

# Environmental Protection Final Draft Report

REGIONAL WATER QUALITY  
MONITORING AND SURVEILLANCE PROGRAMME  
FOR 1993

TIDAL WATERS MONITORING  
AND SURVEILLANCE

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TWU/93/07  
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**NRA**

*National Rivers Authority  
South West Region*

# REGIONAL WATER QUALITY MONITORING AND SURVEILLANCE PROGRAMME FOR 1992

## TIDAL WATERS MONITORING AND SURVEILLANCE

TECHNICAL REPORT NO: TWU/93/07

### SUMMARY

The report presents details of the routine water quality monitoring programmes in tidal waters in this region along with the reasons for monitoring and summary information for each programme.

All the monitoring points in these programmes have been plotted on to maps contained in Technical Report Number FWP/93/001, Water Quality Monitoring Locations 1993.

### SUMMARY INFORMATION FOR EACH PROGRAMME

| PROGRAMME                          | SAMPLING<br>POINTS |        | NUMBER<br>OF SAMPLES |         |
|------------------------------------|--------------------|--------|----------------------|---------|
| EC Identified Bathing Waters       | 226                | (221)  | 4520                 | (4420)  |
| Additional Bathing Waters (Total)  | 92                 | (79)   | 1840                 | (1580)  |
| Marine Algal Monitoring            | -                  | -      | -                    | -       |
| Water Contact Sports Survey        | 108                | (108)  | 953                  | (953)   |
| EC Dangerous Substances Directive  | 282                | (257)  | 1661                 | (1006)  |
| EC Designated Shellfisheries       | 3                  | (3)    | 54                   | (54)    |
| Non Designated Shellfisheries      | 57                 | (12)   | 513                  | (108)   |
| Red List and Paris Commission      | 3                  | (42)   | 36                   | (504)   |
| National Marine Monitoring         | 4                  | (4)    | 13                   | (13)    |
| COPA Variation Order Discharges    | 306                | (394)  | 1458                 | (1555)  |
| Estuary Quality Survey (Chemistry) | 113                | (115)  | 3920                 | (4206)  |
| Estuary Quality Survey (Biology)   |                    | (68)   |                      | (340)   |
| Coastal Monitoring Survey          | 55                 | (30)   | 220                  | (220)   |
| Bioaccumulation Survey (Total)     | 38                 | (31)   | 38                   | (31)    |
| Total                              | 1287               | (1364) | 15226                | (14990) |

J Driver  
Tidal Waters Scientist  
February 1993

*Joem*



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## 1. INTRODUCTION

The Tidal Waters Scientist is responsible for the planning and annual review and update of the routine monitoring programmes in all estuaries and coastal waters in the South West Region. These programmes are designed to meet requirements of UK and European legislation and national and international conventions.

The final draft programmes contained within this report have been reviewed against the national report "NRA Programme for the Monitoring of Water Quality - Part 1" (full reference : NRA Programme for the Monitoring of Water Quality - Part 1 : Requirements Arising From Existing Legislation and Other Commitments. February 1993). The programmes conform to the requirements of this report except for :

1) Bathing Waters - The report recommends that only EC identified bathing waters should be monitored unless the region is committed to others through local agreements. In this region we currently monitor non identified bathing waters on a three year rolling programme.

The report recommends that enteroviruses should only be monitored two times per season at those waters which failed the coliform standards in the previous bathing season. The programme in this report has enterovirus monitoring scheduled two times at all EC bathing waters.

2) Shellfish Waters (EC Designated) - The minimum sampling frequency required by the Directive is quarterly, monthly or six monthly depending on the determinand. Competent authorities are allowed to reduce this frequency when the water quality is appreciably higher than the standards in the Directive. In the South West, designated sites are monitored (surveys carried out over high water) two times per year.

3) Dangerous Substances - The report recommends twelve samples per annum (at agreed sampling points, ie. ones where compliance will be assessed). Where this is impractical, derogation is allowed to not less than four samples per annum. The programme in this report meets this requirement. Sampling for our own screening purposes (where the data is not reported to the DoE) is carried out at a frequency of three times per annum.

The annual review of all tidal waters monitoring programmes (during 1993) will fully take into account the requirements of the national report.

Enterovirus monitoring during 1993 will now only be undertaken at EC bathing waters which failed in the 1992 season.

June 1993.

## 1. INTRODUCTION

The Tidal Waters Scientist is responsible for the planning and annual review and update of the routine monitoring programmes in all estuaries and coastal waters in the South West Region. These programmes are designed to meet requirements of UK and European legislation and national and international conventions.

## **2. BATHING WATERS SURVEY**

### **2.1 EC IDENTIFIED BATHING WATER PROGRAMME**

#### **2.1.1 DESCRIPTION OF PROGRAMME**

135 bathing waters in the South West have been identified as coming under the scope of the EC Bathing Water Directive. 134 of these are regularly monitored to assess compliance with the requirements of the Directive.

Monitoring points are defined for each water and reflect the point where the highest average density of bathers can be expected. Monitoring starts at the beginning of May and continues to the end of September each year. Twenty samples are to be collected during this period under as wide a variety of tidal conditions as possible. The Directive allows for waivers to be granted for certain parameters because of exceptional weather or geographical conditions. In the South West there is a waiver for transparency around the whole coastline because of the natural high turbidity of these waters.

Freshwater inputs to beaches are monitored as part of this programme to provide information on sources and causes of non compliant waters.

#### **2.1.2 REASON FOR MONITORING**

Directive 76/160/EEC concerning the quality of bathing waters requires that "identified" waters comply with specified standards aimed at achieving an acceptable level of aesthetic quality and the protection of public health.

The aim of the Directive is to guarantee a minimum quality of bathing water by laying down a number of values corresponding to nineteen microbiological and physico-chemical parameters. For thirteen of these parameters standards are set for imperative (I) or mandatory values which are not to be exceeded and for guideline (G) values which are to be strived for.

The mandatory requirements of this Directive have been translated into UK legislation under the provisions of the 1991 Water Resources Act by the Bathing Waters (Classification) Regulations (SI 1991/1597) which came into force on 9 August 1991. The NRA has now received a Direction from the DoE to implement these Regulations. The Regulations specify a single classification which defines the determinands to be measured and the standards to be achieved. For waters that do not comply with the standards, the NRA must identify sources and causes of non compliance and make the necessary improvements to water quality to ensure that the water will comply.

### 2.1.3. PROGRAMME INFORMATION

|                             |                   |     |
|-----------------------------|-------------------|-----|
| Numbers of sampling points, | Estuary           | 22  |
|                             | Coastal           | 120 |
|                             | Freshwater inputs | 84  |
|                             | Total             | 226 |

Numbers of samples = 4520

#### Frequency of use of Analysis

|                                |      |      |         |
|--------------------------------|------|------|---------|
| Requirements Groups (ARGs) and | S102 | 284  | (284)   |
| total numbers of determinands, | S103 | 284  | (284)   |
| in brackets:                   | S104 | 2840 | (65320) |
|                                | S105 | 1680 | (15120) |

Details of the composition of each ARG may be found in the NRA South West Region's ARG Dictionary.

### 2.1.4 EXPLANATION OF SCHEDULE CONTENTS

The following table details the sampling and analysis requirements for this programme. The User Reference Number (URN) is the unique identification code for the site. It allows sample results for the site to be retrieved from the Water Quality Archive (sample database). The National Grid Reference (NGR) defines the location of the site on a map. The Material Code details the type of sample collected, for example 2J is sea water, 2F is freshwater, 2I is estuarine water. It forms part of the information about each particular sample held on the Water Quality Archive. The Purpose Code details the reason why a particular sample has been collected. For example, SQMB relates to EC Directive monitoring - bathing waters. SMRE relates to routine monitoring analysis (for EC Directives), SQMR relates to routine monitoring (in general). This code allows samples collected for particular reasons (from one or several sites) to be retrieved from the Water Quality Archive. The Mensar Purpose Code has to be a 2 digit code. It is translated to the equivalent code (eg. SMRE) on the ICL computer, where the Water Quality Archive is held, once the data is transferred to the ICL.

### 2.1.5 ENDORSEMENT

The contents of this programme have been agreed by the Water Quality Planner, Field Controller and Laboratory Controller.

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
1993 BATHING WATERS PROGRAMME  
PROGRAMME LAST UPDATED :- 18-FEB-1993

| C/MENT<br>NUMBER | DISTRICT<br>COUNCIL | USER REF NO. | BEACH NAME                                                   | N.G.R.       | PRT.<br>CODE | SAMPLING<br>FREQUENCY<br>(PER ANNUM) | ANALYSIS<br>REQUIRED<br>(ARGS) | FIN<br>NUMBER | PURPOSE<br>CODE<br>ICL | PURPOSE<br>CODE<br>FENSAR | DATE<br>(MM-YY) |
|------------------|---------------------|--------------|--------------------------------------------------------------|--------------|--------------|--------------------------------------|--------------------------------|---------------|------------------------|---------------------------|-----------------|
| 01               | WEST DORSET D.C.    | ECB0010      | LANE REGIS (COBB) BEACH                                      | SY 3390 9185 | 2J           | 20                                   | S104 +<br>S102 +<br>S103       | 1             | SQB                    | ED                        | 05-09           |
|                  |                     | ECB0010      | RIVER LIM AT BEACH                                           | SY 3425 9213 | 2F           | 20                                   | S105                           | 1             | SQB                    | ED                        | 05-09           |
| 01               | WEST DORSET D.C.    | ECB0011      | LANE REGIS (CHURCH) BEACH                                    | SY 3436 9212 | 2J           | 20                                   | S104 +<br>S102 +<br>S103       | 1             | SQB                    | ED                        | 05-09           |
| 02               | EAST DEVON D.C.     | ECB0020      | SEXTON BEACH (DEVON)                                         | SY 2450 8985 | 2J           | 20                                   | S104 +<br>S102 +<br>S103       | 1             | SQB                    | ED                        | 05-09           |
|                  |                     | ECB0020      | SEXTON BEACH -<br>AVE ESTUARY AT ESTUARY MOUTH               | SY 2560 8970 | 2F           | 20                                   | S105                           | 1             | SQB                    | ED                        | 05-09           |
| 02               | EAST DEVON D.C.     | ECB0030      | BEER BEACH                                                   | SY 2315 8910 | 2J           | 20                                   | S104 +<br>S102 +<br>S103       | 1             | SQB                    | ED                        | 05-09           |
| 02               | EAST DEVON D.C.     | B0035        | BRANSCOMBE BEACH                                             | SY 2080 8807 | 2J           | 20                                   | S104 +<br>S102 +<br>S103       | 1             | SQB                    | ED                        | 05-09           |
|                  |                     | ECB0035      | BRANSCOMBE BEACH - STREAM A                                  | SY 2086 8812 | 2F           | 20                                   | S105                           | 1             | SQB                    | ED                        | 05-09           |
| 03               | EAST DEVON D.C.     | ECB0040      | SIDMOUTH (TOWN) BEACH                                        | SY 1270 8720 | 2J           | 20                                   | S104 +<br>S102 +<br>S103       | 1             | SQB                    | ED                        | 05-09           |
| 04               | EAST DEVON D.C.     | ECB0041      | SIDMOUTH (JACOBS LADDER) BEACH                               | SY 1190 8695 | 2J           | 20                                   | S104 +<br>S102 +<br>S103       | 1             | SQB                    | ED                        | 05-09           |
| 04               | EAST DEVON D.C.     | ECB0050      | LACRAM BAY BEACH                                             | SY 0972 8515 | 2J           | 20                                   | S104 +<br>S102 +<br>S103       | 1             | SQB                    | ED                        | 05-09           |
| 04               | EAST DEVON D.C.     | ECB0060      | BUDLEIGH SALTERTON BEACH                                     | SY 0695 8190 | 2J           | 20                                   | S104 +<br>S102 +<br>S103       | 1             | SQB                    | ED                        | 05-09           |
|                  |                     | ECB0060      | BUDLEIGH SALTERTON BEACH -<br>OTTER ESTUARY AT ESTUARY MOUTH | SY 0770 8193 | 2F           | 20                                   | S105                           | 1             | SQB                    | ED                        | 05-09           |
| 04               | EAST DEVON D.C.     | ECB0070      | SANDY BAY BEACH                                              | SY 0335 7980 | 2J           | 20                                   | S104 +<br>S102 +<br>S103       | 1             | SQB                    | ED                        | 05-09           |
| 05               | EAST DEVON D.C.     | ECB0080      | EXMOUTH BEACH                                                | SY 0098 7995 | 2J           | 20                                   | S104 +<br>S102 +<br>S103       | 1             | SQB                    | ED                        | 05-09           |
|                  | EAST DEVON D.C.     | ECB0080      | EXMOUTH BEACH - LITTLEHAM BROOK                              | SY 0112 8075 | 2F           | 20                                   | S105                           | 1             | SQB                    | ED                        | 05-09           |
| 05               | TEIGNERIDGE D.C.    | ECB0090      | DRAWLISH WARREN BEACH                                        | SK 9830 7875 | 2J           | 20                                   | S104 +<br>S102 +<br>S103       | 2             | SQB                    | ED                        | 05-09           |
| 05               | TEIGNERIDGE D.C.    | ECB0100      | DRAWLISH (TOWN) BEACH                                        | SK 9656 7680 | 2J           | 20                                   | S104 +<br>S102 +<br>S103       | 2             | SQB                    | ED                        | 05-09           |
|                  | TEIGNERIDGE D.C.    | "NEW URM"    | DRAWLISH (TOWN) BEACH - DRAWLISH WATER                       | "UNKNOWN"    | 2F           | 20                                   | S105                           | 2             | SQB                    | ED                        | 05-09           |
| 05               | TEIGNERIDGE D.C.    | ECB0101      | DRAWLISH (CORRYTON COVE) BEACH                               | SK 9611 7606 | 2J           | 20                                   | S104 +<br>S102 +<br>S103       | 2             | SQB                    | ED                        | 05-09           |
| 05               | TEIGNERIDGE D.C.    | ECB0110      | TEIGNMOUTH (TOWN) BEACH                                      | SK 9430 7285 | 2J           | 20                                   | S104 +                         | 2             | SQB                    | ED                        | 05-09           |



NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
 1993 BODGING WATER PROGRAMME  
 PROGRAMME LAST UPDATED :- 18-FEB-1993

| COMMENT<br>NUMBER | DISTRICT<br>COUNCIL | USER REF NO. | BEACH NAME                                | N.G.R.       | MT.<br>CODE | SAMPLING<br>FREQUENCY<br>(PER ANNUM) | ANALYSIS<br>REQUIRED<br>(APCs) | PLN<br>NUMBER | PURPOSE<br>CODE<br>ICL | PURPOSE<br>CODE<br>FENPAR | DATE<br>(MONTH)<br>01-12 |
|-------------------|---------------------|--------------|-------------------------------------------|--------------|-------------|--------------------------------------|--------------------------------|---------------|------------------------|---------------------------|--------------------------|
|                   |                     |              |                                           |              |             | 2                                    | S102 +                         |               | SQ-B                   | ED                        | 05-09                    |
|                   |                     |              |                                           |              |             | 2                                    | S103                           |               | SQ-B                   | ED                        | 05-09                    |
| 05                | TEIGNRIDGE D.C.     | ECB0111      | TEIGNMOUTH (HOLCOMBE) BEACH               | SK 9565 7461 | 2J          | 20                                   | S104 +                         | 2             | SQ-B                   | ED                        | 05-09                    |
|                   |                     |              |                                           |              |             | 2                                    | S102 +                         |               | SQ-B                   | ED                        | 05-09                    |
|                   |                     |              |                                           |              |             | 2                                    | S103                           |               | SQ-B                   | ED                        | 05-09                    |
|                   | TEIGNRIDGE D.C.     | ECB0111      | TEIGNMOUTH (HOLCOMBE) BEACH -<br>STREAM A | SK 9565 7467 | 2F          | 20                                   | S105                           | 2             | SQ-B                   | ED                        | 05-09                    |
| 06                | TEIGNRIDGE D.C.     | ECB0120      | SHALDON BEACH                             | SK 9350 7230 | 2J          | 20                                   | S104 +                         | 2             | SQ-B                   | ED                        | 05-09                    |
|                   |                     |              |                                           |              |             | 2                                    | S102 +                         |               | SQ-B                   | ED                        | 05-09                    |
|                   |                     |              |                                           |              |             | 2                                    | S103                           |               | SQ-B                   | ED                        | 05-09                    |
| 06                | TEIGNRIDGE D.C.     | ECB0130      | NESS COVE                                 | SK 9385 7170 | 2J          | 20                                   | S104 +                         | 2             | SQ-B                   | ED                        | 05-09                    |
|                   |                     |              |                                           |              |             | 2                                    | S102 +                         |               | SQ-B                   | ED                        | 05-09                    |
|                   |                     |              |                                           |              |             | 2                                    | S103                           |               | SQ-B                   | ED                        | 05-09                    |
| 06                | TORBAY B.C.         | ECB0140      | MAIDENCOMBE BEACH                         | SK 9278 6850 | 2J          | 20                                   | S104 +                         | 2             | SQ-B                   | ED                        | 05-09                    |
|                   |                     |              |                                           |              |             | 2                                    | S102 +                         |               | SQ-B                   | ED                        | 05-09                    |
|                   |                     |              |                                           |              |             | 2                                    | S103                           |               | SQ-B                   | ED                        | 05-09                    |
|                   | TORBAY B.C.         | ECB0140      | MAIDENCOMBE BEACH - STREAM A              | SK 9275 6847 | 2F          | 20                                   | S105                           | 2             | SQ-B                   | ED                        | 05-09                    |
| 06                | TORBAY B.C.         | ECB0150      | WATCOMBE BEACH                            | SK 9262 6730 | 2J          | 20                                   | S104 +                         | 2             | SQ-B                   | ED                        | 05-09                    |
|                   |                     |              |                                           |              |             | 2                                    | S102 +                         |               | SQ-B                   | ED                        | 05-09                    |
|                   |                     |              |                                           |              |             | 2                                    | S103                           |               | SQ-B                   | ED                        | 05-09                    |
| 06                | TORBAY B.C.         | ECB0160      | ODDICOBE BEACH                            | SK 9265 6585 | 2J          | 20                                   | S104 +                         | 2             | SQ-B                   | ED                        | 05-09                    |
|                   |                     |              |                                           |              |             | 2                                    | S102 +                         |               | SQ-B                   | ED                        | 05-09                    |
|                   |                     |              |                                           |              |             | 2                                    | S103                           |               | SQ-B                   | ED                        | 05-09                    |
| 06                | TORBAY B.C.         | ECB0170      | BARBACOMBE BEACH                          | SK 9300 6545 | 2J          | 20                                   | S104 +                         | 2             | SQ-B                   | ED                        | 05-09                    |
|                   |                     |              |                                           |              |             | 2                                    | S102 +                         |               | SQ-B                   | ED                        | 05-09                    |
|                   |                     |              |                                           |              |             | 2                                    | S103                           |               | SQ-B                   | ED                        | 05-09                    |
| 06                | TORBAY B.C.         | ECB0180      | REDGATE BEACH                             | SK 9350 6480 | 2J          | 20                                   | S104 +                         | 3             | SQ-B                   | ED                        | 05-09                    |
|                   |                     |              |                                           |              |             | 2                                    | S102 +                         |               | SQ-B                   | ED                        | 05-09                    |
|                   |                     |              |                                           |              |             | 2                                    | S103                           |               | SQ-B                   | ED                        | 05-09                    |
| 06                | TORBAY B.C.         | ECB0190      | MENDPOOT BEACH                            | SK 9305 6305 | 2J          | 20                                   | S104 +                         | 3             | SQ-B                   | ED                        | 05-09                    |
|                   |                     |              |                                           |              |             | 2                                    | S102 +                         |               | SQ-B                   | ED                        | 05-09                    |
|                   |                     |              |                                           |              |             | 2                                    | S103                           |               | SQ-B                   | ED                        | 05-09                    |
| 06                | TORBAY B.C.         | ECB0200      | BEACON COVE BEACH                         | SK 9195 6307 | 2J          | 20                                   | S104 +                         | 3             | SQ-B                   | ED                        | 05-09                    |
|                   |                     |              |                                           |              |             | 2                                    | S102 +                         |               | SQ-B                   | ED                        | 05-09                    |
|                   |                     |              |                                           |              |             | 2                                    | S103                           |               | SQ-B                   | ED                        | 05-09                    |
| 06                | TORBAY B.C.         | ECB0210      | TORRE ABBEY BEACH                         | SK 9095 6351 | 2J          | 20                                   | S104 +                         | 3             | SQ-B                   | ED                        | 05-09                    |
|                   |                     |              |                                           |              |             | 2                                    | S102 +                         |               | SQ-B                   | ED                        | 05-09                    |
|                   |                     |              |                                           |              |             | 2                                    | S103                           |               | SQ-B                   | ED                        | 05-09                    |
|                   | TORBAY B.C.         | ECB0210      | TORRE ABBEY BEACH - STREAM A              | SK 9075 6345 | 2F          | 20                                   | S105                           | 3             | SQ-B                   | ED                        | 05-09                    |
| 06                | TORBAY B.C.         | ECB0220      | HOLLICOMBE BEACH                          | SK 8980 6215 | 2J          | 20                                   | S104 +                         | 3             | SQ-B                   | ED                        | 05-09                    |
|                   |                     |              |                                           |              |             | 2                                    | S102 +                         |               | SQ-B                   | ED                        | 05-09                    |
|                   |                     |              |                                           |              |             | 2                                    | S103                           |               | SQ-B                   | ED                        | 05-09                    |
|                   |                     | ECB0220      | HOLLICOMBE BEACH - STREAM A               | SK 8983 6228 | 2F          | 20                                   | S105                           | 3             | SQ-B                   | ED                        | 05-09                    |
| 06                | TORBAY B.C.         | ECB0230      | PAIGNTON (PAIGNTON SANDS)                 | SK 8949 6063 | 2J          | 20                                   | S104 +                         | 3             | SQ-B                   | ED                        | 05-09                    |
|                   |                     |              |                                           |              |             | 2                                    | S102 +                         |               | SQ-B                   | ED                        | 05-09                    |
|                   |                     |              |                                           |              |             | 2                                    | S103                           |               | SQ-B                   | ED                        | 05-09                    |
| 06                | TORBAY B.C.         | ECB0231      | PAIGNTON (PRESTON SANDS)                  | SK 8964 6177 | 2J          | 20                                   | S104 +                         | 3             | SQ-B                   | ED                        | 05-09                    |
|                   |                     |              |                                           |              |             | 2                                    | S102 +                         |               | SQ-B                   | ED                        | 05-09                    |
|                   |                     |              |                                           |              |             | 2                                    | S103                           |               | SQ-B                   | ED                        | 05-09                    |
|                   | TORBAY B.C.         | ECB0231      | PRESTON SANDS - STREAM A                  | SK 8955 6138 | 2F          | 20                                   | S105                           | 3             | SQ-B                   | ED                        | 05-09                    |
| 06                | TORBAY B.C.         | ECB0240      | GOODRINGTON BEACH                         | SK 8935 5940 | 2J          | 20                                   | S104 +                         | 3             | SQ-B                   | ED                        | 05-09                    |
|                   |                     |              |                                           |              |             | 2                                    | S102 +                         |               | SQ-B                   | ED                        | 05-09                    |

| DATE | WORTH | CODE | PURPOSE | NUMBER | ANALYSTS | REQUIREMENT | PER ANNUM | ANALYSTS | NUMBER | PURPOSE | DATE |
|------|-------|------|---------|--------|----------|-------------|-----------|----------|--------|---------|------|
|      |       |      |         |        |          |             |           |          |        |         |      |

|    |                 |        |                                         |              |    |   |        |    |       |       |    |
|----|-----------------|--------|-----------------------------------------|--------------|----|---|--------|----|-------|-------|----|
| 06 | TORREY B.C.     | BC0240 | COORDINATION BEACH - STREAM A           | SK 8910 5930 | 27 | 2 | SL03   | BD | 05-09 | 05-09 | BD |
|    |                 | BC0250 | BROADWANDS BEACH                        | SK 8970 5745 | 27 | 2 | SL04 + | BD | 05-09 | 05-09 | BD |
|    |                 | BC0251 | BROADWANDS BEACH - TOR STREAM           | SK 8975 5734 | 27 | 2 | SL05   | BD | 05-09 | 05-09 | BD |
| 06 | TORREY B.C.     | BC0260 | SHALSTONE BEACH                         | SK 9320 5662 | 27 | 2 | SL04 + | BD | 05-09 | 05-09 | BD |
| 06 | TORREY B.C.     | BC0270 | ST. MARY'S BAY BEACH                    | SK 9320 5510 | 27 | 2 | SL03   | BD | 05-09 | 05-09 | BD |
|    |                 | BC0270 | ST. MARY'S BAY BEACH                    | SK 9320 5510 | 27 | 2 | SL02 + | BD | 05-09 | 05-09 | BD |
|    |                 | BC0270 | ST. MARY'S BAY BEACH - STREAM A         | SK 9330 5490 | 27 | 2 | SL03   | BD | 05-09 | 05-09 | BD |
|    |                 | BC0271 | ST. MARY'S BAY BEACH - STREAM B         | SK 9320 5510 | 27 | 2 | SL05   | BD | 05-09 | 05-09 | BD |
| 07 | SOUTH HAMS D.C. | BC0280 | DUNMOUTH CASTLE AND SLUARY COVE         | SK 8865 5020 | 21 | 2 | SL04 + | BD | 05-09 | 05-09 | BD |
|    |                 | BC0290 | BLACKPOOL SANDS                         | SK 8550 4785 | 27 | 2 | SL03   | BD | 05-09 | 05-09 | BD |
|    |                 | BC0290 | BLACKPOOL SANDS                         | SK 8550 4785 | 27 | 2 | SL04 + | BD | 05-09 | 05-09 | BD |
|    |                 | BC0290 | BLACKPOOL SANDS - STREAM A              | SK 8526 4765 | 27 | 2 | SL05   | BD | 05-09 | 05-09 | BD |
| 08 | SOUTH HAMS D.C. | BC0300 | SLAPTON SANDS (MOUNT)                   | SK 8295 4430 | 27 | 2 | SL04 + | BD | 05-09 | 05-09 | BD |
|    |                 | BC0301 | SLAPTON SANDS (TIDYHOS)                 | SK 8235 4195 | 27 | 2 | SL03   | BD | 05-09 | 05-09 | BD |
|    |                 | BC0301 | SLAPTON SANDS (TIDYHOS)                 | SK 8235 4195 | 27 | 2 | SL04 + | BD | 05-09 | 05-09 | BD |
| 08 | SOUTH HAMS D.C. | BC0310 | MILL RIV BEACH                          | SK 7407 3825 | 21 | 2 | SL03   | BD | 05-09 | 05-09 | BD |
|    |                 | BC0310 | MILL RIV BEACH                          | SK 7407 3825 | 21 | 2 | SL04 + | BD | 05-09 | 05-09 | BD |
|    |                 | BC0310 | MILL RIV BEACH - STREAM A               | SK 7405 3813 | 27 | 2 | SL03   | BD | 05-09 | 05-09 | BD |
| 08 | SOUTH HAMS D.C. | BC0320 | SALCOMBE NORTH SANDS                    | SK 7310 3820 | 21 | 2 | SL04 + | BD | 05-09 | 05-09 | BD |
|    |                 | BC0320 | SALCOMBE NORTH SANDS                    | SK 7310 3820 | 21 | 2 | SL05   | BD | 05-09 | 05-09 | BD |
|    |                 | BC0320 | SALCOMBE NORTH SANDS - COLLATION STREAM | SK 7305 3818 | 27 | 2 | SL03   | BD | 05-09 | 05-09 | BD |
| 08 | SOUTH HAMS D.C. | BC0330 | SALCOMBE SOUTH SANDS                    | SK 7285 3775 | 21 | 2 | SL04 + | BD | 05-09 | 05-09 | BD |
|    |                 | BC0330 | SALCOMBE SOUTH SANDS                    | SK 7285 3775 | 21 | 2 | SL05   | BD | 05-09 | 05-09 | BD |
|    |                 | BC0330 | SALCOMBE SOUTH SANDS - CONER STREAM     | SK 6755 3975 | 27 | 2 | SL04 + | BD | 05-09 | 05-09 | BD |
|    |                 | BC0340 | HORE COVE BEACH                         | SK 6755 3968 | 27 | 2 | SL03   | BD | 05-09 | 05-09 | BD |
|    |                 | BC0340 | HORE COVE BEACH - BULMER STREAM         | SK 6755 4170 | 27 | 2 | SL05   | BD | 05-09 | 05-09 | BD |
| 08 | SOUTH HAMS D.C. | BC0350 | THURLESTONE (SOUTH) BEACH               | SK 6765 4170 | 27 | 2 | SL04 + | BD | 05-09 | 05-09 | BD |
|    |                 | BC0351 | THURLESTONE (SOUTH) - STREAM B          | SK 6770 4150 | 27 | 2 | SL03   | BD | 05-09 | 05-09 | BD |
|    |                 | BC0351 | THURLESTONE (SOUTH) - STREAM B          | SK 6740 4210 | 27 | 2 | SL04 + | BD | 05-09 | 05-09 | BD |
| 08 | SOUTH HAMS D.C. | BC0351 | THURLESTONE (NORTH) BEACH               | SK 6740 4210 | 27 | 2 | SL05   | BD | 05-09 | 05-09 | BD |

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| CMENT<br>NUMBER | DISTRICT<br>COUNCIL | USER REF NO. | BEACH NAME                      | N.G.R.       | MPT.<br>CODE | SAMPLING<br>FREQUENCY<br>(PER ANNUM) | ANALYSIS<br>REQUIRED<br>(APCs) | RUN<br>NUMBER | PURPOSE<br>CODE<br>ICL | PURPOSE<br>CODE<br>PENSAR | DATE<br>MONTH<br>01-12 |
|-----------------|---------------------|--------------|---------------------------------|--------------|--------------|--------------------------------------|--------------------------------|---------------|------------------------|---------------------------|------------------------|
| 08              | SOUTH HAMPS D.C.    | ECB0350      | THURLESTONE - STREAM A          | SK 6730 4215 | 2F           | 20                                   | S103                           |               | SQMB                   | ED                        | 05-09                  |
|                 |                     | ECB0360      | BANTHAM BEACH                   | SK 6623 4380 | 2J           | 20                                   | S105                           | 4b            | SQMB                   | ED                        | 05-09                  |
|                 |                     | ECB0360      | BANTHAM BEACH - BUCKLAND STREAM | SK 6630 4355 | 2F           | 20                                   | S104 +                         | 4b            | SQMB                   | ED                        | 05-09                  |
| 08              | SOUTH HAMPS D.C.    | R08B005      | BANTHAM BEACH - AVON AT HATCH   | SK 7145 4725 | 2F           | 20                                   | S103                           |               | SQMB                   | ED                        | 05-09                  |
|                 |                     | ECB0370      | HIGHBURY-ON-SEA (SOUTH) BEACH   | SK 6510 4415 | 2J           | 20                                   | S105                           | 4b            | SQMB                   | ED                        | 05-09                  |
|                 |                     |              |                                 |              |              |                                      | S104 +                         | 5             | SQMB                   | ED                        | 05-09                  |
| 08              | SOUTH HAMPS D.C.    |              |                                 |              |              |                                      | S102 +                         |               | SQMB                   | ED                        | 05-09                  |
|                 |                     | ECB0371      | HIGHBURY-ON-SEA (NORTH) BEACH   | SK 6495 4430 | 2J           | 20                                   | S103                           |               | SQMB                   | ED                        | 05-09                  |
|                 |                     |              |                                 |              |              |                                      | S104 +                         | 5             | SQMB                   | ED                        | 05-09                  |
| 08              | SOUTH HAMPS D.C.    |              |                                 |              |              |                                      | S102 +                         |               | SQMB                   | ED                        | 05-09                  |
|                 |                     | ECB0380      | CHALLABOROUGH BEACH             | SK 6492 4480 | 2J           | 20                                   | S103                           |               | SQMB                   | ED                        | 05-09                  |
|                 |                     |              |                                 |              |              |                                      | S104 +                         | 5             | SQMB                   | ED                        | 05-09                  |
| 09              | SOUTH HAMPS D.C.    |              |                                 |              |              |                                      | S102 +                         |               | SQMB                   | ED                        | 05-09                  |
|                 |                     | ECB0380      | CHALLABOROUGH BEACH - STREAM A  | SK 6485 4475 | 2F           | 20                                   | S103                           |               | SQMB                   | ED                        | 05-09                  |
|                 |                     | ECB0390      | MOTHECOMBE BEACH                | SK 6105 4734 | 2J           | 20                                   | S105                           | 5             | SQMB                   | ED                        | 05-09                  |
| 10              | SOUTH HAMPS D.C.    |              |                                 |              |              |                                      | S104 +                         |               | SQMB                   | ED                        | 05-09                  |
|                 |                     | R09B003      | R. ERME AT SEQUELS BRIDGE       | SK 632 519   | 2F           | 20                                   | S102 +                         |               | SQMB                   | ED                        | 05-09                  |
|                 |                     | ECB0390      | MOTHECOMBE BEACH - STREAM A     | SK 6105 4737 | 2F           | 20                                   | S103                           | 5             | SQMB                   | ED                        | 05-09                  |
| 10              | SOUTH HAMPS D.C.    | ECB0400      | WEMBURY BEACH                   | SK 516 485   | 2J           | 20                                   | S105                           | 5             | SQMB                   | ED                        | 05-09                  |
|                 |                     |              |                                 |              |              |                                      | S104 +                         |               | SQMB                   | ED                        | 05-09                  |
|                 |                     |              |                                 |              |              |                                      | S102 +                         |               | SQMB                   | ED                        | 05-09                  |
| 10              | SOUTH HAMPS D.C.    | ECB0400      | WEMBURY BEACH - STREAM A        | SK 5175 4855 | 2F           | 20                                   | S103                           | 5             | SQMB                   | ED                        | 05-09                  |
|                 |                     | ECB0410      | BOVISAND BEACH                  | SK 493 505   | 2J           | 20                                   | S105                           | 5             | SQMB                   | ED                        | 05-09                  |
|                 |                     |              |                                 |              |              |                                      | S104 +                         |               | SQMB                   | ED                        | 05-09                  |
| 11              | PLYMOUTH C.C.       |              |                                 |              |              |                                      | S102 +                         |               | SQMB                   | ED                        | 05-09                  |
|                 |                     | ECB0410      | BOVISAND BEACH - STREAM A       | SK 4928 5055 | 2F           | 20                                   | S103                           | 5             | SQMB                   | ED                        | 05-09                  |
|                 |                     | ECB0420      | PLYMOUTH HOE (EAST)             | SK 478 537   | 2J           | 20                                   | S105                           | 5             | SQMB                   | ED                        | 05-09                  |
| 11              | PLYMOUTH C.C.       |              |                                 |              |              |                                      | S104 +                         |               | SQMB                   | ED                        | 05-09                  |
|                 |                     | ECB0421      | PLYMOUTH HOE (WEST)             | SK 475 537   | 2J           | 20                                   | S102 +                         | 5             | SQMB                   | ED                        | 05-09                  |
|                 |                     |              |                                 |              |              |                                      | S103                           |               | SQMB                   | ED                        | 05-09                  |
| 12              | CARADON D.C.        |              |                                 |              |              |                                      | S104 +                         |               | SQMB                   | ED                        | 05-09                  |
|                 |                     | ECB0430      | FORTWINKLE BEACH                | SK 359 538   | 2J           | 20                                   | S102 +                         | 1 west        | SQMB                   | ED                        | 05-09                  |
|                 |                     |              |                                 |              |              |                                      | S103                           |               | SQMB                   | ED                        | 05-09                  |
| 13              | CARADON D.C.        |              |                                 |              |              |                                      | S104 +                         |               | SQMB                   | ED                        | 05-09                  |
|                 |                     | ECB0440      | DOWNDERRY BEACH                 | SK 314 538   | 2J           | 20                                   | S102 +                         | 1 west        | SQMB                   | ED                        | 05-09                  |
|                 |                     |              |                                 |              |              |                                      | S103                           |               | SQMB                   | ED                        | 05-09                  |
| 13              | CARADON D.C.        | ECB0440      | DOWNDERRY BEACH - STREAM A      | SK 3145 5395 | 2F           | 20                                   | S105                           | 1 west        | SQMB                   | ED                        | 05-09                  |
|                 |                     | ECB0450      | SEXTON BEACH (CORNWALL)         | SK 303 543   | 2J           | 20                                   | S104 +                         | 1 west        | SQMB                   | ED                        | 05-09                  |
|                 |                     |              |                                 |              |              |                                      | S102 +                         |               | SQMB                   | ED                        | 05-09                  |
| 14              | CARADON D.C.        |              |                                 |              |              |                                      | S103                           |               | SQMB                   | ED                        | 05-09                  |
|                 |                     | R13A005      | SEXTON BEACH - STREAM A         | SK 303 545   | 2F           | 20                                   | S105                           | 1 west        | SQMB                   | ED                        | 05-09                  |
|                 |                     | ECB0460      | MILLENDREATH BEACH              | SK 268 541   | 2J           | 20                                   | S104 +                         | 1 west        | SQMB                   | ED                        | 05-09                  |
| 14              | CARADON D.C.        |              |                                 |              |              |                                      | S102 +                         |               | SQMB                   | ED                        | 05-09                  |
|                 |                     | ECB0460      | MILLENDREATH BEACH - STREAM A   | SK 2682 5412 | 2F           | 20                                   | S103                           | 1 west        | SQMB                   | ED                        | 05-09                  |
|                 |                     | ECB0470      | EAST LOOE BEACH                 | SK 257 532   | 2J           | 20                                   | S105                           | 1 west        | SQMB                   | ED                        | 05-09                  |

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| C/NT | DISTRICT       | USER REF NO. | BEACH NAME                             | N.G.R.       | EST. FREQUENCY<br>(PER ANNUM) | ANALYSIS<br>REQUIRED<br>(ANAL) | FIN<br>NUMBER | PURPOSE<br>CODE<br>ICL | PURPOSE<br>CODE<br>PESAR | DATE<br>MONTH<br>01-12 |
|------|----------------|--------------|----------------------------------------|--------------|-------------------------------|--------------------------------|---------------|------------------------|--------------------------|------------------------|
| 15   | GRAND D.C.     | DB0470       | EAST LOE - LOE RIVER                   | SK 256 530   | 2                             | SI02 +                         |               | SQB                    | BD                       | 05-09                  |
|      | RESTORVEL B.C. | DB0480       | REARDNEY COVE BEACH                    | SK 118 511   | 20                            | SI05                           | 1 west        | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 20                            | SI04 +                         | 1 west        | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI02 +                         |               | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI03                           |               | SQB                    | BD                       | 05-09                  |
| 16   | RESTORVEL B.C. | DB0490       | ROLDERS BEACH                          | SK 0928 5210 | 20                            | SI04 +                         | 1 west        | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI02 +                         |               | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI03                           |               | SQB                    | BD                       | 05-09                  |
| 16   | RESTORVEL B.C. | DB0500       | PAR BEACH                              | SK 083 533   | 20                            | SI04 +                         | 1 west        | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI02 +                         |               | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI03                           |               | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 20                            | SI05                           | 1 west        | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 20                            | SI05                           | 1 west        | SQB                    | BD                       | 05-09                  |
| 17   | RESTORVEL B.C. | DB0510       | GRUNUS (GULFINGS) BEACH                | SK 063 522   | 20                            | SI04 +                         | 1 west        | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI02 +                         |               | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI03                           |               | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 20                            | SI05                           | 1 west        | SQB                    | BD                       | 05-09                  |
| 17   | RESTORVEL B.C. | DB0511       | GRUNUS (GULFINGS) BEACH -<br>STREAM A  | SK 0611 5230 | 20                            | SI04 +                         | 1 west        | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI02 +                         |               | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI03                           |               | SQB                    | BD                       | 05-09                  |
| 17   | RESTORVEL B.C. | DB0520       | CHARLESTON BEACH                       | SK 042 516   | 20                            | SI04 +                         | 1 west        | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI02 +                         |               | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI03                           |               | SQB                    | BD                       | 05-09                  |
| 17   | RESTORVEL B.C. | DB0521       | DARROH BEACH                           | SK 035 512   | 20                            | SI04 +                         | 1 west        | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI02 +                         |               | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI03                           |               | SQB                    | BD                       | 05-09                  |
| 17   | RESTORVEL B.C. | DB0530       | ROUPEAN BEACH                          | SK 032 507   | 20                            | SI04 +                         | 1 west        | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI02 +                         |               | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI03                           |               | SQB                    | BD                       | 05-09                  |
| 18   | RESTORVEL B.C. | DB0540       | PENIDAN BEACH                          | SK 018 467   | 20                            | SI04 +                         | 2 west        | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI02 +                         |               | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI03                           |               | SQB                    | BD                       | 05-09                  |
| 18   | RESTORVEL B.C. | DB0550       | PENIDAN BEACH - STREAM A               | SK 017 473   | 20                            | SI05                           | 2 west        | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 20                            | SI04 +                         | 2 west        | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI02 +                         |               | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI03                           |               | SQB                    | BD                       | 05-09                  |
| 18   | RESTORVEL B.C. | DB0560       | FORT MELLON BEACH                      | SK 016 439   | 20                            | SI04 +                         | 2 west        | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI02 +                         |               | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI03                           |               | SQB                    | BD                       | 05-09                  |
| 18   | RESTORVEL B.C. | DB0570       | FORT MELLON BEACH - STREAM A           | SK 015 439   | 20                            | SI05                           | 2 west        | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 20                            | SI04 +                         | 2 west        | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI02 +                         |               | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI03                           |               | SQB                    | BD                       | 05-09                  |
| 18   | RESTORVEL B.C. | DB0571       | CORRAN HAVEN (LITTLE FERRIER)<br>BEACH | SK 0130 4170 | 20                            | SI04 +                         | 2 west        | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI02 +                         |               | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI03                           |               | SQB                    | BD                       | 05-09                  |
| 18   | RESTORVEL B.C. | DB0580       | LITTLE FERRIER BEACH - STREAM A        | SK 0130 4156 | 20                            | SI05                           | 2 west        | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 20                            | SI04 +                         | 2 west        | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI02 +                         |               | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI03                           |               | SQB                    | BD                       | 05-09                  |
| 18   | RESTORVEL B.C. | DB0581       | CORRAN HAVEN (VALET) BEACH             | SK 0100 4080 | 20                            | SI04 +                         | 2 west        | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI02 +                         |               | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI03                           |               | SQB                    | BD                       | 05-09                  |
| 18   | RESTORVEL B.C. | DB0590       | ROTHLINEY BEACH                        | SK 973 413   | 20                            | SI04 +                         | 2 west        | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI02 +                         |               | SQB                    | BD                       | 05-09                  |
|      |                |              |                                        |              | 2                             | SI03                           |               | SQB                    | BD                       | 05-09                  |

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| C/MENT<br>NUMBER | DISTRICT<br>COUNCIL | USER REF NO. | BEACH NAME                       | N.G.R.       | MPT.<br>CODE | SAMPLING<br>FREQUENCY<br>(PER ANNUM) | ANALYSIS<br>REQUIRED<br>(ANALYSES) | RUN<br>NUMBER | PURPOSE<br>CODE<br>ICL | PURPOSE<br>CODE<br>REPAIR | DATE<br>[MONTH]<br>[01-12] |
|------------------|---------------------|--------------|----------------------------------|--------------|--------------|--------------------------------------|------------------------------------|---------------|------------------------|---------------------------|----------------------------|
| 18               | GARRICK D.C.        | ECBP0580     | FORTHLINEY BEACH - STREAM A      | SW 975 415   | 2F           | 20                                   | S105                               | 2 west        | SQB                    | ED                        | 05-09                      |
|                  |                     | ECBP0590     | PENDOWER BEACH                   | SW 9051 3831 | 2J           | 20                                   | S104 +                             | 2 west        | SQB                    | ED                        | 05-09                      |
|                  |                     |              |                                  |              |              | 2                                    | S102 +                             |               | SQB                    | ED                        | 05-09                      |
|                  |                     |              |                                  |              |              | 2                                    | S103                               |               | SQB                    | ED                        | 05-09                      |
| 19               | GARRICK D.C.        | ECBP0590     | PENDOWER BEACH - STREAM A        | SW 8975 3818 | 2F           | 20                                   | S105                               | 2 west        | SQB                    | ED                        | 05-09                      |
|                  |                     | ECBP0600     | GILLINGWASE BEACH                | SW 809 316   | 2J           | 20                                   | S104 +                             | 3 west        | SQB                    | ED                        | 05-09                      |
|                  |                     |              |                                  |              |              | 2                                    | S102 +                             |               | SQB                    | ED                        | 05-09                      |
|                  |                     |              |                                  |              |              | 2                                    | S103                               |               | SQB                    | ED                        | 05-09                      |
| 19               | GARRICK D.C.        | ECBP0610     | SWANPOOL BEACH                   | SW 803 313   | 2J           | 20                                   | S104 +                             | 3 west        | SQB                    | ED                        | 05-09                      |
|                  |                     |              |                                  |              |              | 2                                    | S102 +                             |               | SQB                    | ED                        | 05-09                      |
|                  |                     |              |                                  |              |              | 2                                    | S103                               |               | SQB                    | ED                        | 05-09                      |
|                  |                     |              |                                  |              |              | 2                                    | S105                               |               | SQB                    | ED                        | 05-09                      |
| 19               | GARRICK D.C.        | ECBP0610     | SWANPOOL BEACH - SWAN POOL       | SW 8025 3130 | 2F           | 20                                   | S105                               | 3 west        | SQB                    | ED                        | 05-09                      |
|                  |                     | ECBP0620     | MAEN FORTH BEACH                 | SW 790 296   | 2J           | 20                                   | S104 +                             | 3 west        | SQB                    | ED                        | 05-09                      |
|                  |                     |              |                                  |              |              | 2                                    | S102 +                             |               | SQB                    | ED                        | 05-09                      |
|                  |                     |              |                                  |              |              | 2                                    | S103                               |               | SQB                    | ED                        | 05-09                      |
| 19               | KERRIER D.C.        | ECBP0620     | MAEN FORTH BEACH - STREAM A      | SW 789 296   | 2F           | 20                                   | S105                               | 3 west        | SQB                    | ED                        | 05-09                      |
|                  |                     | ECBP0630     | FORTHALLOW BEACH                 | SW 797 233   | 2J           | 20                                   | S104 +                             | 3 west        | SQB                    | ED                        | 05-09                      |
|                  |                     |              |                                  |              |              | 2                                    | S102 +                             |               | SQB                    | ED                        | 05-09                      |
|                  |                     |              |                                  |              |              | 2                                    | S103                               |               | SQB                    | ED                        | 05-09                      |
| 19               | KERRIER D.C.        | R19A032      | FORTHALLOW BEACH - STREAM A      | SW 797 232   | 2F           | 20                                   | S105                               | 3 west        | SQB                    | ED                        | 05-09                      |
|                  |                     | ECBP0640     | FORTHUSTOCK BEACH                | SW 807 217   | 2J           | 20                                   | S104 +                             | 3 west        | SQB                    | ED                        | 05-09                      |
|                  |                     |              |                                  |              |              | 2                                    | S102 +                             |               | SQB                    | ED                        | 05-09                      |
|                  |                     |              |                                  |              |              | 2                                    | S103                               |               | SQB                    | ED                        | 05-09                      |
| 19               | KERRIER D.C.        | R19A017      | FORTHUSTOCK BEACH - STREAM A     | SW 806 218   | 2F           | 20                                   | S105                               | 3 west        | SQB                    | ED                        | 05-09                      |
|                  |                     | ECBP0650     | COVERACK BEACH                   | SW 783 184   | 2J           | 20                                   | S104 +                             | 3 west        | SQB                    | ED                        | 05-09                      |
|                  |                     |              |                                  |              |              | 2                                    | S102 +                             |               | SQB                    | ED                        | 05-09                      |
|                  |                     |              |                                  |              |              | 2                                    | S103                               |               | SQB                    | ED                        | 05-09                      |
| 19               | KERRIER D.C.        | ECBP0650     | COVERACK BEACH - STREAM A        | SW 7825 1835 | 2F           | 20                                   | S105                               | 3 west        | SQB                    | ED                        | 05-09                      |
|                  |                     | ECBP0660     | KENNAK SANDS                     | SW 734 165   | 2J           | 20                                   | S104 +                             | 3 west        | SQB                    | ED                        | 05-09                      |
|                  |                     |              |                                  |              |              | 2                                    | S102 +                             |               | SQB                    | ED                        | 05-09                      |
|                  |                     |              |                                  |              |              | 2                                    | S103                               |               | SQB                    | ED                        | 05-09                      |
| 19               | KERRIER D.C.        | ECBP0660     | KENNAK SANDS - STREAM A          | SW 735 165   | 2F           | 20                                   | S105                               | 3 west        | SQB                    | ED                        | 05-09                      |
|                  |                     | ECBP0661     | KENNAK SANDS - STREAM B          | SW 737 166   | 2F           | 20                                   | S105                               | 3 west        | SQB                    | ED                        | 05-09                      |
|                  |                     | ECBP0670     | POLLURRIAN COVE BEACH            | SW 668 187   | 2J           | 20                                   | S104 +                             | 3 west        | SQB                    | ED                        | 05-09                      |
|                  |                     |              |                                  |              |              | 2                                    | S102 +                             |               | SQB                    | ED                        | 05-09                      |
| 19               | KERRIER D.C.        | ECBP0670     | POLLURRIAN COVE BEACH - STREAM A | SX 6685 1884 | 2F           | 20                                   | S105                               | 3 west        | SQB                    | ED                        | 05-09                      |
|                  |                     | ECBP0680     | POLLHU COVE BEACH                | SW 665 198   | 2J           | 20                                   | S104 +                             | 3 west        | SQB                    | ED                        | 05-09                      |
|                  |                     |              |                                  |              |              | 2                                    | S102 +                             |               | SQB                    | ED                        | 05-09                      |
|                  |                     |              |                                  |              |              | 2                                    | S103                               |               | SQB                    | ED                        | 05-09                      |
| 19               | KERRIER D.C.        | R19A011      | POLLHU COVE BEACH - STREAM A     | SW 666 200   | 2F           | 20                                   | S105                               | 3 west        | SQB                    | ED                        | 05-09                      |
|                  |                     | ECBP0681     | CHURCH COVE                      | SW 6610 2050 | 2J           | 20                                   | S104 +                             | 3 west        | SQB                    | ED                        | 05-09                      |
|                  |                     |              |                                  |              |              | 2                                    | S102 +                             |               | SQB                    | ED                        | 05-09                      |
|                  |                     |              |                                  |              |              | 2                                    | S103                               |               | SQB                    | ED                        | 05-09                      |
| 19               | KERRIER D.C.        |              | CHURCH COVE - STREAM A           | SW 6612 2048 |              | 20                                   | S105                               |               | SQB                    | ED                        | 05-09                      |
|                  |                     | ECBP0690     | GUNWALLE COVE BEACH              | SW 654 225   | 2J           | 20                                   | S104 +                             | 3 west        | SQB                    | ED                        | 05-09                      |
|                  |                     |              |                                  |              |              | 2                                    | S102 +                             |               | SQB                    | ED                        | 05-09                      |
|                  |                     |              |                                  |              |              | 2                                    | S103                               |               | SQB                    | ED                        | 05-09                      |
| 21               | KERRIER D.C.        | ECBP0700     | FORTHLEVEN (EAST) BEACH          | SW 636 247   | 2J           | 20                                   | S104 +                             | 3 west        | SQB                    | ED                        | 05-09                      |
|                  |                     |              |                                  |              |              | 2                                    | S102 +                             |               | SQB                    | ED                        | 05-09                      |
|                  |                     |              |                                  |              |              | 2                                    | S103                               |               | SQB                    | ED                        | 05-09                      |

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
 1993 BATHING WATERS PROGRAMME  
 PROGRAMME LAST UPDATED :- 18-FEB-1993

| C/ENT<br>NUMBER | DISTRICT<br>COUNCIL | USER REF NO.       | BEACH NAME                                                                     | N.G.R.                   | WAT.<br>CODE | SAMPLING<br>FREQUENCY<br>(PER ANNUM) | ANALYSTS<br>REQUIRED<br>(APCs)       | RUN<br>NUMBER    | PURPOSE<br>CODE<br>ICL | PURPOSE<br>CODE<br>MEL/SAR | DATE<br>MONTH<br>01-12 |
|-----------------|---------------------|--------------------|--------------------------------------------------------------------------------|--------------------------|--------------|--------------------------------------|--------------------------------------|------------------|------------------------|----------------------------|------------------------|
| 21              | KERRIER D.C.        | ECB0701            | PORTLEVEN (WEST) BEACH                                                         | SW 632 253               | 2J           | 20                                   | S104 +<br>2 S102 +<br>2 S103         | 3 west           | SQMB                   | ED                         | 05-09                  |
| 21              | KERRIER D.C.        | ECB0710            | PRAA SANDS (EAST)                                                              | SW 585 276               | 2J           | 20                                   | S104 +<br>2 S102 +<br>2 S103         | 3 west           | SQMB                   | ED                         | 05-09                  |
| 21              | KERRIER D.C.        | ECB0711            | PRAA SANDS (WEST)                                                              | SW 577 281               | 2J           | 20                                   | S104 +<br>2 S102 +<br>2 S103         | 3 west           | SQMB                   | ED                         | 05-09                  |
| 21              | PENWITH D.C.        | ECB0710<br>ECB0720 | PRAA SANDS - STREAM A<br>PERRAN SANDS                                          | SW 576 283<br>SW 539 293 | 2F<br>2J     | 20                                   | S105<br>S104 +<br>2 S102 +<br>2 S103 | 3 west<br>4 west | SQMB                   | ED                         | 05-09                  |
| 21              | PENWITH D.C.        | ECB0731            | MARAZION AND MOUNTS BAY<br>(LITTLE HOLGUS)                                     | SW 513 310               | 2J           | 20                                   | S104 +<br>2 S102 +<br>2 S103         | 4 west           | SQMB                   | ED                         | 05-09                  |
| 21              | PENWITH D.C.        | ECB0730<br>ECB0732 | MARAZION AND MOUNTS BAY -<br>STREAM A<br>MARAZION AND MOUNTS BAY<br>(HELIPORT) | SW 514 312<br>SW 485 311 | 2F<br>2J     | 20                                   | S105<br>S104 +<br>2 S102 +<br>2 S103 | 4 west           | SQMB                   | ED                         | 05-09                  |
| 21              | PENWITH D.C.        | R21A006<br>R21A008 | MARAZION AND MOUNTS BAY -<br>STREAM<br>MARAZION AND MOUNTS BAY -<br>STREAM     | SW 479 310<br>SW 481 311 | 2F<br>2F     | 20                                   | S105<br>S105                         | 4 west           | SQMB                   | ED                         | 05-09                  |
| 21              | PENWITH D.C.        | ECB0734            | MARAZION AND MOUNTS BAY<br>(PENZANCE)                                          | SW 475 298               | 2J           | 20                                   | S104 +<br>2 S102 +<br>2 S103         | 4 west           | SQMB                   | ED                         | 05-09                  |
| 21              | PENWITH D.C.        | ECB0735            | MARAZION AND MOUNTS BAY<br>(WHERRY TOWN)                                       | SW 467 294               | 2J           | 20                                   | S104 +<br>2 S102 +<br>2 S103         | 4 west           | SQMB                   | ED                         | 05-09                  |
| 21              | PENWITH D.C.        | R21A005<br>R21A007 | MARAZION AND MOUNTS BAY -<br>STREAM<br>MARAZION AND MOUNTS BAY -<br>STREAM     | SW 462 290<br>SW 467 295 | 2F<br>2F     | 20                                   | S105<br>S105                         | 4 west           | SQMB                   | ED                         | 05-09                  |
| 22              | PENWITH D.C.        | ECB0740            | PORTHCLUND BEACH                                                               | SW 387 223               | 2J           | 20                                   | S104 +<br>2 S102 +<br>2 S103         | 4 west           | SQMB                   | ED                         | 05-09                  |
| 22              | PENWITH D.C.        | ECB0750            | SENNEN BEACH                                                                   | SW 3552 2645             | 2J           | 20                                   | S104 +<br>2 S102 +<br>2 S103         | 4 west           | SQMB                   | ED                         | 05-09                  |
| 22              | PENWITH D.C.        | ECB0760            | PORTHMOOR BEACH ST. IVES                                                       | SW 5150 4103             | 2J           | 20                                   | S104 +<br>2 S102 +<br>2 S103         | 4 west           | SQMB                   | ED                         | 05-09                  |
| 22              | PENWITH D.C.        | ECB0770            | PORTHMOODEN BEACH ST. IVES                                                     | SW 522 411               | 2J           | 20                                   | S104 +<br>2 S102 +<br>2 S103         | 4 west           | SQMB                   | ED                         | 05-09                  |
| 22              | PENWITH D.C.        | ECB0780            | PORTHMINSTER BEACH ST. IVES                                                    | SW 5220 4025             | 2J           | 20                                   | S104 +<br>2 S102 +<br>2 S103         | 4 west           | SQMB                   | ED                         | 05-09                  |
| 22              | PENWITH D.C.        | ECB0790            | CARLES BAY (STIMION BEACH)                                                     | SW 528 389               | 2J           | 20                                   | S104 +<br>2 S102 +                   | 4 west           | SQMB                   | ED                         | 05-09                  |

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1993 BEACHING WATERS PROGRAMME  
PROGRAMME LAST UPDATED :- 18-FEB-1993

| UNIT NUMBER | DISTRICT COUNCIL | USER REF NO. | BEACH NAME                               | N.G.R.       | WATER SAMPLING CODE | FREQ. (PER ANNUM) | ANALYSIS REQUIRED | RUN NUMBER | PURPOSE CODE | PURPOSE | DATE (MONTH) |
|-------------|------------------|--------------|------------------------------------------|--------------|---------------------|-------------------|-------------------|------------|--------------|---------|--------------|
| 22          | HEMWITH D.C.     | HE00791      | CARRIS BAY (NORTH KILNE SANDS)           | SW 540 385   | 2J                  | 2                 | SI03              | 4 west     | SI04 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 20                | SI04 +            |            | SI04 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI02 +            |            | SI02 +       | ED      | 05-09        |
| 22          | HEMWITH D.C.     | HE00800      | THE TOWNS (HAILE) BEACH                  | SW 563 395   | 2J                  | 2                 | SI03              | 4 west     | SI04 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 20                | SI04 +            |            | SI04 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI02 +            |            | SI02 +       | ED      | 05-09        |
| 23          | HEMWITH D.C.     | HE00801      | THE TOWNS (CIREVY) BEACH                 | SW 581 417   | 2J                  | 2                 | SI03              | 4 west     | SI04 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 20                | SI04 +            |            | SI04 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI02 +            |            | SI02 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI03              |            | SI03         | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 20                | SI04 +            |            | SI04 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI02 +            |            | SI02 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI03              |            | SI03         | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 20                | SI04 +            |            | SI04 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI02 +            |            | SI02 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI03              |            | SI03         | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 20                | SI04 +            |            | SI04 +       | ED      | 05-09        |
| 23          | KERRIER D.C.     | KE00810      | THE TOWNS (CIREVY) BEACH - STREAM        | SW 583 422   | 2F                  | 20                | SI05              | 4 west     | SI04 +       | ED      | 05-09        |
|             |                  |              | FORKEATH BEACH                           | SW 653 455   | 2J                  | 20                | SI04 +            | 2 west     | SI04 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI02 +            |            | SI02 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI03              |            | SI03         | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 20                | SI04 +            |            | SI04 +       | ED      | 05-09        |
| 236         | CARRICK D.C.     | CE00810      | FORKEATH BEACH - STREAM A                | SW 655 453   | 2F                  | 20                | SI05              | 2 west     | SI04 +       | ED      | 05-09        |
|             |                  | CE00820      | FORKEATH BEACH                           | SW 6915 4812 | 2J                  | 20                | SI04 +            | 2 west     | SI04 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI02 +            |            | SI02 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI03              |            | SI03         | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 20                | SI04 +            |            | SI04 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI02 +            |            | SI02 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI03              |            | SI03         | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 20                | SI04 +            |            | SI04 +       | ED      | 05-09        |
| 23          | CARRICK D.C.     | CE00820      | FORKEATH BEACH - STREAM A                | SW 6925 4796 | 2F                  | 20                | SI05              | 2 west     | SI04 +       | ED      | 05-09        |
|             |                  | CE00830      | TREVAUNICE COVE BEACH                    | SW 723 517   | 2J                  | 20                | SI04 +            | 2 west     | SI04 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI02 +            |            | SI02 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI03              |            | SI03         | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 20                | SI04 +            |            | SI04 +       | ED      | 05-09        |
| 23          | CARRICK D.C.     | CE00830      | TREVAUNICE COVE BEACH-STREAM A           | SW 7216 5160 | 2F                  | 20                | SI05              | 2 west     | SI04 +       | ED      | 05-09        |
|             |                  | CE00840      | FERRACROH (VILLAGE END) BEACH            | SW 757 548   | 2J                  | 20                | SI04 +            | 2 west     | SI04 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI02 +            |            | SI02 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI03              |            | SI03         | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 20                | SI04 +            |            | SI04 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI02 +            |            | SI02 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI03              |            | SI03         | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 20                | SI04 +            |            | SI04 +       | ED      | 05-09        |
| 23          | CARRICK D.C.     | CE00841      | FERRACROH (VILLAGE END) BEACH - STREAM A | SW 760 545   | 2F                  | 20                | SI05              | 2 west     | SI04 +       | ED      | 05-09        |
|             |                  | CE00842      | FERRACROH (VILLAGE END) BEACH - STREAM B | SW 756 541   | 2F                  | 20                | SI05              | 2 west     | SI04 +       | ED      | 05-09        |
|             |                  |              | FERRACROH (VILLAGE END) BEACH            | SW 762 570   | 2J                  | 20                | SI04 +            | 2 west     | SI04 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI02 +            |            | SI02 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI03              |            | SI03         | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 20                | SI04 +            |            | SI04 +       | ED      | 05-09        |
| 23          | CARRICK D.C.     | CE00850      | HOLWELL BAY BEACH                        | SW 765 595   | 2J                  | 20                | SI04 +            | 2 west     | SI04 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI02 +            |            | SI02 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI03              |            | SI03         | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 20                | SI04 +            |            | SI04 +       | ED      | 05-09        |
| 23          | CARRICK D.C.     | CE00855      | HOLWELL BAY BEACH - STREAM               | SW 768 589   | 2F                  | 20                | SI05              | 2 west     | SI04 +       | ED      | 05-09        |
|             |                  | CE00865      | FORTH JOKE BEACH                         | SW 7727 6040 | 2J                  | 20                | SI04 +            | 2 west     | SI04 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI02 +            |            | SI02 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI03              |            | SI03         | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 20                | SI04 +            |            | SI04 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI02 +            |            | SI02 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI03              |            | SI03         | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 20                | SI04 +            |            | SI04 +       | ED      | 05-09        |
| 24          | RESIDENCE B.C.   | CE00865      | FORTH JOKE BEACH - STREAM A              | SW 7729 6040 |                     | 20                | SI05              | 5 west     | SI04 +       | ED      | 05-09        |
|             |                  | CE00866      | CRANOCK BEACH                            | SW 784 608   | 2J                  | 20                | SI04 +            | 5 west     | SI04 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI02 +            |            | SI02 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI03              |            | SI03         | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 20                | SI04 +            |            | SI04 +       | ED      | 05-09        |
| 25          | RESIDENCE B.C.   | CE00870      | CRANOCK BEACH - THE CRANEL               | SW 819 599   | 2F                  | 20                | SI05              | 5 west     | SI04 +       | ED      | 05-09        |
|             |                  | CE00870      | FESTRAL BEACH - NEQUAY                   | SW 7860 6230 | 2J                  | 20                | SI04 +            | 5 west     | SI04 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI02 +            |            | SI02 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI03              |            | SI03         | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 20                | SI04 +            |            | SI04 +       | ED      | 05-09        |
| 25          | RESIDENCE B.C.   | CE00880      | TOWAN BEACH - NEQUAY                     | SW 8100 6205 | 2J                  | 20                | SI04 +            | 5 west     | SI04 +       | ED      | 05-09        |
|             |                  |              |                                          |              |                     | 2                 | SI02 +            |            | SI02 +       | ED      | 05-09        |

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1993 BODING WATERS PROGRAMME  
PROGRAMME LAST UPDATED :- 18-FEB-1993

| C/MENT<br>NUMBER | DISTRICT<br>COUNCIL | USER REF NO. | BEACH NAME                     | N.G.R.       | MPT.<br>CODE | SAMPLING<br>FREQUENCY<br>(PER ANNUM) | ANALYSIS<br>REQUIRED<br>(APGS) | PLN<br>NUMBER | PURPOSE<br>CODE<br>ICL | PURPOSE<br>CODE<br>MENSAR | DATE<br>[MONTH]<br>[01-12] |
|------------------|---------------------|--------------|--------------------------------|--------------|--------------|--------------------------------------|--------------------------------|---------------|------------------------|---------------------------|----------------------------|
| 25               | RESTORMEL B.C.      | B0882        | GREAT WESTERN BEACH NEWQUAY    | SW 8150 6190 | 2J           | 20                                   | S103                           | 5 west        | SQMB                   | BD                        | 05-09                      |
|                  |                     |              |                                |              |              | 2                                    | S104 +                         |               | SQMB                   | BD                        | 05-09                      |
|                  |                     |              |                                |              |              | 2                                    | S102 +                         |               | SQMB                   | BD                        | 05-09                      |
| 25               | RESTORMEL B.C.      | B0883        | TOLCARNE BEACH NEWQUAY         | SW 8180 6215 | 2J           | 20                                   | S103                           | 5 west        | SQMB                   | BD                        | 05-09                      |
|                  |                     |              |                                |              |              | 2                                    | S104 +                         |               | SQMB                   | BD                        | 05-09                      |
|                  |                     |              |                                |              |              | 2                                    | S102 +                         |               | SQMB                   | BD                        | 05-09                      |
| 25               | RESTORMEL B.C.      | B0884        | ILSTY GLAZE NEWQUAY            | SW 8240 6255 | 2J           | 20                                   | S103                           | 5 west        | SQMB                   | BD                        | 05-09                      |
|                  |                     |              |                                |              |              | 2                                    | S104 +                         |               | SQMB                   | BD                        | 05-09                      |
|                  |                     |              |                                |              |              | 2                                    | S102 +                         |               | SQMB                   | BD                        | 05-09                      |
| 25               | RESTORMEL B.C.      | B0885        | PORRH BEACH NEWQUAY            | SW 8293 6275 | 2J           | 20                                   | S103                           | 5 west        | SQMB                   | BD                        | 05-09                      |
|                  |                     |              |                                |              |              | 2                                    | S104 +                         |               | SQMB                   | BD                        | 05-09                      |
|                  |                     |              |                                |              |              | 2                                    | S102 +                         |               | SQMB                   | BD                        | 05-09                      |
|                  | RESTORMEL B.C.      | ECB0885      | PORRH BEACH - STREAM A         | SW 8325 6288 | 2F           | 20                                   | S103                           | 5 west        | SQMB                   | BD                        | 05-09                      |
|                  |                     |              |                                |              |              |                                      | S105                           |               | SQMB                   | BD                        | 05-09                      |
| 25               | RESTORMEL B.C.      | ECB0890      | WATERGATE BEACH                | SW 841 649   | 2J           | 20                                   | S104 +                         | 5 west        | SQMB                   | BD                        | 05-09                      |
|                  |                     |              |                                |              |              | 2                                    | S102 +                         |               | SQMB                   | BD                        | 05-09                      |
|                  |                     |              |                                |              |              | 2                                    | S103                           |               | SQMB                   | BD                        | 05-09                      |
|                  |                     | ECB0890      | WATERGATE BEACH - STREAM A     | SW 8418 6494 | 2F           | 20                                   | S105                           | 5 west        | SQMB                   | BD                        | 05-09                      |
| 25               | RESTORMEL B.C.      | ECB0900      | MWAGN PORRH BEACH              | SW 848 674   | 2J           | 20                                   | S104 +                         | 5 west        | SQMB                   | BD                        | 05-09                      |
|                  |                     |              |                                |              |              | 2                                    | S102 +                         |               | SQMB                   | BD                        | 05-09                      |
|                  |                     |              |                                |              |              | 2                                    | S103                           |               | SQMB                   | BD                        | 05-09                      |
|                  |                     | ECB0900      | MWAGN PORRH - STREAM A         | SW 849 672   | 2F           | 20                                   | S105                           | 5 west        | SQMB                   | BD                        | 05-09                      |
|                  |                     | ECB0902      | RIVER MENALHILL AT THE FORDS   | SW 8603 6670 | 2F           | 20                                   | S105                           | 5 west        | SQMB                   | BD                        | 05-09                      |
|                  |                     | ECB0904      | RIVER GLUWIAN AT ROAD BRIDGE   | SW 8543 6708 | 2F           | 20                                   | S105                           | 5 west        | SQMB                   | BD                        | 05-09                      |
| 25               | N. CORNWALL D.C.    | ECB0905      | FORTHLOTHAN BEACH              | SW 8570 7202 | 2J           | 20                                   | S104 +                         | 5 west        | SQMB                   | BD                        | 05-09                      |
|                  |                     |              |                                |              |              | 2                                    | S102 +                         |               | SQMB                   | BD                        | 05-09                      |
|                  |                     |              |                                |              |              | 2                                    | S103                           |               | SQMB                   | BD                        | 05-09                      |
|                  |                     | ECB0905      | FORTHLOTHAN BEACH - STREAM A   |              | 2F           | 20                                   | S105                           | 5 west        | SQMB                   | BD                        | 05-09                      |
| 25               | N. CORNWALL D.C.    | ECB0910      | TREVARNON BAY BEACH            | SW 857 739   | 2J           | 20                                   | S104 +                         | 5 west        | SQMB                   | BD                        | 05-09                      |
|                  |                     |              |                                |              |              | 2                                    | S102 +                         |               | SQMB                   | BD                        | 05-09                      |
|                  |                     |              |                                |              |              | 2                                    | S103                           |               | SQMB                   | BD                        | 05-09                      |
|                  |                     | ECB0910      | TREVARNON BAY BEACH - STREAM A | SW 858 739   | 2F           | 20                                   | S105                           | 5 west        | SQMB                   | BD                        | 05-09                      |
| 25               | N. CORNWALL D.C.    | ECB0920      | CONSTANTINE BAY BEACH          | SW 858 748   | 2J           | 20                                   | S104 +                         | 5 west        | SQMB                   | BD                        | 05-09                      |
|                  |                     |              |                                |              |              | 2                                    | S102 +                         |               | SQMB                   | BD                        | 05-09                      |
|                  |                     |              |                                |              |              | 2                                    | S103                           |               | SQMB                   | BD                        | 05-09                      |
| 25               | N. CORNWALL D.C.    | ECB0930      | MOTHER IVEY'S BAY              | SW 863 760   | 2J           | 20                                   | S104 +                         | 5 west        | SQMB                   | BD                        | 05-09                      |
|                  |                     |              |                                |              |              | 2                                    | S102 +                         |               | SQMB                   | BD                        | 05-09                      |
|                  |                     |              |                                |              |              | 2                                    | S103                           |               | SQMB                   | BD                        | 05-09                      |
| 25               | N. CORNWALL D.C.    | ECB0940      | HARLIN BAY BEACH               | SW 877 755   | 2J           | 20                                   | S104 +                         | 5 west        | SQMB                   | BD                        | 05-09                      |
|                  |                     |              |                                |              |              | 2                                    | S102 +                         |               | SQMB                   | BD                        | 05-09                      |
|                  |                     |              |                                |              |              | 2                                    | S103                           |               | SQMB                   | BD                        | 05-09                      |
| 25               | N. CORNWALL D.C.    | ECB0950      | TREVONE BAY BEACH              | SW 892 761   | 2J           | 20                                   | S104 +                         | 5 west        | SQMB                   | BD                        | 05-09                      |
|                  |                     |              |                                |              |              | 2                                    | S102 +                         |               | SQMB                   | BD                        | 05-09                      |
|                  |                     |              |                                |              |              | 2                                    | S103                           |               | SQMB                   | BD                        | 05-09                      |
|                  |                     | ECB0950      | TREVONE BAY BEACH - STREAM A   | SW 893 759   | 2F           | 20                                   | S105                           | 5 west        | SQMB                   | BD                        | 05-09                      |
| 25               | N. CORNWALL D.C.    | ECB0960      | ROCK BEACH                     | SW 9274 7586 | 2I           | 20                                   | S104 +                         | 5 west        | SQMB                   | BD                        | 05-09                      |
|                  |                     |              |                                |              |              | 2                                    | S102 +                         |               | SQMB                   | BD                        | 05-09                      |
|                  |                     |              |                                |              |              | 2                                    | S103                           |               | SQMB                   | BD                        | 05-09                      |
| 25               | N. CORNWALL D.C.    | ECB0970      | DAYMER BAY BEACH               | SW 928 776   | 2I           | 20                                   | S104 +                         | 5 west        | SQMB                   | BD                        | 05-09                      |
|                  |                     |              |                                |              |              | 2                                    | S102 +                         |               | SQMB                   | BD                        | 05-09                      |
|                  |                     |              |                                |              |              | 2                                    | S103                           |               | SQMB                   | BD                        | 05-09                      |



NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
1993 BATHING WATERS PROGRAMME  
PROGRAMME LAST UPDATED :- 18-FEB-1993

| CENT<br>NUMBER | DISTRICT<br>COUNCIL | USER REF NO. | BEACH NAME                                          | N.G.R.       | MPT.<br>CODE | SAMPLING<br>FREQUENCY<br>(PER ANNUM) | ANALYSIS<br>EQUIPPED<br>(AUG) | RUN<br>NUMBER | PURPOSE<br>CODE<br>ICL | PURPOSE<br>CODE<br>MENSAR | DATE<br>MONTH<br>01-12 |
|----------------|---------------------|--------------|-----------------------------------------------------|--------------|--------------|--------------------------------------|-------------------------------|---------------|------------------------|---------------------------|------------------------|
| 25             | N. CORNWALL D.C.    | ECB0980      | FOLZEVN BEACH                                       | SW 936 792   | 2J           | 20                                   | S104 +                        | 5 west        | SQMB                   | ED                        | 05-09                  |
|                |                     |              |                                                     |              |              | 2                                    | S102 +                        |               | SQMB                   | ED                        | 05-09                  |
|                |                     |              |                                                     |              |              | 2                                    | S103                          |               | SQMB                   | ED                        | 05-09                  |
| 26             | N. CORNWALL D.C.    | ECB0980      | FOLZEVN BEACH - STREAM A                            | SW 9365 7890 | 2F           | 20                                   | S105                          | 5 west        | SQMB                   | ED                        | 05-09                  |
|                |                     | ECB0990      | WIDEMOUTH SAND                                      | SS 198 024   | 2J           | 20                                   | S104 +                        | 6             | SQMB                   | ED                        | 05-09                  |
|                |                     |              |                                                     |              |              | 2                                    | S102 +                        |               | SQMB                   | ED                        | 05-09                  |
|                |                     |              |                                                     |              |              | 2                                    | S103                          |               | SQMB                   | ED                        | 05-09                  |
| 27             | N. CORNWALL D.C.    | ECB1000      | BLIDE (SUMMERLEAZE) BEACH                           | SS 204 066   | 2J           | 20                                   | S104                          | 6             | SQMB                   | ED                        | 05-09                  |
|                |                     |              |                                                     |              |              | 2                                    | S102 +                        |               | SQMB                   | ED                        | 05-09                  |
|                |                     |              |                                                     |              |              | 2                                    | S103                          |               | SQMB                   | ED                        | 05-09                  |
| 27             | N. CORNWALL D.C.    | ECB1000      | BLIDE BEACH - U/S HELEBRIDGE WEIR                   | SS 213 037   | 2F           | 20                                   | S105                          | 6             | SQMB                   | ED                        | 05-09                  |
|                |                     | ECB1001      | BLIDE (CROCKLETS) BEACH                             | SS 203 072   | 2J           | 20                                   | S104 +                        | 6             | SQMB                   | ED                        | 05-09                  |
|                |                     |              |                                                     |              |              | 2                                    | S102 +                        |               | SQMB                   | ED                        | 05-09                  |
|                |                     |              |                                                     |              |              | 2                                    | S103                          |               | SQMB                   | ED                        | 05-09                  |
| 27             |                     | ECB1001      | FLEX BROOK AT ENTRANCE TO BEACH                     | SS 203 071   | 2F           | 20                                   | S105                          | 6             | SQMB                   | ED                        | 05-09                  |
|                |                     | ECB1002      | BLIDE (SANDY MOUTH) BEACH                           | SS 202 099   | 2J           | 20                                   | S104 +                        | 6             | SQMB                   | ED                        | 05-09                  |
|                |                     |              |                                                     |              |              | 2                                    | S102 +                        |               | SQMB                   | ED                        | 05-09                  |
|                |                     |              |                                                     |              |              | 2                                    | S103                          |               | SQMB                   | ED                        | 05-09                  |
| 28             | TORRIDGE D.C.       | ECB1010      | HARTLAND QUAY BEACH                                 | SS 2230 2485 | 2J           | 20                                   | S104 +                        | 6             | SQMB                   | ED                        | 05-09                  |
|                |                     |              |                                                     |              |              | 2                                    | S102 +                        |               | SQMB                   | ED                        | 05-09                  |
|                |                     |              |                                                     |              |              | 2                                    | S103                          |               | SQMB                   | ED                        | 05-09                  |
| 30             | TORRIDGE D.C.       | ECB1020      | WESTWARD HO! BEACH                                  | SS 4325 2940 | 2J           | 20                                   | S104 +                        | 6             | SQMB                   | ED                        | 05-09                  |
|                |                     |              |                                                     |              |              | 2                                    | S102 +                        |               | SQMB                   | ED                        | 05-09                  |
|                |                     |              |                                                     |              |              | 2                                    | S103                          |               | SQMB                   | ED                        | 05-09                  |
| 29             | N.DEVON D.C.        | ECB1030      | INSTOW BEACH                                        | SS 4717 3044 | 2I           | 20                                   | S104 +                        | 6             | SQMB                   | ED                        | 05-09                  |
|                |                     |              |                                                     |              |              | 2                                    | S102 +                        |               | SQMB                   | ED                        | 05-09                  |
|                |                     |              |                                                     |              |              | 2                                    | S103                          |               | SQMB                   | ED                        | 05-09                  |
| 30             | N.DEVON D.C.        | ECB1040      | SAUNTON SANDS                                       | SS 4455 3760 | 2J           | 20                                   | S104 +                        | 7             | SQMB                   | ED                        | 05-09                  |
|                |                     |              |                                                     |              |              | 2                                    | S102 +                        |               | SQMB                   | ED                        | 05-09                  |
|                |                     |              |                                                     |              |              | 2                                    | S103                          |               | SQMB                   | ED                        | 05-09                  |
|                |                     | ECB1040      | SAUNTON SANDS - STREAM AT CAR PARK                  | SS 4465 3752 | 2F           | 20                                   | S105                          | 7             | SQMB                   | ED                        | 05-09                  |
| 30             | N.DEVON D.C.        | ECB1050      | CROYDE BAY BEACH                                    | SS 4347 3930 | 2J           | 20                                   | S104 +                        | 7             | SQMB                   | ED                        | 05-09                  |
|                |                     |              |                                                     |              |              | 2                                    | S102 +                        |               | SQMB                   | ED                        | 05-09                  |
|                |                     |              |                                                     |              |              | 2                                    | S103                          |               | SQMB                   | ED                        | 05-09                  |
| 30             | N.DEVON D.C.        | ECB1060      | WOOLACOMBE (PUISBOROUGH) BEACH                      | SS 4475 4085 | 2J           | 20                                   | S104 +                        | 7             | SQMB                   | ED                        | 05-09                  |
|                |                     |              |                                                     |              |              | 2                                    | S102 +                        |               | SQMB                   | ED                        | 05-09                  |
|                |                     |              |                                                     |              |              | 2                                    | S103                          |               | SQMB                   | ED                        | 05-09                  |
| 30             | N.DEVON D.C.        | ECB1061      | WOOLACOMBE (VILLAGE) BEACH                          | SS 4562 4370 | 2J           | 20                                   | S104 +                        | 7             | SQMB                   | ED                        | 05-09                  |
|                |                     |              |                                                     |              |              | 2                                    | S102 +                        |               | SQMB                   | ED                        | 05-09                  |
|                |                     |              |                                                     |              |              | 2                                    | S103                          |               | SQMB                   | ED                        | 05-09                  |
|                | N.DEVON D.C.        | ECB1061      | WOOLACOMBE (VILLAGE) - STREAM A                     | SS 4575 4355 | 2F           | 20                                   | S105                          | 7             | SQMB                   | ED                        | 05-09                  |
| 31             | N.DEVON D.C.        | ECB1070      | ILFRACOMBE (HELE) BEACH                             | SS 5355 4792 | 2J           | 20                                   | S104 +                        | 7             | SQMB                   | ED                        | 05-09                  |
|                |                     |              |                                                     |              |              | 2                                    | S102 +                        |               | SQMB                   | ED                        | 05-09                  |
|                |                     |              |                                                     |              |              | 2                                    | S103                          |               | SQMB                   | ED                        | 05-09                  |
|                | N.DEVON D.C.        | ECB1070      | ILFRACOMBE (HELE) BEACH - STREAM A                  | SS 5358 4780 | 2F           | 20                                   | S105                          | 7             | SQMB                   | ED                        | 05-09                  |
| 31             | N.DEVON D.C.        | ECB1071      | ILFRACOMBE (CAPSTONE) BEACH                         | SS 5182 4790 | 2J           | 20                                   | S104 +                        | 7             | SQMB                   | ED                        | 05-09                  |
|                |                     |              |                                                     |              |              | 2                                    | S102 +                        |               | SQMB                   | ED                        | 05-09                  |
|                |                     |              |                                                     |              |              | 2                                    | S103                          |               | SQMB                   | ED                        | 05-09                  |
|                |                     | ECB1071      | ILFRACOMBE BEACH - WILDER BROOK<br>AFTER CONFLUENCE | SS 5178 4785 | 2F           | 20                                   | S105                          | 7             | SQMB                   | ED                        | 05-09                  |
| 31             | N.DEVON D.C.        | BL072        | ILFRACOMBE (TUNNELS) BEACH                          | SS 5145 4780 | 2J           | 20                                   | S104 +                        | 7             | SQMB                   | ED                        | 05-09                  |
|                |                     |              |                                                     |              |              | 2                                    | S102 +                        |               | SQMB                   | ED                        | 05-09                  |

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
 1993 BATHING WATERS PROGRAMME  
 PROGRAMME LAST UPDATED :- 18-FEB-1993

| C/MENT<br>NUMBER | DISTRICT<br>COUNCIL | USER REF NO. | BEACH NAME                         | N.G.R.       | MKT.<br>CODE | SAMPLING<br>FREQUENCY<br>(PER ANNUM) | ANALYSIS<br>REQUIRED<br>(APGS) | RUN<br>NUMBER | PURPOSE<br>CODE<br>ICL | PURPOSE<br>CODE<br>MENGAR | DATE<br>MONTH<br>01-12 |
|------------------|---------------------|--------------|------------------------------------|--------------|--------------|--------------------------------------|--------------------------------|---------------|------------------------|---------------------------|------------------------|
| 31               | N.DEVON D.C.        | ECB1080      | COMBE MARTIN BEACH                 | SS 5772 4732 | 2J           | 2                                    | S103                           | 7             | SQTB                   | BD                        | 05-09                  |
|                  |                     |              |                                    |              |              | 20                                   | S104 +                         |               | SQTB                   | BD                        | 05-09                  |
|                  |                     |              |                                    |              |              | 2                                    | S102 +                         |               | SQTB                   | BD                        | 05-09                  |
|                  |                     | R31A005      | COMBE MARTIN - RIVER UMBER         | SS 5768 4725 | 2F           | 2                                    | S103                           | 7             | SQTB                   | BD                        | 05-09                  |
|                  |                     | ECB1080      | COMBE MARTIN - FURZEPARK STREAM    | SS 5748 4720 | 2F           | 20                                   | S105                           | 7             | SQTB                   | BD                        | 05-09                  |
| 32               | N.DEVON D.C.        | ECB1090      | LYNMOUTH BEACH                     | SS 7250 4975 | 2J           | 2                                    | S104 +                         | 7             | SQTB                   | BD                        | 05-09                  |
|                  |                     |              |                                    |              |              | 2                                    | S102 +                         |               | SQTB                   | BD                        | 05-09                  |
|                  |                     |              |                                    |              |              | 2                                    | S103                           |               | SQTB                   | BD                        | 05-09                  |
|                  |                     | ECB1090      | LYNMOUTH BEACH - RIVER LYN ESTUARY | SS 7230 4967 | 2F           | 20                                   | S105                           | 7             | SQTB                   | BD                        | 05-09                  |

TOTAL NUMBER OF

SAMPLES : 5084

## 2.2. ADDITIONAL BATHING WATERS PROGRAMME

### 2.2.1 DESCRIPTION OF PROGRAMME

92 popular (but not identified under the EC Bathing Water Directive) bathing waters are monitored on a 3 year rolling programme using the same procedures as laid down in the previous section on EC bathing waters.

### 2.2.2 REASON FOR MONITORING

These popular bathing waters have been identified in preparation for the introduction of Statutory Water Quality Objectives (SWQOs) due to be laid down by the Secretary of State for the Environment. As well as the proposed general classification system (see sections on estuary and coastal quality monitoring) SWQOs will consist of a system of use related objectives and appropriate water quality standards (set to protect each use). The latest proposals for water contact sports use incorporate bathing.

These bathing waters are also important as potential sites for future identification under the EC Bathing Water Directive.

This programme provides information on the current quality of these waters and whether improvements in quality would be required to ensure the water complied with EC Directive requirements.

### 2.2.3 PROGRAMME INFORMATION

Numbers of sampling points : 92 (37 to be sampled  
Numbers of samples : 1840 in 1993)  
Frequency of use of Analysis  
Requirement Groups  
(ARGs) and total numbers of  
determinands in brackets: :

|      | 1993        | 1994        | 1995        | TOTAL        |
|------|-------------|-------------|-------------|--------------|
| S102 | 12 (12)     | 12 (12)     | 12 (12)     | 36 (36)      |
| S103 | 12 (12)     | 12 (12)     | 12 (12)     | 36 (36)      |
| S104 | 680 (15640) | 540 (12420) | 680 (15640) | 1900 (43700) |
| S105 | 60 (540)    | 60 (540)    | 60 (540)    | 180 (1620)   |

Details of the composition of each ARG may be found in the NRA South West Region's ARG Dictionary.

#### 2.2.4 EXPLANATION OF SCHEDULE CONTENTS

The following table details the sampling and analysis requirements for this programme. The User Reference Number (URN) is the unique identification code for the site. It allows sample results for the site to be retrieved from the Water Quality Archive (sample database). The National Grid Reference (NGR) defines the location of the site on a map. The Material Code details the type of sample collected, for example 2J is sea water, 2F is freshwater, 2I is estuarine water. It forms part of the information about each particular sample held on the Water Quality Archive. The Purpose Code details the reason why a particular sample has been collected. For example, SQMB relates to EC Directive Monitoring - bathing waters. SMRE relates to routine monitoring analysis (for EC Directives), SQMR relates to routine monitoring (in general). This code allows samples collected for particular reasons (from one or several sites) to be retrieved from the Water Quality Archive. The Mensar Purpose Code has to be a 2 digit code. It is translated to the equivalent code (eg. SMRE) on the ICL computer, where the Water Quality Archive is held, once the data is transferred to the ICL.

#### 2.2.5 ENDORSEMENT

The contents of this programme have been agreed by the Water Quality Planner, Field Controller and Laboratory Controller.

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION

1993 BIRDS AND FLIES - NOTIFICATION SYSTEMS INFORMATION - SET

INFORMATION LAST UPDATED :

12-FEB-1993

| CATCHMENT NUMBER | DISTRICT COUNCIL | SITE                        | USER REFERENCE NUMBER | N.G.R.       | WATER CODE | RURSE CODE | RURSE CODE | WATER OF | GOOD BEACH (GUIDE) | DESIGNATION (1) | DATE | NO. PER ANNUM (13) | ANALYSIS GROUPS (ARG'S) | MONITORING REQUIREMENTS (NO. PER ANNUM) | ANALYSIS DATE | MONITORING REQUIREMENTS (NO. PER ANNUM) |
|------------------|------------------|-----------------------------|-----------------------|--------------|------------|------------|------------|----------|--------------------|-----------------|------|--------------------|-------------------------|-----------------------------------------|---------------|-----------------------------------------|
| 01               | WEST DORSET D.C. | LIVE REGIS (MIDWORTH) BEACH | B0012                 | SY 3370 9156 | 2J         | SQSB       | A3         |          |                    |                 | 1993 | 20                 | SI04                    |                                         |               | 1                                       |
|                  |                  |                             |                       |              |            |            |            |          |                    |                 |      | 2                  | SI02                    |                                         |               |                                         |
|                  |                  |                             |                       |              |            |            |            |          |                    |                 |      | 2                  | SI03                    |                                         |               |                                         |
| 06               | SOUTH HAMS D.C.  | SCARBOROUGH SANDS           | B0275                 | SX 9192 5190 | 2J         | SQSB       | AB         |          |                    | C               | 1993 | 20                 | SI04                    | 4                                       | 1993          | 3                                       |
| 08               | SOUTH HAMS D.C.  | GREAT MATTISCOMBE BEACH     | B0305                 | SX 8168 3693 | 2J         | SQSB       | AB         | -/119    |                    | C               | 1993 | 20                 | SI04                    | 4                                       | 1993          | 4a                                      |
| 08               | SOUTH HAMS D.C.  | GANNONS HEAD                | B0306                 | SX 7666 3575 | 2J         | SQSB       | AB         |          |                    | C               | 1993 | 20                 | SI04                    | 4                                       | 1993          | 4a                                      |
| 08               | SOUTH HAMS D.C.  | JARRAWAYS HOLE              | B0310                 | SX 7522 3691 | 2J         | SQSB       | AB         | -/124    |                    | C               | 1993 | 20                 | SI04                    | 4                                       | 1993          | 4a                                      |
| 09               | SOUTH HAMS D.C.  | MOWELL BEACH, KINGSION      | B0385                 | SX 6174 4730 | 2J         | SQSB       | AB         |          | Y                  | C               | 1993 | 20                 | SI04                    | 4                                       | 1993          | 5                                       |
| 10               | SOUTH HAMS D.C.  | STONE BEACH                 | B0395                 | SX 5668 4667 | 2J         | SQSB       | AB         | -/128    | Y                  | C               | 1993 | 20                 | SI04                    | 4                                       | 1993          | 5                                       |
| 14               | CORNWALL D.C.    | LOOE (FLAVER) BEACH         | B0465                 | SX 2635 5368 | 2J         | SQSB       | AB         | -/131    |                    | B               | 1993 | 20                 | SI04                    | 4                                       | 1991-93       | 1 west                                  |
| 14               | CORNWALL D.C.    | LOOE (HANNAPORE) BEACH      | B0470                 | SX 2565 5250 | 2J         | SQSB       | AB         | 170/305  |                    | B               | 1993 | 20                 | SI04                    | 4                                       | 1991-93       | 1 west                                  |
| 14               | CORNWALL D.C.    | TALLAND BAY                 | B0473                 | SX 2236 5157 | 2J         | SQSB       | AB         | 258/178  |                    | B               | 1993 | 20                 | SI04                    | 4                                       | 1991-93       | 1 west                                  |
| 14               | CORNWALL D.C.    | POLEBRO BEACH               | B0475                 | SX 2100 5090 | 2J         | SQSB       | AB         | 178/-    | Y                  | B               | 1993 | 20                 | SI04                    | 4                                       | 1991-93       | 1 west                                  |
| 15               | RESTORVEL B.C.   | MUTHOUSE (FOREY) BEACH      | B0480                 | SX 1200 5140 | 2J         | SQSB       | AB         |          |                    | B               | 1993 | 20                 | SI04                    | 4                                       | 1991-93       | 1 west                                  |
| 17               | RESTORVEL B.C.   | SPIT BEACH                  | B501                  | SX 0710 5230 | 2J         | SQSB       | AB         |          |                    |                 | 1993 | 20                 | SI04                    |                                         |               | 1 west                                  |
|                  |                  |                             |                       |              |            |            |            |          |                    |                 |      | 2                  | SI02                    |                                         |               |                                         |
|                  |                  |                             |                       |              |            |            |            |          |                    |                 |      | 2                  | SI03                    |                                         |               |                                         |
| 18               | RESTORVEL B.C.   | MORVASSY BEACH              | B0555                 | SX 0160 4467 | 2J         | SQSB       | AB         |          | Y                  | B               | 1993 | 20                 | SI04                    | 4                                       | 1991-93       | 2a west                                 |
| 18               | CARRICK D.C.     | PORTLOE BEACH               | B0585                 | SW 9385 3941 | 2J         | SQSB       | AB         |          | Y                  | B               | 1993 | 20                 | SI04                    | 4                                       | 1991-93       | 2a west                                 |
| 18               | CARRICK D.C.     | LOANE BEACH (PENNOVER)      | B0589                 | SW 9051 3831 | 2J         | SQSB       | AB         |          |                    |                 |      | 20                 | SI04                    |                                         |               | 2a west                                 |
|                  |                  |                             |                       |              |            |            |            |          |                    |                 |      | 2                  | SI02                    |                                         |               |                                         |
|                  |                  |                             |                       |              |            |            |            |          |                    |                 |      | 2                  | SI03                    |                                         |               |                                         |
|                  |                  |                             |                       |              |            |            |            |          |                    |                 |      | 20                 | SI05                    |                                         |               |                                         |
|                  |                  |                             |                       |              |            |            |            |          |                    |                 |      |                    |                         |                                         |               |                                         |
| 19               | CARRICK D.C.     | LOANE BEACH - STREAM A      | B0589                 | SW 9050 3830 | 2F         | SQVR       | AB         |          |                    |                 | 1993 | 20                 | SI04                    | 4                                       | 1991-93       | 2a west                                 |
| 19               | CARRICK D.C.     | PORTLOE BEACH               | B0593                 | SW 8620 3200 | 2J         | SQSB       | AB         | -/153    |                    | B               | 1993 | 20                 | SI04                    |                                         |               |                                         |
| 19               | CARRICK D.C.     | MT MOLLAN BEACH             | B0596                 | SW 8464 3163 | 2J         | SQSB       | AS         |          | Y                  | B               | 1993 | 20                 | SI04                    | 4                                       | 1991-93       | 2a west                                 |
| 19B              | CARRICK D.C.     | LOOE BEACH - FROCK          | B0595                 | SW 8260 3810 | 2J         | SQSB       | AS         |          |                    |                 |      | 20                 | SI04                    |                                         |               | 3 west                                  |
|                  |                  |                             |                       |              |            |            |            |          |                    |                 |      | 2                  | SI02                    |                                         |               |                                         |
|                  |                  |                             |                       |              |            |            |            |          |                    |                 |      | 2                  | SI03                    |                                         |               |                                         |
| 19               | WERRER D.C.      | CHURCH COVE (LEZARD)        | B0665                 | SW 7152 1275 | 2J         | SQSB       | AB         |          | Y                  | B               | 1993 | 20                 | SI04                    | 4                                       | 1991-93       | 6 west                                  |

NATURAL RIVERS AUTHORITY - SOUTH WEST REGION  
1993 BIDDING WEEDS - ADDITIONAL SWELLING PROGRAMME NOV - SEPT  
PROGRAMME LAST UPDATED :

19-FEB-1993

| CATCHMENT NUMBER | DISTRICT COUNCIL | SITE                           | USER REFERENCE NUMBER | N.G.R.       | PGT CODE | PURPOSE CODE | PURPOSE CODE | PURPOSE CODE | NUMBERS OF PEOPLE | GOOD GUIDE DESIGNATED | DESIGNATION (1) | MONITORING REQUIREMENTS (2) | ANALYSIS (3) | MONITORING REQUIREMENTS (4) | ANALYSIS (5) | MONITORING REQUIREMENTS (6) | ANALYSIS (7) |
|------------------|------------------|--------------------------------|-----------------------|--------------|----------|--------------|--------------|--------------|-------------------|-----------------------|-----------------|-----------------------------|--------------|-----------------------------|--------------|-----------------------------|--------------|
| 19               | KERRER D.C.      | POLPER COVE                    | B0666                 | SW 7005 1150 | 2J       | SC5B         | AB           | AB           |                   | Y                     | C               | 1993                        | 20           | SI04                        | 1993         | 4                           | 6 west       |
| 19               | KERRER D.C.      | JANGLE-RUN                     | B0682                 | SW 6592 2070 | 2J       | SC5B         | AB           | AB           | -/145             |                       | C               | 1993                        | 20           | SI04                        | 1992         | 4                           | 6 west       |
| 21               | KERRER D.C.      | RINNEY HEAD                    | B0709                 | SW 5930 2692 | 2J       | SC5B         | AB           | AB           | -/171             |                       | C               | 1993                        | 20           | SI04                        | 1992         | 4                           | 6 west       |
| 21               | FEWATH D.C.      | MOLESHOLE BEACH                | B0737                 | SW 4700 2630 | 2J       | SC5B         | AB           | AB           | -/160             | Y                     | B               | 1993                        | 20           | SI04                        | 1991-93      | 4                           | 4 west       |
| 22               | FEWATH D.C.      | FRIEST'S COVE                  | B0755                 | SW 3520 3165 | 2J       | SC5B         | AB           | AB           | -/216             | Y                     | B               | 1993                        | 20           | SI04                        | 1991-93      | 4                           | 6 west       |
| 25               | N. CORNWALL D.C. | OWEL ESTUARY (BY TREGLIS)      | B0953                 | SW 9125 7700 | 2J       | SC5B         | AB           | AB           | 101/367           |                       | B               | 1993                        | 20           | SI04                        | 1991-93      | 4                           | 5 west       |
| 25               | N. CORNWALL D.C. | PAIDLOW (AT ST. GEORGE'S WELL) | B0956                 | SW 9191 7645 | 2J       | SC5B         | AB           | AB           | -/204             | Y                     | B               | 1993                        | 20           | SI04                        | 1991-93      | 4                           | 5 west       |
| 25               | N. CORNWALL D.C. | GREENWAY BEACH                 | B0975                 | SW 9295 7860 | 2J       | SC5B         | AB           | AB           | -/149             |                       | B               | 1993                        | 20           | SI04                        | 1991-93      | 4                           | 5 west       |
| 26               | N. CORNWALL D.C. | TRECARDICK BEACH               | B0983                 | SW 0408 8404 | 2J       | SC5B         | AB           | AB           |                   | Y                     | C               | 1993                        | 20           | SI04                        | 1993         | 4                           | 5 west       |
| 26               | N. CORNWALL D.C. | TREBARNWITH STRAND BEACH       | B0985                 | SW 0482 8638 | 2J       | SC5B         | AB           | AB           |                   |                       |                 | 1993                        | 20           | SI04                        |              |                             | 5 west       |
|                  |                  |                                |                       |              |          |              |              |              |                   |                       |                 |                             | 2            | SI02                        |              |                             |              |
|                  |                  |                                |                       |              |          |              |              |              |                   |                       |                 |                             | 2            | SI03                        |              |                             |              |
|                  |                  |                                |                       |              |          |              |              |              |                   |                       |                 |                             | 20           | SI05                        |              |                             | 5 west       |
| 26               | N. CORNWALL D.C. | TREBARNWITH STRAND - STREAM A  | B0985                 | SW 0490 8640 | 2F       | SC5B         | AB           | AB           |                   |                       |                 |                             | 20           | SI04                        | 1991-93      | 4                           | 5 west       |
| 26               | N. CORNWALL D.C. | BOSSINEY HAVEN                 | B0987                 | SW 0650 8930 | 2J       | SC5B         | AB           | AB           |                   | Y                     | B               | 1993                        | 20           | SI04                        |              |                             | 5 west       |
| 26               | N. CORNWALL D.C. | CRACKINGTON HAVEN BEACH        | B0989                 | SW 1427 9690 | 2J       | SC5B         | AB           | AB           |                   |                       |                 | 1993                        | 20           | SI04                        |              |                             | 5 west       |
|                  |                  |                                |                       |              |          |              |              |              |                   |                       |                 |                             | 2            | SI02                        |              |                             |              |
|                  |                  |                                |                       |              |          |              |              |              |                   |                       |                 |                             | 2            | SI03                        |              |                             |              |
|                  |                  |                                |                       |              |          |              |              |              |                   |                       |                 |                             | 20           | SI05                        |              |                             | 5 west       |
| 31               | N. DEVON D.C.    | WOODY BAY                      | B1086                 | SS 6795 4890 | 2J       | SC5B         | AB           | AB           |                   | Y                     | C               | 1993                        | 20           | SI04                        | 1993         | 4                           | 7            |
| 31               | N. DEVON D.C.    | WINDCLIFF BAY                  | B1087                 | SS 7005 4960 | 2J       | SC5B         | AB           | AB           |                   | Y                     | C               | 1993                        | 20           | SI04                        | 1993         | 4                           | 7            |

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
 1994 FISHING WATERS - ADDITIONAL SAILING PROGRAMME MAY - SEPT  
 PROGRAMME LAST UPDATED: 19-FEB-1993

| CATCHMENT<br>NUMBER | DISTRICT<br>COUNCIL | SITE                        | USER<br>REFERENCE<br>NUMBER | N.G.R.       | NPT<br>CODE | PURPOSE<br>CODE<br>ICL | PURPOSE<br>CODE<br>MENSAR | NUMBERS<br>OF<br>PEOPLE<br>1987/1989 | GOOD BEACH<br>GUIDE<br>DESIGNATED | DESIGNATION<br>(1) | MONITORING REQUIREMENTS<br>BACTERIOLOGY (2) |                      | ANALYSIS<br>GROUPS<br>(ARG'S) | RUN<br>NUMBER |
|---------------------|---------------------|-----------------------------|-----------------------------|--------------|-------------|------------------------|---------------------------|--------------------------------------|-----------------------------------|--------------------|---------------------------------------------|----------------------|-------------------------------|---------------|
|                     |                     |                             |                             |              |             |                        |                           |                                      |                                   |                    | DATE                                        | NO. PER ANNUM<br>(3) |                               |               |
| 01                  | WEST DORSET D.C.    | LAME REGIS (MONMOUTH) BEACH | B0012                       | SY 3370 9156 | 2J          | SQSB                   | AB                        |                                      |                                   |                    | 1994                                        | 20<br>2<br>2         | S104<br>S102<br>S103          | 1             |
| 06                  | TORBAY B.C.         | CHURSTON COVE               | B0257                       | SK 9190 5700 | 2J          | SQSB                   | AB                        | 170/123                              |                                   | C                  | 1994                                        | 20                   | S104                          | 3             |
| 08                  | SOUTH HAMPS D.C.    | BEE SANDS                   | B0302                       | SK 8205 4050 | 2J          | SQSB                   | AB                        | 146/206                              | Y                                 | C                  | 1994                                        | 20                   | S104                          | 4a            |
| 08                  | SOUTH HAMPS D.C.    | HALL SANDS                  | B0303                       | SK 8180 3880 | 2J          | SQSB                   | AB                        | -/153                                | Y                                 | C                  | 1994                                        | 20                   | S104                          | 4a            |
| 08                  | SOUTH HAMPS D.C.    | VENERICK COVE/PIGS NOSE     | B0308                       | SK 7623 3633 | 2J          | SQSB                   | AB                        | 195/-                                |                                   | C                  | 1994                                        | 20                   | S104                          | 4a            |
| 08                  | SOUTH HAMPS D.C.    | SUNNY COVE                  | B0309                       | SK 7382 3795 | 2J          | SQSB                   | AB                        | 121/159                              |                                   | B                  | 1994                                        | 20                   | S104                          | 4a            |
| 08                  | SOUTH HAMPS D.C.    | SOAR MELL COVE              | B0335                       | SK 6975 3755 | 2J          | SQSB                   | AB                        | 119/296                              | Y                                 | C                  | 1994                                        | 20                   | S104                          | 4b            |
| 14                  | CARADON D.C.        | POLPERDO BEACH              | B0475                       | SK 2100 5090 | 2J          | SQSB                   | AB                        | 178/-                                | Y                                 | B                  | 1994                                        | 20                   | S104                          | 1 west        |
| 14                  | CARADON D.C.        | LANTIC BAY                  | B0479                       | SK 1479 5088 | 2J          | SQSB                   | AB                        | 283/121                              | Y                                 | C                  | 1994                                        | 20                   | S104                          | 1 west        |
| 15                  | RESTORMEL B.C.      | ROLRIDMOUTH BEACH           | B0485                       | SK 1033 5040 | 2J          | SQSB                   | AB                        | 186/156                              | Y                                 | C                  | 1994                                        | 20                   | S104                          | 1 west        |
| 17                  | RESTORMEL B.C.      | SPIT BEACH                  | B0501                       | SK 0710 5230 | 2J          | SQSB                   | AB                        |                                      |                                   |                    | 1994                                        | 20<br>2<br>2         | S104<br>S102<br>S103          | 1 west        |
| 18                  | RESTORMEL B.C.      | HENMICK BEACH               | B0575                       | SW 9925 4052 | 2J          | SQSB                   | AB                        | 185/262                              | Y                                 | C                  | 1994                                        | 20                   | S104                          | 2a west       |
| 18                  | CARRICK D.C.        | PORTHOLLAND BEACH           | B0581                       | SW 9598 4125 | 2J          | SQSB                   | AB                        | 274/127                              | Y                                 | C                  | 1994                                        | 20                   | S104                          | 2a west       |
| 18                  | CARRICK D.C.        | CARNE BEACH (PENDOWER)      | B0589                       | SW 9051 3831 | 2J          | SQSB                   | AB                        |                                      |                                   |                    | 1994                                        | 20<br>2<br>2         | S104<br>S102<br>S103          | 2a west       |
| 18                  | CARRICK D.C.        | CARNE BEACH - STREAM A      | B060589                     | SW 9050 3830 | 2F          | SQMR                   | AB                        |                                      |                                   |                    | 1994                                        | 20                   | S105                          |               |
| 19                  | CARRICK D.C.        | PORTHOLUNICK BEACH          | B0591                       | SW 8791 3605 | 2J          | SQSB                   | AB                        | 220/392                              |                                   | B                  | 1994                                        | 20                   | S104                          | 2a west       |
| 19                  | CARRICK D.C.        | ST. JAMES BEACH             | B0597                       | SW 8510 3300 | 2J          | SQSB                   | AB                        | 131/251                              | Y                                 | B                  | 1994                                        | 20                   | S104                          | 2a west       |
| 19B                 | CARRICK D.C.        | LCE BEACH - FLOCK           | B0595                       | SW 8260 3810 | 2J          | SQSB                   | AB                        |                                      |                                   |                    | 1994                                        | 20<br>2<br>2         | S104<br>S102<br>S103          | 3 west        |
| 26                  | N. CORNWALL D.C.    | TREBARWITH STRAND BEACH     | B0985                       | SK 0482 8638 | 2J          | SQSB                   | AB                        |                                      |                                   |                    | 1994                                        | 20<br>2<br>2         | S104<br>S102<br>S103          | 5 west        |

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION

1994 BATHING WATERS - ADDITIONAL SAMPLING PROGRAMME MAY - SEPT

PROGRAMME LAST UPDATED :

19-FEB-1993

| CATCHMENT<br>NUMBER | DISTRICT<br>COUNCIL | SITE                         | USER<br>REFERENCE<br>NUMBER | N.G.R.       | PNT<br>CODE | PURPOSE<br>CODE<br>ICL | PURPOSE<br>CODE<br>MENSAR | NUMBERS<br>OF<br>PEOPLE<br>1987/1989 | GOOD BEACH<br>GUIDE<br>DESIGNATED | DESIGNATION<br>(1) | MONITORING REQUIREMENTS |              | ANALYSIS<br>GROUPS<br>(ARG'S) | RUN<br>NUMBER |
|---------------------|---------------------|------------------------------|-----------------------------|--------------|-------------|------------------------|---------------------------|--------------------------------------|-----------------------------------|--------------------|-------------------------|--------------|-------------------------------|---------------|
|                     |                     |                              |                             |              |             |                        |                           |                                      |                                   |                    | BACTERIOLOGY (2)        | DATE         | NO. PER ANNUM<br>(3)          |               |
|                     | N. CORNWALL D.C.    | TREBARWITH STRAND - STREAM A | ECR0985                     | SK 0490 8640 | 2F          | SQNR                   | AB                        |                                      |                                   |                    | 1994                    | 20           | SI05                          | 5 west        |
| 26                  | N. CORNWALL D.C.    | CRACKINGTON HAVEN BEACH      | B0989                       | SK 1427 9690 | 2J          | SQSB                   | AB                        |                                      |                                   |                    | 1994                    | 20<br>2<br>2 | SI04<br>SI02<br>SI03          | 6a            |
|                     | N. CORNWALL D.C.    | CRACKINGTON HAVEN - STREAM A | ECR0989                     | SK 1430 9683 | 2F          | SQSB                   | AB                        |                                      |                                   |                    | 1994                    | 20           | SI05                          | 6a            |
| 27                  | N. DEVON D.C.       | BUDE - SEA POOL              | B0999                       | SS 2025 0675 | 2J          | SQSB                   | AB                        |                                      |                                   | B                  | 1994                    | 20           | SI04                          | 6a            |
| 27                  | N. DEVON D.C.       | BUDE-NORTHCOTT MOUTH         | B1003                       | SS 2010 0850 | 2J          | SQSB                   | AB                        | 133/464                              |                                   | B                  | 1994                    | 20           | SI04                          | 6a            |
| 28                  | N. DEVON D.C.       | WELCOMBE MOUTH               | B1008                       | SS 2125 1795 | 2J          | SQSB                   | AB                        | 132/-                                | Y                                 | C                  | 1994                    | 20           | SI04                          | 6b            |
| 28                  | N. DEVON D.C.       | SHIPLOD BAY                  | B1012                       | SS 2480 2740 | 2J          | SQSB                   | AB                        |                                      | Y                                 | C                  | 1994                    | 20           | SI04                          | 6b            |
| 28                  | N. DEVON D.C.       | CLOVELLY BAY                 | B1015                       | SS 3196 2472 | 2J          | SQSB                   | AB                        |                                      | Y                                 | B                  | 1994                    | 20           | SI04                          | 6b            |
| 28                  | N. DEVON D.C.       | PORTLEDGE BEACH              | B1018                       | SS 3860 2464 | 2J          | SQSB                   | AB                        |                                      | Y                                 | C                  | 1994                    | 20           | SI04                          | 6b            |
| 30                  | N. DEVON D.C.       | BARRICANE BEACH              | B1062                       | SS 4535 4450 | 2J          | SQSB                   | AB                        | 256/-                                |                                   | B                  | 1994                    | 20           | SI04                          | 7             |
| 30                  | N. DEVON D.C.       | POORHAM BAY                  | B1064                       | SS 4585 4605 | 2J          | SQSB                   | AB                        | 103/-                                |                                   | B                  | 1994                    | 20           | SI04                          | 7             |



INTERNATIONAL RIVERS AUTHORITY - SOUTH WEST FRONT  
1955 BRIDGE WATERS - JORDONVILLE RIVER NY - SEPT  
ECONOMIC LAST REMEDY :

19-FEB-1972

[illegible]

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION

1995 HUNTING WHITE - ADDITIONAL SWIMMING HODGKINS RIVER - SECT

HODGKINS LIST UPDATED : 19-FEB-1993

| STATION NUMBER | DISTRICT COUNCIL | SITE                                | USER REFERENCE NUMBER | N.G.R.       | WATER CODE | SUPPOSE CODE | SUPPOSE CODE | WATER CODE | GOOD BEACH GUIDE | DESIGNATION (1) | DATE | NO. PER ANNUM (3) | ANALYSIS GROUPS | ANALYSIS NUMBER |
|----------------|------------------|-------------------------------------|-----------------------|--------------|------------|--------------|--------------|------------|------------------|-----------------|------|-------------------|-----------------|-----------------|
| 21             | PENWITH D.C.     | PARAZION AND MOUNIS BAY - TOP TIDES | B0730                 | SW 5210 3040 | 12J        | SQ33         | AB           | AB         | Y                | B               | 1995 | 20                | SI04            | 4 west          |
| 21             | PENWITH D.C.     | PARAZION AND MOUNIS BAY - CLEAVOIR  | B0733                 | SW 4800 3100 | 12J        | SQ33         | AB           | AB         | 9/131            | B               | 1995 | 20                | SI04            | 4 west          |
| 22             | PENWITH D.C.     | ST. LEVAN BEACH                     | B0742                 | SW 3818 2186 | 12J        | SQ33         | AB           | AB         | 180/347          | C               | 1995 | 20                | SI04            | 6               |
| 22             | PENWITH D.C.     | MILL BAY - LAKE END                 | B0746                 | SW 3576 2357 | 12J        | SQ33         | AB           | AB         | -                | C               | 1995 | 20                | SI04            | 6               |
| 22             | PENWITH D.C.     | MILTSAND BAY (ESCALLS CLIFF)        | B0751                 | SW 3625 2756 | 12J        | SQ33         | AB           | AB         | 161/384          | B               | 1995 | 20                | SI04            | 6               |
| 23             | LOWICK D.C.      | CHAPEL FORTH BEACH                  | B0825                 | SW 6969 4960 | 12J        | SQ33         | AB           | AB         | 308/254          | B               | 1995 | 20                | SI04            | 2b              |
| 25             | RESTORPEL D.C.   | GREAT WESTERN BEACH                 | B0882                 | SW 8150 6190 | 12J        | SQ33         | AB           | AB         | -/540            | B               | 1995 | 20                | SI04            | 2b              |
| 25             | RESTORPEL D.C.   | TULCARNE BEACH (NEWQUAY)            | B0883                 | SW 8180 6215 |            | SQ33         | AB           | AB         | -/1650           | B               | 1995 | 20                | SI04            | 2b              |
| 25             | RESTORPEL D.C.   | ILLITY CLAZE                        | B0884                 | SW 8240 6255 |            |              | AB           | AB         | -/532            | B               | 1995 | 20                | SI04            | 2b              |
| 25             | RESTORPEL D.C.   | MILDSHERRY BEACH                    | B0886                 | SW 8305 6310 |            |              | AB           | AB         | -/196            | B               | 1995 | 20                | SI04            | 2b              |
| 26             | N. CORNWALL D.C. | TREBARTH STRAND BEACH               | B0985                 | SK 0482 8638 |            |              | AB           | AB         |                  |                 | 1995 | 20                | SI04            | 5 west          |
|                |                  | TREBARTH STRAND - STREAM A          | B0985                 | SK 0490 8640 |            |              | AB           | AB         |                  |                 |      | 2                 | SI02            |                 |
|                |                  |                                     |                       |              |            |              | AB           | AB         |                  |                 |      | 2                 | SI03            |                 |
| 26             | N. CORNWALL D.C. | CRACKINGTON HAVEN BEACH             | B0989                 | SK 1427 9690 |            |              | AB           | AB         |                  |                 | 1995 | 20                | SI04            | 6a              |
|                |                  | CRACKINGTON HAVEN - STREAM A        | B0989                 | SK 1430 9683 |            |              | AB           | AB         |                  |                 | 1995 | 2                 | SI02            |                 |
|                |                  |                                     |                       |              |            |              | AB           | AB         |                  |                 | 1995 | 2                 | SI03            |                 |
| 28             | N. DEVON D.C.    | BUCKS MILLS BEACH                   | B1017                 | SS 3518 2375 |            |              | AB           | AB         |                  | B               | 1995 | 20                | SI04            | 6b              |
| 31             | N. DEVON D.C.    | LANMOUTH - SEA FOL                  | B1089                 | SS 7200 4995 |            |              | AB           | AB         |                  | B               | 1995 | 20                | SI04            | 7               |

### 3. MARINE ALGAL MONITORING

#### 3.1 PRE-PROGRAMMED MONITORING

The only pre-programmed algal monitoring in tidal waters in this region forms part of the coastal quality programme (see section 11). In January 1993, Water Management Group accepted a set of guidelines for the procedure for recording and reporting records of algal occurrences in tidal waters in the South West region. These guidelines incorporate and build on the recommendations of the Estuarine and Marine Sub-Group of the National NRA Biology Group for the "Minimum Effort" programme of algal monitoring.

On each routine sampling visit to an EC Identified Bathing Water, the presence or absence of any algal bloom is recorded for the sampling line and beach close to the sampling line. The sea water (at the water's edge) is observed for any evidence of algal blooms. The sea offshore is observed for signs of slicks or foaming indicative of algal blooms. Where any positive observations are recorded, water samples are collected and returned to the laboratory for identification and enumeration of algae present.

Algal samples will also be collected whenever evidence of algal blooms are observed when sampling for the water contact sports, estuary quality and coastal quality routine monitoring programmes. Whenever pollution staff investigate reports of algae or fisheries staff observe signs of algae during "routine" boat trips (in estuaries and coastal areas) they will inform tidal waters section and collect samples for algal identification and enumeration.

Significant blooms are reported (on a standard form) to NRA Welsh Region for collation and forwarding to DoE via Head Office (Bristol). All other occurrences of algae are recorded and reported along with the results of microbiological sampling of bathing waters.

#### 4. WATER CONTACT SPORTS SURVEY PROGRAMME

##### 4.1 DESCRIPTION OF PROGRAMME

108 sites are being sampled on a monthly basis and analysed for microbiological parameters (total and faecal coliforms and faecal streptococci). For coastal sites, samples are collected 200m offshore (from the water's edge). Estuary samples are collected from mid estuary. Sites which are popular for watersports (e.g. windsurfing and surfing) all year round are being sampled from May to April. The remaining sites are sampled during the summer months only (May to September).

##### 4.2 REASONS FOR MONITORING

The South West is internationally recognised as a surfing venue and is also very popular for other water contact sports. The survey of bathing water quality (see section 2) has shown where water quality problems exist close to beaches. This programme will provide data on water quality further offshore.

##### 4.3 PROGRAMME INFORMATION

|                                     |   |                       |
|-------------------------------------|---|-----------------------|
| Number of sampling points, estuary  | : | 22                    |
| coastal                             | : | 78                    |
| Total                               | : | 108                   |
| Total numbers of samples            | : | 953                   |
|                                     |   | (243 estuary samples) |
| Frequency of use of Analysis        |   |                       |
| Requirement Groups (ARGs) and total |   |                       |
| numbers of determinands in brackets | : | S104 953 (21919)      |

Details of the composition of each ARG may be found in the NRA South West Region's ARG Dictionary.

##### 4.4 EXPLANATION OF SCHEDULE CONTENTS

The following table details the sampling and analysis requirements for this programme. The User Reference Number (URN) is the unique identification code for the site. It allows sample results for the site to be retrieved from the Water Quality Archive (sample database). The National Grid Reference (NGR) defines the location of the site on a map. The Material Code details the type of sample collected, for example 2J is sea water, 2F is freshwater, 2I is estuarine water. It forms part of the information about each particular sample held on the Water Quality Archive. The Purpose Code details the reason why a particular sample has been collected. For example, SQMB relates to EC Directive monitoring - bathing waters. SMRE relates to routine monitoring analysis (for EC Directives), SQMR relates to routine monitoring (in general). This code allows samples collected for particular reasons

(from one or several sites) to be retrieved from the Water Quality Archive. The Mensar Purpose Code has to be a 2 digit code. It is translated to the equivalent code (eg. SMRE) on the ICL computer, where the Water Quality Archive is held, once the data is transferred to the ICL.

#### 4.5 ENDORSEMENT

The contents of this programme have been agreed by the Water Quality Planner, Field Controller and Laboratory Controller.

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
 WATER CONTACT SPOTS - 1993 SAMPLING PROGRAM  
 PROGRAMME LAST UPDATED : 18-FEB-1993

| SITE                            | (NO. OF<br>SAMPLE<br>POINTS) | (USER<br>REFERENCE<br>NUMBER) | (N.G.R.)                     | (SAMPLING<br>PERIOD)    | (SAMPLING<br>FREQUENCY<br>(PER MONTH)) | (NO. OF<br>SAMPLES) | (MT<br>CODE) | (PURPOSE<br>CODE<br>REASON) | (PURPOSE<br>CODE<br>ICL) | (ANALYSIS REQUIRED<br>(ARG NUMBERS)) |
|---------------------------------|------------------------------|-------------------------------|------------------------------|-------------------------|----------------------------------------|---------------------|--------------|-----------------------------|--------------------------|--------------------------------------|
| LIME REGIS                      | 2                            | GWC0010<br>GWC0011            | SY 3390 9185<br>SY 3436 9212 | MAY - SEPT              | 1                                      | 10                  | 2J           | WB<br>WB                    | SQMR<br>SQMR             | S104                                 |
| AVE ESTUARY (MOUTH)             | 1                            | GWC0020                       | SY 2550 8980                 | MAY - SEPT              | 1                                      | 5                   | 2J           | WB                          | SQMR                     | S104                                 |
| SIDMOUTH                        | 2                            | GWC0040<br>GWC0041            | SY 1270 8720<br>SY 1190 8695 | MAY - SEPT              | 1                                      | 10                  | 2J           | WB<br>WB                    | SQMR<br>SQMR             | S104                                 |
| BUDLEIGH SALTERN                | 1                            | GWC0060                       | SY 0695 8190                 | MAY - SEPT              | 1                                      | 5                   | 2J           | WB                          | SQMR                     | S104                                 |
| BMOUTH                          | 1                            | GWC0080                       | SY 0098 7995                 | MAY - SEPT              | 1                                      | 5                   | 2J           | WB                          | SQMR                     | S104                                 |
| EXE ESTUARY (MOUTH)             | 1                            | GWC0085                       | SK 9990 8050                 | MAY - SEPT<br>OCT - APR | 1<br>1                                 | 5<br>7              | 2J<br>2J     | WB<br>WB                    | SQMR<br>SQMR             | S104<br>S104                         |
| TEIGN ESTUARY (MOUTH)           | 1                            | GWC0110                       | SK 9362 7225                 | MAY - SEPT<br>OCT - APR | 1<br>1                                 | 5<br>7              | 2J<br>2J     | WB<br>WB                    | SQMR<br>SQMR             | S104<br>S104                         |
| TORBAY - MEADFOOT               | 1                            | GWC0190                       | SK 9305 6305                 | MAY - SEPT              | 1                                      | 5                   | 2J           | WB                          | SQMR                     | S104                                 |
| TORBAY - TORRE ABBEY            | 1                            | GWC0210                       | SK 9095 6351                 | MAY - SEPT              | 1                                      | 5                   | 2J           | WB                          | SQMR                     | S104                                 |
| TORBAY - HOLLCOMBE              | 1                            | GWC0220                       | SK 8980 6215                 | MAY - SEPT              | 1                                      | 5                   | 2J           | WB                          | SQMR                     | S104                                 |
| TORBAY - FAIGNION/PRESTON SANDS | 2                            | GWC0230<br>GWC0231            | SK 8949 6063<br>SK 8964 6177 | MAY - SEPT              | 1                                      | 10                  | 2J<br>2J     | WB<br>WB                    | SQMR<br>SQMR             | S104                                 |
| TORBAY - COODRINGTON            | 1                            | GWC0240                       | SK 8955 6138                 | MAY - SEPT              | 1                                      | 5                   | 2J           | WB                          | SQMR                     | S104                                 |
| TORBAY - BROADSANDS             | 1                            | GWC0250                       | SK 8970 5745                 | MAY - SEPT              | 1                                      | 5                   | 2J           | WB                          | SQMR                     | S104                                 |
| DNVT ESTUARY (MOUTH)            | 1                            | GWC0280                       | SK 8870 5074                 | MAY - SEPT<br>OCT - APR | 1<br>1                                 | 5<br>7              | 2J<br>2J     | WB<br>WB                    | SQMR<br>SQMR             | S104<br>S104                         |
| BLACKPOOL SANDS                 | 1                            | GWC0290                       | SK 8550 4785                 | MAY - SEPT              | 1                                      | 5                   | 2J           | WB                          | SQMR                     | S104                                 |

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
 WATER CIRCIT STOPS - 1993 SWELLING PROGRAM  
 INFORMATION LAST UPDATED : 18-FEB-1993

| DATE                     | NO. OF<br>SAMPLE<br>POINTS | USER               | W.G.R.                       | SAMPLE<br>PERIOD<br>(MONTHS) | SAMPLE<br>FREQUENCY<br>(PER MONTH) | NO. OF<br>SAMPLES | WET<br>CODE | WET<br>CODE<br>PENGAR | WET<br>CODE<br>ICL | WET<br>CODE<br>ICL |
|--------------------------|----------------------------|--------------------|------------------------------|------------------------------|------------------------------------|-------------------|-------------|-----------------------|--------------------|--------------------|
| SALVOE ESTUARY (MOUTH)   | 1                          | 0400320            | SK 7324 3750                 | MAY - SEPT                   | 1                                  | 5                 | 27          | WB                    | SQPR               | SI04               |
|                          |                            |                    |                              | OCT - APR                    | 1                                  | 7                 | 27          | WB                    | SQPR               | SI04               |
| JAVON ESTUARY (MOUTH)    | 1                          | 0400355            | SK 6560 4370                 | MAY - SEPT                   | 1                                  | 5                 | 27          | WB                    | SQPR               | SI04               |
| BANDRAM BEACH            | 1                          | 0400360            | SK 6623 4380                 | MAY - SEPT                   | 1                                  | 5                 | 27          | WB                    | SQPR               | SI04               |
| HUGHERY (NORTH) BEACH    | 1                          | 0400371            | SK 6495 4430                 | MAY - SEPT                   | 1                                  | 5                 | 27          | WB                    | SQPR               | SI04               |
| HUGHERY (SOUTH) BEACH    | 1                          | 0400370            | SK 6510 4415                 | MAY - SEPT                   | 1                                  | 5                 | 27          | WB                    | SQPR               | SI04               |
| NEZAM ESTUARY (MOUTH)    | 1                          | 0400395            | SK 4775 5300                 | MAY - SEPT                   | 1                                  | 5                 | 27          | WB                    | SQPR               | SI04               |
| BOVISAND BEACH           | 1                          | 0400410            | SK 493 505                   | MAY - SEPT                   | 1                                  | 5                 | 27          | WB                    | SQPR               | SI04               |
| PLUMCOTH SOUND (THE HEE) | 2                          | 0400420<br>0400421 | SK 478 537<br>SK 475 537     | MAY - SEPT                   | 1                                  | 10                | 27          | WB                    | SQPR               | SI04               |
|                          |                            |                    |                              | OCT - APR                    | 1                                  | 14                | 27          | WB                    | SQPR               | SI04               |
| TOWAR ESTUARY            | 2                          | 0400482<br>0400486 | SK 4350 5905<br>SK 4425 5580 | MAY - SEPT                   | 1                                  | 10                | 27          | WB                    | SQPR               | SI04               |
|                          |                            |                    |                              | OCT - APR                    | 1                                  | 14                | 27          | WB                    | SQPR               | SI04               |
| SEZTON                   | 1                          | 0400450            | SK 303 543                   | MAY - SEPT                   | 1                                  | 5                 | 27          | WB                    | SQPR               | SI04               |
|                          |                            |                    |                              | OCT - APR                    | 1                                  | 7                 | 27          | WB                    | SQPR               | SI04               |
| EAST LOOE BEACH          | 1                          | 0400470            | SK 257 532                   | MAY - SEPT                   | 1                                  | 5                 | 27          | WB                    | SQPR               | SI04               |
| POVEY ESTUARY (MOUTH)    | 1                          | 0400480            | SK 1200 5100                 | MAY - SEPT                   | 1                                  | 5                 | 27          | WB                    | SQPR               | SI04               |
|                          |                            |                    |                              | OCT - APR                    | 1                                  | 7                 | 27          | WB                    | SQPR               | SI04               |
| ST AUSTELL BAY (BAY)     | 1                          | 0400500            | SK 083 533                   | MAY - SEPT                   | 1                                  | 5                 | 27          | WB                    | SQPR               | SI04               |

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MONITORING LAST UPDATED : 18-FEB-1993

| SITE                      | REV# | NO. OF<br>SAMPLE<br>POINTS | USER<br>REFERENCE<br>NUMBER | N.G.R.                       | SYNTETIC<br>PERIOD<br>(MONTHS) | SAMPLING<br>FREQUENCY<br>(PER PERIOD) | RAWL<br>NO. OF<br>SAMPLES | 1ST<br>CODE | FUTURE<br>CODE<br>FENSER | FUTURE<br>CODE<br>ICL | ANALYSIS REQUIRED<br>(ARG NUMBERS) |
|---------------------------|------|----------------------------|-----------------------------|------------------------------|--------------------------------|---------------------------------------|---------------------------|-------------|--------------------------|-----------------------|------------------------------------|
| HENDON SANDS              | 1    |                            | 1040540                     | SK 018 467                   | MAY - SEPT                     | 1                                     | 5                         | 2J          | WB                       | SQR                   | S104                               |
|                           | 1    |                            | 1040550                     | SK 017 454                   | MAY - SEPT                     | 1                                     | 5                         | 2J          | WB                       | SQR                   | S104                               |
| DEWGLASSEY (POLSTREATH)   | 2    |                            | 1040946<br>1040947          | SW 8300 3633<br>SW 8300 3363 | MAY - SEPT                     | 1                                     | 10                        | 2J          | WB                       | SQR                   | S104                               |
|                           | 1    |                            |                             |                              | OCT - APR                      | 1                                     | 14                        | 2J          | WB                       | SQR                   | S104                               |
| FAL (CARTON FORDS)        | 1    |                            | 1040600                     | SW 809 316                   | MAY - SEPT                     | 1                                     | 5                         | 2J          | WB                       | SQR                   | S104                               |
|                           | 1    |                            | 1040610                     | SW 803 313                   | MAY - SEPT                     | 1                                     | 5                         | 2J          | WB                       | SQR                   | S104                               |
| HILFORD ESTUARY           | 2    |                            | 1040625<br>1040626          | SW 7749 2726<br>SW 7637 2627 | MAY - SEPT                     | 1                                     | 10                        | 2J          | WB                       | SQR                   | S104                               |
|                           | 1    |                            | 1040640                     | SW 807 217                   | MAY - SEPT                     | 1                                     | 5                         | 2J          | WB                       | SQR                   | S104                               |
| PORTHOLEVEN BEACH         | 1    |                            | 1040660                     | SW 734 165                   | MAY - SEPT                     | 1                                     | 5                         | 2J          | WB                       | SQR                   | S104                               |
|                           | 1    |                            | 1040668                     | SW 6662 1790                 | MAY - SEPT                     | 1                                     | 5                         | 2J          | WB                       | SQR                   | S104                               |
| PORTHOLEVEN BEACH         | 1    |                            | 1040701                     | SW 632 253                   | MAY - SEPT                     | 1                                     | 5                         | 2J          | WB                       | SQR                   | S104                               |
|                           | 2    |                            | 1040710<br>1040711          | SW 585 276<br>SW 577 281     | MAY - SEPT                     | 1                                     | 10                        | 2J<br>2J    | WB<br>WB                 | SQR<br>SQR            | S104                               |
| PRAA SANDS                | 1    |                            | 1040720                     | SW 539 293                   | MAY - SEPT                     | 1                                     | 5                         | 2J          | WB                       | SQR                   | S104                               |
|                           | 1    |                            | 1040731                     | SW 513 310                   | MAY - SEPT                     | 1                                     | 5                         | 2J          | WB                       | SQR                   | S104                               |
| MOUNTS BAY - LITTLE IDOLS | 1    |                            |                             |                              | OCT - APR                      | 1                                     | 7                         | 2J          | WB                       | SQR                   | S104                               |
|                           | 1    |                            | 1040732                     | SW 485 311                   | MAY - SEPT                     | 1                                     | 5                         | 2J          | WB                       | SQR                   | S104                               |
| MOUNTS BAY - PENANCE      | 1    |                            | 1040734                     | SW 475 298                   | MAY - SEPT                     | 1                                     | 5                         | 2J          | WB                       | SQR                   | S104                               |



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| SITE                        | PMV.<br>NO. OF<br>SAMPLE<br>POINTS | UGER<br>REFERENCE<br>NUMBER | N.G.R.       | SAMPLING<br>PERIOD<br>(MONTHS) | SAMPLING<br>FREQUENCY<br>(PER MONTH) | PMV.<br>NO. OF<br>SAMPLES | FTT<br>CODE | FURFOGE<br>CODE<br>NENEAR | FURFOGE<br>CODE<br>ICL | ANALYSIS REQUIRED<br>(ARG NUMBERS) |
|-----------------------------|------------------------------------|-----------------------------|--------------|--------------------------------|--------------------------------------|---------------------------|-------------|---------------------------|------------------------|------------------------------------|
|                             |                                    |                             |              | OCT - APR                      | 1                                    | 7                         | 2J          | WB                        | SQMR                   | S104                               |
| MOUNTS BAY - WHERRY TOWN    | 1                                  | GW0735                      | SW 467 294   | MAY - SEPT                     | 1                                    | 5                         | 2J          | WB                        | SQMR                   | S104                               |
|                             |                                    |                             |              | OCT - APR                      | 1                                    | 7                         | 2J          | WB                        | SQMR                   | S104                               |
| MOUSEHOLE                   | 2                                  | GW0738                      | SW 4700 2630 | MAY - SEPT                     | 1                                    | 10                        | 2J          | WB                        | SQMR                   | S104                               |
|                             |                                    | GW0736                      | SW 4719 2646 |                                |                                      |                           | 2J          | WB                        | SQMR                   |                                    |
|                             |                                    |                             |              | OCT - APR                      | 1                                    | 14                        | 2J          | WB                        | SQMR                   | S104                               |
| LANDRA COVE                 | 2                                  | GW0739                      | SW 4540 2395 | MAY - SEPT                     | 1                                    | 10                        | 2J          | WB                        | SQMR                   | S104                               |
|                             |                                    | GW0737                      | SW 4500 2374 |                                |                                      |                           | 2J          | WB                        | SQMR                   |                                    |
|                             |                                    |                             |              | OCT - APR                      | 1                                    | 14                        | 2J          | WB                        | SQMR                   | S104                               |
| FORTHOUND BEACH             | 1                                  | GW0740                      | SW 387 223   | MAY - SEPT                     | 1                                    | 5                         | 2J          | WB                        | SQMR                   | S104                               |
|                             |                                    |                             |              | OCT - APR                      | 1                                    | 7                         | 2J          | WB                        | SQMR                   | S104                               |
| MILL BAY                    | 2                                  | GW0745                      | SW 3570 2340 | MAY - SEPT                     | 1                                    | 10                        | 2J          | WB                        | SQMR                   | S104                               |
|                             |                                    | GW0746                      | SW 3520 2385 |                                |                                      |                           | 2J          | WB                        | SQMR                   |                                    |
|                             |                                    |                             |              | OCT - APR                      | 1                                    | 14                        | 2J          | WB                        | SQMR                   | S104                               |
| SENNEN COVE                 | 1                                  | GW0750                      | SW 3552 2645 | MAY - SEPT                     | 1                                    | 5                         | 2J          | WB                        | SQMR                   | S104                               |
|                             |                                    |                             |              | OCT - APR                      | 1                                    | 7                         | 2J          | WB                        | SQMR                   | S104                               |
| ST IVES BAY - RORTHMEER     | 1                                  | GW0760                      | SW 5150 4103 | MAY - SEPT                     | 1                                    | 5                         | 2J          | WB                        | SQMR                   | S104                               |
|                             |                                    |                             |              | OCT - APR                      | 1                                    | 7                         | 2J          | WB                        | SQMR                   | S104                               |
| ST. IVES BAY - RORTHOWDEN   | 1                                  | GW0770                      | SW 522 411   | MAY - SEPT                     | 1                                    | 5                         | 2J          | WB                        | SQMR                   | S104                               |
|                             |                                    |                             |              | OCT - APR                      | 1                                    | 7                         | 2J          | WB                        | SQMR                   | S104                               |
| ST. IVES BAY - FORTHMINSTER | 1                                  | GW0780                      | SW 5220 4025 | MAY - SEPT                     | 1                                    | 5                         | 2J          | WB                        | SQMR                   | S104                               |
|                             |                                    |                             |              | OCT - APR                      | 1                                    | 7                         | 2J          | WB                        | SQMR                   | S104                               |
| CHARLES BAY - STATION BEACH | 1                                  | GW0790                      | SW 528 389   | MAY - SEPT                     | 1                                    | 5                         | 2J          | WB                        | SQMR                   | S104                               |

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| SITE                             | RAWL<br>NO. OF<br>SAMPLE<br>POINTS | USER<br>REFERENCE<br>NUMBER | N.G.R.                   | SAMPLING<br>PERIOD<br>(MONTHS) | SAMPLING<br>FREQUENCY<br>(PER MONTH) | RAWL<br>NO. OF<br>SAMPLES | MT<br>CODE | REFUSE<br>CODE<br>MENGAR | REFUSE<br>CODE<br>ICL | REFUSE<br>ANALYSIS REQUIRED<br>(ANAL NUMBERS) |
|----------------------------------|------------------------------------|-----------------------------|--------------------------|--------------------------------|--------------------------------------|---------------------------|------------|--------------------------|-----------------------|-----------------------------------------------|
|                                  |                                    |                             |                          | OCT - APR                      | 1                                    | 7                         | 2J         | WB                       | SQR                   | SI04                                          |
| CHARLES BAY - PORCH KIDNEY SANDS | 1                                  | OKCD791                     | SW 540 385               | MAY - SEPT                     | 1                                    | 5                         | 2J         | WB                       | SQR                   | SI04                                          |
|                                  |                                    |                             |                          | OCT - APR                      | 1                                    | 7                         | 2J         | WB                       | SQR                   | SI04                                          |
| HARLE - TOWNS                    | 1                                  | OKCD800                     | SW 563 395               | MAY - SEPT                     | 1                                    | 5                         | 2J         | WB                       | SQR                   | SI04                                          |
|                                  |                                    |                             |                          | OCT - APR                      | 1                                    | 7                         | 2J         | WB                       | SQR                   | SI04                                          |
| HARLE - COBBENY                  | 1                                  | OKCD801                     | SW 581 417               | MAY - SEPT                     | 1                                    | 5                         | 2J         | WB                       | SQR                   | SI04                                          |
|                                  |                                    |                             |                          | OCT - APR                      | 1                                    | 7                         | 2J         | WB                       | SQR                   | SI04                                          |
| RODRIGUEZ BEACH                  | 1                                  | OKCD810                     | SW 653 455               | MAY - SEPT                     | 1                                    | 5                         | 2J         | WB                       | SQR                   | SI04                                          |
|                                  |                                    |                             |                          | OCT - APR                      | 1                                    | 7                         | 2J         | WB                       | SQR                   | SI04                                          |
| RODRIGUEZ BEACH                  | 1                                  | OKCD820                     | SW 6915 4812             | MAY - SEPT                     | 1                                    | 5                         | 2J         | WB                       | SQR                   | SI04                                          |
|                                  |                                    |                             |                          | OCT - APR                      | 1                                    | 7                         | 2J         | WB                       | SQR                   | SI04                                          |
| ST AGNES - TREVAINNE COVE        | 1                                  | OKCD830                     | SW 723 517               | MAY - SEPT                     | 1                                    | 5                         | 2J         | WB                       | SQR                   | SI04                                          |
|                                  |                                    |                             |                          | OCT - APR                      | 1                                    | 7                         | 2J         | WB                       | SQR                   | SI04                                          |
| FERRARDOETH                      | 2                                  | OKCD840<br>OKCD841          | SW 757 548<br>SW 762 570 | MAY - SEPT                     | 1                                    | 10                        | 2J         | WB                       | SQR                   | SI04                                          |
|                                  |                                    |                             |                          | OCT - APR                      | 1                                    | 14                        | 2J         | WB                       | SQR                   | SI04                                          |
| HOLWELL BAY BEACH                | 1                                  | OKCD850                     | SW 765 595               | MAY - SEPT                     | 1                                    | 5                         | 2J         | WB                       | SQR                   | SI04                                          |
|                                  |                                    |                             |                          | OCT - APR                      | 1                                    | 7                         | 2J         | WB                       | SQR                   | SI04                                          |
| CRANTOCK BEACH                   | 1                                  | OKCD860                     | SW 784 608               | MAY - SEPT                     | 1                                    | 5                         | 2J         | WB                       | SQR                   | SI04                                          |
|                                  |                                    |                             |                          | OCT - APR                      | 1                                    | 7                         | 2J         | WB                       | SQR                   | SI04                                          |
| NEQUIN - FISTAL BEACH            | 1                                  | OKCD870                     | SW 7960 6230             | MAY - SEPT                     | 1                                    | 5                         | 2J         | WB                       | SQR                   | SI04                                          |

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| SITE                            | NOVA<br>ID OF<br>ISLE<br>POINTS | USER<br>REFERENCE<br>NUMBER | N.G.R.                       | SAMPLING<br>PERIOD<br>(MONTHS) | CYCLING<br>FREQUENCY<br>(PER MONTH) | ANAL.<br>NO. OF<br>SAMPLES | ICP<br>CODE | TUTOS<br>CODE<br>NET-ER | TUTOS<br>CODE<br>ICL | ANALYSIS REQUIRED<br>(ARG NUMBERS) |
|---------------------------------|---------------------------------|-----------------------------|------------------------------|--------------------------------|-------------------------------------|----------------------------|-------------|-------------------------|----------------------|------------------------------------|
| MENDRAY - TOWN BEACH            |                                 |                             |                              | OCT - APR                      | 1                                   | 7                          | 2J          | WB                      | SQR                  | SI04                               |
|                                 | 1                               | JOC0880                     | SW 8100 6205                 | MAY - SEPT                     | 1                                   | 5                          | 2J          | WB                      | SQR                  | SI04                               |
|                                 |                                 |                             |                              | OCT - APR                      | 1                                   | 7                          | 2J          | WB                      | SQR                  | SI04                               |
| MURKESIDE BAY BEACH             | 1                               | JOC0890                     | SW 8411 649                  | MAY - SEPT                     | 1                                   | 5                          | 2J          | WB                      | SQR                  | SI04                               |
|                                 |                                 |                             |                              | OCT - APR                      | 1                                   | 7                          | 2J          | WB                      | SQR                  | SI04                               |
|                                 |                                 |                             |                              |                                |                                     |                            |             |                         |                      |                                    |
| MURKIN FORTH                    | 1                               | JOC0900                     | SW 848 674                   | MAY - SEPT                     | 1                                   | 5                          | 2J          | WB                      | SQR                  | SI04                               |
|                                 |                                 |                             |                              | OCT - APR                      | 1                                   | 7                          | 2J          | WB                      | SQR                  | SI04                               |
|                                 |                                 |                             |                              |                                |                                     |                            |             |                         |                      |                                    |
| PORT EDITH BEACH                | 2                               | JOC0905<br>JOC0906          | SW 8525 7205<br>SW 8535 7242 | MAY - SEPT                     | 1                                   | 10                         | 2J          | WB                      | SQR                  | SI04                               |
|                                 |                                 |                             |                              | OCT - APR                      | 1                                   | 14                         | 2J          | WB                      | SQR                  | SI04                               |
|                                 |                                 |                             |                              |                                |                                     |                            |             |                         |                      |                                    |
| CONSTANCE BAY BEACH             | 1                               | JOC0920                     | SW 858 748                   | MAY - SEPT                     | 1                                   | 5                          | 2J          | WB                      | SQR                  | SI04                               |
|                                 |                                 |                             |                              | OCT - APR                      | 1                                   | 7                          | 2J          | WB                      | SQR                  | SI04                               |
|                                 |                                 |                             |                              |                                |                                     |                            |             |                         |                      |                                    |
| MOTHER INEY'S BAY BEACH         | 1                               | JOC0930                     | SW 863 760                   | MAY - SEPT                     | 1                                   | 5                          | 2J          | WB                      | SQR                  | SI04                               |
|                                 |                                 |                             |                              | OCT - APR                      | 1                                   | 7                          | 2J          | WB                      | SQR                  | SI04                               |
|                                 |                                 |                             |                              |                                |                                     |                            |             |                         |                      |                                    |
| HARLEN BAY BEACH                | 1                               | JOC0940                     | SW 877 755                   | MAY - SEPT                     | 1                                   | 5                          | 2J          | WB                      | SQR                  | SI04                               |
|                                 |                                 |                             |                              | OCT - APR                      | 1                                   | 7                          | 2J          | WB                      | SQR                  | SI04                               |
|                                 |                                 |                             |                              |                                |                                     |                            |             |                         |                      |                                    |
| TREANE BAY BEACH                | 1                               | JOC0950                     | SW 892 761                   | MAY - SEPT                     | 1                                   | 5                          | 2J          | WB                      | SQR                  | SI04                               |
|                                 |                                 |                             |                              | OCT - APR                      | 1                                   | 7                          | 2J          | WB                      | SQR                  | SI04                               |
|                                 |                                 |                             |                              |                                |                                     |                            |             |                         |                      |                                    |
| HOLZTUN BEACH                   | 1                               | JOC0980                     | SW 936 792                   | MAY - SEPT                     | 1                                   | 5                          | 2J          | WB                      | SQR                  | SI04                               |
| CIVEL ESTUARY - OFF GENTLE JIVE | 2                               | JOC2542<br>JOC2543          | SW 9350 7530<br>SW 9400 7471 | MAY - SEPT                     | 1                                   | 10                         | 2J          | WB                      | SQR                  | SI04                               |
|                                 |                                 |                             |                              |                                |                                     |                            |             |                         |                      |                                    |
| FREEMANTH STRAND                | 2                               | JOC0985                     | SK 0482 8638                 | MAY - SEPT                     | 1                                   | 10                         | 2J          | WB                      | SQR                  | SI04                               |

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| SITE                             | NO. OF<br>SAMPLE<br>POINTS | USER<br>REFERENCE<br>NUMBER | N.G.R.       | SAMPLING<br>PERIOD<br>(MONTHS) | SAMPLING<br>FREQUENCY<br>(PER MONTH) | NO. OF<br>SAMPLES | PAT<br>CODE | PURPOSE<br>CODE<br>MENSUR | PURPOSE<br>CODE<br>ICL | ANALYSIS REQUIRED<br>(ARG NUMBERS) |
|----------------------------------|----------------------------|-----------------------------|--------------|--------------------------------|--------------------------------------|-------------------|-------------|---------------------------|------------------------|------------------------------------|
|                                  |                            | GAC0986                     | SX 0490 8675 |                                |                                      |                   | 2J          | WB                        | SQMR                   |                                    |
| CRACKINGTON HAVEN                | 2                          | GAC0989                     | SX 1427 9690 | MAY - SEPT                     | 1                                    | 10                | 2J          | WB                        | SQMR                   | S104                               |
|                                  |                            | GAC0987                     | SX 1410 9675 |                                |                                      |                   | 2J          | WB                        | SQMR                   |                                    |
| WIDEMOUTH SAND                   | 1                          | GAC0990                     | SS 198 024   | MAY - SEPT                     | 1                                    | 5                 | 2J          | WB                        | SQMR                   | S104                               |
| BLIDE - CROCKLETS BEACH          | 1                          | GAC1001                     | SS 203 072   | MAY - SEPT                     | 1                                    | 5                 | 2J          | WB                        | SQMR                   | S104                               |
| BLIDE - SUMMERLEAZE BEACH        | 1                          | GAC1000                     | SS 204 066   | MAY - SEPT                     | 1                                    | 5                 | 2J          | WB                        | SQMR                   | S104                               |
| BLIDE - SANDY MOUTH              | 1                          | GAC1002                     | SS 202 099   | MAY - SEPT                     | 1                                    | 5                 | 2J          | WB                        | SQMR                   | S104                               |
| WELCOMBE MOUTH                   | 2                          | GAC1008                     | SS 2100 1800 | MAY - SEPT                     | 1                                    | 10                | 2J          | WB                        | SQMR                   | S104                               |
|                                  |                            | GAC1009                     | SS 2085 1865 |                                |                                      |                   | 2J          | WB                        | SQMR                   |                                    |
|                                  |                            |                             |              | OCT - APR                      | 1                                    | 14                | 2J          | WB                        | SQMR                   | S104                               |
| CLOVELLY BEACH                   | 2                          | GAC1015                     | SS 3135 2554 | MAY - SEPT                     | 1                                    | 10                | 2J          | WB                        | SQMR                   | S104                               |
|                                  |                            | GAC1016                     | SS 3200 2468 |                                |                                      |                   | 2J          | WB                        | SQMR                   |                                    |
|                                  |                            |                             |              | OCT - APR                      | 1                                    | 14                | 2J          | WB                        | SQMR                   | S104                               |
| SPEKE'S MOUTH (NR. HARLAND QUAY) | 2                          | GAC1010                     | SS 2210 2316 | MAY - SEPT                     | 1                                    | 10                | 2J          | WB                        | SQMR                   | S104                               |
|                                  |                            | GAC1011                     | SS 2225 2400 |                                |                                      |                   | 2J          | WB                        | SQMR                   |                                    |
|                                  |                            |                             |              | OCT - APR                      | 1                                    | 14                | 2J          | WB                        | SQMR                   | S104                               |
| WESTWARD HO!                     | 1                          | GAC1020                     | SS 4325 2940 | MAY - SEPT                     | 1                                    | 5                 | 2J          | WB                        | SQMR                   | S104                               |
|                                  |                            |                             |              | OCT - APR                      | 1                                    | 7                 | 2J          | WB                        | SQMR                   | S104                               |
| TDW ESTUARY (OFF YELLAND)        | 1                          | GAC1018                     | SS 4700 3200 | MAY - SEPT                     | 1                                    | 5                 | 2J          | WB                        | SQMR                   | S104                               |
| MORRIDGE ESTUARY (OFF INSTOW)    | 1                          | GAC1030                     | SS 4685 3048 | MAY - SEPT                     | 1                                    | 5                 | 2J          | WB                        | SQMR                   | S104                               |
| STANTON SANDS                    | 1                          | GAC1040                     | SS 4455 3760 | MAY - SEPT                     | 1                                    | 5                 | 2J          | WB                        | SQMR                   | S104                               |
|                                  |                            |                             |              | OCT - APR                      | 1                                    | 7                 | 2J          | WB                        | SQMR                   | S104                               |
| CHOWDE BAY BEACH                 | 1                          | GAC1050                     | SS 4347 3930 | MAY - SEPT                     | 1                                    | 5                 | 2J          | WB                        | SQMR                   | S104                               |

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| SITE                  | FAWEL<br>ID. OF<br>SAMPLE<br>POINTS | USER<br>REFERENCE<br>NUMBER | N.G.R.       | SAMPLING<br>PERIOD<br>(MONTHS) | SAMPLING<br>FREQUENCY<br>(PER MONTH) | FAWEL<br>ID. OF<br>SAMPLES | WPT<br>CODE | PURPOSE<br>CODE<br>PENGWR | PURPOSE<br>CODE<br>ICL | ANALYSIS REQUIRED<br>(ARG NUMBERS) |
|-----------------------|-------------------------------------|-----------------------------|--------------|--------------------------------|--------------------------------------|----------------------------|-------------|---------------------------|------------------------|------------------------------------|
|                       |                                     |                             |              | OCT - APR                      | 1                                    | 7                          | 2J          | WB                        | SQWR                   | S104                               |
| MOOLACOMBEE BAY BEACH | 2                                   | OWC1060                     | SS 4475 4085 | MAY - SEPT                     | 1                                    | 10                         | 2J          | WB                        | SQWR                   | S104                               |
|                       |                                     | OWC1061                     | SS 4562 4370 |                                |                                      |                            | 2J          | WB                        | SQWR                   |                                    |
|                       |                                     |                             |              | OCT - APR                      | 1                                    | 14                         | 2J          | WB                        | SQWR                   | S104                               |
| TOTAL :               |                                     |                             |              | TOTAL :                        |                                      |                            |             |                           |                        |                                    |
| 108                   |                                     |                             |              | 953                            |                                      |                            |             |                           |                        |                                    |

NOTES : (1) TOTAL COLIFORMS PER 100 ml, FACIAL COLIFORMS PER 100ml, FACIAL STREPTOCOCCI PER 100ml  
 SALINITY

## **5. EC DANGEROUS SUBSTANCES DIRECTIVE PROGRAMME**

### **5.1 DESCRIPTION OF PROGRAMME**

In the South West, 257 (discharges, estuary and coastal waters) sites are routinely sampled in accordance with the requirements of the EC Dangerous Substances Directive. Samples are collected up to 12 times per year for specified List I and List II Substances. Sample points are chosen so they are in the area affected by the discharge. In addition, monitoring is undertaken at sites away from the influence of the discharge (network sites) to determine background or environmental levels for each substance.

### **5.2 REASON FOR MONITORING**

The objectives of the programme are both to meet the monitoring requirements of the Directive and to identify sources of List I and List II substances requiring control. This process also assists in the development of management plans for improvement. For each discharge of a List I and/or List II Substance, the NRA as the competent authority, must be able to demonstrate, by monitoring at suitable sites, that the appropriate EQSs for the receiving water are being met.

The EC Directive on "pollution caused by the discharge of dangerous substances into the aquatic environment" (76/464/EEC) defined the requirements for List I and List II Substances and is the parent directive from which subsequent daughter directives, setting down Environmental Quality Substances and limit values for particular substances, have been derived. Daughter directives exist for mercury, cadmium and its compounds, hexachlorocyclohexane, carbon tetrachloride, DDT, pentachlorophenol, aldrin dieldrin, endrin, isodrin, hexachlorobutadiene, chloroform, hexachlorobenzene, dichloroethane, trichloroethylene, perchloroethylene and trichlorobenzene.

The requirements of these Directives (except the one covering the last 4 substances listed above) were translated into national legislation by the Surface Water (Dangerous Substances) (Classification) Regulations 1989 (SI 1989/2286). Subsequent to this, a Regulation (SI 1992/337) has now been issued to cover the last 4 Substances Listed above. Further Regulations will be issued from time to time (by the DoE) to include other List I Substances as new daughter directives are issued.

### **5.3 PROGRAMME INFORMATION**

|                                                 |   |                     |
|-------------------------------------------------|---|---------------------|
| Numbers of sampling points                      | : | 282 (177 estuaries) |
| Numbers of samples                              | : | 1661                |
| Frequency of use of Analysis Requirement Groups | : |                     |

| ARG<br>Numbers | Frequency | Total<br>Number of<br>Determinands | ARG<br>Numbers | Frequency | Total<br>Number of<br>Determinands |
|----------------|-----------|------------------------------------|----------------|-----------|------------------------------------|
| S143           | 57        | 3420                               | S454           | 23        | 552                                |
| S144           | 45        | 2655                               | S459           | 6         | 282                                |
| S145           | 12        | 540                                | S509           | 3         | 39                                 |
| S146           | 24        | 1080                               | S510           | 123       | 1722                               |
| S148           | 12        | 432                                | S511           | 24        | 768                                |
| S149           | 15        | 525                                | S512           | 3         | 39                                 |
| S151           | 15        | 615                                | S513           | 63        | 189                                |
| S152           | 12        | 156                                | S514           | 15        | 135                                |
| S153           | 9         | 126                                | S515           | 9         | 261                                |
| S154           | 24        | 312                                | S516           | 36        | 1980                               |
| S155           | 12        | 120                                | S517           | 24        | 216                                |
| S156           | 69        | 276                                | S518           | 12        | 648                                |
| S157           | 33        | 132                                | S519           | 36        | 1440                               |
| S158           | 45        | 225                                | S520           | 27        | 567                                |
| S159           | 24        | 288                                | S521           | 24        | 264                                |
| S160           | 6         | 60                                 | S522           | 15        | 435                                |
| S161           | 24        | 408                                | S523           | 36        | 1080                               |
| S163           | 9         | 36                                 | S524           | 12        | 204                                |
| S164           | 36        | 144                                | S526           | 18        | 396                                |
| S165           | 1         | 64                                 | S527           | 12        | 204                                |
| S166           | 200       | 6200                               | S528           | 36        | 324                                |
| S167           | 231       | 7161                               | S529           | 3         | 72                                 |
| S168           | 327       | 5232                               | S531           | 6         | 54                                 |
| S169           | 93        | 1395                               | S532           | 3         | 66                                 |
| S170           | 79        | 1264                               | S533           | 3         | 165                                |
| S171           | 153       | 2754                               | S534           | 36        | 360                                |
| S172           | 19        | 342                                | S535           | 15        | 675                                |
| S173           | 24        | 24                                 | S536           | 12        | 492                                |
| S174           | 15        | 15                                 | S537           | 3         | 66                                 |
| S175           | 84        | 84                                 | S538           | 6         | 216                                |
| S176           | 59        | 236                                | S539           | 9         | 9                                  |
| S177           | 187       | 935                                |                |           |                                    |
| S178           | 59        | 590                                |                |           |                                    |
| S180           | 12        | 96                                 |                |           |                                    |
| S449           | 75        | 75                                 |                |           |                                    |
| S450           | 20        | 160                                |                |           |                                    |
| S451           | 93        | 93                                 |                |           |                                    |
| S452           | 1         | 1                                  |                |           |                                    |
| S453           | 2         | 36                                 |                |           |                                    |

Details of the composition of each ARG may be found in the NRA South West Region's ARG Dictionary.

#### 5.4 EXPLANATION OF SCHEDULE CONTENTS

The following table details the sampling and analysis requirements for this programme. The User Reference Number (URN) is the unique identification code for the site. It allows sample results for the site to be retrieved from the Water Quality Archive (sample database). The National Grid Reference (NGR) defines the location of the site on a map. The Material Code details the type of sample collected, for example 2J is sea water, 2F is freshwater, 2I is estuarine water. It forms part of the information about each particular sample held on the Water Quality Archive. The Purpose Code details the reason why a particular sample has been collected. For example, SQMB relates to EC Directive monitoring - bathing waters. SMRE relates to routine monitoring analysis (for EC Directives), SQMR relates to routine monitoring (in general). This code allows samples collected for particular reasons (from one or several sites) to be retrieved from the Water Quality Archive. The Mensar Purpose Code has to be a 2 digit code. It is translated to the equivalent code (eg. SMRE) on the ICL computer, where the Water Quality Archive is held, once the data is transferred to the ICL.

#### 5.5 ENDORSEMENT

The contents of this programme have been agreed by the Water Quality Planner, Field Controller and Laboratory Controller.



OC = ORGANIC CHLORINE PESTICIDES  
PCP = PENTACHLOROPHENOL  
TET = TETRACHLORIN COMPOUNDS

PY = PYRETHROID PESTICIDES      OP+ON = ORGANO-P & ORGANO-N COMPOUNDS  
 SAN = ROUTINE SANITARY AND COD      Cd L2 = Cd & List 2 METALS  
 VOC = VOLATILE ORGANO-CHLORINE COMPOUNDS

[illegible]

PY = PYRETHROID PESTICIDES      OP4ON = ORGANO-P & ORGANO-N COMBOS  
SAN = ROUTINE SANITARY AND COD      CH 12 = CH & List 2 METALS  
VOC = VOLATILE ORGANO-CHLORINE COMPOUNDS

VOC = VOLATILE ORGANIC CHLORINE COMPOUNDS

[illegible]

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
 MONITORING PROGRAMME FOR 20 DANGEROUS SUBSTANCES DIRECTIVE (76/464/EEC) - 1993  
 PROGRAMME LAST UPDATED: 15-FEB-1993  
 \*\* Note: in 1993 this is the MINIMUM number of results required

OC = ORGANOCHLORINE PESTICIDES  
 PCP = PENTACHLOROPHENOL  
 TBT = ORGANTIN COMPOUNDS

PY = PYRETHROID PESTICIDES  
 SAN = ROUTINE SANITARY AND COD  
 VOC = VOLATILE ORGANO-CHLORINE COMPOUNDS  
 OP-ON = ORGANO-P & ORGANO-N COMPOUNDS  
 Cd L2 = Cd & List 2 METALS

| DISCHARGE           | MONITORING POINT NAME  | USER<br>REFERENCE<br>NUMBER | NATIONAL<br>GRID<br>REFERENCE | PURP CODE<br>[MEN-]<br>[SAR] | MRT.<br>ICL<br>CODE | TIDAL<br>[STAGE] | MAX<br>SAMP<br>FREQ | SAMPLING FREQUENCY |      |    |     |     |     |     |     |    |     |     |    |       |      | SEDIMENTS |      |      |          | DISCHARGES |          |          |          | ANALYSIS REQUIREMENT GROUP |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |  |
|---------------------|------------------------|-----------------------------|-------------------------------|------------------------------|---------------------|------------------|---------------------|--------------------|------|----|-----|-----|-----|-----|-----|----|-----|-----|----|-------|------|-----------|------|------|----------|------------|----------|----------|----------|----------------------------|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|--|
|                     |                        |                             |                               |                              |                     |                  |                     | Hy                 | CHL2 | As | OC1 | OC2 | VOC | PCP | TBT | pH | OP1 | OP2 | PY | MEDAL | OC'S | EDC1      | SAN1 | SAN2 | ARG FREQ | ARG FREQ   | ARG FREQ | ARG FREQ | ARG FREQ | ARG FREQ                   |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |   |  |  |
| 11A CARPENTERS ROCK | DISCHARGE FROM OUTFALL | OUT4925                     | [SX 4924 5343]                | DD                           | [SMRE]4B            | EBB              | 3                   |                    | 3    |    |     |     |     | 3   |     | 3  | 3   | 3   |    |       |      |           | 3    |      | 3        |            | 3        |          | 3        |                            | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  | 3 |  |  |

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
 MONITORING PROGRAMME FOR EC DANGEROUS SUBSTANCES DIRECTIVE (76/464/EEC) - 1993  
 PROGRAMME LAST UPDATED: 15-FEB-1993  
 \*\* Note: in 1993 this is the MINIMUM number of results required

OC = ORGANOCHLORINE PESTICIDES  
 PCP = PENTACHLOROPHENOL  
 THF = ORGNATIN COMPOUNDS

PY = PYRETHROID PESTICIDES  
 SPN = ROUTINE SANITARY AND COD  
 VOC = VOLATILE ORGANO-CHLORINE COMPOUNDS  
 OPACN = ORGANO-P & ORGANO-N COMPOUNDS  
 Cd L2 = Cd & List 2 METALS

| DISCHARGE                                | MONITORING POINT NAME                   | USER<br>REFERENCE<br>NUMBER | NATIONAL<br>GRID<br>REFERENCE | PURP CODE<br>MEN-<br>SAR | MNT.<br>ICL CODE | TIDAL<br>STAGE | MAX<br>FREQ | SAMPLING FREQUENCY |      |    |     |     |     |     |     |    |     |     |    |       |      | SEDIMENTS |      | DISCHARGES |          | ANALYSIS REQUIREMENT GROUP |          |    |    |   |      |      |      |      |      |      |    |
|------------------------------------------|-----------------------------------------|-----------------------------|-------------------------------|--------------------------|------------------|----------------|-------------|--------------------|------|----|-----|-----|-----|-----|-----|----|-----|-----|----|-------|------|-----------|------|------------|----------|----------------------------|----------|----|----|---|------|------|------|------|------|------|----|
|                                          |                                         |                             |                               |                          |                  |                |             | Hg                 | CdL2 | As | OC1 | OC2 | VOC | PCP | THF | pH | OP1 | OP2 | PY | MEDNL | OC'S | ECOLI     | SPN1 | SPN2       | ARG FREQ | ARG FREQ                   | ARG FREQ |    |    |   |      |      |      |      |      |      |    |
|                                          |                                         |                             |                               |                          |                  |                |             | Hz                 |      |    |     |     |     |     |     |    |     |     |    |       |      |           |      |            |          |                            |          |    |    |   |      |      |      |      |      |      |    |
|                                          | ST JOHN'S LAKE 250M D/S STW             | ELIA7                       | SX 4180 5400                  | DD                       | SMRE             | ZI             | EBB         | 6                  |      |    |     | 6   |     |     |     |    |     |     |    |       |      |           |      |            |          |                            | 6        |    |    |   | SL71 | 6    |      |      |      |      |    |
| 12A                                      | MARLBOROUGH STREET                      | OUT4952                     | SX 4480 5500                  | DD                       | SMRE             | 4B             | EBB         | 3                  |      | 3  |     | 3   |     | 3   | 3   |    | 3   |     |    |       |      |           |      |            |          |                            |          | 3  |    |   |      | SL46 | 3    |      |      |      |    |
|                                          | CUTFALL                                 | OUT4952C                    | SX 4470 5500                  | DD                       | SMRE             | 2J             | EBB         | 3                  |      | 3  |     | 3   |     |     |     |    |     |     |    |       |      |           |      |            |          |                            |          | 3  |    |   |      | SL67 | 3    |      |      |      |    |
|                                          | HMORZE 100 M U/S OF CUTFALL             | EL2A19                      | SX 4465 5510                  | DD                       | SMRE             | 2J             | EBB         | 3                  |      | 3  |     |     |     |     |     |    |     |     |    |       |      |           |      |            |          |                            |          |    | 3  |   |      |      | SL69 | 3    |      |      |    |
|                                          | HMORZE 100 M D/S OF CUTFALL             | EL2A18                      | SX 4470 5490                  | DD                       | SMRE             | 2J             | EBB         | 3                  |      | 3  |     |     |     |     |     |    |     |     |    |       |      |           |      |            |          |                            |          |    |    | 3 |      |      |      | SL69 | 3    |      |    |
|                                          | HMORZE 250 M D/S OF CUTFALL             | EL2A20                      | SX 4465 5475                  | DD                       | SMRE             | 2J             | EBB         | 3                  |      | 3  |     |     |     |     |     |    |     |     |    |       |      |           |      |            |          |                            |          |    |    | 3 |      |      |      | SL69 | 3    |      |    |
| 12A                                      | ALBERT ROAD CUTFALL                     | OUT4922                     | SX 4470 5540                  | DD                       | SMRE             | 4B             | EBB         | 3                  |      | 3  |     | 3   |     | 3   | 3   |    | 3   |     |    |       |      |           |      |            |          |                            |          | 3  |    |   |      | SL46 | 3    |      |      |      |    |
|                                          | SURFACE BOIL                            | OUT4922C                    | SX 4460 5540                  | DD                       | SMRE             | 2J             | EBB         | 3                  |      | 3  |     | 3   |     | 3   |     |    |     |     |    |       |      |           |      |            |          |                            |          | 3  |    |   |      | SL67 | 3    | S450 | 3    |      |    |
| 12A                                      | ST LEVAN ROAD                           | OUT4972                     | SX 4460 5590                  | DD                       | SMRE             | 4B             | EBB         | 3                  |      | 3  |     |     |     |     |     | 3  | 3   | 3   |    | 3     |      |           |      |            |          |                            |          | 3  |    |   |      | SL53 | 3    |      | SL61 | 3    |    |
|                                          | SURFACE BOIL                            | OUT4972C                    | SX 4450 5590                  | DD                       | SMRE             | 2I             | EBB         | 3                  |      | 3  |     |     |     |     |     | 3  |     |     |    |       |      |           |      |            |          |                            |          | 3  |    |   |      | SL69 | 3    | S451 | 3    |      |    |
| 12A                                      | DEVONPORT DOCKWARD<br>IND.5             | OUT4937                     | SX 4450 5620                  | DD                       | SMRE             | 4B             | EBB         | 3                  |      | 3  |     | 3   |     | 3   | 3   | 3  | 3   |     |    |       |      |           |      |            |          |                            | 3        |    |    |   | SL46 | 3    | SL64 | 3    |      |      |    |
|                                          | SURFACE BOIL                            | OUT4937C                    | SX 4440 5620                  | DD                       | SMRE             | 2I             | EBB         | 3                  |      | 3  |     | 3   |     |     |     | 3  |     |     |    |       |      |           |      |            |          |                            |          | 3  |    |   |      | SL67 | 3    | S451 | 3    |      |    |
| 12A                                      | DEVONPORT DOCKWARD<br>IND.2             | OUT4939                     | SX 4450 5690                  | DD                       | SMRE             | 4B             | EBB         | 3                  |      | 3  |     | 3   |     | 3   | 3   | 3  | 3   |     |    |       |      |           |      |            |          |                            | 3        |    |    |   | SL46 | 3    | SL64 | 3    |      |      |    |
|                                          | SURFACE BOIL                            | OUT4939C                    | SX 4448 5700                  | DD                       | SMRE             | 2I             | EBB         | 3                  |      | 3  |     | 3   |     |     |     | 3  |     |     |    |       |      |           |      |            |          |                            | 3        |    |    |   | SL67 | 3    | S451 | 3    |      |      |    |
| 12A                                      | OWELS HEAD STW                          | WESTW722FE                  | SX 4530 5700                  | RS                       | SGMS             | 4T             | EBB         | 3                  |      | 3  |     | 12  | 12  | 3   | 3   | 3  | 3   | 12  | 12 | 3     |      |           |      |            |          |                            | 3        | 12 |    |   | SS23 | 12   | SS28 | 12   | SS29 | 3    |    |
|                                          | SURFACE BOIL                            | WESTW722C                   | SX 4530 5720                  | DD                       | SMRE             | 2I             | EBB         | 3                  |      | 3  |     | 3   |     |     |     | 3  |     | 3   |    |       |      |           |      |            |          |                            | 3        |    |    |   | SL67 | 3    | SL80 | 3    | S451 | 3    |    |
| 12B                                      | ERNESETTLE STW                          | WESTW724FE                  | SX 4450 6010                  | RS                       | SGMS             | 4T             | EBB         | 3                  |      | 12 | 3   | 12  | 12  | 3   | 3   | 3  | 3   | 3   |    | 3     |      |           |      |            |          |                            | 3        | 12 |    |   | SS23 | 12   | SS24 | 12   | SS20 | 3    |    |
|                                          | SURFACE BOIL                            | WESTW724C                   | SX 4390 6045                  | DD                       | SMRE             | 2I             | EBB         | 3                  |      | 3  |     | 3   |     |     |     | 3  |     |     |    |       |      |           |      |            |          |                            | 3        |    |    |   | SL67 | 3    | S451 | 3    |      |      |    |
|                                          | TIMAR ESTUARY 100 M U/S OF STW          | RL2A008                     | SX 4410 6070                  | DD                       | SMRE             | 2I             | EBB         | 3                  |      |    |     | 3   |     |     |     |    |     |     |    |       |      |           |      |            |          |                            |          | 3  |    |   |      | SL71 | 3    |      |      |      |    |
|                                          | TIMAR ESTUARY 100 M D/S OF STW          | RL2A017                     | SX 4385 6020                  | DD                       | SMRE             | 2I             | EBB         | 3                  |      |    |     | 3   |     |     |     |    |     |     |    |       |      |           |      |            |          |                            |          |    | 3  |   |      |      | SL71 | 3    |      |      |    |
|                                          | TIMAR ESTUARY 250 M D/S OF STW          | RL2A016                     | SX 4380 6000                  | DD                       | SMRE             | 2I             | EBB         | 3                  |      |    |     | 3   |     |     |     |    |     |     |    |       |      |           |      |            |          |                            |          |    |    | 3 |      |      |      | SL71 | 3    |      |    |
| 12B                                      | BERE ALSTON STW                         | WESTW4516FE                 | SX 4380 6630                  | DD                       | SMRE             | 4S             | EBB         | 3                  |      |    |     |     | 3   |     |     |    | 3   |     |    |       |      |           |      |            |          |                            |          |    |    |   |      | SS14 | 3    |      |      |      |    |
| 12A                                      | SALDASH (COOMBE)                        | WESTW763FE                  | SX 4300 5820                  | DD                       | SMRE             | 4T             | EBB         | 3                  |      | 3  |     | 3   | 3   |     | 3   | 3  | 3   | 3   |    | 3     |      |           |      |            |          |                            | 3        |    |    |   | SL44 | 3    | SS13 | 3    |      |      |    |
|                                          | STW                                     | WESTW763C                   | SX 4305 5815                  | DD                       | SMRE             | 2I             | EBB         | 3                  |      | 3  |     |     |     |     | 3   |    |     |     |    |       |      |           |      |            |          |                            | 3        |    |    |   | SL69 | 3    | S449 | 3    |      |      |    |
|                                          | NETWORK SITE - OFF DEVIL'S POINT        | EL2A17                      | SX 4580 5330                  | DD                       | SMRE             | 2I             | EBB         | 1                  |      | 1  |     | 1   |     |     |     |    |     | 1   |    |       |      |           |      |            |          |                            | 1        |    |    |   | SL67 | 1    | S449 | 1    | S450 | 1    |    |
| 14A                                      | LOOE STW                                | WESTW660FE                  | SX 2440 5360                  | DD                       | SMRE             | 4S             | EBB         | 6                  |      | 6  |     | 6   | 6   | 6   | 6   | 6  | 6   | 6   | 6  |       |      |           |      |            |          |                            | 6        |    |    |   | SL44 | 6    | SS13 | 6    |      |      |    |
|                                          | SURFACE BOIL                            | WESTW660C                   | SX 2485 5380                  | DD                       | SMRE             | 2I             | EBB         | 6                  |      | 6  |     | 6   |     |     |     |    |     |     |    |       |      |           |      |            |          |                            | 6        |    |    |   | SL67 | 6    |      |      |      |      |    |
|                                          | TRIB., WEST LOOE RIVER 100 M U/S OF STW | WESTW660A                   | SX 2432 5352                  | DD                       | SMRE             | 2I             | EBB         | 6                  |      |    |     | 6   |     |     |     |    |     |     |    |       |      |           |      |            |          |                            | 6        |    |    |   | SL71 | 6    |      |      |      |      |    |
|                                          | TRIB., WEST LOOE RIVER 100 M D/S OF STW | WESTW660B                   | SX 2446 5360                  | DD                       | SMRE             | 2I             | EBB         | 6                  |      |    |     | 6   |     |     |     |    |     |     |    |       |      |           |      |            |          |                            | 6        |    |    |   | SL71 | 6    |      |      |      |      |    |
|                                          | TRIB., WEST LOOE RIVER 250 M D/S OF STW | WESTW660D                   | SX 2450 5361                  | DD                       | SMRE             | 2I/4B          | EBB         | 6                  |      |    |     | 6   |     |     |     |    |     |     |    |       |      |           |      |            |          |                            | 1        | 6  |    |   | SL71 | 6    | S453 | 1    |      |      |    |
|                                          | MOUTH OF TRIBUTARY                      | WESTW660G                   | SX 2475 5375                  | DD                       | SMRE             | 2I             | EBB         | 6                  |      |    |     | 6   |     |     |     |    |     |     |    |       |      |           |      |            |          |                            | 6        |    |    |   | SL71 | 6    |      |      |      |      |    |
|                                          | WEST LOOE RIVER 100M U/S TRIBUTARY      | EL14A8                      | SX 2477 5390                  | DD                       | SMRE             | 2I             | EBB         | 3                  |      |    |     | 3   |     |     |     |    |     |     |    |       |      |           |      |            |          |                            | 3        |    |    |   | SL71 | 3    |      |      |      |      |    |
|                                          | WEST LOOE RIVER 100M D/S TRIBUTARY      | EL14A7                      | SX 2492 5382                  | DD                       | SMRE             | 2I             | EBB         | 3                  |      |    |     | 3   |     |     |     |    |     |     |    |       |      |           |      |            |          |                            | 3        |    |    |   | SL71 | 3    |      |      |      |      |    |
|                                          | W.LOOE RIVER U/S CONFL. WITH E.LOOE R.  | EL14A6                      | SX 2512 5390                  | DD                       | SMRE             | 2I             | EBB         | 3                  |      |    |     | 3   |     |     |     |    |     |     |    |       |      |           |      |            |          |                            | 3        |    |    |   | SL71 | 3    |      |      |      |      |    |
|                                          | NETWORK SITE - COMBINED LOOE ESTUARY    | EL14A1                      | SX 2540 5367                  | DD                       | SMRE             | 2I             | EBB         | 1                  |      |    |     | 1   |     |     |     |    |     |     |    |       |      |           |      |            |          |                            | 1        |    |    |   | SL67 | 1    | S449 | 1    | S450 | 1    |    |
|                                          | 17A                                     | BAR STW                     | WESTW666FE                    | SX 0731 5230             | RS               | SGMS           | 4T          | EBB                | 12   | 12 | 12  |     | 12  | 12  | 12  | 3  | 3   | 3   | 12 |       | 3    |           |      |            |          |                            |          | 12 | 12 |   |      | SS17 | 3    | SS19 | 12   | SS20 | 12 |
| SURFACE BOIL                             |                                         | OUT2058C                    | SX 0731 5220                  | DD                       | SMRE             | 2J             | EBB         | 12                 | 12   | 12 |     | 3   |     |     |     |    |     |     |    |       |      |           |      |            |          |                            | 12       |    |    |   | SL68 | 12   | SL77 | 12   | SS10 | 3    |    |
| ST AUSTELL BAY - 100 M FROM SURFACE BOIL |                                         | OUT2058A                    | SX 0732 5224                  | DD                       | SMRE             | 2J             | EBB         | 12                 | 12   | 12 |     | 3   |     |     |     |    |     |     |    |       |      |           |      |            |          |                            | 12       |    |    |   | SL68 | 12   | SL77 | 12   | SS10 | 3    |    |
| ST AUSTELL BAY - 250 M FROM SURFACE BOIL |                                         | OUT2058B                    | SX 0732 5224                  | DD                       | SMRE             | 2J             | EBB         | 12                 | 12   | 12 |     | 3   |     |     |     |    |     |     |    |       |      |           |      |            |          |                            | 12       |    |    |   | SL68 | 12   | SL77 | 12   | SS10 | 3    |    |

NATURAL RIVERS AUTHORITY - SOUTH WEST REGION  
MONITORING PROGRAMME FOR DE OXIGENOUS SUBSTANCES IMPROVING (76/464/EEC) - 1993  
PROGRAMME LAST UPDATED: 15-FEB-1993

OC = ORGANOCHLORINE PESTICIDES  
PCP = PERCHLOROPHENOL  
TBT = TRIBUTYL CHLORIDE COMPOUNDS

PCP = PESTICIDE RESIDUES  
SW = ROUTINE SURVEILLANCE AND OGD  
VOC = VOLATILE ORGANOCHLORINE COMPOUNDS

\*\* Note: in 1993 this is the minimum number of results required

| DISCHARGE | MONITORING POINT NAME | USER REFERENCE | NATIONAL GRID REFERENCE | PURE CODE (MTC) | TIDAL MAX | FREQUENCY |    |     |    |     |     |     |     |     |    | ANALYSIS REQUIREMENT GROUP |     |    |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |      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|       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       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|           |                       |                |                         |                 |           | PREQ      | Hg | Co2 | As | OC1 | OC2 | VOC | PCP | TBT | PH | OP1                        | OP2 | PC | PC2 | PC3 | PC4 | PC5 | PC6 | PC7 | PC8 | PC9 | PC10 | PC11 | PC12 | PC13 | PC14 | PC15 | PC16 | PC17 | PC18 | PC19 | PC20 | PC21 | PC22 | PC23 | PC24 | PC25 | PC26 | PC27 | PC28 | PC29 | PC30 | PC31 | PC32 | PC33 | PC34 | PC35 | PC36 | PC37 | PC38 | PC39 | PC40 | PC41 | PC42 | PC43 | PC44 | PC45 | PC46 | PC47 | PC48 | PC49 | PC50 | PC51 | PC52 | PC53 | PC54 | PC55 | PC56 | PC57 | PC58 | PC59 | PC60 | PC61 | PC62 | PC63 | PC64 | PC65 | PC66 | PC67 | PC68 | PC69 | PC70 | PC71 | PC72 | PC73 | PC74 | PC75 | PC76 | PC77 | PC78 | PC79 | PC80 | PC81 | PC82 | PC83 | PC84 | PC85 | PC86 | PC87 | PC88 | PC89 | PC90 | PC91 | PC92 | PC93 | PC94 | PC95 | PC96 | PC97 | PC98 | PC99 | PC100 | PC101 | PC102 | PC103 | PC104 | PC105 | PC106 | PC107 | PC108 | PC109 | PC110 | PC111 | PC112 | PC113 | PC114 | PC115 | PC116 | PC117 | PC118 | PC119 | PC120 | PC121 | PC122 | PC123 | PC124 | PC125 | PC126 | PC127 | PC128 | PC129 | PC130 | PC131 | PC132 | PC133 | PC134 | PC135 | PC136 | PC137 | PC138 | PC139 | PC140 | PC141 | PC142 | PC143 | PC144 | PC145 | PC146 | PC147 | PC148 | PC149 | PC150 | PC151 | PC152 | PC153 | PC154 | PC155 | PC156 | PC157 | PC158 | PC159 | PC160 | PC161 | PC162 | PC163 | PC164 | PC165 | PC166 | PC167 | PC168 | PC169 | PC170 | PC171 | PC172 | PC173 | PC174 | PC175 | PC176 | PC177 | PC178 | PC179 | PC180 | PC181 | PC182 | PC183 | PC184 | PC185 | PC186 | PC187 | PC188 | PC189 | PC190 | PC191 | PC192 | PC193 | PC194 | PC195 | PC196 | PC197 | PC198 | PC199 | PC200 | PC201 | PC202 | PC203 | PC204 | PC205 | PC206 | PC207 | PC208 | PC209 | PC210 | PC211 | PC212 | PC213 | PC214 | PC215 | PC216 | PC217 | PC218 | PC219 | PC220 | PC221 | PC222 | PC223 | PC224 | PC225 | PC226 | PC227 | PC228 | PC229 | PC230 | PC231 | PC232 | PC233 | PC234 | PC235 | PC236 | PC237 | PC238 | PC239 | PC240 | PC241 | PC242 | PC243 | PC244 | PC245 | PC246 | PC247 | PC248 | PC249 | PC250 | PC251 | PC252 | PC253 | PC254 | PC255 | PC256 | PC257 | PC258 | PC259 | PC260 | PC261 | PC262 | PC263 | PC264 | PC265 | PC266 | PC267 | PC268 | PC269 | PC270 | PC271 | PC272 | PC273 | PC274 | PC275 | PC276 | PC277 | PC278 | PC279 | PC280 | PC281 | PC282 | PC283 | PC284 | PC285 | PC286 | PC287 | PC288 | PC289 | PC290 | PC291 | PC292 | PC293 | PC294 | PC295 | PC296 | PC297 | PC298 | PC299 | PC300 | PC301 | PC302 | PC303 | PC304 | PC305 | PC306 | PC307 | PC308 | PC309 | PC310 | PC311 | PC312 | PC313 | PC314 | PC315 | PC316 | PC317 | PC318 | PC319 | PC320 | PC321 | PC322 | PC323 | PC324 | PC325 | PC326 | PC327 | PC328 | PC329 | PC330 | PC331 | PC332 | PC333 | PC334 | PC335 | PC336 | PC337 | PC338 | PC339 | PC340 | PC341 | PC342 | PC343 | PC344 | PC345 | PC346 | PC347 | PC348 | PC349 | PC350 | PC351 | PC352 | PC353 | PC354 | PC355 | PC356 | PC357 | PC358 | PC359 | PC360 | PC361 | PC362 | PC363 | PC364 | PC365 | PC366 | PC367 | PC368 | PC369 | PC370 | PC371 | PC372 | PC373 | PC374 | PC375 | PC376 | PC377 | PC378 | PC379 | PC380 | PC381 | PC382 | PC383 | PC384 | PC385 | PC386 | PC387 | PC388 | PC389 | PC390 | PC391 | PC392 | PC393 | PC394 | PC395 | PC396 | PC397 | PC398 | PC399 | PC400 | PC401 | PC402 | PC403 | PC404 | PC405 | PC406 | PC407 | PC408 | PC409 | PC410 | PC411 | PC412 | PC413 | PC414 | PC415 | PC416 | PC417 | PC418 | PC419 | PC420 | PC421 | PC422 | PC423 | PC424 | PC425 | PC426 | PC427 | PC428 | PC429 | PC430 | PC431 | PC432 | PC433 | PC434 | PC435 | PC436 | PC437 | PC438 | PC439 | PC440 | PC441 | PC442 | PC443 | PC444 | PC445 | PC446 | PC447 | PC448 | PC449 | PC450 | PC451 | PC452 | PC453 | PC454 | PC455 | PC456 | PC457 | PC458 | PC459 | PC460 | PC461 | PC462 | PC463 | PC464 | PC465 | PC466 | PC467 | PC468 | PC469 | PC470 | PC471 | PC472 | PC473 | PC474 | PC475 | PC476 | PC477 | PC478 | PC479 | PC480 | PC481 | PC482 | PC483 | PC484 | PC485 | PC486 | PC487 | PC488 | PC489 | PC490 | PC491 | PC492 | PC493 | PC494 | PC495 | PC496 | PC497 | PC498 | PC499 | PC500 | PC501 | PC502 | PC503 | PC504 | PC505 | PC506 | PC507 | PC508 | PC509 | PC510 | PC511 | PC512 | PC513 | PC514 | PC515 | PC516 | PC517 | PC518 | PC519 | PC520 | PC521 | PC522 | PC523 | PC524 | PC525 | PC526 | PC527 | PC528 | PC529 | PC530 | PC531 | PC532 | PC533 | PC534 | PC535 | PC536 | PC537 | PC538 | PC539 | PC540 | PC541 | PC542 | PC543 | PC544 | PC545 | PC546 | PC547 | PC548 | PC549 | PC550 | PC551 | PC552 | PC553 | PC554 | PC555 | PC556 | PC557 | PC558 | PC559 | PC560 | PC561 | PC562 | PC563 | PC564 | PC565 | PC566 | PC567 | PC568 | PC569 | PC570 | PC571 | PC572 | PC573 | PC574 | PC575 | PC576 | PC577 | PC578 | PC579 | PC580 | PC581 | PC582 | PC583 | PC584 | PC585 | PC586 | PC587 | PC588 | PC589 | PC590 | PC591 | PC592 | PC593 | PC594 | PC595 | PC596 | PC597 | PC598 | PC599 | PC600 | PC601 | PC602 | PC603 | PC604 | PC605 | PC606 | PC607 | PC608 | PC609 | PC610 | PC611 | PC612 | PC613 | PC614 | PC615 | PC616 | PC617 | PC618 | PC619 | PC620 | PC621 | PC622 | PC623 | PC624 | PC625 | PC626 | PC627 | PC628 | PC629 | PC630 | PC631 | PC632 | PC633 | PC634 | PC635 | PC636 | PC637 | PC638 | PC639 | PC640 | PC641 | PC642 | PC643 | PC644 | PC645 | PC646 | PC647 | PC648 | PC649 | PC650 | PC651 | PC652 | PC653 | PC654 | PC655 | PC656 | PC657 | PC658 | PC659 | PC660 | PC661 | PC662 | PC663 | PC664 | PC665 | PC666 | PC667 | PC668 | PC669 | PC670 | PC671 | PC672 | PC673 | PC674 | PC675 | PC676 | PC677 | PC678 | PC679 | PC680 | PC681 | PC682 | PC683 | PC684 | PC685 | PC686 | PC687 | PC688 | PC689 | PC690 | PC691 | PC692 | PC693 | PC694 | PC695 | PC696 | PC697 | PC698 | PC699 | PC700 | PC701 | PC702 | PC703 | PC704 | PC705 | PC706 | PC707 | PC708 | PC709 | PC710 | PC711 | PC712 | PC713 | PC714 | PC715 | PC716 | PC717 | PC718 | PC719 | PC720 | PC721 | PC722 | PC723 | PC724 | PC725 | PC726 | PC727 | PC728 | PC729 | PC730 | PC731 | PC732 | PC733 | PC734 | PC735 | PC736 | PC737 | PC738 | PC739 | PC740 | PC741 | PC742 | PC743 | PC744 | PC745 | PC746 | PC747 | PC748 | PC749 | PC750 | PC751 | PC752 | PC753 | PC754 | PC755 | PC756 | PC757 | PC758 | PC759 | PC760 | PC761 | PC762 | PC763 | PC764 | PC765 | PC766 | PC767 | PC768 | PC769 | PC770 | PC771 | PC772 | PC773 | PC774 | PC775 | PC776 | PC777 | PC778 | PC779 | PC780 | PC781 | PC782 | PC783 | PC784 | PC785 | PC786 | PC787 | PC788 | PC789 | PC790 | PC791 | PC792 | PC793 | PC794 | PC795 | PC796 | PC797 | PC798 | PC799 | PC800 | PC801 | PC802 | PC803 | PC804 | PC805 | PC806 | PC807 | PC808 | PC809 | PC810 | PC811 | PC812 | PC813 | PC814 | PC815 | PC816 | PC817 | PC818 | PC819 | PC820 | PC821 | PC822 | PC823 | PC824 | PC825 | PC826 | PC827 | PC828 | PC829 | PC830 | PC831 | PC832 | PC833 | PC834 | PC835 | PC836 | PC837 | PC838 | PC839 | PC840 | PC841 | PC842 | PC843 | PC844 | PC845 | PC846 | PC847 | PC848 | PC849 | PC850 | PC851 | PC852 | PC853 | PC854 | PC855 | PC856 | PC857 | PC858 | PC859 | PC860 | PC861 | PC862 | PC863 | PC864 | PC865 | PC866 | PC867 | PC868 | PC869 | PC870 | PC871 | PC872 | PC873 | PC874 | PC875 | PC876 | PC877 | PC878 | PC879 | PC880 | PC881 | PC882 | PC883 | PC884 | PC885 | PC886 | PC887 | PC888 | PC889 | PC890 | PC891 | PC892 | PC893 | PC894 | PC895 | PC896 | PC897 | PC898 | PC899 | PC900 | PC901 | PC902 | PC903 | PC904 | PC905 | PC906 | PC907 | PC908 | PC909 | PC910 | PC911 | PC912 | PC913 | PC914 | PC915 | PC916 | PC917 | PC918 | PC919 | PC920 | PC921 | PC922 | PC923 | PC924 | PC925 | PC926 | PC927 | PC928 | PC929 | PC930 | PC931 | PC932 | PC933 | PC934 | PC935 | PC936 | PC937 | PC938 | PC939 | PC940 | PC941 | PC942 | PC943 | PC944 | PC945 | PC946 | PC947 | PC948 | PC949 | PC950 | PC951 | PC952 | PC953 | PC954 | PC955 | PC956 | PC957 | PC958 | PC959 | PC960 | PC961 | PC962 | PC963 | PC964 | PC965 | PC966 | PC967 | PC968 | PC969 | PC970 | PC971 | PC972 | PC973 | PC974 | PC975 | PC976 | PC977 | PC978 | PC979 | PC980 | PC981 | PC982 | PC983 | PC984 | PC985 | PC986 | PC987 | PC988 | PC989 | PC990 | PC991 | PC992 | PC993 | PC994 | PC995 | PC996 | PC997 | PC998 | PC999 | PC1000 | PC1001 | PC1002 | PC1003 | PC1004 | PC1005 | PC1006 | PC1007 | PC1008 | PC1009 | PC1010 | PC1011 | PC1012 | PC1013 | PC1014 | PC1015 | PC1016 | PC1017 | PC1018 | PC1019 | PC1020 | PC1021 | PC1022 | PC1023 | PC1024 | PC1025 | PC1026 | PC1027 | PC1028 | PC1029 | PC1030 | PC1031 | PC1032 | PC1033 | PC1034 | PC1035 | PC1036 | PC1037 | PC1038 | PC1039 | PC1040 | PC1041 | PC1042 | PC1043 | PC1044 | PC1045 | PC1046 | PC1047 | PC1048 | PC1049 | PC1050 | PC1051 | PC1052 | PC1053 | PC1054 | PC1055 | PC1056 | PC1057 | PC1058 | PC1059 | PC1060 | PC1061 | PC1062 | PC1063 | PC1064 | PC1065 | PC1066 | PC1067 | PC1068 | PC1069 | PC1070 | PC1071 | PC1072 | PC1073 | PC1074 | PC1075 | PC1076 | PC1077 | PC1078 | PC1079 |

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
 MONITORING PROGRAMME FOR EC DANGEROUS SUBSTANCES DIRECTIVE (76/464/EEC) - 1993  
 PROGRAMME LAST UPDATED: 15-FEB-1993

\*\* Note: in 1993 this is the MINIMUM number of results required

OC = ORGANOCHLORINE PESTICIDES  
 PCP = PENTACHLOROPHENOL  
 THT = ORGANO-TIN COMPOUNDS

PY = PYRETHROID PESTICIDES  
 SAN = ROUTINE SANITARY AND COD  
 VOC = VOLATILE ORGANO-CHLORINE COMPOUNDS  
 OPACN = ORGANO-P & ORGANO-N COMPOUNDS  
 Cd L2 = Cd & List 2 METALS

| DISCHARGE              | MONITORING POINT NAME                  | USER<br>REFERENCE<br>NUMBER | NATIONAL<br>GRID<br>REFERENCE | PURP CODE<br>[MEN-] | MPT.<br>ICL CODE | TIDAL<br>STAGE | MAX<br>SAMP | SAMPLING FREQUENCY |    |       |    |     |     |     |     |     |    |     |     |    |       |      | SEDIMENTS |     |     | DISCHARGES |          |          | ANALYSIS REQUIREMENT GROUP |  |  |
|------------------------|----------------------------------------|-----------------------------|-------------------------------|---------------------|------------------|----------------|-------------|--------------------|----|-------|----|-----|-----|-----|-----|-----|----|-----|-----|----|-------|------|-----------|-----|-----|------------|----------|----------|----------------------------|--|--|
|                        |                                        |                             |                               |                     |                  |                |             | FREQ               | Hg | Cd L2 | As | OC1 | OC2 | VOC | PCP | THT | pH | OP1 | OP2 | PY | METAL | OC'S | BTOL      | SNL | SN2 | ARG FREQ   | ARG FREQ | ARG FREQ |                            |  |  |
| 21A NEWLYN (RIVER)     | DISCHARGE FROM OUTFALL                 | OUT0543                     | SW 4636 2893                  | DD                  | SMRE 4B          | EBB            | 3           |                    | 3  |       |    | 3   |     | 3   | 3   |     | 3  | 3   |     | 3  |       |      | 3         |     |     |            |          |          |                            |  |  |
|                        | OUTFALL                                | OUT0543C                    | SW 4650 2890                  | DD                  | SMRE 2J          | EBB            | 3           |                    | 3  |       |    | 3   |     | 3   |     |     |    |     |     |    |       |      | 3         |     |     |            |          |          |                            |  |  |
|                        | SEA - 100M FROM SURFACE BOIL           | OUT0534A                    | SW 4655 2890                  | DD                  | SMRE 2J          | EBB            | 3           |                    |    |       |    | 3   |     |     |     |     |    |     |     |    |       |      | 3         |     |     |            |          |          |                            |  |  |
|                        | SEA - 250M FROM SURFACE BOIL           | OUT0534E                    | SW 4670 2815                  | DD                  | SMRE 2J          | EBB            | 3           |                    |    |       |    | 3   |     |     |     |     |    |     |     |    |       | 1    | 1         | 3   |     |            |          |          |                            |  |  |
|                        | NETWORK SITE - OFF SKILLY              | OUT0543D                    | SW 4800 2770                  | DD                  | SMRE 2J          | EBB            | 1           |                    | 1  |       |    | 1   |     |     |     |     |    |     |     |    |       |      | 1         |     |     |            |          |          |                            |  |  |
| 21A NEWLYN ART GALLERY | DISCHARGE FROM OUTFALL                 | OUT0541                     | SW 4643 2906                  | DD                  | SMRE 4B          | EBB            | 3           |                    | 3  |       |    |     |     |     |     |     |    |     |     |    |       |      |           | 3   | 3   |            |          |          |                            |  |  |
|                        | OUTFALL                                | OUT0541C                    | SW 4655 2905                  | DD                  | SMRE 2J          | EBB            | 3           |                    | 3  |       |    |     |     |     |     |     |    |     |     |    |       |      |           | 3   |     |            |          |          |                            |  |  |
| 22A GEOR TON MINE      | DISCHARGE FROM OUTFALL                 | P22A/P/44                   | SW 3720 3490                  | RS                  | SQMS 5G          | EBB            | 6           | 6                  | 12 | 12    |    |     |     |     |     |     | 6  |     |     |    |       |      |           |     |     |            |          |          |                            |  |  |
|                        | OUTFALL                                | OUT0514C                    | SW 3710 3500                  | DD                  | SMRE 2J          | EBB            | 6           | 6                  | 6  | 6     |    |     |     |     |     |     | 6  |     |     |    |       |      |           |     |     |            |          |          |                            |  |  |
|                        | SEA - 100 M FROM SURFACE BOIL          | OUT0514D                    | SW 3700 3505                  | DD                  | SMRE 2J          | EBB            | 6           | 6                  | 6  | 6     |    |     |     |     |     |     | 6  |     |     |    |       |      |           |     |     |            |          |          |                            |  |  |
|                        | SEA - 250 M FROM SURFACE BOIL          | OUT0514B                    | -                             | DD                  | SMRE 2J/BB       | EBB            | 6           | 6                  | 6  | 6     |    |     |     |     |     |     | 6  |     |     |    | 1     |      |           |     |     |            |          |          |                            |  |  |
|                        | NETWORK SITE - 100 M AWAY FROM PLUME   | OUT0514E                    | SW 3690 3480                  | DD                  | SMRE 2J          | EBB            | 1           | 1                  | 1  | 1     |    |     |     |     |     |     | 1  |     |     |    |       |      |           |     |     |            |          |          |                            |  |  |
| 22A ST. IVES (BAMALLZ) | DISCHARGE FROM OUTFALL                 | OUT0584                     | SW 5220 4100                  | DD                  | SMRE 4B          | EBB            | 3           |                    | 3  |       |    | 3   |     | 3   | 3   | 3   | 3  | 3   |     | 3  |       |      | 3         |     |     | 3          |          |          |                            |  |  |
|                        | OUTFALL                                | OUT0584C                    | -                             | DD                  | SMRE 2J          | EBB            | 3           |                    | 3  |       |    | 3   |     | 3   | 3   | 3   | 3  | 3   |     | 3  |       |      | 3         |     |     | 3          |          |          |                            |  |  |
| 22A HAYLE S.T.W.       | FINAL EFFLUENT                         | WEST0084FE                  | SW 5460 3630                  | DD                  | SMRE 4S          | EBB            | 6           |                    | 6  | 6     | 6  | 6   | 6   | 6   | 6   | 6   | 6  | 6   |     | 6  |       |      | 6         |     |     |            |          |          |                            |  |  |
|                        | SURFACE BOIL                           | WEST0084C                   | SW 5462 3645                  | DD                  | SMRE 2I          | EBB            | 6           |                    | 6  | 6     | 6  | 6   | 6   | 6   | 3   |     |    |     |     |    |       |      | 6         |     |     |            |          |          |                            |  |  |
|                        | HAYLE ESTUARY 100 M U/S OF STW         | WEST0084A                   | SW 5480 3640                  | DD                  | SMRE 2I          | EBB            | 6           |                    | 6  | 6     | 6  | 6   | 6   |     |     |     |    |     |     |    |       |      | 6         |     |     |            |          |          |                            |  |  |
|                        | HAYLE ESTUARY 100 M D/S OF STW         | WEST0084D                   | SW 5475 3655                  | DD                  | SMRE 2I          | EBB            | 6           |                    | 6  | 6     | 6  | 6   | 6   |     |     |     |    |     |     |    |       |      | 6         |     |     |            |          |          |                            |  |  |
|                        | HAYLE ESTUARY 250 M D/S OF STW         | WEST0084E                   | SW 5480 3667                  | DD                  | SMRE 2I/BB       | EBB            | 6           |                    | 6  | 6     | 6  | 6   | 6   |     |     |     |    |     |     |    | 1     |      | 6         |     |     |            |          |          |                            |  |  |
|                        | NETWORK SITE - OFF HAYLE TOWNS         | E22A4                       | SW 5500 3790                  | DD                  | SMRE 2I          | EBB            | 1           |                    | 1  | 1     | 1  | 1   |     |     |     |     |    | 1   |     | 1  |       |      | 1         |     |     |            |          |          |                            |  |  |
| 23A CMEORNE OUTFALL    | DISCHARGE FROM OUTFALL                 | OUT0508                     | SW 6283 4237                  | RS                  | SQMS 4B          | EBB            | 12          | 12                 | 12 | 12    | 12 | 12  | 12  | 6   | 6   | 6   | 6  | 6   |     | 6  |       |      | 12        | 12  |     |            |          |          |                            |  |  |
| (NORTH CLIFFS)         | SURFACE BOIL                           | OUT0508C                    | SW 6218 4331                  | DD                  | SMRE 2J          | EBB            | 12          | 12                 | 12 |       |    | 12  |     | 3   | 6   |     |    |     |     |    |       |      | 12        |     |     |            |          |          |                            |  |  |
|                        | SEA - 100M FROM SURFACE BOIL           | OUT0508D                    | SW 6215 4327                  | DD                  | SMRE 2J          | EBB            | 12          | 12                 |    |       |    |     |     |     |     |     |    |     |     |    |       |      | 12        |     |     |            |          |          |                            |  |  |
|                        | SEA - 250M FROM SURFACE BOIL           | OUT0508E                    | SW 6215 4340                  | DD                  | SMRE 2J          | EBB            | 12          | 12                 |    |       |    |     |     |     |     |     |    |     |     |    |       |      | 12        |     |     |            |          |          |                            |  |  |
| 23A REDRUTH OUTFALL    | DISCHARGE FROM OUTFALL                 | OUT0579                     | SW 6609 4613                  | RS                  | SQMS 4B          | EBB            | 3           | 3                  | 3  | 3     | 12 | 12  | 3   | 3   | 3   | 3   | 3  | 3   |     | 3  |       |      | 3         | 12  |     |            |          |          |                            |  |  |
| (REDRUTH)              | SURFACE BOIL                           | OUT0579C                    | SW 6610 4620                  | DD                  | SMRE 2J          | EBB            | 3           | 3                  | 3  | 3     | 3  |     |     | 3   |     |     |    |     |     |    |       |      | 3         |     |     |            |          |          |                            |  |  |
|                        | SEA - 100M FROM SURFACE BOIL           | OUT0579D                    | SW 6605 4625                  | DD                  | SMRE 2J          | EBB            | 3           |                    | 3  |       |    |     |     |     |     |     |    |     |     |    |       |      | 3         |     |     |            |          |          |                            |  |  |
|                        | SEA - 250M FROM SURFACE BOIL           | OUT0579E                    | SW 6600 4635                  | DD                  | SMRE 2J          | EBB            | 3           |                    | 3  |       |    |     |     |     |     |     |    |     |     |    |       |      | 3         |     |     |            |          |          |                            |  |  |
| 23A PERRANRHOE         | DISCHARGE FROM OUTFALL                 | OUT0560                     | SW 7459 5397                  | DD                  | SMRE 4B          | EBB            | 3           |                    |    |       | 3  | 3   |     | 3   | 3   |     | 3  |     |     |    |       |      | 3         |     |     |            |          |          |                            |  |  |
| (CLIGGA) OUTFALL       | SURFACE BOIL                           | OUT0560C                    | SW 7450 5400                  | DD                  | SMRE 2J          | EBB            | 3           |                    |    |       | 3  | 3   |     |     |     |     |    |     |     |    |       |      | 3         |     |     |            |          |          |                            |  |  |
| 25A NEWQUAY (TOWN)     | DISCHARGE FROM OUTFALL                 | OUT2046                     | SW 8008 6297                  | RS                  | SQMS 4B          | EBB            | 12          | 12                 | 12 | 12    | 12 | 12  | 3   | 3   | 3   | 3   | 3  |     | 3   |    |       |      | 12        | 12  |     |            |          |          |                            |  |  |
| (HEAD) OUTFALL         | SURFACE BOIL                           | OUT2046C                    | SW 8010 6300                  | DD                  | SMRE 2J          | EBB            | 12          | 12                 | 12 |       | 12 |     |     |     |     |     |    |     |     |    |       |      | 12        |     |     |            |          |          |                            |  |  |
|                        | SEA - 100M FROM SURFACE BOIL           | OUT2046D                    | SW 8023 6305                  | DD                  | SMRE 2J          | EBB            | 12          |                    | 12 |       |    |     |     |     |     |     |    |     |     |    |       |      | 12        |     |     |            |          |          |                            |  |  |
|                        | SEA - 250M FROM SURFACE BOIL           | OUT2046E                    | SW 8025 6315                  | DD                  | SMRE 2J          | EBB            | 12          |                    | 12 |       |    |     |     |     |     |     |    |     |     |    |       |      | 12        |     |     |            |          |          |                            |  |  |
| 25A PADSTON OUTFALL    | DISCHARGE FROM OUTFALL                 | OUT1940                     | SW 9218 7509                  | DD                  | SMRE 4B          | EBB            | 3           |                    |    |       |    | 3   |     | 3   | 3   |     | 3  |     |     |    |       |      | 3         |     |     |            |          |          |                            |  |  |
|                        | SURFACE BOIL                           | OUT1940C                    | SW 9218 7509                  | DD                  | SMRE 2I          | EBB            | 3           |                    |    |       |    | 3   |     |     | 3   |     |    |     |     |    |       |      | 3         |     |     |            |          |          |                            |  |  |
|                        | CAMEL ESTUARY 100M U/S OF SURFACE BOIL | E25A13                      | SW 9230 7470                  | DD                  | SMRE 2I          | EBB            | 3           |                    |    |       |    | 3   |     |     | 3   |     |    |     |     |    |       |      | 3         |     |     |            |          |          |                            |  |  |
|                        | CAMEL ESTUARY 100M D/S OF SURFACE BOIL | E25A14                      | SW 9225 7495                  | DD                  | SMRE 2I          | EBB            | 3           |                    |    |       |    | 3   |     |     | 3   |     |    |     |     |    |       |      | 3         |     |     |            |          |          |                            |  |  |
|                        | CAMEL ESTUARY 250M D/S OF SURFACE BOIL | E25A15                      | SW 9225 7510                  | DD                  | SMRE 2I          | EBB            | 3           |                    |    |       |    | 3   |     |     | 3   |     |    |     |     |    |       |      | 3         |     |     |            |          |          |                            |  |  |

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SPW = ROUTINE SANITARY AND OOD  
VOC = VOLATILE ORGANO-CHLORINE COMPOUNDS  
OPACN = ORGANO-P & ORGANO-N COMPOUNDS  
Cd L2 = Cd & List 2 METALS

| DISCHARGE                             | MONITORING POINT NAME                    | USER<br>REFERENCE<br>NUMBER | NATIONAL<br>GRID<br>REFERENCE | PURP CODE<br>[MEN-]<br>[SAR] | MNT.<br>[ICL]<br>[CODE] | [TIDAL]<br>[TIDE] | MAX<br>[SAMP]<br>[FREQ] | SAMPLING FREQUENCY |      |    |     |     |     |     |     |    |     |     |    |       |      | SEDIMENTS |      |      |          | DISCHARGES |          |  |           | ANALYSIS REQUIREMENT GROUP |           |           |
|---------------------------------------|------------------------------------------|-----------------------------|-------------------------------|------------------------------|-------------------------|-------------------|-------------------------|--------------------|------|----|-----|-----|-----|-----|-----|----|-----|-----|----|-------|------|-----------|------|------|----------|------------|----------|--|-----------|----------------------------|-----------|-----------|
|                                       |                                          |                             |                               |                              |                         |                   |                         | Hy                 | ChL2 | As | OC1 | OC2 | VOC | PCP | TBT | pH | OP1 | OP2 | PY | METAL | OC'S | ECOLI     | SAN1 | SAN2 | ARG FREQ | ARG FREQ   | ARG FREQ |  |           |                            |           |           |
| 25A WADSWORTH STW                     | FINAL EFFLUENT                           | [WSTW765FE]                 | SW 9865 7200                  | DD                           | [SMRE]4S                | EBB               | 3                       |                    |      |    | 3   | 3   | 3   | 3   | 3   | 3  | 3   | 3   |    |       | 3    |           |      |      |          |            |          |  | [S149 3]  | [S161 3]                   | [S164 3]  |           |
|                                       | SURFACE BOIL                             | [WSTW765C]                  | -                             | DD                           | [SMRE]2I                | EBB               | 3                       |                    |      |    | 3   |     |     |     |     |    |     |     |    |       | 3    |           |      |      |          |            |          |  | [S171 3]  |                            |           |           |
|                                       | CAMEL ESTUARY 100M U/S OF SURFACE BOIL   | [EZSA10]                    | SW 9830 7335                  | DD                           | [SMRE]2I                | EBB               | 3                       |                    |      |    | 3   |     |     |     |     |    |     |     |    |       | 3    |           |      |      |          |            |          |  | [S171 3]  |                            |           |           |
|                                       | CAMEL ESTUARY 100M D/S OF SURFACE BOIL   | [EZSA11]                    | SW 9815 7353                  | DD                           | [SMRE]2I                | EBB               | 3                       |                    |      |    | 3   |     |     |     |     |    |     |     |    |       | 3    |           |      |      |          |            |          |  | [S171 3]  |                            |           |           |
|                                       | CAMEL ESTUARY 250M D/S OF SURFACE BOIL   | [EZSA12]                    | SW 9805 7365                  | DD                           | [SMRE]2I                | EBB               | 3                       |                    |      |    | 3   |     |     |     |     |    |     |     |    |       | 3    |           |      |      |          |            |          |  | [S171 3]  |                            |           |           |
| 25A PORTHILL STW                      | FINAL EFFLUENT                           | [WSTW714FE]                 | SW 9354 7492                  | DD                           | [SMRE]4S                | EBB               | 3                       |                    |      |    | 3   |     | 3   | 3   |     | 3  |     |     |    |       | 3    |           |      |      |          |            |          |  | [S149 3]  |                            |           |           |
|                                       | SURFACE BOIL                             | [WSTW714C]                  | SW 9354 7492                  | DD                           | [SMRE]2I                | EBB               | 3                       |                    |      |    | 3   |     |     | 3   |     |    |     |     |    |       | 3    |           |      |      |          |            |          |  | [S171 3]  | [S449 3]                   |           |           |
| 27A BLUE LONG SEA<br>OUTFALL          | DISCHARGE FROM OUTFALL                   | [WSTW8053FE]                | SS 2150 0460                  | RS                           | [SQMS]4T                | EBB               | 12                      | 12                 | 12   | 3  | 12  | 12  | 12  | 3   | 3   | 3  | 3   |     | 3  |       |      | 12        |      |      |          |            |          |  |           | [S520 3]                   | [S521 12] | [S522 12] |
|                                       | SURFACE BOIL                             | [WSTW8053C]                 | SS 1891 0639                  | DD                           | [SMRE]2J                | EBB               | 12                      | 12                 | 12   |    | 12  |     | 12  |     |     |    |     |     |    |       | 12   |           |      |      |          |            |          |  | [S167 12] | [S177 12]                  | [S450 3]  |           |
|                                       | SEA - 100 M FROM SURFACE BOIL            | [WSTW8053A]                 | SS 1870 0639                  | DD                           | [SMRE]2J                | EBB               | 12                      |                    | 12   |    | 12  |     |     |     |     |    |     |     |    |       | 12   |           |      |      |          |            |          |  | [S167 12] |                            |           |           |
|                                       | SEA - 250 M FROM SURFACE BOIL            | [WSTW8053B]                 | SS 1855 0639                  | DD                           | [SMRE]2J                | EBB               | 12                      |                    | 12   |    | 12  |     |     |     |     |    |     |     |    |       | 12   |           |      |      |          |            |          |  | [S167 12] |                            |           |           |
| 29A ROCK NOSE OUTFALL                 | DISCHARGE FROM OUTFALL                   | [OUT3500]                   | SS 4195 2917                  | DD                           | [SMRE]4B                | EBB               | 3                       |                    | 3    |    | 3   |     | 3   |     | 3   | 3  | 3   |     | 3  |       | 3    |           | 3    |      |          |            |          |  | [S151 3]  | [S152 3]                   | [S161 3]  |           |
|                                       | SURFACE BOIL                             | [OUT3500C]                  | SS 4185 2920                  | DD                           | [SMRE]2J                | EBB               | 3                       |                    | 3    |    |     |     |     |     |     |    |     |     |    |       | 3    |           |      |      |          |            |          |  | [S168 3]  |                            |           |           |
| 29A BIDEFORD FINE<br>SCREENED OUTFALL | DISCHARGE FROM OUTFALL                   | [OUT3428]                   | SS 4559 2740                  | DD                           | [SMRE]4E                | EBB               | 12                      |                    | 12   | 3  | 3   | 3   | 3   | 3   | 3   | 3  | 3   |     | 3  |       |      | 12        |      |      |          |            |          |  |           | [S534 12]                  | [S535 3]  | [S156 3]  |
|                                       | SURFACE BOIL                             | [EZSA14]                    | SS 4584 2733                  | DD                           | [SMRE]2I                | EBB               | 12                      |                    | 12   |    | 3   |     |     |     |     |    |     |     |    |       | 12   |           |      |      |          |            |          |  |           | [S168 12]                  | [S510 3]  |           |
|                                       | TORRIDGE EST. 100 M U/S OF SURFACE BOIL  | [EZSA11]                    | SS 4578 2725                  | DD                           | [SMRE]2I                | EBB               | 12                      |                    | 12   |    | 3   |     |     |     |     |    |     |     |    |       | 12   |           |      |      |          |            |          |  |           | [S168 12]                  | [S510 3]  |           |
|                                       | TORRIDGE EST. 100 M D/S OF SURFACE BOIL  | [EZSA12]                    | SS 4585 2743                  | DD                           | [SMRE]2I                | EBB               | 12                      |                    | 12   |    | 3   |     |     |     |     |    |     |     |    |       | 12   |           |      |      |          |            |          |  |           | [S168 12]                  | [S510 3]  |           |
|                                       | TORRIDGE EST. 250 M D/S OF SURFACE BOIL  | [EZSA13]                    | SS 4583 2758                  | DD                           | [SMRE]2I/9C             | EBB               | 12                      |                    | 12   |    | 3   |     |     |     |     |    |     |     |    | 1     | 1    | 12        |      |      |          |            |          |  |           | [S168 12]                  | [S510 3]  | [S454 1]  |
|                                       | NETWORK SITE - ESTUARY AT INSTOW         | [EZSE1]                     | SS 466 309                    | DD                           | [SMRE]2I                | EBB               | 1                       |                    | 1    |    | 1   |     |     |     |     |    |     |     |    |       | 1    |           |      |      |          |            |          |  |           | [S166 1]                   | [S178 1]  | [S449 1]  |
|                                       |                                          |                             |                               |                              |                         |                   |                         |                    |      |    |     |     |     |     |     |    |     |     |    |       |      |           |      |      |          |            |          |  |           |                            |           |           |
| 30A WELLAND STW                       | FINAL EFFLUENT                           | [WSTW3340FE]                | SS 4755 3220                  | DD                           | [SMRE]4S                | EBB               | 3                       |                    | 3    | 3  | 3   | 3   | 3   | 3   | 3   | 3  | 3   |     | 3  |       |      | 3         |      |      |          |            |          |  |           | [S143 3]                   | [S156 3]  | [S513 3]  |
|                                       | SURFACE BOIL                             | [WSTW3340C]                 | SS 4755 3220                  | DD                           | [SMRE]2I                | EBB               | 3                       |                    | 3    |    | 3   |     |     |     |     |    |     |     |    |       | 3    |           |      |      |          |            |          |  |           | [S166 3]                   |           |           |
|                                       | TW ESTUARY 100M U/S OF SURFACE BOIL      | [E30A17]                    | SS 4758 3255                  | DD                           | [SMRE]2I                | EBB               | 3                       |                    |      |    | 3   |     |     |     |     |    |     |     |    |       | 3    |           |      |      |          |            |          |  |           | [S170 3]                   |           |           |
|                                       | TW ESTUARY 100M D/S OF SURFACE BOIL      | [E30A16]                    | SS 4738 3220                  | DD                           | [SMRE]2I                | EBB               | 3                       |                    |      |    | 3   |     |     |     |     |    |     |     |    |       | 3    |           |      |      |          |            |          |  |           | [S170 3]                   |           |           |
|                                       | TW ESTUARY 250M D/S OF SURFACE BOIL      | [E30A15]                    | SS 4725 3215                  | DD                           | [SMRE]2I                | EBB               | 3                       |                    |      |    | 3   |     |     |     |     |    |     |     |    |       | 3    |           |      |      |          |            |          |  |           | [S170 3]                   |           |           |
| 30A BRANITON (VELATOR)<br>STW         | FINAL EFFLUENT                           | [WSTW3038FE]                | SS 4850 3550                  | DD                           | [SMRE]4S                | EBB               | 12                      | 12                 | 12   | 3  | 6   | 6   | 6   | 6   | 6   | 6  | 6   |     | 6  |       |      | 12        |      |      |          |            |          |  |           | [S535 6]                   | [S534 12] | [S157 12] |
|                                       | SURFACE BOIL                             | [WSTW3038C]                 | SS 4850 3545                  | DD                           | [SMRE]2I                | EBB               | 12                      | 12                 | 12   |    | 6   |     |     |     |     |    |     |     |    |       | 12   |           |      |      |          |            |          |  |           | [S168 12]                  | [S177 12] | [S510 6]  |
|                                       | RIVER CAEN 100 M U/S OF STW              | [E30B3]                     | SS 4853 3565                  | DD                           | [SMRE]2I                | EBB               | 12                      |                    | 12   |    | 6   |     |     |     |     |    |     |     |    |       | 12   |           |      |      |          |            |          |  |           | [S168 12]                  |           | [S510 6]  |
|                                       | RIVER CAEN 100 M D/S OF STW              | [E30A13]                    | SS 4850 3540                  | DD                           | [SMRE]2I                | EBB               | 12                      |                    | 12   |    | 6   | 3   |     |     |     |    |     |     |    |       | 12   |           |      |      |          |            |          |  |           | [S168 12]                  |           | [S510 6]  |
|                                       | RIVER CAEN 250 M D/S OF STW              | [E30A12]                    | SS 4840 3520                  | DD                           | [SMRE]2I                | EBB               | 12                      |                    | 12   |    | 6   |     |     |     |     |    |     |     |    |       | 12   |           |      |      |          |            |          |  |           | [S168 12]                  |           | [S510 6]  |
| 30A VERADEC LTD CP                    | DISCHARGE FROM OUTFALL                   | [P30A/P/25]                 | SS 4845 3530                  | DD                           | [SMRE]5A                | EBB               | 3                       |                    | 3    | 3  | 3   |     | 3   | 3   |     | 3  |     |     |    |       |      |           |      |      |          |            |          |  | [S533 3]  |                            |           |           |
|                                       | SURFACE BOIL                             | [P30A/P/25C]                | SS 4845 3525                  | DD                           | [SMRE]2I                | EBB               | 3                       |                    | 3    |    | 3   |     |     |     |     |    |     |     |    |       |      |           |      |      |          |            |          |  | [S167 3]  | [S174 3]                   |           |           |
| 30A BARNSTABLE<br>(ASHFORD) STW       | FINAL EFFLUENT                           | [WSTW3013FE]                | SS 5320 3440                  | RS                           | [SQMS]4T                | EBB               | 12                      | 3                  | 12   | 3  | 12  | 6   | 12  | 12  | 12  | 12 | 12  |     | 12 |       |      | 12        |      |      |          |            |          |  |           | [S143 12]                  | [S158 3]  | [S513 6]  |
|                                       | SURFACE BOIL                             | [WSTW3013C]                 | SS 5295 3420                  | DD                           | [SMRE]2I                | EBB               | 12                      | 3                  | 12   |    | 6   |     |     |     |     |    |     |     |    |       | 12   |           |      |      |          |            |          |  |           | [S168 12]                  | [S177 3]  | [S510 6]  |
|                                       | TW ESTUARY 100 M U/S OF STW              | [E30A7]                     | SS 5310 3393                  | DD                           | [SMRE]2I                | EBB               | 12                      |                    | 12   |    | 6   |     |     |     |     |    |     |     |    |       | 12   |           |      |      |          |            |          |  |           | [S168 12]                  |           | [S510 6]  |
|                                       | TW ESTUARY 100 M D/S OF STW              | [E30A11]                    | SS 5310 3420                  | DD                           | [SMRE]2I                | EBB               | 12                      |                    | 12   |    | 6   |     |     |     |     |    |     |     |    |       | 12   |           |      |      |          |            |          |  |           | [S168 12]                  |           | [S510 6]  |
|                                       | TW ESTUARY 250 M D/S OF STW              | [E30A10]                    | SS 5285 3430                  | DD                           | [SMRE]2I/9C             | EBB               | 12                      |                    | 12   |    | 6   |     |     |     |     |    |     |     |    | 6     | 6    | 12        |      |      |          |            |          |  |           | [S168 12]                  | [S454 6]  | [S510 6]  |
|                                       | NETWORK SITE - ESTUARY MOUTH OFF CROW PT | [E30A14]                    | SS 4685 3180                  | DD                           | [SMRE]2I                | EBB               | 1                       | 1                  | 1    |    | 1   |     |     | 1   |     |    | 1   |     |    |       | 1    |           |      |      |          |            |          |  |           | [S166 1]                   | [S178 1]  | [S449 1]  |
| 30A CROYDE/GEORGEHAM<br>OUTFALL       | DISCHARGE FROM OUTFALL                   | [OUT3514]                   | SS 4220 4030                  | DD                           | [SMRE]4B                | EBB               | 3                       |                    | 3    | 3  | 3   |     | 3   | 3   |     | 3  |     |     |    |       | 3    |           |      |      |          |            |          |  |           | [S145 3]                   | [S156 3]  |           |
|                                       | SURFACE BOIL                             | [OUT3514C]                  | SS 4210 4030                  | DD                           | [SMRE]2J                | EBB               | 3                       |                    | 3    |    | 3   |     |     |     |     |    |     |     |    |       | 3    |           |      |      |          |            |          |  |           | [S166 3]                   |           |           |
|                                       | SEA - 100M FROM SURFACE BOIL             | [OUT3514D]                  | -                             | DD                           | [SMRE]2J                | EBB               | 3                       |                    | 3    |    | 3   |     |     |     |     |    |     |     |    |       | 3    |           |      |      |          |            |          |  |           | [S166 3]                   |           |           |
|                                       | SEA - 250M FROM SURFACE BOIL             | [OUT3514E]                  | -                             | DD                           | [SMRE]2J                | EBB               | 3                       |                    | 3    |    | 3   |     |     |     |     |    |     |     |    |       | 3    |           |      |      |          |            |          |  |           | [S166 3]                   |           |           |

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 OP+ON = ORGANO-P & ORGANO-N COMPOUNDS  
 Cd L2 = Cd & List 2 METALS

| DISCHARGE          | MONITORING POINT NAME | USER<br>REFERENCE<br>NUMBER | NATIONAL<br>GRID<br>REFERENCE | PUMP CODE<br>MEN-<br>SAR | MPT.<br>ICL<br>CODE | TIDAL<br>SITUE | MAX<br>SAMP | SAMPLING FREQUENCY |    |       |    |     |     |     |     |     |    |     |     |    |       |      | SEDIMENTS |      | DISCHARGES |          | ANALYSIS REQUIREMENT GROUP |          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|                    |                       |                             |                               |                          |                     |                |             | FREQ               | Hg | Cd L2 | As | OC1 | OC2 | VOC | PCP | TBT | pH | OP1 | OP2 | PY | METAL | CC'S | ECOLI     | SAN1 | SAN2       | ARG FREQ | ARG FREQ                   | ARG FREQ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 30A WOOLACOMBE STW | FINAL EFFLUENT        | W61W8332FE                  | SS 4515 4419                  | DD                       | SMRE                | 4S             | EBB         | 3                  |    | 3     |    | 3   |     | 3   |     | 3   | 3  | 3   |     | 3  |       |      |           |      | 3          |          |                            |          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |



NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
MONITORING PROGRAMME FOR EC DANGEROUS SUBSTANCES DIRECTIVE (76/464/EEC)-1993

**GUIDANCE NOTES**

**1. CRITERIA FOR SITE SELECTION**

The sampling programme for 1993 has been drawn up to include the requirements of Annex 1A and Paris Commission monitoring programmes and the report "NRA Programme for the Compliance Monitoring of Water Quality".

All discharges must have samples taken at their surface boil in order to get an indication of whether the EQSs are likely to be exceeded. In cases where EQSs are being exceeded there is a requirement for sites at 100 m and 250 m away from the surface boil and in the direction of the effluent plume.

**2. SAMPLING FREQUENCY**

**a) Discharges and Receiving Waters**

The **MINIMUM** sampling frequency is dependent upon the following:

- i) Frequency of 12 if the discharge is consented for List I substances, or has a trade effluent agreement for List I substances, and the results are to be reported to DoE.
- ii) Frequency of 12 if the results are to be reported for Annex 1A and Paris Commission purposes.
- iii) Frequency of 6 if the discharge is not consented for List I, nor has trade effluent agreement for List I, but there have been historical, occasional problems with EQS compliance with List I or List II substances.
- iv) Frequency of 3 if the monitoring is for the purpose of screening the discharge and receiving waters for the presence of List I or List II substances.
- v) Frequency of 3 for Sanitary and COD on discharge samples, where the discharge has a deemed consent and is not sampled under Quality Regulation's Audit Programme.

**NOTE :** In the 1993 Programme, the **ACTUAL** number of results required at the end of the year is indicated in the sampling frequency.

**b) Sediments**

The **MINIMUM** sampling frequency is dependant upon the following:

- i) Frequency of 1 if a standstill in concentrations of List I substances has been shown at that site.

ii) Frequency of 6 if it has not been possible to show a standstill in concentrations of List I substances.

c) Biota

The sampling requirements for biota are now incorporated in the Bioaccumulation Monitoring Programme for 1993

3. SAMPLING

i) Samples are to be taken for E.Coli (9935) at all sewage discharges with receiving water sites, and Salinity (3028) at all sites whenever samples are taken for other determinands.

ii) Effluent/discharge samples are to be collected for Routine Sanitary and COD from discharges with Deemed Consents, which do not appear on the Audit Programme.

iii) All samples are to be taken on the EBB tide.

iv) All samples are to be recorded under the purpose code SMRE.

v) Sample bottles are to be labelled as soon as is practically possible and not left until reaching port.

vi) Samples from coastal network sites should be taken at a point at least 200 m away from the nearest plume. Such samples will provide information on background water quality at sites surrounding plumes but not actually affected by the plume at the time of sampling.

vii) Samples from estuarine network sites should be taken at a point at least 400m downstream of the relevant discharge.

viii) Surface boil monitoring should be targeted at the point of maximum concentration within the effluent plume itself. Where practical difficulties make this impossible, the Assistant Scientist (Tidal Waters-Chemistry) should be informed. Monitoring points at 100m and 250m from the surface boil, should be selected, on each sampling occasion, to be at positions most likely to be directly influenced by the discharge.

ix) Land based sample runs should be undertaken in the same discharge order and about the same time as the corresponding boat runs.

3. ANALYSIS

The analysis requirements for each site are detailed on the programme and are as follows:

Discharges

Hg Total mercury

CdL2 Total cadmium, copper, chromium, lead, nickel, zinc, boron, iron,

vanadium

As Total arsenic

OC1 Aldrin, Dieldrin, Endrin, Isodrin, DDT isomers, HCH isomers, HCB, HCB<sub>D</sub>, TCB isomers

OC2 Endosulphan A & B, Trifluralin

VOC Chloroform, tetrachloromethane, 1,2-dichloroethane, 1,1,1-trichloroethane, trichloroethylene, tetrachloroethylene

PCP Pentachlorophenol

TBT Tributyltin and triphenyltin

pH Effluent pH

OP1 Atrazine, Simazine, Azinphos-methyl, Fenitrothion, Malathion, Dichlorvos

OP2 Parathion-methyl, parathion-ethyl, Fenthion, Azinphos-ethyl

FY PCSDs, Permethrin (cis and trans), Cyfluthrin, Sulcofuron, Flucifuron

SAN1 (Paris Commission Nutrients) SS(105°C), Conductivity, Ammonia, Nitrite, Nitrate, TON, Phosphate, Total phosphate

SAN2 (Deemed Consent Sanitary) SS (105°C), Chloride ion, Ammonia, TON, COD, BOD

Receiving Waters

Hg Total and dissolved mercury

CdL2 Dissolved and particulate cadmium, copper, chromium, lead, nickel, zinc, iron

As Total and dissolved arsenic

OC1 Aldrin, Dieldrin, Endrin, Isodrin, DDT isomers, HCH isomers

VOC Chloroform, tetrachloromethane, 1,2-dichloroethane, 1,1,1-trichloroethane, trichloroethylene, tetrachloroethylene

PCP Pentachlorophenol

TBT Tributyltin and triphenyltin

OP1 See discharges

FY See discharges

Sediments

Metals Mercury, cadmium, copper, chromium, lead, nickel, iron, zinc, boron, iron, vanadium, arsenic.

OC Aldrin, dieldrin, endrin, isodrin, DDT isomers, HCH isomers, HCB, HCB<sub>D</sub>, PCP

2 November 1992

## 6. SHELLFISH WATERS SURVEY

### 6.1 EC DESIGNATED SHELLFISHERIES PROGRAMME

#### 6.1.1 DESCRIPTION OF PROGRAMME

In the South West three shellfish areas have been designated under the EC Shellfish Water Directive. Sites are monitored in accordance with the requirements of the Directive. Two surveys are carried out per year at a specified point within each shellfish area. On each survey eight samples are collected at half hourly intervals around the time of high water. Samples of water are collected to measure a range of determinands including temperature, dissolved oxygen, pH, bacteria, metals and pesticides. 12 shellfish are also collected, pooled together and analysed for bacteria, metals and pesticides.

#### 6.1.2 REASON FOR MONITORING:

The EC Shellfish Water Directive (79/923/EEC) lays down certain requirements for the quality of designated waters which support shellfish (bivalve and gastropod molluscs). It's purpose is to safeguard shellfish populations from the harmful consequences resulting from the discharge of polluting substances into the sea. It is aimed at protecting the shellfish populations themselves rather than the health of the consumers. The NRA must monitor in the designated areas to assess compliance with conditions laid down in an Annex to the Directive. The Annex specifies standards for specified parameters, which must be met in the water and in the shellfish flesh.

#### 6.1.3 PROGRAMME INFORMATION

|                                        |      |           |
|----------------------------------------|------|-----------|
| Numbers of sampling points             | :    | 3         |
| Numbers of samples                     | :    | 54        |
| Frequency of use of Analysis           |      |           |
| Requirement Groups (ARGs) and total    | S380 | 48 (2640) |
| numbers of determinands, in brackets : | S480 | 6 (252)   |
|                                        | S455 | 6 (48)    |

Details of the composition of each ARG may be found in the NRA South West Region's ARG Dictionary.

#### 6.1.4 EXPLANATION OF SCHEDULE CONTENTS

The following table details the sampling and analysis requirements for this programme. The User Reference Number (URN) is the unique identification code for the site. It allows sample results for the site to be retrieved from the Water Quality Archive (sample database). The National Grid Reference (NGR) defines the location of the site on a map. The Material Code details the type of sample collected, for example 2J is sea water, 2F is freshwater, 2I is estuarine water. It forms part of the information about each particular sample held on the Water Quality Archive. The Purpose Code details the reason why a particular sample has been collected. For example, SQMB relates to EC Directive monitoring - bathing waters. SMRE relates to routine monitoring

analysis (for EC Directives), SQMR relates to routine monitoring (in general). This code allows samples collected for particular reasons (from one or several sites) to be retrieved from the Water Quality Archive. The Mensar Purpose Code has to be a 2 digit code. It is translated to the equivalent code (eg. SMRE) on the ICL computer, where the Water Quality Archive is held, once the data is transferred to the ICL.

#### 6.1.5 ENDORSEMENT

The contents of this programme have been agreed by the Water Quality Planner, Field Controller and Laboratory Controller.

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
 1993 MONITORING PROGRAMME - EC SHELLFISHERIES  
 PROGRAMME LAST UPDATED : 10-NOV-1992

| SITE                                    | USER REF<br>NO. | N.G.R.     | SURVEY<br>DATE | SAMPLING<br>FREQ. | PURPOSE<br>CODE<br>ICL | PURPOSE<br>CODE<br>MENSAR | ANALYSIS<br>(ARG<br>NUMBERS) | MAT.<br>CODE   | NO. OF<br>SAMPLES               |
|-----------------------------------------|-----------------|------------|----------------|-------------------|------------------------|---------------------------|------------------------------|----------------|---------------------------------|
| HELFOED ESTUARY AT<br>FRENCHMAN'S CREEK | E19A            | SW 746 264 | 1993           | 2                 | SQMF                   | SD                        | S380<br>S480<br>S455         | 2I<br>9C<br>9C | 8<br>12 (POOLED)<br>12 (POOLED) |
| FAL ESTUARY AT<br>TURNWARE BAR          | E19B            | SW 834 383 | 1993           | 2                 | SQMF                   | SD                        | S380<br>S480<br>S455         | 2I<br>9C<br>9C | 8<br>12 (POOLED)<br>12 (POOLED) |
| PERCUIL RIVER                           | E19B            | SW 857 339 | 1993           | 2                 | SQMF                   | SD                        | S380<br>S480<br>S455         | 2I<br>9C<br>9C | 8<br>12 (POOLED)<br>12 (POOLED) |

## 6.2 NON DESIGNATED SHELLFISHERIES PROGRAMME

### 6.2.1 DESCRIPTION OF PROGRAMME

Water and shellfish quality are monitored at twelve sites in the region using the same protocol as that adopted for the EC designated shellfisheries.

### 6.2.2 REASON FOR MONITORING

This programme is driven by the proposed system of SWQOs which will include a use for protecting commercially harvested shellfish.

There is a new EC Directive which is being implemented by the Department of Health and MAFF. Shellfish harvesting areas in this region will be designated under the Health Directive. It is probable that the NRA (as the Competent Authority for implementing the EC Shellfish Water Directive) will be required to designate harvesting areas under the Shellfish Water Directive and improve water quality where necessary to meet the standards in that Directive. This programme will provide data on the current water quality in these harvesting areas and an indication of how much water quality will need to be improved to comply with the Directive.

### 6.2.3 PROGRAMME INFORMATION

|                                                                          |      |                               |
|--------------------------------------------------------------------------|------|-------------------------------|
| Total numbers of sampling points                                         | :    | 57 (39 to be sampled in 1993) |
| Total numbers of samples                                                 | :    | 513                           |
| Frequency of use of Analysis                                             |      |                               |
| Requirement Groups (ARGs) and total numbers of determinands, in brackets |      |                               |
|                                                                          | S094 | 224 (12544)                   |
|                                                                          | S095 | 28 (868)                      |
|                                                                          | S380 | 232 (12760)                   |
|                                                                          | S480 | 29 (1218)                     |
|                                                                          | S455 | 57 (456)                      |

Details of the composition of each ARG may be found in the NRA South West Region's ARG Dictionary.

### 6.2.4 EXPLANATION OF SCHEDULE CONTENTS

The following table details the sampling and analysis requirements for this programme. The User Reference Number (URN) is the unique identification code for the site. It allows sample results for the site to be retrieved from the Water Quality Archive (sample database). The National Grid Reference (NGR) defines the location of the site on a map. The Material Code details the type of sample collected, for example 2J is sea water, 2F is freshwater, 2I is estuarine water. It forms part of the information about each particular sample held on the Water Quality Archive. The Purpose Code details the reason why a particular sample has been collected. For example, SQMB relates to EC Directive monitoring - bathing waters. SMRE relates to routine monitoring

analysis (for EC Directives), SQMR relates to routine monitoring (in general). This code allows samples collected for particular reasons (from one or several sites) to be retrieved from the Water Quality Archive. The Mensar Purpose Code has to be a 2 digit code. It is translated to the equivalent code (eg. SMRE) on the ICL computer, where the Water Quality Archive is held, once the data is transferred to the ICL.

#### 6.2.5 ENDORSEMENT

The contents of this programme have been agreed by the Water Quality Planner, Field Controller and Laboratory Controller.



NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
1993 MONITORING PROGRAM - NON DESIGNATED SHELLFISHERIES  
PROGRAM LAST UPDATED : 18 FEB 93

| SITE          | USER REF<br>NO. | N.G.R.                            | SURVEY<br>DATE | SAMPLING<br>FREQ. | PURPOSE<br>CODE | PURPOSE<br>DESCR | ANALYSIS-<br>GROUPS<br>+ DETERM'S | INT.<br>CODE | NO. OF<br>SAMPLES |
|---------------|-----------------|-----------------------------------|----------------|-------------------|-----------------|------------------|-----------------------------------|--------------|-------------------|
| EXE ESTUARY   | ED5A5F          | SX 9900 8191                      | 1993           | 1                 | SN              | SQF              | S094<br>S095<br>S455              | ZI           | 8                 |
|               |                 |                                   |                |                   | SN              | SQF              | S095                              | 9C           | 12 (ROLLED)       |
|               |                 |                                   |                |                   | SN              | SQF              | S455                              | 9C           | 12 (ROLLED)       |
| EXE ESTUARY   | ED55F1          | SX 9770 8305<br>Oysters           | 1993           | 1                 | SN              | SQF              | S094<br>S095<br>S455              | ZI           | 8                 |
|               |                 |                                   |                |                   | SN              | SQF              | S095                              | 9C           | 12 (ROLLED)       |
|               |                 |                                   |                |                   | SN              | SQF              | S455                              | 9C           | 12 (ROLLED)       |
| EXE ESTUARY   | ED55F2          | SX 9850 8001<br>Oysters           | 1993           | 1                 | SN              | SQF              | S094<br>S095<br>S455              | ZI           | 8                 |
|               |                 |                                   |                |                   | SN              | SQF              | S095                              | 9C           | 12 (ROLLED)       |
|               |                 |                                   |                |                   | SN              | SQF              | S455                              | 9C           | 12 (ROLLED)       |
| EXE ESTUARY   | ED55F3          | SX 9792 8110<br>Mussels + Oysters | 1994           | 1                 | SN              | SQF              | S094<br>S095<br>S455              | ZI           | 8                 |
|               |                 |                                   |                |                   | SN              | SQF              | S095                              | 9C           | 12 (ROLLED)       |
|               |                 |                                   |                |                   | SN              | SQF              | S455                              | 9C           | 12 (ROLLED)       |
| EXE ESTUARY   | ED55F4          | SX 9820 8024<br>Mussels           | 1994           | 1                 | SN              | SQF              | S094<br>S095<br>S455              | ZI           | 8                 |
|               |                 |                                   |                |                   | SN              | SQF              | S095                              | 9C           | 12 (ROLLED)       |
|               |                 |                                   |                |                   | SN              | SQF              | S455                              | 9C           | 12 (ROLLED)       |
| EXE ESTUARY   | ED55F5          | SX 9800 8065<br>Mussels           | 1994           | 1                 | SN              | SQF              | S094<br>S095<br>S455              | ZI           | 8                 |
|               |                 |                                   |                |                   | SN              | SQF              | S095                              | 9C           | 12 (ROLLED)       |
|               |                 |                                   |                |                   | SN              | SQF              | S455                              | 9C           | 12 (ROLLED)       |
| EXE ESTUARY   | ED55F6          | SX 9780 8095<br>Relaying area     | 1993           | 1                 | SN              | SQF              | S094<br>S095<br>S455              | ZI           | 8                 |
|               |                 |                                   |                |                   | SN              | SQF              | S095                              | 9C           | 12 (ROLLED)       |
|               |                 |                                   |                |                   | SN              | SQF              | S455                              | 9C           | 12 (ROLLED)       |
| TEIGN ESTUARY | ED6A2F          | SX 8930 7241                      | 1993           | 1                 | SN              | SQF              | S094<br>S095<br>S455              | ZI           | 8                 |
|               |                 |                                   |                |                   | SN              | SQF              | S095                              | 9C           | 12 (ROLLED)       |
|               |                 |                                   |                |                   | SN              | SQF              | S455                              | 9C           | 12 (ROLLED)       |
| TEIGN ESTUARY | ED65F1          | SX 9032 7250<br>Oysters           | 1993           | 1                 | SN              | SQF              | S094<br>S095<br>S455              | ZI           | 8                 |
|               |                 |                                   |                |                   | SN              | SQF              | S095                              | 9C           | 12 (ROLLED)       |
|               |                 |                                   |                |                   | SN              | SQF              | S455                              | 9C           | 12 (ROLLED)       |
| TEIGN ESTUARY | ED65F2          | SX 9120 7242<br>Oysters           | 1993           | 1                 | SN              | SQF              | S094<br>S095<br>S455              | ZI           | 8                 |
|               |                 |                                   |                |                   | SN              | SQF              | S095                              | 9C           | 12 (ROLLED)       |
|               |                 |                                   |                |                   | SN              | SQF              | S455                              | 9C           | 12 (ROLLED)       |
| TEIGN ESTUARY | ED65F3          | SX 9200 7270<br>Oysters           | 1993           | 1                 | SN              | SQF              | S094<br>S095<br>S455              | ZI           | 8                 |
|               |                 |                                   |                |                   | SN              | SQF              | S095                              | 9C           | 12 (ROLLED)       |
|               |                 |                                   |                |                   | SN              | SQF              | S455                              | 9C           | 12 (ROLLED)       |
| TEIGN ESTUARY | ED65F4          | SX 9244 7265<br>Oysters           | 1993           | 1                 | SN              | SQF              | S094<br>S095<br>S455              | ZI           | 8                 |
|               |                 |                                   |                |                   | SN              | SQF              | S095                              | 9C           | 12 (ROLLED)       |
|               |                 |                                   |                |                   | SN              | SQF              | S455                              | 9C           | 12 (ROLLED)       |
| TEIGN ESTUARY | ED65F5          | SX 9270 7270<br>Oysters           | 1993           | 1                 | SN              | SQF              | S094<br>S095<br>S455              | ZI           | 8                 |
|               |                 |                                   |                |                   | SN              | SQF              | S095                              | 9C           | 12 (ROLLED)       |
|               |                 |                                   |                |                   | SN              | SQF              | S455                              | 9C           | 12 (ROLLED)       |
| TEIGN ESTUARY | ED65F6          | SX 9254 7265<br>Mussels           | 1994           | 1                 | SN              | SQF              | S094<br>S095<br>S455              | ZI           | 8                 |
|               |                 |                                   |                |                   | SN              | SQF              | S095                              | 9C           | 12 (ROLLED)       |
|               |                 |                                   |                |                   | SN              | SQF              | S455                              | 9C           | 12 (ROLLED)       |
| DAVE ESTUARY  | ED7A8F          | SX 8590 5570<br>Oysters           | 1993           | 1                 | SN              | SQF              | S094<br>S095<br>S455              | ZI           | 8                 |
|               |                 |                                   |                |                   | SN              | SQF              | S095                              | 9C           | 12 (ROLLED)       |
|               |                 |                                   |                |                   | SN              | SQF              | S455                              | 9C           | 12 (ROLLED)       |
| DAVE ESTUARY  | ED75F1          | SX 8742 5600<br>Oysters           | 1993           | 1                 | SN              | SQF              | S094<br>S095<br>S455              | ZI           | 8                 |
|               |                 |                                   |                |                   | SN              | SQF              | S095                              | 9C           | 12 (ROLLED)       |
|               |                 |                                   |                |                   | SN              | SQF              | S455                              | 9C           | 12 (ROLLED)       |
| KINGSBRIDGE   | ED8A5F          | SX 7450 4060                      | 1993           | 1                 | SN              | SQF              | S094<br>S095<br>S455              | ZI           | 8                 |

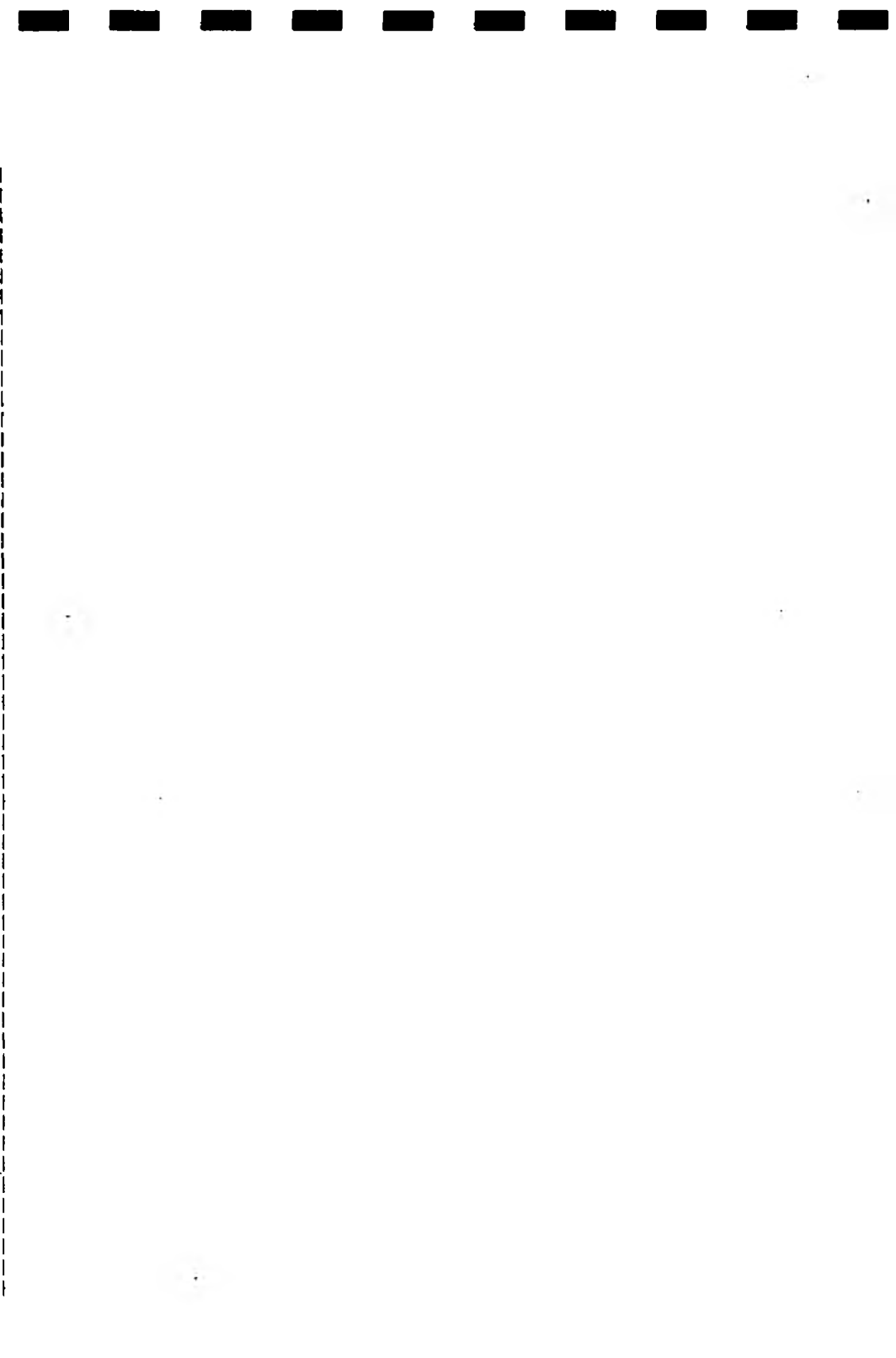
NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
 1993 MONITORING PROGRAMME - NON DESIGNATED SHELLFISHERIES  
 PROGRAMME LAST UPDATED : 18 FEB 93

| SITE                  | USER REF<br>NO. | N.G.R.                                             | SURVEY<br>DATE | SAMPLING<br>FREQ. | PURPOSE<br>CODE<br>MENSUR | PURPOSE<br>CODE<br>ICL | ANALYSIS-<br>GROUPS<br>+ DETERM'DS | PAT.<br>CODE | NO. OF<br>SAMPLES |
|-----------------------|-----------------|----------------------------------------------------|----------------|-------------------|---------------------------|------------------------|------------------------------------|--------------|-------------------|
| ESTUARY               |                 |                                                    |                |                   | SN                        | SQMF                   | S095<br>S455                       | 9C           | 12 (POOLED)       |
| KINGSRIDGE<br>ESTUARY | E08SF1          | SK 7400 4149<br>off Garston Pt<br>(Collapit Ck)    | 1993           | 1                 | SN<br>SN                  | SQMF<br>SQMF           | S094<br>S095<br>S455               | ZI<br>9C     | 8<br>12 (POOLED)  |
| KINGSRIDGE<br>ESTUARY | E08SF2          | SK 7478 4100<br>off Wareham Pt<br>(W charleton Ck) | 1993           | 1                 | SN<br>SN                  | SQMF<br>SQMF           | S094<br>S095<br>S455               | ZI<br>9C     | 8<br>12 (POOLED)  |
| KINGSRIDGE<br>ESTUARY | E08SF3          | SK 7560 4120<br>SSW Ham Pt<br>(N Pool Ck)          | 1993           | 1                 | SN<br>SN                  | SQMF<br>SQMF           | S094<br>S095<br>S455               | ZI<br>9C     | 8<br>12 (POOLED)  |
| AVON ESTUARY          | E08A8SF         | SK 6730 4485<br>(off Haxdown Quay)<br>Mr P Lewis   | 1993           | 1                 | SN<br>SN                  | SQMF<br>SQMF           | S094<br>S095<br>S455               | ZI<br>9C     | 8<br>12 (POOLED)  |
| YEALM ESTUARY         | E10A6SF         | SK 5432 4991                                       | 1993           | 1                 | SN<br>SN                  | SQMF<br>SQMF           | S380<br>S480<br>S455               | ZI<br>9C     | 8<br>12 (POOLED)  |
| YEALM ESTUARY         | E10SF1          | TO BE DETERMINED                                   | 1993           | 1                 | SN<br>SN                  | SQMF<br>SQMF           | S380<br>S480<br>S455               | ZI<br>9C     | 8<br>12 (POOLED)  |
| TIMAR ESTUARY         | E12A7SF         | SK 4271 5722                                       | 1993           | 1                 | SN<br>SN                  | SQMF<br>SQMF           | S380<br>S480<br>S455               | ZI<br>9C     | 8<br>12 (POOLED)  |
| TIMAR ESTUARY         | E12SF1          | TO BE DETERMINED                                   | 1993           | 1                 | SN<br>SN                  | SQMF<br>SQMF           | S380<br>S480<br>S455               | ZI<br>9C     | 8<br>12 (POOLED)  |
| TIMAR ESTUARY         | E12SF2          | TO BE DETERMINED                                   | 1993           | 1                 | SN<br>SN                  | SQMF<br>SQMF           | S380<br>S480<br>S455               | ZI<br>9C     | 8<br>12 (POOLED)  |
| TIMAR ESTUARY         | E12SF3          | TO BE DETERMINED                                   | 1993           | 1                 | SN<br>SN                  | SQMF<br>SQMF           | S380<br>S480<br>S455               | ZI<br>9C     | 8<br>12 (POOLED)  |
| POWEY ESTUARY         | E15A3SF         | SK 1283 5285                                       | 1993           | 1                 | SN<br>SN                  | SQMF<br>SQMF           | S380<br>S480<br>S455               | ZI<br>9C     | 8<br>12 (POOLED)  |
| POWEY ESTUARY         | E15SF1          | SK 1280 5250<br>Jetty No 3                         | 1994           | 1                 | SN<br>SN                  | SQMF<br>SQMF           | S380<br>S480<br>S455               | ZI<br>9C     | 8<br>12 (POOLED)  |
| POWEY ESTUARY         | E15SF2          | SK 1275 5280<br>Jetty No 6                         | 1994           | 1                 | SN<br>SN                  | SQMF<br>SQMF           | S380<br>S480<br>S455               | ZI<br>9C     | 8<br>12 (POOLED)  |
| POWEY ESTUARY         | E15SF3          | SK 1251 5288<br>Jetty No 8                         | 1994           | 1                 | SN<br>SN                  | SQMF<br>SQMF           | S380<br>S480<br>S455               | ZI<br>9C     | 8<br>12 (POOLED)  |
| PAL ESTUARY           | E19A6SF         | SW 8253 3768                                       | 1993           | 1                 | SN<br>SN                  | SQMF<br>SQMF           | S380<br>S480<br>S455               | ZI<br>9C     | 8<br>12 (POOLED)  |



NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
 1993 MONITORING PROGRAMME - NON DESIGNATED SHELLFISHERIES  
 PROGRAMME LAST UPDATED : 18 FEB 93

| SITE        | USER REF<br>NO. | N.G.R.                                             | SURVEY<br>DATE | SAMPLES<br>FREQ. | PURPOSE<br>CODE<br>MENSAR | PURPOSE<br>CODE<br>ICL | ANALYSIS<br>GROUPS<br>(+ DETERM'DS) | MGT.<br>CODE | NO. OF<br>SAMPLES |
|-------------|-----------------|----------------------------------------------------|----------------|------------------|---------------------------|------------------------|-------------------------------------|--------------|-------------------|
| FAL ESTUARY | EL9SF1          | SW 8375 4310<br>Cockles<br>Calenick Creek          | 1994           | 1                | SN<br>SN                  | SQF<br>SQF             | S380<br>S480<br>S455                | 2I<br>9C     | 8<br>12 (POOLED)  |
| FAL ESTUARY | EL9SF2          | SW 8409 4240<br>Cockles<br>Larba Creek             | 1994           | 1                | SN<br>SN                  | SQF<br>SQF             | S380<br>S480<br>S455                | 2I<br>9C     | 8<br>12 (POOLED)  |
| FAL ESTUARY | EL9SF3          | SW 8460 4288<br>Mussels<br>Malpas                  | 1994           | 1                | SN<br>SN                  | SQF<br>SQF             | S380<br>S480<br>S455                | 2I<br>9C     | 8<br>12 (POOLED)  |
| FAL ESTUARY | EL9SF4          | SW 8542 4320<br>Mussels<br>Tresillian River        | 1994           | 1                | SN<br>SN                  | SQF<br>SQF             | S380<br>S480<br>S455                | 2I<br>9C     | 8<br>12 (POOLED)  |
| FAL ESTUARY | EL9SF5          | SW 8525 4200<br>Oysters<br>Grimes Bar              | 1993           | 1                | SN<br>SN                  | SQF<br>SQF             | S380<br>S480<br>S455                | 2I<br>9C     | 8<br>12 (POOLED)  |
| FAL ESTUARY | EL9SF6          | SW 8490 4150<br>Oysters<br>Maggoty Bank            | 1993           | 1                | SN<br>SN                  | SQF<br>SQF             | S380<br>S480<br>S455                | 2I<br>9C     | 8<br>12 (POOLED)  |
| FAL ESTUARY | EL9SF7          | SW 8610 4028<br>Oysters<br>R. Fal (Tolvenne)       | 1993           | 1                | SN<br>SN                  | SQF<br>SQF             | S380<br>S480<br>S455                | 2I<br>9C     | 8<br>12 (POOLED)  |
| FAL ESTUARY | EL9SF8          | SW 8450 4048<br>Cockles<br>off Halwyn              | 1994           | 1                | SN<br>SN                  | SQF<br>SQF             | S380<br>S480<br>S455                | 2I<br>9C     | 8<br>12 (POOLED)  |
| FAL ESTUARY | EL9SF9          | SW 8403 3930<br>Oysters<br>King Harry Ferry        | 1993           | 1                | SN<br>SN                  | SQF<br>SQF             | S380<br>S480<br>S455                | 2I<br>9C     | 8<br>12 (POOLED)  |
| FAL ESTUARY | EL9SF10         | SW 8354 3900<br>Oysters<br>Channels Creek          | 1993           | 1                | SN<br>SN                  | SQF<br>SQF             | S380<br>S480<br>S455                | 2I<br>9C     | 8<br>12 (POOLED)  |
| FAL ESTUARY | EL9SF11         | SW 8230 3761<br>Oysters<br>Parsons Bank            | 1993           | 1                | SN<br>SN                  | SQF<br>SQF             | S380<br>S480<br>S455                | 2I<br>9C     | 8<br>12 (POOLED)  |
| FAL ESTUARY | EL9SF12         | SW 8217 3600<br>Oysters<br>East bank (S End)       | 1994           | 1                | SN<br>SN                  | SQF<br>SQF             | S380<br>S480<br>S455                | 2I<br>9C     | 8<br>12 (POOLED)  |
| FAL ESTUARY | EL9SF13         | SW 8175 3537<br>Oysters + Lays<br>Mylor Churchtown | 1994           | 1                | SN<br>SN                  | SQF<br>SQF             | S380<br>S480<br>S455                | 2I<br>9C     | 8<br>12 (POOLED)  |
| FAL ESTUARY | EL9SF14         | SW 8275 3550<br>Oysters<br>Mylor Bank              | 1995           | 1                | SN<br>SN                  | SQF<br>SQF             | S380<br>S480<br>S455                | 2I<br>9C     | 8<br>12 (POOLED)  |
| FAL ESTUARY | EL9SF15         | SW 8382 3600<br>Oysters + Lays<br>opp. Mylor Bank  | 1995           | 1                | SN<br>SN                  | SQF<br>SQF             | S380<br>S480<br>S455                | 2I<br>9C     | 8<br>12 (POOLED)  |
| FAL ESTUARY | EL9SF16         | SW 8390 3420<br>Oysters<br>St Naves Bank           | 1995           | 1                | SN<br>SN                  | SQF<br>SQF             | S380<br>S480<br>S455                | 2I<br>9C     | 8<br>12 (POOLED)  |
| FAL ESTUARY | EL9SF17         | SW 8100 3352<br>Oysters + Lays<br>Flushing         | 1995           | 1                | SN<br>SN                  | SQF<br>SQF             | S380<br>S480<br>S455                | 2I<br>9C     | 8<br>12 (POOLED)  |



NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
 1993 MONITORING PROGRAMME - NON DESIGNATED SHELF LIFE SERIES  
 PROGRAMME LAST UPDATED : 18 FEB 93

| SITE             | USER REF<br>NO. | N.G.R.           | SURVEY<br>DATE | SAMPLING<br>FREQ. | PURPOSE<br>CODE<br>NENAR | PURPOSE<br>CODE<br>TCL | ANALYSIS -<br>GROUPS<br>+ DETERM'DS | PPT.<br>CODE | NO. OF<br>SAMPLES |
|------------------|-----------------|------------------|----------------|-------------------|--------------------------|------------------------|-------------------------------------|--------------|-------------------|
| CANEL ESTUARY    | E25A8           | SW 9385 7475     | 1993           | 1                 | SN                       | SQMF                   | S380                                | 2I           | 8                 |
|                  |                 |                  |                |                   | SN                       | SQMF                   | S381                                | 9C           | 12 (FOOLED)       |
|                  |                 |                  |                |                   |                          |                        | S455                                | 9C           | 12 (FOOLED)       |
| TW ESTUARY       | E30SF1          | SS 4820 3271     | 1993           | 1                 | SN                       | SQMF                   | S094                                | 2I           | 8                 |
|                  |                 |                  |                |                   | SN                       | SQMF                   | S095                                | 9C           | 12 (FOOLED)       |
|                  |                 |                  |                |                   |                          |                        | S455                                | 9C           | 12 (FOOLED)       |
| TW ESTUARY       | E30SF2          | TO BE DETERMINED | 1993           | 1                 | SN                       | SQMF                   | S094                                | 2I           | 8                 |
|                  |                 |                  |                |                   | SN                       | SQMF                   | S095                                | 9C           | 12 (FOOLED)       |
|                  |                 |                  |                |                   |                          |                        | S455                                | 9C           | 12 (FOOLED)       |
| TW ESTUARY       | E30SF3          | TO BE DETERMINED | 1993           | 1                 | SN                       | SQMF                   | S094                                | 2I           | 8                 |
|                  |                 |                  |                |                   | SN                       | SQMF                   | S095                                | 9C           | 12 (FOOLED)       |
|                  |                 |                  |                |                   |                          |                        | S455                                | 9C           | 12 (FOOLED)       |
| TW ESTUARY       | E30SF4          | TO BE DETERMINED | 1993           | 1                 | SN                       | SQMF                   | S094                                | 2I           | 8                 |
|                  |                 |                  |                |                   | SN                       | SQMF                   | S095                                | 9C           | 12 (FOOLED)       |
|                  |                 |                  |                |                   |                          |                        | S455                                | 9C           | 12 (FOOLED)       |
| TORRIDGE ESTUARY | E29SF1          | SS 4570 2731     | 1993           | 1                 | SN                       | SQMF                   | S094                                | 2I           | 8                 |
|                  |                 |                  |                |                   | SN                       | SQMF                   | S095                                | 9C           | 12 (FOOLED)       |
|                  |                 |                  |                |                   |                          |                        | S455                                | 9C           | 12 (FOOLED)       |
| TORRIDGE ESTUARY | E29SF2          | TO BE DETERMINED | 1993           | 1                 | SN                       | SQMF                   | S094                                | 2I           | 8                 |
|                  |                 |                  |                |                   | SN                       | SQMF                   | S095                                | 9C           | 12 (FOOLED)       |
|                  |                 |                  |                |                   |                          |                        | S455                                | 9C           | 12 (FOOLED)       |
| TORRIDGE ESTUARY | E29SF3          | TO BE DETERMINED | 1993           | 1                 | SN                       | SQMF                   | S094                                | 2I           | 8                 |
|                  |                 |                  |                |                   | SN                       | SQMF                   | S095                                | 9C           | 12 (FOOLED)       |
|                  |                 |                  |                |                   |                          |                        | S455                                | 9C           | 12 (FOOLED)       |



# SHELLFISH ARG DETAILS

The following ARG's have been submitted to Gary Gawler for completion of the shellfish programmes, these are:

## ARG NUMBER

S094 (Water Quality east)

## DETERMINANDS

pH  
conductivity  
colour fil  
Temp  
DO%  
DO mg/L  
merc diss  
merc part  
mercury  
cadmium d  
SS 105  
SS 500  
Carbontet  
Hydroc oil  
weath temp  
weath prec  
salinity  
isodrin  
HCB total  
PCB-28  
PCB-52  
PCB-101  
PCB-118  
PCB-138  
PCB-153  
PCB-180  
flow  
aldrin  
chlord-cis  
DDE-PP  
DDE-OP  
DDT-OP  
DDT-PP  
dieltrin  
endosul-A  
endosul-B  
endrin  
HCH alpha  
HCH beta  
HCH delta  
HCH gamma  
heptachlor  
PCP  
TDE-op  
TDE-pp  
tri-c-meth  
parath-eth



cis-heptae  
tra-heptae  
Cu diss  
Pb diss  
Zn diss  
As diss  
Ni diss  
Ecolip100ml

ARG NUMBER

S380 (Water Quality west)

as above for S094 but -bacti

In addition to the above I requested (22 Oct 92) that the following additions be made to the above ARG's

Ag diss  
Cr diss

Arrangements are apparently being made for this analysis to go to external contract (B Brown)

S095 (Biota east)

To this ARG (see print out) I have requested that the following metals be added (22 Oct 92):

Cd  
Cr  
Cu  
Pb  
Hg  
Ni  
Zn

At present the lab cannot carry out this analysis so B Brown is investigating contract analyses.

S480 (Biota west) as above.

When I recieve confirmation that the above ARG's have been modified accordingly I will remove ARG S455 from the programme.

## 7. ANNEX 1A AND PARIS COMMISSION PROGRAMME

### 7.1 DESCRIPTION OF PROGRAMME

This programme has been drawn up to monitor nationally significant inputs from 22 rivers and 20 discharges to the sea. The rivers are monitored just above the tidal limit. Each site is sampled monthly for particular Red List (or Annex I) Substances (Table 1) and Substances listed by the Paris Commission (Table 2). Flows are also measured at each site to allow total loads for each substance to be estimated.

Many of the sites sampled for this programme are also sampled under the 'routine rivers' or EC Dangerous Substances Directive programmes. Most of the requirements for this programme have now been incorporated into the above. Only samples which cannot be incorporated into these other 2 programmes have been listed here.

### 7.2 REASON FOR MONITORING

The final declaration of the Third North Sea conference, which took place in March 1990 in the Hague, contains wide-ranging measures for the protection of the North Sea. Amongst these are a number of actions agreed by Ministers to reduce the inputs of hazardous substances into the North Sea. As a matter of principle, it was agreed that discharges of all substances that are persistent, toxic and liable to bioaccumulate should be reduced to levels that are not harmful to man or nature before the year 2,000. As an interim step, it was agreed that a reduction of 50% or more should be achieved in the inputs of certain substances via rivers and estuaries between 1985 and 1995. These substances are listed in Annex 1 of the Declaration. The list covers all the substances on the Red List and existing List I, List II metals and dioxins. This list is often referred to as the "Extended Red List". For substances that cause a major threat to the marine environment, and at least for dioxins, mercury, cadmium and lead, it was agreed that reductions between 1985 and 1995 of total inputs (via all pathways) of the order of 70% or more should be achieved, provided that the use of "Best Available Technology" or other low waste technology measures enables such reductions to be made. A series of measures was also agreed upon to prevent PCBs and hazardous PCB substitutes from entering the marine environment.

The NRA is required to carry out the necessary monitoring to enable Government to report on progress in reducing the inputs of Annex I substances. Annual surveys of the loads of each of the substances have to be carried out on all the major river systems entering the North Sea. For the purposes of this programme, the limit of the North Sea extends as far west as the Lizard peninsula in Cornwall.

The Paris Commission (PARCOM) is responsible for administering the implementation of the "Convention for the Prevention of Marine Pollution from Land-based Sources" (The Paris Convention, 1974). The Convention lists 4 different categories of pollutants according to their persistence, toxicity, and potential to bioaccumulate, and sets out the requirements for pollution reduction and elimination. At its tenth

meeting of June 1988 in Lisbon, the Commission reached an agreement that the parties of the Convention should undertake a comprehensive study on riverine inputs of certain substances to the sea. The NRA has the responsibility for conducting the PARCOM Survey each year in England and Wales. It did so for the first time 1990.

### 7.3 PROGRAMME INFORMATION

|                                        |      |                                  |
|----------------------------------------|------|----------------------------------|
| Total numbers of sampling points       | :    | 42 (3 not on other programmes)   |
| Numbers of samples                     | :    | 504 (36 not on other programmes) |
| Frequency of use of Analysis           |      |                                  |
| Requirement Groups (ARGs) and total    | S113 | 12 (204)                         |
| numbers of determinands, in brackets : | S114 | 12 (156)                         |
|                                        | S117 | 12 (120)                         |
|                                        | S124 | 12 (132)                         |
|                                        | S126 | 12 (132)                         |

Details of the composition of each ARG may be found in the NRA South West Region's ARG Dictionary.

### 7.4 EXPLANATION OF SCHEDULE CONTENTS

The following table details the sampling and analysis requirements for this programme. The User Reference Number (URN) is the unique identification code for the site. It allows sample results for the site to be retrieved from the Water Quality Archive (sample database). The National Grid Reference (NGR) defines the location of the site on a map. The Material Code details the type of sample collected, for example 2J is sea water, 2F is freshwater, 2I is estuarine water. It forms part of the information about each particular sample held on the Water Quality Archive. The Purpose Code details the reason why a particular sample has been collected. For example, SQMB relates to EC Directive monitoring - bathing waters. SMRE relates to routine monitoring analysis (for EC Directives), SQMR relates to routine monitoring (in general). This code allows samples collected for particular reasons (from one or several sites) to be retrieved from the Water Quality Archive. The Mensar Purpose Code has to be a 2 digit code. It is translated to the equivalent code (eg. SMRE) on the ICL computer, where the Water Quality Archive is held, once the data is transferred to the ICL.

### 7.5 ENDORSEMENT

The contents of this programme have been agreed by the Water Quality Planner, Field Controller and Laboratory Controller.

TABLE 1

Annex 1A of the Final Declaration of the Third International Conference on the Protection of the North Sea.

LIST OF PRIORITY HAZARDOUS SUBSTANCES

| Substances |                        |
|------------|------------------------|
| 1.         | Mercury                |
| 2.         | Cadmium                |
| 3.         | Copper                 |
| 4.         | Zinc                   |
| 5.         | Lead                   |
| 6.         | Arsenic                |
| 7.         | Chromium               |
| 8.         | Nickel                 |
| 9.         | Drins                  |
| 10.        | HCH                    |
| 11.        | DDT                    |
| 12.        | Pentachlorophenol      |
| 13.        | Hexachlorobenzene      |
| 14.        | Hexachlorobutadiene    |
| 15.        | Carbon Tetrachloride   |
| 16.        | Chloroform             |
| 17.        | Trifluralin            |
| 18.        | Endosulfan             |
| 19.        | Simazine               |
| 20.        | Atrazine               |
| 21.        | Tributyltin compounds  |
| 22.        | Triphenyltin compounds |
| 23.        | Azinphos-ethyl         |
| 24.        | Azinphos-methyl        |
| 25.        | Fenitrothion           |
| 26.        | Fenthion               |
| 27.        | Malathion              |
| 28.        | Parathion              |
| 29.        | Parathion-methyl       |
| 30.        | Dichlorvos             |
| 31.        | Trichloroethylene      |
| 32.        | Tetrachloroethylene    |
| 33.        | Trichlorobenzene       |
| 34.        | 1,2-Dichloroethane     |
| 35.        | Trichloroethane        |
| 36.        | Dioxins                |

**TABLE 2**

Mercury (Hg)

Cadmium (Cd)

Copper (Cu)

Zinc (Zn)

Lead (Pb)

PCBs\* (the following congeners: IUPAC Nos 28, 52, 101, 119, 153, 138, 180)

Gamma-HCH (Lindane)

Orthophosphates expressed as P

Total N

Total P

Suspended particulate matter (SPM)

Salinity (in saline waters)

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
 MONITORING PROGRAMME FOR RED LIST, ANNEX 1A AND BATS COMMISSION SERVICES - 1993  
 PROGRAMME LAST UPDATED : 22-JUN-1993  
 FILENAME : (CORPORA\_COMMON)RELIST\_BATS\_RELIST\_BATS\_ANNEX1A\_1993

OC ORGANO CHLORINE COMPOUNDS PCB POLYCHLORINATED BIPHENYLS  
 OP ORGANO PHOSPHORUS COMPOUNDS O/Sn ORGANO TIN  
 VOC VOLATILE ORGANIC COMPOUNDS PCB POLYCHLORINATED BIPHENYLS

| SITE                               | MONITORING POINT NAME  | USER REFERENCE NUMBER | NATURAL GRID REFERENCE | SAMPLING FREQUENCY PER ANNUM | RED LIST | PARTS PER MILLION | ICL. REF. CODE | Hq | O/Sn | OC  | OP | VOC | PCB | PCP | MNR | ANALYSIS REQUEST GROUP |   |                    |
|------------------------------------|------------------------|-----------------------|------------------------|------------------------------|----------|-------------------|----------------|----|------|-----|----|-----|-----|-----|-----|------------------------|---|--------------------|
|                                    |                        |                       |                        |                              |          |                   |                |    |      |     |    |     |     |     |     | 1                      | 2 | 3                  |
| SIDCOUTH CUTFALL                   | DISCHARGE FROM CUTFALL | CUT0800               | SY 1200 8720           | DS                           | /        | RS                | S075 4B        |    |      | *12 |    | *12 |     |     |     |                        |   | SEE DANGEROUS SUBS |
| SEACOUTH SW                        | FINAL EFFLUENT         | SE047600FE            | SY 0240 8040           | DS                           | /        | RS                | S075 4T        |    |      | *12 |    |     |     | *12 |     |                        |   | SEE DANGEROUS SUBS |
| SEATER, COUNTESS WEAR SW           | FINAL EFFLUENT         | SE047594FE            | SY 9480 8900           | DS                           | /        | RS                | S075 4S        |    |      | *12 |    | *12 |     |     |     |                        |   | SEE DANGEROUS SUBS |
| SEMON ABBOT (BLACKLAND) SW         | FINAL EFFLUENT         | SE046250FE            | SY 8830 7210           | DS                           | /        | RS                | S075 4S        |    |      | *12 |    |     |     |     |     |                        |   | SEE DANGEROUS SUBS |
| HOVES ROSE CUTFALL                 | DISCHARGE FROM CUTFALL | CUT0658               | SY 9490 6370           | DS                           | /        | RS                | S075 4B        |    |      | *12 |    | *12 |     |     |     |                        |   | SEE DANGEROUS SUBS |
| SHARPHAM POINT CUTFALL             | DISCHARGE FROM CUTFALL | CUT06516              | SY 9390 5460           | 12                           | /        | RS                | S075 4B        |    |      | *12 |    | *12 |     |     |     |                        |   | SEE DANGEROUS SUBS |
| PLAUNTOH (WASH MILLS) SW           | FINAL EFFLUENT         | SE04728FE             | SY 5201 5628           | DS                           | /        | RS                | S075 4S        |    |      | *12 |    |     |     |     |     |                        |   | SEE DANGEROUS SUBS |
| NAST HEE CUTFALL                   | DISCHARGE FROM CUTFALL | CUT04978              | SY 4730 5360           | DS                           | /        | RS                | S075 4B        |    |      | *12 |    |     |     |     |     |                        |   | SEE DANGEROUS SUBS |
| PLAUNTOH, CAMEL'S HEAD SW          | FINAL EFFLUENT         | SE04722FE             | SY 4530 5700           | DS                           | /        | RS                | S075 4T        |    |      | *12 |    |     |     |     |     |                        |   | SEE DANGEROUS SUBS |
| PLAUNTOH, RUPFORD SW               | FINAL EFFLUENT         | SE04728FE             | SY 5019 5284           | DS                           | /        | RS                | S075 4T        |    |      |     |    | *12 |     |     |     |                        |   | SEE DANGEROUS SUBS |
| PLAUNTOH, BRASSETTLE SW            | FINAL EFFLUENT         | SE04724FE             | SY 4450 6010           | DS                           | /        | RS                | S075 4T        |    |      | *12 |    |     |     |     |     |                        |   | SEE DANGEROUS SUBS |
| PAR SW                             | FINAL EFFLUENT         | SE04666FE             | SY 0731 5230           | DS                           | /        | RS                | S075 4B        |    |      |     |    | *12 |     |     |     |                        |   | SEE DANGEROUS SUBS |
| PLAUNTOH DICKYARD CORNERED CUTFALL | DISCHARGE FROM CUTFALL | PL0494/1              | SY 8180 3250           | DS                           | /        | RS                | S075 5A        |    |      |     |    |     |     |     |     |                        |   | SEE DANGEROUS SUBS |
| GEORR MORE CUTFALL                 | DISCHARGE FROM CUTFALL | PL0224/2/44           | SY 3720 3490           | DS                           | /        | RS                | S075 5A        |    |      |     |    |     |     |     |     |                        |   | SEE DANGEROUS SUBS |
| CHMOORE (NORTH CLIFTS) CUTFALL     | DISCHARGE FROM CUTFALL | CUT0508               | SY 6283 4237           | DS                           | /        | RS                | S075 4B        |    |      | *12 |    |     |     |     |     |                        |   | SEE DANGEROUS SUBS |
| REDHILL (FOURTEENTH) CUTFALL       | DISCHARGE FROM CUTFALL | CUT0579               | SY 6640 4520           | DS                           | /        | RS                | S075 4B        |    |      |     |    | *12 |     |     |     |                        |   | SEE DANGEROUS SUBS |
| NEAQUAY (TOWN HEAD) CUTFALL        | DISCHARGE FROM CUTFALL | CUT02046              | SY 8008 6297           | DS                           | /        | RS                | S075 4B        |    |      | *12 |    |     |     |     |     |                        |   | SEE DANGEROUS SUBS |
| BLIDE LONG SEA CUTFALL             | DISCHARGE FROM CUTFALL | NEW LRM               |                        | DS                           | /        | RS                | S075 4T        |    |      |     |    |     |     |     |     |                        |   | SEE DANGEROUS SUBS |
| BRISTABLE (ASHFORD) SW             | FINAL EFFLUENT         | SE040013FE            | SY 5120 3440           | DS                           | /        | RS                | S075 4T        |    |      |     |    |     |     |     |     |                        |   | SEE DANGEROUS SUBS |
| ILFRACREE, CHENE CUTFALL           | DISCHARGE FROM CUTFALL | CUT0530               | SY 5220 4800           | DS                           | /        | RS                | S075 4B        |    |      |     |    | *12 |     |     |     |                        |   | SEE DANGEROUS SUBS |

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
 MONITORING PROGRAMME FOR RED LIST, ANNEX 1A AND PARIS COMMISSION SURVEYS - 1993  
 PROGRAMME LAST UPDATED : 22-JAN-1993  
 FILENAME : [CORPORA\_COMMON.REDLIST\_PARIS]REDLIST\_PARIS\_ANNEX1A\_1993

OC ORGANO CHLORINE COMPOUNDS PCP PENTACHLOROPHENOL  
 OP ORGANO PHOSPHOROUS COMPOUNDS O'Sn ORGANO TIN  
 VOC VOLATILE ORGANOCHLORINE COMPOUNDS PCB POLY-CHLORINATED BIPHENYLS

| SITE                   | MONITORING POINT NAME     | USER<br>REFERENCE<br>NUMBER | NATIONAL<br>GRID<br>REFERENCE | SAMPLING<br>FREQUENCY<br>PER ANNUM | RED<br>LIST<br>/1A | PARTS<br>/1A | MENSAR<br>PURP.<br>CODE | ICL<br>PURP.<br>CODE | PMT.<br>CODE | SAMPLING FREQUENCY |      |     |     |     |     |     |     |     |     |     |     |   |     | ANALYSIS<br>REQUEST GROUP |                    |      |  |
|------------------------|---------------------------|-----------------------------|-------------------------------|------------------------------------|--------------------|--------------|-------------------------|----------------------|--------------|--------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|-----|---------------------------|--------------------|------|--|
|                        |                           |                             |                               |                                    |                    |              |                         |                      |              | Hg                 | O'Sn | Cl  | Cr  | Ni  | As  | OC  | OP  | VOC | PCB | PCP | MUR | 1 | 2   | 3                         |                    |      |  |
|                        |                           |                             |                               |                                    |                    |              |                         |                      |              |                    |      |     |     |     |     |     |     |     |     |     |     |   |     |                           |                    |      |  |
| RIVER AVE              | AVE BRIDGE                | R02B002                     | SY 2590 9270                  | RR                                 |                    | \            | RS                      | SQ'S                 | 2F           |                    |      |     |     |     | *12 | *12 |     |     |     |     |     |   | *12 | SEE ROUTINE RIVERS        |                    |      |  |
| RIVER OTTER            | OTTERTON FOOTBRIDGE       | R04B007                     | SY 0790 8530                  | RR                                 |                    | \            | RS                      | SQ'S                 | 2F           |                    |      |     |     |     | *12 |     |     |     | *12 |     |     |   |     | *12                       | SEE ROUTINE RIVERS |      |  |
| RIVER EGE              | TREWS WEIR (HM POINT)     | R05D004                     | SK 9250 9150                  | RR                                 | \                  | \            | RS                      | SQ'S                 | 2F           |                    |      |     |     |     | *12 | *12 |     |     |     |     |     |   |     | *12                       | SEE ROUTINE RIVERS |      |  |
| RIVER TEIGN            | TEIGN BRIDGE              | R06B002                     | SK 8590 7350                  | 12                                 | \                  | \            | RS                      | SQ'S                 | 2F           |                    |      |     | 12  | 12  | 12  | 12  |     |     |     |     |     |   | 12  | SL13                      | SL24               | SL26 |  |
| RIVER AVON             | HATCH                     | R08B005                     | SK 7140 4730                  | RR                                 |                    | \            | RS                      | SQ'S                 | 2F           |                    |      |     |     |     |     |     |     |     | *12 |     |     |   |     | *12                       | SEE ROUTINE RIVERS |      |  |
| RIVER ERME             | SEQUER'S BRIDGE           | R09B003                     | SK 6320 5190                  | RR                                 |                    | \            | RS                      | SQ'S                 | 2F           |                    |      |     |     |     |     |     |     |     |     |     |     |   | *12 |                           | SEE ROUTINE RIVERS |      |  |
| RIVER PLUM             | PLUM BRIDGE               | R11B006                     | SK 5240 5870                  | RR                                 |                    | \            | RS                      | SQ'S                 | 2F           |                    |      |     |     |     |     |     |     |     |     |     |     |   |     | *12                       | SEE ROUTINE RIVERS |      |  |
| RIVER TAMAR            | GLUNTSLAKE BRIDGE (HM)    | R12B003                     | SK 4330 7230                  | RR                                 | \                  | \            | RS                      | SQ'S                 | 2F           | *12                | *12  | *12 | *12 | *12 | *12 |     |     |     |     |     |     |   |     | *12                       | SEE ROUTINE RIVERS |      |  |
| RIVER TAWY             | LOWELL DAM                | R12D007                     | SK 4750 6500                  | RR                                 | \                  | \            | RS                      | SQ'S                 | 2F           | *12                |      | *12 | *12 | *12 |     |     |     |     | *12 |     |     |   |     | *12                       | SEE ROUTINE RIVERS |      |  |
| RIVER LYNHER           | NOTTER BRIDGE (HM)        | R12Q007                     | SK 3850 6090                  | RR                                 | \                  | \            | RS                      | SQ'S                 | 2F           | *12                |      | *12 | *12 |     |     |     |     |     | *12 |     |     |   |     | *12                       | SEE ROUTINE RIVERS |      |  |
| RIVER TIDY             | TIDFORD                   | R12R004                     | SK 3440 5960                  | RR                                 | \                  |              | RS                      | SQ'S                 | 2F           |                    |      |     |     |     |     |     |     |     | *12 |     |     |   |     |                           | SEE ROUTINE RIVERS |      |  |
| RIVER POWY             | RESTORMEL                 | R15B006                     | SK 1080 6130                  | RR                                 | \                  | \            | RS                      | SQ'S                 | 2F           | *12                |      | *12 |     |     |     |     |     |     |     |     |     |   |     | *12                       | SEE ROUTINE RIVERS |      |  |
| RIVER ENR              | ST BLAZEY BRIDGE          | R16A005                     | SK 0710 5520                  | RR                                 |                    | \            | RS                      | SQ'S                 | 2F           |                    |      |     |     |     | *12 |     |     |     |     |     |     |   |     |                           | SEE ROUTINE RIVERS |      |  |
| RIVER FAL              | TRECKNEY                  | R19C006                     | SW 9200 4470                  | RR                                 | \                  | \            | RS                      | SQ'S                 | 2F           |                    |      |     |     |     | *12 | *12 | *12 |     |     |     |     |   |     | *12                       | SEE ROUTINE RIVERS |      |  |
| RIVER CANNON           | DEVORAN BRIDGE (HM)       | R19B004                     | SW 7910 3800                  | RR                                 | \                  | \            | RS                      | SQ'S                 | 2F           | *12                |      | *12 | *12 | *12 |     |     |     |     |     |     |     |   |     |                           | SEE ROUTINE RIVERS |      |  |
| NEWLYN RIVER           | MOUNIS BAY                | R21A005                     | SW 4620 2900                  | 12                                 | \                  |              | RS                      | SQ'S                 | 2F           |                    |      |     |     |     |     |     |     | 12  |     |     |     |   |     | SL14                      |                    |      |  |
| RIVER HAYLE            | ST ERTH                   | R22B004                     | SW 5490 3510                  | RR                                 | \                  | \            | RS                      | SQ'S                 | 2F           |                    |      |     |     |     | *12 | *12 | *12 |     |     |     |     |   |     | *12                       | SEE ROUTINE RIVERS |      |  |
| RED RIVER              | GWITHIAN TOWNS (HM)       | R23A006                     | SW 5830 4220                  | RR                                 | \                  | \            | RS                      | SQ'S                 | 2F           | *12                |      | *12 | *12 | *12 |     |     |     |     |     |     |     |   |     |                           | SEE ROUTINE RIVERS |      |  |
| RIVER CAMEL            | GROGLEY HAUT              | R25B008                     | SK 0150 6860                  | RR                                 |                    | \            | RS                      | SQ'S                 | 2F           |                    |      |     |     |     | *12 |     | *12 |     |     |     |     |   | 12  |                           | SEE ROUTINE RIVERS |      |  |
| RIVER TORRIDGE         | BEAM BRIDGE (HM)          | R29B034                     | SS 4730 2090                  | RR                                 | \                  | \            | RS                      | SQ'S                 | 2F           | *12                | *12  | *12 | *12 | *12 |     |     |     |     | *12 |     |     |   |     | *12                       | SEE ROUTINE RIVERS |      |  |
| RIVER TAW              | CHAPLETON FOOTBRIDGE (HM) | R30B014                     | SS 5820 2610                  | RR                                 | \                  | \            | RS                      | SQ'S                 | 2F           | *12                |      | *12 | *12 | *12 |     |     |     |     | *12 |     |     |   |     | *12                       | SEE ROUTINE RIVERS |      |  |
| RIVER YED (BARNSTAPLE) | COLLARDS BRIDGE           | R30H006                     | SS 5960 3570                  | RR                                 |                    | \            | RS                      | SQ'S                 | 2F           |                    |      |     |     |     |     |     |     |     |     |     |     |   |     | *12                       | SEE ROUTINE RIVERS |      |  |

TOTAL NO. OF SAMPLES = 36

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
MONITORING PROGRAMME FOR ANNEX 1A AND PARIS COMMISSION SURVEYS - 1993

GUIDANCE NOTES

1. SAMPLING PROGRAMME

Wherever possible, the sampling requirements for 1993 for these programmes have been rationalised with the EC Dangerous Substances Programme (discharges to tidal waters) and the Routine Rivers Programme. This is to minimize the number of sampling visits required as there is significant overlap between the determinands required for all of these monitoring programmes.

Where the requirements of the Annex 1A and/or Paris Commission programme are to be met by one of the other programme, the sampling frequency has been marked with "\*" on the programme, and the programme where the sampling is to be carried out under the ARG column.

2. SAMPLING FREQUENCY

The minimum requirement for this programme is 12 samples per site for the determinands specified taken at monthly intervals. This applies even if the sampling has been incorporated into another programme.

3. ANALYSIS

i) Trace Metals :

| Annex 1A        | Paris Commission |
|-----------------|------------------|
| Mercury         | Mercury          |
| Cadmium         | Cadmium          |
| Copper          | Copper           |
| Lead            | Lead             |
| Zinc            | Zinc             |
| Arsenic         |                  |
| Chromium        |                  |
| Nickel          |                  |
| Total Organotin |                  |

ii) Organics:

| Annex 1A                              | Paris Commission               |
|---------------------------------------|--------------------------------|
| Aldrin                                | gamma HCH                      |
| alpha,beta,gamma HCH                  | Total HCH                      |
| Dieldrin                              | PCBs 28,52,101,118,138,153,180 |
| Endrin                                |                                |
| DDT isomers (opDDT,ppDDT,opDDE,optDE) |                                |
| Endosulphan A & B                     |                                |
| PCBs 28,52,101,118,138,153,180        |                                |
| Trifluralin                           |                                |
| Hexachlorobenzene                     |                                |
| Hexachlorobutadiene                   |                                |
| Pentachlorophenol                     |                                |



**Annex 1A (cont)**

Trichlorobenzene (1,2,3-; 1,2,4-; 1,3,5- isomers)

1,2 - Dichloroethane

Carbontetrachloride

Chloroform

Tetrachloroethylene

Trichloroethylene

Trichloroethane

Dichlorvos

Fenthion

Fenitrothion

Malathion

Simazine

Atrazine

Azinphos-methyl

Azinphos-ethyl

Parathion-methyl

Parathion-ethyl

**iii) Inorganics :**

**Annex 1A**

None

**Paris Commission**

Nitrate as N

Nitrite as N

TON as N

Ammonia as N

Orthophosphate as P

Suspended solids (105°C)

Conductivity

26 October 1992

## 8. NATIONAL MARINE MONITORING PROGRAMME

### 8.1 DESCRIPTION OF PROGRAMME

3 estuary sites (in the Tamar estuary) and 1 (offshore) site are monitored 4 times per year (seasonally) as part of a UK wide programme of sites. The 3 estuary sites have been chosen to represent the salinity regimes 0-10, 10-20 and 20-30 part per thousand. The offshore, or intermediate, site is at the seaward extent of the estuary's influence. Samples of water are collected for nutrients, metals, pesticides, microbiology, salinity, temperature, oxygen, suspended solids, oyster embryo bioassay and chlorophyll a samples of sediment are taken for metal content and oyster embryo bioassay. Samples of biota (mussels or oysters or cockles and seaweed) are collected for pesticides and metals. An annual survey of the benthic fauna (and associated sediment physical characteristics) at each site is also carried out.

A one off special survey is also required for a specified list of determinands.

### 8.2 REASON FOR MONITORING

This programme is a first step in the process of producing a national standard monitoring protocol for estuaries which will ultimately seek to rationalise existing monitoring programmes undertaken by the various NRA regions. It incorporates recommendations by the Marine Pollution Monitoring Management Group arising out of their review of the UK Marine Monitoring Programme. It also forms part of the Monitoring Master Plan of the North Sea Task Force (NSTF); it is the ultimate intention that NRA will be responsible for monitoring NSTF sampling locations in major estuaries and out to 3 miles (the NRA's statutory limit for Water Quality purposes). The programme represents a minimum scheme which must be achieved.

### 8.3 PROGRAMME INFORMATION

|                                        |      |          |
|----------------------------------------|------|----------|
| Numbers of sampling points             | :    | 4        |
| Numbers of samples                     | :    | 13       |
| Frequency of use of Analysis           |      |          |
| Requirement Groups (ARGs) and total    | S097 | 13 (793) |
| numbers of determinands, in brackets : | S098 | 4 (120)  |
|                                        | S099 | 4 (152)  |
|                                        | S100 | 4 (32)   |

Details of the composition of each ARG may be found in the NRA South West Region's ARG Dictionary.

### 8.4 EXPLANATION OF SCHEDULE CONTENTS

The following table details the sampling and analysis requirements for this programme. The User Reference Number (URN) is the unique identification code for the site. It allows sample results for the site to be retrieved from the Water Quality Archive (sample database). The National Grid Reference (NGR) defines the location of the site on a map.

The **Material Code** details the type of sample collected, for example 2J is sea water, 2F is freshwater, 2I is estuarine water. It forms part of the information about each particular sample held on the Water Quality Archive. The **Purpose Code** details the reason why a particular sample has been collected. For example, SQMB relates to EC Directive monitoring - bathing waters. SMRE relates to routine monitoring analysis (for EC Directives), SQMR relates to routine monitoring (in general). This code allows samples collected for particular reasons (from one or several sites) to be retrieved from the Water Quality Archive. The **Mensar Purpose Code** has to be a 2 digit code. It is translated to the equivalent code (eg. SMRE) on the ICL computer, where the Water Quality Archive is held, once the data is transferred to the ICL.

#### 8.5 **ENDORSEMENT**

The contents of this programme have been agreed by the Water Quality Planner, Field Controller and Laboratory Controller.

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
 NATIONAL MARINE MONITORING PROGRAMME - 1993  
 PROGRAMME LAST UPDATED : 25-JAN-1993

| LOCATION               | MONITORING POINT  | USER<br>REFERENCE<br>NUMBER | NATIONAL GRID<br>REFERENCE | MENSAR<br>PURPOSE<br>CODE | PURPOSE<br>CODE | MRT.<br>CODE | TIDAL<br>STAGE | ANALYSIS FREQUENCY |       |          |           |         |          |                      | ARG  |      |      |
|------------------------|-------------------|-----------------------------|----------------------------|---------------------------|-----------------|--------------|----------------|--------------------|-------|----------|-----------|---------|----------|----------------------|------|------|------|
|                        |                   |                             |                            |                           |                 |              |                | WATER              |       |          | SEDIMENT  |         |          | BIOACC-<br>UMULATION | S097 | S098 | S099 |
|                        |                   |                             |                            |                           |                 |              |                | CHEMISTRY          | BACTI | BIOASSAY | CHEMISTRY | BIOLOGY | BIOASSAY |                      |      |      |      |
| TAMAR ESTUARY          | HALTON QUAY       | SF021                       | SK 4130 6550               | BS                        | SQMS            | ZL/8B/9C     | HW NEAP        | 4                  | 4     | 1        | 1         | 1       | 1        | *1                   | 4    | 1    | 1    |
|                        | WARREN POINT      | SF022                       | SK 4410 6060               | BS                        | SQMS            | ZL/8B/9C     | HW NEAP        | 4                  | 4     | 1        | 1         | 1       | 1        | *1                   | 4    | 1    | 1    |
|                        | HAMDAZE           | SF023                       | SK 4410 5600               | BS                        | SQMS            | ZL/8B/9C     | HW NEAP        | 4                  | 4     | 1        | 1         | 1       | 1        | *1                   | 4    | 1    | 1    |
| PLYMOUTH SOUND         | INTERMEDIATE SITE | CL2A001                     | 50°02'N 04°22'W            | BS                        | SQMS            | ZL/8B/9C     | -              | 1                  | 1     | 1        | 1         | 1       | 1        | -                    | 1    | 1    | 1    |
|                        | (MBA Station E1)  |                             | SK 3053 1755               |                           |                 |              |                |                    |       |          |           |         |          |                      |      |      |      |
| TOTAL NO. OF SAMPLES = |                   |                             |                            |                           |                 |              |                | 13                 | 13    | 4        | 4         | 4       | 4        |                      |      |      |      |

NOTES :  
 THE BIOACCUMULATION REQUIREMENTS OF THIS PROGRAMME ARE INCORPORATED IN THE BIOACCUMULATION PROGRAMME 1993  
 S097: WATER CHEMISTRY AND MICROBIOLOGY  
 S098: SEDIMENT CHEMISTRY  
 S099: OYSTER EPHEMO BIOASSAY

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
MONITORING PROGRAMME FOR THE NATIONAL MARINE MONITORING PLAN - 1993

**GUIDANCE NOTES**

**1. CRITERIA FOR SITE SELECTION**

This monitoring programme has been set up to achieve the objectives of the NRA Baseline study proposals, and North Sea Task Force (NSTF) requirements.

The only estuary currently specified for the South West region is the Tamar estuary. The three sites within the estuary have been chosen to represent the salinity regimes 0-10, 10-20, 20-30 ppt. There is also one intermediate site at the seaward extent of the estuary's influence, at MBA site E1, (50°02'N, 04°22'W), 11 miles offshore.

**2. SAMPLING PROTOCOL**

**i) Water Samples**

a) Tidal state : Estuarine samples should be collected at high water on a neap tide, unless local conditions cause worse conditions at other tidal states. Neap tides are preferred for intermediate site sampling.

b) Depth in water column : Samples should be collected 1m below the surface. If significant stratification occurs samples from each layer will also be required.

**ii) Bioaccumulation Samples (January to March)**

The bioaccumulation requirement of this programme is to be carried out under the 1993 Bioaccumulation Programme. (Biological materials for the "one-off" screening survey must be collected according to NSTF protocols).

**iii) Biological Sampling (November to February)**

Estuarine sediment samples should be collected from areas with salinity regimes consistent with the water sampling and should be representative of different substrates present in the estuary. Samples should also be collected from the estuarine site.

Benthic organisms should be identified to the species level after sieving through 0.5mm mesh (1mm for sand). Separate samples from the same location will be required for granulometric analysis, Total C and N, presence of coal (where appropriate), and redox potential (Eh) at 1 cm intervals to a depth of 10cm.

**iv) Oyster Embryo Bioassay (November to February)**

This test is to be carried out on estuarine and intermediate site water and sediments.

### 3. SAMPLING FREQUENCY

i) Estuarine sites - the routine physicochemical, chemical and microbiology determinands are to be sampled 4 times per annum, once in every season (see Estuary Classification Programme for the definition of season). Biological samples should be taken once in the period November to February inclusive.

ii) Intermediate sites - Samples for physicochemical, biological determinands and oyster embryo bioassay samples are to be taken once per annum during November to February inclusive.

### 3. ANALYSIS

#### i) Routine Physicochemical Determinands.

Filtered water samples: NH<sub>3</sub> as N  
NO<sub>3</sub> as N  
NO<sub>2</sub> as N  
PO<sub>4</sub> as P  
SiO<sub>2</sub>  
Copper  
Lead  
Cadmium  
Nickel  
Zinc  
Chromium (if possible)

Unfiltered water samples: Salinity  
Temperature  
Oxygen  
Secchi depth  
Suspended solids  
Chlorophyll a  
DDT (ppDDE, ppDDT, ppTDE, opDDE, opDDT)  
HCB  
CHCl<sub>3</sub>  
HCH (alpha and gamma)  
Dieldrin  
Aldrin  
Endrin  
HCB  
PCBs (congeners: 28, 52, 101, 118, 153, 138, 180)  
PCP  
CCl<sub>4</sub>  
Mercury  
Arsenic

|                    |                     |
|--------------------|---------------------|
| Sediment samples : | Copper              |
|                    | Lead                |
|                    | Cadmium             |
|                    | Mercury             |
|                    | Nickel              |
|                    | Zinc                |
|                    | Chromium            |
|                    | HCB (<1mm fraction) |

Note : Trace metals to be done on <63 $\mu$ m fraction with Aqua Regia digestion and whole sediments, with HF digestion or other "total" method eg XRF.

Bioaccumulation samples:

|                          |                                                    |
|--------------------------|----------------------------------------------------|
| Molluscs only            | DDT (ppDDE, ppDDT, ppTDE, opDDE, opDDT)            |
| <u>Mytilus edulis</u> OR | HCBD                                               |
| <u>Ostrea edulis</u> OR  | CHCl <sub>3</sub>                                  |
| <u>Ceratoderma edule</u> | HCH (alpha and gamma)                              |
|                          | PCB'S (congeners: 28, 52, 101, 118, 153, 138, 180) |
|                          | Dieldrin                                           |
|                          | Endrin                                             |
|                          | CCl <sub>4</sub>                                   |

|                             |         |
|-----------------------------|---------|
| Seaweed and molluscs        | Cadmium |
| <u>Fucus vesiculosus</u> OR | Mercury |
| other Furoid algae          | Lead    |
| Molluscs as above           | Zinc    |

ii) Microbiological samples.

E.Coli  
Total Coliforms  
Faecal streptococci

iii) Biological samples.

Granulometric analysis of sediment  
Total N  
Total C  
Presence of coal  
Redox Potential  
Benthic infauna

iv) Oyster embryo bioassay - of sediment and water samples.

v) A "one-off" screening survey for the following determinands and matrices may be carried out, to be funded by DoE. However, if any "hot spots" are found, they may need to be included in future baseline surveys.

Unfiltered Seawater : Polynuclear aromatic hydrocarbons (PAH's)  
Polybrominated biphenyls (PBB's)  
Dioxins  
Atrazine  
Simazine  
Toxaphene  
Chlordane

Sediments : PAH's  
Dioxins  
Toxaphene  
Chlordane  
Tributyl Tin (TBT)

Biological Material: PAH's  
(Molluscs) PBB's  
Dioxins  
Atrazine  
Simazine  
Toxaphene  
Chlordane  
Methyl mercury  
TBT

See below for complete list of PAH's and Chlordanes to be analysed.

PAH's: Benz[a]anthracene  
Benzo[a]pyrene  
Benzo[b]fluorathene  
Benzo[e]pyrene  
Benzo[ghi]perylene  
Chrysene  
Fluoranthene  
Indeno[1,2,3-cd]pyrene  
Phenanthrene  
Pyrene

Chlordane: Cis-Chlordane  
Trans-nonachlor  
Trans-chlordane  
Oxychlordane

4 November 1992



## 9. COPA VARIATION ORDER DISCHARGES PROGRAMME

### 9.1 DESCRIPTION OF PROGRAMME

394 discharges to tidal waters with deemed consents are sampled up to 12 times per year for various parameters including sanitary determinands, metals and pesticides. The total programme is split into two sections - one dealing with South West Water (SWWSC) discharges and the other with all private dischargers (other than the water company).

### 9.2 REASON FOR MONITORING

Deemed consents were granted to discharges (to tidal waters) in 1986 under a Variation Order to the 1974 Control of Pollution Act (COPA). Prior to this, these discharges were unconsented (there was no legislative requirement for them to be consented). A deemed consent allows the discharger to carry on discharging what they were doing so previously until such times as a properly determined consent is issued. The NRA has to determine all deemed consents (933 in total) by October 1992. As part of this exercise all the significant discharges are being sampled in order to get a true idea of what is contained in the discharge so that appropriate consent conditions are set.

### 9.3 PROGRAMME INFORMATION

#### i) South West Water discharges:

|                                |   |        |            |
|--------------------------------|---|--------|------------|
| Number of sampling points      | : |        | 124        |
| Number of samples              | : |        | 586        |
| Frequency of use of Analysis   |   |        |            |
| Requirement Groups (ARGs) and  |   | S085 ✓ | 316 (3160) |
| total numbers of determinands, |   | S087 ✓ | 110 (5280) |
| in brackets                    | : | S088 ✓ | 160 (7840) |

#### ii) Non South West Water discharges:

|                                |   |        |            |
|--------------------------------|---|--------|------------|
| Numbers of sampling points     | : |        | 182        |
| Numbers of samples             | : |        | 872        |
| Frequency of use of Analysis   |   |        |            |
| Requirement Groups (ARGs) and  |   | S084 ✓ | 779 (7011) |
| total numbers of determinands, |   | S085 ✓ | 84 (840)   |
| in brackets                    | : | S087 ✓ | 6 (288)    |
|                                |   | S352   | 3 (9)      |

Details of the composition of each ARG may be found in the NRA South West Region's ARG Dictionary.

### 9.4 EXPLANATION OF SCHEDULE CONTENTS

The following table details the sampling and analysis requirements for this programme. The User Reference Number (URN) is the unique identification code for the site. It allows sample results for the site to be retrieved from the Water Quality Archive (sample database). The National Grid Reference (NGR) defines the location of the site on a map.

The Material Code details the type of sample collected, for example 2J is sea water, 2F is freshwater, 2I is estuarine water. It forms part of the information about each particular sample held on the Water Quality Archive. The Purpose Code details the reason why a particular sample has been collected. For example, SQMB relates to EC Directive monitoring - bathing waters. SMRE relates to routine monitoring analysis (for EC Directives), SQMR relates to routine monitoring (in general). This code allows samples collected for particular reasons (from one or several sites) to be retrieved from the Water Quality Archive. The Mensar Purpose Code has to be a 2 digit code. It is translated to the equivalent code (eg. SMRE) on the ICL computer, where the Water Quality Archive is held, once the data is transferred to the ICL.

#### 9.5 ENDORSEMENT

The contents of this programme have been agreed by the Water Quality Planner, Field Controller and Laboratory Controller.

|     | NAME OF DISCHARGE                   | U.R.N.     | N.G.R. OF DISCHARGE | N.G.R. OF SAMPLE POINT | REQUIRED No. by ARG |      |      | MATERIAL CODE |
|-----|-------------------------------------|------------|---------------------|------------------------|---------------------|------|------|---------------|
|     |                                     |            |                     |                        | S085                | S087 | S088 |               |
| 04A | OTTERTON SEWAGE TREATMENT WORKS     | WSTW7702FE | SY 0923 8409        | SY 0912 8400           | 6                   |      |      | 4T            |
| 05A | HOLCOMBE OUTFALL                    | OUT6536    | SX 9608 7534        | SX 9589 7533           |                     | 6    |      | 4B            |
| 05A | EXTON (NORTH) OUTFALL               | OUT7920    | SX 9770 8688        | SX 9781 8693           | 3                   |      |      | 4B            |
| 06A | WITHY POINT COMBINED OUTFALL        | OUT6510    | SX 9319 6547        | SX 9312 6543           |                     | 6    |      | 4B            |
| 07A | DARTMOUTH NORTHERN SLIPWAY OUTFALL  | OUT6418    | SX 8795 5199        | SX 8790 5194           |                     | 6    |      | 4B            |
| 07A | WARFLEET CREEK OUTFALL              | OUT6424    | SX 8828 5053        | SX 8812 5035           |                     | 6    |      | 4B            |
| 07A | LOWER FERRY SLIP OUTFALL            | OUT6442    | SX 8813 5140        | SX 8818 5140           |                     | 6    |      | 4B            |
| 07A | STOKE GABRIEL OUTFALL               | OUT6476    | SX 8477 5691        | SX 8477 5693           | 4                   |      |      | 4B            |
| 07A | BAYARDS COVE OUTFALL                | OUT6410    | SX 8788 5109        | SX 8787 5110           |                     | 6    |      | 4B            |
| 07A | CORONATION PARK OUTFALL             | OUT6412    | SX 8800 5175        | SX 8788 5175           |                     |      | 6    | 4B            |
| 07A | WATERHEAD CREEK OUTFALL             | OUT6444    | SX 8853 5131        | SX 8854 5128           |                     |      | 12   | 4B            |
| 07A | YACHT CLUB OUTFALL KINGSWEAR        | OUT6446    | SX 8812 5095        | SX 8816 5085           |                     |      |      | 4B            |
| 08A | BATSON OUTFALL                      | OUT6462    | SX 7360 3970        | SX 7350 3972           |                     | 3    |      | 4B            |
| 08A | NORTH SANDS OUTFALL SALCOMBE        | OUT6464    | SX 7337 3798        | SX 7313 3819           |                     |      | 6    | 4B            |
| 08A | SOUTH SANDS OUTFALL SALCOMBE        | OUT6466    | SX 7310 3751        | SX 7280 3772           |                     |      | 6    | 4B            |
| 08A | EAST PORTLEMOUTH OUTFALL            | OUT6430    | SX 7406 3839        | SX 7416 3838           | 4                   |      |      | 4B            |
| 08A | GALMPTON (HOPE COVE) STW EFFLUENT   | WSTW6130FE | SX 6740 4001        | SX 6830 4030           | 6                   |      |      | 4T            |
| 08A | STRETE OUTFALL                      | OUT6572    | SX 8443 4662        | SX 8437 4685           | 3                   |      |      | 4G            |
| 08A | TORCROSS/STOKENHAM OUTFALL          | OUT6580    | SX 8241 4170        | SX 8233 4192           | 3                   |      |      | 4B            |
| 08A | STOKE FLEMING (NORTH) OUTFALL       | OUT6568    | SX 8663 4817        | SX 8660 4822           | 3                   |      |      | 4B            |
| 08A | STOKE FLEMING (SOUTH) OUTFALL       | OUT6569    | SX 8652 4803        | SX 8652 4803           | 6                   |      |      | 4B            |
| 09A | HOLBETON STW EFFLUENT               | WSTW4614FE | SX 6246 4979        | SX 6200 5024           | 6                   |      |      | 4T            |
| 11A | ORESTON MARINE ROAD OUTFALL         | OUT4960/3  | SX 4994 5332        |                        |                     |      | 6    | 4B            |
| 11A | ORESTON BAYLYS ROAD OUTFALL         | OUT4960/6  | SX 4985 5318        |                        |                     |      | 6    | 4B            |
| 11A | ORESTON PARK HOUSE, BAYLYS ROAD     | OUT4960/5  | SX 4992 5325        |                        |                     |      | 6    | 4B            |
| 11A | FISHERS NOSE OUTFALL (BARBICAN)     | OUT4926    | SX 4834 5360        |                        |                     |      | 3    | 4B            |
| 11A | ORESTON PARK VIEW OUTFALL           | OUT4960/4  | SX 4993 5327        |                        |                     |      | 6    | 4B            |
| 11A | CITADEL OUTFALL PLYMOUTH            | OUT4934    | SX 4808 5365        |                        |                     |      | 6    | 4B            |
| 11A | MACADAM ROAD (PRINCE ROCK) OUTFALL  | OUT4953    | SX 4967 5359        |                        |                     |      | 3    | 4B            |
| 11A | MOUNTWISE PLYMOUTH OUTFALL          | OUT4954    | SX 4568 5398        |                        |                     |      | 3    | 4B            |
| 11A | EAST END ORESTON OUTFALL            | OUT4960/1  | SX 5001 5363        |                        |                     |      | 6    | 4B            |
| 11A | MUTTON COVE OUTFALL                 | OUT4956    | SX 4529 5394        | SX 4529 5395           |                     |      | 3    | 4B            |
| 12A | CREMYLL OUTFALL                     | OUT4912    | SX 4539 5350        |                        |                     |      | 3    | 4B            |
| 12A | KINGSAND (NORTH) OUTFALL            | OUT4918    | SX 4363 5058        |                        |                     |      | 3    | 4B            |
| 12A | PORTWRINKLE-CRAFTHOLE OUTFALL       | OUT5064    | SX 3562 5366        | SX 3559 5384           |                     |      | 3    | 4B            |
| 12A | SOUTHDOWN C OUTFALL                 | OUT4987    | SX 4362 5261        |                        |                     | 6    |      | 4B            |
| 12A | SOUTHDOWN B OUTFALL                 | OUT4986    | SX 4351 5261        |                        |                     | 6    |      | 4B            |
| 12A | ST. GERMAN'S S T W.                 | WSTW4754FE | SX 3597 5710        | SX 3597 5710           |                     |      | 3    | 4T            |
| 12A | PLYMOUTH POTTERY ROAD OUTFALL       | OUT4962    | SX 4478 5525        |                        |                     |      | 3    | 4B            |
| 12A | LITTLE ASH GARDENS OUTFALL          | OUT4951    | SX 4361 5841        |                        |                     | 2    |      | 4B            |
| 12A | ST. BUDEAUX NORMANDY HILL OUTFALL   | OUT4964    | SX 4368 5865        |                        |                     | 2    |      | 4B            |
| 12A | ST BUDEAUX WHARF OUTFALL            | OUT4968    | SX 4365 5844        |                        |                     | 3    |      | 4B            |
| 13A | DOWNDERRY OUTFALL                   | OUT5010    | SX 3205 5366        | SX 3205 5366           |                     | 2    |      | 4B            |
| 15A | LLOYDS BANK (FOWEY) OUTFALL         | OUT1916    | SX 1266 5174        | SX 1266 5174           | 6                   |      |      | 4B            |
| 15A | POLRUAN (CAR PARK) OUTFALL          | OUT1948    | SX 1269 5111        | SX 1269 5111           |                     |      | 6    | 4B            |
| 15A | SURGERY (FOWEY) OUTFALL             | OUT1917    | SX 1268 5175        | SX 1268 5175           | 6                   |      |      | 4B            |
| 15A | POLRUAN (CASTLE) BLOCKHOUSE OUTFALL | OUT1946    | SX 1234 5109        | SX 1234 5109           |                     |      | 3    | 4B            |
| 15A | POLRUAN POOL OUTFALL                | OUT1947    | SX 1235 5112        | SX 1235 5112           |                     |      | 3    | 4B            |
| 15A | DR O'REILLY'S (FOWEY) OUTFALL       | OUT1954    | SX 1197 5116        | SX 1197 5116           | 6                   |      |      | 4B            |
| 15A | P.J.DINER CAFE (FOWEY) OUTFALL      | OUT1912    | SX 1259 5161        | SX 1259 5161           | 6                   |      |      | 4B            |
| 15A | FOWEY BAKERY:FRONT OUTFALL          | OUT1911    | SX 1258 5161        | SX 1258 5161           | 6                   |      |      | 4B            |
| 15A | TOWN QUAY (FOWEY) OUTFALL           | OUT1914    | SX 1264 5168        | SX 1263 5163           | 4                   |      |      | 4B            |

|     | NAME OF DISCHARGE                    | U.R.N.    | N.G.R. OF DISCHARGE | N.G.R. OF SAMPLE POINT | REQUIRED No. by ARG |      |      | MATERIAL CODE |
|-----|--------------------------------------|-----------|---------------------|------------------------|---------------------|------|------|---------------|
|     |                                      |           |                     |                        | S085                | S087 | S088 |               |
| 15A | TROY CINEMA (FOWEY) OUTFALL          | OUT1915   | SX 1266 5173        | SX 1266 5173           | 6                   |      |      | 4B            |
| 15A | POST OFFICE FRONT (FOWEY) OUTFALL    | OUT2000   | SX 1271 5182        | SX 1271 5182           | 6                   |      |      | 4B            |
| 15A | 4 NORTH STREET (FOWEY) OUTFALL       | OUT2001   | SX 1272 5183        | SX 1272 5183           | 6                   |      |      | 4B            |
| 15A | 38 NORTH STREET (FOWEY) OUTFALL      | OUT1934   | SX 1277 5196        | SX 1277 5196           | 6                   |      |      | 4B            |
| 15A | 30 NORTH STREET (FOWEY) OUTFALL      | OUT1923   | SX 1276 5193        | SX 1276 5193           | 6                   |      |      | 4B            |
| 15A | 34 NORTH STREET (FOWEY) OUTFALL      | OUT1924   | SX 1277 5195        | SX 1277 5195           | 6                   |      |      | 4B            |
| 15A | 48 NORTH STREET (FOWEY) OUTFALL      | OUT1925   | SX 1279 5199        | SX 1279 5199           | 6                   |      |      | 4B            |
| 15A | MISSION HALL (FOWEY) OUTFALL         | OUT1919   | SX 1270 5181        | SX 1270 5181           | 6                   |      |      | 4B            |
| 15A | 22 NORTH STREET (FOWEY) OUTFALL      | OUT1920   | SX 1275 5190        | SX 1275 5190           | 6                   |      |      | 4B            |
| 15A | CUSTOM HOUSE (FOWEY) OUTFALL         | OUT1921   | SX 1271 5183        | SX 1271 5183           | 6                   |      |      | 4B            |
| 15A | 27 ESPLANADE (FOWEY) OUTFALL         | OUT1931   | SX 1247 5155        | SX 1247 5155           | 6                   |      |      | 4B            |
| 15A | A H WATY (FOWEY) OUTFALL             | OUT1932   | SX 1273 5186        | SX 1273 5186           | 6                   |      |      | 4B            |
| 15A | 36 NORTH STREET (FOWEY) OUTFALL      | OUT1933   | SX 1277 5196        | SX 1277 5196           | 6                   |      |      | 4B            |
| 15A | TOWER PARK (FOWEY) OUTFALL           | OUT1930   | SX 1210 5217        | SX 1210 5217           | 6                   |      |      | 4B            |
| 15A | PASSAGE STREET CRANE (FOWEY) OUTFALL | OUT1927   | SX 1281 5211        | SX 1281 5211           | 6                   |      |      | 4B            |
| 15A | 18 PASSAGE STREET (FOWEY) OUTFALL    | OUT1928   | SX 1281 5212        | SX 1281 5212           | 6                   |      |      | 4B            |
| 15A | RIVERSIDE HOTEL SLIPWAY (FOWEY)      | OUT1929   | SX 1279 5217        | SX 1277 5216           | 4                   |      |      | 4B            |
| 15A | PADDLING POOL (FOWEY) OUTFALL        | OUT1902   | SX 1235 5141        | SX 1233 5147           | 3                   |      |      | 4B            |
| 15A | WHITEHOUSE TOILETS (FOWEY) OUTFALL   | OUT1903   | SX 1240 5145        | SX 1240 5145           | 6                   |      |      | 4B            |
| 15A | FOWEY GALLENTS S C (FOWEY) OUTFALL   | OUT2002   | SX 1273 5185        | SX 1273 5185           | 6                   |      |      | 4B            |
| 15A | MR WISERS (FOWEY) OUTFALL            | OUT1901   | SX 1206 5117        | SX 1206 5117           | 6                   |      |      | 4B            |
| 15A | 42 NORTH STREET (FOWEY) OUTFALL      | OUT2004   | SX 1278 5198        | SX 1278 5198           | 6                   |      |      | 4B            |
| 15A | SQUARE RIG (FOWEY) OUTFALL           | OUT2003   | SX 1274 5188        | SX 1274 5188           | 6                   |      |      | 4B            |
| 15A | GOLANT OUTFALL                       | OUT1900   | SX 1236 5469        | SX 1233 5470           | 6                   |      |      | 4B            |
| 15A | 25 ESPLANADE (FOWEY) OUTFALL         | OUT1907   | SX 1249 5156        | SX 1249 5156           | 6                   |      |      | 4B            |
| 15A | 33 ESPLANADE (FOWEY) OUTFALL         | OUT1906   | SX 1246 5154        | SX 1246 5154           | 6                   |      |      | 4B            |
| 15A | P/G EVA (FOWEY) OUTFALL              | OUT1909   | SX 1258 5160        | SX 1258 5160           | 6                   |      |      | 4B            |
| 15A | MARINA HOTEL QUAY (FOWEY) OUTFALL    | OUT1908   | SX 1250 5157        | SX 1250 5157           | 6                   |      |      | 4B            |
| 15A | BODINNICK OUTFALL                    | OUT1905   | SX 1293 5215        | SX 1293 5215           |                     |      | 6    | 4B            |
| 15A | 41 ESPLANADE (FOWEY) OUTFALL         | OUT1904   | SX 1243 5152        | SX 1243 5152           | 6                   |      |      | 4B            |
| 15A | PENLEE                               |           | SX 1208 5123        | SX 1204 5125           | 6                   |      |      | 4B            |
| 15A | LERRYN CAR PARK "OVERFLOW"           | OUT1935   | SX 1401 5707        |                        | 6                   |      |      | 4B            |
| 19A | MYLOR STEPPING STONES OUTFALL        | OUT0400   | SW 8050 3606        | SW 8050 3606           | 4                   |      |      | 4B            |
| 19A | CAERTHILLIAN COVE OUTFALL            | OUT0503   | SW 6943 1244        | SW 6943 1244           | 4                   |      |      | 4B            |
| 19A | PORTSCATHO 1 PENCABE DRANG OUTFALL   | OUT0500   | SW 8798 3514        | SW 8798 3514           | 4                   |      |      | 4B            |
| 19A | PORTSCATHO 2 OUTFALL                 | OUT0501   | SW 8792 3527        | SW 8791 3522           | 4                   |      |      | 4B            |
| 19B | MALPAS OUTFALL OUTFALL               | OUT0450   | SW 8452 4266        | SW 8452 4266           |                     | 6    |      | 4B            |
| 21A | ST.MICHAELS MOUNT OUTFALL            | OUT0532   | SW 5165 3009        | SW 5165 3009           | 4                   |      |      | 4B            |
| 21A | PENLEE OUTFALL                       | OUT0548   | SW 4670 2837        | SW 4670 2837           |                     | 6    |      | 4B            |
| 21A | OPPOSITE SMUGGLERS HOTEL (NEWLYN)    | OUT0505   | SW 4635 2855        | SW 4635 2855           | 6                   |      |      | 4B            |
| 21A | CHYMORVAH OUTFALL                    | OUT0506   | SW 5256 3041        | SW 5265 3046           |                     | 3    |      | 4B            |
| 21A | THE GWELVA OUTFALL                   | OUT0515   | SW 5153 3035        | SW 5183 3035           |                     | 2    |      | 4B            |
| 21A | ABBAY BASIN (PENZANCE) OUTFALL       | OUT0549   | SW 4749 3023        | SW 4749 3023           |                     |      | 3    | 4B            |
| 21A | ROSS BRIDGE (PENZANCE) OUTFALL       | OUT0557   | SW 4758 3014        | SW 4758 3014           |                     |      | 6    | 4B            |
| 21A | PERRANUTHNOE OUTFALL                 | OUT0562   | SW 5352 2912        | SW 5358 2916           |                     | 4    |      | 4B            |
| 21A | SOUTH PIER (PENZANCE) OUTFALL        | OUT0559   | SW 4770 2995        | SW 4770 2995           |                     |      | 6    | 4B            |
| 21A | ALBERT PIER OLD GAS WORKS            | OUT0550/1 | SW 4767 3058        | SW 4767 3058           |                     |      | 3    | 4B            |
| 21A | ALBERT PIER SURFACE WATER            | OUT0550/2 | SW 4767 3056        | SW 4767 3056           |                     |      | 6    | 2C            |
| 21A | BATTERY ROCKS (PENZANCE) OUTFALL     | OUT0552   | SW 4771 2989        | SW 4768 2991           | 4                   |      |      | 4B            |
| 21A | ALBERT PIER (STONE CULVERT NTH)      | OUT0550/3 | SW 4773 3039        | SW 4764 3059           |                     |      | 3    | 4B            |
| 22A | PENDEEN OUTFALL                      | OUT0547   | SW 3715 3493        | SW 3717 3490           |                     | 2    |      | 4B            |
| 22A | PORTHURNO OUTFALL                    | OUT0566   | SW 3897 2207        | SW 3865 2225           | 2                   |      |      | 4B            |

|             | NAME OF DISCHARGE                   | U.R.N.  | N.G.R. OF<br>DISCHARGE | N.G.R. OF<br>SAMPLE POINT | REQUIRED No. by ARG |      |      | MATERIAL<br>CODE |
|-------------|-------------------------------------|---------|------------------------|---------------------------|---------------------|------|------|------------------|
|             |                                     |         |                        |                           | S085                | S087 | S088 |                  |
| 22A         | BOTALLACK OUTFALL                   | OUT0502 | SW 3617 3311           | SW 3831 3310              | 3                   |      |      | 4B               |
| 22A         | PORTHLEDDEEN COVE OUTFALL           | OUT0510 | SW 3542 3199           | SW 3542 3199              | 3                   |      |      | 4B               |
| 22A         | COT VALLEY                          | OUT0586 | SW 3549 3100           | SW 3560 3088              |                     | 2    |      | 4B               |
| 25A         | TREVILLING                          | OUT1974 | SW 9859 7325           | SW 9859 7325              |                     | 4    |      | 4B               |
| 25A         | GONVENA OUTFALL                     | OUT1922 | SW 9895 7273           | SW 9895 7273              |                     | 2    |      | 4B               |
| 26A         | BOSCASTLE OUTFALL                   | OUT2006 | SX 0939 9162           | SX 0970 9137              |                     | 2    |      | 4B               |
| 26A         | BOSSINEY OUTFALL                    | OUT2010 | SX 0603 8935           | SX 0603 8923              | 4                   |      |      | 4B               |
| 28A         | CLOVELLY CRUDE SEWAGE SEA OUTFALL   | OUT3546 | SS 3200 2473           | SS 3194 2473              |                     | 4    |      | 4B               |
| 29A         | LIMERS LANE (OLD KILN) OUTFALL      | OUT3400 | SS 4560 2814           | SS 4560 2814              |                     | 4    |      | 4B               |
| 29A         | LIMERS LANE CRUDE OUTFALL           | OUT3452 | SS 4563 2817           | SS 4563 2817              |                     |      | 2    | 4B               |
| 29A         | WHITEHALL, LANDCROSS - CRUDE DISCH. | OUT3401 | SS 4576 2402           | SS 4576 2402              |                     | 3    |      | 4B               |
| 30A         | BELL SLIP CRUDE OUTFALL             | OUT3405 | SS 4655 3023           | SS 4655 3023              |                     |      | 2    | 4B               |
| 30A         | WESTERN HILL/JUBILEE ROAD OUTFALL   | OUT3404 | SS 4599 3057           | SS 4599 3057              |                     |      | 3    | 4B               |
| 30A         | APPLEDORE POOL CRUDE OUTFALL        | OUT3402 | SS 4614 3110           | SS 4616 3107              |                     |      | 3    | 4B               |
| 30A         | WEST APPLEDORE CRUDE OUTFALL        | OUT3403 | SS 4603 3108           | SS 4603 3108              |                     |      | 3    | 4B               |
| 30A         | DIDDYWELL SEPTIC TANK OUTFALL       | OUT3410 | SS 4518 3037           | SS 4518 3037              | 3                   |      |      | 4G               |
| 30A         | SOUTH ROAD CRUDE OUTFALL            | OUT3406 | SS 4655 3002           | SS 4647 3006              |                     |      | 3    | 4B               |
| 30A         | RICHMOND FARM APPLEDORE SEPTIC TANK | OUT3408 | SS 4520 3044           | SS 4520 3044              | 6                   |      |      | 4G               |
| 30A         | HUBBASTONE SLIP CRUDE OUTFALL       | OUT3407 | SS 4657 2977           | SS 4657 2977              | 6                   |      |      | 4B               |
| 31A         | HELE VILLAGE ILFRACOMBE OUTFALL     | OUT3532 | SS 5370 4807           | SS 5372 4795              |                     |      | 6    | 4B               |
| TOTALS      |                                     |         |                        |                           | 316                 | 110  | 160  |                  |
| TOTAL SITES |                                     | 124     |                        |                           |                     |      |      |                  |

MENSAR PURPOSE CODE PA  
ICL PURPOSE CODE SAUD

S085 SANITARY  
S087 S085+COD+METS  
S088 S087+PEST+PCP/CTC

| NAME OF DISCHARGE                                               | U.R.N.     | N.G.R. OF DISCHARGE | REQUIRED No. by ARG |      |      | MAT CODE |
|-----------------------------------------------------------------|------------|---------------------|---------------------|------|------|----------|
|                                                                 |            |                     | 5084                | 5085 | 5087 |          |
| 06A BEACON QUAY CAPE PUMPING STATION                            | P06A/P/400 | SX 9183 6311        | 5                   |      |      | 4B       |
| 10A FORT BOVISAND, PLYMOUTH                                     | P10A/P/28  | SX 4867 5070        | 3                   |      |      | 4B       |
| 10A FORT STADDON, PLYMOUTH                                      | P10A/P/29  | SX 4915 5196        | 6                   |      |      | 4B       |
| 11A D.W.O. DEPOT, PLYMOUTH                                      | P11A/P/100 | SX 5010 5385        | 6                   |      |      | 4B       |
| 11A CATTEWATER HARBOUR, PLYMOUTH                                | P11A/P/18  | SX 4908 5357        | 4                   |      |      | 5A       |
| 11A MOUNTBATTEN, PLYMOUTH                                       | P11A/P/85  | SX 4882 5305        | 4                   |      |      | 4B       |
| 11A MOUNTBATTEN, PLYMOUTH                                       | P11A/P/86  | SX 4870 5310        | 3                   |      |      | 4B       |
| 11A MOUNTBATTEN, PLYMOUTH                                       | P11A/P/87  | SX 4858 5337        | 3                   |      |      | 4B       |
| 11A MOUNTBATTEN, PLYMOUTH                                       | P11A/P/88  | SX 4861 5337        | 3                   |      |      | 4B       |
| 11A MOUNTBATTEN, PLYMOUTH                                       | P11A/P/89  | SX 4895 5323        | 3                   |      |      | 4B       |
| 11A MOUNTBATTEN, PLYMOUTH                                       | P11A/P/90  | SX 4905 5317        | 3                   |      |      | 4B       |
| 11A TURNCHAPEL, PLYMOUTH                                        | P11A/P/98  | SX 4944 5323        | 3                   |      |      | 4B       |
| 12A PT. BULLOCK DIAMOND WORKS, DEFIANCE SITE, WILCOVE, TORPOINT | P12A/P/101 | SX 4325 5675        | 6                   |      |      | 4G       |
| 12A NORTH YARD DEVONPORT DOCKYARD                               | P12A/P/102 | SX 445355692        | 4                   |      |      | 5H       |
| 12A NORTH YARD DEVONPORT DOCKYARD                               | P12A/P/103 | SX 444205645        | 4                   |      |      | 4B       |
| 12A NORTH YARD DEVONPORT DOCKYARD                               | P12A/P/104 | SX 444565631        | 4                   |      |      | 4B       |
| 12A NORTH YARD DEVONPORT DOCKYARD                               | P12A/P/105 | SX 444945617        | 4                   |      |      | 5H       |
| 12A NORTH YARD DEVONPORT DOCKYARD                               | P12A/P/106 | SX 445905601        | 4                   |      |      | 4B       |
| 12A NORTH YARD DEVONPORT DOCKYARD                               | P12A/P/107 | SX 448295604        | 6                   |      |      | 4B       |
| 12A NORTH YARD DEVONPORT DOCKYARD                               | P12A/P/108 | SX 446845577        | 6                   |      |      | 4B       |
| COMBINED WITH:                                                  |            |                     |                     |      |      |          |
| 12A NORTH YARD DEVONPORT DOCKYARD                               | P12A/P/109 | SX 446995576        |                     |      |      | 4B       |
| 12A NORTH YARD DEVONPORT DOCKYARD                               | P12A/P/110 | SX 447265557        | 4                   |      |      | 4B       |
| 12A MORICE YARD DEVONPORT DOCKYARD                              | P12A/P/111 | SX 4487 5508        | 3                   |      |      | 4B       |
| 12A MORICE YARD DEVONPORT DOCKYARD                              | P12A/P/112 | SX 4478 5501        | 3                   |      |      | 4B       |
| COMBINED WITH:                                                  |            |                     |                     |      |      |          |
| 12A MORICE YARD DEVONPORT DOCKYARD                              | P12A/P/128 | SX 4474 5503        |                     |      |      | 2C       |
| 12A MORICE YARD DEVONPORT DOCKYARD                              | P12A/P/113 | SX 4478 5492        | 3                   |      |      | 4B       |
| 12A MORICE YARD DEVONPORT DOCKYARD                              | P12A/P/129 | SX 4473 5480        | 6                   |      |      | 2C       |
| 12A SOUTH YARD DEVONPORT DOCKYARD                               | P12A/P/131 | SX 4482 5407        | 3                   |      |      | 2C       |
| 12A NORTH YARD DEVONPORT DOCKYARD                               | P12A/P/132 | SX 445305666        | 6                   |      |      | 2C       |
| COMBINED WITH:                                                  |            |                     |                     |      |      |          |
| 12A NORTH YARD DEVONPORT DOCKYARD                               | P12A/P/138 | SX 444875665        |                     |      |      | 2C       |
| 12A NORTH YARD DEVONPORT DOCKYARD                               | P12A/P/133 | SX 445855664        | 6                   |      |      | 2C       |
| 12A NORTH YARD DEVONPORT DOCKYARD                               | P12A/P/134 | SX 446855629        | 6                   |      |      | 2C       |
| COMBINED WITH:                                                  |            |                     |                     |      |      |          |
| 12A NORTH YARD DEVONPORT DOCKYARD                               | P12A/P/135 | SX 446955626        |                     |      |      | 2C       |
| COMBINED WITH:                                                  |            |                     |                     |      |      |          |
| 12A NORTH YARD DEVONPORT DOCKYARD                               | P12A/P/136 | SX 447305615        |                     |      |      | 2C       |
| 12A NORTH YARD DEVONPORT DOCKYARD                               | P12A/P/137 | SX 445415605        | 6                   |      |      | 2C       |
| 12A NORTH YARD DEVONPORT DOCKYARD                               | P12A/P/139 | SX 444525664        | 6                   |      |      | 2C       |
| 12A NORTH YARD DEVONPORT DOCKYARD                               | P12A/P/140 | SX 443555663        | 6                   |      |      | 2C       |
| COMBINED WITH:                                                  |            |                     |                     |      |      |          |
| 12A NORTH YARD DEVONPORT DOCKYARD                               | P12A/P/143 | SX 443905688        |                     |      |      | 2C       |
| 12A NORTH YARD DEVONPORT DOCKYARD                               | P12A/P/141 | SX 442905669        | 6                   |      |      | 2C       |
| 12A NORTH YARD DEVONPORT DOCKYARD                               | P12A/P/142 | SX 4425 5681        | 6                   |      |      | 2C       |
| 12A NORTH YARD DEVONPORT DOCKYARD                               | P12A/P/144 | SX 4451 5666        | 6                   |      |      | 2C       |
| 12A R.N.A.D. BULLPOINT, PLYMOUTH                                | P12A/P/145 | SX 4341 5761        | 6                   |      |      | 4B       |
| 12A R.N.A.D. ERNESETTLE, PLYMOUTH                               | P12A/P/146 | SX 4401 5926        | 6                   |      |      | 4B       |
| 12A H.M.S. RALEIGH, PLYMOUTH                                    | P12A/P/147 | SX 4220 5462        | 6                   |      |      | 4B       |

TIDAL WATERS SAMPLING REQUIREMENT - NON SWWS LTD DISCHARGES 1993  
DATE FILE LAST UPDATED : 03-MAR-1993

|     | NAME OF DISCHARGE                                           | U.R.N.     | N.G.R. OF DISCHARGE | REQUIRED No. by ARG |      |      | MAT CODE |
|-----|-------------------------------------------------------------|------------|---------------------|---------------------|------|------|----------|
|     |                                                             |            |                     | S084                | S085 | S087 |          |
| 12A | H.M.S. RALEIGH, PLYMOUTH                                    | P12A/P/148 | SX 4275 5448        | 6                   |      |      | 4B       |
| 12A | H.M.S. RALEIGH                                              | P12A/P/149 | SX 4290 5450        | 6                   |      |      | 4B       |
| 12A | YONDERBURY POINT, PLYMOUTH                                  | P12A/P/150 | SX 4410 5592        | 6                   |      |      | 4B       |
| 12A | TREGANTLE FORT, PLYMOUTH                                    | P12A/P/154 | SX 3825 5280        | 6                   |      |      | 4B       |
| 12A | R.N.A.D BULLPOINT, PLYMOUTH                                 | P12A/P/155 | SX 4389 5731        | 6                   |      |      | 4B       |
| 12A | H.M.S. RALEIGH, FIRE PAN, PLYMOUTH                          | P12A/P/33  | SX 4200 5456        | 6                   |      |      | 4B       |
| 12A | PT. BULLOCK DIAMOND WORKS, DEFIANCE SITE, WILCOVE, TORPOINT | P12A/P/76  | SX 4329 567         | 6                   |      |      | 4G       |
| 15A | RIVERSIDE HOTEL, 32 PASSAGE ST, FOWEY                       | P15A/P/452 | SX 1272 5186        |                     | 6    |      | 4B       |
| 15A | RIVERSIDE HOTEL, 32 PASSAGE ST, FOWEY                       | P15A/P/453 | SX 1273 5187        |                     | 4    |      | 4B       |
| 15A | RIVERSIDE HOTEL, 32 PASSAGE ST, FOWEY                       | P15A/P/454 | SX 1274 5188        |                     | 6    |      | 5H       |
| 15A | RIVERSIDE HOTEL, 32 PASSAGE ST, FOWEY                       | P15A/P/455 | SX 1275 5189        |                     | 6    |      | 4B       |
| 15A | TOMS YARD, POLRUAN-BY-FOWEY                                 | P15A/P/459 | SX 1265 5107        | 4                   |      |      | 4B       |
| 15A | BRAZEN ISLAND REPAIR YARD, POLRUAN                          | P15A/P/460 | SX 1270 5110        | 6                   |      |      | 4B       |
| 15A | LERRYN QUAY, LERRYN, LOSTWITHIEL                            | P15A/P/475 | SX 1280 5590        | 2                   |      |      | 4B       |
| 15A | CLIFF COTTAGE, ST. VEEP, LOSTWITHIEL                        | P15A/P/478 | SX 1282 5540        | 3                   |      |      | 4B       |
| 17A | BODELVA DRY, PAR DOCKS, PAR *                               | P17A/P/401 | SX 0755 5297        | 3                   |      |      | 2C       |
| 17A | BODELVA DRY, PAR DOCKS, PAR *                               | P17A/P/402 | SX 0755 5297        | 6                   |      |      | 2C       |
| 17A | BODELVA DRY, PAR DOCKS, PAR *                               | P17A/P/404 | SX 0753 5295        | 4                   |      |      | 2C       |
| 17A | BODELVA DRY, PAR DOCKS, PAR *                               | P17A/P/408 | SX 0751 5293        | 3                   |      |      | 5H       |
| 17A | BODELVA DRY, PAR DOCKS, PAR *                               | P17A/P/409 | SX 0750 5292        | 6                   |      |      | 5H       |
| 17A | PORT OF PAR *                                               | P17A/P/410 | SX 0797 5290        | 6                   |      |      | 2C       |
| 17A | PORT OF PAR *                                               | P17A/P/411 | SX 0796 5289        | 6                   |      |      | 2C       |
| 17A | PAR DRYERS-ROTARIES *                                       | P17A/P/412 | SX 0784 5308        |                     | 3    |      | 2C       |
| 17A | PORT OF PAR *                                               | P17A/P/413 | SX 0761 5308        | 6                   |      |      | 5E       |
| 17A | PORT OF PAR *                                               | P17A/P/414 | SX 0759 5305        | 6                   |      |      | 2C       |
| 17A | PORT OF PAR *                                               | P17A/P/415 | SX 0757 5304        | 6                   |      |      | 2C       |
| 17A | PAR DRYERS-SLURRY PLANT *                                   | P17A/P/416 | SX 0766 5267        |                     | 3    |      | 5A       |
| 17A | PAR DRYERS-ROTARIES *                                       | P17A/P/417 | SX 0785 5306        |                     | 3    |      | 5A       |
| 17A | PAR DRYERS-BUELLS *                                         | P17A/P/418 | SX 0750 5282        |                     | 3    |      | 5A       |
| 17A | PAR DRYERS-BUELLS *                                         | P17A/P/419 | SX 0758 5277        |                     | 6    |      | 5A       |
| 17A | PAR DRYERS-BUELLS *                                         | P17A/P/420 | SX 0753 5280        |                     | 6    |      | 5A       |
| 17A | PAR DRYERS-SUMP AT GAS OIL INTAKE *                         | P17A/P/421 | SX 0755 5280        |                     | 6    |      | 5H       |
| 17A | PAR DRYERS-ROTARIES *                                       | P17A/P/422 | SX 0784 5310        |                     | 6    |      | 2C       |
| 17A | PAR DRYERS-ROTARIES *                                       | P17A/P/423 | SX 0782 5313        |                     | 6    |      | 2C       |
| 17A | PORT OF PAR *                                               | P17A/P/424 | SX 0759 5305        | 6                   |      |      | 4B       |
| 17A | PORT OF PAR, PAR MOOR ROAD *                                | P17A/P/425 | SX 0759 5287        | 6                   |      |      | 4G       |
| 17A | PAR DRYERS, ROTARIES OFFICES *                              | P17A/P/426 | SX 0778 5320        |                     | 6    |      | 4G       |
| 17A | PORT OF PAR *                                               | P17A/P/427 | SX 0795 5290        | 6                   |      |      | 2C       |
| 17A | PORT OF PAR *                                               | P17A/P/428 | SX 0785 5301        | 6                   |      |      | 2C       |
| 19A | PUBLIC TOILETS, ST. MAWES CASTLE                            | P19A/P/406 | SW 8410 3270        | 4                   |      |      | 4G       |
| 19A | CHURCHTOWN FARM, MYLOR, FALMOUTH                            | P19A/P/413 | SW 8235 3521        | 3                   |      |      | 5H       |
| 19A | GRENVILLE MOTORS LTD, QUAY HILL, PENRYN                     | P19A/P/417 | SW 7879 3420        | 3                   |      |      | 4B       |
| 19A | FALMOUTH RD, PENRYN                                         | P19A/P/420 | SW 7922 3417        | 4                   |      |      | 4G       |
| 19A | WATERSIDE HOUSE, PENRYN, FALMOUTH                           | P19A/P/421 | SW 7925 3416        | 3                   |      |      | 4G       |
| 19A | COUNTY & DUCHY WHARVES, THE DOCKS                           | P19A/P/422 | SW 8152 3264        | 6                   |      |      | 5E       |
| 19A | FALMOUTH FISHSELLING CO. LTD.                               | P19A/P/424 | SW 8181 3265        | 6                   |      |      | 5E       |
| 19A | GWEEK POST OFFICE & STORES, GWEEK                           | P19A/P/426 | SW 7063 2681        | 4                   |      |      | 4G       |
| 19A | GWEEK INN, GWEEK, HELSTON.                                  | P19A/P/427 | SW 7063 2679        | 3                   |      |      | 4G       |
| 19A | SEACORE LTD., LOWER QUAY, GWEEK.                            | P19A/P/428 | SW 7078 2633        | 4                   |      |      | 4G       |
| 19A | FIVE PILCHARDS INN, PORTHALLOW,                             | P19A/P/437 | SW 7970 2316        | 3                   |      |      | 4B       |

ALL THE DISCHARGES MARKED \*  
MUST BE SAMPLED AT THE  
SAME TIME AS THE TWO  
RECEIVING WATER SITES  
ON THE DANGEROUS  
SUBSTANCE PROGRAMME.

| NAME OF DISCHARGE                              | U.R.N.     | N.G.R. OF DISCHARGE | REQUIRED No. by ARG |      |      | MAT CODE |
|------------------------------------------------|------------|---------------------|---------------------|------|------|----------|
|                                                |            |                     | S084                | S085 | S087 |          |
| 19A KENNACK SANDS CARAVAN PARK                 | P19A/P/441 | SW 7312 1620        | 3                   |      |      | 5H       |
| 19A MULLION COVE HOTEL, MULLION, HELSTON       | P19A/P/446 | SW 6656 1807        | 6                   |      |      | 4B       |
| 19A POLDHU NURSING AND RESIDENTIAL HOME        | P19A/P/448 | SW 6629 1979        | 3                   |      |      | 4G       |
| 19B DUCHY WHARF, TRURO                         | P19B/P/402 | SW 8288 4484        | 6                   |      |      | 4B       |
| 21A DRY DOCK PREMISES, WHARF ROAD, PENZANCE    | P21A/P/408 | SW 4753 3011        | 4                   |      |      | 4B       |
| 21A PUBLIC CONVENIENCES, SOUTH PIER, P.ZANCE   | P21A/P/410 | SW 4781 2996        | 3                   |      |      | 4B       |
| 21A BUCCANEER SHELL SHOP, WHARF RD, P.ZANCE    | P21A/P/411 | SW 4764 3012        | 6                   |      |      | 4B       |
| 21A DOCKERS REST, WHARF RD., PENZANCE          | P21A/P/412 | SW 4762 3011        | 6                   |      |      | 4B       |
| 21A TOLCARNE INN, TOLCARNE PLACE, NEWLYN       | P21A/P/414 | SW 4630 2890        | 6                   |      |      | 4B       |
| 21A SOUTH PIER TOILETS, NEWLYN HARBOUR         | P21A/P/419 | SW 4672 2849        | 4                   |      |      | 4B       |
| 21A NORTH PIER TOILETS                         | P21A/P/420 | SW 4651 2877        | 6                   |      |      | 4B       |
| 21A 35, FORE STREET, NEWLYN                    | P21A/P/422 | SW 4642 2848        | 6                   |      |      | 4B       |
| 21A (TOILETS) PENLEE QUARRY, NEWLYN,           | P21A/P/425 | SW 4700 2795        | 6                   |      |      | 4B       |
| 21A THE MINACK THEATRE, PORTHCURNO,            | P21A/P/432 | SW 3874 2202        | 4                   |      |      | 4G       |
| 22A NORTH OF GREEB ZAWN, LANDS END             | P22A/P/404 | SW 3424 2490        | 3                   |      |      | 4B       |
| 22A SMEATONS PIER                              | P22A/P/408 | SW 5210 4070        | 6                   |      |      | 5E       |
| 22A THE PEDN-OLVA HOTEL, PORTHMINSTER          | P22A/P/412 | SW 5199 4034        | 6                   |      |      | 4B       |
| 22A GRIGGS QUAY, HAYLE                         | P22A/P/413 | SW 5452 3640        | 6                   |      |      | 4B       |
| 22A OLD QUAY HOUSE INN, GRIGGS QUAY, HAYLE     | P22A/P/415 | SW 5456 3639        | 3                   |      |      | 4G       |
| 25A TREVILLING DEPOT, TREVILLING RD, W. BRIDGE | P25A/P/410 | SX 9892 7240        | 4                   |      |      | 5E       |
| 25A RUMBLETUMS, 12 EGLOSHAYLE RD, W. BRIDGE    | P25A/P/417 | SW 9927 7237        |                     | 4    |      | 4B       |
| 25A THE WORKSHOPS, BROOKDALE RD, WADEBRIDGE    | P25A/P/418 | SW 9885 7210        | 4                   |      |      | 4B       |
| 25A TREGWIDEN, TREVOSE HEAD, PADSTOW           | P25A/P/428 | SW 8680 7640        | 3                   |      |      | 4G       |
| 29A BIDNA YARD, APPLIEDORE                     | P29A/P/401 | SS 4654 2973        | 6                   |      |      | 5E       |
| 29A NOMAR BC LTD (ELECTRO PLATING) BIDEFORDN   | P29A/P/418 | SS 4538 2612        |                     |      | 6    | 4B       |
| 30A FREMINGTON TRAINING CAMP, FREMINGTON       | P30A/P/404 | SS 5085 3350        | 6                   |      |      | 4B       |
| 30A MANOR FARM YELLAND LTD, FREMINGTON         | P30A/P/409 | SS 4919 3251        |                     | 4    |      | 5E       |
| TOTALS                                         |            |                     | 467                 | 78   | 6    |          |
| TOTAL SITES -                                  |            |                     | 121                 |      |      |          |

MENSAR PURPOSE CODE PA  
 ICL PURPOSE CODE SAUD

S084 SANITARY  
 S085 SANITARY, COD  
 S087 SANITARY, COD, METALS



## **NATIONAL RIVERS AUTHORITY SOUTH WEST REGION COPA SAMPLING REQUIREMENTS FOR 1993.**

The number of sites for both private and SWWS discharges has been reduced, however the frequency of sampling for the remaining sites has in some cases been increased.

Sites have been removed from the programme if they met any one of the following criteria;

- i) A minimum of 6 samples had been taken that had given consistent results and were not of an exceptional nature.
- ii) Deemed consent status is to be reviewed by march 1993.
- iii) Connection to mains sewer to occur before the end of 1993.
- iv) Consent status has been revoked.

### **SURFACE WATER DISCHARGES**

There are a number of surface water discharges, which have been visited on a number of occasions, but none or very few samples have been taken. The few results from some of these discharges are of quite an exceptional nature and to give these a consent we will require further data.

These surface water discharges are concentrated at North Yard Devonport Dockyard, Port of Fowey and Port of Par/Par Dryers.

Sampling should then occur, if practical after heavy rainfall concentrating on one area at a time until we have sufficient data, to consent these discharges.

As rainfall is more likely in the winter months , we would wish to see the sampling of these discharges occurring in January to March 1993 rather than October to December 1993.

### **SITES VISITED BUT FEW OR NO SAMPLES COLLECTED.**

A number of sites have been visited and no samples or very few samples obtained, due to there being no discharge or the sample point being only accessible at low water.

If practical these sites should be sampled when they are more likely to be discharging ie. for hotels in the summer and early or latter in the day and when the sample point is accessible.

### **PAR DOCKS AREA**

A number of discharges in this area have given results with exceptional low pH results, for this reason two receiving water sites have been added to the Dangerous substances programme, these being Par harbour 100m from docks and sea outside harbour entrance. We then require all the discharges in

catchment 17A (marked with an \*) on the COPA programme to be sampled at the same time as the two receiving water sites.

It should be noted that once we have the minimum consistent data required to consent any of the above discharges, we will then be in the position to remove them from the programme.

Two URN'S are still to be corrected these being for Port of Fowey and Penlee outfall and these should be available soon.

## 10. ESTUARY QUALITY SURVEY

### 10.1 ESTUARY QUALITY SURVEY PROGRAMME - CHEMISTRY

#### 10.1.1 DESCRIPTION

Twenty-two estuary systems in the region are sampled up to four times per year at 113 sites to measure levels of nutrients, bacteria, dissolved oxygen, temperature, salinity, biochemical oxygen demand, chlorophyll A, turbidity and suspended solids. At each site, samples are collected at three depths (surface, mid depth and near bottom), four times during a tidal cycle (high water, mid ebb, low water and mid flood). In addition, water samples are collected for metals analysis at six sites in the Fal system. On one occasion during the year, samples of biota are collected for analysis of metals and pesticides (as part of the Bioaccumulation programme).

Surveys are carried out on a seasonal basis.

#### 10.1.2 REASON FOR MONITORING

A system of Statutory Water Quality Objectives (SWQOs) (originally proposed in the 1989 Water Act) are to be introduced to all controlled waters (surface and ground) by the Secretary of State for the Environment. The proposed system will include a general classification of estuary quality. Estuaries will be classified in terms of chemical, biological and aesthetic quality. The system will provide an absolute measure of estuary quality. Each estuary will have an objective (ie target) classification set and a timetable in which to achieve it. In order to monitor improvement, the NRA must have a sufficient baseline of information of the current quality of each estuary against which improvements can be measured.

The EC Urban Wastewater Treatment Directive was issued in May 1991. Part of the requirements of this Directive are that the NRA must designate areas of surface fresh and tidal waters which are believed to be sensitive to eutrophication (nutrient enrichment) which may be improved by controlling inputs from large sewage treatment works. In order to be able to do this the NRA requires information on the levels of nutrients currently found in estuaries which may be controllable.

#### 10.1.3 PROGRAMME INFORMATION

|                                             |                   |
|---------------------------------------------|-------------------|
| Numbers of sampling points with 3 surveys : | 50                |
| Numbers of sampling points with 4 surveys : | 63                |
| Total :                                     | 113               |
| Total numbers of samples :                  | 3920              |
| Numbers of aesthetic reports :              | 403               |
| Frequency of use of Analysis                |                   |
| Requirement Groups (ARGs) and total         | S101 1300 (27300) |
| numbers of determinands, in brackets :      | S507 403 (2418)   |
|                                             | S383 2588 (46584) |
|                                             | S172 32 (576)     |

Details of the composition of each ARG may be found in the NRA South West Region's ARG Dictionary.

#### 10.1.4 EXPLANATION OF SCHEDULE CONTENTS

The following table details the sampling and analysis requirements for this programme. The User Reference Number (URN) is the unique identification code for the site. It allows sample results for the site to be retrieved from the Water Quality Archive (sample database). The National Grid Reference (NGR) defines the location of the site on a map. The Material Code details the type of sample collected, for example 2J is sea water, 2F is freshwater, 2I is estuarine water. It forms part of the information about each particular sample held on the Water Quality Archive. The Purpose Code details the reason why a particular sample has been collected. For example, SQMB relates to EC Directive monitoring - bathing waters. SMRE relates to routine monitoring analysis (for EC Directives), SQMR relates to routine monitoring (in general). This code allows samples collected for particular reasons (from one or several sites) to be retrieved from the Water Quality Archive. The Mensar Purpose Code has to be a 2 digit code. It is translated to the equivalent code (eg. SMRE) on the ICL computer, where the Water Quality Archive is held, once the data is transferred to the ICL.

#### 10.1.5 ENDORSEMENT

The contents of this programme have been agreed by the Water Quality Planner, Field Controller and Laboratory Controller.

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
 MONITORING PROGRAMME FOR ESTUARINE QUALITY SURVEY - 1993  
 PROGRAMME LAST UPDATED :- 25-JAN-1993

|     | ESTUARY         | SITE DESCRIPTION | SITE NO.    | U.R.N.       | SAMPLE POINT N.G.R. | CLASSIFIED LENGTH (KM) | LOCATION OF MONITORING POINT | MENEAR PURPOSE CODE | PURPOSE CODE | ANALYSIS GROUPS | MT. CODE | SURVEY FREQUENCY PER ANNUM | SAMPLES PER SURVEY | NO. OF LAB SAMPLES | NO. OF AESTHETIC REPORTS |   |
|-----|-----------------|------------------|-------------|--------------|---------------------|------------------------|------------------------------|---------------------|--------------|-----------------|----------|----------------------------|--------------------|--------------------|--------------------------|---|
| 02A | AXE             | UPPER ESTUARY    | 1           | E02A3        | SY 2565 9205        | 1.4                    | Surface                      | EC                  | SQMR         | S101            | ZI       | 4                          | 4                  | 16                 | 4                        |   |
|     |                 |                  |             |              |                     |                        |                              | EC                  | SQMR         | S507            |          | 4                          | 1                  |                    |                          |   |
|     | MID CHANNEL     | 2                | E02A4       | SY 2535 9075 | 2.2                 | Surface                | EC                           | SQMR                | S101         | ZI              | 4        | 4                          | 16                 | 4                  |                          |   |
|     |                 |                  |             |              |                     |                        |                              | EC                  | SQMR         | S507            |          | 4                          | 1                  |                    |                          |   |
|     |                 | 2                |             |              |                     | Mid Depth              | EC                           | SQMR                | S101         | ZI              | 4        | 4                          | 16                 |                    |                          |   |
|     |                 | 2                |             |              |                     | Near Bottom            | EC                           | SQMR                | S101         | ZI              | 4        | 4                          | 16                 |                    |                          |   |
|     | 04A             | OTTER            | MID ESTUARY | 1            | E04A1               | SY 0750 8300           | 2.5                          | Surface             | EC           | SQMR            | S101     | ZI                         | 3                  | 4                  | 12                       | 3 |
|     |                 |                  |             |              |                     |                        |                              |                     | EC           | SQMR            | S507     |                            | 3                  | 1                  |                          |   |
| 05A | BEE             | LOWER WEAR       | 1           | E05A17       | SK 9490 8910        | 3.5                    | Surface                      | EC                  | SQMR         | S101            | ZI       | 3                          | 4                  | 12                 | 3                        |   |
|     |                 |                  |             |              |                     |                        |                              |                     | EC           | SQMR            | S507     |                            | 3                  | 1                  |                          |   |
|     |                 |                  | 1           |              |                     |                        | Mid Depth                    | EC                  | SQMR         | S101            | ZI       | 3                          | 4                  | 12                 |                          |   |
|     |                 |                  | 1           |              |                     |                        | Near Bottom                  | EC                  | SQMR         | S101            | ZI       | 3                          | 4                  | 12                 |                          |   |
|     |                 | 2                | E05A7       | SK 9680 8610 | 3.0                 | Surface                | EC                           | SQMR                | S101         | ZI              | 3        | 4                          | 12                 | 3                  |                          |   |
|     |                 |                  |             |              |                     |                        |                              | EC                  | SQMR         | S507            |          | 3                          | 1                  |                    |                          |   |
|     |                 | 2                |             |              |                     | Mid Depth              | EC                           | SQMR                | S101         | ZI              | 3        | 4                          | 12                 |                    |                          |   |
|     |                 | 2                |             |              |                     | Near Bottom            | EC                           | SQMR                | S101         | ZI              | 3        | 4                          | 12                 |                    |                          |   |
|     | MID ESTUARY     | 3                | E05A11      | SK 9800 8475 | 3.5                 | Surface                | EC                           | SQMR                | S101         | ZI              | 3        | 4                          | 12                 | 3                  |                          |   |
|     |                 |                  |             |              |                     |                        |                              | EC                  | SQMR         | S507            |          | 3                          | 1                  |                    |                          |   |
|     |                 | 3                |             |              |                     | Mid Depth              | EC                           | SQMR                | S101         | ZI              | 3        | 4                          | 12                 |                    |                          |   |
|     |                 | 3                |             |              |                     | Near Bottom            | EC                           | SQMR                | S101         | ZI              | 3        | 4                          | 12                 |                    |                          |   |
|     | COCKWOOD        | 4                | E05A16      | SK 9820 8080 | 4.5                 | Surface                | EC                           | SQMR                | S101         | ZI              | 3        | 4                          | 12                 | 3                  |                          |   |
|     |                 |                  |             |              |                     |                        |                              | EC                  | SQMR         | S507            |          | 3                          | 1                  |                    |                          |   |
|     |                 | 4                |             |              |                     | Mid Depth              | EC                           | SQMR                | S101         | ZI              | 3        | 4                          | 12                 |                    |                          |   |
|     |                 | 4                |             |              |                     | Near Bottom            | EC                           | SQMR                | S101         | ZI              | 3        | 4                          | 12                 |                    |                          |   |
| 06A | TEIGN           | UPPER ESTUARY    | 1           | E06A3        | SK 8665 7190        | 2.0                    | Surface                      | EC                  | SQMR         | S101            | ZI       | 3                          | 4                  | 12                 | 3                        |   |
|     |                 |                  |             |              |                     |                        |                              |                     | EC           | SQMR            | S507     |                            | 3                  | 1                  |                          |   |
|     |                 |                  | 1           |              |                     |                        | Mid Depth                    | EC                  | SQMR         | S101            | ZI       | 3                          | 4                  | 12                 |                          |   |
|     |                 |                  | 1           |              |                     |                        | Near Bottom                  | EC                  | SQMR         | S101            | ZI       | 3                          | 4                  | 12                 |                          |   |
|     | NETHERTON HOUSE | 2                | E06A2       | SK 8920 7230 | 3.5                 | Surface                | EC                           | SQMR                | S101         | ZI              | 3        | 4                          | 12                 | 3                  |                          |   |
|     |                 |                  |             |              |                     |                        |                              | EC                  | SQMR         | S507            |          | 3                          | 1                  |                    |                          |   |

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
 MONITORING PROGRAMME FOR ESTUARINE QUALITY SURVEY - 1993  
 PROGRAMME LAST UPDATED :- 25-JAN-1993

| ESTUARY | SITE DESCRIPTION   | SITE NO. | U.R.N. | SAMPLE POINT N.G.R. | CLASSIFIED LENGTH (KM) | LOCATION OF MONITORING POINT | MENEAR PURPOSE CODE | PURPOSE CODE | ANALYSIS GROUPS | PT. CODE | SURVEY FREQUENCY PER ANNUM | SAMPLES PER SURVEY | NO. OF LAB SAMPLES | NO. OF AESTHETIC REPORTS |
|---------|--------------------|----------|--------|---------------------|------------------------|------------------------------|---------------------|--------------|-----------------|----------|----------------------------|--------------------|--------------------|--------------------------|
|         | LOWER ESTUARY      | 2        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S101            | ZI       | 3                          | 4                  | 12                 |                          |
|         |                    | 2        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S101            | ZI       | 3                          | 4                  | 12                 |                          |
|         |                    | 3        | ED6A4  | SX 9250 7260        | 4.0                    | Surface                      | EC                  | SQMR         | S101            | ZI       | 3                          | 4                  | 12                 |                          |
|         |                    |          |        |                     |                        |                              | EC                  | SQMR         | S507            |          | 3                          | 1                  |                    | 3                        |
|         |                    | 3        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S101            | ZI       | 3                          | 4                  | 12                 |                          |
|         |                    | 3        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S101            | ZI       | 3                          | 4                  | 12                 |                          |
|         |                    |          |        |                     |                        |                              |                     |              |                 |          |                            |                    |                    |                          |
|         |                    |          |        |                     |                        |                              |                     |              |                 |          |                            |                    |                    |                          |
| DART    | UPPER ESTUARY      | 1        | ED7A15 | SX 8100 5950        | 4.1                    | Surface                      | EC                  | SQMR         | S101            | ZI       | 4                          | 4                  | 16                 |                          |
|         |                    |          |        |                     |                        |                              | EC                  | SQMR         | S507            |          | 4                          | 1                  |                    | 4                        |
|         |                    | 1        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S101            | ZI       | 4                          | 4                  | 16                 |                          |
|         |                    | 1        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S101            | ZI       | 4                          | 4                  | 16                 |                          |
|         | SHARPHAM HOUSE     | 2        | ED7A16 | SX 8320 5775        | 2.5                    | Surface                      | EC                  | SQMR         | S101            | ZI       | 4                          | 4                  | 16                 |                          |
|         |                    |          |        |                     |                        |                              | EC                  | SQMR         | S507            |          | 4                          | 1                  |                    | 4                        |
|         |                    | 2        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S101            | ZI       | 4                          | 4                  | 16                 |                          |
|         |                    | 2        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S101            | ZI       | 4                          | 4                  | 16                 |                          |
|         | WHITE ROCK         | 3        | ED7A17 | SX 8425 5650        | 2.5                    | Surface                      | EC                  | SQMR         | S101            | ZI       | 4                          | 4                  | 16                 |                          |
|         |                    |          |        |                     |                        |                              | EC                  | SQMR         | S507            |          | 4                          | 1                  |                    | 4                        |
|         |                    | 3        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S101            | ZI       | 4                          | 4                  | 16                 |                          |
|         |                    | 3        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S101            | ZI       | 4                          | 4                  | 16                 |                          |
|         | LOWER GURROW POINT | 4        | ED7A18 | SX 8700 5595        | 3.0                    | Surface                      | EC                  | SQMR         | S101            | ZI       | 4                          | 4                  | 16                 |                          |
|         |                    |          |        |                     |                        |                              | EC                  | SQMR         | S507            |          | 4                          | 1                  |                    | 4                        |
|         |                    | 4        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S101            | ZI       | 4                          | 4                  | 16                 |                          |
|         |                    | 4        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S101            | ZI       | 4                          | 4                  | 16                 |                          |
|         | HIGHER NOSS POINT  | 5        | ED7A19 | SX 8775 5330        | 2.5                    | Surface                      | EC                  | SQMR         | S101            | ZI       | 4                          | 4                  | 16                 |                          |
|         |                    |          |        |                     |                        |                              | EC                  | SQMR         | S507            |          | 4                          | 1                  |                    | 4                        |
|         |                    | 5        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S101            | ZI       | 4                          | 4                  | 16                 |                          |
|         |                    | 5        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S101            | ZI       | 4                          | 4                  | 16                 |                          |
|         | ONE GUN POINT      | 6        | ED7A20 | SX 8870 5050        | 3.5                    | Surface                      | EC                  | SQMR         | S101            | ZI       | 4                          | 4                  | 16                 |                          |
|         |                    |          |        |                     |                        |                              | EC                  | SQMR         | S507            |          | 4                          | 1                  |                    | 4                        |
|         |                    | 6        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S101            | ZI       | 4                          | 4                  | 16                 |                          |

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 PROGRAMME LAST UPDATED :- 25-JAN-1993

| ESTUARY | SITE<br>DESCRIPTION | SITE<br>NO.          | U.R.N.<br>NO. | SAMPLE POINT<br>N.G.R. | CLASSIFIED<br>LENGTH<br>(KM) | LOCATION OF<br>MONITORING<br>POINT | MENSAR<br>PURPOSE<br>CODE | PURPOSE<br>CODE | ANALYSIS<br>GROUPS | WRT.<br>CODE | SURVEY<br>FREQUENCY<br>PER ANNUM | SAMPLES<br>PER<br>SURVEY | NO. OF<br>LAB<br>SAMPLES | NO. OF<br>AESTHETIC<br>REPORTS |   |
|---------|---------------------|----------------------|---------------|------------------------|------------------------------|------------------------------------|---------------------------|-----------------|--------------------|--------------|----------------------------------|--------------------------|--------------------------|--------------------------------|---|
|         |                     | 6                    |               |                        |                              | (Near Bottom)                      | EC                        | SQMR            | S101               | ZI           | 4                                | 4                        | 16                       |                                |   |
| 08A     | KINGSBRIDGE         | PARK FARM            | 1             | E08A2                  | SX 7385 4295                 | 1.25                               | Surface                   | EC              | SQMR               | S101         | ZI                               | 3                        | 4                        | 12                             | 3 |
|         |                     |                      |               |                        |                              |                                    |                           | EC              | SQMR               | S507         |                                  | 3                        | 1                        |                                |   |
|         |                     |                      | 1             |                        |                              | Mid Depth                          | EC                        | SQMR            | S101               | ZI           | 3                                | 4                        | 12                       |                                |   |
|         |                     |                      | 1             |                        |                              | Near Bottom                        | EC                        | SQMR            | S101               | ZI           | 3                                | 4                        | 12                       |                                |   |
|         |                     | OFF GERSTON<br>POINT | 2             | E08A1                  | SX 7425 4130                 | 1.75                               | Surface                   | EC              | SQMR               | S101         | ZI                               | 3                        | 4                        | 12                             | 3 |
|         |                     |                      |               |                        |                              |                                    |                           | EC              | SQMR               | S507         |                                  | 3                        | 1                        |                                |   |
|         |                     |                      | 2             |                        |                              | Mid Depth                          | EC                        | SQMR            | S101               | ZI           | 3                                | 4                        | 12                       |                                |   |
|         |                     |                      | 2             |                        |                              | Near Bottom                        | EC                        | SQMR            | S101               | ZI           | 3                                | 4                        | 12                       |                                |   |
|         |                     | MID<br>ESTUARY       | 3             | E08A3                  | SX 7470 3950                 | 2.5                                | Surface                   | EC              | SQMR               | S101         | ZI                               | 3                        | 4                        | 12                             | 3 |
|         |                     |                      |               |                        |                              |                                    |                           | EC              | SQMR               | S507         |                                  | 3                        | 1                        |                                |   |
|         |                     |                      | 3             |                        |                              | Mid Depth                          | EC                        | SQMR            | S101               | ZI           | 3                                | 4                        | 12                       |                                |   |
|         |                     |                      | 3             |                        |                              | Near Bottom                        | EC                        | SQMR            | S101               | ZI           | 3                                | 4                        | 12                       |                                |   |
|         |                     | MILL BAY             | 4             | E08A4                  | SX 7400 3855                 | 1.0                                | Surface                   | EC              | SQMR               | S101         | ZI                               | 3                        | 4                        | 12                             | 3 |
|         |                     |                      |               |                        |                              |                                    |                           | EC              | SQMR               | S507         |                                  | 3                        | 1                        |                                |   |
|         |                     |                      | 4             |                        |                              | Mid Depth                          | EC                        | SQMR            | S101               | ZI           | 3                                | 4                        | 12                       |                                |   |
|         |                     |                      | 4             |                        |                              | Near Bottom                        | EC                        | SQMR            | S101               | ZI           | 3                                | 4                        | 12                       |                                |   |
|         |                     | OFF SOUTH<br>SANDS   | 5             | E08A5                  | SX 7360 3785                 | 2.5                                | Surface                   | EC              | SQMR               | S101         | ZI                               | 3                        | 4                        | 12                             | 3 |
|         |                     |                      |               |                        |                              |                                    |                           | EC              | SQMR               | S507         |                                  | 3                        | 1                        |                                |   |
|         |                     |                      | 5             |                        |                              | Mid Depth                          | EC                        | SQMR            | S101               | ZI           | 3                                | 4                        | 12                       |                                |   |
|         |                     |                      | 5             |                        |                              | Near Bottom                        | EC                        | SQMR            | S101               | ZI           | 3                                | 4                        | 12                       |                                |   |
| 08A     | AVON                | UPPER<br>ESTUARY     | 1             | E08A7                  | SX 6850 4682                 | 3.0                                | Surface                   | EC              | SQMR               | S101         | ZI                               | 3                        | 4                        | 12                             | 3 |
|         |                     |                      |               |                        |                              |                                    |                           | EC              | SQMR               | S507         |                                  | 3                        | 1                        |                                |   |
|         |                     | LOWER<br>ESTUARY     | 2             | E08A8                  | SX 6700 4425                 | 3.5                                | Surface                   | EC              | SQMR               | S101         | ZI                               | 3                        | 4                        | 12                             | 3 |
|         |                     |                      |               |                        |                              |                                    |                           | EC              | SQMR               | S507         |                                  | 3                        | 1                        |                                |   |
|         |                     |                      | 2             |                        |                              | Mid Depth                          | EC                        | SQMR            | S101               | ZI           | 3                                | 4                        | 12                       |                                |   |
|         |                     |                      | 2             |                        |                              | Near Bottom                        | EC                        | SQMR            | S101               | ZI           | 3                                | 4                        | 12                       |                                |   |
| 09A     | ERME                | UPPER<br>ESTUARY     | 1             | E09A1                  | SX 6300 5075                 | 2.0                                | Surface                   | EC              | SQMR               | S101         | ZI                               | 3                        | 4                        | 12                             | 3 |
|         |                     |                      |               |                        |                              |                                    |                           | EC              | SQMR               | S507         |                                  | 3                        | 1                        |                                |   |

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| ESTUARY   | SITE DESCRIPTION  | SITE NO. | U.R.N. | SAMPLE POINT N.G.R. | CLASSIFIED LENGTH (KM) | LOCATION OF MONITORING POINT | MENSAR PURPOSE CODE | PURPOSE CODE | ANALYSIS GROUPS | PRG. CODE | SURVEY FREQUENCY PER ANNUM | SAMPLES PER SURVEY | NO. OF LAB SAMPLES | NO. OF AESTHETIC REPORTS |
|-----------|-------------------|----------|--------|---------------------|------------------------|------------------------------|---------------------|--------------|-----------------|-----------|----------------------------|--------------------|--------------------|--------------------------|
|           | OFF BRIMLEY HOUSE | 2        | ED9A2  | SK 6198 4818        | 4.0                    | Surface                      | EC                  | SQMR         | S383            | 2I        | 3                          | 4                  | 12                 | 3                        |
|           |                   |          |        |                     |                        |                              | EC                  | SQMR         | SS07            |           | 3                          | 1                  |                    |                          |
| 10A/WEALM | UPPER ESTUARY     | 1        | E10A7  | SK 5600 5090        | 1.5                    | Surface                      | EC                  | SQMR         | S383            | 2I        | 3                          | 4                  | 12                 | 3                        |
|           |                   |          |        |                     |                        |                              | EC                  | SQMR         | SS07            |           | 3                          | 1                  |                    |                          |
|           | OFF WARREN POINT  | 2        | E10A6  | SK 5520 5030        | 0.75                   | Surface                      | EC                  | SQMR         | S383            | 2I        | 3                          | 4                  | 12                 | 3                        |
|           |                   |          |        |                     |                        |                              | EC                  | SQMR         | SS07            |           | 3                          | 1                  |                    |                          |
|           |                   | 2        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S383            | 2I        | 3                          | 4                  | 12                 |                          |
|           | WEMELRY HOUSE     | 3        | E10A5  | SK 5435 4925        | 1.75                   | Surface                      | EC                  | SQMR         | S383            | 2I        | 3                          | 4                  | 12                 | 3                        |
|           |                   |          |        |                     |                        |                              | EC                  | SQMR         | SS07            |           | 3                          | 1                  |                    |                          |
|           |                   | 3        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S383            | 2I        | 3                          | 4                  | 12                 |                          |
|           |                   | 3        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S383            | 2I        | 3                          | 4                  | 12                 |                          |
|           | LOWER ESTUARY     | 4        | E10A4  | SK 5390 4770        | 2.25                   | Surface                      | EC                  | SQMR         | S383            | 2I        | 3                          | 4                  | 12                 | 3                        |
|           |                   |          |        |                     |                        |                              | EC                  | SQMR         | SS07            |           | 3                          | 1                  |                    |                          |
|           |                   | 4        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S383            | 2I        | 3                          | 4                  | 12                 |                          |
|           |                   | 4        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S383            | 2I        | 3                          | 4                  | 12                 |                          |
|           | OFFPLETE CREEK    | 1        | E10A3  | SK 5405 5045        | 2.25                   | Surface                      | EC                  | SQMR         | S383            | 2I        | 3                          | 4                  | 12                 | 3                        |
|           |                   |          |        |                     |                        |                              | EC                  | SQMR         | SS07            |           | 3                          | 1                  |                    |                          |
|           |                   | 1        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S383            | 2I        | 3                          | 4                  | 12                 |                          |
|           |                   | 1        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S383            | 2I        | 3                          | 4                  | 12                 |                          |
|           | NEWTON CREEK      | 1        | E10A2  | SK 5480 4785        | 1.75                   | Surface                      | EC                  | SQMR         | S383            | 2I        | 3                          | 4                  | 12                 | 3                        |
|           |                   |          |        |                     |                        |                              | EC                  | SQMR         | SS07            |           | 3                          | 1                  |                    |                          |
| 11A/PL2M  | BY SALTRAM HOUSE  | 1        | E11A3  | SK 5135 5580        | 2.0                    | Surface                      | EC                  | SQMR         | S383            | 2I        | 3                          | 4                  | 12                 | 3                        |
|           |                   |          |        |                     |                        |                              | EC                  | SQMR         | SS07            |           | 3                          | 1                  |                    |                          |
|           |                   | 1        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S383            | 2I        | 3                          | 4                  | 12                 |                          |
|           | LAIRA BRIDGE      | 2        | E11A2  | SK 5015 5436        | 2.0                    | Surface                      | EC                  | SQMR         | S383            | 2I        | 3                          | 4                  | 12                 | 3                        |
|           |                   |          |        |                     |                        |                              | EC                  | SQMR         | SS07            |           | 3                          | 1                  |                    |                          |
|           |                   | 2        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S383            | 2I        | 3                          | 4                  | 12                 |                          |
|           |                   | 2        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S383            | 2I        | 3                          | 4                  | 12                 |                          |
|           | CRITENDRER        | 3        | E11A1  | SK 4900 5340        | 1.25                   | Surface                      | EC                  | SQMR         | S383            | 2I        | 3                          | 4                  | 12                 | 3                        |
|           |                   |          |        |                     |                        |                              | EC                  | SQMR         | SS07            |           | 3                          | 1                  |                    |                          |



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| ESTUARY   | SITE<br>DESCRIPTION     | SITE<br>NO. | U.R.N. | SAMPLE POINT<br>N.G.R. | CLASSIFIED<br>LENGTH<br>(KM) | LOCATION OF<br>MONITORING<br>POINT | PENSAR<br>PURPOSE<br>CODE | PURPOSE<br>CODE | ANALYSTS<br>GROUPS | MAT.<br>CODE | SURVEY<br>FREQUENCY<br>PER ANNUM | SAMPLES<br>PER<br>SURVEY | NO. OF<br>LAB<br>SAMPLES | NO. OF<br>AESTHETIC<br>REPORTS |
|-----------|-------------------------|-------------|--------|------------------------|------------------------------|------------------------------------|---------------------------|-----------------|--------------------|--------------|----------------------------------|--------------------------|--------------------------|--------------------------------|
|           |                         | 3           |        |                        |                              | Mid Depth                          | EC                        | SQMR            | S383               | ZI           | 3                                | 4                        | 12                       |                                |
|           |                         | 3           |        |                        |                              | Near Bottom                        | EC                        | SQMR            | S383               | ZI           | 3                                | 4                        | 12                       |                                |
| 12A/TMPAR | AT<br>DORWELLHAM        | 1           | EL285  | SK 4470 6970           | 5.5                          | Surface                            | EC                        | SQMR            | S383               | ZI           | 4                                | 4                        | 16                       | 4                              |
|           |                         |             |        |                        |                              |                                    | EC                        | SQMR            | S507               |              | 4                                | 1                        |                          |                                |
|           |                         | 1           |        |                        |                              | Mid Depth                          | EC                        | SQMR            | S383               | ZI           | 4                                | 4                        | 16                       |                                |
|           |                         | 1           |        |                        |                              | Near Bottom                        | EC                        | SQMR            | S383               | ZI           | 4                                | 4                        | 16                       |                                |
|           | BY CALSTOCK             | 2           | EL284  | SK 4295 6880           | 5.0                          | Surface                            | EC                        | SQMR            | S383               | ZI           | 4                                | 4                        | 16                       | 4                              |
|           |                         |             |        |                        |                              |                                    |                           | SQMR            | S507               |              | 4                                | 1                        |                          |                                |
|           |                         | 2           |        |                        |                              | Mid Depth                          | EC                        | SQMR            | S383               | ZI           | 4                                | 4                        | 16                       |                                |
|           |                         | 2           |        |                        |                              | Near Bottom                        | EC                        | SQMR            | S383               | ZI           | 4                                | 4                        | 16                       |                                |
|           | OFF FENTVILLE<br>CASTLE | 3           | EL288  | SK 4120 6460           | 5.0                          | Surface                            | EC                        | SQMR            | S383               | ZI           | 4                                | 4                        | 16                       | 4                              |
|           |                         |             |        |                        |                              |                                    | EC                        | SQMR            | S507               |              | 4                                | 1                        |                          |                                |
|           |                         | 3           |        |                        |                              | Mid Depth                          | EC                        | SQMR            | S383               | ZI           | 4                                | 4                        | 16                       |                                |
|           |                         | 3           |        |                        |                              | Near Bottom                        | EC                        | SQMR            | S383               | ZI           | 4                                | 4                        | 16                       |                                |
|           | MID<br>ESTUARY          | 4           | EL283  | SK 4340 6395           | 2.75                         | Surface                            | EC                        | SQMR            | S383               | ZI           | 4                                | 4                        | 16                       | 4                              |
|           |                         |             |        |                        |                              |                                    | EC                        | SQMR            | S507               |              | 4                                | 1                        |                          |                                |
|           |                         | 4           |        |                        |                              | Near Bottom                        | EC                        | SQMR            | S383               | ZI           | 4                                | 4                        | 16                       |                                |
|           | OFF WARLEIGH<br>POINT   | 5           | EL286  | SK 4405 6130           | 2.0                          | Surface                            | EC                        | SQMR            | S383               | ZI           | 4                                | 4                        | 16                       | 4                              |
|           |                         |             |        |                        |                              |                                    | EC                        | SQMR            | S507               |              | 4                                | 1                        |                          |                                |
|           |                         | 5           |        |                        |                              | Mid Depth                          | EC                        | SQMR            | S383               | ZI           | 4                                | 4                        | 16                       |                                |
|           |                         | 5           |        |                        |                              | Near Bottom                        | EC                        | SQMR            | S383               | ZI           | 4                                | 4                        | 16                       |                                |
|           | TMPAR<br>BRIDGE         | 6           | EL282  | SK 4350 5905           | 1.7                          | Surface                            | EC                        | SQMR            | S383               | ZI           | 4                                | 4                        | 16                       | 4                              |
|           |                         |             |        |                        |                              |                                    | EC                        | SQMR            | S507               |              | 4                                | 1                        |                          |                                |
|           |                         | 6           |        |                        |                              | Mid Depth                          | EC                        | SQMR            | S383               | ZI           | 4                                | 4                        | 16                       |                                |
|           |                         | 6           |        |                        |                              | Near Bottom                        | EC                        | SQMR            | S383               | ZI           | 4                                | 4                        | 16                       |                                |
|           | OFF WILCOVE             | 7           | EL2A7  | SK 4325 5730           | 1.5                          | Surface                            | EC                        | SQMR            | S383               | ZI           | 4                                | 4                        | 16                       | 4                              |
|           |                         |             |        |                        |                              |                                    | EC                        | SQMR            | S507               |              | 4                                | 1                        |                          |                                |
|           |                         | 7           |        |                        |                              | Mid Depth                          | EC                        | SQMR            | S383               | ZI           | 4                                | 4                        | 16                       |                                |
|           |                         | 7           |        |                        |                              | Near Bottom                        | EC                        | SQMR            | S383               | ZI           | 4                                | 4                        | 16                       |                                |

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| ESTUARY    | SITE DESCRIPTION  | SITE NO. | U.R.N. | SAMPLE POINT N.G.R. | CLASSIFIED LENGTH (KM) | LOCATION OF MONITORING POINT | MENEAR CODE | PURPOSE CODE | ANALYSIS GROUPS | WPT. CODE | SURVEY FREQUENCY PER ANNUM | SAMPLES PER SURVEY | NO. OF LAB SAMPLES | NO. OF AESTHETIC REPORTS |
|------------|-------------------|----------|--------|---------------------|------------------------|------------------------------|-------------|--------------|-----------------|-----------|----------------------------|--------------------|--------------------|--------------------------|
|            | DOCKWARD          | 8        | EL2A6  | SX 4425 5580        | 1.5                    | Surface                      | EC          | SQMR         | S383            | 2I        | 4                          | 4                  | 16                 | 4                        |
|            |                   |          |        |                     |                        |                              | EC          | SQMR         | S507            |           | 4                          | 1                  |                    |                          |
|            |                   | 8        |        |                     |                        | Mid Depth                    | EC          | SQMR         | S383            | 2I        | 4                          | 4                  | 16                 |                          |
|            |                   | 8        |        |                     |                        | Near Bottom                  | EC          | SQMR         | S383            | 2I        | 4                          | 4                  | 16                 |                          |
|            | LOWER ESTUARY     | 9        | EL2A5  | SX 4450 5400        | 2.0                    | Surface                      | EC          | SQMR         | S383            | 2I        | 4                          | 4                  | 16                 | 4                        |
|            |                   |          |        |                     |                        |                              | EC          | SQMR         | S507            |           | 4                          | 1                  |                    |                          |
|            |                   | 9        |        |                     |                        | Mid Depth                    | EC          | SQMR         | S383            | 2I        | 4                          | 4                  | 16                 |                          |
|            |                   | 9        |        |                     |                        | Near Bottom                  | EC          | SQMR         | S383            | 2I        | 4                          | 4                  | 16                 |                          |
|            | MILLBROOK LAKE    | 1        | EL2A9  | SX 4360 5240        | 3.0                    | Surface                      | EC          | SQMR         | S383            | 2I        | 4                          | 4                  | 16                 | 4                        |
|            |                   |          |        |                     |                        |                              | EC          | SQMR         | S507            |           | 4                          | 1                  |                    |                          |
|            |                   | 1        |        |                     |                        | Mid Depth                    | EC          | SQMR         | S383            | 2I        | 4                          | 4                  | 16                 |                          |
|            |                   | 1        |        |                     |                        | Near Bottom                  | EC          | SQMR         | S383            | 2I        | 4                          | 4                  | 16                 |                          |
|            | ST. JOHN'S LAKE   | 1        | EL2A10 | SX 4255 5425        | 3.0                    | Surface                      | EC          | SQMR         | S383            | 2I        | 4                          | 4                  | 16                 | 4                        |
|            |                   |          |        |                     |                        |                              | EC          | SQMR         | S507            |           | 4                          | 1                  |                    |                          |
|            |                   | 1        |        |                     |                        | Mid Depth                    | EC          | SQMR         | S383            | 2I        | 4                          | 4                  | 16                 |                          |
|            |                   | 1        |        |                     |                        | Near Bottom                  | EC          | SQMR         | S383            | 2I        | 4                          | 4                  | 16                 |                          |
| L2B/DWY    | NEAR BERE FERRERS | 1        | EL2B7  | SX 4615 6330        | 4.75                   | Surface                      | EC          | SQMR         | S383            | 2I        | 3                          | 4                  | 12                 | 3                        |
|            |                   |          |        |                     |                        |                              | EC          | SQMR         | S507            |           | 3                          | 1                  |                    |                          |
|            |                   | 1        |        |                     |                        | Mid Depth                    | EC          | SQMR         | S383            | 2I        | 3                          | 4                  | 12                 |                          |
|            |                   | 1        |        |                     |                        | Near Bottom                  | EC          | SQMR         | S383            | 2I        | 3                          | 4                  | 12                 |                          |
| L2A/LANHER | OFF FIREWALL      | 1        | EL2A14 | SX 3800 5830        | 4.25                   | Surface                      | EC          | SQMR         | S383            | 2I        | 4                          | 4                  | 16                 | 4                        |
|            |                   |          |        |                     |                        |                              | EC          | SQMR         | S507            |           | 4                          | 1                  |                    |                          |
|            | BY SHEWLOCK WOOD  | 2        | EL2A13 | SX 3745 5625        | 2.5                    | Surface                      | EC          | SQMR         | S383            | 2I        | 4                          | 4                  | 16                 | 4                        |
|            |                   |          |        |                     |                        |                              | EC          | SQMR         | S507            |           | 4                          | 1                  |                    |                          |
|            |                   | 2        |        |                     |                        | Mid Depth                    | EC          | SQMR         | S383            | 2I        | 4                          | 4                  | 16                 |                          |
|            |                   | 2        |        |                     |                        | Near Bottom                  | EC          | SQMR         | S383            | 2I        | 4                          | 4                  | 16                 |                          |
|            | MID ESTUARY       | 3        | EL2A12 | SX 4000 5600        | 3.0                    | Surface                      | EC          | SQMR         | S383            | 2I        | 4                          | 4                  | 16                 | 4                        |
|            |                   |          |        |                     |                        |                              | EC          | SQMR         | S507            |           | 4                          | 1                  |                    |                          |
|            |                   | 3        |        |                     |                        | Mid Depth                    | EC          | SQMR         | S383            | 2I        | 4                          | 4                  | 16                 |                          |
|            |                   | 3        |        |                     |                        | Near Bottom                  | EC          | SQMR         | S383            | 2I        | 4                          | 4                  | 16                 |                          |

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| ESTUARY             | SITE DESCRIPTION          | SITE NO. | U.R.N. | SAMPLE POINT N.G.R. | CLASSIFIED LENGTH (KM) | LOCATION OF MONITORING POINT | MENSUR PURPOSE CODE | PURPOSE CODE | ANALYSIS CODE | GRP. | SURVEY PER ANNUM | SAMPLES PER SURVEY | NO. OF LAB SAMPLES | NO. OF AESTHETIC REPORTS |
|---------------------|---------------------------|----------|--------|---------------------|------------------------|------------------------------|---------------------|--------------|---------------|------|------------------|--------------------|--------------------|--------------------------|
|                     | BY ANTONY PASSAGE         | 4        | E12A11 | SK 4220 5735        | 1.25                   | Surface                      | EC                  | SQMR         | S383          | 2I   | 4                | 4                  | 16                 | 4                        |
|                     |                           |          |        |                     |                        |                              | EC                  | SQMR         | S507          |      | 4                | 1                  |                    |                          |
|                     |                           | 4        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S383          | 2I   | 4                | 4                  | 16                 |                          |
|                     |                           | 4        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S383          | 2I   | 4                | 4                  | 16                 |                          |
|                     | TIDY                      | 1        | E12A16 | SK 3625 5850        | 4.25                   | Surface                      | EC                  | SQMR         | S383          | 2I   | 4                | 4                  | 16                 | 4                        |
|                     |                           |          |        |                     |                        |                              | EC                  | SQMR         | S507          |      | 4                | 1                  |                    |                          |
|                     | POLBROTHICK               | 1        | E12A15 | SK 3570 5700        | 2.0                    | Surface                      | EC                  | SQMR         | S383          | 2I   | 4                | 4                  | 16                 | 4                        |
|                     |                           |          |        |                     |                        |                              | EC                  | SQMR         | S507          |      | 4                | 1                  |                    |                          |
| 12A PLYMOUTH SOUND  | BY THE BRIDGE             | 1        | E12A4  | SK 4650 5215        | 3.0                    | Surface                      | EC                  | SQMR         | S383          | 2I   | 3                | 4                  | 12                 | 3                        |
|                     |                           |          |        |                     |                        |                              | EC                  | SQMR         | S507          |      | 3                | 1                  |                    |                          |
|                     |                           | 1        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S383          | 2I   | 3                | 4                  | 12                 |                          |
|                     |                           | 1        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S383          | 2I   | 3                | 4                  | 12                 |                          |
|                     | JENNycliff BAY            | 2        | E12A8  | SK 4830 5215        | 3.0                    | Surface                      | EC                  | SQMR         | S383          | 2I   | 3                | 4                  | 12                 | 3                        |
|                     |                           |          |        |                     |                        |                              | EC                  | SQMR         | S507          |      | 3                | 1                  |                    |                          |
|                     |                           | 2        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S383          | 2I   | 3                | 4                  | 12                 |                          |
|                     |                           | 2        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S383          | 2I   | 3                | 4                  | 12                 |                          |
|                     | BREWSTER                  | 3        | E12A3  | SK 4682 4950        | 1.5                    | Surface                      | EC                  | SQMR         | S383          | 2I   | 3                | 4                  | 12                 | 3                        |
|                     |                           |          |        |                     |                        |                              | EC                  | SQMR         | S507          |      | 3                | 1                  |                    |                          |
|                     |                           | 3        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S383          | 2I   | 3                | 4                  | 12                 |                          |
| 14A LOCE - COMBINED |                           | 1        | E14A1  | SK 2540 5367        | 1.3                    | Surface                      | EC                  | SQMR         | S383          | 2I   | 4                | 4                  | 16                 | 4                        |
|                     |                           |          |        |                     |                        |                              | EC                  | SQMR         | S507          |      | 4                | 1                  |                    |                          |
|                     |                           | 1        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S383          | 2I   | 4                | 4                  | 16                 |                          |
|                     |                           | 1        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S383          | 2I   | 4                | 4                  | 16                 |                          |
|                     | LOCE - EAST UPPER ESTUARY | 1        | E14A3  | SK 2495 5655        | 2.0                    | Surface                      | EC                  | SQMR         | S383          | 2I   | 4                | 4                  | 16                 | 4                        |
|                     |                           |          |        |                     |                        |                              | EC                  | SQMR         | S507          |      | 4                | 1                  |                    |                          |
|                     | ST. MARTIN                | 2        | E14A2  | SK 2515 5520        | 1.5                    | Surface                      | EC                  | SQMR         | S383          | 2I   | 4                | 4                  | 16                 | 4                        |
|                     |                           |          |        |                     |                        |                              | EC                  | SQMR         | S507          |      | 4                | 1                  |                    |                          |
|                     |                           | 2        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S383          | 2I   | 4                | 4                  | 16                 |                          |

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| ESTUARY     | SITE DESCRIPTION | SITE NO. | U.R.N. | SAMPLE POINT N.G.R. | CLASSIFIED LENGTH (KM) | LOCATION OF MONITORING POINT | MENSAR PURPOSE CODE | PURPOSE CODE | ANALYSTS GROUPS | PT. CODE | SURVEY FREQUENCY PER ANNUM | SAMPLES PER SURVEY | NO. OF LAB SAMPLES | NO. OF AESTHETIC REPORTS |
|-------------|------------------|----------|--------|---------------------|------------------------|------------------------------|---------------------|--------------|-----------------|----------|----------------------------|--------------------|--------------------|--------------------------|
| LOOE - WEST |                  | 2        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S383            | 2I       | 4                          | 4                  | 16                 |                          |
|             | UPPER ESTUARY    | 1        | E14A5  | SK 2370 5450        | 2.0                    | Surface                      | EC                  | SQMR         | S383            | 2I       | 4                          | 4                  | 16                 | 4                        |
|             |                  |          |        |                     |                        |                              | EC                  | SQMR         | S507            |          | 4                          | 1                  |                    |                          |
|             | BY TREWANT WOOD  | 2        | E14M   | SK 2475 5390        | 1.0                    | Surface                      | EC                  | SQMR         | S383            | 2I       | 4                          | 4                  | 16                 | 4                        |
|             |                  |          |        |                     |                        |                              | EC                  | SQMR         | S507            |          | 4                          | 1                  |                    |                          |
|             |                  | 2        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S383            | 2I       | 4                          | 4                  | 16                 |                          |
|             |                  | 2        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S383            | 2I       | 4                          | 4                  | 16                 |                          |
|             |                  |          |        |                     |                        |                              |                     |              |                 |          |                            |                    |                    |                          |
| 15A FOWEY   | AT LOSTWITCHTEL  | 1        | E15A5  | SK 1050 5670        | 1.0                    | Surface                      | EC                  | SQMR         | S383            | 2I       | 4                          | 4                  | 16                 | 4                        |
|             |                  |          |        |                     |                        |                              | EC                  | SQMR         | S507            |          | 4                          | 1                  |                    |                          |
|             | AT NEWHAM        | 2        | E15M   | SK 1085 5795        | 2.75                   | Surface                      | EC                  | SQMR         | S383            | 2I       | 4                          | 4                  | 16                 | 4                        |
|             |                  |          |        |                     |                        |                              | EC                  | SQMR         | S507            |          | 4                          | 1                  |                    |                          |
|             | OFF PENQUITE     | 3        | E15A3  | SK 1240 5595        | 2.3                    | Surface                      | EC                  | SQMR         | S383            | 2I       | 4                          | 4                  | 16                 | 4                        |
|             |                  |          |        |                     |                        |                              |                     |              |                 |          | 4                          | 1                  |                    |                          |
|             |                  | 3        |        |                     |                        | Near bottom                  | EC                  | SQMR         | S383            | 2I       | 4                          | 4                  | 16                 |                          |
|             | OFF GILANT       | 4        | E15A1  | SK 1245 5425        | 1.5                    | Surface                      | EC                  | SQMR         | S383            | 2I       | 4                          | 4                  | 16                 | 4                        |
|             |                  |          |        |                     |                        |                              | EC                  | SQMR         | S507            |          | 4                          | 1                  |                    |                          |
|             |                  | 4        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S383            | 2I       | 4                          | 4                  | 16                 |                          |
|             |                  | 4        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S383            | 2I       | 4                          | 4                  | 16                 |                          |
|             | BY CLIFF         | 5        | E15A2  | SK 1270 5525        | 3.3                    | Surface                      | EC                  | SQMR         | S383            | 2I       | 4                          | 4                  | 16                 | 4                        |
|             |                  |          |        |                     |                        |                              | EC                  | SQMR         | S507            |          | 4                          | 1                  |                    |                          |
|             |                  | 5        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S383            | 2I       | 4                          | 4                  | 16                 |                          |
|             |                  | 5        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S383            | 2I       | 4                          | 4                  | 16                 |                          |
|             | OFF READINGMONEY | 6        | E15A10 | SK 1215 5100        |                        | Surface                      | EC                  | SQMR         | S383            | 2I       | 4                          | 4                  | 16                 | 4                        |
|             |                  |          |        |                     |                        |                              | EC                  | SQMR         | S507            |          | 4                          | 1                  |                    |                          |
|             |                  | 6        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S383            | 2I       | 4                          | 4                  | 16                 |                          |
|             |                  | 6        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S383            | 2I       | 4                          | 4                  | 16                 |                          |
| PONT PILL   |                  | 1        | E15A6  | SK 1380 5164        | 1.75                   | Surface                      | EC                  | SQMR         | S383            | 2I       | 4                          | 4                  | 16                 | 4                        |
|             |                  |          |        |                     |                        |                              | EC                  | SQMR         | S507            |          | 4                          | 1                  |                    |                          |
|             |                  | 1        |        |                     |                        | Near bottom                  | EC                  | SQMR         | S383            | 2I       | 4                          | 4                  | 16                 |                          |

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| ESTUARY | SITE<br>DESCRIPTION            | SITE<br>NO. | U.R.N.<br>N.G.R. | SAMPLE POINT<br>N.G.R. | CLASSIFIED<br>LENGTH<br>(KM) | LOCATION OF<br>MONITORING<br>POINT | NEAR<br>PURPOSE<br>CODE | PURPOSE<br>CODE | ANALYSTS<br>GROUPS | MT.<br>CODE | SURVEY<br>FREQUENCY<br>PER ANNUM | SAMPLES<br>PER<br>SURVEY | NO. OF<br>LAB<br>SAMPLES | NO. OF<br>AESTHETIC<br>REPORTS |
|---------|--------------------------------|-------------|------------------|------------------------|------------------------------|------------------------------------|-------------------------|-----------------|--------------------|-------------|----------------------------------|--------------------------|--------------------------|--------------------------------|
|         | PENFOLL<br>CREEK               | 1           | E15A7            | SX 1370 5435           | 2.25                         | Surface                            | EC                      | SQMR            | S383               | ZI          | 4                                | 4                        | 16                       | 4                              |
|         |                                |             |                  |                        |                              |                                    | EC                      | SQMR            | S507               |             | 4                                | 1                        |                          |                                |
|         | LEHRAN                         | 1           | E15A8            | SX 1315 5675           | 2.3                          | Surface                            | EC                      | SQMR            | S383               | ZI          | 4                                | 4                        | 16                       | 4                              |
|         |                                |             |                  |                        |                              |                                    | EC                      | SQMR            | S507               |             | 4                                | 1                        |                          |                                |
| 19A     | PENRAN<br>THE VISSOME<br>HOUSE | 1           | E19A11           | SW 7950 3412           | 1.5                          | Surface                            | EC                      | SQMR            | S383               | ZI          | 3                                | 4                        | 12                       | 3                              |
|         |                                |             |                  |                        |                              |                                    | EC                      | SQMR            | S507               |             | 3                                | 1                        |                          |                                |
|         |                                | 1           |                  |                        |                              | Mid Depth                          | EC                      | SQMR            | S383               | ZI          | 3                                | 4                        | 12                       |                                |
|         |                                | 1           |                  |                        |                              | Near Bottom                        | EC                      | SQMR            | S383               | ZI          | 3                                | 4                        | 12                       |                                |
|         | PALMOUTH<br>PIER               | 2           | E19A10           | SW 8110 3320           | 2.8                          | Surface                            | EC                      | SQMR            | S383               | ZI          | 3                                | 4                        | 12                       | 3                              |
|         |                                |             |                  |                        |                              |                                    | EC                      | SQMR            | S507               |             | 3                                | 1                        |                          |                                |
|         |                                | 2           |                  |                        |                              | Mid Depth                          | EC                      | SQMR            | S383               | ZI          | 3                                | 4                        | 12                       |                                |
|         |                                | 2           |                  |                        |                              | Near Bottom                        | EC                      | SQMR            | S383               | ZI          | 3                                | 4                        | 12                       |                                |
| 19B     | RESTRONQUET<br>CREEK           | 1           | E19A14           | SW 7956 3885           | 3.0                          | Surface                            | EC                      | SQMR            | S383               | ZI          | 3                                | 4                        | 12                       | 3                              |
|         |                                |             |                  |                        |                              |                                    | EC                      | SQMR            | S172               | ZI          | 3                                | 2                        | 6                        |                                |
|         |                                |             |                  |                        |                              |                                    | EC                      | SQMR            | S507               |             | 3                                | 1                        |                          |                                |
|         | MOUTH OF<br>CREEK              | 2           | E19A29           | SW 8161 3701           | 2.4                          | Surface                            | EC                      | SQMR            | S383               | ZI          | 3                                | 4                        | 12                       | 3                              |
|         |                                |             |                  |                        |                              |                                    | EC                      | SQMR            | S172               | ZI          | 3                                | 2                        | 6                        |                                |
|         |                                |             |                  |                        |                              |                                    | EC                      | SQMR            | S507               |             | 3                                | 1                        |                          |                                |
|         |                                | 2           |                  |                        |                              | Mid Depth                          | EC                      | SQMR            | S383               | ZI          | 3                                | 4                        | 12                       |                                |
|         |                                | 2           |                  |                        |                              | Near Bottom                        | EC                      | SQMR            | S383               | ZI          | 3                                | 4                        | 12                       |                                |
| 19B     | TRESILLIAN<br>RIVER            | 1           | E19B12           | SW 8622 4588           | 1.8                          | Surface                            | EC                      | SQMR            | S383               | ZI          | 4                                | 4                        | 16                       | 4                              |
|         |                                |             |                  |                        |                              |                                    | EC                      | SQMR            | S507               |             | 4                                | 1                        |                          |                                |
|         | BY<br>ST. CLEMENT              | 2           | E19B11           | SW 8535 4380           | 3.0                          | Surface                            | EC                      | SQMR            | S383               | ZI          | 4                                | 4                        | 16                       | 4                              |
|         |                                |             |                  |                        |                              |                                    | EC                      | SQMR            | S507               |             | 4                                | 1                        |                          |                                |
| 19B     | TRURO RIVER                    | 1           | E19B10           | SW 8295 4425           | 1.25                         | Surface                            | EC                      | SQMR            | S383               | ZI          | 4                                | 4                        | 16                       | 4                              |
|         |                                |             |                  |                        |                              |                                    | EC                      | SQMR            | S507               |             | 4                                | 1                        |                          |                                |
|         | AT MALPAS                      | 2           | E19B9            | SW 8372 4320           | 1.25                         | Surface                            | EC                      | SQMR            | S383               | ZI          | 4                                | 4                        | 16                       | 4                              |
|         |                                |             |                  |                        |                              |                                    | EC                      | SQMR            | S507               |             | 4                                | 1                        |                          |                                |

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|------------------|-------------------|----------|--------|---------------------|------------------------|------------------------------|---------------------|--------------|-----------------|----------|------------------|--------------------|--------------------|--------------------------|
|                  | DREONIAN          | 3A       | E1988  | SW 8500 4255        | 1.75                   | Surface                      | EC                  | SQMR         | S383            | ZI       | 4                | 4                  | 16                 | 4                        |
|                  |                   |          |        |                     |                        |                              | EC                  | SQMR         | S507            |          | 4                | 1                  |                    |                          |
|                  |                   | 3A       |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S383            | ZI       | 4                | 4                  | 16                 |                          |
|                  |                   | 3A       |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S383            | ZI       | 4                | 4                  | 16                 |                          |
|                  | WOODBURY          | 3B       | E1987  | SW 8495 4242        | 1.75                   | Surface                      | EC                  | SQMR         | S383            | ZI       | 4                | 4                  | 16                 | 4                        |
|                  |                   |          |        |                     |                        |                              | EC                  | SQMR         | S507            |          | 4                | 1                  |                    |                          |
|                  |                   | 3B       |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S383            | ZI       | 4                | 4                  | 16                 |                          |
|                  |                   | 3B       |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S383            | ZI       | 4                | 4                  | 16                 |                          |
|                  | OLD KEA           | 4        | E1983  | SW 8483 4142        | 1.6                    | Surface                      | EC                  | SQMR         | S383            | ZI       | 4                | 4                  | 16                 | 4                        |
|                  |                   |          |        |                     |                        |                              | EC                  | SQMR         | S172            | ZI       | 4                | 2                  | 8                  |                          |
|                  |                   |          |        |                     |                        |                              | EC                  | SQMR         | S507            |          | 4                | 1                  |                    |                          |
|                  |                   | 4        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S383            | ZI       | 4                | 4                  | 16                 |                          |
| 19B/FAL          | RUPAN RIVER       | 1        | E1986  | SW 8870 4182        | 1.25                   | Surface                      | EC                  | SQMR         | S383            | ZI       | 3                | 4                  | 12                 | 3                        |
|                  |                   |          |        |                     |                        |                              | EC                  | SQMR         | S507            |          | 3                | 1                  |                    |                          |
|                  |                   | 1        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S383            | ZI       | 3                | 4                  | 12                 |                          |
|                  | MID ESTUARY       | 2        | E1985  | SW 8725 4058        | 4.25                   | Surface                      | EC                  | SQMR         | S383            | ZI       | 3                | 4                  | 12                 | 3                        |
|                  |                   |          |        |                     |                        |                              | EC                  | SQMR         | S507            |          | 3                | 1                  |                    |                          |
|                  |                   | 2        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S383            | ZI       | 3                | 4                  | 12                 |                          |
|                  |                   | 2        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S383            | ZI       | 3                | 4                  | 12                 |                          |
|                  | BY FOLGERMAN WOOD | 3        | E1984  | SW 8465 4035        | 1.25                   | Surface                      | EC                  | SQMR         | S383            | ZI       | 3                | 4                  | 12                 | 3                        |
|                  |                   |          |        |                     |                        |                              | EC                  | SQMR         | S507            |          | 3                | 1                  |                    |                          |
|                  |                   | 3        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S383            | ZI       | 3                | 4                  | 12                 |                          |
|                  |                   | 3        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S383            | ZI       | 3                | 4                  | 12                 |                          |
|                  | KING HARRY FERRY  | 4        | E1982  | SW 8418 3900        | 2.4                    | Surface                      | EC                  | SQMR         | S383            | ZI       | 3                | 4                  | 12                 | 3                        |
|                  |                   |          |        |                     |                        |                              | EC                  | SQMR         | S172            | ZI       | 3                | 2                  | 6                  |                          |
|                  |                   |          |        |                     |                        |                              | EC                  | SQMR         | S507            |          | 3                | 1                  |                    |                          |
|                  |                   | 4        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S383            | ZI       | 3                | 4                  | 12                 |                          |
|                  |                   | 4        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S383            | ZI       | 3                | 4                  | 12                 |                          |
| 19A/PERCUL RIVER | MID ESTUARY       | 1        | E1989  | SW 8622 3468        | 2.5                    | Surface                      | EC                  | SQMR         | S383            | ZI       | 3                | 4                  | 12                 | 3                        |
|                  |                   |          |        |                     |                        |                              | EC                  | SQMR         | S507            |          | 3                | 1                  |                    |                          |

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|---------|--------------------------|----------|--------|---------------------|------------------------|------------------------------|---------------------|--------------|-----------------|-----------|----------------------------|--------------------|--------------------|--------------------------|
|         |                          | 1        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S383            | ZI        | 3                          | 4                  | 12                 |                          |
|         |                          | 1        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S383            | ZI        | 3                          | 4                  | 12                 |                          |
|         | LOWER ESTUARY            | 2        | E19A8  | SW 8565 3300        | 3.5                    | Surface                      | EC                  | SQMR         | S383            | ZI        | 3                          | 4                  | 12                 | 3                        |
|         |                          |          |        |                     |                        |                              | EC                  | SQMR         | S507            |           | 3                          | 1                  |                    |                          |
|         |                          | 2        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S383            | ZI        | 3                          | 4                  | 12                 |                          |
|         |                          | 2        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S383            | ZI        | 3                          | 4                  | 12                 |                          |
| 19A     | CARRICK ROAD MID CHANNEL | 1        | E19A6  | SW 8300 3633        | 3.0                    | Surface                      | EC                  | SQMR         | S383            | ZI        | 3                          | 4                  | 12                 | 3                        |
|         |                          |          |        |                     |                        |                              | EC                  | SQMR         | S172            | ZI        | 3                          | 2                  | 6                  |                          |
|         |                          |          |        |                     |                        |                              | EC                  | SQMR         | S507            |           | 3                          | 1                  |                    |                          |
|         |                          | 1        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S383            | ZI        | 3                          | 4                  | 12                 |                          |
|         |                          | 1        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S383            | ZI        | 3                          | 4                  | 12                 |                          |
|         | OFF ST. MP4ES            | 2        | E19A7  | SW 8300 3363        | 3.5                    | Surface                      | EC                  | SQMR         | S383            | ZI        | 3                          | 4                  | 12                 | 3                        |
|         |                          |          |        |                     |                        |                              | EC                  | SQMR         | S507            |           | 3                          | 1                  |                    |                          |
|         |                          | 2        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S383            | ZI        | 3                          | 4                  | 12                 |                          |
|         |                          | 2        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S383            | ZI        | 3                          | 4                  | 12                 |                          |
| 19A     | HELPCORD                 | 1        | E19A17 | SW 7145 2590        | 2.0                    | Surface                      | EC                  | SQMR         | S383            | ZI        | 3                          | 4                  | 12                 | 3                        |
|         | BRAYTON                  |          |        |                     |                        |                              | EC                  | SQMR         | S507            |           | 3                          | 1                  |                    |                          |
|         | BY GROINE POINT          | 2        | E19A16 | SW 7400 2618        | 3.25                   | Surface                      | EC                  | SQMR         | S383            | ZI        | 3                          | 4                  | 12                 | 3                        |
|         |                          |          |        |                     |                        |                              | EC                  | SQMR         | S507            |           | 3                          | 1                  |                    |                          |
|         |                          | 2        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S383            | ZI        | 3                          | 4                  | 12                 |                          |
|         |                          | 2        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S383            | ZI        | 3                          | 4                  | 12                 |                          |
|         | MOUTH OF ESTUARY         | 3        | E19A15 | SW 7752 2668        | 4.25                   | Surface                      | EC                  | SQMR         | S383            | ZI        | 3                          | 4                  | 12                 | 3                        |
|         |                          |          |        |                     |                        |                              | EC                  | SQMR         | S507            |           | 3                          | 1                  |                    |                          |
|         |                          | 3        |        |                     |                        | Mid Depth                    | EC                  | SQMR         | S383            | ZI        | 3                          | 4                  | 12                 |                          |
|         |                          | 3        |        |                     |                        | Near Bottom                  | EC                  | SQMR         | S383            | ZI        | 3                          | 4                  | 12                 |                          |
|         | FOURNEVERAL CREEK        | 1        | E19A19 | SW 7390 2730        | 2.5                    | Surface                      | EC                  | SQMR         | S383            | ZI        | 3                          | 4                  | 12                 | 3                        |
|         |                          |          |        |                     |                        |                              | EC                  | SQMR         | S507            |           | 3                          | 1                  |                    |                          |
|         | FORTHWAS CREEK           | 1        | E19A18 | SW 7558 2765        | 1.5                    | Surface                      | EC                  | SQMR         | S383            | ZI        | 3                          | 4                  | 12                 | 3                        |
|         |                          |          |        |                     |                        |                              | EC                  | SQMR         | S507            |           | 3                          | 1                  |                    |                          |

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MONITORING PROGRAMME FOR ESTUARINE QUALITY SURVEY - 1993  
PROGRAMME LAST UPDATED :- 25-JAN-1993

| ESTUARY      | SITE DESCRIPTION | SITE NO. | U.R.N.       | SAMPLE POINT N.G.R. | CLASSIFIED LENGTH (KM) | LOCATION OF MONITORING POINT | MENSUR PURPOSE CODE | ANALYSTS CODE | GROUPS | MRT CODE | SURVEY FREQUENCY PER ANNUM | SAMPLES |     | NO. OF LAB SAMPLES | NO. OF AESTHETIC REPORTS |
|--------------|------------------|----------|--------------|---------------------|------------------------|------------------------------|---------------------|---------------|--------|----------|----------------------------|---------|-----|--------------------|--------------------------|
|              |                  |          |              |                     |                        |                              |                     |               |        |          |                            | PER     | LAB |                    |                          |
| 22A HAZLE    | BY ST. EITH      | 1        | E22A3        | SW 5500 3570        | 1.25                   | Surface                      | EC                  | SQMR          | S383   | ZI       | 3                          | 4       | 12  |                    |                          |
|              |                  |          |              |                     |                        |                              | EC                  | SQMR          | S507   |          | 3                          | 1       |     |                    | 3                        |
|              | ESTUARY MOUTH    | 2        | E22A2        | SW 5498 3800        | 2.5                    | Surface                      | EC                  | SQMR          | S383   | ZI       | 3                          | 4       | 12  |                    |                          |
|              |                  |          |              |                     |                        |                              | EC                  | SQMR          | S507   |          | 3                          | 1       |     |                    | 3                        |
| 24A GANNEL   | UPPER ESTUARY    | 1        | E24A2        | SW 8080 6060        | 1.0                    | Surface                      | EC                  | SQMR          | S383   | ZI       | 4                          | 4       | 16  |                    |                          |
|              |                  |          |              |                     |                        |                              | EC                  | SQMR          | S507   |          | 4                          | 1       |     |                    | 4                        |
|              | LOWER ESTUARY    | 2        | E24A1        | SW 7930 6120        | 3.0                    | Surface                      | EC                  | SQMR          | S383   | ZI       | 4                          | 4       | 16  |                    |                          |
|              |                  |          |              |                     |                        |                              | EC                  | SQMR          | S507   |          | 4                          | 1       |     |                    | 4                        |
| 25A OMEL     | BY HENDAVEY      | 1        | E25A5        | SW 0040 7110        | 4.0                    | Surface                      | EC                  | SQMR          | S383   | ZI       | 4                          | 4       | 16  |                    |                          |
|              |                  |          |              |                     |                        |                              | EC                  | SQMR          | S507   |          | 4                          | 1       |     |                    | 4                        |
|              |                  | 1        |              |                     |                        |                              | Near Bottom         | EC            | SQMR   | S383     | ZI                         | 4       | 4   | 16                 |                          |
|              | WADDERIDGE       | 2        | E25A4        | SW 9849 7318        | 2.0                    | Surface                      | EC                  | SQMR          | S383   | ZI       | 4                          | 4       | 16  |                    |                          |
|              |                  |          |              |                     |                        |                              | EC                  | SQMR          | S507   |          | 4                          | 1       |     |                    | 4                        |
|              |                  | 2        |              |                     |                        |                              | Near Bottom         | EC            | SQMR   | S383     | ZI                         | 4       | 4   | 16                 |                          |
|              | MID ESTUARY      | 3        | E25A3        | SW 9608 7410        | 3.4                    | Surface                      | EC                  | SQMR          | S383   | ZI       | 4                          | 4       | 16  |                    |                          |
|              |                  |          |              |                     |                        |                              | EC                  | SQMR          | S507   |          | 4                          | 1       |     |                    | 4                        |
|              |                  | 3        |              |                     |                        |                              | Near Bottom         | EC            | SQMR   | S383     | ZI                         | 4       | 4   | 16                 |                          |
|              | BY FORTHILL COVE | 4A       | E25A2        | SW 9300 7555        | 3.75                   | Surface                      | EC                  | SQMR          | S383   | ZI       | 4                          | 4       | 16  |                    |                          |
|              |                  |          |              |                     |                        |                              | EC                  | SQMR          | S507   |          | 4                          | 1       |     |                    | 4                        |
|              |                  | 4A       |              |                     |                        |                              | Mid Depth           | EC            | SQMR   | S383     | ZI                         | 4       | 4   | 16                 |                          |
|              | 4A               |          |              |                     |                        | Near Bottom                  | EC                  | SQMR          | S383   | ZI       | 4                          | 4       | 16  |                    |                          |
| BY BRISTOW   | 4B               | E25A6    | SW 9215 7560 | 2.75                | Surface                | EC                           | SQMR                | S383          | ZI     | 4        | 4                          | 16      |     |                    |                          |
|              |                  |          |              |                     |                        | EC                           | SQMR                | S507          |        | 4        | 1                          |         |     | 4                  |                          |
|              | 4B               |          |              |                     |                        | Mid Depth                    | EC                  | SQMR          | S383   | ZI       | 4                          | 4       | 16  |                    |                          |
|              |                  |          |              |                     |                        |                              | Near Bottom         | EC            | SQMR   | S383     | ZI                         | 4       | 4   | 16                 |                          |
| THE DOOM BAR | 5                | E25A1    | SW 9208 7775 | 2.5                 | Surface                | EC                           | SQMR                | S383          | ZI     | 4        | 4                          | 16      |     |                    |                          |
|              |                  |          |              |                     |                        | EC                           | SQMR                | S507          |        | 4        | 1                          |         |     | 4                  |                          |
|              | 5                |          |              |                     |                        | Mid Depth                    | EC                  | SQMR          | S383   | ZI       | 4                          | 4       | 16  |                    |                          |
|              |                  |          |              |                     |                        |                              | Near Bottom         | EC            | SQMR   | S383     | ZI                         | 4       | 4   | 16                 |                          |



NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
 MONITORING PROGRAMME FOR ESTUARINE QUALITY SURVEY - 1993  
 PROGRAMME LAST UPDATED :- 25-JAN-1993

| ESTUARY         | SITE<br>DESCRIPTION                                 | SITE<br>NO. | U.R.N. | SAMPLE POINT<br>N.G.R. | CLASSIFIED<br>LENGTH<br>(KM) | LOCATION OF<br>MONITORING<br>POINT | MENSAR<br>PURPOSE<br>CODE | PURPOSE<br>CODE | ANALYSIS<br>GROUPS | MPR.<br>CODE | SURVEY<br>FREQUENCY<br>PER ANNUM | SAMPLES<br>PER<br>SURVEY | NO. OF<br>LAB<br>SAMPLES | NO. OF<br>AESTHETIC<br>REPORTS |
|-----------------|-----------------------------------------------------|-------------|--------|------------------------|------------------------------|------------------------------------|---------------------------|-----------------|--------------------|--------------|----------------------------------|--------------------------|--------------------------|--------------------------------|
|                 | LITTLE<br>PEDERICK                                  | 1           | E25A7  | SW 9180 7350           | 2.4                          | Surface                            | EC                        | SQMR            | S383               | 2I           | 4                                | 4                        | 16                       | 4                              |
|                 |                                                     |             |        |                        |                              |                                    | EC                        | SQMR            | SS07               |              | 4                                | 1                        |                          |                                |
|                 |                                                     | 1           |        |                        |                              | Near bottom                        | EC                        | SQMR            | S383               | 2I           | 4                                | 4                        | 16                       |                                |
| 29A/TW/TORRIDGE | ANNERY KILN<br>(TORRIDGE)                           | 1           | E29F0  | SS 4623 2293           | 3.0                          | Surface                            | EC                        | SQMR            | S101               | 2I           | 4                                | 4                        | 16                       | 4                              |
|                 |                                                     |             |        |                        |                              |                                    | EC                        | SQMR            | SS07               |              | 4                                | 1                        |                          |                                |
|                 |                                                     | 1           |        |                        |                              | Mid Depth                          | EC                        | SQMR            | S101               | 2I           | 4                                | 4                        | 16                       |                                |
|                 |                                                     | 1           |        |                        |                              | Near Bottom                        | EC                        | SQMR            | S101               | 2I           | 4                                | 4                        | 16                       |                                |
|                 | BY PILLMOUTH<br>(TORRIDGE)                          | 2           | E29A7  | SS 4615 2470           | 3.75                         | Surface                            | EC                        | SQMR            | S101               | 2I           | 4                                | 4                        | 16                       | 4                              |
|                 |                                                     |             |        |                        |                              |                                    | EC                        | SQMR            | SS07               |              | 4                                | 1                        |                          |                                |
|                 |                                                     | 2           |        |                        |                              | Mid Depth                          | EC                        | SQMR            | S101               | 2I           | 4                                | 4                        | 16                       |                                |
|                 |                                                     | 2           |        |                        |                              | Near Bottom                        | EC                        | SQMR            | S101               | 2I           | 4                                | 4                        | 16                       |                                |
| 30A             | LITTLE PILL<br>(TW)                                 | 3           | E30A5  | SS 5610 3059           | 3.5                          | Surface                            | EC                        | SQMR            | S101               | 2I           | 4                                | 4                        | 16                       | 4                              |
|                 |                                                     |             |        |                        |                              |                                    | EC                        | SQMR            | SS07               |              | 4                                | 1                        |                          |                                |
|                 |                                                     | 3           |        |                        |                              | Mid Depth                          | EC                        | SQMR            | S101               | 2I           | 4                                | 4                        | 16                       |                                |
|                 |                                                     | 3           |        |                        |                              | Near Bottom                        | EC                        | SQMR            | S101               | 2I           | 4                                | 4                        | 16                       |                                |
|                 | BARNSTABLE<br>(TW)                                  | 4           | E30A6  | SS 5562 3310           | 1.75                         | Surface                            | EC                        | SQMR            | S101               | 2I           | 4                                | 4                        | 16                       | 4                              |
|                 |                                                     |             |        |                        |                              |                                    | EC                        | SQMR            | SS07               |              | 4                                | 1                        |                          |                                |
|                 |                                                     | 4           |        |                        |                              | Mid Depth                          | EC                        | SQMR            | S101               | 2I           | 4                                | 4                        | 16                       |                                |
|                 |                                                     | 4           |        |                        |                              | Near Bottom                        | EC                        | SQMR            | S101               | 2I           | 4                                | 4                        | 16                       |                                |
| 29A             | AT BIDEFORD<br>(TORRIDGE)                           | 5           | E29A8  | SS 4580 2730           | 3.4                          | Surface                            | EC                        | SQMR            | S101               | 2I           | 4                                | 4                        | 16                       | 4                              |
|                 |                                                     |             |        |                        |                              |                                    | EC                        | SQMR            | SS07               |              | 4                                | 1                        |                          |                                |
|                 |                                                     | 5           |        |                        |                              | Mid Depth                          | EC                        | SQMR            | S101               | 2I           | 4                                | 4                        | 16                       |                                |
|                 |                                                     | 5           |        |                        |                              | Near Bottom                        | EC                        | SQMR            | S101               | 2I           | 4                                | 4                        | 16                       |                                |
|                 | KNAPP HOUSE,<br>NORTHAM/<br>APPLEDORE<br>(TORRIDGE) | 6           | E29A9  | SS 4673 2938           | 2.5                          | Surface                            | EC                        | SQMR            | S101               | 2I           | 4                                | 4                        | 16                       | 4                              |
|                 |                                                     |             |        |                        |                              |                                    | EC                        | SQMR            | SS07               |              | 4                                | 1                        |                          |                                |
|                 |                                                     | 6           |        |                        |                              | Mid Depth                          | EC                        | SQMR            | S101               | 2I           | 4                                | 4                        | 16                       |                                |
|                 |                                                     | 6           |        |                        |                              | Near Bottom                        | EC                        | SQMR            | S101               | 2I           | 4                                | 4                        | 16                       |                                |
| 30A             | OFF ASHFORD<br>S.T.W.<br>(TW)                       | 7           | E30A7  | SS 5310 3393           | 3.5                          | Surface                            | EC                        | SQMR            | S101               | 2I           | 4                                | 4                        | 16                       | 4                              |
|                 |                                                     |             |        |                        |                              |                                    | EC                        | SQMR            | SS07               |              | 4                                | 1                        |                          |                                |
|                 |                                                     | 7           |        |                        |                              | Mid Depth                          | EC                        | SQMR            | S101               | 2I           | 4                                | 4                        | 16                       |                                |

## PROGRAMME LAST UPDATED :- 25-JAN-1993

| ESTUARY              | SITE DESCRIPTION     | SITE NO. | U.R.N. NO. | SAMPLE POINT                | CLASSIFIED LENGTH (M) | LOCATION OF MONITORING POINT | YEAR MONITORING | PURPOSE CODE | ANALYSIS CODE | NO. OF ANALYSTS | SURVEY DATE | SURVEY TIME | SURVEY FREQUENCY | PER ANNUM | SURVEY SAMPLES         | NO. OF LAB SAMPLES | NO. OF AESTHETIC REPORTS |
|----------------------|----------------------|----------|------------|-----------------------------|-----------------------|------------------------------|-----------------|--------------|---------------|-----------------|-------------|-------------|------------------|-----------|------------------------|--------------------|--------------------------|
|                      |                      |          |            |                             |                       |                              |                 |              |               |                 |             |             |                  |           |                        |                    |                          |
|                      |                      | 7        |            |                             |                       | Near Bottom                  | EC              | SQR          | SI01          | 2I              | 4           | 4           | 4                | 4         | 16                     |                    |                          |
|                      | RAP CHIVEXOR (T94)   | 8        | E3048      | SS 4885 3372                | 6.5                   | Surface                      | EC              | SQR          | SI01          | 2I              | 4           | 4           | 4                | 1         | 16                     |                    | 4                        |
|                      |                      | 8        |            |                             |                       | Mid Depth                    | EC              | SQR          | SI01          | 2I              | 4           | 4           | 4                | 4         | 16                     |                    |                          |
|                      |                      | 8        |            |                             |                       | Near Bottom                  | EC              | SQR          | SI01          | 2I              | 4           | 4           | 4                | 4         | 16                     |                    |                          |
|                      | AIRY POINT (COPINED) | 9        | E3049      | SS 4460 3280 (SS 4570 3160) | 6.0                   | Surface                      | EC              | SQR          | SI01          | 2I              | 4           | 4           | 4                | 1         | 16                     |                    | 4                        |
|                      |                      | 9        |            |                             |                       | Mid Depth                    | EC              | SQR          | SI01          | 2I              | 4           | 4           | 4                | 4         | 16                     |                    |                          |
|                      |                      | 9        |            |                             |                       | Near Bottom                  | EC              | SQR          | SI01          | 2I              | 4           | 4           | 4                | 4         | 16                     |                    |                          |
| TOTAL LENGTH = 292.3 |                      |          |            |                             |                       |                              |                 |              |               |                 |             |             |                  |           |                        |                    |                          |
|                      |                      |          |            |                             |                       |                              |                 |              |               |                 |             |             |                  |           | MAXIMUM SAMPLES = 2920 |                    | 403                      |

## NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION

### MONITORING PROGRAMMES - 1993

#### ESTUARINE QUALITY

##### REASON FOR SAMPLING

1. A system of Statutory Water Quality Objectives (SWQO's) are to be introduced to all controlled waters, by the Secretary of State for the Environment. The proposed system will include a general classification of Estuary Quality. Estuaries will be classified in terms of chemical, biological and aesthetic quality. The system will provide an absolute measure of estuary quality. Each estuary will have an objective set and a timetable in which to achieve it. In order to monitor improvement, there must be a sufficient baseline of the current quality of the estuaries.

2. The EC Urban Waste Water Treatment Directive was issued in May 1991. Part of the requirements is that the NRA must designate areas of surface fresh and tidal waters which are believed to be sensitive to eutrophication (nutrient enrichment) that can be improved by controlling inputs from large sewage treatment works. In order to carry out this obligation, the current levels of nutrients in the estuaries must be monitored.

SAMPLING : For each survey, samples are to be collected from each location at the following times :-

- 1st sample at high water
- 2nd sample at mid ebb tide
- 3rd sample at low water
- 4th sample at mid flood tide

High water samples may be taken 1 hour either side of the published time of high water for that site.

Low water samples may be taken 1½ hours either side of the published time of low water for that site.

Mid ebb and mid flood samples may be taken in between these times.

All the sites within one estuary should be sampled on the same day. Where a combined estuary system is done over more than 1 day, there must be one site common to both/all days of sampling.

In some estuaries, the survey frequency has been increased to 4 times per year, (see later). Where this only affects part(s) of combined estuary systems, the common sites should also be sampled, (as above).

DEPTH SAMPLING : The numbers of water samples collected at each site will be according to the following guidelines :

- 1) Fixed sampling (ie. samples to be taken back to the laboratory) :
  - i) Total depth < 1.5m, 1 sample (25cm below the surface);
  - ii) Total depth ≥ 1.5m and < 3m, 2 samples (25cm below surface, bottom sample)

approximately 50cm up from the bottom);

iii) Total depth  $\geq 3\text{m}$ , 3 samples (25cm below surface, mid depth - depth to be measured on each occasion, bottom - 50cm up from bottom).

NB. The programme has now been modified to remove excessive samples where it has never been possible to sample all the listed depths.

2) Profiling - to be done on site for dissolved oxygen (%saturation), temperature, salinity and pH - using WTW probes, according to the following guidelines:

Minimum of 2 profile readings to be taken at all sample locations at every tidal state - depth of each profile to be measured every time.

Profile intervals:  $\leq 6\text{m}$  (total estuary depth at time of sampling), 1m interval profiles.

> 6m and  $\leq 12\text{m}$ , 1.5m interval profiles.

> 12m, 2m interval profiles.

Depth measurements are to be done by instrument. The depth of each sample (fixed and profile) and the total water depth at time of sampling are to be measured on all occasions.

TIME PERIODS : Surveys are to be carried out seasonally as follows :

Winter - December to March (inclusive)

Spring - April to May (inclusive)

Summer - June to August (inclusive)

Autumn - September to November (inclusive).

One of the criteria for the identification of estuaries as "sensitive" under the EC Urban Waste Water Directive is the concentration of nitrate measured in February. However, it is impractical for all the estuaries in the region to be sampled in February. Therefore a number of estuaries have been selected as requiring sampling in February, based on whether they are potentially sensitive. This will enable the collection of sufficient data within the next four years to identify sensitive estuaries in 1996.

1. Estuaries to be sampled every February.

Axe; Taw-Torridge; Truro & Tresillian; Camel; Fowey; Lynher; Tamar.

2. Estuaries to be sampled in February alternate years.

1993 & 1995: Fal; Dart

1994 & 1996: Helford; Restronguet Creek; Gannel

The estuaries listed in 1 and 2 above should be surveyed 4 times a year, and not just 3 times as previously.

Surveys are to be carried out over a range of tidal conditions. As a minimum, neap and spring conditions should be covered for each estuary.

LABELLING OF SAMPLES : All samples, without exception, must be clearly labelled with the date, time of collection, depth and tidal state. All these details must also be archived with the sample results.

ANALYSIS : The programme consists of the following determinands, which are covered by ARG S101 for the East Area, and S383 for the West Area :-

- 0006 Depth of Sample - In Situ
- 0061 pH
- 0068 Turbidity
- 0076 Temperature - In Situ
- 0081 D.O.% - In Situ
- 0082 D.O. mg/l - Calculation
- 0085 BOD ATU
- 0135 SS 105 C
- 0189 Orth-P Fil
- 0729 Chlorophyll-A
- 0942 FStrP100ml
- 1181 Weath Temp - In Situ
- 1183 Weath Prec - In Situ
- 1198 Salin I/S - In Situ
- 3028 Salinity C - Metered
- 3267 Flow
- 3403 NH<sub>3</sub> Sal Filtrd
- 3420 Silic Sal Fil
- 9933 ColP100ml
- 9935 EColP100ml
- 9991 TON Sal Fil

Dissolved oxygen - For the surface samples, at high and low water, oxygen should be measured by the Winkler method in addition to the 'in situ' measurements taken by the DO probe.

Water samples (surface sample only) are required for metals analysis at high and low water at 5 sites in the Fal system. This is marked in the programme by ARG group number S172.

#### AESTHETIC MONITORING

It has been decided that, in order to comply fully with the directives, aesthetic monitoring should be included in the survey. Thus, a new ARG (S507) has been set up consisting of the following determinands:-

- 3020 Sea Colour
- 3021 Mineral Oil
- 3022 Foam
- 3023 Phenol Odour
- 3024 Sea State
- 3025 State of Visible Pollution

This requires one set of observations at each site at high water.

If persistent foam is present, a sample should be taken. One bottle should be submitted to the biologists for algal analysis, and one bottle should be submitted as an ad hoc to the labs for detergent analysis. As per requirements laid down in WMG paper.

If an algal bloom is suspected, a sample should be taken. One bottle should be submitted to the biologists for algal analysis. As per requirements laid down in WMG paper.

A summary sheet has been drawn up to simplify the reporting of these details, and a copy is attached to these notes.

October 1992

**NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION**  
**ESTUARY AND COASTAL WATER QUALITY - AESTHETIC REPORT**

**SITE**

**DATE**

**TIME**

**TIDE**

**Results**

**3020 SEA  
COLOUR**

- 1 Normal Sea Colour
- 2 Not Normal Sea Colour
- 3 Abnormal Due to Conditions

**3021 MINERAL  
OIL**

- 1 No Film or Oil Shell
- 2 Oil Film/Shell Present
- 3 Film/Shell Due to Condition

**3022 FOAM**

- 1 No Lasting Foam
- 2 Lasting Foam Present
- 3 Foam Due to Abnormal Condition

**3023 PHENOL**

- 1 No Phenol Odour
- 2 Phenol Odour
- 3 Odour Due to Abnormal Condition

**3024 SEA  
STATE**

- 0 Calm - Glassy
- 1 Calm - 0-10cm Crest to Trough
- 2 Smooth Wavelets 10-50cm
- 3 Light Waves - 0.5-1.25m
- 4 Moderate - 1.25-2m White Horses
- 5 Rough Waves 2.5-5m
- 6 Very Rough Waves 4-6m

**3025 VISIBLE  
POLLUTN**

- 0 None Visible
- 1 Present - Sewage Based
- 2 Present - Not Sewage Based
- 3 Present - Both Sewage & Non-Sewage

**Samples Taken (tick box)**

**REASON?**

**FOAM?**

**SUSPECTED ALGAL  
BLOOM?**

**SAMPLE?**

**DETERGENT**

**ALGAE**

**OFFICER CODE:.....**

## **10.2 ESTUARY QUALITY SURVEY PROGRAMME - BIOLOGY**

### **10.2.1 DESCRIPTION OF PROGRAMME**

Five estuary system in the region is being sampled both subtidally and intertidally to assess the composition of the biological communities within the sediments.

Samples are collected from specific sites in each estuary for analysis of benthic macroinvertebrates (the larger animals living in the sediments). At the same time samples are also collected for sediment grain size analysis, sediment organic carbon and nitrogen content and salinity. Sampling methods for intertidal surveys involve taking a series of cores at mid tide level; subtidal methods require the use of a boat and grab sampler to take the samples. The animals present are all identified to species level (where possible). Sampling occurs from early summer to autumn each year.

### **10.2.2 REASONS FOR MONITORING**

As with the chemistry side of the estuary classification programme, this work is driven by the proposed system of Statutory Water Quality Objectives (SWQOs). Biological data provides a good indication of the overall "health" of an estuary. It is essential that a baseline of biological information exists for each estuary against which changes in community structure (caused by changes in water quality) can be assessed.

Each estuary system has now been surveyed once. It is essential to continue to monitor each estuary (albeit on a reduced scale) for the purposes of estuary classification and SWQOs. The estuaries will continue to be monitored on a 3-5 year rolling programme starting in 1993. Special surveys will also be carried out to look at the impact of significant discharges in the region.

### **10.2.3 PROGRAMME INFORMATION**

|                            |   |     |
|----------------------------|---|-----|
| Numbers of sampling points | : | 68  |
| Numbers of samples         | : | 340 |

### **10.2.4 ENDORSEMENT**

The contents of this programme have been agreed by the Water Quality Planner.



TABLE 2: WORK PLAN OF MARINE BIOLOGICAL SURVEY WORK FOR 1993

| ESTUARY<br>NAME | DATE OF<br>SURVEY    | No OF INTERTIDAL<br>SITES (SAMPLES) | No OF SUBTIDAL<br>SITES (SAMPLES) |
|-----------------|----------------------|-------------------------------------|-----------------------------------|
| AXE             | 10.03.93             | 3 (15)                              |                                   |
| EXE             | 02.03.93<br>09.03.93 | 3 (15)                              | 3 (15)                            |
| TEIGN           | 17.03.93             |                                     | 2 (10)                            |
| (for SWW)       | 24.03.93             |                                     | 8 (24)                            |
| (for SWW)       | 25.03.93             | transect work                       |                                   |
| (for SWW)       | 03.08.93             | 8 (24)                              |                                   |
| (for SWW)       | 04.08.93             | transect work                       |                                   |
| (for SWW)       | 14.10.93             | 8 (24)                              |                                   |
| (for SWW)       | 15.10.93             | transect work                       |                                   |
| DART            | 03.03.93<br>11.03.93 | 5 (25)                              | 3 (5)                             |
| TAMAR           | 22.04.93             | 3 (15)                              | 6 (24)                            |
| FOWEY           | 12.03.93<br>16.03.93 | 5 (25)<br>3 (15)                    | 3 (12)                            |
| HELFORD         | 18.03.93<br>23.03.93 | 5 (25)                              | 3 (15)                            |
| TOTALS          |                      | 42 (158)                            | 28 (105)                          |

SAMPLING DAYS - 17

GRABS - 70

CORES - 120

CORES (SWW)\* - 96

\* contracted out

## **11. COASTAL MONITORING SURVEY PROGRAMME**

### **11.1 DESCRIPTION OF PROGRAMME**

Five areas around the region's coastline are being sampled at 55 sites up to four times per year to measure levels of nutrients, bacteria, dissolved oxygen, biochemical oxygen demand, temperature, salinity, turbidity, suspended solids, chlorophyll A and algal identification.

In each bay area, sample points are located on a grid system. Surface samples are collected from each sampling point.

### **11.2 REASON FOR MONITORING**

As with the estuary classification programme, this work is driven by the proposed system of Statutory Water Quality Objectives. The proposed system will include a general classification of coastal water quality. Coastal waters will be classified in terms of chemical, microbiological and aesthetic quality. In order to be able to monitor change in water quality the NRA must have a baseline of information on the current quality against which changes can be measured. Where quality does not meet the proposed target classification a programme of improvements can be put into action.

### **11.3 PROGRAMME INFORMATION**

|                                        |      |            |
|----------------------------------------|------|------------|
| Numbers of sampling points             | :    | 55         |
| Numbers of samples                     | :    | 220        |
| Frequency of use of Analysis           |      |            |
| Requirement Groups (ARGs) and total    | S101 | 108 (2268) |
| numbers of determinands, in brackets : | S383 | 112 (2016) |
|                                        | S507 | 220 (1320) |

Details of the composition of each ARG may be found in the NRA South West Region's ARG Dictionary.

### **11.4 EXPLANATION OF SCHEDULE CONTENTS**

The following table details the sampling and analysis requirements for this programme. The User Reference Number (URN) is the unique identification code for the site. It allows sample results for the site to be retrieved from the Water Quality Archive (sample database). The National Grid Reference (NGR) defines the location of the site on a map. The Material Code details the type of sample collected, for example 2J is sea water, 2F is freshwater, 2I is estuarine water. It forms part of the information about each particular sample held on the Water Quality Archive. The Purpose Code details the reason why a particular sample has been collected. For example, SQMB relates to EC Directive monitoring - bathing waters. SMRE relates to routine monitoring analysis (for EC Directives), SQMR relates to routine monitoring (in general). This code allows samples collected for particular reasons (from one or several sites) to be retrieved from the Water Quality Archive. The Mensar Purpose Code has to be a 2 digit code. It is translated to the equivalent code (eg. SMRE) on the ICL computer, where the Water Quality Archive is held, once the data is transferred to the ICL.

#### 11.5 ENDORSEMENT

The contents of this programme have been agreed by the Water Quality Planner, Field Controller and Laboratory Controller.

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
 COASTAL WIDER CLASSIFICATION MONITORING PROGRAMME - 1993  
 PROGRAMME UPDATED: 15-FEB-1993

| SAMPLING<br>LOCATION | MONITORING POINT NAME                           | URN     | LATITUDE   | LONGITUDE  | NGR          | PURPOSE<br>[MENSAR] | CODES<br>ICL | PRG.<br>CODE | FREQUENCY<br>(PER ANNUM) | NO SAMPLES<br>PER SURVEY | ARGS      |
|----------------------|-------------------------------------------------|---------|------------|------------|--------------|---------------------|--------------|--------------|--------------------------|--------------------------|-----------|
| LYME BAY             |                                                 |         |            |            |              |                     |              |              |                          |                          |           |
| 01A Site 1           | Sea lrm off Lyme Regis                          | C01A001 | 50°42.20'N | 02°55.70'W | SY 3445 8977 | CM                  | SQMR         | 2J           | 4                        | 1                        | S101 SS07 |
| 02A Site 2           | Sea lrm off Charton Bay                         | C02A001 | 50°41.20'N | 02°59.00'W | SY 3055 8797 | CM                  | SQMR         | 2J           | 4                        | 1                        | S101 SS07 |
| 02A Site 3           | Sea lrm off Seaton                              | C02A002 | 50°41.20'N | 03°03.80'W | SY 2490 8805 | CM                  | SQMR         | 2J           | 4                        | 1                        | S101 SS07 |
| 02A Site 4           | Sea lrm off Branscombe Mouth                    | C02A003 | 50°40.10'N | 03°07.20'W | SY 2086 8607 | CM                  | SQMR         | 2J           | 4                        | 1                        | S101 SS07 |
| 03A Site 5           | Sea lrm off Sidmouth                            | C03A001 | 50°39.70'N | 03°13.60'W | SY 1331 8545 | CM                  | SQMR         | 2J           | 4                        | 1                        | S101 SS07 |
| 04A Site 6           | Sea lrm off Otterton Ledge                      | C04A001 | 50°36.80'N | 03°17.50'W | SY 0862 8015 | CM                  | SQMR         | 2J           | 4                        | 1                        | S101 SS07 |
| 05A Site 7           | Sea lrm off mouth of Eze Estuary Channel        | C05A001 | 50°35.50'N | 03°21.90'W | SY 0339 7784 | CM                  | SQMR         | 2J           | 4                        | 1                        | S101 SS07 |
| 05A Site 8           | Sea lrm off Langstone Point                     | C05A003 | 50°34.80'N | 03°25.50'W | SY 9912 7662 | CM                  | SQMR         | 2J           | 4                        | 1                        | S101 SS07 |
| 05A Site 9           | Sea lrm off Holcombe                            | C05A002 | 50°33.20'N | 03°26.70'W | SY 9765 7368 | CM                  | SQMR         | 2J           | 4                        | 1                        | S101 SS07 |
| 06A Site 10          | Sea lrm off Red Cliffs, south of Shaldon        | C06A018 | 50°30.90'N | 03°28.70'W | SY 9520 6947 | CM                  | SQMR         | 2J           | 4                        | 1                        | S101 SS07 |
| TOR BAY              |                                                 |         |            |            |              |                     |              |              |                          |                          |           |
| 06A Transect 1/1     | Tor Bay Coastal Classification Survey Site 1    | C06A001 | 50°27.75'N | 03°27.40'W | SY 9662 6360 | CM                  | SQMR         | 2J           | 4                        | 1                        | S101 SS07 |
| Transect 1/2         | Tor Bay Coastal Classification Survey Site 2    | C06A002 | 50°26.40'N | 03°27.40'W | SY 9657 6110 | CM                  | SQMR         | 2J           | 4                        | 1                        | S101 SS07 |
| Transect 1/3         | Tor Bay Coastal Classification Survey Site 3    | C06A003 | 50°25.50'N | 03°27.40'W | SY 9654 5943 | CM                  | SQMR         | 2J           | 4                        | 1                        | S101 SS07 |
| Transect 1/4         | Tor Bay Coastal Classification Survey Site 4    | C06A004 | 50°24.00'N | 03°27.40'W | SY 9648 5665 | CM                  | SQMR         | 2J           | 4                        | 1                        | S101 SS07 |
| Transect 1/5         | Tor Bay Coastal Classification Survey Site 5    | C06A005 | 50°22.80'N | 03°27.40'W | SY 9644 5443 | CM                  | SQMR         | 2J           | 4                        | 1                        | S101 SS07 |
| Transect 2/1         | Tor Bay Coastal Classification Survey Site 6    | C06A006 | 50°27.00'N | 03°28.80'W | SY 9494 6224 | CM                  | SQMR         | 2J           | 4                        | 1                        | S101 SS07 |
| Transect 2/2         | Tor Bay Coastal Classification Survey Site 7    | C06A007 | 50°26.40'N | 03°28.80'W | SY 9492 6113 | CM                  | SQMR         | 2J           | 4                        | 1                        | S101 SS07 |
| Transect 2/3         | Tor Bay Coastal Classification Survey Site 8    | C06A008 | 50°25.50'N | 03°28.80'W | SY 9488 5946 | CM                  | SQMR         | 2J           | 4                        | 1                        | S101 SS07 |
| Transect 2/4         | Tor Bay Coastal Classification Survey Site 9    | C06A009 | 50°24.70'N | 03°28.80'W | SY 9485 5798 | CM                  | SQMR         | 2J           | 4                        | 1                        | S101 SS07 |
| Transect 3/1         | Tor Bay Coastal Classification Survey Site 10   | C06A010 | 50°27.00'N | 03°30.70'W | SY 9269 6229 | CM                  | SQMR         | 2J           | 4                        | 1                        | S101 SS07 |
| Transect 3/2         | Tor Bay Coastal Classification Survey Site 11   | C06A011 | 50°26.40'N | 03°30.70'W | SY 9267 6118 | CM                  | SQMR         | 2J           | 4                        | 1                        | S101 SS07 |
| Transect 3/3         | Tor Bay Coastal Classification Survey Site 12   | C06A012 | 50°25.50'N | 03°30.70'W | SY 9263 5951 | CM                  | SQMR         | 2J           | 4                        | 1                        | S101 SS07 |
| Transect 3/4         | Tor Bay Coastal Classification Survey Site 13   | C06A013 | 50°24.70'N | 03°30.70'W | SY 9260 5803 | CM                  | SQMR         | 2J           | 4                        | 1                        | S101 SS07 |
| Transect 4/1         | Tor Bay Coastal Classification Survey Site 14   | C06A014 | 50°27.00'N | 03°32.20'W | SY 9091 6232 | CM                  | SQMR         | 2J           | 4                        | 1                        | S101 SS07 |
| Transect 4/2         | Tor Bay Coastal Classification Survey Site 15   | C06A015 | 50°26.40'N | 03°32.20'W | SY 9089 6121 | CM                  | SQMR         | 2J           | 4                        | 1                        | S101 SS07 |
| Transect 4/3         | Tor Bay Coastal Classification Survey Site 16   | C06A016 | 50°25.50'N | 03°32.20'W | SY 9086 5954 | CM                  | SQMR         | 2J           | 4                        | 1                        | S101 SS07 |
| Transect 4/4         | Tor Bay Coastal Classification Survey Site 17   | C06A017 | 50°24.70'N | 03°32.20'W | SY 9083 5807 | CM                  | SQMR         | 2J           | 4                        | 1                        | S101 SS07 |
| ST AUSTELL BAY       |                                                 |         |            |            |              |                     |              |              |                          |                          |           |
| 11A Transect 1/1     | St Austell Bay Coastal Class. Survey Site 1     | C17A001 | 50°18.55'N | 04°41.10'W | SY 0884 4899 | CM                  | SQMR         | 2J           | 4                        | 1                        | S383 SS07 |
| Transect 1/2         | St Austell Bay Coastal Class. Survey Site 2     | C17A002 | 50°18.35'N | 04°42.10'W | SY 0764 4866 | CM                  | SQMR         | 2J           | 4                        | 1                        | S383 SS07 |
| Transect 1/3         | St Austell Bay Coastal Class. Survey Site 3     | C17A003 | 50°18.20'N | 04°43.15'W | SY 0639 4843 | CM                  | SQMR         | 2J           | 4                        | 1                        | S383 SS07 |
| Transect 1/4         | St Austell Bay Coastal Class. Survey Site 4     | C17A004 | 50°17.95'N | 04°44.30'W | SY 0500 4801 | CM                  | SQMR         | 2J           | 4                        | 1                        | S383 SS07 |
| Transect 2/1         | St Austell Bay Coastal Class. Survey Site 5     | C17A005 | 50°19.60'N | 04°41.55'W | SY 0838 5095 | CM                  | SQMR         | 2J           | 4                        | 1                        | S383 SS07 |
| Transect 2/2         | St Austell Bay Coastal Class. Survey Site 6     | C17A006 | 50°19.40'N | 04°42.60'W | SY 0712 5062 | CM                  | SQMR         | 2J           | 4                        | 1                        | S383 SS07 |
| Transect 2/3         | St Austell Bay Coastal Class. Survey Site 7     | C17A007 | 50°19.20'N | 04°43.65'W | SY 0586 5030 | CM                  | SQMR         | 2J           | 4                        | 1                        | S383 SS07 |
| Transect 2/4         | St Austell Bay Coastal Class. Survey Site 8     | C17A008 | 50°19.00'N | 04°44.80'W | SY 0448 4998 | CM                  | SQMR         | 2J           | 4                        | 1                        | S383 SS07 |
| Transect 3/1         | St Austell Bay Coastal Class. Survey Site 9     | C17A009 | 50°20.10'N | 04°41.70'W | SY 0823 5188 | CM                  | SQMR         | 2J           | 4                        | 1                        | S383 SS07 |
| Transect 3/2         | St Austell Bay Coastal Class. Survey Site 10    | C17A010 | 50°19.90'N | 04°42.75'W | SY 0700 5156 | CM                  | SQMR         | 2J           | 4                        | 1                        | S383 SS07 |
| Transect 3/3         | St Austell Bay Coastal Class. Survey Site 11    | C17A011 | 50°19.70'N | 04°43.90'W | SY 0560 5124 | CM                  | SQMR         | 2J           | 4                        | 1                        | S383 SS07 |
| Transect 3/4         | St Austell Bay Coastal Class. Survey Site 12    | C17A012 | 50°19.50'N | 04°44.95'W | SY 0434 5091 | CM                  | SQMR         | 2J           | 4                        | 1                        | S383 SS07 |
| MOUNTS BAY           |                                                 |         |            |            |              |                     |              |              |                          |                          |           |
| 21A Site 1           | Mounts Bay Coastal Classification Survey Site 1 | C21A001 | 50°06.1'N  | 05°28.8'W  | SW 5118 2827 | CM                  | SQMR         | 2J           | 4                        | 1                        | S383 SS07 |
| Site 2               | Mounts Bay Coastal Classification Survey Site 2 | C21A002 | 50°05.8'N  | 05°30.5'W  | SW 4912 2781 | CM                  | SQMR         | 2J           | 4                        | 1                        | S383 SS07 |

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
 COASTAL WIDER CLASSIFICATION MONITORING PROGRAMME - 1993  
 PROGRAMME UPDATED: 15-FEB-1993

| SAMPLING<br>LOCATION | MONITORING POINT NAME                            | URN     | LATITUDE   | LONGITUDE  | NGR          | PURPOSE CODES |      |      | FREQUENCY<br>(PER ANNUM) | NO SAMPLES<br>PER SURVEY | APCs |      |
|----------------------|--------------------------------------------------|---------|------------|------------|--------------|---------------|------|------|--------------------------|--------------------------|------|------|
|                      |                                                  |         |            |            |              | MENSAR        | ICL  | CODE |                          |                          |      |      |
| Site 3               | Mounts Bay Coastal Classification Survey Site 3  | C21A003 | 50°06.65'N | 05°27.9'W  | SW 5230 2924 | CM            | SQMR | 2J   | 4                        | 1                        | S383 | S507 |
| Site 4               | Mounts Bay Coastal Classification Survey Site 4  | C21A004 | 50°06.85'N | 05°29.3'W  | SW 5065 2969 | CM            | SQMR | 2J   | 4                        | 1                        | S383 | S507 |
| Site 5               | Mounts Bay Coastal Classification Survey Site 5  | C21A005 | 50°06.45'N | 05°30.8'W  | SW 4882 2903 | CM            | SQMR | 2J   | 4                        | 1                        | S383 | S507 |
| Site 6               | Mounts Bay Coastal Classification Survey Site 6  | C21A006 | 50°06.30'N | 05°31.6'W  | SW 4786 2880 | CM            | SQMR | 2J   | 4                        | 1                        | S383 | S507 |
| Site 7               | Mounts Bay Coastal Classification Survey Site 7  | C21A007 | 50°07.4'N  | 05°29.6'W  | SW 5034 3072 | CM            | SQMR | 2J   | 4                        | 1                        | S383 | S507 |
| Site 8               | Mounts Bay Coastal Classification Survey Site 8  | C21A008 | 50°07.1'N  | 05°31.0'W  | SW 4864 3024 | CM            | SQMR | 2J   | 4                        | 1                        | S383 | S507 |
| ST IVES BAY          |                                                  |         |            |            |              |               |      |      |                          |                          |      |      |
| 22A Site 1           | St Ives Bay Coastal Classification Survey Site 1 | C22A001 | 50°12.35'N | 05°26.10'W | SW 5493 3970 | CM            | SQMR | 2J   | 4                        | 1                        | S383 | S507 |
| Site 2               | St Ives Bay Coastal Classification Survey Site 2 | C22A002 | 50°13.25'N | 05°24.70'W | SW 5667 4129 | CM            | SQMR | 2J   | 4                        | 1                        | S383 | S507 |
| Site 3               | St Ives Bay Coastal Classification Survey Site 3 | C22A003 | 50°12.90'N | 05°26.00'W | SW 5509 4071 | CM            | SQMR | 2J   | 4                        | 1                        | S383 | S507 |
| Site 4               | St Ives Bay Coastal Classification Survey Site 4 | C22A004 | 50°12.50'N | 05°27.50'W | SW 5327 4005 | CM            | SQMR | 2J   | 4                        | 1                        | S383 | S507 |
| Site 5               | St Ives Bay Coastal Classification Survey Site 5 | C22A005 | 50°13.95'N | 05°24.30'W | SW 5720 4256 | CM            | SQMR | 2J   | 4                        | 1                        | S383 | S507 |
| Site 6               | St Ives Bay Coastal Classification Survey Site 6 | C22A006 | 50°13.55'N | 05°25.55'W | SW 5568 4189 | CM            | SQMR | 2J   | 4                        | 1                        | S383 | S507 |
| Site 7               | St Ives Bay Coastal Classification Survey Site 7 | C22A007 | 50°13.25'N | 05°26.70'W | SW 5429 4140 | CM            | SQMR | 2J   | 4                        | 1                        | S383 | S507 |
| Site 8               | St Ives Bay Coastal Classification Survey Site 8 | C22A008 | 50°12.95'N | 05°27.75'W | SW 5302 4090 | CM            | SQMR | 2J   | 4                        | 1                        | S383 | S507 |

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
COASTAL WATER CLASSIFICATION MONITORING PROGRAMME - 1993

GUIDANCE NOTES

1. SITE SELECTION

The sampling programme for 1993 has been targetted at the coastal water areas Lyme Bay, Torbay, St Austell Bay, Mounts Bay and St Ives Bay. Sites have been selected that are out of the direct influence of sewage discharges.

The sample positions have been given as Latitudes and Longitudes to assist with position fixing from boats (where available), and NGRs have been calculated from these coordinates.

2. SAMPLING

Sub-surface water samples (~0.5m) for the determinands detailed in section 3 are to be collected from each site 4 times per annum, once per season. (See the Estuary Classification Programme Guidelines for the definition of seasons).

Visual observations of the water are also to be made as detailed in the Estuary Classification Programme and where these suggest the presence of algae, then samples for algal analysis should be taken and submitted to the Tidal Waters Biologists, Manley House.

In-situ measurements of salinity, temperature, dissolved oxygen and pH should also be made at surface, mid-depth and bottom using WTW probes. If the water is too deep to carry out readings at bottom, then surface and mid-depth measurements will suffice.

3. ANALYSIS

In-situ (surface): Salinity  
Temperature  
Dissolved Oxygen  
pH  
Sea Colour  
Mineral Oil  
Foam  
Phenol Odour  
Sea State  
State of Visible Pollution

In-situ (depth profiles):  
Salinity  
Temperature  
Dissolved Oxygen  
pH  
Sample depth

Lab Analysis:

Salinity  
BOD  
pH  
TON  
Orthophosphate  
Chlorophyll a  
E. Coli (presumptive)  
Total Coliforms (presumptive)  
Faecal streptococci (presumptive)

6 November 1992

## 12. BIOACCUMULATION SURVEY PROGRAMME

### 12.1 DESCRIPTION OF PROGRAMME

Samples of biota and seaweed are collected once a year, from 31 sites in the region. The samples are analysed for metals and pesticides identified in the relevant EC Dangerous Substances Directives.

### 12.2 REASON FOR MONITORING

Biota and seaweed are used to look at the long term accumulation and persistence of particular chemicals (for example, those listed under the EC Dangerous Substances Directives) in the environment. For the 1993 Programme, bioaccumulation monitoring has been rationalised under one programme to meet the following requirements:

- 1) Sites that have previously been sampled under the bioaccumulation programme; and
- 2) Sites to fulfil the requirements of the EC Dangerous Substances Directive monitoring; and
- 3) Sites included in the estuary classification monitoring programme; and
- 4) Estuary sites contained within the National Marine Monitoring Plan.

The species and sampling protocols for this programme have been drawn up following the recommendations of the national NRA Monitoring Programmes Task Group. Biota and seaweed are both used because different types of organism can accumulate different types of chemicals.

### 12.2 PROGRAMME INFORMATION (TOTAL PROGRAMME)

|                                        |      |           |
|----------------------------------------|------|-----------|
| Numbers of sampling points             | :    | 38        |
| Numbers of samples                     | :    | 38        |
| Frequency of use of Analysis           |      |           |
| Requirement Groups (ARGs) and total    | S109 | 36 (1584) |
| numbers of determinands, in brackets : | S110 | 28 (1176) |
|                                        | TBT  | 6         |
|                                        | S480 | 1 (42)    |
|                                        | S455 | 1 (8)     |

Details of the composition of each ARG may be found in the NRA South West Region's ARG Dictionary.

### 12.4 EXPLANATION OF SCHEDULE CONTENTS

The following table details the sampling and analysis requirements for this programme. The User Reference Number (URN) is the unique identification code for the site. It allows sample results for the site to be retrieved from the Water Quality Archive (sample database). The National Grid Reference (NGR) defines the location of the site on a map.



The **Material Code** details the type of sample collected, for example 2J is sea water, 2F is freshwater, 2I is estuarine water. It forms part of the information about each particular sample held on the Water Quality Archive. The **Purpose Code** details the reason why a particular sample has been collected. For example, SQMB relates to EC Directive monitoring - bathing waters. SMRE relates to routine monitoring analysis (for EC Directives), SQMR relates to routine monitoring (in general). This code allows samples collected for particular reasons (from one or several sites) to be retrieved from the Water Quality Archive. The **Mensar Purpose Code** has to be a 2 digit code. It is translated to the equivalent code (eg. SMRE) on the ICL computer, where the Water Quality Archive is held, once the data is transferred to the ICL.

#### 12.5 **ENDORSEMENT**

The contents of this programme have been agreed by the Water Quality Planner, Field Controller and Laboratory Controller.

NATIONAL RIVERS AUTHORITY - SOUTH WEST REGION  
 MONITORING PROGRAMME FOR BIOACCUMULATION STUDIES - 1993  
 PROGRAMME LAST UPDATED :-

15-FEB-1993

| LOCATION            | MONITORING POINT                                              | USER<br>REF.<br>NUMBER | NATIONAL<br>GRID<br>REFERENCE | SAMPLE<br>FREQ. | MONTH<br>OF<br>SAMPLING | MENSU-<br>RUP<br>CODE | ICL<br>RUP<br>CODE | MRT.<br>CODE | BIOA TO<br>SAMPLED | PREFERRED<br>SPECIES | ANALYSIS<br>GROUPS<br>(ARCs) |
|---------------------|---------------------------------------------------------------|------------------------|-------------------------------|-----------------|-------------------------|-----------------------|--------------------|--------------|--------------------|----------------------|------------------------------|
| EXE ESTUARY         | COCKLE SANDS                                                  | B05A1                  | SK 990 819                    | 1               | FEBRUARY                | BT                    | SQMS               | 9C           | Shellfish          | Mytilus edulis       | S110                         |
| TEIGN ESTUARY       | LOWER ESTUARY                                                 | B06A4                  | SK 9250 7260                  | 1               | FEBRUARY                | BT                    | SQMS               | 9T           | Seaweed            | Fucus vesiculosus    | S109                         |
|                     |                                                               |                        |                               |                 |                         |                       |                    | 9C           | Shellfish          | Mytilus edulis       | S110                         |
| DAFT ESTUARY        | SUGARY COVE                                                   | SP015                  | SK 886 501                    | 1               | FEBRUARY                | BT                    | SQMS               | 9T           | Seaweed            | Fucus vesiculosus    | S109                         |
| KINGSBRIDGE ESTUARY | GERSTON POINT                                                 | B08A1                  | SK 740 414                    | 1               | FEBRUARY                | BT                    | SQMS               | 9T           | Seaweed            | Fucus vesiculosus    | S109                         |
| AVON ESTUARY        | COCKLERIDGE                                                   | SP016                  | SK 669 438                    | 1               | FEBRUARY                | BT                    | SQMS               | 9T           | Seaweed            | Fucus vesiculosus    | S109                         |
| ERME ESTUARY        | OFF OWEN'S POINT                                              | SP034                  | SK 6130 4730                  | 1               | FEBRUARY                | BT                    | SQMS               | 9T           | Seaweed            |                      | S109                         |
|                     |                                                               |                        |                               |                 |                         |                       |                    | 9C           | Shellfish          |                      | S110                         |
| ERME ESTUARY        | BUGLE HOLE                                                    | SP017                  | SK 605 469                    | 1               | FEBRUARY                | BT                    | SQMS               | 9T           | Seaweed            | Fucus vesiculosus    | S109                         |
| YEALM ESTUARY       | WARREN POINT                                                  | SP018                  | SK 537 476                    | 1               | FEBRUARY                | BT                    | SQMS               | 9T           | Seaweed            | Fucus vesiculosus    | S109                         |
| PLYM ESTUARY        | CRUTENHOER AREA                                               | SP019                  | SK 495 535                    | 1               | FEBRUARY                | BT                    | SQMS               | 9T           | Seaweed            | Fucus serratus       | S109                         |
|                     |                                                               |                        |                               |                 |                         |                       |                    | 9C           | Shellfish          | Mytilus edulis       | S110                         |
| PLYMOUTH SOUND      | N: EASTERN KINGS                                              | RL2A018                | SK 475 532                    | 1               | FEBRUARY                | BT                    | SQMS               | 9T           | Seaweed            |                      | S109                         |
|                     |                                                               |                        |                               |                 |                         |                       |                    | 9C           | Shellfish          | Mytilus edulis       | S110                         |
| TRAVY ESTUARY       | TRAVY BRIDGE                                                  | SP020                  | SK 450 615                    | 1               | FEBRUARY                | BT                    | SQMS               | 9T           | Seaweed            |                      | S109                         |
|                     |                                                               |                        |                               |                 |                         |                       |                    | 9C           | Shellfish          |                      | S110                         |
| TEMPER ESTUARY      | HALTON QUAY                                                   | SP021                  | SK 413 655                    | 1               | FEBRUARY                | BT                    | SQMS               | 9T           | Seaweed            |                      | S109                         |
|                     |                                                               |                        |                               |                 |                         |                       |                    | 9C           | Shellfish          |                      | S110                         |
| TEMPER ESTUARY      | WARREN POINT                                                  | SP022                  | SK 441 606                    | 1               | FEBRUARY                | BT                    | SQMS               | 9T           | Seaweed            | Fucus vesiculosus    | S109                         |
|                     |                                                               |                        |                               |                 |                         |                       |                    | 9C           | Shellfish          | Mytilus edulis       | S110                         |
| TEMPER ESTUARY      | (HANDRAZE OFF LOOKING GLASS POINT<br>(NB NGR needs modifying) | SP023                  | SK 436 565                    | 1               | FEBRUARY                | BT                    | SQMS               | 9T           | Seaweed            | Fucus vesiculosus    | S109                         |
|                     |                                                               |                        |                               |                 |                         |                       |                    | 9C           | Shellfish          | Mytilus edulis       | S110                         |
| DANHER ESTUARY      | SHILLINGHAM                                                   | SP005                  | SK 4080 5690                  | 1               | FEBRUARY                | BT                    | SQMS               | 9T           | Seaweed            | Fucus vesiculosus    | S109                         |
|                     |                                                               |                        |                               |                 |                         |                       |                    | 9C           | Shellfish          | Mytilus edulis       | S110                         |
| DANHER ESTUARY      | LAKE                                                          | SP006                  | SK 4180 5730                  | 1               | FEBRUARY                | BT                    | SQMS               | 9T           | Seaweed            | Fucus vesiculosus    | S109                         |
|                     |                                                               |                        |                               |                 |                         |                       |                    | 9C           | Shellfish          | Mytilus edulis       | S110                         |
| FORT WRINKLE        | BEACH                                                         | SP002                  | SK 3530 5390                  | 1               | FEBRUARY                | BT                    | SQMS               | 9T           | Seaweed            | Fucus vesiculosus    | S109                         |
| SEXTON              | BEACH                                                         | SP003                  | SK 3030 5430                  | 1               | FEBRUARY                | BT                    | SQMS               | 9T           | Seaweed            | Fucus vesiculosus    | S109                         |
|                     |                                                               |                        |                               |                 |                         |                       |                    | 9C           | Shellfish          | Mytilus edulis       | S110                         |
| LOOE ESTUARY AREA   | PIER                                                          | SP024                  | SK 256 530                    | 1               | FEBRUARY                | BT                    | SQMS               | 9T           | Seaweed            | Fucus serratus       | S109                         |
|                     |                                                               |                        |                               |                 |                         |                       |                    | 9C           | Shellfish          | Mytilus edulis       | S110                         |

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| LOCATION          | MONITORING POINT                           | USER<br>REF.<br>NUMBER | NATIONAL<br>GRID<br>REFERENCE | SAMPLE<br>FREQ. | MONTH<br>OF<br>SAMPLING | MENSUR<br>PURP<br>CODE | ICL<br>PURP<br>CODE | MPT.<br>CODE | BIOA TO<br>SAMPLED   | PREFERRED<br>SPECIES                    | ANALYSIS<br>GROUPS<br>(ARGs) |
|-------------------|--------------------------------------------|------------------------|-------------------------------|-----------------|-------------------------|------------------------|---------------------|--------------|----------------------|-----------------------------------------|------------------------------|
| POWEY             | HEADMONEY COVE<br>(NB NGR needs modifying) | SF025                  | SK 1195 5105                  | 1               | FEBRUARY                | BI                     | SQMS                | 9I<br>9C     | Seaweed<br>Shellfish | Fucus serratus<br>Mytilus edulis        | SI09<br>SI10                 |
| POWEY             | BY CLIFF                                   | E15A2                  | SK 1270 5525                  | 1               | FEBRUARY                | BI                     | SQMS                | 9I<br>9C     | Seaweed<br>Shellfish |                                         | SI09<br>SI10                 |
| PERCUL            | LOWER ESTUARY                              | E19A8                  | SW 8565 3300                  | 1               | FEBRUARY                | BI                     | SQMS                | 9I<br>9C     | Seaweed<br>Shellfish | Fucus vesiculosus<br>Ostrea edulis      | SI09<br>See EC Shellfish     |
| TRURO RIVER       | OLD KEA                                    | E19B3                  | SW 8483 4142                  | 1               | FEBRUARY                | BI                     | SQMS                | 9I<br>9C     | Seaweed<br>Shellfish |                                         | SI09<br>SI10                 |
| PAL ESTUARY       | KING HARRY FERRY                           | E19B2                  | SW 8418 3900                  | 1               | FEBRUARY                | BI                     | SQMS                | 9I<br>9C     | Seaweed<br>Shellfish |                                         | SI09<br>SI10                 |
| PAL ESTUARY       | TURNWARE BAR                               | E19B20                 | SW 834 383                    | 1               | FEBRUARY                | BI                     | SQMS                | 9I           | Seaweed              | Fucus vesiculosus                       | SI09                         |
| RESIDINGLET CREEK | OFF BANDORA INN                            | FAL03                  | SW 814 375                    | 1               | FEBRUARY                | BI                     | SQMS                | 9I<br>9C     | Seaweed<br>Shellfish | Fucus vesiculosus<br>Cerastoderma edule | SI09<br>SI10                 |
| PENYRN RIVER      | PAIMOUTH PONDS                             | E19A10                 | SW 8110 3320                  | 1               | FEBRUARY                | BI                     | SQMS                | 9I<br>9C     | Seaweed<br>Shellfish |                                         | SI09<br>SI10                 |
| CARRICK PONDS     | OFF HENDENIS POINT                         | SF030                  | SW 8280 3155                  | 1               | FEBRUARY                | BI                     | SQMS                | 9I<br>9C     | Seaweed<br>Shellfish |                                         | SI09<br>SI10                 |
| SHANNPOOL         | GILLINGAGE                                 | SF007                  | SW 8100 3170                  | 1               | FEBRUARY                | BI                     | SQMS                | 9I           | Seaweed              | Fucus vesiculosus                       | SI09                         |
| HELFOED           | OFF DURGAN VILLAGE                         | SF032                  | SW 7730 2715                  | 1               | FEBRUARY                | BI                     | SQMS                | 9I<br>9C     | Seaweed<br>Shellfish | Fucus vesiculosus<br>Mytilus edulis     | SI09<br>SI10                 |
| POINTS BAY AREA   | LONG ROCK                                  | SF026                  | SW 499 310                    | 1               | FEBRUARY                | BI                     | SQMS                | 9I           | Seaweed              | Fucus serratus                          | SI09                         |
|                   | TOP TIEB                                   | SF031                  | SW 518 304                    | 1               | FEBRUARY                | BI                     | SQMS                | 9C           | Shellfish            | Mytilus edulis                          | SI10                         |
| HOUSEHOLE         | OFF DAVIS VOR<br>(NB NGR needs modifying)  | SF010                  | SW 4725 2650                  | 1               | FEBRUARY                | BI                     | SQMS                | 9I<br>9C     | Seaweed<br>Shellfish | Fucus vesiculosus<br>Mytilus edulis     | SI09<br>SI10                 |
| HAILE ESTUARY     | LELANT SALTINGS                            | SF027                  | SW 550 378                    | 1               | FEBRUARY                | BI                     | SQMS                | 9I<br>9C     | Seaweed<br>Shellfish | Fucus vesiculosus<br>Mytilus edulis     | SI09<br>SI10                 |
| CHAPEL FORTH      | CHAPEL FORTH                               | SF013                  | SW 6960 4960                  | 1               | FEBRUARY                | BI                     | SQMS                | 9I<br>9C     | Seaweed<br>Shellfish | Fucus vesiculosus<br>Mytilus edulis     | SI09<br>SI10                 |
| CAMEL ESTUARY     | DAWNER BAY AREA                            | SF028                  | SW 925 780                    | 1               | FEBRUARY                | BI                     | SQMS                | 9I<br>9C     | Seaweed<br>Shellfish | Fucus vesiculosus<br>Mytilus edulis     | SI09<br>SI10                 |
| TORRIDGE ESTUARY  | NORTH OF THE CLEVE                         | SF033                  | SS 459 287                    | 1               | FEBRUARY                | BI                     | SQMS                | 9I<br>9C     | Seaweed<br>Shellfish | Fucus vesiculosus<br>Mytilus edulis     | SI09<br>SI10                 |
| TAW ESTUARY       | OFF VELLAND OIL TERMINAL                   | SF035                  | SS 4725 3210                  | 1               | FEB 1991                | BI                     | SQMS                | 9I           | Seaweed              | Fucus vesiculosus                       | SI09                         |

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15-FEB-1993

| LOCATION                  | MONITORING POINT | USER<br>REF.<br>NUMBER | NATIONAL<br>GRID<br>REFERENCE | SAMPLE<br>FREQ. | MONTH<br>OF<br>SAMPLING | MENSUR<br>PURP<br>CODE | ICL<br>PURP<br>CODE | MAT.<br>CODE | BIOTA TO<br>SAMPLED | PREFERRED<br>SPECIES | ANALYSIS<br>GROUPS<br>(ARCs) |
|---------------------------|------------------|------------------------|-------------------------------|-----------------|-------------------------|------------------------|---------------------|--------------|---------------------|----------------------|------------------------------|
|                           |                  |                        |                               |                 |                         |                        |                     | 9C           | Shellfish           | Mytilus edulis       | SL10                         |
| TOTAL NUMBER OF SAMPLES = |                  |                        |                               | 38              | TOTAL SEAWEED           |                        | 36                  |              |                     |                      |                              |
|                           |                  |                        |                               |                 | TOTAL SHELLFISH         |                        | 29                  |              |                     |                      |                              |

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GUIDANCE NOTES

**1. SITE SELECTION**

For the 1993 monitoring programme, bioaccumulation monitoring has been rationalised under one programme to meet the following requirements:

i) Sites that have previously been sampled under the bioaccumulation programme.

ii) Sites to fulfil the requirements of the Dangerous Substances Directive monitoring.

iii) Sites included in the Estuary Classification Monitoring Programme.

iv) Estuary sites contained within the National Marine Monitoring Plan.

The species and sampling protocols for this programme have been drawn up following the recommendations of the NRA Monitoring Programmes Task Group.

Wherever possible, the comments and observations of sampling staff have been used to draw up the programme.

**2. SAMPLING**

i. At each site where samples have not previously been collected, species should be selected from the following list:

|                                             | <u>No. of specimens</u> | <u>Size range(mm)</u> |
|---------------------------------------------|-------------------------|-----------------------|
| <u>Fucus vesiculosus</u> (bladder wrack)    | 25-30                   | 250-300               |
| <u>Fucoid algae</u>                         | 25-30                   | 200-300               |
| <u>Mytilus edulis</u> (mussel)              | 50                      | 25-45                 |
| <u>Ostrea edulis</u> (Native Oyster)        | 50                      | 60-100                |
| <u>Cerastoderma edule</u> (cockle)-optional | 50                      | 25-40                 |

Where F.vesiculosus cannot be obtained, other fucoid algae may offer a satisfactory substitute, but a mixture of species should NOT be used in any one sample. F.serratus should be collected as the first choice alternative on open coasts.

ii. Where sites have been sampled previously the preferred species for sampling has been indicated on the programme. Wherever possible, the same species should be sampled on subsequent occasions, within the size range specified in the above table.

iii. Within the specified size ranges every effort should be made to collect material of the same size; this size group should be adopted as the specification for subsequent sampling at that location.

iv. Appropriate written field observations should be recorded at the time of sampling to provide information on any visual evidence relating to possible contamination, and the species collected recorded. This is particularly important if a change in species collected at a site has occurred. This information should be passed to the Assistant Scientist, Tidal Waters (Chemistry).

v. Sampling should be carried out in February.

vi. Samples should be returned to the laboratory in cooled containers but not frozen.

vii. Samples of Cerastoderma edule should be accompanied by small quantities of sediment from the sample site.

viii. Cerastoderma edule samples must be removed from the sediment by hand or plastic forceps and NOT by fork.

### 3. ANALYSIS

The determinands have been selected to meet the requirements detailed in section 1; the specifications of the NRA Monitoring Programmes Task Group; and the preliminary findings of the NRA's R&D Project on the Bioaccumulation of Red List compounds.

#### Furoid Algae

Mercury  
Cadmium  
Arsenic  
Boron  
Copper  
Chromium  
Iron  
Lead  
Nickel  
Vanadium  
Zinc  
HCH isomers  
DDT isomers  
Drins  
HCB  
HCBd  
Atrazine  
Simazine  
Fenitrothion  
Malathion  
Dichlorvos

#### Shellfish

Mercury  
Cadmium  
Arsenic  
Boron  
Copper  
Chromium  
Iron  
Lead  
Nickel  
Vanadium  
Zinc  
HCH isomers  
DDT isomers  
Drins  
HCB  
HCBd  
Atrazine  
Simazine  
Fenitrothion  
Malathion  
Dichlorvos  
PCB 28,52,101,118,138,153,180  
PCP  
Endosulphan A and B  
Organotin isomers (selected sites)

Shellfish (cont)

PCSDs

Permethrin

Flucofuron

Sulcofuron

Cyfluthrin

Chloroform

Carbontetrachloride

Trifluralin

27 October 1992