

**Water Resources Act 1991**  
as amended by the Environment Act 1995  
**Consent to Discharge**  
**Certificate of Holder**



**ENVIRONMENT**  
**AGENCY**

**Part A**

**To:** DWR CYMRU CYFYNGEDIG  
CONSENTS REGULATION OFFICER  
PLAS-Y-FFYNNON  
CAMBRIAN WAY  
BRECON LD3 7HP

The Environment Agency ("the Agency") hereby confirm that the above named person is a/the registered holder of consent BC0002501

Nature of Discharge(s): SEWAGE EFF/TREATED EFF/CONTINUOUS  
at REYNOLDSTON STW, GOWER

**Note:** This certificate should be kept with the consent document for future reference. If you transfer responsibility for the discharge to somebody else you must pass the consent to them and tell the Agency within 21 days. **Responsibility for the consent cannot be disclaimed by the holder but the registration of holder may be transferred to a successor.** To do this please complete the form below, then tear it off and return it to the address shown. If you fail to transfer the consent, even though you are no longer on the site, you may still be liable for prosecution for pollution. If you transfer the consent but do not tell us, you will be committing an offence. In case of any queries please contact your local Environment Agency office.

**Part B** Please complete in block capitals or type.

**To:**

**Water Resources Act 1991: Notice of transfer of consent to discharge**

**Consent:** Name: \_\_\_\_\_  
Address: \_\_\_\_\_

I/we\* hereby serve notice on the Agency that I/we\* am/are\* no longer a/the\* Holder of the above consent which will be/was\* transferred to: \_\_\_\_\_  
\* delete as appropriate

**Name(s) of new holder(s):**  
**Address:**

**Post Code:**

**Date of Transfer to new Holder(s):** .....

**Signed:** ..... **Dated:** .....

**Name (block capitals):** .....

**Position:** .....

(to be completed when signing on behalf of corporate bodies)





*Awdurdod Afonydd Cenedlaethol  
Rbanbarth Gymru*

*National Rivers Authority  
Welsh Region*

Dwr Gymru Cyfyngedig  
Plas Y Ffynnon  
Cambrian Way  
Brecon  
Powys  
LD3 7HP

Enquiries: J Hughes  
DATE:  
May 9, 1994  
Your Ref:  
Our Ref: 2/EQ/BC0002501

Dear Sir/Madam,

RE: WATER RESOURCES ACT 1991 SECTION 88 SCHEDULE 10  
REVIEW OF CONSENT TO DISCHARGE

Further to your application for the review of consent of the Authority to discharge under the provisions of Section 88 of the Water Resources Act 1991, I enclose the Authority's formal notice of the modifications made to the conditions of the consent to discharge sewage effluent from Reynoldston STW, Reynoldston, Gower.

Under the present Scheme of Charges for Discharges to Controlled Waters an annual charge will be made for all consents to discharge, except where the discharge is of sewage effluent of five cubic metres or less per day. This charge is based on information derived from the conditions attached to the consent to discharge, as outlined in the enclosed leaflet. A change in conditions may therefore result in a change in annual charge, you may therefore receive a revised bill in due course.

Where there is a change of ownership of the discharge, the Authority should be informed in writing in order that an apportioned charge may be raised.

If you are not satisfied with the new conditions of the consent you may appeal against the decision to the Secretary of State for Wales at the Welsh Office, Cathays Park, Cardiff CF1 3NQ.

Yours faithfully,

Customer Reference  
**DR 8627 5610 668**

*H. J. Hughes*  
S J BROWN  
Area Environmental Quality Manager

Aelod Rhonhorholl o'r Bwrdd  
Yr Athro Ron Edwards  
Rheolwr Rhonborrh Cylfredinol  
Dr John Stoner  
Llys Alon  
Howlhorn Rise  
Hwllfordd  
Dyfed SA61 2BQ  
Ffôn: Hwllfordd (0437) 760081  
Ffacs: (0437) 760881

Regional Board Member  
Professor Ron Edwards  
Regional General Manager  
Dr John Stoner  
Llys Alon  
Howlhorn Rise  
Howlfordwest  
Dyfed SA61 2BQ  
Tel: Howlfordwest (0437) 760081  
Fax: (0437) 760881



AAC



NRA

*Authurddod Afonydd Cenedlaethol  
Rhanbarth Gymru*

*National Rivers Authority  
Welsh Region*

WATER RESOURCES ACT 1991

Consent No.	BC0002501
-------------	-----------

Under Section 88 and Schedule 10 of the Water Resources Act 1991 and all other enabling powers the National Rivers Authority hereby serves this Notice

R E V I E W O F C O N S E N T

Page 1 of 2

To : Dŵr Gymru Cyfyngedig,  
Of : Plas y Ffynnon, Cambrian Way, Brecon, Powys LD3 7HP

In respect of the previous Consent No. BC0002501 issued on June 4, 1983

For : A discharge of sewage effluent

To : Burry Pill

From : Reynoldston STW, Reynoldston, Gower

This Consent shall not be taken as providing a statutory defence against a charge of pollution in respect of any poisonous, noxious or polluting constituents not specified herein.

THE FOLLOWING REPLACE ALL PREVIOUS CONDITIONS

1. The discharge shall consist only of biologically treated sewage effluent.
2. The discharge shall be made in the manner and at the place specified as follows:

Discharging via : A 150mm diameter pipe  
 Discharging to : Burry Pill  
 At OS Grid Ref. : SS 4655 9089  
 As shown marked : Consent Point 'X' on the attached drawing/plan no. BC0002501

3. The maximum volume of effluent discharged shall not exceed 456 cubic metres per day.
4. The volume of effluent discharged under dry weather flow conditions shall not exceed 127 cubic metres per day.
5. The maximum rate of flow of effluent discharged shall not exceed 5.2 litres per second.

Continued...

Dr JOHN STOKER Rheolwr Cyfradrol Rhanbarthol / Regional General Manager

Glan Tawe, 154-156 Ffordd Sant Helen, Abertawe, Goglewin Morgannwg, SA1 4DF. Ffôn: (0792) 645300, Ffacs: (0792) 648652  
Glan Tawe, 154-156 St. Helens Road, Swansea, West Glamorgan, SA1 4DF. Tel: (0792) 645300, Fax: (0792) 648652

WATER RESOURCES ACT 1991  
Continuation Sheet

Consent No. BC0002501

page 2 of 2

6. Adequate facilities, approved in writing by the Authority, will be provided to enable representative samples of the discharge to be safely and conveniently obtained at any time from the sampling chamber, as shown marked 'Sampling Point' on the attached plan no. BC0002501.
7. Calibrated apparatus, approved in writing by the Authority, shall be provided and maintained in full working order, to permit the instantaneous rate of flow of effluent discharged to be measured accurately at any time.
8. The quality of the effluent discharged at all flow rates up to the maximum specified in condition 5 shall not be inferior to the following numerical limits:
  9. (a) The 5 day biochemical oxygen demand (BOD ATU), determined at 20 degrees Celsius after the suppression of nitrification using allyl-thiourea, shall not exceed 65 milligrammes of oxygen per litre of sample.
  - (b) The suspended solids concentration (dried at 105 degrees Celsius) shall not exceed 48 milligrammes per litre.
10. For the purposes of this consent dry weather flow shall mean the average daily flow to the treatment works during seven consecutive days without rain (excluding a period which includes public holidays) following seven days during which the rainfall did not exceed 0.25 mm on one day.

This Notice is given on: 26<sup>th</sup> April 1994 on behalf of the Authority  
by:  Area Environmental Quality Manager

During the period ending with the 30<sup>th</sup> April 1995 the terms of this  
Notice will not be altered without the written agreement of the person  
making the discharge.



# NATIONAL RIVERS AUTHORITY WATER RESOURCES ACT 1991

Application for consent to discharge  
Schedule 10

## NRA



The Consents Officer,  
National Rivers Authority,  
Welsh Region,  
Plas-yr-Afon/Rivers House,  
St Mellons Business Park,  
Cardiff,  
CF3 0LT

Official Use Only	Sudra West
Dist/Area Ref.	
Application No.	BC0002501
Date Received:	25-8-93.

### PLEASE REFER TO THE ATTACHED NOTES WHEN COMPLETING THE APPLICATION

I/We hereby apply for consent under the provisions of the Water Resources Act 1991 to make a discharge of effluent as described in this application and on the attached plan(s). I/We will bear the costs of any advertisement (see note 1).

I/We enclose a cheque for £ to cover the cost of this application (see note 2).

Signed [Signature] Date: 20-8-93

Authorised on behalf of DOR CYRIL CYE

Have you made, or do you intend to make, an application to the Secretary of State for exemption from publicity? (See note 3.) YES/NO\*

Has this application been made in response to the service of a relevant prohibition? YES/NO\*

If yes please give reference number:

1a Full name and postal address of applicant. (See note 4.)	DOR CYRIL - WELSH WATER PABY Y AFON CAMBRIAN WAY BRECON POWYS
Post Code: Daytime telephone number:	LD3 7HP 0874 623181
1b Agent (if any) Full name and postal address	
Contact name and daytime telephone number	Note: if this box is completed, all correspondence will be sent to this address.

NOTE: The application should be accompanied by 3 copies of an adequate plan and details of any environmental impact assessment. Failure to do so may result in a delay in processing the application. (See note 5.)

\*Delete as necessary

<p>2a) Address or other sufficient description of land or premises to which this application relates.</p>	<p>REYNOLDSTON STW REYNOLDSTON GOWER</p>
<p>2b) National Grid Reference of point of discharge.</p>	<p>SS 4655 9089</p>
<p>2c) District Council area.</p>	<p>SWANSEA CITY COUNCIL</p>
<p>3 State the nature of the discharge. Tick one or more boxes as appropriate. (See note 6.)</p>	<p> <input checked="" type="checkbox"/> Sewage effluent  <input type="checkbox"/> Storm/emergency sewage effluent  <input type="checkbox"/> Trade effluent  <input type="checkbox"/> Any other matter (inc. surface water).         </p>
<p>4 For sewage and trade effluent, and storm/emergency discharges, state:-</p> <p>a) Maximum quantity it is proposed to discharge in one day. (See note 7.)</p> <p>b) Highest rate at which it is proposed to operate the discharge.</p> <p>c) Periods during which the discharge will take place.</p>	<p>MEASURED DWF = 110 m<sup>3</sup>/d. SUGGEST RETAINING CONSENT FIGURE OF 127 m<sup>3</sup>/d</p> <p>456 m<sup>3</sup>/day</p> <p>5.2 l/sec</p>
<p>5 For rainfall dependent discharges, state the area to be drained. (Roof areas and other impervious areas should be separately identified.)</p>	<p>m<sup>2</sup></p>
<p>6 Receiving medium</p> <p>Tick the category to which the proposed discharge(s) are to be made.</p> <p>TIDAL RIVER OR STREAM <input type="checkbox"/></p> <p>NON-TIDAL RIVER OR STREAM <input checked="" type="checkbox"/></p> <p>CANAL <input type="checkbox"/></p> <p>LAKE, LOCH OR POND <input type="checkbox"/></p> <p>(not discharging to a river or stream)</p> <p>State name of watercourse, if known:-</p>	<p> <input type="checkbox"/> INTO LAND  <input type="checkbox"/> ONTO LAND  <input type="checkbox"/> DIRECTLY INTO GROUNDWATER  <input type="checkbox"/> INTO LAND AND WATERCOURSE  <input type="checkbox"/> COASTAL WATER (see Note 8.)         </p> <p>GURRY STREAM</p>

<p>7 The Authority will normally require adequate provision for the taking of samples of the discharge. Please indicate the means proposed. (See note 9.)</p> <p>At the outlet <input checked="" type="checkbox"/> At a manhole or <input type="checkbox"/> See plan <input type="checkbox"/> Other <input type="checkbox"/>  sampling chamber</p> <p>If other, please give further details:-</p>	
<p>8 Indicate proposed means of discharge:-</p> <p>1. Pipe <input checked="" type="checkbox"/>  4. Soakaway <input type="checkbox"/>  7. Culvert <input type="checkbox"/></p> <p>2. Channel <input type="checkbox"/>  5. Well <input type="checkbox"/>  8. Soakaway &amp; sub-irrigation system <input type="checkbox"/></p> <p>3. Borehole <input type="checkbox"/>  6. Sub-irrigation system <input type="checkbox"/>  9. Other <input type="checkbox"/></p> <p>If 9 please give further details:-</p>	
<p>9 Give details as appropriate</p> <p>a) For pipes, channels, wells and boreholes, state diameter in millimetres or dimension(s) in metres.</p> <p>b) For sub-irrigation systems, soakaway pits, wells and boreholes, state depth in metres and geological stratum, if known.</p> <p>c) For boreholes, state details of lining:  Type of lining  Depth of lining  Depth of perforated lining  Depth of unperforated lining</p>	<p>a) <math>\{</math> 150 mm <math>\varnothing</math></p> <p>b)</p> <p>c)</p> <p>: metres  : metres  : metres  : metres</p>
<p>10 Is there a foul sewer available to which the discharge could be made?  If yes give reason for not connecting.  Distance from nearest foul sewer.</p>	<p>YES/NO*  :  :  :</p>
<p>11 Give brief details of:  a) Source of water supply (eg mains, well, borehole, etc.)  b) General purpose for which water is used (eg domestic, cooling, etc.)</p>	<p>a)  b)</p>

