

**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



**CG0078101\_2006\_03\_02**

The **Environment Agency** ("the Agency") hereby confirm that the above named person is a/the registered holder of consent CG0078101

Nature of Discharge(s); SEWAGE EFF/TREATED EFF/CONTINUOUS  
at LLANFAGLAN STW

**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:**

# COPY

<b>APPENDIX 11</b> <b>Form HR01: Proforma for new applications within Stage 2 criteria.</b>		 <b>ENVIRONMENT AGENCY</b>
<b>Environment Agency Record of Assessment of Likely Significant Effect On A European Site (Stage 2)</b>		
<p>The new application for a please fill in details detailed below is within the Stage I criteria of please fill in details, and in order to progress the application a Stage 2 assessment and consultation with EN/CCW is required.</p>		
<b>PART A</b> To be completed by relevant technical/project officer in consultation with Conservation/Ecology section and EN/CCW		
1. Type of permission/activity:	Water Resources Act (1991) (as amended by Environment Act 1995) consent to discharge	
2. Agency reference no:	CG0078101	
3. National Grid reference:	SH 46626 59370	
4. Site reference:	Llanfaglan Sewage Treatment Works Llanfaglan Caernarfon Gwynedd LL54 5RB	
5. Brief description of proposal:	An application to discharge: 4233.6m <sup>3</sup> per day into the Afon Gwyrfai	
6. European site name(s) and status:	Afon Gwyrfai cSAC/ SSSI UK0030046 Y Fenai a Bae Conwy cSAC UK 0030202 Y Foryd SSSI	
7. List of interest features:	1.3 Riverine Habitats and Running Waters 1.4 Standing Waters Sensitive to acidification 2.1 Vascular Plants of Aquatic habitats 2.5 Anadromous Fish 2.9 Mammals of Riverine Habitats 1.12 Estuarine and Intertidal Habitats 1.13 Submerged Marine Habitats	
8. Is the proposal directly connected with or necessary to the management of the site for nature conservation?	No	
9.	<b>What potential hazards are likely to affect the interest features? (Refer to relevant sensitivity matrix and only include those to which the interest features are sensitive). Are the interest features potentially exposed to the hazard?</b>	

Sensitive Interest Feature	Potential hazard:	Potential exposure to hazard and mechanism of effect/impact if known:
<b>1.3 Riverine Habitats and Running Waters</b> Floating vegetation of ranunculus of plain and submountainous rivers	A, b, c, d, e, f, g, h	
<b>1.4 Standing waters sensitive to acidification</b> Oligotrophic waters containing very few minerals of Atlantic sandy plains with amphibious vegetation: Lobelia, Littorella and Isoetes	A, b, c, d, e, g, h	
<b>2.1 Vascular plants of Aquatic Habitats</b> Floating Water Plantain	A, b, c, d, e, f, g, h	
<b>2.5 Anadromous Fish</b> Atlantic Salmon	A, b, c, d, e, g, h	
<b>2.9 Mammals of Riverine Habitats</b> Otter	A, b, c, d, e, g, h,	
<b>1.12 Estuarine and Intertidal Habitats</b> Large shallow inlets and bays Mudflats and sandflats not covered by seawater at low tide	A, b, d, e, f, g, h	
<b>1.13 Submerged Marine Habitats</b> Reefs Sandbanks that are slightly covered by sea water all the time Submerged or partly submerged sea caves	A, b, d, e, g, h	
<b>Key:</b>  A – Toxic Contamination B – Nutrient Enrichment C – pH Changes D – Changes in Salinity regime E – Changes in thermal regime F – Physical Damage G – Turbidity H - Siltation		

10. Is the potential scale or magnitude of any effect likely to be significant?

a) Alone?  
 (explain conclusion, e.g. in relation to de minimus criteria)

No – See Point 11

<p><b>b) In combination with other plans or projects?</b> (Explain conclusion and which plans/projects have been included, including those associated with other functions).</p>	No – See Point 11	
<p><b>11. Conclusion:</b> <b>Is the proposal likely to have a significant effect 'alone or in combination' on a European site?</b> (justification – attach any relevant supporting information)</p>	<p>No – Operational improvements have been undertaken at Llanfaglan WwTW to meet legislative requirements.</p> <p>These improvements include the installation of a 6mm-particle size screen, to protect the treatment process and the installation of a new humus settlement tank, which will improve the quality of the final effluent.</p> <p>These improvements will enhance the performance of the works allowing the treatment process to achieve the tighter indicative consent standards set for the works treated effluent</p> <p>Therefore it is anticipated that the discharge from these works will have little impact upon the designated sites.</p>	
<p><b>12. Name of EA Officer:</b></p>	Charlotte Lloyd	<b>Date:</b> 08 / 01 / 04
<p><b>13. EN/CCW comment on assessment:</b></p>	<p><i>See attached sheet for comments.</i></p>	
<p><b>14. Name of EN/CCW Officer:</b></p>	<p><i>Euros Jones</i></p>	<p><b>Date:</b> <i>24/12/04</i></p>
<p><b>IF THE PROPOSAL IS LIKELY TO HAVE A SIGNIFICANT EFFECT AN APPROPRIATE ASSESSMENT WILL BE REQUIRED (see part B for suggested scope).</b></p>		

**Part B - SUGGESTED SCOPE OF THE APPROPRIATE ASSESSMENT**

- 

**15. EN/CCW Comment on scope of appropriate assessment:**

**16. Name of EN/CCW Officer:**

**Date:**

**CCW comment on EA Appendix11 assessment for Llanfaglan STW.**  
**Agency ref : CG0078101**

CCW accept that improvements have been undertaken to improve the quality of the effluent entering Afon Gwyrfai a LlynCwellyn cSAC at Llanfaglan, and this is welcomed of course, but the case and conclusions in s11 of the form relate to the water treatment performance of the works; not the impact of the potential hazards identified in s9 on the condition of the cSAC features in the river and near-shore areas.

We are unclear as to how EA have arrived at the conclusion that this proposal will have no significant effect on the specified cSAC features; bearing in mind that the maximum daily volume of effluent flowing into the river is to be increased by 1,113.6 m<sup>3</sup>/d from a current maximum flow rate of 3120 m<sup>3</sup>/d.

Because of this CCW recommend that, as a first step, further ecological information should be considered by the Agency to determine if the cSAC features will be subjected to a “**likely significant effect**” as defined by Conservation (Natural Habitats, &c) Regulations 1994 Reg. 48(1)(a). CCW suggest that consideration of further ecological information should enable the completion of the column in s9 of the form titled “*potential exposure to hazard and mechanism of impact.*” The ecological implications of this information should then be explored in relation to the cSAC features in s11.

If the ecological information to complete s9 is not readily available, or if the determination of “**likely significant effect**” is inconclusive in s11, CCW will request that the Agency complete an Appropriate Assessment in line with Conservation (Natural Habitats, &c) Regulations 1994 Reg48 (1).



ASiantaeth YR  
AMGYLCHEDD CYMRU  
ENVIRONMENT  
AGENCY WALES

CONSENT NO. CG0078101

**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 Cyf.  
Pentwyn Road  
Nelson  
Treharris  
Mid Glamorgan CF46 6LY

COPY

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:

Secondary treated sewage effluent incorporating the requirements of the Urban Waste Water Treatment Regulations (UWWTR) 1994  
with respect to Consent No. CG0078101 issued on the 29<sup>th</sup> August 1981

**FROM: LLANFAGLAN WASTEWATER TREATMENT WORKS**

**AT: LLANFAGLAN, CAERNARFON, GWYNEDD LL54 5RB**

**TO: THE AFON GWYRFAI**

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

Secondary Treated Sewage Effluent

Schedule No. CG0078101 01

UWWT Regulations 1994

Schedule No. CG0078101 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 alters 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 1<sup>st</sup> day of March 2004  
This variation of consent takes effect on the 31<sup>st</sup> day of March 2004

Signed.....

**IWAN THOMAS**

Environment Management Team Leader

Asiantaeth yr Amgylchedd Cymru  
Ffordd Penlan, Bangor, Gwynedd. LL57 4DE. Ffôn 01248 670770, Ffacs 01248 670561

Environment Agency Wales  
Ffordd Penlan, Bangor, Gwynedd. LL57 4DE. Tel 01248 670770, Fax 01248 670561





<b>CONSENT NO.</b>	<b>CG0078101</b>
<b>SCHEDULE NO.</b>	<b>CG0078101 01</b>
<b>DATE ISSUED</b>	<b>1<sup>st</sup> March 2004</b>

## CONDITIONS OF CONSENT TO DISCHARGE

**Secondary Treated Sewage Effluent (“the Discharge”)**

**FROM: Llanfaglan Wastewater Treatment Works, Llanfaglan, Caernarfan,  
Gwynedd LL54 5RB.**

### NATURE

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

### LOCATION

2. The Discharge shall be made in the manner and at the place specified as:
  - (a) discharging via a 15 inch diameter pipe;
  - (b) discharging to the Afon Gwyrfai;
  - (c) at National Grid Reference SH 46626 59370;
  - (d) shown marked ‘Consent Point’ on Plan CG0078101 attached as Annex 3.

### SAMPLE POINT

3. An appropriately labelled sample point shall be provided and maintained at National Grid Reference SH 46715 59403, as shown marked ‘Discharge Sample point’ on the Plan CG0078101 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.





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## VOLUME

4. The volume of the Discharge shall not exceed 4233.6 cubic metres per day.
5. The Dry Weather Flow of the Discharge shall not exceed 1305.5 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 49 litres per second.

## 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 by 31<sup>st</sup> March 2005 and operated to record the daily volume and instantaneous flow of sewage through the treatment works.
8. As soon as practicable after completion of the flow recorder 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, to the satisfaction of the Agency, specifying procedures for the calibration, operation and maintenance of the flow recorder. The flow recorder 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.





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11. The Consent Holder shall record all failures of the continuous flow recorder 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 of the discharge shall be measured at NGR SH 46821 59487, or such other point(s) as is/are agreed by the Agency.

### COMPOSITION

13. (a) Subject to paragraph (b) below, the Discharge shall not contain more than;
  - (i) 25 milligrammes per litre of biochemical oxygen demand (measured after 5 days at 20 °C with nitrification suppressed by the addition of allyl-thiourea)
  - (ii) 35 milligrammes per litre of suspended solids (measured after drying at 105 °C);
  - (iii) 15 milligrams per litre of ammoniacal nitrogen (expressed as N)
- (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.





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14. The Discharge shall not contain more than:
- (a) 60 milligrammes per litre of biochemical oxygen demand (measured after 5 days at 20°C with nitrification suppressed by the addition of allyl-thiourea);
  - (b) 70 milligrammes per litre of suspended solids (measured after drying at 105°C).
  - (c) 44 milligrams per litre of ammoniacal nitrogen (expressed as N).

#### WORKS OPERATION

15. The works shall be operated and the effluent shall be treated in a manner which, so far as reasonably 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 Conditions 13 and 14 than is required by those conditions;
- (b) any alteration of the works or a change in the type of treatment used.

#### UNUSUAL WEATHER

16. (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 conditions 13, 14 and 15 of this consent schedule have been complied with.





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- (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 affect.
- (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

17. (a) The Consent Holder shall establish and operate a documented maintenance programme 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.





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18. 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 environment occurs, that may increase or introduce into the effluent any "dangerous substance" (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**

19. (a) 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.
- (b) A discharge of trade effluent into the works is new if -
- (i) 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
  - (ii) it is made by a third party and the discharge is authorised on or after that date.
- (c) A discharge of trade effluent into the works is altered if -
- (i) it is made by the sewerage undertaker and its composition or quantity changes significantly on or after date of variation of this consent ; or
  - (ii) it is made by a third party and the alteration of the discharge is authorised on or after that date.
- (d) 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 characteristics of the discharge which are specifically regulated by conditions 13 and 14 of this consent schedule but it may be significant if it is caused by a change in some other characteristic of the discharge.





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- (e) For the purposes of this condition "trade effluent" means -
- (i) any discharge by the sewerage undertaker other than
    - (1) domestic sewage from premises connected directly or indirectly to the works; or
    - (2) surface water run-off;
  - (ii) 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 DISCHARGE

20. (a) 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.
- (b) 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.
- (c) 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.

#### START DATE

21. There shall be no discharge under the terms of this consent until the 31<sup>st</sup> March 2004 or the end of commissioning of the works whichever is the sooner. The Consent Holder shall give the Agency at least 28 days written notice before making the discharge.





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<b>DATE ISSUED</b>	<b>1<sup>st</sup> March 2004</b>

### **CONDITIONS OF CONSENT TO DISCHARGE**

#### **Urban Waste Water Treatment Regulations 1994 ("the Discharge")**

#### **FROM: Llanfaglan Wastewater Treatment Works**

- 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 and U2 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 between 2,000 and 10,000, 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(1) and shall satisfy the relevant requirements of Part I of Schedule 3.
- U2** (a) The Consent Holder shall provide apparatus for the purpose of:
- (i) measuring or recording the volume, rate of flow, nature, composition or temperature, and
  - (ii) collecting samples of any waste water, as is necessary to ensure compliance with paragraph (b) below.
- (b) The Consent Holder shall monitor the Discharge to verify compliance with the requirements of condition U1(c) above in accordance with control procedures as set out in Part II of Schedule 3.
- (c) The Consent Holder shall provide to the Agency any information collected in complying with paragraph (b) above in a manner agreed with the Agency.





1	4-7
2	8-16
3	17-28
4	29-40
5	41-53
6	54-67
7	68-81
8	82-95
9	96-110
10	111-125
11	126-140
12	141-155
13	156-171
14	172-187
15	188-203
16	204-219
17	220-235
18	236-251
19	252-268
20	269-284
21	285-300
22	301-317
23	318-334
24	335-350
25	351-365

Maximum number of samples permitted to exceed limit for given determinand

Column 2

Number of samples taken in any period of 12 months

Column 1

ANNEX 1  
TABLE

CG0078101	CONSENT NO.
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CONSENT NO.	CG0078101
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ASIANTAETH YR  
AMGYLCHEDD CYMRU  
ENVIRONMENT  
AGENCY WALES

## ANNEX 2

- |  |                              |
|--|------------------------------|
| 1. Mercury and its compounds   | 2. Cadmium and its compounds |
| 3. Hexachlorocyclohexane<br>(lindane and related compounds)            | 4. Carbon tetrachloride      |
| 5. DDT (the isomers of 1,1,1-trichloro-2,2 bis{p-chlorophenyl} ethane) |                              |
| 6. Pentachlorophenol (PCP)   | 7. Aldrin                    |
| 8. Dieldrin  | 9. Endrin                    |
| 10. Isodrin  | 11. Hexachlorobenzene (HCB)  |
| 12. Hexachlorobutadiene (HCBd)   | 13. Chloroform               |
| 14. Polychlorinated biphenyls  | 15. Dichlorvos               |
| 16. 1,2-Dichloroethane   | 17. Trichlorobenzene         |
| 18. Atrazine   | 19. Simazine                 |
| 20. Tributyltin compounds  | 21. Triphenyltin compounds   |
| 22. Trifluralin  | 23. Fenitrothion             |
| 24. Azinphos-methyl  | 25. Malathion                |
| 26. Endosulfan   | 27. Lead                     |
| 28. Chromium   | 29. Zinc                     |
| 30. Copper   | 31. Nickel                   |
| 32. Arsenic  | 33. *Iron                    |
| 34. *pH if outside the range 5.5 to 9.0                                | 35. *Boron                   |
| 36. Vanadium   | 37. PCSD'S                   |
| 38. Cyfluthrin   | 39. Sulcofuron               |
| 40. Flucofuron   | 41. Permethrin               |
| 42. 4-Chloro-3-methyl-phenol   | 43. 2-Chlorophenol           |
| 44. 2,4-Dichlorophenol   | 45. 2,4-D (ester)            |
| 46. 2,4-D (non ester)  | 47. 1,1,1-Trichloroethane    |
| 48. 1,1,2-Trichloroethane  | 49. Bentazone                |
| 50. Benzene  | 51. Biphenyl                 |
| 52. Chloronitrotoluenes  | 53. Demeton                  |
| 54. Dimethoate   | 55. Linuron                  |
| 56. MCPA   | 57. Mecoprop                 |
| 58. Mevinphos  | 59. Napthalene               |
| 60. Omethoate  | 61. Toluene                  |
| 62. Triazophos   | 63. Xylene                   |
| 64. Cyanide  | 65. Azinphos-ethyl           |
| 66. Fenthion   | 67. Parathion                |
| 68. Parathion-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. Chlorfenvinphos  | 79. Chlorotoluron            |
| 80. Isoproturon  | 81. Diuron                   |
| 82. Propetamphos   | 83. Flumethrin               |
| 84. Amitraz  | 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.

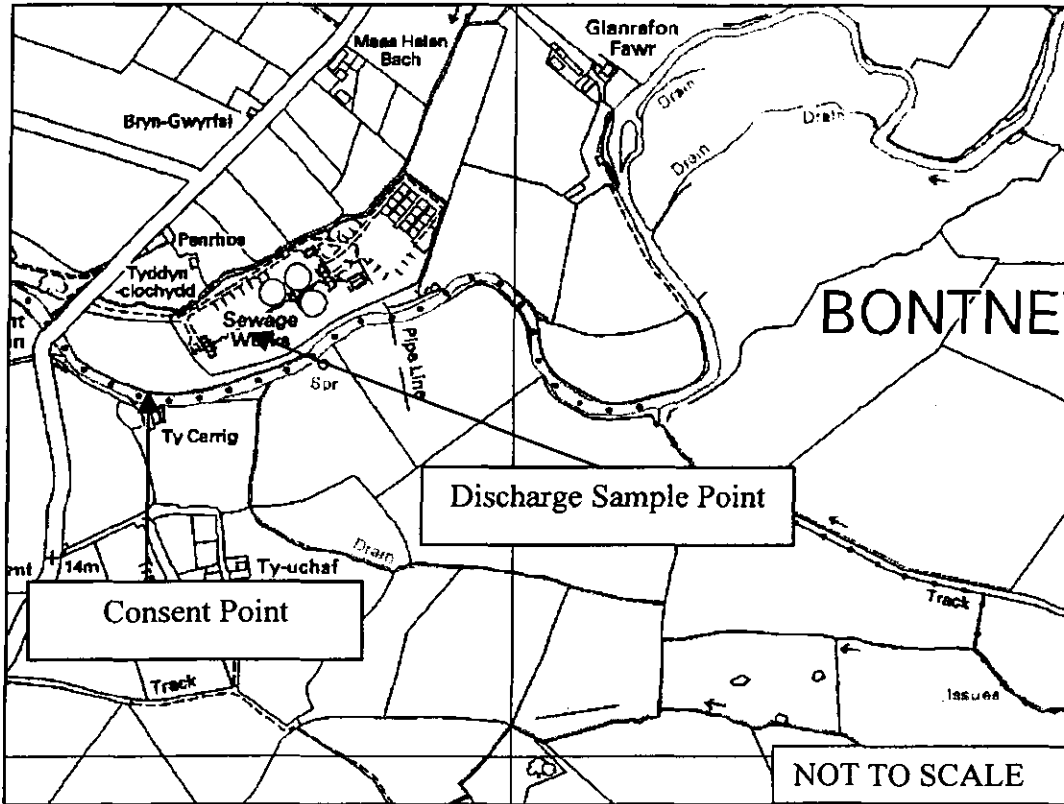




CONSENT NO.	CG0078101
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**ANNEX 3**

**Plan CG0078101**

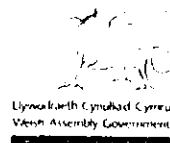


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# Cyngor Cefn Gwlad Cymru Countryside Council for Wales



CADEIRYDD/CHAIRMAN: JOHN LLOYD JONES OBE PRIF WEITHREDWR/CHIEF EXECUTIVE: ROGER THOMAS

Anfonwch eich ateb at/Please reply to:

Dr Kate Smith

Ffon/Tel: 01248 672500 Ffacs/Fax: 01248 679259

Ebostr/Email: k.smith@ccw.gov.uk

North West Area Office

Llys y Bont

Parc Menai

Bangor

Gwynedd

LL57 4BH

Kelvin Graham  
Team Leader Customer Contact & Authorisations  
Environment Agency Wales  
Chester Road  
Buckley  
Flintshire  
CH7 3AJ

26 2004  
Ein cyf/Our ref: KS/SH57.100.14  
Eich cyf/Your ref: DR/RP/CG0078101

COPY

23<sup>rd</sup> January 2004

Dear Kelvin

**WATER RESOURCES ACT 1991, SCHEDULE 10 (AS AMENDED BY THE ENVIRONMENT ACT 1995): FORMAL CONSULTATION. APPLICATION FOR CONSENT TO DISCHARGE SEWAGE EFFLUENT UNDER STORM OR EMERGENCY CONDITIONS BY DWR CYMRU CYF FROM LLANFAGLAN STW, LLANFAGLAN, CAERNARFON, GWYNEDD, LL54 5RB. APPLICATION NO: CG0078101**

Thank you for sending us a copy of the application for the above discharge consent including the Appendix 11.

We do not envisage any significant impact on the features of the Menai Strait and Conwy Bay candidate Special Area of Conservation.

Yours sincerely

**Kate Smith**  
**Marine Conservation Officer**  
**North West Area**

**Gofalu am natur Cymru - ar y tir ac yn y môr**  
**Caring for our natural heritage - on land and in the sea**

## APPENDIX 11

### Form HR01: Proforma for new applications within Stage 2 criteria.



**ENVIRONMENT  
AGENCY**

**Environment Agency Record of Assessment of Likely Significant Effect On A European Site (Stage 2)**

The new application for a please fill in details detailed below is within the Stage 1 criteria of please fill in details, and in order to progress the application a Stage 2 assessment and consultation with EN/CCW is required.

#### **PART A**

To be completed by relevant technical/project officer in consultation with Conservation/Ecology section and EN/CCW

<b>1. Type of permission/activity:</b>	Water Resources Act (1991) (as amended by Environment Act 1995) consent to discharge
<b>2. Agency reference no:</b>	CG0078101
<b>3. National Grid reference:</b>	SH 46626 59370
<b>4. Site reference:</b>	Llanfaglan STW Llanfaglan Caernarfon Gwynedd LL54 5RB
<b>5. Brief description of proposal:</b>	Variation to improve the existing works to include, installation of a new 6mm partical size screen, installation of a new humus settlement tank, and provide a recirculation facility for the biological filters
<b>6. European site name(s) and status:</b>	Y Fenai a Bae Conwy / Menai Strait and Conwy Bay cSAC, UK  Afon Gwyfai cSAC/SSSI  Y Foryd SSSI
<b>7. List of interest features:</b>	2.5 Anadromous fish  2.11 Coastal plants  1.3 Riverine habitats  2.9 Mammals of riverine habitats  2.6 Non-migratory fish and invertebrates of rivers  1.12 - Estuarine and intertidal habitats  1.13 - Submerged marine habitats

8	Is the proposal directly connected with or necessary to the management of the site for nature conservation?	No						
9.	What potential hazards are likely to affect the interest features? (Refer to relevant sensitivity matrix and only include those to which the interest features are sensitive). Are the interest features potentially exposed to the hazard?							
<table border="1"> <thead> <tr> <th data-bbox="225 533 890 754">Sensitive Interest Feature:</th> <th data-bbox="890 533 1161 754">Potential hazard:</th> <th data-bbox="1161 533 1428 754">Potential exposure to hazard and mechanism of effect/impact if known:</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>			Sensitive Interest Feature:	Potential hazard:	Potential exposure to hazard and mechanism of effect/impact if known:			
Sensitive Interest Feature:	Potential hazard:	Potential exposure to hazard and mechanism of effect/impact if known:						

<p><b><u>1.12 Estuarine and intertidal habitats</u></b> Mudflats and sandflats not covered by sea water at low tide</p>	<p>A, b, d, e, f, g, h</p>	
<p><b><u>1.13 Submerged marine habitats</u></b> Large shallow inlets and bays Reefs Sandbanks that are slightly covered by sea water all the time Submerged or partly submerged sea caves</p>	<p>A, b, d, e, g, h</p>	
<p><b><u>2.5 Anadromous fish</u></b> Atlantic salmon</p>	<p>A, b, c, d, e, g, h</p>	
<p><b><u>2.11 Coastal plants</u></b> Floating water plantain</p>	<p>N/a</p>	
<p><b><u>1.3 Riverine habitats</u></b> <b><u>Floating vegetation of Ranunculus of plain and submountainous rivers</u></b> Oligotrophic waters containing very few minerals of Atlantic sandy plains with amphibious vegetation</p>	<p>A, b, c, d, e, f, g, h</p>	
<p><b><u>2.9 Mammals of riverine habitats</u></b> Otter</p>	<p>A, b, c, d, e, g, h</p>	
<p><b><u>2.6 Non-migratory fish and invertebrates of rivers</u></b> River lamprey</p>	<p>A, b, c, d, e, g, h</p>	
<p>Key: -  A - Toxic contamination B - Nutrient enrichment C - pH changes D - Changes in salinity regime E - Changes to thermal regime F - Physical damage G - Turbidity H - Siltation</p>		

<p><b>10. Is the potential scale or magnitude of any effect likely to be significant?</b></p>	
<p><b>a) Alone?</b> (explain conclusion, e.g. in relation to de minimus criteria)</p>	<p>No</p>
<p><b>b) In combination with other plans or projects?</b> (Explain conclusion and which plans/projects have been included, including those associated with other functions)</p>	<p>No</p>

<p>11. <b>Conclusion:</b> Is the proposal likely to have a significant effect 'alone or in combination' on a European site? (justification - attach any relevant supporting information)</p>	No - this is an existing discharge	
12. <b>Name of EA Officer:</b>	Karen Owen (Ext 4584)	Date: 23/12/03
13. <b>EN/CCW comment on assessment:</b>	CCW do not think it likely that this proposal will have a significant impact on the features of the Menai Strait and Conwy Bay Candidate Special Area of Conservation.	
14. <b>Name of EN/CCW Officer:</b>	Katali	Date: 23rd January 2004
<p><b>IF THE PROPOSAL IS LIKELY TO HAVE A SIGNIFICANT EFFECT AN APPROPRIATE ASSESSMENT WILL BE REQUIRED</b> (see part B for suggested scope).</p>		

**Part B - SUGGESTED SCOPE OF THE APPROPRIATE ASSESSMENT**

•

15. EN/CCW Comment on scope of appropriate assessment:

~~11/1/00~~

16. Name of EN/CCW Officer:

Date:

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 :

**LLANFAGLAN SEWAGE TREATMENT WORKS**

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

**THE EXISTING OUTLET** is to : the Afon Gwyrfai  
 at National Grid Reference : SH 4663 5938  
 and has been shown marked : Discharge Point  
 on the attached Plan, No. : RW/0390/1/1

**THE PREVIOUS CONSENT** was : The Variation of Consent Reference No. -  
 granted on : 29th April 1970  
 by : Gwynedd River Authority  
 to : Gwyrfai Rural District Council

The Authority submitted this Notification of Variation on : 29th May 1981 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 : 29th August 1981

**CONDITIONS**

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

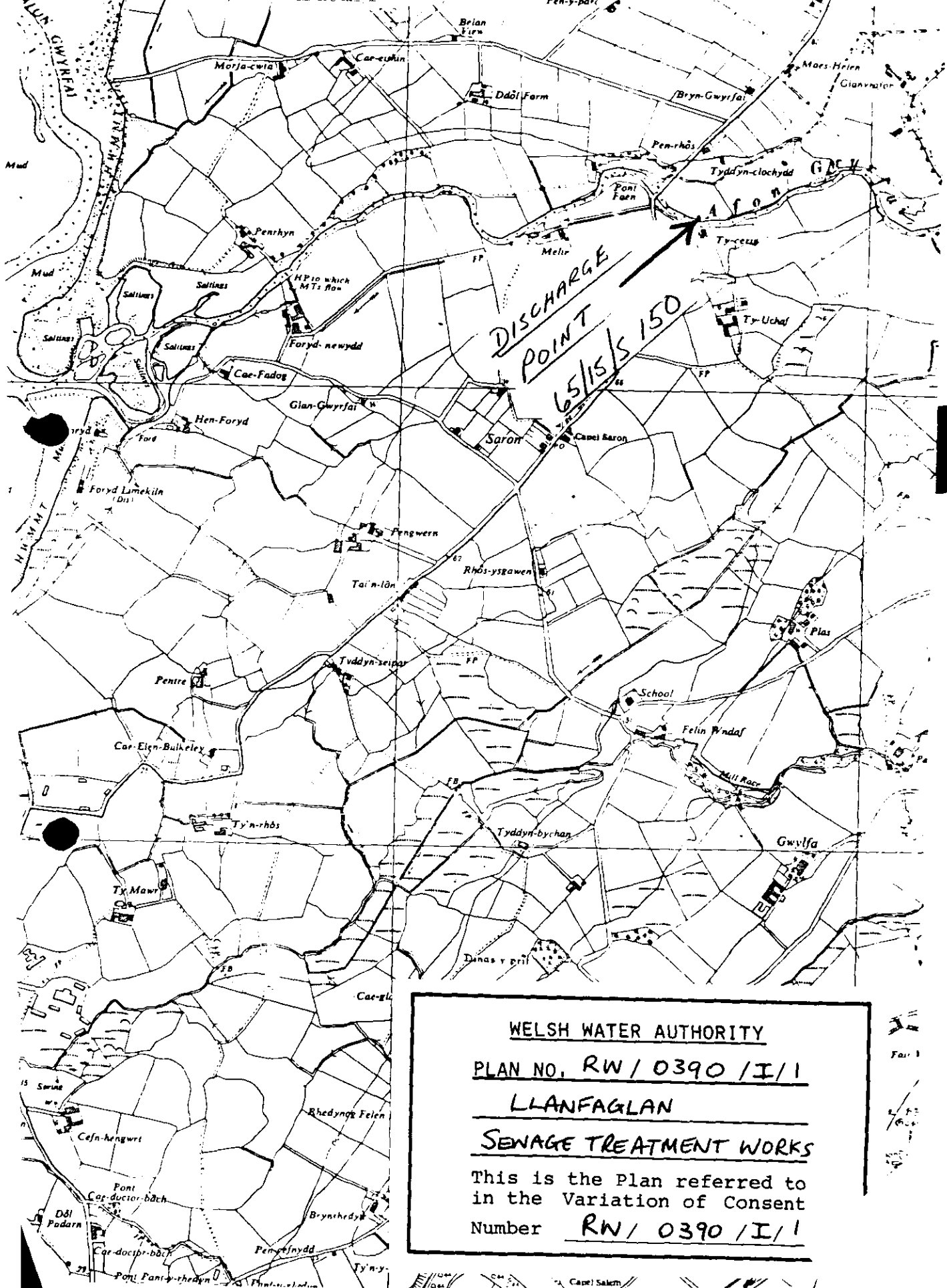
<u>Determinand</u>	<u>Value</u>	<u>Unit</u>
Biochemical Oxygen Demand (+ATU) over 5 days at 20°C	34	milligrams per litre
Suspended Solids dried at 105°C	41	milligrams per litre
Rate of discharge	36.2	litres per second
Volume during any period of 24 consecutive hours	3120	cubic metres
Volume discharged under 'dry weather conditions' during any period of 24 consecutive hours	780	cubic metres
- Adequate facilities shall be provided for the taking of samples of the effluent at: the outlet to the Afon Gwyrfai

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 Twenty-ninth day of August 19 83.

This Notification is Issued by the Directorate of Scientific Services, Headquarters,

4774 LHN S.I.W.  
DSCR. SH. 46635938

Y TREATED SEWAGE EFFLUENT




WELSH WATER AUTHORITY  
PLAN NO. RW / 0390 / I / 1  
LLANFAGLAN  
SEWAGE TREATMENT WORKS  
This is the Plan referred to  
in the Variation of Consent  
Number RW / 0390 / I / 1

Far 1  
1/2  
1/4

Capel Salem

# COPY

<b>APPENDIX 11</b> <b>Form HR01: Proforma for new applications within Stage 2 criteria.</b>		 <b>ENVIRONMENT AGENCY</b>
<p>Environment Agency Record of Assessment of Likely Significant Effect On A European Site (Stage 2)</p> <p>The new application for a please fill in details detailed below is within the Stage I criteria of please fill in details, and in order to progress the application a Stage 2 assessment and consultation with EN/CCW is required.</p>		
<p><b>PART A</b>            To be completed by relevant technical/project officer in consultation with Conservation/Ecology section and EN/CCW</p>		
1. Type of permission/activity:	Water Resources Act (1991) (as amended by Environment Act 1995) consent to discharge	
2. Agency reference no:	CG0078101	
3. National Grid reference:	SH 46626 59370	
4. Site reference:	Llanfaglan Sewage Treatment Works Llanfaglan Caernarfon Gwynedd LL54 5RB	
5. Brief description of proposal:	An application to discharge: 4233.6m <sup>3</sup> per day into the Afon Gwyrfai	
6. European site name(s) and status:	Afon Gwyrfai cSAC/ SSSI UK0030046 Y Fenai a Bae Conwy cSAC UK 0030202 Y Foryd SSSI	
7. List of interest features:	1.3 Riverine Habitats and Running Waters 1.4 Standing Waters Sensitive to acidification 2.1 Vascular Plants of Aquatic habitats 2.5 Anadromous Fish 2.9 Mammals of Riverine Habitats 1.12 Estuarine and Intertidal Habitats 1.13 Submerged Marine Habitats	
8. Is the proposal directly connected with or necessary to the management of the site for nature conservation?	No	
9.	<b>What potential hazards are likely to affect the interest features? (Refer to relevant sensitivity matrix and only include those to which the interest features are sensitive). Are the interest features potentially exposed to the hazard?</b>	

Sensitive Interest Feature:	Potential hazard:	Potential exposure to hazard and mechanism of effect/impact if known:
<p><b><u>1.3 Riverine Habitats and Running Waters</u></b>                      Floating vegetation of ranunculus of plain and submountainous rivers</p>	<p>A, b, c, d, e, f, g, h</p>	
<p><b><u>1.4 Standing waters sensitive to acidification</u></b>                      Oligotrophic waters containing very few minerals of Atlantic sandy plains with amphibious vegetation: Lobelia, Littorella and Isoetes</p>	<p>A, b, c, d, e, g, h</p>	
<p><b><u>2.1 Vascular plants of Aquatic Habitats</u></b>                      Floating Water Plantain</p>	<p>A, b, c, d, e, f, g, h</p>	
<p><b><u>2.5 Anadromous Fish</u></b>                      Atlantic Salmon</p>	<p>A, b, c, d, e, g, h</p>	
<p><b><u>2.9 Mammals of Riverine Habitats</u></b>                      Otter</p>	<p>A, b, c, d, e, g, h,</p>	
<p><b><u>1.12 Estuarine and Intertidal Habitats</u></b>                      Large shallow inlets and bays                      Mudflats and sandflats not covered by seawater at low tide</p>	<p>A, b, d, e, f, g, h</p>	
<p><b><u>1.13 Submerged Marine Habitats</u></b>                      Reefs                      Sandbanks that are slightly covered by sea water all the time                      Submerged or partly submerged sea caves</p>	<p>A, b, d, e, g, h</p>	
<p><b><u>Key:</u></b>                       A – Toxic Contamination                      B – Nutrient Enrichment                      C – pH Changes                      D – Changes in Salinity regime                      E – Changes in thermal regime                      F – Physical Damage                      G – Turbidity                      H - Siltation</p>		

<p><b>10. Is the potential scale or magnitude of any effect likely to be significant?</b></p>	
<p><b>a) Alone?</b>                      (explain conclusion, e.g. in relation to de minimus criteria)</p>	<p>No – See Point 11</p>

<p><b>b) In combination with other plans or projects?</b> (Explain conclusion and which plans/projects have been included, including those associated with other functions).</p>	No – See Point 11	
<p><b>11. Conclusion:</b> <b>Is the proposal likely to have a significant effect 'alone or in combination' on a European site?</b> (Justification – attach any relevant supporting information)</p>	<p>No – Operational improvements have been undertaken at Llanfaglan WwTW to meet legislative requirements.</p> <p>These improvements include the installation of a 6mm-particle size screen, to protect the treatment process and the installation of a new humus settlement tank, which will improve the quality of the final effluent.</p> <p>These improvements will enhance the performance of the works allowing the treatment process to achieve the tighter indicative consent standards set for the works treated effluent</p> <p>Therefore it is anticipated that the discharge from these works will have little impact upon the designated sites.</p>	
<p><b>12. Name of EA Officer:</b></p>	Charlotte Lloyd	<b>Date:</b> 08 / 01 / 04
<p><b>13. EN/CCW comment on assessment:</b></p>		
<p><b>14. Name of EN/CCW Officer:</b></p>		<b>Date:</b>
<p><b>IF THE PROPOSAL IS LIKELY TO HAVE A SIGNIFICANT EFFECT AN APPROPRIATE ASSESSMENT WILL BE REQUIRED (see part B for suggested scope).</b></p>		

**Part B - SUGGESTED SCOPE OF THE APPROPRIATE ASSESSMENT**

- 

**15. EN/CCW Comment on scope of appropriate assessment:**

**16. Name of EN/CCW Officer:**

**Date:**



ASiantaeth YR  
AMGYLCHEDD CYMRU  
ENVIRONMENT  
AGENCY WALES

Eich cyf/Your ref.

Ein cyf/Our ref. DR/RP/CG0078101

Dyddiad/Date: 9<sup>th</sup> January 2004

Mr Andrew Dale  
CCW,  
NE Area Office,  
Victoria House,  
Governor St.,  
Mold,  
Flintshire, CH7 1EJ

COPY

Dear Mr Dale,

**WATER RESOURCES ACT 1991, SCHEDULE 10 (AS AMENDED BY THE ENVIRONMENT ACT 1995): FORMAL CONSULTATION. APPLICATION FOR CONSENT TO DISCHARGE SEWAGE EFFLUENT BY DWR CYMRU CYF FROM LLANFAGLAN SEWAGE TREATMENT WORKS, LLANFAGLAN, CAERNARFON, GWYNEDD, LL54 5RB  
APPLICATION NO: CG0078101**

I append a copy of the application for consent to discharge received from Dwr Cymru Cyf and Appendix 11. If you have any comments regarding this application could you please respond by 23<sup>rd</sup> January 2004.

Yours sincerely

**Kelvin Graham**  
**Team Leader Customer Contact & Authorisations**

Please ask for Ruth Prichard ext 4502

Asiantaeth yr Amgylchedd Cymru  
Ffordd Caer, Bwcle, Sir y Fflint CH7 3AJ  
Ffôn 01244 550124 Ffacs 01244 550144

Environment Agency Wales  
Chester Road, Buckley, Flintshire CH7 3AJ  
Tel 01244 550124 Fax 01244 550144





ASiantaeth YR  
AMGYLCHEDD CYMRU  
ENVIRONMENT  
AGENCY WALES

Eich cyf/Your ref.

Ein cyf/Our ref. DR/RP/CG0078101

Dyddiad/Date: 9<sup>th</sup> January 2004

Mr Euros Jones  
CCW,  
North West Area,  
Llys y Bont,  
Ffordd y Parc,  
Parc Menai,  
Bangor,  
Gwynedd, LL57 4BH

COPY

Dear Mr Jones,

**WATER RESOURCES ACT 1991, SCHEDULE 10 (AS AMENDED BY THE ENVIRONMENT ACT 1995): FORMAL CONSULTATION. APPLICATION FOR CONSENT TO DISCHARGE SEWAGE EFFLUENT BY DWR CYMRU CYF FROM LLANFAGLAN SEWAGE TREATMENT WORKS, LLANFAGLAN, CAERNARFON, GWYNEDD, LL54 5RB  
APPLICATION NO: CG0078101**

I append a copy of the application for consent to discharge received from Dwr Cymru Cyf and Appendix 11. If you have any comments regarding this application could you please respond by 23<sup>rd</sup> January 2004.

Yours sincerely

**Kelvin Graham**  
**Team Leader Customer Contact & Authorisations**


Please ask for Ruth Prichard ext 4502

Asiantaeth yr Amgylchedd Cymru  
Ffordd Caer, Bwcle, Sir y Fflint CH7 3AJ  
Ffôn 01244 550124 Ffacs 01244 550144

Environment Agency Wales  
Chester Road, Buckley, Flintshire CH7 3AJ  
Tel 01244 550124 Fax 01244 550144



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<b>APPENDIX 11</b> <b>Form HR01: Proforma for new applications within Stage 2 criteria.</b>		 <b>ENVIRONMENT AGENCY</b>
<p>Environment Agency Record of Assessment of Likely Significant Effect On A European Site (Stage 2)</p> <p>The new application for a please fill in details detailed below is within the Stage 1 criteria of please fill in details, and in order to progress the application a Stage 2 assessment and consultation with EN/CCW is required.</p>		
<p><b>PART A</b>            To be completed by relevant technical/project officer in consultation with Conservation/Ecology section and EN/CCW</p>		
1. Type of permission/activity:	Water Resources Act (1991) (as amended by Environment Act 1995) consent to discharge	
2. Agency reference no:	CG0078101	
3. National Grid reference:	SH 46626 59370	
4. Site reference:	Llanfaglan Sewage Treatment Works Llanfaglan Caernarfon Gwynedd LL54 5RB	
5. Brief description of proposal:	An application to discharge: 4233.6m <sup>3</sup> per day into the Afon Gwyrfai	
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8. Is the proposal directly connected with or necessary to the management of the site for nature conservation?	No	
9.	<b>What potential hazards are likely to affect the interest features? (Refer to relevant sensitivity matrix and only include those to which the interest features are sensitive). Are the interest features potentially exposed to the hazard?</b>	

Sensitive Interest Feature:	Potential hazard:	Potential exposure to hazard and mechanism of effect/impact if known:
<b>1.3 Riverine Habitats and Running Waters</b> Floating vegetation of ranunculus of plain and submountainous rivers	A, b, c, d, e, f, g, h	
<b>1.4 Standing waters sensitive to acidification</b> Oligotrophic waters containing very few minerals of Atlantic sandy plains with amphibious vegetation: Lobelia, Littorella and Isoetes	A, b, c, d, e, g, h	
<b>2.1 Vascular plants of Aquatic Habitats</b> Floating Water Plantain	A, b, c, d, e, f, g, h	
<b>2.5 Anadromous Fish</b> Atlantic Salmon	A, b, c, d, e, g, h	
<b>2.9 Mammals of Riverine Habitats</b> Otter	A, b, c, d, e, g, h,	
<b>1.12 Estuarine and Intertidal Habitats</b> Large shallow inlets and bays Mudflats and sandflats not covered by seawater at low tide	A, b, d, e, f, g, h	
<b>1.13 Submerged Marine Habitats</b> Reefs Sandbanks that are slightly covered by sea water all the time Submerged or partly submerged sea caves	A, b, d, e, g, h	
<b>Key:</b>  A – Toxic Contamination B – Nutrient Enrichment C – pH Changes D – Changes in Salinity regime E – Changes in thermal regime F – Physical Damage G – Turbidity H - Siltation		

<b>10. Is the potential scale or magnitude of any effect likely to be significant?</b>	
<b>a) Alone?</b> (explain conclusion, e.g. in relation to de minimus criteria)	No – See Point 11

<p><b>b) In combination with other plans or projects?</b> (Explain conclusion and which plans/projects have been included, including those associated with other functions).</p>	No – See Point 11	
<p><b>11. Conclusion:</b> <b>Is the proposal likely to have a significant effect 'alone or in combination' on a European site?</b> (justification – attach any relevant supporting information)</p>	<p>No – Operational improvements have been undertaken at Llanfaglan WwTW to meet legislative requirements.</p> <p>These improvements include the installation of a 6mm-particle size screen, to protect the treatment process and the installation of a new humus settlement tank, which will improve the quality of the final effluent.</p> <p>These improvements will enhance the performance of the works allowing the treatment process to achieve the tighter indicative consent standards set for the works treated effluent</p> <p>Therefore it is anticipated that the discharge from these works will have little impact upon the designated sites.</p>	
<p><b>12. Name of EA Officer:</b></p>	Charlotte Lloyd	<b>Date:</b> 08 / 01 / 04
<p><b>13. EN/CCW comment on assessment:</b></p>	<p><i>See attached sheet for comments.</i></p>	
<p><b>14. Name of EN/CCW Officer:</b></p>	<i>Eurus Jones</i>	<b>Date:</b> 24/12/04
<p><b>IF THE PROPOSAL IS LIKELY TO HAVE A SIGNIFICANT EFFECT AN APPROPRIATE ASSESSMENT WILL BE REQUIRED (see part B for suggested scope).</b></p>		

**Part B - SUGGESTED SCOPE OF THE APPROPRIATE ASSESSMENT**

- 

**15. EN/CCW Comment on scope of appropriate assessment:**

**16. Name of EN/CCW Officer:**

**Date:**

**CCW comment on EA Appendix11 assessment for Llanfaglan STW.  
Agency ref : CG0078101**

CCW accept that improvements have been undertaken to improve the quality of the effluent entering Afon Gwyrfai a LlynCwellyn cSAC at Llanfaglan, and this is welcomed of course, but the case and conclusions in s11 of the form relate to the water treatment performance of the works; not the impact of the potential hazards identified in s9 on the condition of the cSAC features in the river and near-shore areas.

We are unclear as to how EA have arrived at the conclusion that this proposal will have no significant effect on the specified cSAC features; bearing in mind that the maximum daily volume of effluent flowing into the river is to be increased by 1,113.6 m<sup>3</sup>/d from a current maximum flow rate of 3120 m<sup>3</sup>/d.

Because of this CCW recommend that, as a first step, further ecological information should be considered by the Agency to determine if the cSAC features will be subjected to a “**likely significant effect**” as defined by Conservation (Natural Habitats, &c) Regulations 1994 Reg. 48(1)(a). CCW suggest that consideration of further ecological information should enable the completion of the column in s9 of the form titled “*potential exposure to hazard and mechanism of impact..*” The ecological implications of this information should then be explored in relation to the cSAC features in s11.

If the ecological information to complete s9 is not readily available, or if the determination of “**likely significant effect**” is inconclusive in s11, CCW will request that the Agency complete an Appropriate Assessment in line with Conservation (Natural Habitats, &c) Regulations 1994 Reg48 (1).



ASiantaeth YR  
AMGYLCHEDD CYMRU  
ENVIRONMENT  
AGENCY WALES

Ein cyf/Our ref. DR/RP/CG0078101

Dyddiad/Date: 24<sup>th</sup> May 2004

Tony Andrews  
Environment Quality Scientist  
Dwr Cymru Cyf  
Pentwyn Road  
Nelson, Treharris  
Mid Glamorgan  
CF46 6LY

COPY

Dear Sir,

**RE: WATER RESOURCES ACT 1991, SCHEDULE 10 (AS AMENDED BY THE ENVIRONMENT ACT 1995) MODIFICATION OF CONSENT TO DISCHARGE NO.CG0078101.**

Further to our recent correspondence concerning the consent to discharge sewage effluent from Llanfaglan Wastewater Treatment Works, I enclose the Agency's formal notice of the modifications made to the conditions of the consent.

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. A change in conditions may therefore result in a change in annual charge, you may therefore receive a revised bill in due course.

If you are not satisfied with the new conditions of the consent you may appeal against the decision to The National Assembly for Wales at Cathays Park, Cardiff CF10 3NQ.

Please take careful note that if the holder of the consent changes, you must inform the Agency IN WRITING as soon as possible of the name of the new holder. This is to ensure that the rights and charges associated with the Consent are transferred to the holder. A Certificate of Holder notice will be sent to you shortly which is designed for this purpose, and should be kept safely with the Consent until required.

Asiantaeth yr Amgylchedd Cymru  
Flordd Caer, Bwcle, Sir y Fflint CH7 3AJ  
Ffon 01244 550124 Ffacs 01244 550144

Environment Agency Wales  
Chester Road, Buckley, Flintshire CH7 3AJ  
Tel 01244 550124 Fax 01244 550144





**ASiantaeth yr  
AMGYLCHEDD CYMRU  
ENVIRONMENT  
AGENCY WALES**

If you have any queries regarding the enforcement of this consent, please do not hesitate to contact Iwan Thomas, Team Leader Environment Protection, Environment Agency Wales, Llwyn Brain, Ffordd Penlan, Parc Menai, Bangor, Gwynedd, LL57 4DE.

Yours sincerely,

**Kelvin Graham**  
**Team Leader Customer Contact & Authorisations**

**Asiantaeth yr Amgylchedd Cymru**  
Ffordd Caer, Bwcle, Sir y Fflint CH7 3AJ  
Ffon 01244 550124 Ffacs 01244 550144

**Environment Agency Wales**  
Chester Road, Buckley, Flintshire CH7 3AJ  
Tel 01244 550124 Fax 01244 550144





ASiantaeth YR  
AMGYLCHEDD CYMRU  
ENVIRONMENT  
AGENCY WALES

CONSENT NO.	CG0078101
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**ENVIRONMENT AGENCY  
WATER RESOURCES ACT 1991  
(As amended by the Environment Act 1995)**

**NOTICE OF MODIFICATION OF CONSENT TO DISCHARGE**

**TO:** Environment Quality Scientist  
Dŵr Cymru Cyf.  
Pentwyn Road, Nelson, Treharris  
Mid Glamorgan CF46 6LY

**WHEREAS** the Agency in pursuance of its powers under the Water Resources Act 1991 (as amended by the Environment Act 1995) **GRANTED CONSENT VARIATION** to the making of a discharge of **SEWAGE EFFLUENT** on the 1<sup>st</sup> day of March 2004

**FROM: Llanfaglan Wastewater Treatment Works**

the Agency in pursuance of its powers under the Water Resources Act 1991 (as amended by the Environment Act 1995) hereby **GIVES NOTICE** that **CONSENT CG0078101** is hereby modified as follows:

A discharge of secondary treated sewage effluent

**FROM: Llanfaglan Wastewater Treatment Works**

**AT: Llanfaglan, Caernarfon, Gwynedd LL54 5RB**

**TO: The Afon Gwyrfai**

**The conditions of Schedule 01 consent number CG0078101 dated 1<sup>st</sup> March 2004 are modified as detailed in this notice.**

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 alters the effect of modifications made by this notice, without the agreement in writing of the Consent Holder, during a period of 4 years from the date this notice is served.

Dated this 17<sup>th</sup> day of May 2004

Signed .....

**IWAN THOMAS**  
**Environment Management Team Leader**

Asiantaeth yr Amgylchedd Cymru  
Ffordd Penlan, Bangor, Gwynedd. LL57 4DE. Ffôn 01248 670770, Ffacs 01248 670561

Environment Agency Wales  
Ffordd Penlan, Bangor, Gwynedd. LL57 4DE. Tel 01248 670770, Fax 01248 670561





CONSENT NO.	CG0078101
SCHEDULE NO.	CG0078101 01
DATED	17 <sup>th</sup> May 2004

### Conditions to be modified

The effective date shall be modified by the addition of condition 21 to read as follows:

#### START DATE

Until discharge is permitted under the terms of this consent, the quality of the effluent from Llanfaglan Wastewater Treatment Works shall be controlled under the terms of the consent issued on 29<sup>th</sup> August 1981. There shall be no discharge under the terms of this consent until the 31<sup>st</sup> March 2005 or the end of commissioning of the works which ever is the sooner. The Consent Holder shall give the Agency at least 28 days written notice before making the discharge.

### Other conditions of the consent

All other conditions of the consent remain in force. Consent CG0078101 is updated accordingly.





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>  Discharge Consent Applications Environment Agency Wales Chester Road Buckley Flintshire CH7 3AJ	<i>Official Use Only</i> <i>Dist/Area Ref:</i>  <i>Application No.</i> C90078101  <i>Date Received:</i> 03/11/03  <i>Fee Received:</i> 03/11/03
---	--

Each applicant must complete the main form and may need to complete a separate annexe 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).

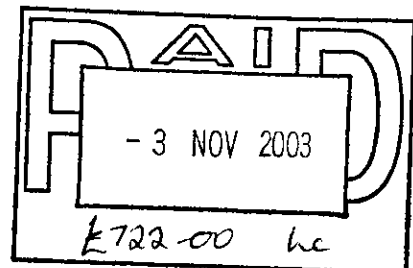
## 1 SITE ADDRESS

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

Llanfaglan Sewage Treatment Works  
Llanfaglan  
Caernarfon  
Gwynedd

Post Code:

LL54 5RB



**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 4233.6 m<sup>3</sup>/day

Briefly state how this figure was calculated (see note ii).

The works provides treatment for a residential population of 3921 @ 180 l.h<sup>-1</sup>.d<sup>-1</sup>, 406 residents in static caravans @ 180 l.h<sup>-1</sup>.d<sup>-1</sup> and 422 occupants in mobile caravans @ 120 l.h<sup>-1</sup>.d<sup>-1</sup> giving a maximum discharge flow of 2964.5 m<sup>3</sup>.d<sup>-1</sup> (34.3 l.s<sup>-1</sup>). Figure of 4233.6 m<sup>3</sup>.d<sup>-1</sup> (49 l.s<sup>-1</sup>) is pass forward flow into the works agreed for catchment modelling. The current consent figure for the works is 3120 m<sup>3</sup>.d<sup>-1</sup> (36.2 l.s<sup>-1</sup>).

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 <input checked="" type="checkbox"/> | 4. Borehole <input type="checkbox"/> | 7. Sub-Irrigation System <input type="checkbox"/>                 |
| 2. Channel <input type="checkbox"/>         | 5. Well <input type="checkbox"/>     | 8. Combination of 6 & 7 <input type="checkbox"/>                  |
| 3. Culvert <input type="checkbox"/>         | 6. Soakaway <input type="checkbox"/> | 9. Other ( <i>please specify below</i> ) <input type="checkbox"/> |

15 inch Dia pipe is existing

b) National Grid Reference(s) of point(s) of discharge (see note iii).

S	H	4	6	6	2	6	5	9	3	7	0
---	---	---	---	---	---	---	---	---	---	---	---

*(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	H	4	6	7	1	5	5	9	4	0	3
---	---	---	---	---	---	---	---	---	---	---	---

*(please indicate on accompanying plans)*

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

A Milltronics Hydroranger level transducer measures flow to treatment and gives a display at the works control panel

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

Works is a conventional primary settlement and biological filter works

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

2.6 a) On what date do you anticipate the discharge will commence?

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.

N/A for final effluent

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

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

Treated Sewage Effluent is discharged under Consent CG0078101 dated 29<sup>th</sup> August 1983

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

If yes, please give the reference number.

### 3 SITE DETAILS

3.1 Please give the name of the relevant Planning Authority.

Gwynedd Planning Authority

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

- |   |                          |                            |                                     |
|---|--------------------------|----------------------------|-------------------------------------|
| 1. Single Dwelling                      | <input type="checkbox"/> | 6. Fish Farm               | <input type="checkbox"/>            |
| 2. Multiple Dwellings                   | <input type="checkbox"/> | 7. Mineral Workings        | <input type="checkbox"/>            |
| 3. Industrial Premises                  | <input type="checkbox"/> | 8. Water Services plc STW  | <input checked="" type="checkbox"/> |
| 4. Vehicle Parking Area                 | <input type="checkbox"/> | 9. Water Supply            | <input type="checkbox"/>            |
| 5. Commercial Premises (please specify) | <input type="checkbox"/> | 10. Other (please specify) | <input type="checkbox"/>            |

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

- |  |                                     |   |                          |
|--|-------------------------------------|---|--------------------------|
| 1. Well                                      | <input type="checkbox"/>            | 5. River (please give name below)         | <input type="checkbox"/> |
| 2. Borehole                                  | <input type="checkbox"/>            | 6. Estuary (please give name below)       | <input type="checkbox"/> |
| 3. Precipitation (eg rain or snow)           | <input type="checkbox"/>            | 7. Coastal Water (please give name below) | <input type="checkbox"/> |
| 4. Mains (please state water supply company) | <input checked="" type="checkbox"/> |   |                          |

Dwr Cymru Welsh Water (DCWW)

#### 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) | <input type="checkbox"/>            | 5. Into Land                    | <input type="checkbox"/> |
| 2. River or Stream (non-tidal)             | <input checked="" type="checkbox"/> | 6. Onto Land                    | <input type="checkbox"/> |
| 3. Canal                                   | <input type="checkbox"/>            | 7. Directly into Groundwater    | <input type="checkbox"/> |
| 4. Lake, Lock or Pond                      | <input type="checkbox"/>            | 8. Coastal Water (see note vii) | <input type="checkbox"/> |

State name of receiving water if known:

Afon Gwyrfa

4.2 In the case of sub-irrigation systems, soakaways 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.  N/A m
- (e) For sub-irrigation systems, soakaway pits, wells and boreholes, state maximum depth in metres.  N/A m
- (f) For boreholes, state details of lining in metres:
- (i) Depth of lining  N/A m
- (ii) Depth of perforated lining  N/A m
- (iii) Depth of unperforated lining  N/A 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)?  Y/N

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

N/A

## 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 Cyf

\*Pentwyn Road

\*Nelson

\*Treharris

\*Mid Glamorgan

\*

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>J P Edwards</i>	PRINT NAME: <i>J P Edwards</i>
ON BEHALF OF: .....DWR CYMRU CYF.....	DATED: <i>30/10/03</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



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 Annexe 3 should also be completed).

*Official Use Only*  
Application No.

1. Site Name.

Llanfaglan Sewage Treatment Works

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

6 mm fine screening (duty/assist) for Soc "A" flow  
Primary Settlement Tanks. (4, pyramidal)  
Biological Filters. (3, stone media)  
Humus Settlement Tank (1, radial flow)

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.<br>(see note ii) in main guidance notes for population equivalents). | 4233.6 m <sup>3</sup> /d |
| b) Dry weather flow of discharge(s).  | 1305.5 m <sup>3</sup> /d |
| c) Average daily flow.  | 1631.9 m <sup>3</sup> /d |
| d) Maximum rate of discharge(s)   | 49 l/s                   |

4. Will there be provisions for storm/emergency discharges?  
If yes, please complete Annexe 2.

Y/N

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

Y/N

Operational monitoring of final effluent quality by United Utilities Operational Services

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

Y/N

N/A

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

The works provides treatment for a residential population of 3921 @ 180 l.h<sup>-1</sup>.d<sup>-1</sup>, 406 residents in static caravans @ 180 l.h<sup>-1</sup>.d<sup>-1</sup> and 422 occupants in mobile caravans @ 120 l.h<sup>-1</sup>.d<sup>-1</sup>

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

The absence of any significant holiday accommodation within the catchment precludes any significant increase in the population in summer months from the figures given in 6a

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

The catchment serves a largely rural district area including the villages of Bontnewydd and Llanfaglan with a Caravan park of permanent occupancy at Dinas Dinlle.

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

Works will be subject to operational maintenance contract with United Utilities Operational Services

8. Does the effluent contain a trade component?  Y/N

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

*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.*



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.

Llanfaglan Sewage Treatment Works

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

Y/N

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):

15 inch diameter pipe

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

£0.6 million

A new Humus Settlement Tank with desludging chamber replaces four existing undersized humus settlement tanks. In addition the biological filters are provided with recirculation facilities. The inlet macerator has been replaced by new duty/assist screens. These are essential improvements. No alternative options are recommended.

5. Is there any trade effluent component in the proposed discharge? No consented trade discharge

Y/N

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

Tick

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

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

**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  
**Only Annexe 1 applicable for Final Effluent Consent**

8. Please state:

Population served (head)	3921 residents (private houses), 406 occupants (static caravans), 422 occupants (mobile caravans)
Consumption (l/head/day) default = 180	180 (residents and occupants of static caravans), 120 (occupants of mobile caravans)
Infiltration (m <sup>3</sup> /day)	476.06
Industrial effluent flow (m <sup>3</sup> /day)	0
Dry Weather Flow (m <sup>3</sup> /day)	1305.5
Soc A (l/sec)	89.9
Predicted spill frequency (per annum)	Not Applicable for final effluent

**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.**

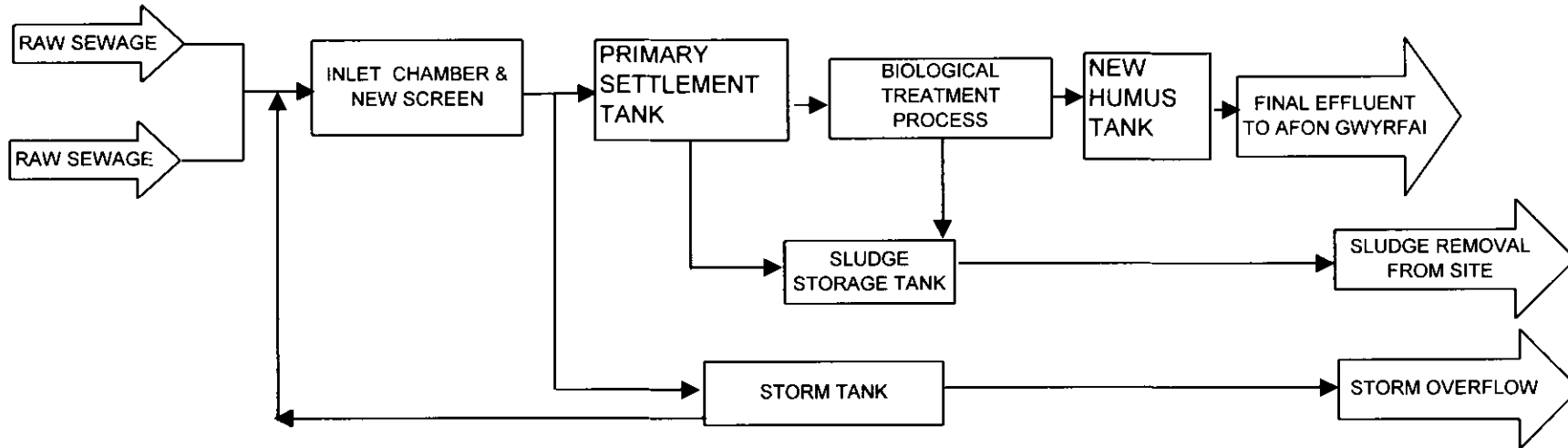
## Llanfaglan WwTW

Operational improvements have been undertaken at Llanfaglan WwTW to meet legislative requirements. These improvements include :-

1. Installation of a new 6mm particle size screen to protect the treatment process from potential blockages arising from ragging and gross solids entering the works
2. Installation of a new humus settlement tank designed to comply with recommended criteria limiting upflow velocity to  $1 \text{ m.h}^{-1}$  and providing 2 hours hydraulic retention in the tank. This promotes more efficient humus solids settlement in the tank and improves the quality of final effluent discharged to the river
3. Providing a recirculation facility for the biological filters which will sustain the biological treatment process by keeping the media surface constantly wetted.
4. Eliminating hydraulic restrictions from the treatment process to allow the required treatment flows to be passed through the works

These improvements will enhance the performance of the works allowing the treatment process to achieve the tighter indicative consent standards set for the works treated effluent.

# Llanfaglan Sewage Treatment Works - Process Flow Chart



## CRITICAL PROCESS INFORMATION

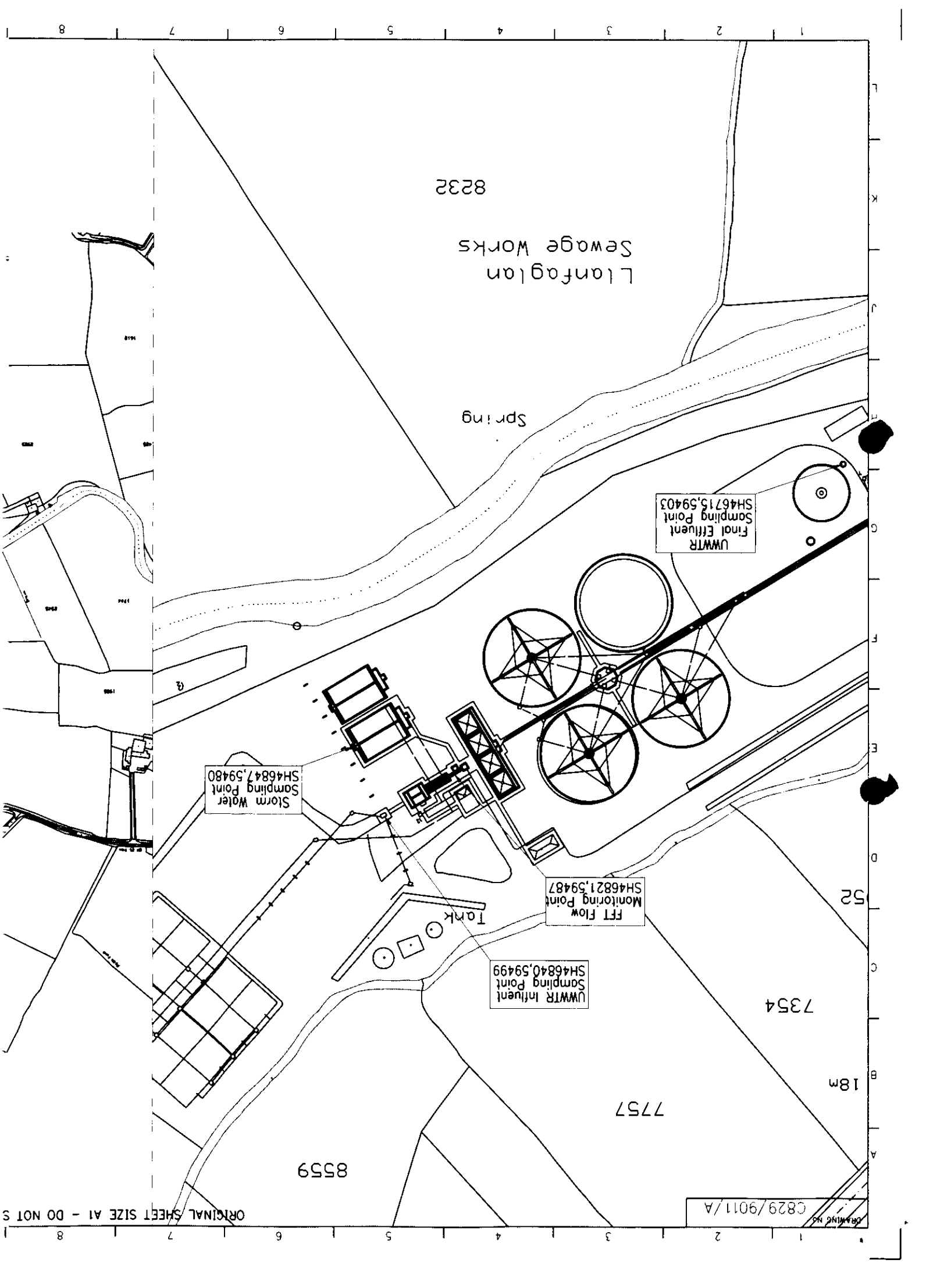
FORM 'A'	(l/s)	89.9
FFT	(l/s)	49
DWF	(l/s)	15.1
BOD Load	(kg/d)	246.7
SS Load	(kg/d)	263
PE RESIDENTS		3921
PE static caravans		406
PE tour caravans		422

## FINAL EFFLUENT/CONSENT INFO.

		INDICATIVE		
		CURRENT	lower tier	upper tier
S.S	(mg/l)	41	27	80
B.O.D	(mg/l)	34	18	54
Amm.N	(mg/l)	n/a	8	30
MAX VOL / 24HRS	(m <sup>3</sup> /d)	3120		
DRY WEATHER FLOW	(m <sup>3</sup> /d)	780		
RATE OF DISCHARGE	(l/s)	36.2		

## PROPOSED STORM FLOW CONSENT

FLOWS IN EXCESS OF 49l/s  
PASS TO STORM



8232

Llanfagan  
Sewage Works

Spring

UWWTR  
Final Effluent  
Sampling Point  
SH46715,59403

Storm Water  
Sampling Point  
SH46847,59480

FFT Flow  
Monitoring Point  
SH46821,59487

UWWTR Influent  
Sampling Point  
SH46840,59499

Tank

8559

7757

18m

7354

C829/9011/A  
DRAWING NO.

ORIGINAL SHEET SIZE A1 - DO NOT S

SEE PREVIOUS ISSUES FOR PAST REVISION DETAILS

REV	REVISION DESCRIPTION	DRAWN BY	CINGRAM
A			
		DATE	
DESIGN APPROVAL			
ELECTRICAL ENGINEER		PROCESS ENGINEER	
MECHANICAL ENGINEER		MANAGER APPROVAL	
GENERAL NOTES			

A

B

C

D

E

F

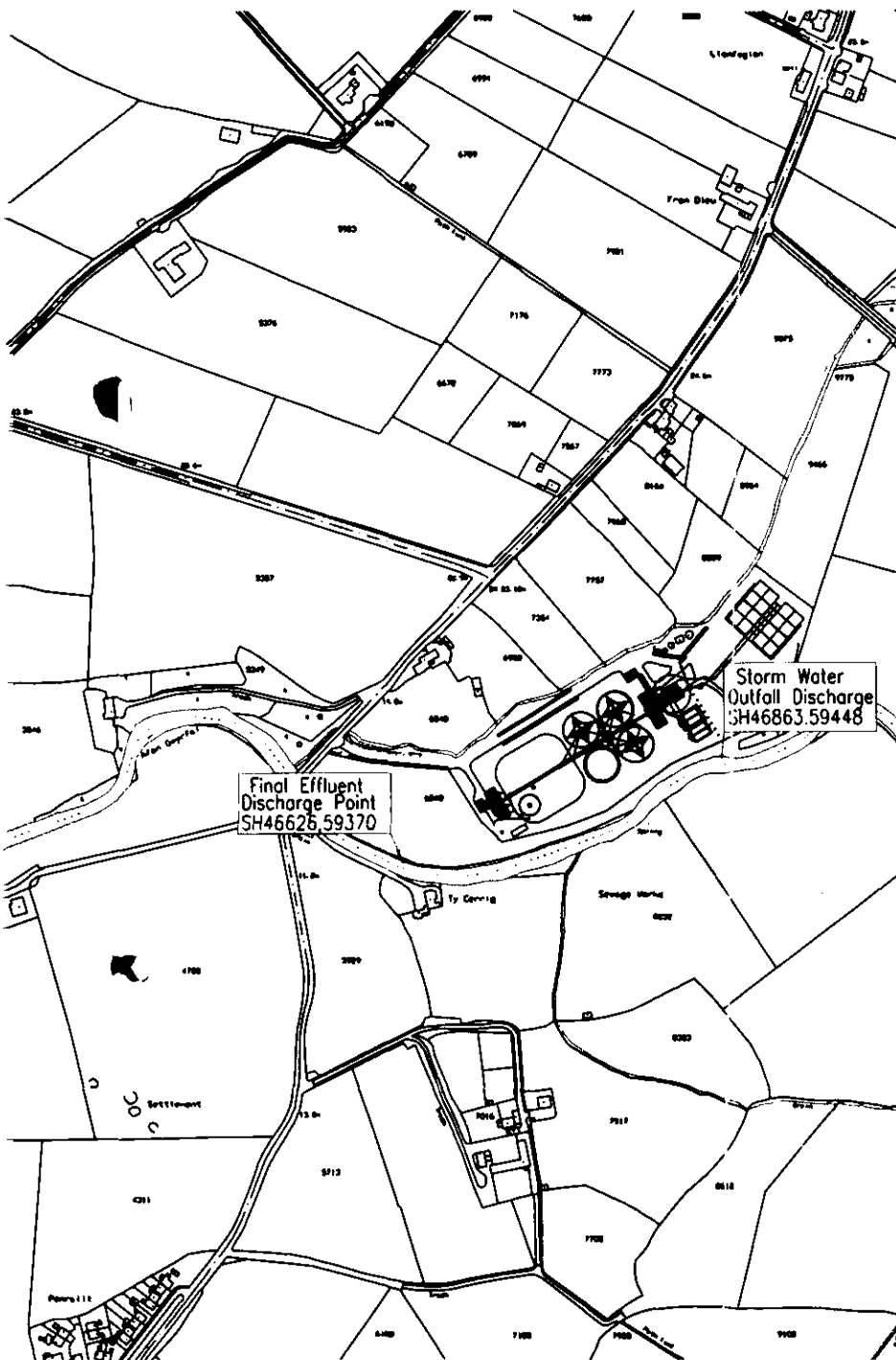
G

H

J

K

L



NEW DRAWING

<p>ALLIANCE CYNGHAIR</p>	<p>DWR CYMRU WELSH WATER</p>
------------------------------	----------------------------------

<p><b>MEICA</b> PROCESS LTD</p>	<p>17 Station Road, Four Ashes Wolverhampton, WV10 7DB Tel: 01902 731616 Fax: 01902 731772</p>
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CUSTOMER: DWR CYMRU WELSH WATER

PROJECT TITLE: LLANFAGLAN STW

TITLE: EA CONSENT APPLICATION

ORIGINAL ISSUE DRAWN BY: CIngram  
ORIGINAL ISSUE DATE:  
ORIGINAL ISSUE APPROVED BY:

ORGINO: C829/9011	SCALE: N.T.S.	REV: A
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DŴR CYMRU  
WELSH WATER

Welsh Water  
ALLIANCE



CYNGHRAIR  
Dŵr Cymru

# Improvements in Quality of Wastewater Treatment at Llanfaglan WwTW

## Supporting Data Report

October 2003

To be read in conjunction with Consent  
Application

## Table of Contents

- 1 INTRODUCTION
  - 1.1 Background
  - 1.2 Scope of Work
  
- 2. HYDRAULIC INFORMATION AND BASIS OF DESIGN
  - 2.1 Dry Weather Flow
  - 2.2 Population served
  - 2.3 Infiltration
  - 2.4 Trade effluent
  - 2.5 Catchment / Hydraulic Model
  - 2.6 Summary of flow conditions
  - 2.7 Comparison with current flow conditions
  
- 3. SCHEME DEFINITION
  - 3.1 Description of existing works
  - 3.2 Limitations of existing works
  - 3.3 Improvements to sewage treatment
  
- 4. DISCHARGE CONSENTS

### Appendices

- Derivation of Design flowrates
- H&M Environmental Flow and Load Survey Report (Extract)
- Process Flow Diagram
- Site layout and outfall location diagram (pdf file)

## List of Tables and Graphs

---

Table 1	Daily Influent and Flow to Treatment Flowrates and Daily Rainfall
Table 2	Daily Influent and Flow to Treatment Flowrates (peak and average values)
Table 3	Daily Crude influent Concentrations
Table 4	Daily Crude Influent Loads

Graph 1	Total Daily Influent Flow to Works over Survey Period
Graph 2	Diurnal Flow Wettest Day Day 22 <sup>nd</sup> May 2002
Graph 3	Diurnal Flow Dry Day 7 <sup>th</sup> June 2002

## 1 INTRODUCTION

### 1.1 Background

Llanfaglan WwTW is a conventional works with primary settlement tanks, biological filters and humus settlement tank discharging final effluent to the Afon Gwyrfa. Dwr Cymru Welsh Waters (DCWW) AMP 3 investment programme has made provision for improvements at the works to comply with more stringent discharge consents limits in Year 5. Current consent conditions and likely future consent conditions for final effluent are :-

	Current	Likely Future
BOD mg.l <sup>-1</sup>	34	25
SS mg.l <sup>-1</sup>	41	35

Sampling results over the period 1999 to 2001 indicate the works can achieve its likely future consent :-

	BOD mg.l <sup>-1</sup>	SS mg.l <sup>-1</sup>	Amm.N mg.l <sup>-1</sup>
Mean 29/01/99 - 03/12/01	11.2	14.7	3.6

However there have been two occasions when the works was noted to be out of compliance.

	BOD mg.l <sup>-1</sup>	SS mg.l <sup>-1</sup>
31/08/00	36	30
03/12/01	49.1	39

Analysis of the failure data pointed to the original rectangular hopper bottomed humus settlement tanks being undersized as the elevated BOD concentrations appeared to be mainly SS related. To minimise future risk of failure the works was upgraded in 2002 with a new radial flow humus settlement tank. To provide a basis for engineering design and improvement works a flow and load survey was commissioned and undertaken by H&M Environmental in May 2002 report dated July 2002.

### 1.2 Scope of Work

The improvements that have been made to the works are :-

1. Replacement of a macerator by new screens at the inlet to the works
2. Installation of a new 15m diameter humus settlement tank
3. Provision of recirculation facilities for the biological filters
4. New auto desludging facilities for the new humus settlement tank

## HYDRAULIC INFORMATION AND BASIS OF DESIGN

### 2.1 Dry Weather Flow

To provide data for design work a flow and load survey was undertaken by H&M Environmental Limited. Sampling of crude sewage and final effluent was undertaken from the 21<sup>st</sup> - 30<sup>th</sup> May and from the 5<sup>th</sup> - 8<sup>th</sup> June. This gave a total of 14 days for assessing the performance of the treatment process whilst flow measurements were recorded over 19 days from the 21<sup>st</sup> May to 8<sup>th</sup> June 2002 (Ref H&M Report dated July 2002). Rainfall was recorded on 12 of the 19 days flow survey.

The survey confirmed that significant rainfall is passed to the works during wet weather. The highest days rainfall of 16.4 mm resulted in a daily influent flow of 3152 m<sup>3</sup>.d<sup>-1</sup>. This compares with the measured flows of 1515 and 1516 m<sup>3</sup>.d<sup>-1</sup> for the dry days of 7<sup>th</sup> and 8<sup>th</sup> June 2002. The flow survey which started in May and ended in a relatively dry period in June showed a progressive reduction in daily flows entering the works as infiltration from the catchment area reduced. Taking the average flow for the 7<sup>th</sup> and 8<sup>th</sup> June gives an observed DWF value of 1515.5 m<sup>3</sup>.d<sup>-1</sup>. This is considered a representative DWF value but a lower value might be anticipated during a more prolonged dry weather period.

### 2.2 Population Served

Over the flow and load survey period the average influent BOD load to the works was 246.7 kg/d. Using a per capita BOD figure of 60 g.h<sup>-1</sup>.d<sup>-1</sup> this gave a population figure of 4111. A similar population value (4115 persons) was derived from the average COD load of 493.7 kg/d using a per capita COD figure of 120 g.h<sup>-1</sup>.d<sup>-1</sup>. A summary of the population derived from load analysis data is presented below.

#### H&M Environmental survey results

	BOD	COD	SS
Influent Load kg.d <sup>-1</sup>	246.7	493.7	263.0
Average for period PE	4111	4115	3758

PEs derived on basis of 60 g.h<sup>-1</sup>.d<sup>-1</sup> BOD, 120 g.h<sup>-1</sup>.d<sup>-1</sup> COD, and 70 g.h<sup>-1</sup>.d<sup>-1</sup> SS

In order to verify the accuracy of the population estimated from load data a check on population was made using data contained in the Llanfaglan Model Build and Verification Report prepared by Forthview Ltd as part of the AMP 3 uCSO Improvement Strategy. From the Model Build and Verification report a resident population of 3921 has been determined based on a property count of 1634 properties at 2.4 persons per property. The report has identified an additional population of 406 persons resident in static caravans and a tourist population of 422 in mobile caravans was allowed for in summer months. By adding the number of residents in domestic properties with those in static units the derived population is 4327 excluding summer tourists. This figure is slightly higher than the 4111 population derived from the flow and load survey results. The higher figure has been adopted for design.

### 2.3 Infiltration

Infiltration for the Llanfaglan WwTW has used the catchment infiltration value of 5.51 l.s<sup>-1</sup> reported by Forthview Ltd in the Model Build and Verification Report Doc. No RE-Li643-03-0A dated May 2003.

### 2.4 Trade Effluent

There are no consented traders discharging trade effluents to this works.

### 2.5 Catchment / Hydraulic Model

The Llanfaglan sewage network is being modelled by Forthview Ltd as part of the Llanfaglan AMP3 strategy for uCSO improvements.

### 2.6 Summary of Flow Conditions

The absence of any substantial holiday accommodation within the catchment precludes any significant increase in the population in summer months. Design flows are based on a fixed resident population of 3921 plus 406 fixed residents in static caravans and 422 tourists in mobile caravans. A summary of the design flow conditions for the works is presented in the following table. Detailed calculations are presented in the appendices.

Description	Observed/Derived Flows		Current consent condition
	m <sup>3</sup> /d	L/s	
DWF	1305.5	15.1	780 m <sup>3</sup> d <sup>-1</sup> (9.0 l.s <sup>-1</sup> )
3DWF	2964.5	34.3	
FFT	4233.6	49	3120 m <sup>3</sup> d <sup>-1</sup> (36.2 l.s <sup>-1</sup> )
6DWF	5452.9	63.1	
Form A	7764.18	89.9	

## 2.7 Comparison with current flow conditions

No data is currently available.

## 3. SCHEME DEFINITION

### 3.1 Description of existing works

A flow diagram of the existing works is presented in Figure 1.

Llanfaglan WwTW is located on the northern coast of the Llyn Peninsular and approximately 2 miles south west of Caernarvon. The works was built in the 1960s. Sewage flows by gravity to the works from the villages of Bontnewydd, Saron and Llanfaglan via a 230 mm sewer main whilst flows from the coastal areas of Dinas Dinlle flow to a pumping station and are forwarded to a gravity main in Llandwrog village. This flow along with village flow gravitates to another pumping station at the lower end of Llandwrog village. Flow is then pumped through a 150 mm sewer to a high point of a gravity main (380 mm) diameter which enters the Llanfaglan works. Flows from the 380 mm and 230 mm dia sewers enter a common inlet chamber at the works from opposing directions. Prior to December 2002 combined flows passed through a macerator and along a rectangular channel equipped with a storm overflow weir before entering the primary tanks. After the storm overflow weir the channel wall height is increased. Wall mounted cheek plates are installed to form a flume for level measurement. In the channel. A Milltronics Hydromax level transducer measures the level and produces a flow proportional readout on a display unit at the control panel.

Primary settlement is provided by four rectangular hopper bottomed tanks with timer controlled auto desludging. Settled sewage flows by gravity from the PST launder to the syphon chamber. From the syphon chamber settled sewage flow is distributed to the three biological filters. The biological filters are 25.6 m diameter containing stone media.

In the original works design humus solids were separated from the biological filter effluent using four rectangular hopper bottomed settlement tanks. Outer walls are brick built construction with concrete coping. Effluent flow from the biological filters enters the centre of each tank within a stilling box and flows upwards through a bed of polystyrene beads retained in position with stainless steel screens (*Hadmax*). Filtered effluent overflows peripheral weir walls into a collection channel. Desludging of the humus tanks is by timer controlled diaphragm pumps.

### 3.2 Limitations of the existing works

Following analysis of the works performance the following limitations of the treatment process were identified: -

1. Information provided by measuring flows upstream and downstream of the storm overflow weir confirmed that premature discharge to the storm tank is occurring. The problem is attributed to high peak flows from the pumping stations which arrive at the works in combination with the gravity flows.
2. The inlet macerator created a flow restriction resulting in part of the influent flow being diverted through a by-pass channel equipped with a 19 mm bar screen. The flows which by-passed the macerator represented a risk of blockage to the downstream treatment process as this flow was only coarsely screened.
3. The bed of polystyrene beads (Hodawax unit) installed in each of the original rectangular humus settlement tanks was designed as a filter to remove suspended solids from treated effluent. Each time a Hodawax unit was cleaned the tank must be drained completely and this reduces the number of operating humus tanks (from 4 to 3). The reduced number of operating humus tanks resulted in an increased flow through the remaining tanks with a heightened risk of suspended solids in the final effluent.

### 3.3 Improvements to Wastewater Treatment at Llanfaglan WwTW

1. Since December 2002 a new 15m radial flow settlement tank has been provided to improve final effluent quality. The new humus tank has been designed to comply with the recommended criteria of limiting upflow to  $1 \text{ m.h}^{-1}$  and provides a hydraulic retention time of 2 hours to ensure good settlement of humus solids.
2. The provision of a new screen to replace the macerator (undertaken by United Utilities Operational Services) has achieved the following benefits
  - Removed the hydraulic restriction to flows
  - Eliminated the risk of ragging blocking downstream treatment process
  - The problem of poor settleability of macerated solids in the primary tank has been being eliminated

### 3.4 Improvements to Stormwater treatment

The current storm water storage requirements comprise two tanks each of 97.8 m<sup>3</sup> capacity giving a combined storage capacity of 195.6 m<sup>3</sup>. To meet the current guideline requirements of 2 h at current consent FFT (36l.s<sup>-1</sup>) a storage requirement of 259.2 m<sup>3</sup> is required. To meet the guideline requirements for 2 hours storage at the proposed FFT of 49 l.s<sup>-1</sup> a storage volume of 353 m<sup>3</sup> is required.

#### 4. DISCHARGE CONSENTS

The **current** consent conditions for discharge from Llanfaglan WwTW direct to the Afon Gwyrfai are:

DWF	$\leq 780 \text{ m}^3/\text{d}$
Max Rate of Discharge	$\leq 36.2 \text{ l/s}$
Max Daily Vol	$\leq 3120 \text{ m}^3/\text{d}$
BOD	$\leq 34 \text{ mg/l}$
SS	$\leq 41 \text{ mg/l}$

#### Proposed Modifications

The **proposed** conditions for discharge from Llanfaglan WwTW direct to the Afon Gwyrfai are:

DWF	$\leq 1305.5 \text{ m}^3/\text{d}$ $\leq 15.1 \text{ l/s}$
3DWF	$\leq 2964.5 \text{ m}^3/\text{d}$ $\leq 34.3 \text{ l/s}$
Max Rate of Discharge	$\leq 49 \text{ l/s}$ Proposed consent condition
Max Daily Volume	$\leq 4233.6 \text{ m}^3/\text{d}$
6DWF	$\leq 5452.9 \text{ m}^3/\text{d}$ $\leq 63.1 \text{ l/s}$
Formula "A"	$\leq 89.9 \text{ l/s}$ $\leq 7764.18 \text{ m}^3/\text{d}$

## APPENDIX – 1

### Derivation of Design Flowrates

The formulae provided by The Institution of Water and Environmental Management in the handbook Preliminary Processes Third Edition has been used.

#### Basis

No of Fixed Residents: 3921

Occupants of 169 static caravans estimated at 2.4 persons per unit = 406 persons

Occupants of 176 touring caravans estimated at 2.4 persons per unit = 422 persons

$$\text{DWF} = \text{PG} + \text{I} + \text{E}$$

$$\text{DWF} = \text{PG residents} + \text{PG static homes} + \text{PG mobile units} + \text{I} + \text{E}$$

$$= (3921 \times 180)/1000 + (169 \times 2.4 \times 180)/1000 + (176 \times 2.4 \times 120)/1000 \\ + 5.51 \times 3.6 \times 24 + 0 \text{ m}^3/\text{d}$$

$$= 705.78 + 73.008 + 50.69 + 476.06 + 0 \text{ m}^3/\text{d}$$

$$\text{DWF} = 1305.54 \text{ m}^3/\text{d} \text{ (15.11 l/s)}$$

$$3\text{DWF} = 3\{\text{PG residents} + \text{PG static homes} + \text{PG mobile units}\} + \text{I} + 3\text{E}$$

$$= 3[(3921 \times 180)/1000 + (169 \times 2.4 \times 180)/1000 + (176 \times 2.4 \times 120)/1000 \\ + 5.51 \times 3.6 \times 24 + 3 \times 0 \text{ m}^3/\text{d}$$

$$= 3[705.78 + 73.008 + 50.69] + 476.06 \text{ m}^3/\text{d}$$

$$= 2488.44 + 476.06 \text{ m}^3/\text{d}$$

$$3\text{DWF} = 2964.49 \text{ m}^3/\text{d} \text{ (34.31 s}^{-1}\text{)}$$

$$\text{FFT} = 4233.6 \text{ (49 l s}^{-1}\text{)}$$

$$6\text{DWF} = 6\{\text{PG residents} + \text{PG static homes} + \text{PG mobile units}\} + \text{I} + 6\text{E}$$

$$= 6[(3921 \times 180)/1000 + (169 \times 2.4 \times 180)/1000 + (176 \times 2.4 \times 120)/1000 \\ + 5.51 \times 3.6 \times 24 + 6 \times 0 \text{ m}^3/\text{d}$$

$$= 6[705.78 + 73.008 + 50.69] + 476.06 \text{ m}^3/\text{d}$$

$$= 4976.868 + 476.06 \text{ m}^3/\text{d}$$

$$6\text{DWF} = 5452.93 \text{ m}^3/\text{d} \text{ (63.11 l s}^{-1}\text{)}$$

$$\text{SOC 'A'} = \text{DWF} + 1.36 \text{ P} + 2\text{E}$$

$$= 1305.54 + 1.36[3921 + (169 + 176) \times 2.4] + 2 \times 0 \text{ m}^3/\text{d}$$

$$= 1305.54 + 1.36 \times 4749 \text{ m}^3/\text{d}$$

$$= 1305.54 + 6458.64$$

$$= 7764.18 \text{ m}^3/\text{d} \text{ (89.9 l/s)}$$

Table 1 Rainfall and Total Daily Flows

Date	Daily Rainfall (mm)	Daily Flow to full treatment (m <sup>3</sup> )	Total Daily Flow (m <sup>3</sup> )
21/05/02	3.2	2389	2588
22/05/02	16.4	2766	3152
23/05/02	1.8	2194	2221
24/05/02	5.8	2572	2760
25/05/02	6.2	2347	2673
26/05/02	0.4	2509	2618
27/05/02	0	1917	1925
28/05/02	1.4	1925	1949
29/05/02	2.8	2121	2125
30/05/02	3.8	2131	2144
31/05/02	0	1704	1741
1/06/02	0	1603	1630
2/06/02	1	1588	1592
3/06/02	8	2571	2994
4/06/02	0	1639	1625
5/06/02	0	1522	1526
6/06/02	3	1609	1645
7/06/02	0	1473	1515
8/06/02	0	1508	1516
Period Average	2.8	2005	2102

Table 2 Average and maximum Daily Flows

Date	Daily Rainfall (mm)	FFT avg (l/s)	FFT Daily max (l/s)	Total avg (l/s)	Total Daily max (l/s)
21/05/02	3.2	22.7	37	30	86
22/05/02	16.4	32.0	37	36.5	88
23/05/02	1.8	25.4	36	25.7	47
24/05/02	5.8	29.8	36	31.9	69
25/05/02	6.2	27.2	37	30.9	70
26/05/02	0.4	29.0	37	30.3	81
27/05/02	0	22.2	31	22.3	33
28/05/02	1.4	22.3	34	22.6	51
29/05/02	2.8	24.5	35	24.6	60
30/05/02	3.8	24.7	36	24.8	68
31/05/02	0	19.7	30	20.2	34
1/06/02	0	18.6	29	18.9	34
2/06/02	1	18.4	32	18.4	47
3/06/02	8	29.8	37	34.7	71
4/06/02	0	19.0	27	18.8	31
5/06/02	0	17.6	27	17.7	33
6/06/02	3	18.6	37	19.0	45
7/06/02	0	17.0	31	17.5	31
8/06/02	0	17.5	28	17.5	37.5
Period Average	2.8	23	33.4	24	53.5

Day	Daily flow l/s	COD mg/l	BOD mg/l	TSS mg/l
21/05/02	27.7	204	105	116
22/05/02	32.0	143	76	78
23/05/02	25.4	98	47	56
24/05/02	29.8	156	82	84
25/05/02	27.2	93	44	47
26/05/02	29.0	193	94	100
27/05/02	22.2	253	122	118
28/05/02	22.3	186	82	102
29/05/02	24.5	216	112	124
30/05/02	24.7	198	103	110
05/06/02	17.6	461	244	247
06/06/02	18.6	520	247	252
07/06/02	17.0	368	182	210
08/06/02	17.5	450	224	236
Average				
	23	253	126	134

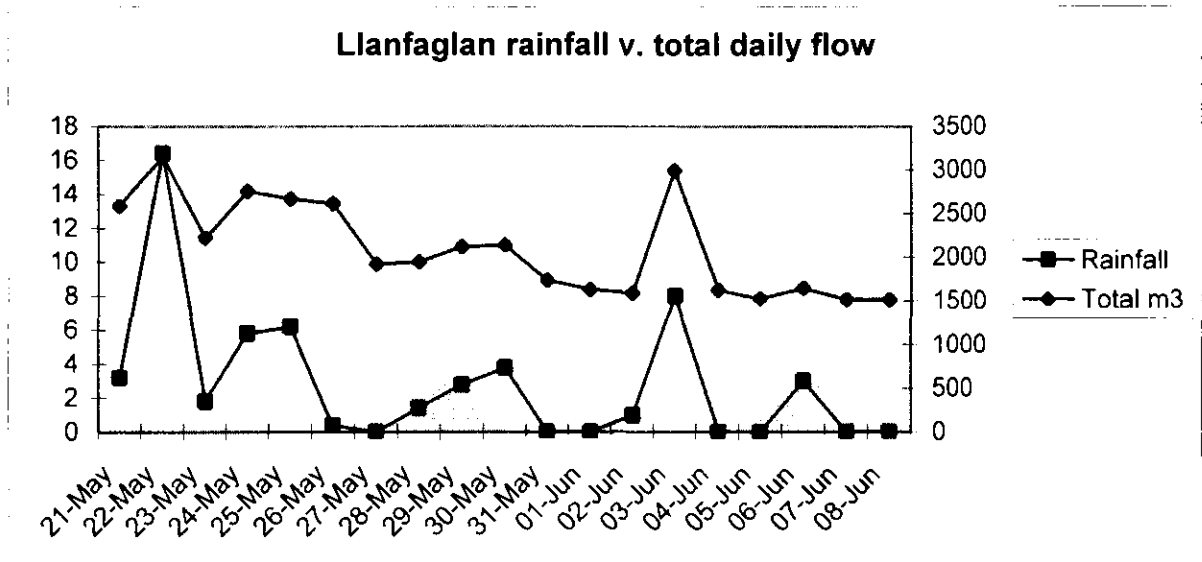
Table 3 Daily Influent Concentrations

PEs derived on basis of 60 g.h<sup>-1</sup>.d<sup>-1</sup> BOD, 120 g.h<sup>-1</sup>.d<sup>-1</sup> COD, and 70 g.h<sup>-1</sup>.d<sup>-1</sup> TSS

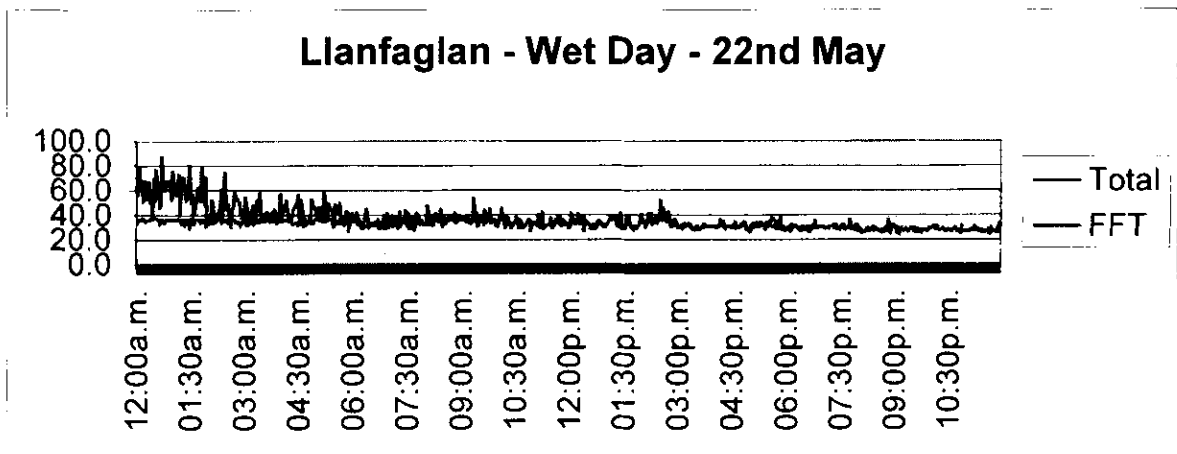
Day	Daily flow m <sup>3</sup>	COD kg/day	BOD kg/day	TSS kg/day
21/05/02	2588	487	271.7	300.21
22/05/02	3152	396	239.6	245.86
23/05/02	2221	215	104.4	124.38
24/05/02	2760	401	226.3	231.84
25/05/02	2673	218	117.6	125.63
26/05/02	2618	484	246.1	261.8
27/05/02	1925	485	234.9	227.15
28/05/02	1949	358	159.8	198.80
29/05/02	2125	458	238.0	263.50
30/05/02	2144	422	220.8	235.84
05/06/02	1522	702	372.3	376.92
06/06/02	1609	837	406.3	414.54
07/06/02	1473	542	275.7	318.15
08/06/02	1508	678	339.6	357.78
Average		493.7	246.7	263.0
Pe		4115	4111	3758

Table 4 Crude Sewage Loads

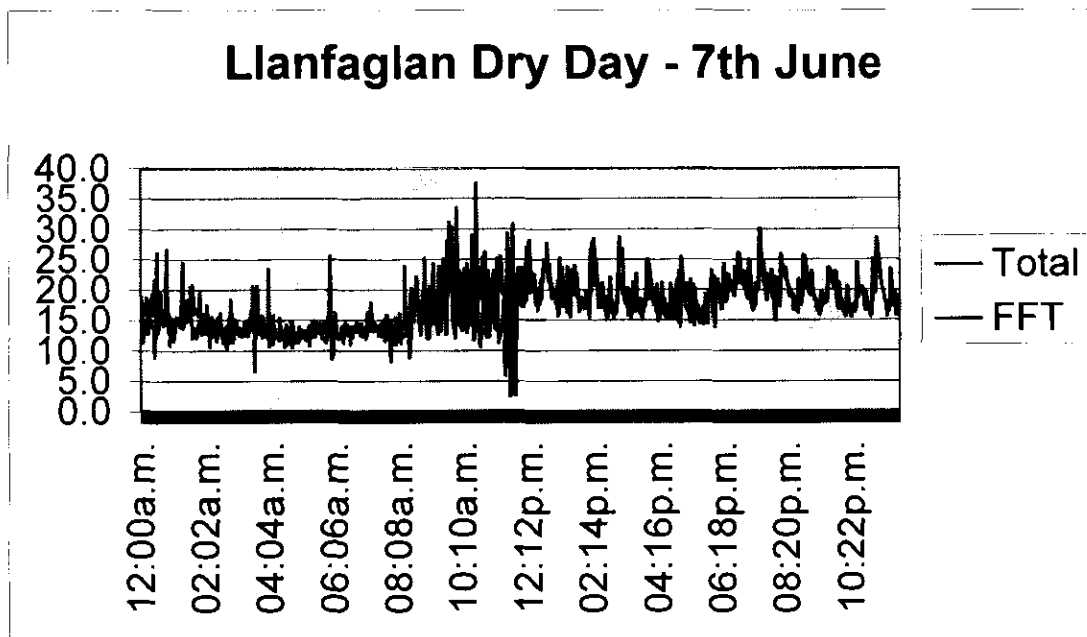
**Graph 1 Total Daily Flow and Rainfall recorded during Survey Period**




Graph 2 Total Daily Flow for Wettest Day 22<sup>nd</sup> May 2002



Graph 3 Total Daily Flow for Dry Day 7<sup>th</sup> June 2002



# COPY

<b>APPENDIX 11</b> <b>Form HR01: Proforma for new applications within Stage 2 criteria.</b>	 <b>ENVIRONMENT AGENCY</b>
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Environment Agency Record of Assessment of Likely Significant Effect On A European Site (Stage 2)

The new application for a please fill in details detailed below is within the Stage 1 criteria of please fill in details, and in order to progress the application a Stage 2 assessment and consultation with EN/CCW is required.

**PART A**

To be completed by relevant technical/project officer in consultation with Conservation/Ecology section and EN/CCW

<b>1. Type of permission/activity:</b>	Water Resources Act (1991) (as amended by Environment Act 1995) consent to discharge
<b>2. Agency reference no:</b>	CG0078101
<b>3. National Grid reference:</b>	SH 46626 59370
<b>4. Site reference:</b>	Llanfaglan STW Llanfaglan Caernarfon Gwynedd LL54 5RB
<b>5. Brief description of proposal:</b>	Variation to improve the existing works to include, installation of a new 6mm partical size screen, installation of a new humus settlement tank, and provide a recirculation facility for the biological filters
<b>6. European site name(s) and status:</b>	Y Fenai a Bae Conwy / Menai Strait and Conwy Bay cSAC, UK  Afon Gwyfai cSAC/SSSI  Y Foryd SSSI
<b>7. List of interest features:</b>	2.5 Anadromous fish  2.11 Coastal plants  1.3 Riverine habitats  2.9 Mammals of riverine habitats  2.6 Non-migratory fish and invertebrates of rivers  1.12 - Estuarine and intertidal habitats  1.13 - Submerged marine habitats

<p>8. Is the proposal directly connected with or necessary to the management of the site for nature conservation?</p>	<p>No</p>	
<p>9. What potential hazards are likely to affect the interest features? (Refer to relevant sensitivity matrix and only include those to which the interest features are sensitive). <b>Are the interest features potentially exposed to the hazard?</b></p>		
<p><b>Sensitive Interest Feature:</b></p>	<p><b>Potential hazard:</b></p>	<p><b>Potential exposure to hazard and mechanism of effect/impact if known:</b></p>

<p><b><u>1.12 Estuarine and intertidal habitats</u></b> Mudflats and sandflats not covered by sea water at low tide</p>	<p>A, b, d, e, f, g, h</p>	
<p><b><u>1.13 Submerged marine habitats</u></b> Large shallow inlets and bays Reefs Sandbanks that are slightly covered by sea water all the time Submerged or partly submerged sea caves</p>	<p>A, b, d, e, g, h</p>	
<p><b><u>2.5 Anadromous fish</u></b> Atlantic salmon</p>	<p>A, b, c, d, e, g, h</p>	
<p><b><u>2.11 Coastal plants</u></b> Floating water plantain</p>	<p>N/a</p>	
<p><b><u>1.3 Riverine habitats</u></b> <b><u>Floating vegetation of Ranunculus of plain and submountainous rivers</u></b> Oligotropic waters containing very few minerals of Atlantic sandy plains with amphibious vegetation</p>	<p>A, b, c, d, e, f, g, h</p>	
<p><b><u>2.9 Mammals of riverine habitats</u></b> Otter</p>	<p>A, b, c, d, e, g, h</p>	
<p><b><u>2.6 Non-migratory fish and invertebrates of rivers</u></b> River lamprey</p>	<p>A, b, c, d, e, g, h</p>	
<p>Key: -  A - Toxic contamination B - Nutrient enrichment C - pH changes D - Changes in salinity regime E - Changes to thermal regime F - Physical damage G - Turbidity H - Siltation</p>		

<p><b>10. Is the potential scale or magnitude of any effect likely to be significant?</b></p>	
<p><b>a) Alone?</b> (explain conclusion, e.g. in relation to de minimus criteria)</p>	<p>No</p>
<p><b>b) In combination with other plans or projects?</b> (Explain conclusion and which plans/projects have been included, including those associated with other functions)</p>	<p>No</p>

<p>11. <b>Conclusion:</b> Is the proposal likely to have a significant effect 'alone or in combination' on a European site? (justification – attach any relevant supporting information)</p>	No - this is an existing discharge	
<p>12. <b>Name of EA Officer:</b></p>	Karen Owen (Ext 4584)	<b>Date:</b> 23/12/03
<p>13. <b>EN/CCW comment on assessment:</b></p>		
<p>14. <b>Name of EN/CCW Officer:</b></p>		<b>Date:</b>
<p><b>IF THE PROPOSAL IS LIKELY TO HAVE A SIGNIFICANT EFFECT AN APPROPRIATE ASSESSMENT WILL BE REQUIRED (see part B for suggested scope).</b></p>		

**Part B - SUGGESTED SCOPE OF THE APPROPRIATE ASSESSMENT**

- 

**15. EN/CCW Comment on scope of appropriate assessment:**

**16. Name of EN/CCW Officer:**

**Date:**



ASiantaeth yr  
AMGYLCHEDD CYMRU  
ENVIRONMENT  
AGENCY WALES

Eich cyf/Your ref

Ein cyf/Our ref: DR/RP/CG0078101

Dyddiad/Date: 21<sup>st</sup> December 2003

Kate Smith  
CCW,  
Lys y Bont,  
Parc Menai,  
Bangor  
LL57 2AJ

COF

Dear Ms Smith,

**WATER RESOURCES ACT 1991, SCHEDULE 10 (AS AMENDED BY THE ENVIRONMENT ACT 1995): FORMAL CONSULTATION. APPLICATION FOR CONSENT TO DISCHARGE SEWAGE EFFLUENT BY DWR CYMRU CYF FROM LLANFAGLAN STW, LLANFAGLAN, CAERNARFON, GWYNEDD, LL54 5RB APPLICATION NO: CG0078101**

I append a copy of the application for consent to discharge received from Dwr Cymru Cyf and Appendix 11. If you have any comments regarding this application could you please respond by 5<sup>th</sup> January 2004.

Yours sincerely

**Kelvin Graham**  
**Team Leader Customer Contact & Authorisations**

Please ask for Ruth Prichard ext 4502

Asiantaeth yr Amgylchedd Cymru  
Ffordd Caer, Bwcle, Sir y Fflint CH7 3AJ  
Ffon 01244 550124 Ffacs 01244 550144

Environment Agency Wales  
Chester Road, Buckley, Flintshire CH7 3AJ  
Tel 01244 550124 Fax 01244 550144





ASiantaeth YR  
AMGYLCHEDD CYMRU  
ENVIRONMENT  
AGENCY WALES

Eich cyf/Your ref.

Ein cyl/Our ref. DR/RP/CG0078101

Dyddiad/Date: 21<sup>st</sup> December 2003

Paul Day  
CCW,  
NE Area Office,  
Victoria House,  
Governor St.,  
Mold,  
Flintshire, CH7 1EJ

COPY

Dear Mr Day,

**WATER RESOURCES ACT 1991, SCHEDULE 10 (AS AMENDED BY THE ENVIRONMENT ACT 1995): FORMAL CONSULTATION. APPLICATION FOR CONSENT TO DISCHARGE SEWAGE EFFLUENT BY DWR CYMRU CYF FROM LLANFAGLAN STW, LLANFAGLAN, CAERNARFON, GWYNEDD, LL54 5RB APPLICATION NO: CG0078101**

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Yours sincerely

**Kelvin Graham**  
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Chester Road, Buckley, Flintshire CH7 3AJ  
Tel 01244 550124 Fax 01244 550144



**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



**CG0078002\_2006\_03\_02**

The Environment Agency ("the Agency") hereby confirm that the above named person is a/the registered holder of consent CG0078002

Nature of Discharge(s); SEWAGE EFF/STORM EFF/RAINFALL  
at  
LLANGFNI STW - SETTLED STORM

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:



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



ASiantaeth Yr  
AMGYLCHEDD CYMRU  
ENVIRONMENT  
AGENCY WALES

**Part A** DWR CYMRU CYFYNGEDIG

**To:** PENTWYN ROAD

NELSON

TREHARRIS

MID GLAMORGAN CF46 6LY

NB: For a body corporate the job title is a point of contact.

Holder Start Date: 17/09/02

The Environment Agency ("the Agency") hereby confirm that the above named person is a/the registered holder of consent CG0078002 Consent Issued: 17/09/2002

Nature of Discharge(s); SSOR Sewage - Storm effluent - Rainfall

at SH4609774394 LLANGFNI SETTLED STORM STW

**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.

===== cut here =====

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

**To:**

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

**Consent** CG0078002

**Name:** DWR CYMRU CYFYNGEDIG

**Consent Issued:** 17/09/2002

**Address:** PENTWYN ROAD

NELSON

TREHARRIS

MID GLAMORGAN CF46 6LY

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:** .....

**Deddf Adnoddau Dwr 1991**  
fel y'i diwygiwyd gan Ddeddf yr Amgylchedd 1995  
**Caniatâd Gollwng**



**ASiantaeth yr  
AMGYLCHEDD**

**Tystysgrif Daliwr**

DWR CYMRU CYFYNGEDIG

**Rhan A**

**At:**

PENTWYN ROAD  
NELSON  
Treharris  
MID GLAMORGAN CF46 6LY

DS: I gorff corfforedig mae teitl y swydd yn bwynt cysylltu.  
Dyddiad Cychwyn Daliwr: 13/09/02

CG0078001 Cyhoeddwyd Caniatâd: 13/09/2002  
Mae Asiantaeth yr Amgylchedd ("yr Asiantaeth") yn cadarnhau drwy hyn mai/bod y sawl a enwyd uchod  
yw/yn ddaliwr cofrestredig y caniatâd  
Natur y gollwng: SH4609774396 LLANGEFNI WASTE WATER TREATMENT WKS  
yn

Nodyn: Dylid cadw'r dystysgrif hon gyda'r ddogfen ganiatâd i gyfeirio ati yn y dyfodol. Os byddwch yn trosglwyddo cyfrifoldeb y gollwng i rywun arall, rhaid i chi gyflwyno'r caniatâd iddo ef neu hi a dweud wrth yr Asiantaeth cyn pen 21 diwrnod. Ni all y daliwr wadu cyfrifoldeb y gollwng, ond gall cofrestriad y daliwr gael ei drosglwyddo i olynnydd. I wneud hynny, byddwch cystal â llenwi'r ffurflen isod, ei datgysylltu a'i dychwelyd i'r cyfeiriad a nodir. Os methwch drosglwyddo'r caniatâd, hyd yn oed os nad ydych ar y safle mwyach, gallwch fod yn agored yr un fath i gael eich erlyn am lygru. Os trosglwyddwch y caniatâd ond heb ddweud wrthom, byddwch yn cyflawni trosedd. Os bydd gennych ymholiadau, byddwch cystal â chysylltu â swyddfa Asiantaeth yr Amgylchedd yn lleol.

**Rhan B Llenwch mewn priflythrennau bras neu deipio.**

**At:**

**Deddf Adnoddau Dwr 1991: Hysbysiad am drosglwyddo caniatâd gollwng**

**Caniatâd:**

Cyhoeddwyd Caniatâd: 13/09/2002

**Enw:**

**Cyfeiriad:**

DWR CYMRU CYFYNGEDIG

PENTWYN ROAD

NELSON

TREHARRIS

MID GLAMORGAN CF46 6LY

Yr wyf fi/Yr ydym ni\* drwy hyn yn hysbysu'r Asiantaeth nad fi/ni/nad wyf/ydym mwyach yw/yn\* Ddeiliad y caniatâd uchod. Caiff/Cafodd hwnnw ei drosglwyddo i:

\*dilewch yn 61 yr angen

**Enw(au) y Daliwr/Dalwyr newydd:**

**Cyfeiriad:**

**Cod Post:**

**Dyddiad Trosglwyddo i'r Daliwr/Dalwyr newydd: .....**

**Llofnodwyd:..... Dyddiedig: .....**

**Enw Enw (priflythrennau bras):**

**Safle:**



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>  Discharge Consent Applications Environment Agency Wales Chester Road Buckley Flintshire CH7 3AJ	<i>Official Use Only</i> <i>Dist/Area Ref:</i>  <i>Application No.</i> CA 0072002  <i>Date Received:</i> 02/12/2004  <i>Fee Received:</i> 02/12/2004
---	---

Each applicant must complete the main form and may need to complete a separate annexe 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.

Llangefni Wastewater Treatment Works  
Industrial Estate Road  
Llangefni  
Yns Mon

Post Code:

LL77 7JA

**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 N/A m<sup>3</sup>/day  
 Briefly state how this figure was calculated (see note ii).

10 spills per year. Max spill volume 1367m<sup>3</sup>. Total year = 5792m<sup>3</sup>. Peak spill rate 114l/s  
 (See Options Report Li714-040A)

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 <input checked="" type="checkbox"/> | 4. Borehole <input type="checkbox"/> | 7. Sub-Irrigation System <input type="checkbox"/>                 |
| 2. Channel <input type="checkbox"/>         | 5. Well <input type="checkbox"/>     | 8. Combination of 6 & 7 <input type="checkbox"/>                  |
| 3. Culvert <input type="checkbox"/>         | 6. Soakaway <input type="checkbox"/> | 9. Other ( <i>please specify below</i> ) <input type="checkbox"/> |

Pipe of 375mm dia is existing

b) National Grid Reference(s) of point(s) of discharge (see note iii).

S	H	4	6	0	9	7	7	4	3	9	4
---	---	---	---	---	---	---	---	---	---	---	---

(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*) Sampling point at storm tank

b) National Grid Reference(s) of sampling point(s) (if different from 2.3 b) above).

S	H	4	6	5	0	7	7	4	6	0	2
---	---	---	---	---	---	---	---	---	---	---	---

(please indicate on accompanying plans)

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

None

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

Storm tank of 810m3 provided

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

N/A

2.6 a) On what date do you anticipate the discharge will commence?

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.

When flow exceeds 150l/s and storm tank is full

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

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

Storm sewage is discharged under consent reference number CG0078002 dated 10/11/87

b) Has any person had a Prohibition Notice serviced on them in respect of this site?  Y/N  
If yes, please give the reference number.

### 3 SITE DETAILS

3.1 Please give the name of the relevant Planning Authority.

Ynys Mon County Council

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

- |   |                          |                            |                                     |
|---|--------------------------|----------------------------|-------------------------------------|
| 1. Single Dwelling                      | <input type="checkbox"/> | 6. Fish Farm               | <input type="checkbox"/>            |
| 2. Multiple Dwellings                   | <input type="checkbox"/> | 7. Mineral Workings        | <input type="checkbox"/>            |
| 3. Industrial Premises                  | <input type="checkbox"/> | 8. Water Services plc STW  | <input checked="" type="checkbox"/> |
| 4. Vehicle Parking Area                 | <input type="checkbox"/> | 9. Water Supply            | <input type="checkbox"/>            |
| 5. Commercial Premises (please specify) | <input type="checkbox"/> | 10. Other (please specify) | <input type="checkbox"/>            |

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

1. Well	<input type="checkbox"/>	5. River (please give name below)	<input type="checkbox"/>
2. Borehole	<input type="checkbox"/>	6. Estuary (please give name below)	<input type="checkbox"/>
3. Precipitation (eg rain or snow)	<input type="checkbox"/>	7. Coastal Water (please give name below)	<input type="checkbox"/>
4. Mains (please state water supply company)	<input checked="" type="checkbox"/>	<input type="text"/>	
<input type="text" value="Dwr Cymru Welsh Water (DCWW)"/>			

#### 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)	<input checked="" type="checkbox"/>	5. Into Land	<input type="checkbox"/>
2. River or Stream (non-tidal)	<input type="checkbox"/>	6. Onto Land	<input type="checkbox"/>
3. Canal	<input type="checkbox"/>	7. Directly into Groundwater	<input type="checkbox"/>
4. Lake, Lock or Pond	<input type="checkbox"/>	8. Coastal Water (see note vii)	<input type="checkbox"/>

State name of receiving water if known:

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

(a) Is any part of the system within 5 metres of the boundary of the premises?	<input type="checkbox" value="Y/N"/>
(b) Is any part of the system within 10 metres of a watercourse?	<input type="checkbox" value="Y/N"/>
(c) Is any part of the system within 50 metres of a borehole or spring?	<input type="checkbox" value="Y/N"/>
(d) For wells and boreholes state dimension(s) in metres.	<input type="text" value="N/A m"/>
(e) For sub-irrigation systems, soakaway pits, wells and boreholes, state maximum depth in metres.	<input type="text" value="N/A m"/>
(f) For boreholes, state details of lining in metres:	
(i) Depth of lining	<input type="text" value="N/A m"/>
(ii) Depth of perforated lining	<input type="text" value="N/A m"/>
(iii) Depth of unperforated lining	<input type="text" value="N/A m"/>
(g) A percolation test must be carried out in accordance with British Standard BS6297:1983. Have the results been provided?	<input type="checkbox" value="Y/N"/>

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

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 Cyf

\*Pentwyn Road

\*Nelson

\*Treharris

\*Mid Glamorgan

\*

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>J P Edwards</i>	PRINT NAME: .....	<i>J P Edwards</i>
ON BEHALF OF: .....	.....DWR CYMRU CYF.....		DATED: <i>30/11/04</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**



**ANNEXE 2  
SEWAGE EFFLUENT DISCHARGED IN STORM OR EMERGENCY CONDITIONS**

**Please complete this annexe if you are proposing to make a discharge of sewage in emergency or storm conditions (if the effluent is to contain a trade component Annexe 3 should also be completed).**

*Official Use Only  
Application No.*

1. Site Name.

Llangefni Wastewater Treatment Works

2. State the type of discharge - tick as appropriate:

- Storm tanks
- Combined Sewer Overflow from sewerage system
- Combined Sewer Overflow from pumping station
- Emergency overflow from sewerage system
- Emergency overflow from pumping station
- Other (*please specify*)

3. For effluents discharging from sewage treatment works, is the storm/emergency effluent discharged via the same outlet as the treated effluent?

Y/N

If no please give: a) the National Grid Reference of the treated effluent outlet.

S	H	4	6	0	9	7	7	4	3	9	6
---	---	---	---	---	---	---	---	---	---	---	---

b) the consent or application number covering the treated effluent discharge

If yes please give the National Grid Reference of the storm/emergency sampling point (see notes)

--	--	--	--	--	--	--	--	--	--	--	--

4. For effluents discharging from combined sewer overflows, is the discharge via a dedicated pipe? N/A

Y/N

If no please give the National Grid Reference of the overflow into the sewer.

--	--	--	--	--	--	--	--	--	--	--	--

5. Overflow settings

- |  |                               |
|--|-------------------------------|
| a) Overflow setting to storm tanks           | 150l/s                        |
| b) Maximum flow to storm tanks               | (1 in 5 year spill)<br>126l/s |
| c) Overflow setting to storm sewage overflow | N/A l/s                       |
| d) Maximum flow to storm sewage overflow     | N/A l/s                       |

6. Storage capacity

- |  |                    |
|--|--------------------|
| a) Volume of Storm tanks                         | 810m <sup>3</sup>  |
| b) Retention time of storm tanks at maximum flow | 1.78hrs            |
| c) Storage capacity of sewer/wet well            | N/A m <sup>3</sup> |

7. Please provide full details of the design criteria that have been used to support this application.

Based on Options Report Li902-04-0A Section 4

8. Will facilities be provided to raise alarms (eg telemetry)? Y/N  
If yes, please give details.

Telemetry provided

9. Will facilities be provided to prevent the discharge of gross solids? Y/N  
If yes, please give details (for screens give bar spacing or aperture).

All flows are screened through a 6mm particle size screens prior to stormwater separation

10. What provisions will be made to deal with:

- a) power failure (eg standby generators)?  
Permanent stand-by power generation is not provided at this works. Facility exists to allow portable equipment to be connected if required
- b) mechanical breakdown (eg standby pumps)?  
N/A
- c) rising main failure?  
No failure of rising main is anticipated
- d) tanker access?  
Yes via site access road

Notes (see also the notes on the main form):

Full details of the design criteria must be provided in order for the application to be determined. If you have any queries about what information is required please contact the person given in notes attached to the main form.



ANNEXE 3  
TRADE EFFLUENT DISCHARGES

Please complete this annexe if you are proposing to make a discharge trade effluent (this includes site drainage).

*Official Use Only*  
*Application No.*

1. Site Name.

Llangefni Wastewater Treatment Works

2. a) Describe in full the trade effluent and the process(es) from which it arises.

There are 7 trade consents derived from:

- Manufacturer of organic chemicals x2 Max permitted discharge 250+250m<sup>3</sup>/d
- Washing of vehicles and yard drainage 5m<sup>3</sup>/d
- Slaughter, processing and packing of poultry 1000m<sup>3</sup>/d
- Cheese making 636m<sup>3</sup>/d
- Slaughtering and meat processing 100m<sup>3</sup>/d
- Pool backwash and top up water 65m<sup>3</sup>/d

Total permitted discharge if all discharge their permitted max flows: 2306m<sup>3</sup>/d

b) Please state the type and number of treatment units you are proposing to use (if site drainage please include details of oil/petrol interception facilities).

n/a

3. Rainfall Dependent Discharges - **Not Applicable**

a) Is the volume going to be rainfall dependent?

Y/N

b) If yes, please give the total area drained.

c) Please give details of any activities which occur in the drainage area which could contaminate surface water (see note b)

4. Rainfall Independent Discharges – Refer to attached Trade Information sheet

a) What is the maximum rate of discharge?

b) What is the average daily flow?

c) For discharges where the source of supply is other than mains water:

i) give the abstraction licence number

ii) give the National Grid Reference of a point where the influent can be sampled.

(please mark on the plan)

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

These discharges are controlled through trade effluent discharge legislation within the Water Industry Act and monitored regularly by trade effluent staff for monitoring and charging purposes.

- b) Will automatic sampling equipment be provided? Y/N  
If yes, please give details of type, frequency and location (*please indicate on plan*)

6. a) Please state the maximum temperature in degrees Celsius of the effluent when discharged if different from ambient.

n/a

- b) Will the discharge be monitored for temperature? Y/N  
If yes, please give details of type and location (*please indicate on plan*)

7. Has an application for Authorisation been made for a 'prescribed process' as defined in Part 1 of the Environmental Protection Act 1990? Y/N

If yes, please complete the following:

- a) The application reference.

- b) Contact name of case officer.

8. a) Please indicate if any of the specified substances given below or their compounds will be present in the effluent and if so at what maximum concentration (please give values in micrograms per litre - ug/l). Please see note c.

SUBSTANCE	CONCENTRATION (ug/l)			SUBSTANCE	CONCENTRATION (ug/l)		
	Max	Min	Mean		Max	Min	Mean
Iron				Lead			
Arsenic				Malathion			
Atrazine				Mercury			
Azinphos-ethyl				Nickel			
Azinphos-methyl				PCB's			
Boron				PCSD's			
Cadmium				Parathion			
Carbon tetrachloride				Parathion-methyl			
Chloroform				Pentachlorophenol (PCP)			
Chromium				Perchloroethylene			
Copper				Permethrin			
Cyanide				pH <5.5 or >9.0			
Cyfluthrin				Phosphorus			
DDT				Polychlorinated biphenyls			
1,2 Dichloroethane				Simazine			
Dichlorovos				Sulcofuron			
Dioxins				Tetrachloroethylene			
Drins (eg Aldrin, Dieldrin)				Tributyltin compounds			
Endosulfan				Trichlorobenzene			
Fenitrothion				Trichloroethane			
Fenthion				Trichloroethylene			
Flucofuron				Trifluralin			
Hexachlorobenzene (HCB)				Triphenyltin compounds			
Hexachlorobutadiene (HCBD)				Vanadium			
Hexachlorocyclohexanes (HCH's)				Zinc			

- b) Are there any other significant chemical components used on site which may be contained in the effluent, including biocides or additives? Y/N  
If yes, please give details.

No. No change in discharges have been observed or declared by the traders and normal determinands are suite analysed. None of the above substances are known to be present and there are no known red or grey list chemicals in the trade discharges disposed of by Llangefni WwTW.

NB Engraving of printing cylinders company no longer trading

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

- a) For direct trade effluent discharges, full details of the type of the effluent are required (eg cooling water from air conditioning units), along with typical analytical details and the results of any toxicity studies on the effluent or its constituents. In certain circumstances the Agency may require that specific samples be taken and tests and analysis carried out. The Agency is empowered to recover any costs incurred as a result of special studies.*
- b) Possible sources of contamination include oil/chemical storage areas, vehicle loading/unloading areas, heavy vehicle parking areas and oil/petrol filling points. Any other potential sources of contamination should be detailed.*
- c) Where discharges of trade effluent take place to a sewerage system, as covered by this application, please give details of all authorised discharges of substances listed in table 8 overleaf.*



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.

Llangefni Wastewater Treatment Works

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

Y/N

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):

Pipe of 375mm dia is existing

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

As per DCWW Business Plan

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

Y/N

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

Tick

✓

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

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

**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  
**Only Annex 2 applicable for Storm Consent Application**

8. Please state:

Population served (head)	6587
Consumption (l/head/day) default = 180	180
Infiltration (m <sup>3</sup> /day)	422.5
Industrial effluent flow (m <sup>3</sup> /day)	3006
Dry Weather Flow (m <sup>3</sup> /day)	4614
Soc A (l/sec)	188
Predicted spill frequency (per annum)	10

**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.**



ASiantaeth Yr  
Amgylchedd Cymru  
ENVIRONMENT  
AGENCY WALES

Ein cyf/Our ref: CG0078002

Date: 2<sup>nd</sup> December 2004

Tony Andrews  
Dwr Cymru Cyf  
Pentwyn Road  
Nelson  
Treharris  
Mid Glamorgan  
CF46 6LY

F.A.O. Jan Edwards

Dear Jan Edwards

**WATER RESOURCES ACT 1991, SCHEDULE 10 (AS AMENDED BY THE ENVIRONMENT ACT 1995) APPLICATION FOR CONSENT TO DISCHARGE SEWAGE EFFLUENT UNDER STORM OR EMERGENCY CONDITIONS BY DWR CYMRU CYF FROM LLANGFNI WASTEWATER TREATMENT WORKS, INDUSTRIAL ESTATE ROAD, LLANGFNI, YNYS MON, LL77 7JA  
APPLICATION NO: CG0078002**

Thank you for your application for consent to discharge together with your application fee of £743. It is receiving consideration and you will be hearing from us again shortly. Please state application CG0078002 in any correspondence with us relating to this application.

Yours faithfully

**Kelvin Graham**  
Team Leader Customer Contact and Authorisations

Please ask for Ruth Prichard



PR



ASiantaeth YR  
AMGYLCHEDD CYMRU  
ENVIRONMENT  
AGENCY WALES

Ein cyf/Our ref. SH/WP/CG0078002

Dyddiad/Date: 20<sup>th</sup> September 2002

Environmental Quality Scientist  
Dwr Cymru Cyf  
Pentwyn Road  
Nelson  
Treharris  
Mid Glamorgan  
CF46 6LY

COPY

Dear Sir/Madam,

**RE: WATER RESOURCES ACT 1991, SCHEDULE 10 (AS AMENDED BY THE ENVIRONMENT ACT 1995) MODIFICATION OF CONSENT TO DISCHARGE NO.CG0078002.**

Further to our recent correspondence concerning the consent to discharge sewage effluent from Llangefni Sewage Treatment Works, I enclose the Agency's formal notice of the modifications made to the conditions of the consent.

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. A change in conditions may therefore result in a change in annual charge, you may therefore receive a revised bill in due course.

If you are not satisfied with the new conditions of the consent you may appeal against the decision to The National Assembly for Wales at Cathays Park, Cardiff CF10 3NQ.

Please take careful note that if the holder of the consent changes, you must inform the Agency IN WRITING as soon as possible of the name of the new holder. This is to ensure that the rights and charges associated with the Consent are transferred to the holder. A Certificate of Holder notice will be sent to you shortly which is designed for this purpose, and should be kept safely with the Consent until required.

Asiantaeth yr Amgylchedd Cymru  
Pfordd Caer, Bwcle, Sir y Fflint CH7 3AJ  
Ffon 01244 550124 Ffacs 01244 550144

Environment Agency Wales  
Chester Road, Buckley, Flintshire CH7 3AJ  
Tel 01244 550124 Fax 01244 550144





ASiantaeth yr  
AMGYLCHEDD CYMRU  
ENVIRONMENT  
AGENCY WALES

If you have any queries regarding the enforcement of this consent, please do not hesitate to contact Tony Roberts, Team Leader Environment Protection, Environment Agency Wales, Llwyn Brain, Penlan Road, Parc Menai, Bangor, Gwynedd, LL57 4DE.

Yours sincerely,

*K. Stella Hammond*

**Kelvin Graham**  
**Team Leader Customer Contact & Authorisations**

Asiantaeth yr Amgylchedd Cymru  
Ffordd Caer, Bwcle, Sir y Fflint CH7 3AJ  
Ffon 01244 550124 Ffacs 01244 550144

Environment Agency Wales  
Chester Road, Buckley, Flintshire CH7 3AJ  
Tel 01244 550124 Fax 01244 550144



CONSENT NO.	CG0078002
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ASiantaeth YR  
AMGYLCHEDD CYMRU  
ENVIRONMENT  
AGENCY WALES

**ENVIRONMENT AGENCY**

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

COPY

**NOTICE OF MODIFICATION OF CONSENT TO DISCHARGE**

**TO: Environment Quality Scientist  
Dwr Cymru Cyfyngedig  
Pentwyn Road  
Nelson  
Treharris  
Mid Glamorgan CF46 6LY**

**WHEREAS** the Agency in pursuance of its powers under the Water Resources Act 1991 (as amended by the Environment Act 1995) **GRANTED CONSENT** to the making of a discharge of **SEWAGE EFFLUENT** on the 10<sup>th</sup> day of November 1987

**FROM** Llangefni Sewage Treatment Works

the Agency in pursuance of its powers under the Water Resources Act 1991 (as amended by the Environment Act 1995) hereby **GIVES NOTICE** that **CONSENT** CG0078002 is hereby modified as follows:

Settled Storm Sewage

**FROM:** Llangefni Sewage Treatment Works

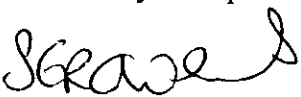
**AT:** Llangefni

**TO:** the Afon Cefni

**The conditions of Consent number CG0078002 dated 10<sup>th</sup> November 1987 are modified as detailed in this notice.**

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 alters the effect of modifications made by this notice, without the agreement in writing of the Consent Holder, during a period of 4 years from the date this notice is served.

Dated this 17th day of September 2002

Signed  .....

**SIAN OWENS  
Team Leader Water Quality Consents**





CONSENT NO.	CG0078002
SCHEDULE NO.	CG0078002
DATED	17 <sup>th</sup> September 2002

**Conditions to be added:**

The following conditions shall now be included:

6. The Discharge shall be made in the manner and at the place specified as:
  - (a) discharging via a 375 mm diameter pipe;
  - (b) discharging to the Afon Cefni;
  - (c) at National Grid Reference SH 46097 74394;
  - (d) shown marked 'Discharge Point' on Plan CG0078002 attached as Annex 1 .
  
7. An appropriately labelled sample point shall be provided and maintained at National Grid Reference SH 46434 74554 as shown marked 'Sample Point' on Plan CG0078002, attached as Annex 1, so that a representative 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 discharging into controlled waters.

**Other conditions of the consent**

All other conditions of the consent remain in force. Consent CG0078002 is updated accordingly.

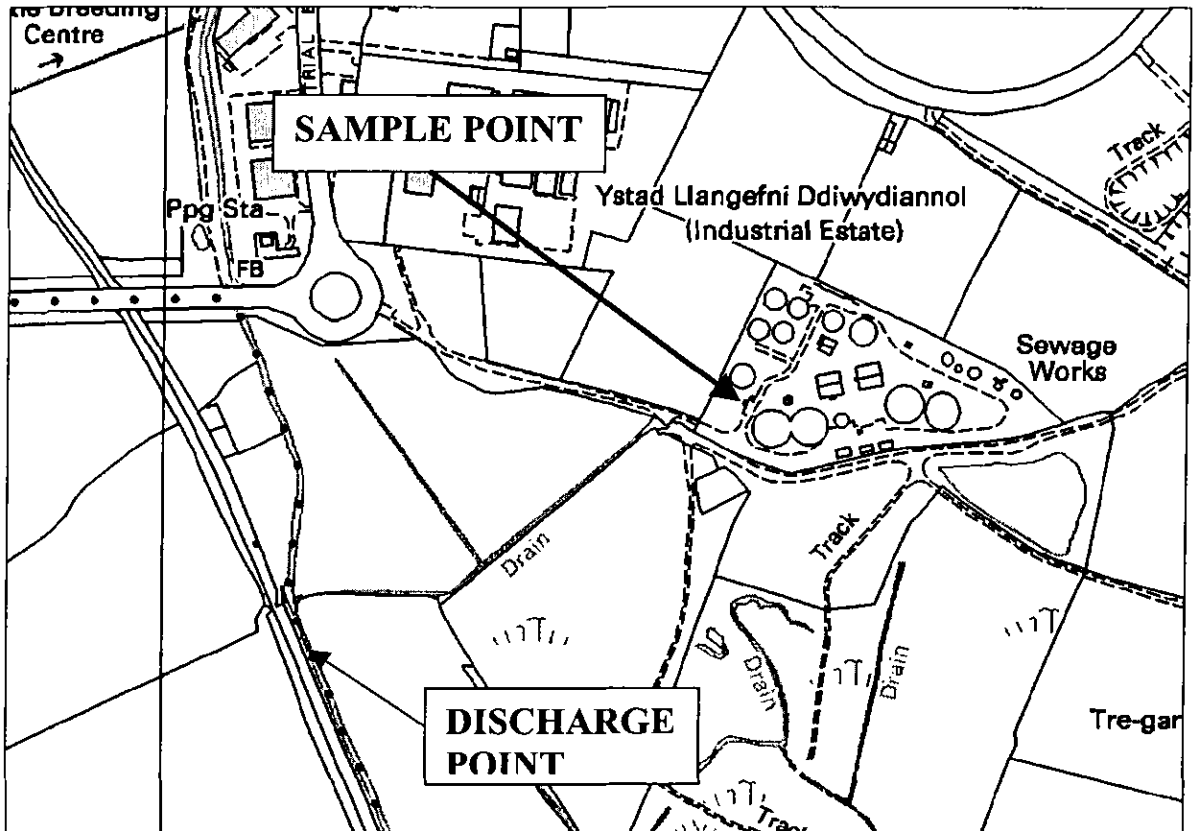




CONSENT NO.	CG0078002
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Annex 1

Plan CG0078002



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WEPD/OD/46/D7  
00780-02  
WWA Ref CG 0130901

WO REF WEP/WS 9111/22

SETTLED  
STORM

**WELSH OFFICE**

**CONTROL OF POLLUTION ACT 1974: SECTIONS 34 & 55  
THE CONTROL OF POLLUTION (DISCHARGES BY AUTHORITIES) REGULATIONS 1984  
CONSENT FOR A DISCHARGE**

**WHEREAS**

1. The WELSH WATER AUTHORITY (hereinafter referred to as 'the Water Authority') proposes to discharge settled storm sewage to the Afon Cefni from the Llangefni Sewage Treatment Works at national grid reference SH 4647 7371 as shown on the attached plan.

2. The proposals require the consent of the Secretary of State for WALES in pursuance of sections 34 and 55 of the Control of Pollution Act 1974 as modified by the Control of Pollution (Discharges by Authorities) Regulations 1984 (hereinafter referred to as 'the Regulations').

3. In accordance with the provisions of Regulation 2 of the Regulations the Water Authority have submitted the proposals to the Secretary of State in the form of an application for consent dated 2 December 1986.

THE SECRETARY OF STATE FOR WALES hereby consents to the proposed discharge subject to the conditions specified in the Schedule hereto attached.

Dated this 10<sup>th</sup> day of November  
1987

Signed P. R. Mander.....

On behalf of the Secretary  
of State for Wales

## SCHEDULE

Conditions prescribed for the discharge of settled storm sewage from the Llangefni Sewage Treatment Works to the Afon Cefni at Grid Reference SH 4647 7371.

"Sewage" can mean domestic sewage alone or in admixture with industrial waste water(s).

1. The effluent discharged shall consist only of settled storm sewage.
2. The sewage at all flow rates into the plant between 4690 cubic metres per day (54.3 litres per second) and 15552 cubic metres per day (180 litres per second) shall receive settlement. The period of settlement shall not be less than 1.59 hours at the maximum rate of flow into the storm tank(s) (being the difference between the two flow rates quoted above) and the rise rate in the tank(s) (being the maximum flow rate divided by the tank(s) cross-sectional area based on the side wall diameter) shall not be greater than 1.44 metres per hour.
3. As soon as is practicable after cessation of storm sewage flows into the tank(s), the tank(s) contents shall be discharged for biological treatment and the tank(s) cleaned. Under no circumstances shall the tank contents be allowed to remain in the tank(s) until such time as advanced anaerobiosis or large visible algae growths occur.
4. A copy of this consent, suitably protected against the weather shall be posted within the site of the works. Further copies shall be posted as and when required to maintain effective notice of the consent on the site of the works.
5. All the provisions of this consent shall come into operation on the works commissioning date. The Authority shall inform the Welsh Office (HMIP) of the commissioning date at least one calendar month prior to this date.

**AFON CEFNI**

**LLANGEFNI SEWAGE  
DISPOSAL WORKS**

**LLANGEFNI STW**

**FINAL EFFLUENT/  
STORM TANK EFFLUENT  
DISCHARGE POINT  
SH 4613 7432**

**LLANGEFNI STW**

**STORM TANK  
DISCHARGE  
SH 4647 7371**

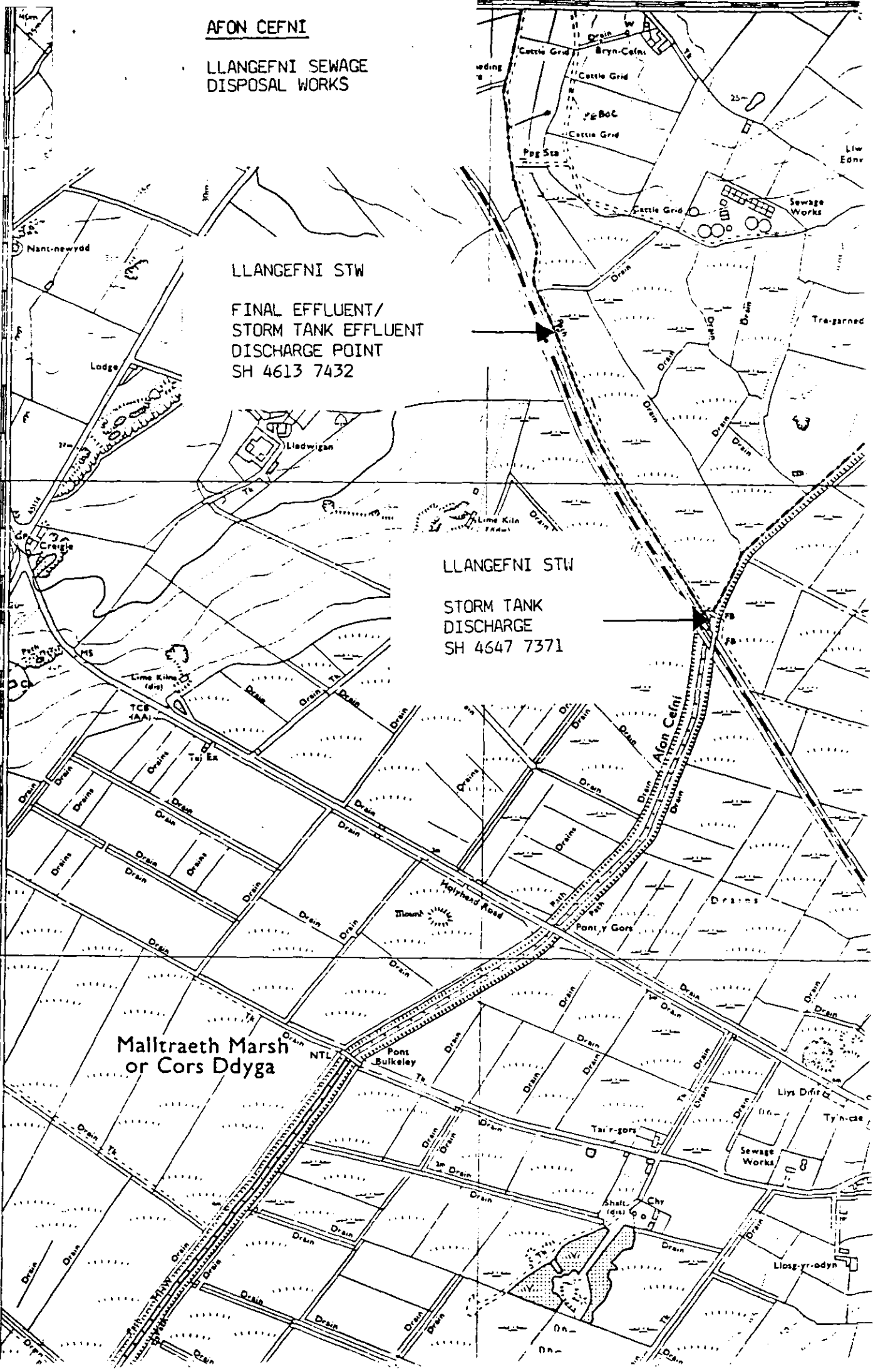
**Malltraeth Marsh  
or Cors Ddya**

LLANGRISTOLIUS CP

LAT 53 14

73

74



CONSENT NO.

CG0078002



ASiantaeth 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 Cyf.  
Pentwyn Road  
Nelson  
Treharris  
Mid Glamorgan 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 STORM SEWAGE** as follows:

Settled Storm Sewage with respect to Consent No. CG0078002 issued on the 18<sup>th</sup> September 2002

**FROM: Llangefni Wastewater Treatment Works Storm Tank**

**AT: Industrial Estate Road, Llangefni, Anglesey**

**TO: the River Cefni**

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

Settled Storm Sewage

Schedule No. CG0078002 01

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 alters 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 31st day of March 2005  
This variation of consent takes effect on the 31<sup>st</sup> day of March 2005

Signed .....  .....

**IWAN WILLIAMS**

Regulatory Water Quality Team Leader





<b>CONSENT NO.</b>	<b>CG0078002</b>
<b>SCHEDULE NO.</b>	<b>CG0078002 01</b>
<b>DATE ISSUED</b>	<b>31st March 2005</b>

## **CONDITIONS OF CONSENT TO DISCHARGE**

**Settled Storm Sewage ("the Discharge")**

**FROM: Llangefni Wastewater Treatment Works, Industrial Estate Road,  
Llangefni, Anglesey**

### **NATURE**

1. The Discharge shall consist solely of settled storm sewage.

### **LOCATION**

2. The Discharge shall be made in the manner and at the place specified as:
  - (a) discharging via a 375 millimetre diameter pipe;
  - (b) discharging to the River Cefni;
  - (c) at National Grid Reference SH 46097 74394;
  - (d) shown marked 'Consent Point' on Plan CG0078002 attached as Annex 1.

### **SAMPLING POINTS**

3. A sample point shall be provided and maintained at National Grid Reference SH 46507 74602, as shown marked 'Discharge Sample Point' on Plan number CG0078002 attached as Annex 1, 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.





CONSENT NO.	CG0078002
SCHEDULE NO.	CG0078002 01

## VOLUME

4. The Discharge shall occur when and only for as long as, the storm tanks are full. The discharge of storm sewage to the storm tank shall only occur when the rate of flow at the storm sewage separating weir is in excess of 150 litres per second due to rainfall and/or snow melt and shall consist only of flows in excess of this figure. The storm tanks shall be emptied and their contents returned for full treatment as soon as practicable after cessation of the overflow to the storm tanks.
5. The capacity of the storm tank(s) shall be at least 810 cubic metres.

## COMPOSITION

6.
  - (a) The discharge shall have passed, without prior comminution or maceration, through a screening device having apertures no greater than 6 mm in two dimensions.
  - (b) The screening device shall be maintained in an efficient operational condition.
  - (c) All screenings must be removed and disposed of in a manner such as to prevent entry to the discharge.

## WORKS OPERATION

7.
  - (a) The works shall be operated and the effluent shall be treated in a manner which, so far as reasonably practicable, minimises the polluting effects of the discharge made from the works on controlled waters.
  - (b) This condition does not require any alteration of the works or a change in the type of treatment used.





CONSENT NO.	CG0078002
SCHEDULE NO.	CG0078002 01

### SUBSTANTIAL CHANGE

8. (a) 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.
- (b) A discharge of trade effluent into the works is new if -
- (i) 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
  - (ii) it is made by a third party and the discharge is authorised on or after that date.
- (c) A discharge of trade effluent into the works is altered if -
- (i) it is made by the sewerage undertaker and its composition or quantity changes significantly on or after date of effect of this consent ; or
  - (ii) it is made by a third party and the alteration of the discharge is authorised on or after that date.
- (d) 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 characteristics of the discharge which are specifically regulated by other conditions of this consent schedule but it may be significant if it is caused by a change in some other characteristic of the discharge.
- (e) For the purposes of this condition “trade effluent” means -
- (i) any discharge by the sewerage undertaker other than
    - (1) domestic sewage from premises connected directly or indirectly to the works; or
    - (2) surface water run-off;
  - (ii) 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.





CONSENT NO.	CG0078002
SCHEDULE NO.	CG0078002 01

#### UNAUTHORISED DISCHARGE

9. (a) 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.
- (b) 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.
- (c) 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.

#### RECORDING AND REPORTING

10. (a) The Consent Holder shall establish and operate a documented maintenance programme and record all non-routine actions undertaken that may have adversely affected the operation of the storm tanks. 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 the operation of the storm tanks.



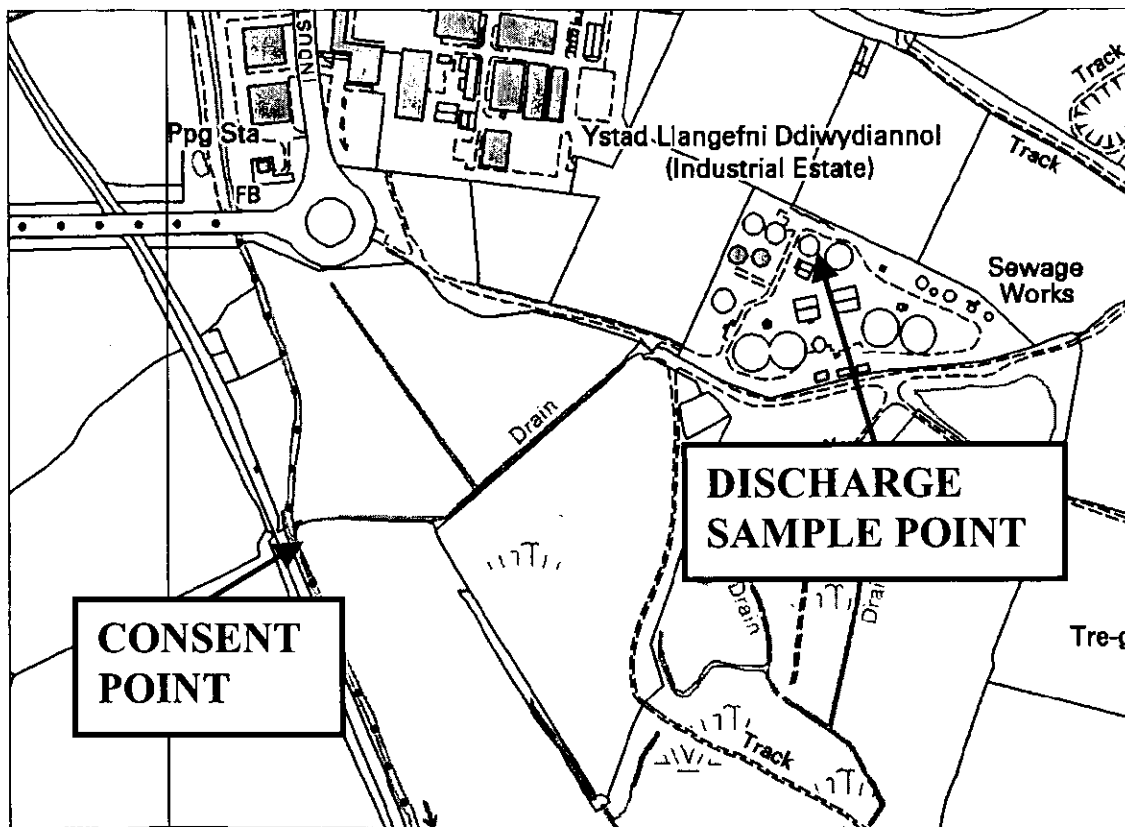
CONSENT NO.	CG0078002
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ASiantaeth yr  
Amgylchedd Cymru  
Environment  
Agency Wales

ANNEX 1

PLAN No CG0078002



NOT TO SCALE

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ASiantaeth YR  
AMGYLCHEDD CYMRU  
ENVIRONMENT  
AGENCY WALES

Eich cyf/Your ref.  
Ein cyf/Our ref. WP/RP/CG0078002  
Enquiries Ruth Prichard  
Dyddiad/Date: 24<sup>th</sup> March 2005

Tony Andrews  
Environment Quality Scientist  
Dwr Cymru Cyf  
Pentwyn Road  
Nelson  
Treharris  
Mid Glamorgan  
CF46 6LY

F. A. O Jan Edwards

Dear Mrs Jan Edwards,

**RE: WATER RESOURCES ACT 1991, SCHEDULE 10 (AS AMENDED BY THE ENVIRONMENT ACT 1995) APPLICATION FOR VARIATION OF CONSENT TO DISCHARGE NO CG0078002.**

Further to your application for variation of consent of the Agency to discharge under the provisions of Section 88 of the Water Resources Act 1991, I enclose the Agency's formal notice of the variations made to the conditions of the consent to discharge storm sewage from Llangefni Wastewater Treatment Works Storm Tank, Industrial Estate Road, Llangefni, Anglesey.

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.

If you are not satisfied with the new conditions of the consent you may appeal against the decision to the National Assembly for Wales at Cathays Park, