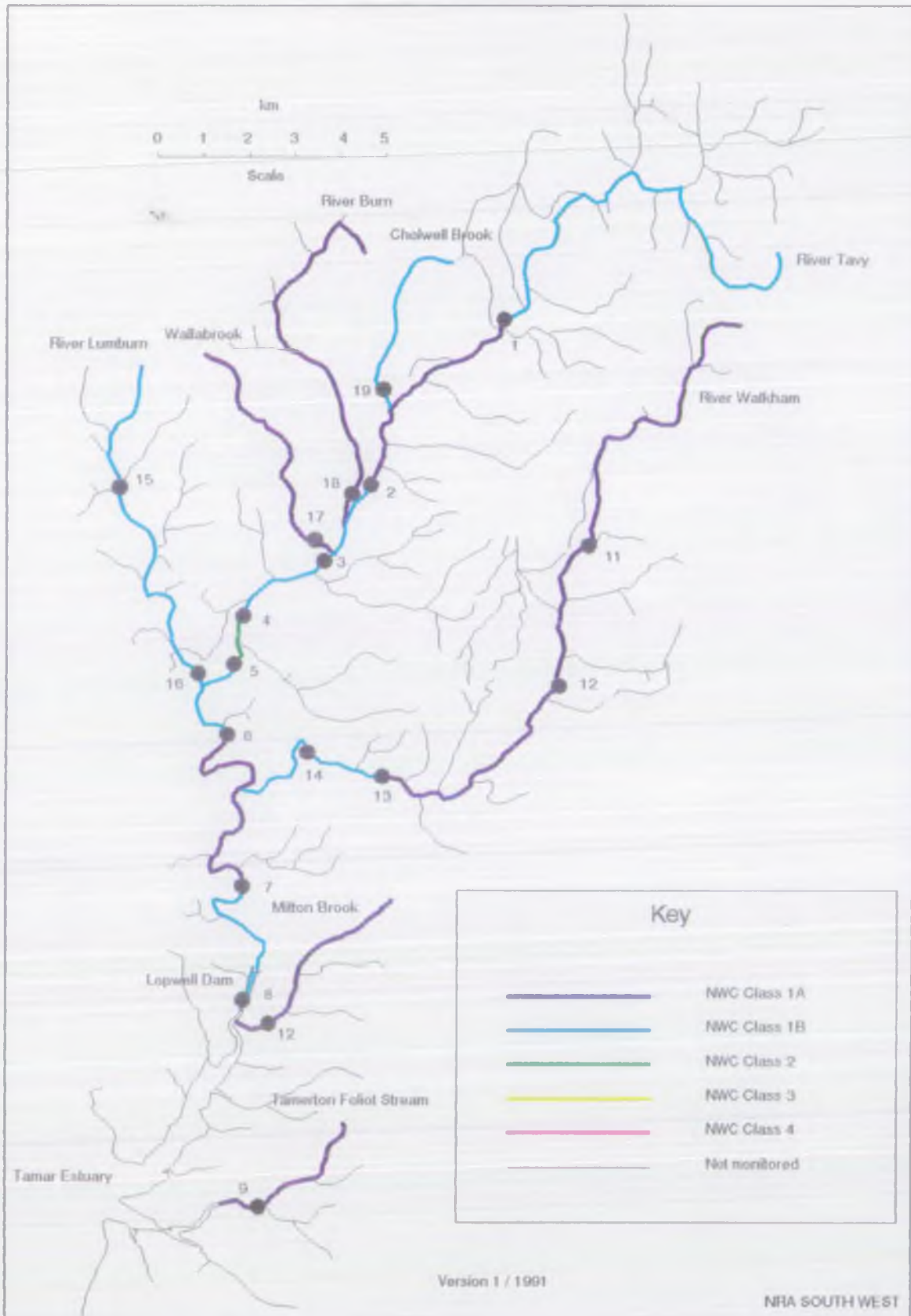
Reference

- 7.1 National Water Council (1977). River Water Quality: The Next Stage. Review of Discharge Consent Conditions. London.
- 7.2 Water Resources Act 1991 Section 190.
- 7.3 Alabaster J. S. and Lloyd R. Water Quality Criteria for Freshwater Fish, 2nd edition, 1982. Butterworths.



# Tavy Catchment River Quality Objectives

Appendix 8.1



## 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 CaCO<sub>3</sub>

Chloride as mg/l Cl

Orthophosphate (total) as mg/l P

Silicate reactive dissolved as mg/l SiO<sub>2</sub>

Sulphate (dissolved) as mg/l SO<sub>4</sub>

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 CaCO<sub>3</sub>

## NWC RIVER QUALITY CLASSIFICATION SYSTEM

River Class	Quality criteria	Remarks	Current potential uses
	Class limiting criteria (95 percentile)		
1A Good Quality	<ul style="list-style-type: none"> <li>(i) Dissolved oxygen saturation greater than 80%</li> <li>(ii) Biochemical oxygen demand not greater than 3 mg/l</li> <li>(iii) Ammonia not greater than 0.4 mg/l</li> <li>(iv) Where the water is abstracted for drinking water, it complies with requirements for A2* water</li> <li>(v) Non-toxic to fish in EIFAC terms (or best estimates if EIFAC figures not available)</li> </ul>	<ul style="list-style-type: none"> <li>(i) Average BOD probably not greater than 1.5 mg/l</li> <li>(ii) Visible evidence of pollution should be absent</li> </ul>	<ul style="list-style-type: none"> <li>(i) Water of high quality suitable for potable supply abstractions and for all abstractions</li> <li>(ii) Game or other high class fisheries</li> <li>(iii) High amenity value</li> </ul>
1B Good Quality	<ul style="list-style-type: none"> <li>(i) DO greater than 60% saturation</li> <li>(ii) BOD not greater than 5 mg/l</li> <li>(iii) Ammonia not greater than 0.9 mg/l</li> <li>(iv) Where water is abstracted for drinking water, it complies with the requirements for A2* water</li> <li>(v) Non-toxic to fish in EIFAC terms (or best estimates if EIFAC figures not available)</li> </ul>	<ul style="list-style-type: none"> <li>(i) Average BOD probably not greater than 2 mg/l</li> <li>(ii) Average ammonia probably not greater than 0.5 mg/l</li> <li>(iii) Visible evidence of pollution should be absent</li> <li>(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</li> <li>(v) Class 1A and Class 1B together are essentially the Class 1 of the River Pollution Survey (RPS)</li> </ul>	Water of less high quality than Class 1A but usable for substantially the same purposes
2 Fair Quality	<ul style="list-style-type: none"> <li>(i) DO greater than 40% saturation</li> <li>(ii) BOD not greater than 9 mg/l</li> <li>(iii) Where water is abstracted for drinking water it complies with the requirements for A3* water</li> <li>(iv) Non-toxic to fish in EIFAC terms (or best estimates if EIFAC figures not available)</li> </ul>	<ul style="list-style-type: none"> <li>(i) Average BOD probably not greater than 5 mg/l</li> <li>(ii) Similar to Class 2 of RPS</li> <li>(iii) Water not showing physical signs of pollution other than humic colouration and a little foaming below weirs</li> </ul>	<ul style="list-style-type: none"> <li>(i) Waters suitable for potable supply after advanced treatment</li> <li>(ii) Supporting reasonably good coarse fisheries</li> <li>(iii) Moderate amenity value</li> </ul>

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
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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
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X	DO greater than 10% saturation		Insignificant watercourses and ditches not usable, where the objective is simply to prevent nuisance developing
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- 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<sub>4</sub>. \*\*
  - (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<sub>4</sub>/l to mg N/l)

Class 1A	0.4 mg NH <sub>4</sub> /l = 0.31 mg N/l
Class 1B	0.9 mg NH <sub>4</sub> /l = 0.70 mg N/l
	0.5 mg NH <sub>4</sub> /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
Suspended solids	95 percentile
	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 CaCO <sub>3</sub>	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

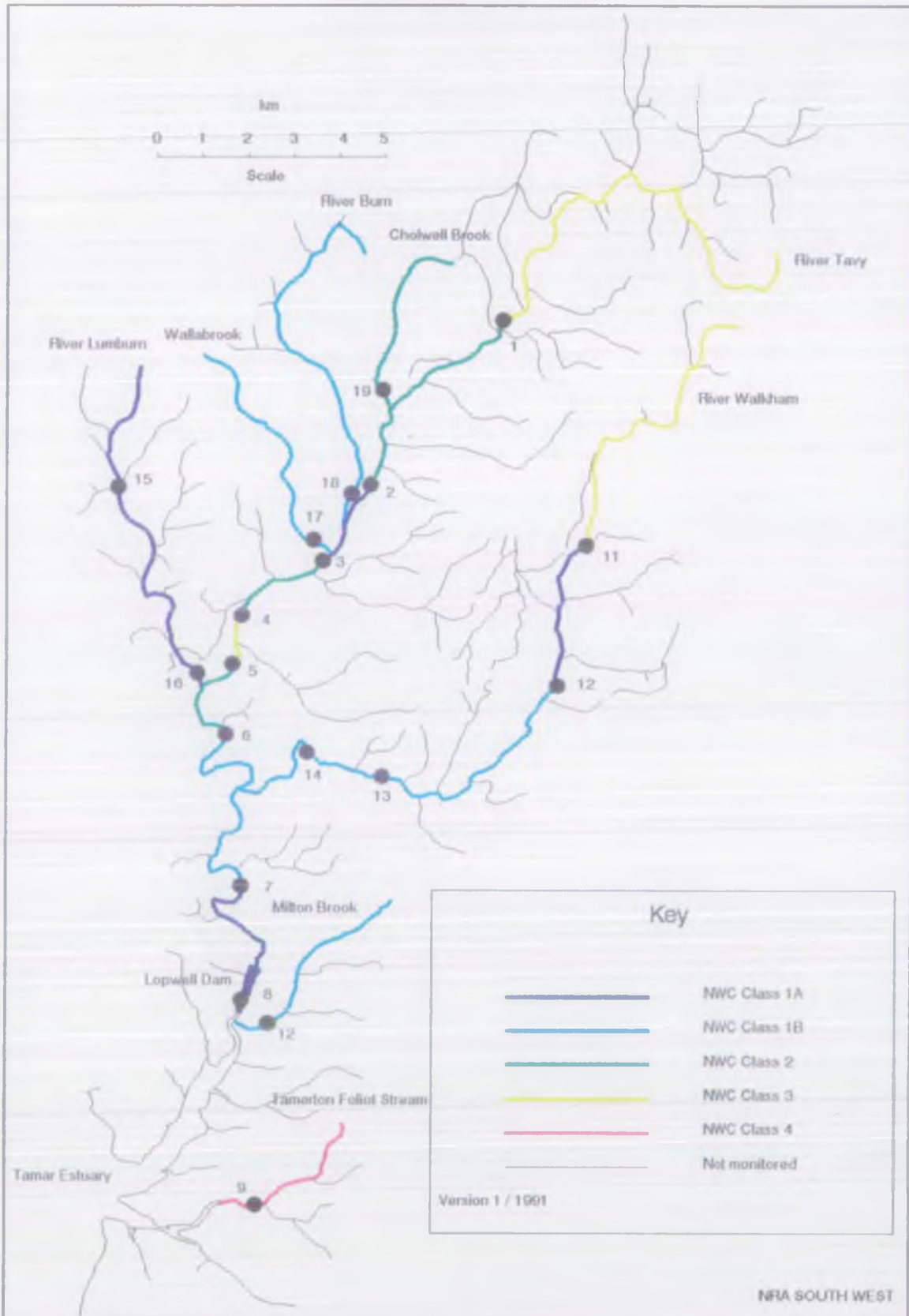
Total Hardness (mean) mg/l CaCO <sub>3</sub>	Statistic	Total Zinc ug/l Zn		
		Class 1	Class 2	Class 3
0 - 10	95 percentile	< = 30	< = 300	> 300
10 - 50	95 percentile	< = 200	< = 700	> 700
50 - 100	95 percentile	< = 300	< = 1000	> 1000
100 - 300	95 percentile	< = 500	< = 2000	> 2000

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
 1991 RIVER WATER QUALITY CLASSIFICATION  
 CATCHMENT: TAVY

1991 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	91 NWC Class
1	TAVY	HILL BRIDGE	R12C001	SX 5321 8040	11.0	11.0	1B	1B	1A	3	1A	3	3	3
2	TAVY	HARFORD BRIDGE	R12C002	SX 5057 7678	5.2	16.2	1A	1B	1B	1A	1A	2	2	2
3	TAVY	KELLY SCHOOL	R12C015	SX 4915 7500	2.6	18.8	1B	1B	1B	1A	1A	2	1A	1A
4	TAVY	WEST BRIDGE	R12C003	SX 4768 7378	2.0	20.8	1B	1B	1B	1A	1A	2	3	2
5	TAVY	BELOW CROWDALE STW	R12C023	SX 4702 7211	2.1	22.9	2	1B	2	2	2	2	3	3
6	TAVY	WASH FORD	R12C005	SX 4700 7105	1.5	24.4	1B	1B	2	1B	1B	2	2	2
7	TAVY	DENHAM BRIDGE	R12C006	SX 4769 6776	6.2	30.6	1A	1B	1A	1A	1A	2	1B	1B
8	TAVY	LOPWELL DAM	R12C007	SX 4750 6502	4.6	35.2	1B	1B	1B	1A	1B	1A	1B	1A
9	TAMERTON POLIOT STREAM	TAMERTON POLIOT	R12B005	SX 4690 6090	4.1	4.1	1A						1B	4
	TAMERTON POLIOT STREAM	NORMAL TIDAL LIMIT (INFERRED STRETCH)			0.2	4.3	1A						1B	4
10	MILTON BROOK	BELOW MILTON COMBE	R12B001	SX 4821 6475	4.4	4.4	1A	1B	1B	1B	1B	2	2	1B
	MILTON BROOK	NORMAL TIDAL LIMIT (INFERRED STRETCH)			0.9	5.3	1A	1B	1B	1B	1B	2	2	1B
11	WALKHAM	MERRIVALE BRIDGE	R12D001	SX 5500 7510	8.9	8.9	1A	1A	1B	1A	1A	2	3	3
12	WALKHAM	WARD BRIDGE	R12D002	SX 5421 7203	3.6	12.5	1A	1B	2	1A	1A	2	2	1A
13	WALKHAM	MAGPIE BRIDGE	R12D003	SX 5038 7035	5.7	18.2	1A	1B	1A	1A	1A	2	2	1B
14	WALKHAM	GRENOFEN BRIDGE	R12D004	SX 4900 7098	1.7	19.9	1B	1A	1A	1B	1B	1B	1B	1B
	WALKHAM	TAVY CONFLUENCE (INFERRED STRETCH)			2.2	22.1	1B	1A	1A	1B	1B	1B	1B	1B
15	LUMBURN	RUSHFORD BRIDGE	R12C009	SX 4496 7635	3.1	3.1	1B	1B	1B	1B	1A	1A	1A	1A
16	LUMBURN	SHILLAMILL (PRIOR TO R.TAVY)	R12C010	SX 4666 7193	5.9	9.0	1B	1B	2	1B	1B	1B	1A	1A
	LUMBURN	TAVY CONFLUENCE (INFERRED STRETCH)			0.2	9.2	1B	1B	2	1B	1B	1B	1A	1A
17	WALLABROOK	PRIOR TO RIVER TAVY	R12C011	SX 4928 7545	5.6	5.6	1A	1B	1B			1B	1B	1B
18	BURN	PRIOR TO RIVER TAVY	R12C008	SX 4983 7618	9.0	9.0	1A	1B	2	1A		2	2	1B
	BURN	TAVY CONFLUENCE (INFERRED STRETCH)			0.3	9.3	1A	1B	2	1A		2	2	1B
19	CHOLWELL BROOK	BROOK TAVY	R12C019	SX 5088 7831	4.8	4.8	1B	2					2	2

# Tavy Catchment Water Quality - 1991

Appendix 8.6

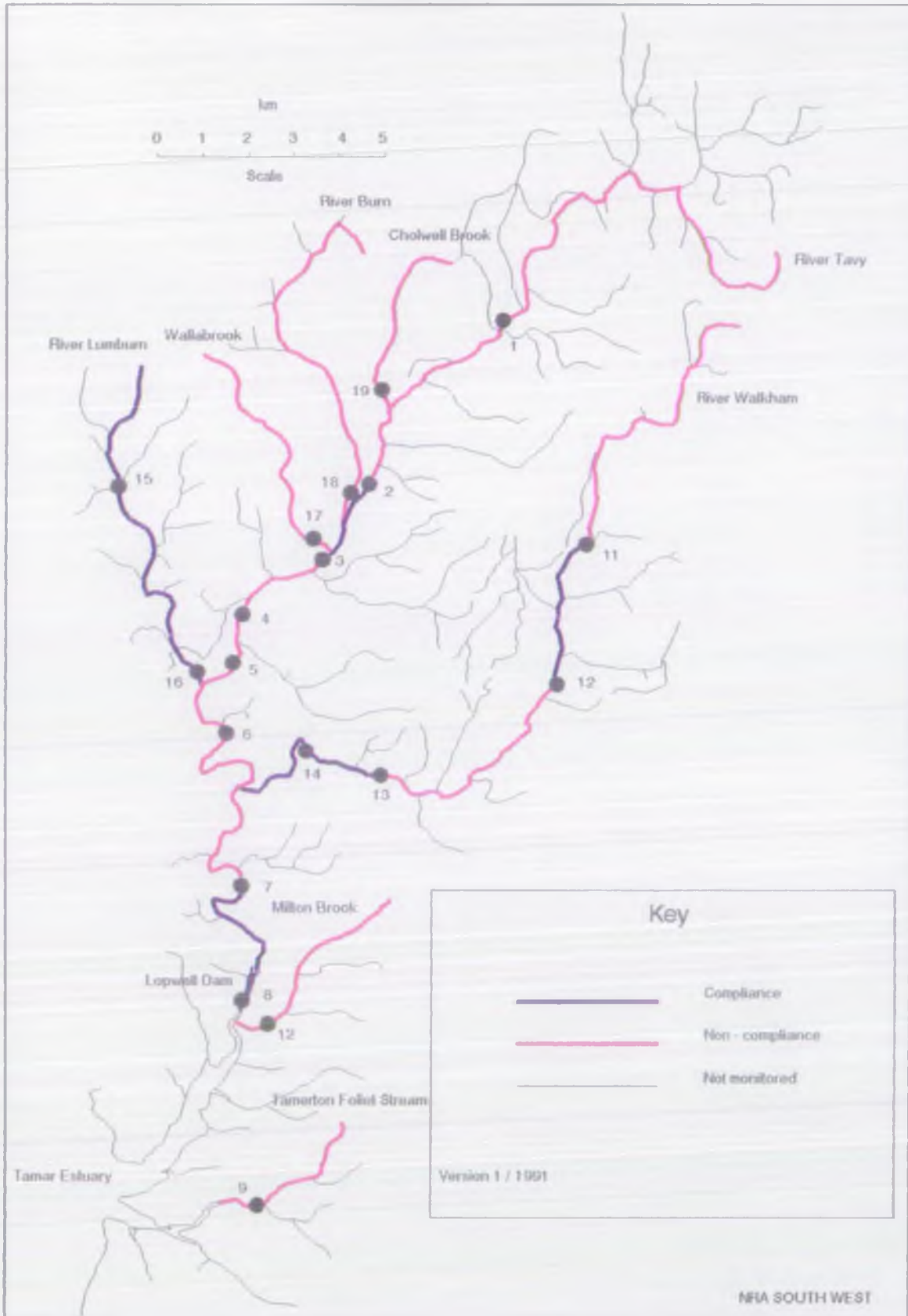




NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
 1991 RIVER WATER QUALITY CLASSIFICATION  
 CALCULATED DETERMINAND STATISTICS USED FOR QUALITY ASSESSMENT  
 CATCHMENT: DWY

River	Reach upstream of	User Ref. Number	RQD	Calculated Determinand Statistics used for Quality Assessment																			
				pH Lower Class 5tile		pH Upper Class 95tile		Temperature Class 95tile		DO (%) Class 5tile		BOD (ATU) Class 95tile		Total Ammonia Class 95tile		Union. Ammonia Class 95tile		S.Solids Class Mean		Total Copper Class 95tile		Total Zinc Class 95tile	
DWY	HILL BRIDGE	RL2C001	1B	3	4.7	1A	7.9	1A	17.1	1A	82.5	1B	3.3	1A	0.120	1A	0.010	1A	11.4	2	8.2	1A	27.0
DWY	HARFORD BRIDGE	RL2C002	1A	1A	5.8	1A	7.8	1A	17.6	1B	79.0	1B	4.0	1A	0.082	1A	0.010	1A	10.3	2	30.0	1A	171.0
DWY	KELLY SCHOOL	RL2C015	1B	1A	6.3	1A	7.7	1A	16.7	1A	83.6	1A	2.3	1A	0.086	1A	0.010	1A	4.9	-	-	-	-
DWY	WEST BRIDGE	RL2C003	1B	1A	6.6	1A	7.8	1A	16.3	1A	89.1	2	6.1	2	0.762	1A	0.012	1A	10.4	1A	22.0	1A	111.0
DWY	BELOW CROWDALE STW	RL2C023	2	1A	6.5	1A	7.6	1A	17.3	1B	66.0	2	9.0	3	3.214	1A	0.010	1A	11.9	1A	11.0	1A	27.0
DWY	WASH FORD	RL2C005	1B	1A	6.8	1A	7.8	1A	16.2	1A	87.5	1B	4.7	1B	0.335	1A	0.010	1A	15.2	2	27.5	1A	94.5
DWY	DENHAM BRIDGE	RL2C006	1A	1A	6.7	1A	7.7	1A	16.9	1A	88.5	1B	3.6	1A	0.155	1A	0.010	1A	8.8	1A	10.8	1A	29.4
DWY	LORWELL DAM	RL2C007	1B	1A	6.7	1A	8.0	1A	19.4	1A	81.8	1A	2.9	1A	0.142	1A	0.010	1A	4.6	1A	11.0	1A	24.0
TEMPERTON FOLLIOT STREAM	TEMPERTON FOLLIOT	RL2B005	1A	1A	6.8	1A	8.0	1A	15.4	4	9.0	1A	2.1	1A	0.126	-	-	1A	4.6	-	-	-	-
MILTON BROOK	BELOW MILTON COMBE	RL2B001	1A	1A	7.0	1A	7.7	1A	16.2	1A	81.6	1A	2.2	1B	0.582	1A	0.010	1A	7.9	1A	17.0	1A	16.0
WALNGHAM	MENRIVALE BRIDGE	RL2D001	1A	3	4.8	1A	7.1	1A	14.9	1A	87.4	1A	2.8	1A	0.045	1A	0.010	1A	2.5	2	7.0	1A	14.0
WALNGHAM	WARD BRIDGE	RL2D002	1A	1A	5.4	1A	7.2	1A	15.0	1A	87.8	1A	2.2	1A	0.040	1A	0.010	1A	3.5	1A	5.0	1A	14.0
WALNGHAM	MAGPIE BRIDGE	RL2D003	1A	1A	6.3	1A	7.5	1A	15.2	1A	87.6	1B	3.5	1A	0.222	1A	0.010	1A	7.9	1A	16.7	1A	25.0
WALNGHAM	GRENOFEN BRIDGE	RL2D004	1B	1A	6.3	1A	7.7	1A	15.1	1A	87.8	1B	3.2	1A	0.151	1A	0.010	1A	5.9	1A	13.5	1A	24.5
LUMELRN	RUSHFORD BRIDGE	RL2C009	1B	1A	6.7	1A	7.8	1A	16.8	1A	81.6	1A	2.7	1A	0.105	1A	0.010	1A	6.7	1A	10.0	1A	33.0
LUMELRN	SHILLAMILL (PRIOR TO R. DWY)	RL2C010	1B	1A	6.8	1A	7.7	1A	15.6	1A	82.6	1A	2.7	1A	0.270	1A	0.010	1A	8.7	1A	31.5	1A	240.0
WALLABROOK	PRIOR TO RIVER DWY	RL2C011	1A	1A	7.0	1A	7.9	1A	17.0	1B	78.6	1A	2.2	1A	0.130	1A	0.010	1A	6.0	1A	9.9	1A	36.4
BURN	PRIOR TO RIVER DWY	RL2C008	1A	1A	6.8	1A	7.8	1A	16.7	1A	85.7	1B	3.2	1B	0.384	1A	0.010	1A	6.0	1A	20.8	1A	69.3
CHIDWELL BROOK	BROOK DWY	RL2C019	1B	1A	6.3	1A	7.7	1A	17.6	1A	83.7	1B	3.2	1B	0.316	1A	0.010	1A	4.3	2	128.5	2	361.1

# Tavy Catchment Compliance - 1991



NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION

1991 RIVER WATER QUALITY CLASSIFICATION

NUMBER OF SAMPLES (N) AND NUMBER OF SAMPLES EXCEEDING QUALITY STANDARD (F)

CATCHMENT: TAVY

River	Reach upstream of	User Ref. Number	pH Lower		pH Upper		Temperature		DD (%)		BOD (AIU)		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
TAVY	HILL BRIDGE	RL2C001	34	2	34	-	33	-	33	-	34	-	34	-	27	-	34	3	27	3	27	1
TAVY	HARFORD BRIDGE	RL2C002	34	-	34	-	34	-	33	1	34	2	34	-	31	-	34	2	14	1	14	-
TAVY	KELLY SCHOOL	RL2C015	31	-	31	-	32	-	30	-	32	-	31	-	28	-	31	1	9	-	9	-
TAVY	WEST BRIDGE	RL2C003	34	-	34	-	34	-	33	-	34	2	34	1	34	-	34	2	15	-	15	-
TAVY	BELOW CROWDALE STW	RL2C023	28	-	28	-	28	-	28	-	28	1	28	5	28	-	28	2	19	-	19	-
TAVY	WASH FORD	RL2C005	36	-	36	-	36	-	36	-	36	1	36	-	36	-	36	3	29	1	29	-
TAVY	DENHAM BRIDGE	RL2C006	69	-	69	-	69	-	68	2	69	4	69	1	13	-	69	4	63	1	63	-
TAVY	LOWELL DAM	RL2C007	35	-	35	1	35	-	35	-	35	-	35	-	35	-	34	-	14	-	14	-
TEMPERON FOLLOTT STREAM	TEMPERON FOLLOTT	RL2B005	11	-	11	-	11	-	11	1	11	-	11	-	9	-	11	-	7	-	7	-
MILTON BROOK	BELOW MILTON COMBE	RL2B001	36	-	36	-	35	-	35	1	36	-	36	2	31	-	36	2	14	-	14	-
WALKHAM	MERRIVALE BRIDGE	RL2D001	34	2	34	-	34	-	33	-	34	1	34	-	17	-	34	-	16	2	16	-
WALKHAM	WARD BRIDGE	RL2D002	35	-	35	-	35	-	35	-	35	-	35	-	17	-	35	1	16	-	16	-
WALKHAM	MAGPIE BRIDGE	RL2D003	35	-	35	-	35	-	35	-	35	1	35	-	27	-	35	2	22	-	22	-
WALKHAM	GRENOFEN BRIDGE	RL2D004	37	-	37	-	37	-	37	-	37	-	37	-	35	-	37	3	30	-	30	-
ILMEURN	RUSHFORD BRIDGE	RL2C009	33	-	33	-	33	-	32	-	33	-	33	-	33	-	33	-	13	-	13	-
ILMEURN	SHILLMILL (PRIOR TO R. TAVY)	RL2C010	39	-	39	-	36	-	36	-	39	-	39	-	34	-	39	4	30	-	30	-
WALLABROOK	PRIOR TO RIVER TAVY	RL2C011	34	-	34	-	33	-	33	1	34	-	34	-	27	-	34	1	20	-	20	-
BURN	PRIOR TO RIVER TAVY	RL2C008	36	-	36	-	36	-	36	-	36	1	36	2	33	-	36	1	34	1	34	-
CHIDWELL BROOK	BROOK TAVY	RL2C019	31	-	31	-	30	-	30	-	31	-	31	-	23	-	31	1	20	10	20	15

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
 1991 RIVER WATER QUALITY CLASSIFICATION  
 PERCENTAGE EXCEEDENCE OF DETERMINAND STATISTICS FROM QUALITY STANDARDS  
 CATCHMENT: TAVY

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
TAVY	HILL BRIDGE	R12C001	6	-	-	-	-	-	-	-	64	-
TAVY	HARFORD BRIDGE	R12C002	-	-	-	1	32	-	-	-	36	-
TAVY	KELLY SCHOOL	R12C015	-	-	-	-	-	-	-	-	-	-
TAVY	WEST BRIDGE	R12C003	-	-	-	-	21	9	-	-	-	-
TAVY	BELOW CROWDALE STW	R12C023	-	-	-	-	-	106	-	-	-	-
TAVY	WASH FORD	R12C005	-	-	-	-	-	-	-	-	25	-
TAVY	DENHAM BRIDGE	R12C006	-	-	-	-	18	-	-	-	-	-
TAVY	LOPWELL DAM	R12C007	-	-	-	-	-	-	-	-	-	-
TAMERTON FOLIOT STREAM	TAMERTON FOLIOT	R12B005	-	-	-	89	-	-	-	-	-	-
MILTON BROOK	BELOW MILTON COMBE	R12B001	-	-	-	-	-	88	-	-	-	-
WALKHAM	MERRIVALE BRIDGE	R12D001	4	-	-	-	-	-	-	-	40	-
WALKHAM	WARD BRIDGE	R12D002	-	-	-	-	-	-	-	-	-	-
WALKHAM	MAGPIE BRIDGE	R12D003	-	-	-	-	17	-	-	-	-	-
WALKHAM	GRENOFEN BRIDGE	R12D004	-	-	-	-	-	-	-	-	-	-
LUMBURN	RUSHFORD BRIDGE	R12C009	-	-	-	-	-	-	-	-	-	-
LUMBURN	SHILLAMILL (PRIOR TO R.TAVY)	R12C010	-	-	-	-	-	-	-	-	-	-
WALLABROOK	PRIOR TO RIVER TAVY	R12C011	-	-	-	2	-	-	-	-	-	-
BURN	PRIOR TO RIVER TAVY	R12C008	-	-	-	-	6	24	-	-	-	-
CHOLWELL BROOK	BROOK TAVY	R12C019	-	-	-	-	-	-	-	-	484	81