\*\*Delete as necessary

12	Is consent required for a limited period? If yes give relevant dates	YES/NO* :
13	On what date do you anticipate the discharge will begin to be made?	1/9/93
14	Does this proposal replace an existing discharge? If yes give details	YES/NO* : CHANGE TO FLOW REGIME
15	Are there any existing consents for discharge from the premises? (see note 10.) If yes, give details, numbers, if known.	YES/NO* : BC 0002501 FINAL EFFLUENT : BW 4108501 PS S50
16	Please give details of the premises – tick as appropriate:– 1. Single dwelling <input type="checkbox"/> 2. Multiple dwellings <input type="checkbox"/> 3. Licenced premises <input type="checkbox"/> 4. Vehicle parking area <input type="checkbox"/> 5. Industrial premises <input type="checkbox"/> 6. Fish farm <input type="checkbox"/> 7. Mineral workings <input type="checkbox"/> 8. WSPLC STW <input checked="" type="checkbox"/> 9. Water supply <input type="checkbox"/> 10. Other <input type="checkbox"/> If other, please give further details.	
17	IN THE CASE OF SUB-IRRIGATION SYSTEMS AND SOAKAWAYS a) Is any part of the system within 10 metres of the site boundary? b) Is any part of the system within 10 metres of a watercourse? c) Is the land in which the disposal system is to be constructed under-drained with land drains discharging to a watercourse or to be so under-drained? d) If the answer to either (b) or (c) is "YES" please state the name of the watercourse or sufficient information to identify it. e) Attach details of the percolation test carried out.	YES/NO*  YES/NO*  YES/NO*  Attached
18	FOR SEWAGE TREATMENT PLANTS a) State the population served/population equivalent/estimated population* b) Give details of the treatment plant to be used (see note 11.)	*All year 900 DESIGN *Summer *Winter ACTUAL 781

\*Delete as necessary

FOR TRADE EFFLUENT AND SEWAGE DISCHARGES  
CONTAINING TRADE EFFLUENT

19 a) Describe the trade effluent and the process(es) from which it arises. (See note 12.)

b) Maximum temperature of the effluent as discharged ..... °C

c) Does the effluent contain any of the following? \*YES/NO

If yes, underline those present and give full details (including maximum, minimum and mean values) separately.

- |  |  |
|--|--|
| 1. Aldrin, dieldrin, endrin and isodrin                      | 25. Iron                               |
| 2. Arsenic   | 26. Lead                               |
| 3. Atrazine  | 27. Malathion                          |
| 4. Azinphos-ethyl  | 28. Mercury and its compounds          |
| 5. Azinphos-methyl   | 29. Nickel                             |
| 6. Boron   | 30. Parathion                          |
| 7. Cadmium and its compound                                  | 31. Parathion-methyl                   |
| 8. Carbon tetrachloride                                      | 32. PCSD's                             |
| 9. Chloroform  | 33. Pentachlorophenol (PCP)            |
| 10. Chromium   | 34. Perchloroethylene                  |
| 11. Copper   | 35. Permethrin                         |
| 12. Cyanide  | 36. pH if outside the range 5.5 to 9.0 |
| 13. Cyfluthrin   | 37. Polychlorinated biphenyls          |
| 14. DDT  | 38. Simazine                           |
| 15. 1, 2-Dichloroethane                                      | 39. Sulcofuron                         |
| 16. Dichlorvos   | 40. Tetrachloroethylene                |
| 17. Dioxins  | 41. Tributyltin compounds              |
| 18. Endosulfan   | 42. Trichlorobenzene                   |
| 19. Fenitrothion   | 43. Trichloroethane                    |
| 20. Fenthion   | 44. Trichloroethylene                  |
| 21. Fluocifuron  | 45. Trifluralin                        |
| 22. Hexachlorobenzene (HCB)                                  | 46. Triphenyltin compounds             |
| 23. Hexachlorobutadiene (HCBDD)                              | 47. Vanadium                           |
| 24. Hexachlorocyclohexane<br>(lindane and related compounds) | 48. Zinc                               |

d) Give full details of any other significant chemical components contained in the effluent:—

20 FOR STORM AND EMERGENCY DISCHARGES AND SURFACE WATER SEWERS

State the type of discharge. Tick one or more boxes as appropriate.

- Storm tanks
- Storm overflow from sewer
- Storm overflow from pumping station
- Emergency overflow from sewer
- Emergency overflow from pumping station
- Surface Water
- Other

- Answer all except 23 & 26
- Answer all except 23 & 26
- Answer all sections below
- Answer 20a, 21, 25, 27, 28
- Answer all except 20b, 22
- Answer 25, 27
- Answer as appropriate

If other, please give further details:—

<p>21 a) State dry weather flow to pumping station/in sewer</p> <p>b) State flow at which storm discharge will commence</p>	<p>: <math>m^3/day</math></p> <p>: <math>l/sec</math></p>
<p>22 Expected frequency of operation</p>	<p>: per annum</p>
<p>23 State volume of storm tank(s).</p>	<p>: <math>m^3</math></p>
<p>24 State volume of wet well</p>	<p>: <math>m^3</math></p>
<p>25 What provisions have been made to raise alarms? (eg telemetry)</p>	
<p>26 What facilities have been provided to prevent the discharge of gross solids? (For screens, give bar spacing or aperture.)</p>	
<p>27 What provisions have been included to deal with</p> <p>a) power failure?</p> <p>b) mechanical breakdown?</p> <p>c) rising main failure?</p>	
<p>28 What facilities have been provided for flow measurements?</p>	
<p>29 Are there any other factors to be taken into account?</p>	

LOCAL GOVERNMENT ACT 1972 WATER ACT 1973  
RIVERS (PREVENTION OF POLLUTION) ACTS 1951-1961  
WATER AUTHORITIES (CONTROL OF DISCHARGES) ORDER 1978

NOTIFICATION OF VARIATION OF CONSENT  
for a discharge of treated sewage effluent

To :

WELSH WATER AUTHORITY

This Notice is issued under the above-mentioned Acts and Order and all other enabling powers as a NOTICE DEEMED TO HAVE BEEN GIVEN BY THE SECRETARY OF STATE FOR WALES, in respect of the existing discharge of treated sewage effluent from the Authority's :

REYNOLDSTON SEWAGE TREATMENT WORKS

via an existing outlet and subject hitherto to a previous consent as specified below.

THE EXISTING OUTLET is to : the Burry Stream

at National Grid Reference : SS 4655 9089

and has been shown marked : Discharge Point

on the attached Plan, No. : RW/0036/1/1

THE PREVIOUS CONSENT was : the Consent

Reference No. -

25

granted on : 6th June 1966

by : South West Wales River Board

to : Gower Rural District Council

The Authority submitted this Notification of Variation on : 4th March 1983  
to the Secretary of State for Wales in the form of a draft and the Secretary of State has NOT, within the relevant period, given notice of his intention to determine this matter. This discharge is therefore (in substitution for all the conditions hitherto in force) subject only to the following conditions as from : 4th June 1983

CONDITIONS

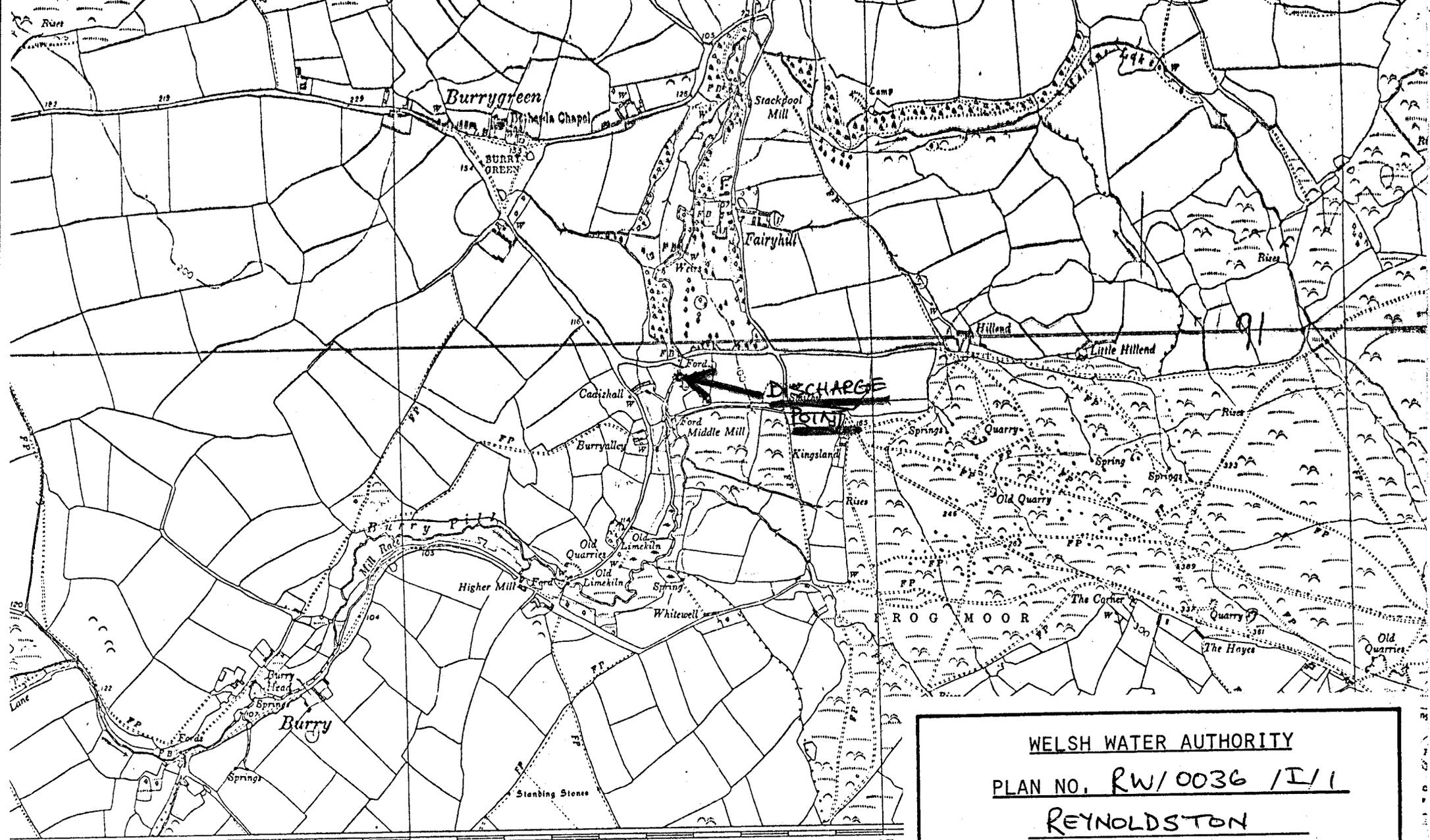
1. The discharge shall consist only of treated sewage effluent from the above works.
2. The quality and quantity of effluent shall not exceed the following maximum values:
 

<u>Determinand</u>	<u>Value</u>	<u>Unit</u>
Biochemical Oxygen Demand (+ATU) over 5 days at 20oC	65	milligrams per litre
Suspended Solids dried at 105oC	48	milligrams per litre
Rate of discharge	8.8	litres per second
Volume during any period of 24 consecutive hours	762	cubic metres
Volume discharged under 'dry weather conditions' during any period of 24 consecutive hours	127	cubic metres
3. Adequate facilities shall be provided for the taking of samples of the effluent at: outlet to the Burry Stream

The terms of this Notice will not, without the consent in writing of the person to whom this Notice is given, (or his successor), be altered before the expiration of the period ending with the Fourth day of June 1985 .

This Notification is issued by the Directorate of Scientific Services, Headquarters, Welsh Water Authority, Cambrian Way, Brecon, Powys.





WELSH WATER AUTHORITY  
PLAN NO. RW/0036 /I/1  
REYNOLDSTON  
SEWAGE TREATMENT WORKS  
 This is the Plan referred to  
 in the Variation of Consent  
 Number RW/0036 /I/1

LONG 4° 14' W  
ANDDEWI PH

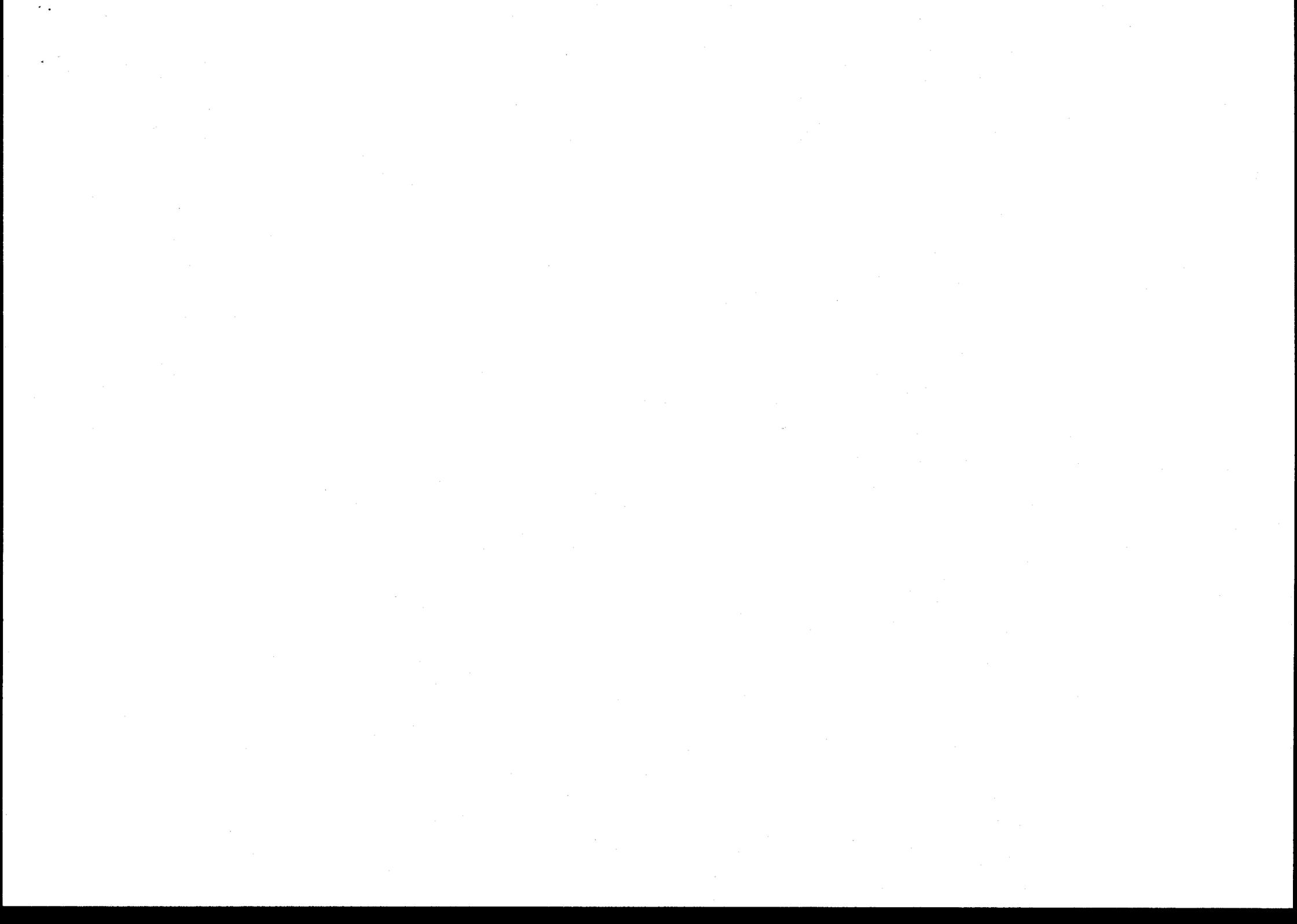
46 13' 47

KNELSTON PH Reynoldston STW

OSGR Outlet: SS 4655 9089

s 1000 500

INDEX TO  
ADMINISTRATIVE PLANS



WO Reference	IG 19/31/A
MNWDA Reference	22/GS2625/00/01

BC 000 25 02

BW 41085 01

WATER ACT 1973

RIVERS (PREVENTION OF POLLUTION) ACTS 1951-61

THE WATER AUTHORITIES (CONTROL OF OUTLETS AND DISCHARGES) REGULATIONS 1975

### Notification of Consent

to the bringing into use of a new or altered outlet  
and/or

making of a new discharge of effluent to a stream or controlled waters

TO:

Welsh National Water Development Authority  
Tawe Sewage Division  
Northampton Buildings  
10 The Kingsway  
Swansea

In pursuance of the powers conferred by the above-mentioned Acts and in accordance with the Water Authorities (Control of Outlets and Discharges) Regulations 1975, this Consent is issued as a CONSENT DEEMED TO HAVE BEEN GRANTED by the Secretary of State for Wales in respect of

the bringing into use of a new or altered  
150 mm diameter outlet and the making of a  
new discharge of storm sewage  
from The Pumping Station at Reynoldston Sewage Treatment Works,  
to Gower, Swansea  
Barry Pill Stream  
at National Grid reference SS 4665 9095

being a stream/controlled waters situated within the South West Wales River Division area of the Welsh National Water Development Authority in accordance with the draft consent submitted to the Secretary of State for Wales on the 2nd day of November 1976

SUBJECT to the following conditions:-

1. The outlet by means of which the effluent is discharged shall
  - (a) be a 150 mm diameter vitrified clay pipe
  - (b) be used for the discharge of storm sewage
2. The effluent discharged shall consist of  
storm sewage

3. The effluent discharged shall not

- (a) have a pH value of less than 6 nor greater than 8.5
- (b) contain dissolved oxygen content less than 5.0 mg/l
- (c) contain suspended solids less than 50 mg/l
- (d) contain any of the following substances in individual day less than 10 mg/l

milligrams per litre

4. The temperature of the effluent discharged shall not exceed 21 °C.

5. The volume of effluent discharged under dry weather conditions shall not exceed 479 cubic metres in any period of twenty four hours.

6. The rate at which the effluent is discharged shall not exceed 20 cubic metres per hour.

7. At all times during which effluent is discharged there shall be provided adequate means of taking samples of effluent at the outlet

The terms of this Consent will not, without the consent in writing of the person to whom this Consent is given (or his successor), be altered before the expiration of the period ending with the 2nd day of February 1979 .

Welsh National Water Development Authority  
Cambrian Way  
Brecon  
Powys

Date: 2.9.79



# REGISTER OF CONDITIONS

File ref:- GS:2625.

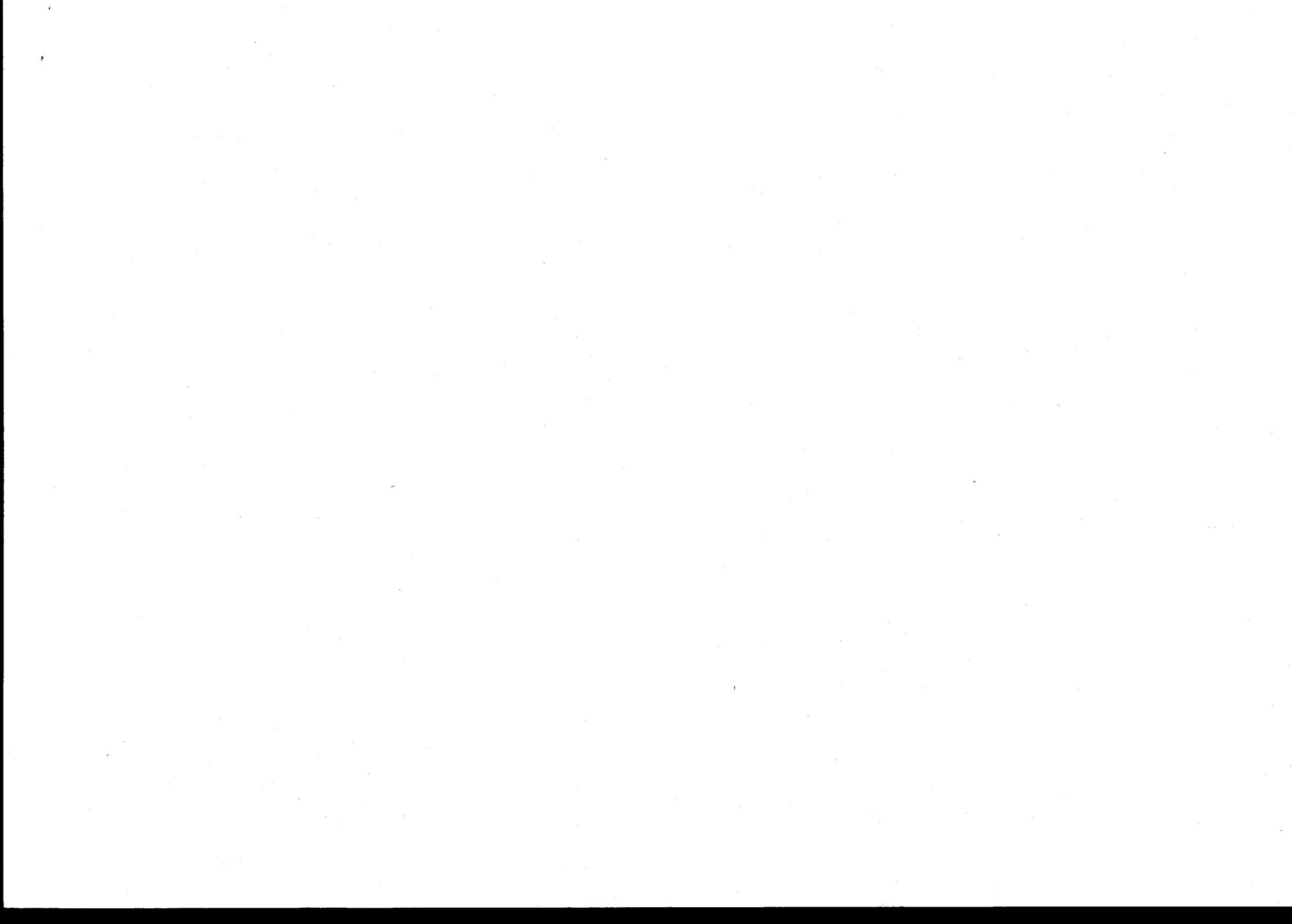
No. 598

IMPOSED UNDER SECTION 7 OF THE RIVERS (PREVENTION OF POLLUTION) ACT, 1951  
AS APPLIED BY THE CLEAN RIVERS (ESTUARIES AND TIDAL WATERS) ACT, 1960  
AND THE RIVERS (PREVENTION OF POLLUTION) ACT, 1961.

CAT. NO. R.B.12 SHAW & SONS LTD., FETTER LANE, E.C.4.

DATE ON WHICH CONDITION CAME INTO FORCE AND PERIOD OF EFFECT	FULL ADDRESS OR OTHER SUFFICIENT DESCRIPTION OF LAND OR PREMISES TO WHICH THE TERM OR CONDITION RELATES
7th June, 1966.	<p><u>Gower Rural District Council.</u></p> <p>Discharge of treated domestic sewage - Reynoldston Sewerage Scheme.</p>
USE OF NEW OR ALTERED OUTLET	DISCHARGE OF TRADE OR SEWAGE EFFLUENT
<p>CONDITIONS IMPOSED WITH RESPECT TO:-</p> <p>(i) PRECISE LOCATION OF OUTLET</p> <p style="padding-left: 20px;">Outlet located on right bank of Burry Pill, map reference South Wales 2½" O.S. Sheet SS/49. Grid reference 466 909.</p> <p>(ii) CONSTRUCTION OF OUTLET (OTHER THAN CONDITIONS TO BE SATISFIED BEFORE OUTLET IS BROUGHT INTO USE)</p> <p style="padding-left: 20px;">6" diameter pipe in concrete headwall and to be accessible for sampling at all times.</p> <p>(iii) USE OF OUTLET</p> <p style="padding-left: 20px;">restricted to sewage effluent.</p> <p>(iv) USE OF ANY OTHER OUTLET FOR TRADE OR SEWAGE EFFLUENT FROM THE SAME LAND OR PREMISES</p>	<p>CONDITIONS IMPOSED WITH RESPECT TO:-</p> <p>(i) NATURE AND COMPOSITION OF DISCHARGE</p> <p style="padding-left: 20px;">pH value not less than 6 or more than 8.5 5 day B.O.D. at 20°C not to exceed 20 p.p.m. Total suspended solids not to exceed 30 p.p.m. Ammoniacal nitrogen (N) not to exceed 8 p.p.m. Effluent must pass the methylene blue stability test (5 days at 20°C).</p> <p>(ii) TEMPERATURE OF DISCHARGE</p> <p style="padding-left: 20px;">not to exceed 21°C.</p> <p>(iii) VOLUME OR RATE OF DISCHARGE OF EFFLUENT FROM LAND OR PREMISES</p> <p style="padding-left: 20px;">27,940 g.p.d. (d.w.f.) normal. 167,640 g.p.d. (d.w.f.) maximum</p> <p>* (iv) PROVISION OF FACILITIES FOR TAKING SAMPLES</p> <p>* (v) DATE OF EXPIRATION OF PERIOD SPECIFIED UNDER S-5(2) OF 1961 ACT</p> <p style="padding-left: 20px;">30th June, 1968.</p>
REMARKS--	REMARKS--

\* IF DISCHARGE NOT CONTROLLED UNDER S.7 OF 1951 ACT



Sharon Ellwood  
Black and Veatch Contracting Ltd  
c/o Dwr Cymru Welsh Water,  
Pentwyn Road  
Nelson  
TREHARRIS  
CF46 6LY

8<sup>th</sup> October 2004  
CX 385/DJR/01

Dear Sharon,

**Reference – Membrane Cleaning With Hypochlorite**

There are a number of maintenance actions that are required on the plant that I have included in Appendix A, attached. Each expected maintenance frequency is also included.

Concerning the hypochlorite cleaning, this is only conducted when the headloss starts to increase. Fouling can occur in time, which cannot be easily predicted. The cause is the biomass being stressed caused by shock or no BOD load. This will not normally be noticed in the plants performance but an accumulation of cellular material will form at the surface of the membranes. Using a 0.3% hypochlorite solution easily cleans this off. Details of the procedure are included in Appendix B.

I hope this answers your questions. Please do not hesitate in contacting our office if you require any more information.

Best regards  
Yours sincerely

Derek Rodman

**APPENDIX A**

**Maintenance Schedule**

PLANT	ACTION	MONTHLY	3 MONTH	6 MONTH	ANNUALLY	5 YEARS	10 YEARS
Air Blowers	Change oil		✓				
	Check belt tension		✓				
	Replace inlet filter				✓		
	Change belts				✓		
Bioreactor	Carry out chemical clean of membranes if required			✓			
	Replace membranes						✓
RAS Pump	Lift out pump to inspect for blockage, damage and corrosion			✓			
	Remove from tank and check sensor for damage or fouling, and clean if necessary	✓					
DO Probe	Re-calibrate Probe			✓			
	Remove from tank and check sensor for damage or fouling, and clean if necessary	✓					
MLSS Probe	Re-calibrate Probe				✓		

## APPENDIX B

### CHEMICAL CLEANING OF MEMBRANES

Chemical cleaning is to remove excess fouling on the membrane surface that slowly accumulates over a period of months. The build up of any type of fouling is noticeable when there is marked increases in the required head of liquid to produce a given flow of permeate. However, the requirement for a chemical clean is typically when the increase in tank level is gradual over a period of months. If the rise in the tank level for a given flow increases quickly, the cause of the fouling may be because the required operating conditions described have not been met, specifically maintaining the initial DO level.

A simple description of chemical cleaning is that instead of permeate being pushed out of the elements and into the permeate manifold, a dilute chemical solution is instead pumped into the permeate manifold and thus into each membrane element. The aim is to pump in just enough chemical solution to fill all the elements – continuing to pump in solution after this will result in the chemicals being pushed out through the membranes and into the bioreactor, which may have an adverse effect on the biomass. The chemical solution is held within the membrane elements long enough for the fouling to decompose, and then the permeate outlet valve is reopened to discharge the solution from the membrane elements. The outlet flow can either be diverted either back to the works inlet or to a sludge holding tank until the majority of the chemical solution has been expelled from the membrane elements.

Chemical cleans are usually carried out on one module at a time, with the other module remaining in normal operation. As a result, the treatment capacity of the IMBR plant is effectively halved. Accordingly, it is advisable to ensure that either:

- A) The incoming flow rate is low enough to be treated by one module, or
- B) There is a balancing tank to hold any incoming flows in excess of the IMBR treatment capacity.

There are two types of chemical clean that can be carried out, depending on the type of fouling.

#### Organic Fouling

This is the most common type of fouling in municipal wastewater treatment. It can be caused by organic material in the mixed liquor sticking to the membrane, and also by the growth of a thin layer of "slime" over the membrane surface. This type of fouling is removed with a dilute solution of sodium hypochlorite.

#### Inorganic Fouling

If there are inorganic substances in the influent wastewater, these can precipitate on the membrane surface in the form of scaling. An acid is required to remove this type of fouling, and so a dilute solution of oxalic acid is used.

## IMPORTANT

*Prior to carrying out the following procedures, it is essential that personnel are familiar with the necessary precautions for handling chemicals and the PPE requirements.*

### SODIUM HYPOCHLORITE CLEANING PROCEDURE

- 1) Position the chemical make up tank at ground level next to the IMBR plant. Ensure that the tank is clean and free of foreign bodies – wash out with water if necessary.
- 2) Add the required amount of dilution water first, and then the required amount of hypochlorite. Refer to the table below for quantities.

MLSS Concentration	No. of Modules to be Cleaned	
	One Module	Two Modules
Less than 10,000 mg/l (0.3% Solution)	575 litres dilution water 12.5 litres Hypochlorite (14%)	1150 litres dilution water 25 litres Hypochlorite (14%)
Greater than 10,000 mg/l (0.6% Solution)	575 litres dilution water 25 litres Hypochlorite (14%)	1150 litres dilution water 50 litres Hypochlorite (14%)

- 3) Ensure that the incoming flow rate is low enough to be treated by one membrane module, and if necessary arrange suitable flow balancing for excess flows.
- 4) Isolate the permeate flow from the membrane module to be cleaned.
- 5) Isolate the air flow to the membrane module to be cleaned.
- 6) On the walkway, close the 2" vent ball valve for membrane that will remain in operation, while leaving the 2" vent ball valve open for the membrane to be cleaned.
- 7) Connect the clear braided hose from the drum pump to the lower of the two union connections on the walkway.
- 8) Connect the clear braided hose from the higher of the two union connections to chemical make up tank.
- 9) Insert the drum pump into the make up tank, ensuring that the discharge connection is secure. Start the drum pump. The chemical solution will be fed into the membrane elements.
- 10) After approximately 600 litres has been dosed, a return flow should be observed through the return hosing to the chemical make up tank. When this occurs stop the drum pump.
- 11) Leave the hypochlorite solution within the membranes to decompose the organic fouling. In hot weather when the mixed liquor temperature is higher, 20 minutes is usually long enough for decomposition to occur. In colder weather when the mixed liquor temperature is lower, 40 minutes should be allowed for decomposition.

- 12) The spent hypochlorite solution will still contain a high concentration of residual chlorine. The outlet from the module should be diverted either to the head of the works or to the sludge tank if there is sufficient holding volume.
- 13) Reinststate the airflow to the module by opening the appropriate butterfly valve.
- 14) Reinststate the permeate flow from the module by opening the appropriate ball valve.
- 15) After approximately 15 – 30 minutes, the chlorine concentration in the permeate should be sufficiently low to allow the permeate to be routed back to the works discharge as normal.

#### OXALIC ACID CLEANING PROCEDURE

- 1) Position the chemical make up tank at ground level next to the IMBR plant. Ensure that the tank is clean and free of foreign bodies – wash out with water if necessary.
- 2) Add the required amount of dilution water first, and then the required amount of oxalic acid. Refer to the table below for quantities.

No. of Modules to be Cleaned	
One Module	Two Modules
600 litres dilution water 6 kg or 7.5 litres Oxalic Acid (crystalline powder form)	1200 litres dilution water 12 kg or 15 litres Oxalic Acid (crystalline powder form)

- 3) Ensure that the incoming flow rate is low enough to be treated by one membrane module, and if necessary arrange suitable flow balancing for excess flows.
- 4) Isolate the permeate flow from the membrane module to be cleaned.
- 5) Isolate the airflow to the membrane module to be cleaned.
- 6) On the walkway, close the 2" vent ball valve for membrane that will remain in operation, while leaving the 2" vent ball valve open for the membrane to be cleaned.
- 7) Connect the clear braided hose from the drum pump to the **lower** of the two union connections on the walkway.
- 8) Connect the clear braided hose from the **higher** of the two union connections to chemical make up tank.
- 9) Insert the drum pump into the make up tank, ensuring that the discharge connection is secure. Start the drum pump. The chemical solution will be fed into the membrane elements.
- 10) After approximately 600 litres has been dosed, a return flow should be observed through the return hosing to the chemical make up tank. When this occurs stop the drum pump.
- 11) Leave the oxalic acid solution within the membranes to decompose the organic fouling. 30 minutes is sufficient time for the acid to react with the inorganic fouling.

- 12) Oxalic acid may affect the quality of the permeate, and so the outlet from the module should be diverted either to the head of the works or to the sludge tank if there is sufficient holding volume.
- 13) Reinstate the air flow to the module by opening the appropriate butterfly valve.
- 14) Reinstate the permeate flow from the module by opening the appropriate ball valve.
- 15) After approximately 15 minutes, route the permeate flow to the works discharge as normal.

FINAL EFFLUENT



ASIANTAETH YR  
AMGYLCHEDD  
ENVIRONMENT  
AGENCY

# WATER RESOURCES ACT 1991 (schedule 10)

(as amended by the Environment Act 1995)

Application for new consent/variation to an existing consent\* to discharge  
(\* delete as appropriate)

<b>Regional/Area Address:</b>  The Regional Finance Manager Environment Agency Welsh Region PO Box 425 St Mellons Business Park CARDIFF CF3 0LT	<i>Official Use Only</i>
	Dist/Area Ref: 1303
	Application No. 66 000 2501
	Date Received: 19 November 2004
	Fee Received: £743.00

Each applicant must complete the main form and may need to complete a separate annex if appropriate. Please look through the form and read the notes carefully before you complete it. Processing of your application will be aided by full and accurate completion of all relevant sections and provisions of the necessary plans. If you have any queries regarding the form please contact the person given in the notes.

**NOTE:**

All information contained within this application will be made available on the public register unless there is a request to withhold any of it. Any such request should provide a full justification stating why the information needs to be withheld (see note xiii).

## 1 SITE ADDRESS

1.1 Address or other sufficient description of land or premises to which this application applies.

Reynoldston WwTW  
Reynoldston  
Gower

Post Code:

SAS 1HN

E.A. WALES  
£1486.00  
19 NOV 2004  
CH: 004591  
REC: 4973  
PAID

## 2 DETAILS OF DISCHARGE(S)

2.1 State the nature of the discharge(s) (see note i and ii) - tick one or more boxes as appropriate:

Sewage Effluent - volume of 5 cubic metres per day or less

Sewage Effluent - volume greater than 5 cubic metres per day (complete annexe 1)

Sewage Effluent discharged under storm or emergency conditions (complete annexe 2)

Cooling Water (complete annexe 3)

Trade Effluent (including site drainage) (complete annexe 3)

Others (please specify)

2.2 Please state the maximum quantity it is proposed to discharge in any one day  m<sup>3</sup>/day  
Briefly state how this figure was calculated (see note ii).

Base population = 890pe, Tourist population (holiday village) = 201pe; visitor population (pubs/restaurants) = 450pe.

Flow (G): Gb (base population consumption) = 180l/hd;

Gt (tourist consumption) = 120l/hd;

Gv (visitor consumption) = 75l/hd

Infiltration = 50 percent of the base population (0.5 \* PbGb)

Trade effluent = 0.

Maximum flow to treat =  $3(PbGb + PtGt + PvGv) + I + 3E$

=  $3 * ((0.18 * 890) + (0.12 * 201) + (0.075 * 450)) + (0.5 * (0.18 * 890)) + 0$

=  $3 * (160.2 + 24.12 + 33.75) + (0.5 * 160.2)$

= 654.2 + 80.1

= 734.3 m<sup>3</sup>/d

2.3 a) Indicate proposed means of discharge - tick as appropriate and show on plan:  
(for 1, 2 & 3 please state dimensions below)

1. Pipe

4. Borehole

7. Sub-Irrigation System

2. Channel

5. Well

8. Combination of 6 & 7

3. Culvert

6. Soakaway

9. Other (please specify below)

150 mm

b) National Grid Reference(s) of point(s) of discharge (see note iii).  
S   4  6  5  9  6  9  0  9  4  1   
*(please indicate on accompanying plans)*

2.4 a) The Agency will normally require adequate provision for the taking of samples of the discharge in a safe and convenient manner at any time. Please indicate the means proposed (see note iv) - tick as appropriate and show on plan:

At the outlet  At a manhole or sampling chamber

Other (please specify)

b) National Grid Reference(s) of sampling point(s) (if different from 2.3 b) above).  
S   4  6  6  1  9  9  0  9  5  4   
*(please indicate on accompanying plans)*

c) What flow measurement facilities will be provided (see note v)?  
Please give details.

A mag flow meter will be located in the final effluent line at NGR SS 46619 90956

2.5 a) Type of Treatment Plant(s) to be used (please specify make and model) - tick as appropriate:

Septic Tank  Package Sewage Treatment Works  Other

Membrane Package plant will be preceded by screenings and grit removal

b) Will the treatment process involve the use of any chemicals (eg ferric salts, polyelectrolytes). If yes please give details. YES

It is estimated that the membranes held in the package plant will require backwashing with a dilute solution of sodium hypochlorite every 6 months to remove the organic fouling on them. To clean 1 membrane module 25l of 14% sodium hypochlorite is diluted with 575l water and passed through to the membranes - see attached letter regarding procedure.  
  
If the membranes suffer from inorganic fouling, due to conditions such as hard water, a clean with oxalic acid is required. Again the anticipated frequency is 6-monthly. To clean 1 module, 6kg of oxalic acid (crystals) are diluted in 600l of water and then passed through the module of membranes - see attached letter for procedure regarding procedure.

2.6 a) On what date do you anticipate the discharge will commence? 31/03/05

b) If you require the consent for a limited time period please give dates; from:   to:

c) If the discharge is not continuous please detail the period/circumstances when it will occur.  

Not applicable

[Empty box]

YES

2.7 a) Are there any existing consents for discharges from the premises (see note vi)?

If yes, please give the reference numbers (Any further information should be given in Section 5.3).

BC 0002501  
BP 0232001 – storm overflow (settled)

NO

b) Has any person had a Prohibition Notice serviced on them in respect of this site?

If yes, please give the reference number.

[Empty box]

### 3 SITE DETAILS

3.1 Please give the name of the relevant Planning Authority.

Swansea

3.2 Please give details of the premises - tick as appropriate:

- 1. Single Dwelling  6. Fish Farm
- 2. Multiple Dwellings  7. Mineral Workings
- 3. Industrial Premises  8. Water Services plc STW
- 4. Vehicle Parking Area  9. Water Supply
- 5. Commercial Premises (please specify)  10. Other (please specify)

[Empty box]

3.3 Please indicate source of the water supply - tick as appropriate:

- 1. Well  5. River (please give name below)
- 2. Borehole  6. Estuary (please give name below)
- 3. Precipitation (eg rain or snow)  7. Coastal Water (please give name below)
- 4. Mains (please state water supply company)  Not applicable

### 4 DETAILS OF RECEIVING ENVIRONMENT

4.1 Receiving Medium - tick the category(s) to which the proposed discharge(s) is(are) to be made:

- 1. Estuarial Water (tidal river or stream)  5. Into Land
- 2. River or Stream (non-tidal)  6. Onto Land
- 3. Canal  7. Directly into Groundwater
- 4. Lake, Lock or Pond  8. Coastal Water (see note vii)

State name of receiving water if known:

Burry Pill

4.2 In the case of sub-irrigation systems, soakways or boreholes: Not Applicable

- (a) Is any part of the system within 5 metres of the boundary of the premises?  Y/N
- (b) Is any part of the system within 10 metres of a watercourse?  Y/N
- (c) Is any part of the system within 50 metres of a borehole or spring?  Y/N
- (d) For wells and boreholes state dimension(s) in metres.  m
- (e) For sub-irrigation systems, soakaway pits, wells and boreholes, state maximum depth in metres.  m
- (f) For boreholes, state details of lining in metres:
  - (i) Depth of lining  m
  - (ii) Depth of perforated lining  m
  - (iii) Depth of unperforated lining  m

(g) A percolation test must be carried out in accordance with British Standard BS6297:1983. Have the results been provided?  Y/N

4.3 Is there a foul sewer available to which the discharge(s) could be made (see note viii)?  N/a

If yes, please give the reasons it is not practical to connect to it (eg distance, flow etc).

## 5 DETAILS OF APPLICANT AND OTHER INFORMATION

### 5.1 (See general notes and note ix)

(a) Full name and postal address of applicant. This should be the person who will become the consent holder should consent be issued.

\* Dwr Cymru Welsh Water  
\* Pentwyn Rd  
\* Nelson  
\* Treharris  
\* Mid Glam  
\*

Post Code: CF46 6LY

Daytime Telephone Number:

Company Registration Number (if appropriate): 2366777

(b) Agent (if any) - Full name and postal address.

\*  
\*  
\*  
\*  
\*  
\*

Post Code:

Contact Name and Daytime Telephone Number:

### 5.2

Please give full name and address to which bills should be sent if different to that given above:

\*  
\*  
\*  
\*  
\*  
\*

Post Code:

Daytime Telephone Number:

5.3 Are there any other factors to be taken into account? Please continue on a separate sheet if necessary.

# DECLARATION

I/we:

1. apply under the Water Resources Act 1991 (as amended by the Environment Act 1995) for consent to discharge, as described in this Application. "This Application" means this page, all the other pages of this form and any attached annexes, the attached plan(s), any other sheets attached, and any other written information supplied to support the application.
2. enclose the required application fee, payable to the Environmental Agency (see note x).
3. enclose 3 copies of the plan(s) and location maps with all relevant information clearly marked (see note xi).
4. will pay required advertising costs (see note xii).
5. confirm that I/we\* will notify the Environment Agency of any changes in the information in this application which might be material to the continuation of the consent.
6. confirm that the information given in this application and any questions which the Environment Agency may have about it is/will\* be true to the best of my/our\* knowledge, information and belief and am/are\* not aware of any other facts or information which might affect the granting of a consent, or conditions which might be put on it (see note xiii).
7. confirm that I/we\* will pay any annual charges due should a consent be granted YES/NO\*. If no please indicate who will be completing section 5.2 above (see note xiv).

(\* Delete as appropriate)

SIGNED: .....	<i>[Signature]</i>	PRINT NAME: .....	<i>LEWIS KEIL</i>
ON BEHALF	OF: .....	<i>DUR GYRAU CYF</i>	DATED: .....
.....	.....	.....	<i>18/1/04</i>

## CONFIDENTIALITY

I/we apply for commercial confidentiality and enclose a full written justification (see note xv).

SIGNED: .....	DATED: .....
---------------	--------------

PLEASE RETURN THIS FORM TO THE ADDRESS GIVEN ON THE FRONT PAGE



ASIANTAETH YR  
AMGYLCHEDD  
ENVIRONMENT  
AGENCY

ANNEXE 1  
SEWAGE EFFLUENT GREATER THAN 5 CUBIC METRES PER DAY

Please complete this annexe if you are proposing to discharge more than 5 cubic metres per day of sewage effluent (if the effluent is to contain a trade component Annex 3 should also be completed).

Official Use Only  
Application No.

1. Site Name.  
Reynoldston WwTW

2. Please detail the type and number of treatment units you are proposing to use.

1 x storm overflow
1 x coarse screen
1 x low velocity grit settlement
2 x 3mm perforated screens (duty/standby)
1 x MBR package treatment plant
1 x sludge storage

3. Volume, rates and overflow settings. (Please give volumes in cubic metres per day or litres per second as indicated below)

a) Maximum flow to full treatment. (see note ii) in main guidance notes for population equivalents).	734 m <sup>3</sup> /d
b) Dry weather flow of discharge(s).	299 m <sup>3</sup> /d
c) Average daily flow.	449 m <sup>3</sup> /d
d) Maximum rate of discharge(s)	8.5 l/s

4. Will there be provisions for storm/emergency discharges?  
**In separate application**

YES

NO

5. a) Will any self monitoring take place?  
If yes, please give details.

NO

b) Will automatic sampling equipment be provided?  
If yes, please give details of type and location (please indicate on plan).

NO

6. a) Please state the maximum population served by the treatment works.

890 base population + 651 for tourism and visitors

b) Please give reasons for any variations in population, eg holiday resort, training area, seasonal industry etc, and detail the periods/times involved.

Holiday village and large restaurant and pubs with restaurants. This will be occupied/utilised for the majority of the year.

c) Please state type of catchment/site being served, eg residential, resort, industrial etc.

Mainly residential with 1 resort village

7. Will a maintenance agreement be set up to manage the sewage works? (see note b)  
If yes, please give details.

NO

8. Does the effluent contain a trade component?

**If yes, please complete appropriate section on Annexe 3 for authorised discharges of trade effluent to the sewerage system.**

NO

*Notes (see also the notes attached to the main form):*

- a) *For significant sewage treatment plants full details of the plant design, dry weather flow and Biochemical Oxygen Demand load, along with information on all discharges from the works must be included in order for the application to be processed. Flow monitoring will normally be required for such discharges and details of siting and type of flow recorders should be provided.*
- b) *The Agency require a single body or company to be responsible for the discharge and any bills raised under the Charges for Discharges Scheme. Where multiple dwellings under different ownership are connected to the same system a management company should be set up.*



ASIANTAETH YR  
AMGYLCHEDD  
ENVIRONMENT  
AGENCY

ANNEXE 4  
WELSH REGION SUPPLEMENTARY INFORMATION ANNEXE

Please complete this annexe for every proposed discharge.

*Official Use Only*  
Application No.

**For all proposed discharges:**

1. Site Name.

Reynoldston W<sup>w</sup>TTW

2. Is this application being made to reinstate a lapsed Consent?

NO

If so, please state the Number of the lapsed Consent:

**IMPORTANT: If you are in need of advice on either part of Question 2, please contact the Agency Regional Consents Section on 01222 770088.**

3. If the proposed discharge is to be made down a pipe, channel or culvert (as given in Section 2.3 of the main application form), please state the diameter (including units):

150mm

4. Please indicate the anticipated cost of the proposed scheme, including any alternatives which may have been considered:

£1 million

5. Is there any trade effluent component in the proposed discharge?

NO

If yes, please confirm here that you have completed and enclosed Annexe 3:

*Tick*  
 n/a

6. Will the proposed discharge be pumped or made under gravity? (please circle)

Gravity

If pumped, please state the maximum pump rate in l/sec:

l/s

**For proposed discharges of sewage in storm or emergency conditions:**

7. Please confirm here that you have completed and enclosed both Annexes 1 and 2:

Tick

8. Please state:

Population served (head)	1541 total
Consumption (l/head/day) default = 180	180 with 120l/hd used for tourism and 75l/hd used for restaurants and pubs
Infiltration (m <sup>3</sup> /day)	80.1
Industrial effluent flow (m <sup>3</sup> /day)	0
Dry Weather Flow (m <sup>3</sup> /day)	299
Soc A (l/sec)	n/a
Predicted spill frequency (per annum)	n/a

**IMPORTANT NOTES FOR ALL CONSENT APPLICATIONS:**

1. Whoever signs the declaration on the main application form takes responsibility for the discharge, and will become the registered consent holder, if consent is given. In the case of a 'body corporate' (eg a public limited company ('plc'), limited, company, local authority), the 'body corporate' will be the registered consent holder, and the person with the delegated authority to sign on behalf of the 'body corporate' should give their job title.
2. Agents making an application on behalf of a client, must attach their clients written authority.
3. If the name and/or address of the applicant changes after submission of this application to the Environment Agency, the applicant must inform the Agency in writing.

## Reynoldston WwTW Consent Application

### Background

- Reynoldston WwTW is a year five quality output driven by the Urban Waste Water Treatment Regulations and Water Quality Objectives. The plant takes raw flows from Reynoldston, Burry Green, Knelston and Scurrage. Under this scheme, flow less than 8.5l/s will be sent forward for treatment and flows in excess of this will pass through 6mm perforated screen into 2 storm tanks. When the storm tanks are full, they spill to the storm outfall. Flows to treatment are passed to the new treatment processes comprising 3mm 2-dimensional screening, grit removal and membrane treatment. This process has been chosen for its small footprint and ability to meet the stringent effluent consent which is to be applied. Effluent is discharge via the flow-meter and sample point to the outfall.

### Enclosed

#### Main Application

Schedule 10  
Annex 1  
Annex 4

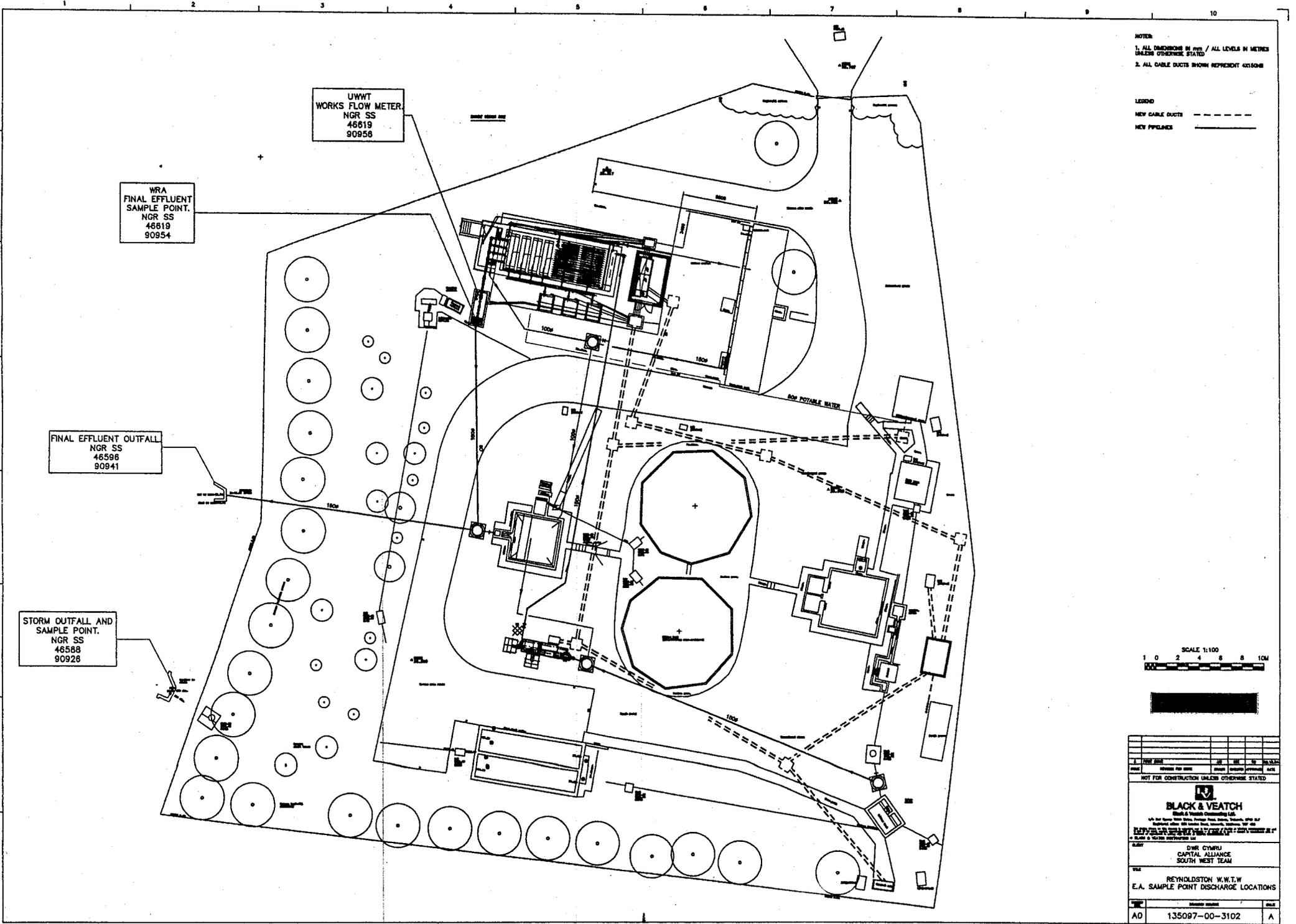
#### Storm Application

Schedule 10  
Annex 2  
Annex 4

### Support Documents

Plan showing sample point, flow meter location and outfall locations.  
Information supplied regarding chemical clearing of membrane unit.

Phase 3 sign off sheet.



- NOTES:
1. ALL DIMENSIONS IN mm / ALL LEVELS IN METRES UNLESS OTHERWISE STATED
  2. ALL CABLE DUCTS SHOWN REPRESENT 40X50MM

LEGEND

NEW CABLE DUCTS - - - - -

NEW PIPELINES ————

SCALE 1:100

0 2 4 6 8 10M

NOT FOR CONSTRUCTION UNLESS OTHERWISE STATED	
<b>BLACK &amp; VEATCH</b>	
<small>Black &amp; Veatch Consulting Ltd.          4th Floor, 100 Victoria Road, London, W1P 3JF          Registered Office: 100 Victoria Road, London, W1P 3JF          A BLACK &amp; VEATCH COMPANY LTD</small>	
CLIENT	DWR CYMRU CAPITAL ALLIANCE SOUTH WEST TEAM
NAME	REYNOLDSSTON W.W.T.W E.A. SAMPLE POINT DISCHARGE LOCATIONS
NO	135097-00-3102
AD	A



D W R C Y M R U  
W E L S H W A T E R

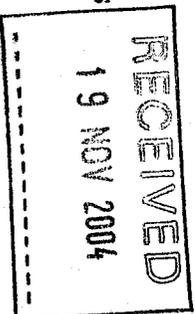
Gwaith Trŷn Dŵr Gwastref Tregŵr  
Heol Victoria  
Tre Gŵyr  
Aberlawe SA4 3AB

Goverton Waste Water Treatment Works  
Victoria Road  
Goverton  
Swansea SA4 3AB

Facs: +44 (0)1792 872 604  
Safle gwe: [www.dwr.cymru.com](http://www.dwr.cymru.com)

Fax: +44 (0)1792 872 604  
Web site: [www.dwr.cymru.com](http://www.dwr.cymru.com)

Mrs Lynne Lewis  
Environment Agency Wales  
Maes Newydd  
Llandarcy  
Neath and Port Talbot  
SA10 6JQ



18<sup>th</sup> November 2004  
Tel 01792 511828

Dear Mrs Lewis,

**Reynoldston WwTW**

Please find enclosed applications for variation of the final effluent (BC0002501) and settled storm (BP0232001) consents for Reynoldston WwTW. The new membrane plant has been chosen for its small footprint and high quality effluent rather than to meet a disinfection requirement. I would ask that the consent conditions are set accordingly.

I enclose cheque number 4591 for £1486.

Yours sincerely,

  
Dr Lewis Keil  
Scientist - Wastewater

We welcome correspondence in Welsh and English.  
Rydym yn croesawu gohebiaeth yn y Gymraeg neu yn Saesneg

United Utilities yn cydwethio gyda Dŵr Cymru Welsh Water  
i ddarparu gwasanaethau gweithredol a chymnal a chadw ar  
gyfer asedau dŵr a dŵr gwastraff

Dŵr Cymru Cŵl, cwmni clyngedig wedi'i gofrestru yng  
Nghymru rhif 2366777. Swyddfa gofrestridig: Heol Penllyn,  
Nelson, Treherms, Morgannwg Ganol CF46 6LY

United Utilities working with Dŵr Cymru Welsh Water, for  
the provision of operation and maintenance services for  
water and wastewater assets.

Dŵr Cymru Cŵl, a limited company registered in  
Wales no 2366777. Registered office: Penllyn Road  
Nelson, Treherms, Mid Glamorgan CF46 6LY

SCHEME NAME: Reynolds STW

THE DATA IN THE FOLLOWING TABLE WILL BE TAKEN AS THE INFORMATION EXPECTED ON THE CONSENT APPLICATION, UNLESS AN AMENDMENT IS PROVIDED AND SIGNED OFF BY EA STAFF

DC No	Consent No	Name	Asset No	NGR asset	NGR sample point	NGR discharge point	Present		Future		Amenity value	Solids separation requirement	Target river class	Screens (type & size)	Existing storage (m <sup>3</sup> )	No. of spills		Emergency provision if PR	Comments (for EA use)
							SOC A (US)	CSO setting (US)	SOC A (US)	CSO setting (US)						Consent	Future		
DC2012101	BC0002501 Works BP0232001 Scalped Storm	Reynolds STW	Works - 20761	246654mE 190920mN	246584mE 190920mN	246584mE 190920mN	10.4	5	2.7 - 7	8.5	N/A	6mm	RE1	6mm 2D static powered screen	72 m <sup>3</sup>	N/A	102	N/A	Existing Storage Volume = 72 m <sup>3</sup> greater than 2 hours retention at FFT

Accepted by EA

*C. W. Scammell*

Name: .....

Date: ..... 12/11/24 .....

Ein cyf/Our ref.

EAL/K/BP0232001/BC0002501

Eich cyf/Your ref.



ASiantaeth Yr  
Amgylchedd Cymru  
ENVIRONMENT  
AGENCY WALES

Dyddiad/Date:

6 December 2004

Dr Lewis Keil  
Dwr Cymru Cyf  
Gowerton Waste Water Treatment Works  
Victoria Road  
Gowerton  
Swansea  
SA4 3AB

Dear Dr Keil

**WATER RESOURCES ACT 1991, SCHEDULE 10 (AS AMENDED BY THE ENVIRONMENT ACT 1995) APPLICATION TO DISCHARGE SEWAGE EFFLUENT BY DWR CYMRU FROM REYNOLDSTON WWTW, REYNOLDSTON, GOWER APPLICATION NO: BC0002501/BP0232001**

I acknowledge receipt of your completed applications received on 19 November 2004 together with your application fee of £1486.00. Please quote the above applications number in any communication with us.

The legislation allows us 4 months from the date of receipt to determine your applications. However, an extension to the 4-month period may be necessary if we require further information to determine your applications or if agreed between us in writing. You will be advised if this proves necessary.

We will do all we can to deal with your application quickly, but if by 20 March 2005 (or such longer period as explained above), you have not been advised of our decision then the applications will be deemed to be refused. You will have a right of appeal to the National Assembly for Wales.

If granted, the consent of the Agency to make a discharge covers water quality considerations only. Should you require any advice on other consents, permissions, licences etc regulated by the Agency, please do not hesitate to contact me.

Details of your applications for consents are placed on a public register, kept by the Agency and open for inspection by the public

Yours sincerely

  
LISA KNIGHT

Authorisations Officer

Direct dial 01792 325577

Direct fax 01792 325530

Asiantaeth yr Amgylchedd Cymru  
Maes Newydd, Llandarsi, Nedd Port Talbot, SA10 6JQ  
Ffon: 08708 506 506, Ffacs: 01792 325511

Environment Agency Wales  
Maes Newydd, Llandarcy, Neath Port Talbot, SA10 6JQ  
Tel: 08708 506 506, Fax: 01792 325511





ASiantaeth Yr  
Amgylchedd Cymru  
Environment  
Agency Wales

Ein cyf/Our ref: EAL/K/BC0002501/BP0232001

Eich cyf/Your ref:

Dyddiad/Date: 22 November 2004

Dr Lewis Keil  
Gower Waste Water Treatment Works  
Victoria Road  
Gowerton  
Swansea  
SA4 3AB

Dear Dr Keil

**WATER RESOURCES ACT 1991, SCHEDULE 10 (AS AMENDED BY THE ENVIRONMENT ACT 1995) APPLICATION TO DISCHARGE SEWAGE EFFLUENT BY DWR CYMRU FROM REYNOLDSTON WWTW, REYNOLDSTON, GOWER APPLICATION NO: BC0002501/BP0232001**

Thank you for your applications for consent to discharge and your application fee of £1486.00 received on 19 November 2004. They are receiving consideration and you will be hearing from us again shortly. Please quote references BC0002501/BP0232001 in any correspondence with us relating to these applications.

Yours sincerely

**LISA KNIGHT**  
Authorisations Officer

Direct dial 01792 325577  
Direct fax 01792 325530

Asiantaeth yr Amgylchedd Cymru  
Maes Newydd, Llandarsi, Nedd Port Talbot, SA10 6JQ  
Ffon: 0870 8 506 506, Ffacs: 01792 325511

Environment Agency Wales  
Maes Newydd, Llandarcy, Neath Port Talbot, SA10 6JQ  
Tel: 0870 8 506 506, Fax: 01792 325511



CONSENT NO. BC0002501



ASANTAEITH YR  
AMGYLCHEDD CYMRU  
ENVIRONMENT  
AGENCY WALES

WATER RESOURCES ACT 1991

SECTION 88 – SCHEDULE 10

(AS AMENDED BY THE ENVIRONMENT ACT 1995)

VARIATION OF CONSENT TO DISCHARGE

**TO: Environment Quality Scientist**  
Dŵr Cymru Cyfyngedig  
Pentwyn Road  
Nelson  
Treharris  
CF46 6LY

In pursuance of an application by the consent holder for variation of consent, the **ENVIRONMENT AGENCY** ("The Agency") in pursuance of its powers under the Water Resources Act 1991 **HEREBY VARIES ITS CONSENT** to the making of a discharge **OF SEWAGE EFFLUENT**, as follows:

**Tertiary Treated Sewage Effluent** incorporating the requirements of the Urban Waste Water Treatment Regulations 1994 (UWWTR)

with respect to Variation of Consent No. BC0002501 issued on the 26<sup>th</sup> day of April 1994

**FROM: REYNOLDSTON WASTEWATER TREATMENT WORKS**

**AT: REYNOLDSTON, GOWER, NEAR SWANSEA**

**TO: BURRY PILL**

**HEREAFTER SUBJECT TO** the conditions set out in the following schedule(s):

**Tertiary Treated Sewage Effluent** Schedule No. BC0002501 01  
**UWWTR Regulations 1994** Schedule No. BC0002501 01 / U

Subject to the provisions of Paragraphs 7 and 8 of Schedule 10 of the Water Resources Act 1991, no notice shall be served by the Agency, which affects the effect of variations made to this consent, without the agreement in writing of the Consent Holder, during a period of 4 years from the date this variation is issued.

This variation of consent is issued on the 10<sup>th</sup> day of March, 2005 and takes effect on the 31<sup>st</sup> day of March 2005.

Signed ..........

**Team Leader – Regulatory Water Quality**

Asiantaeth yr Amgylchedd Cymru

"Maes Newydd", Llandarsi, Nedd Port Talbot. SA10 6JQ

Ffôn 01792 325500

Ffacs 01792 325511

Environment Agency Wales

"Maes Newydd", Llandarcy, Neath Port Talbot. SA10 6JQ

Tel 01792 325500

Fax 01792 325511



CONSENT NO.	BC0002501
SCHEDULE NO.	BC0002501 01
DATE ISSUED	10 <sup>th</sup> March, 2005



### CONDITIONS OF CONSENT TO DISCHARGE

Tertiary Treated Sewage Effluent ("the Discharge")

**FROM:** REYNOLDSTON WASTEWATER TREATMENT WORKS,  
REYNOLDSTON, GOWER, NEAR SWANSEA

#### NATURE

1. The Discharge shall consist solely of tertiary treated sewage effluent.

#### LOCATION

2. The Discharge shall be made in the manner and at the place specified as:

- (a) discharging via a 150 millimetre diameter pipe;
- (b) discharging to Burry Pill;
- (c) at National Grid Reference SS 46596 90941;

- (d) shown marked 'Consent Point' on Plan BC0002501 attached as Annex 3.

#### SAMPLE POINT

3. An appropriately labelled sample point shall be provided and maintained at National Grid Reference SS 46619 90954, as shown marked 'Sampling Point' on Plan BC0002501, or some other point as agreed in writing with the Agency, so that a representative spot sample of the Discharge may be obtained. The consent holder shall ensure that all constituents of the Discharge pass through the said sampling point at all times and in any legal proceedings it shall, for the purposes of Section 10 of the Rivers (Prevention of Pollution) Act 1961, be presumed, until the contrary is shown that any sample of the Discharge taken at the said sampling point is a sample of what was being discharged into controlled waters.

#### VOLUME

4. The volume of the Discharge shall not exceed 734 cubic metres per day.
5. The Dry Weather Flow of the Discharge shall not exceed 299 cubic metres per day.  
  
For the purpose of this condition Dry Weather Flow shall mean the average daily flow to the treatment works during seven consecutive days without rain (excluding a period which includes public holidays) following seven days during which the rainfall did not exceed 0.25 millimetres on any one day.
6. The rate of discharge shall not exceed 8.5 litres per second.



CONSENT NO.	BC0002501
SCHEDULE NO.	BC0002501 01



ASIAN TAETH YR  
AMGYLCHEDD CYMRU  
ENVIRONMENT  
AGENCY WALES

## FLOW MEASUREMENT

7. A continuous flow monitoring and recording system, to a specification provided by the Agency, with on-site visual display from which readings can be readily obtained by the Agency, shall be provided and operated to record the daily volume and instantaneous flow of the discharge.
  8. As soon as practicable after completion of the flow system installation the Consent Holder shall employ an independent expert to certify that the installation complies with the Agency's specification. The Consent Holder shall satisfy himself as to the professional competence of the expert. A copy of the certifier's report shall be provided to the Agency when it is available.
  9. Records of the flow readings shall be maintained by the Consent Holder and shall be provided to the Agency when requested, in a format specified by the Agency.
  10. The Consent Holder shall produce and maintain a quality control manual, approved by the independent expert and to the satisfaction of the Agency, specifying procedures for the calibration, operation and maintenance of the flow monitoring system. The flow system shall be calibrated, operated and maintained by the Consent Holder in accordance with the provisions of the manual. The Consent Holder shall keep a record of these procedures available for inspection by the Agency and provide a copy to the Agency on request.
  11. The Consent Holder shall record all failures of the continuous flow system and any other breaks in the flow record. The reasons for these failures and breaks shall be recorded and all steps taken to prevent a re-occurrence. The Consent Holder shall ensure that as far as possible the recorder remains fully operational at all times. Any failures shall be remedied as soon as possible.
  12. Flows passing forward to full treatment, shall be measured upstream of the final effluent sampling chamber at National Grid Reference SS 46619 90956, or such other point(s) as agreed by the Agency.
- ### COMPOSITION
13. (a) Subject to paragraph (b) below, the Discharge shall not contain more than:
    - (i) 10 milligrammes per litre of biochemical oxygen demand (measured after 5 days at 20°C with nitrification suppressed by the addition of allyl-thiourea);
    - (ii) 20 milligrammes per litre of suspended solids (measured after drying at 105°C);
    - (iii) 2 milligrammes per litre of ammoniacal nitrogen (expressed as N).



CONSENT NO.	BC0002501
SCHEDULE NO.	BC0002501 01



- (b) The limit for any of the relevant parameters set out in paragraph (a) above may be exceeded where, in any series of samples of the Discharge taken at regular but randomised intervals in any period of twelve consecutive months as listed in Column 1 of the table at Annex 1 to this consent, no more than the relevant number of samples, as listed in Column 2 of the said table, exceed the applicable limit for that relevant parameter.

#### WORKS OPERATION

14. The works shall be operated and the effluent shall be treated in a manner which, so far as reasonable practicable, minimises the polluting effects of the discharge made from the works on controlled waters.

This condition ~~does~~ not require -

- (a) any **higher** standard to be achieved in relation to any characteristic of the discharge ~~which~~ is specifically regulated by condition 13, than is required by that condition;
- (b) any **alteration** of the works or a change in the type of treatment used.

#### UNUSUAL WEATHER CONDITIONS

15. (a) No sample of the discharge, taken at a time when unusual weather conditions are adversely affecting the operation of the sewage treatment works, shall be taken **into** account in deciding whether or not the conditions 13 and 14 of this consent ~~have~~ been complied with.
- (b) For the purpose of this condition "unusual weather conditions" shall include:
- (i) ~~low~~ ambient temperatures as evidenced by effluent temperatures of 5°C or less, or by the freezing of mechanical equipment in the works;
  - (ii) ~~significant~~ snow deposits;
  - (iii) tidal or fluvial flooding;
  - (iv) weather conditions causing unforeseen loss of power supply to the sewage treatment which could not be ameliorated by the reasonable provision and operation of standby generation facilities.
- (c) On any occasion where unusual weather conditions adversely affect the operation of the sewage treatment works, the Consent Holder shall use its best endeavours to mitigate that adverse effect.



CONSENT NO.	BC0002501
SCHEDULE NO.	BC0002501 01



ASIANTAETH YR  
AMGYCHIEDD CYMRU  
ENVIRONMENT  
AGENCY WALES

- (d) For a sample of the discharge to be considered for the purposes of (a) above, the Consent Holder shall notify the Agency by telefax or telephone as soon as unusual weather conditions are known to have adversely affected operations and shall confirm the circumstances in writing as soon as possible thereafter (and in any event within 14 days of the occurrence of such conditions). That notification shall include a full description of the unusual weather conditions and their impact on the operation of the works.

#### RECORDING AND REPORTING

16. (a) The Consent Holder shall establish and operate a documented maintenance programme, including the method and frequency of cleaning and replacement of membrane filters, and record all non-routine actions undertaken that may have adversely affected effluent quality. Copies of the programme shall be made available for inspection by the Agency's officers at all reasonable times.
- (b) On request the Consent Holder shall supply the Agency with a written report on the maintenance and all non-routine actions that may have adversely affected effluent quality.

17. The Consent Holder shall notify the Agency in writing if any known or planned introduction or material change in respect of discharges from trade premises to the sewerage system occurs, that may increase or introduce into the effluent any "dangerous substance" included on Lists I, II, or Red List (set out in Annex 2 to this notice as updated from time to time and notified to the Consent Holder in writing), and any other substance considered by the consent holder as having or likely to have a significant effect on the receiving waters.

#### SUBSTANTIAL CHANGE

18. A discharge shall not be made from the works if it would cause a significant increase in the polluting effects of the discharge on controlled waters as a result of a new or altered discharge of trade effluent into the works.
- 18.1 A discharge of trade effluent into the works is new if -
- (a) it is made by the sewerage undertaker and is of a kind not made into the works by the undertaker immediately before the date of effect of this consent; or
- (b) it is made by a third party and the discharge is authorised on or after that date.



CONSENT NO.	BC0002501
SCHEDULE NO.	BC0002501 01



18.2 A discharge of trade effluent into the works is altered if -

- (a) it is made by the sewerage undertaker and its composition or quantity changes significantly on or after the date of effect of this consent; or
- (b) it is made by a third party and the alteration of the discharge is authorised on or after that date.

18.3 An increase in the polluting effects of the Discharge on controlled waters is not significant for the purposes of this condition if it relates to any characteristic of the Discharge which is specifically regulated by condition 13 of this consent but it may be significant if it is caused by a change in some other characteristic of the Discharge.

18.4 For the purposes of this condition "trade effluent" means -

- (a) any ~~discharge~~ by the sewerage undertaker other than
  - (i) domestic sewage from premises connected directly or indirectly to the works; or
  - (ii) ~~surface~~ water run-off;
- (b) any ~~discharge~~ by a third party which is authorised under Chapter III of Part IV of the Water Industry Act 1991 or which is only accepted as a result of a contract with the sewerage undertaker.

#### UNAUTHORISED DISCHARGES

19. A discharge ~~made~~ from the works shall not contain any poisonous, noxious or polluting ~~matter~~ or solid waste matter which is attributable to any unauthorised discharge ~~into the~~ works.
- (a) A discharge into the works is unauthorised if it is made by a third party and either ~~there~~ is no obligation to receive it or conditions subject to which there is an obligation to receive it are not observed.
  - (b) Nothing in this, or any other, condition of this consent prevents anyone from relying on any defence available to them under section 87 of the Water Resources Act 1991.



CONSENT NO.	BC0002501
SCHEDULE NO.	BC0002501 01 / U
DATE ISSUED	10 <sup>th</sup> March, 2005



ASiantaeth yr  
Amgylchedd Cymru  
Environment  
Agency Wales

## CONDITIONS OF CONSENT TO DISCHARGE

Tertiary Treated Sewage Effluent ("the Discharge")

**FROM: REYNOLDSTON WASTEWATER TREATMENT WORKS,  
REYNOLDSTON, GOWER, NEAR SWANSEA**

### URBAN WASTE WATER TREATMENT REGULATIONS

- U0** (a) The Consent Holder shall comply with the Urban Waste Water Treatment (England and Wales) Regulations 1994 (the Regulations).
- (b) For the purpose of conditions U1 below, interpretations and references to a numbered regulation or Schedule shall have the meaning as in the Regulations, unless otherwise indicated.
- U1** (a) The Discharge derives from an agglomeration with a population equivalent of less than 2,000, discharging to freshwaters.
- (b) The Consent Holder shall inform the Agency in writing of any change, or proposed change, to the population equivalent such as would make a material change to the application of the Regulations and shall, on request, inform the Agency in writing of the actual population equivalent.
- (c) The Discharge shall be subject to Regulation 5(7) and shall satisfy the requirements of Regulation 5(8)(a).



CONSENT NO.	BC0002501
SCHEDULE NO.	BC0002501 01



ASIANTAETH YR  
AMGYLCHEDD CYMRU  
ENVIRONMENT  
AGENCY WALES

ANNEX 1

TABLE

Column 1

Column 2

Number of samples taken in any period of 12 months	Maximum number of samples permitted to exceed limit for given determinand
4-7	1
8-16	2
17-28	3
<del>29-40</del>	4
<del>41-53</del>	5
<del>54-67</del>	6
68-81	7
82-95	8
<del>96-110</del>	9
111-125	10
<del>126-140</del>	11
141-155	12
156-171	13
172-187	14
<del>188-203</del>	15
<del>204-219</del>	16
<del>220-235</del>	17
<del>236-251</del>	18
252-268	19
<del>269-284</del>	20
285-300	21
301-317	22
318-334	23
335-350	24
351-365	25



CONSENT NO.	BC0002501
SCHEDULE NO.	BC0002501 01



ASiantaeth yr  
Amgylchedd Cymru  
Environment  
Agency Wales

## ANNEX 2

1.	Mercury and its compounds	2.	Cadmium and its compounds
3.	Hexachlorocyclohexane	4.	Carbon tetrachloride
5.	(Indane and related compounds)		
6.	DDT (the isomers of 1,1,1-trichloro-2,2-bis(p-chlorophenyl) ethane)	7.	Aldrin
8.	Pentachlorophenol (PCP)	9.	Endrin
10.	Dieldrin	11.	Hexachlorobenzene (HCB)
12.	Isodrin	13.	Chloroform
14.	Hexachlorobutadiene (HCBD)	15.	Dichlorvos
16.	Polychlorinated biphenyls	17.	Trichlorobenzene
18.	1,2-Dichloroethane	19.	Simazine
20.	Atrazine	21.	Triphenyltin compounds
22.	Tributyltin compounds	23.	Fenitrothion
24.	Trifluralin	25.	Malathion
26.	Azinphos-methyl	27.	Lead
28.	<del>Endosulfan</del>	29.	Zinc
30.	Chromium	31.	Nickel
32.	Copper	33.	*Iron
34.	Arsenic	35.	*Boron
36.	*pH outside range 5.5 to 9.0	37.	PCSDS
38.	Vanadium	39.	Sulcofuron
40.	Cyfluthrin	41.	Pernethrin
42.	Flucofuron	43.	2-Chlorophenol
44.	4-Chloro-3-methyl-phenol	45.	2,4-D (ester)
46.	2,4-D (non ester)	47.	1,1,1-Trichloroethane
48.	1,1,2-Trichloroethane	49.	Benzazone
50.	Benzene	51.	Biphenyl
52.	Chloronitrotoluenes	53.	Demeton
54.	Dimethoate	55.	Linuron
56.	MCPA	57.	Mecoprop
58.	Mevinphos	59.	Naphthalene
60.	Ornethoate	61.	Toluene
62.	Triazophos	63.	Xylene
64.	Cyanide	65.	Azinphos-ethyl
66.	Fenthion	67.	Parathion
68.	Parathion-n-methyl	69.	Trichloroethylene
70.	Tetrachloroethylene	71.	Dioxins
72.	PAHs	73.	Nonyl phenol
74.	Nonyl phenyl ethoxylate	75.	Di-ethylhexyl phthalate
76.	Bisphenol-A	77.	Diazinon
78.	Chlorfenaviphos	79.	Chlorotoluron
80.	Isoproturon	81.	Diuron
82.	Propetamphos	83.	Flumethrin
84.	Amthraz	85.	High-Cis Cypermethrin
86.	Cyromazine	87.	Deltamethrin
88.	Cypermethrin		

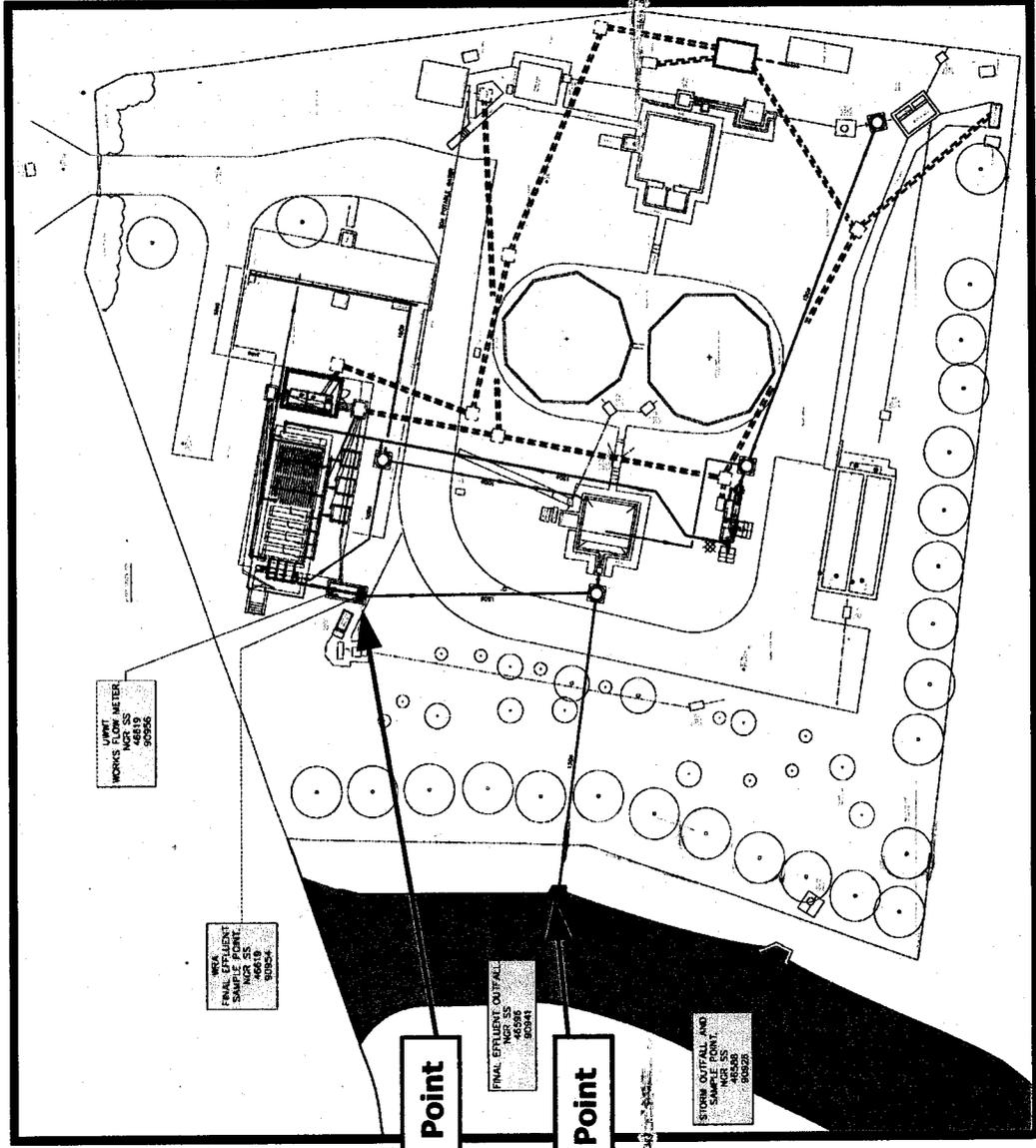
This list is applicable as at 1 December 1998 and will be updated as and when changes to the relevant legislative requirements occur.

\*Notification to the Agency by the Consent holder is only required in respect of changes to trade effluents likely to cause significant changes to the pH value, and/or iron or boron concentrations, of the crude sewage.



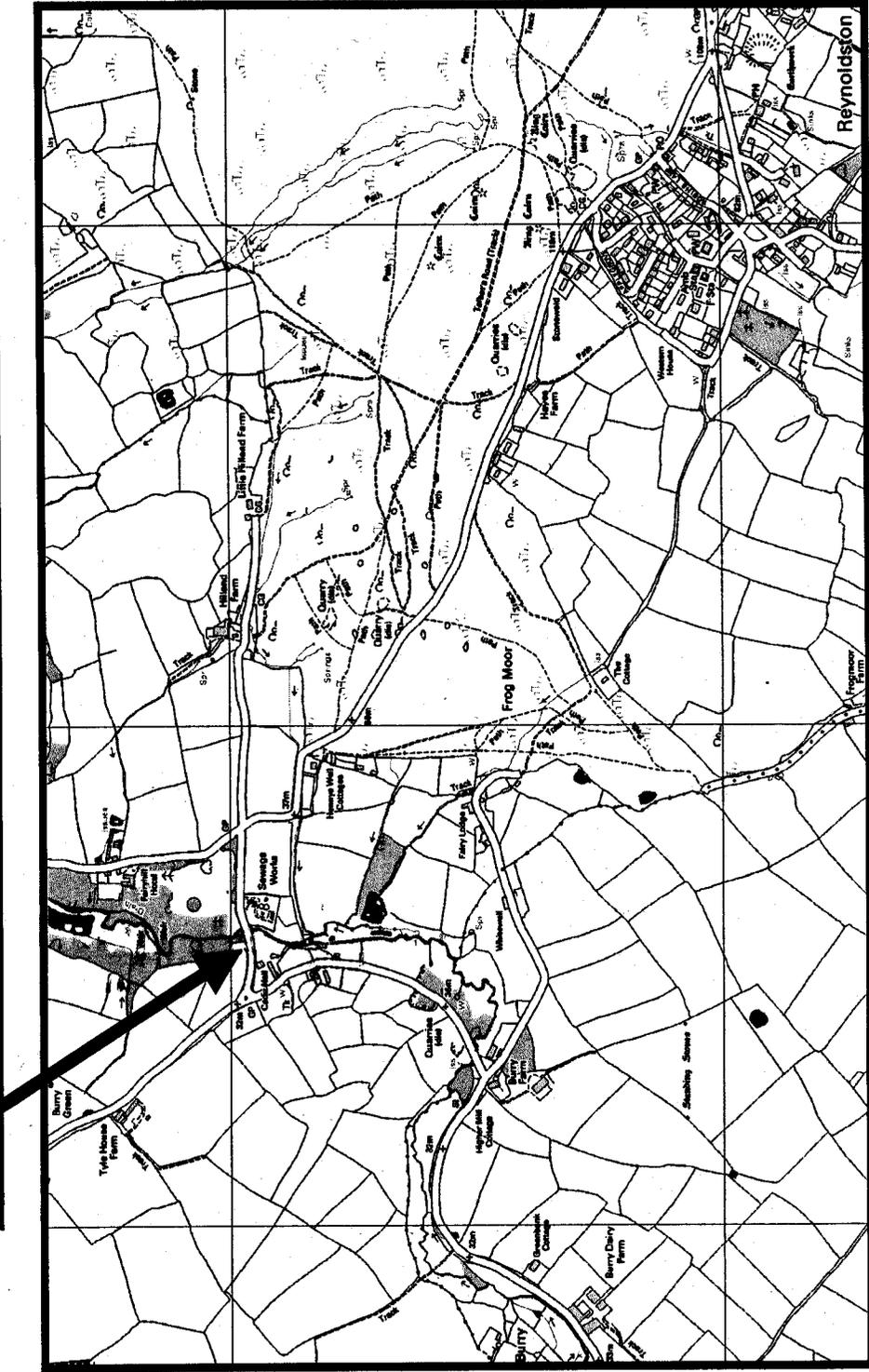
ANNEX 3 BC0002501

REYNOLDSTON WwTW - FE,  
REYNOLDSTON, GOWER



Sampling Point

Consent Point





ASIANTAETH YR  
AMGYLCHEDD CYMRU  
ENVIRONMENT  
AGENCY WALES

Ein cyf/Our ref. EAL/K  
Eich cyf/Your ref.

Dyddiad/Date: 14 March 2005

Environment Quality Scientist  
Dŵr Cymru Cyf  
Pentwyn Road  
Nelson  
Treharris  
CF46 6LY

Dear Sir/Madam

**WATER RESOURCES ACT 1991, SCHEDULE 10 (As amended by the Environment Act 1995)**

Further to your applications the Agency has decided that consents should be given subject to conditions. I enclose the Agency's formal consents to discharge sewage effluent from - please see attached sheets.

Under the present Scheme of Charges for Discharges to Controlled Waters an annual charge will be made for all consents to discharge, except where the discharge is of sewage effluent of five cubic metres or less per day. The charge is based on information derived from the conditions attached to the consent to discharge, as outlined in the enclosed leaflet.

If you consider that the conditions imposed by the consent are unreasonable you have a right of appeal to the National Assembly for Wales at Cathays Park, Cardiff CF10 3NQ.

Notice of an appeal must be given in writing within three months of this notification and must be accompanied by a statement of the grounds of appeal.

If granted, a consent under Schedule 10 of the Act, covers water quality considerations only. It does not alter the need to obtain any other consents or approvals which might be required in connection with your proposal under other legislation. For example it does not give any right or permission to discharge where land is not owned by the applicant.

Continued...

Asiantaeth yr Amgylchedd Cymru  
Maes Newydd, Llandarsi, Nedd Port Talbot, SA10 6JQ  
Ffôn: 08708 506 506, Ffacs: 01792 325511

Environment Agency Wales  
Maes Newydd, Llandarcy, Neath Port Talbot, SA10 6JQ  
Tel: 08708 506 506, Fax: 01792 325511



If you have any queries regarding the enforcement of this consent, please do not hesitate to contact Stuart Thomas, Team Leader Regulatory Water Quality Consents, Environment Agency Wales, Maes Newydd, Llandarcy, Neath Port Talbot, SA10 6JQ.

Yours faithfully



**LISA KNIGHT**  
**Authorisations Officer**

Direct dial 01792 325577  
Direct fax 01792 325530

Enc.

**Asiantaeth yr Amgylchedd Cymru**  
Maes Newydd, Llandarcy, Neath Port Talbot, SA10 6JQ  
Ffon: 08708 506 506, Ffacs: 01792 325511

**Environment Agency Wales**  
Maes Newydd, Llandarcy, Neath Port Talbot, SA10 6JQ  
Tel: 08708 506 506, Fax: 01792 325511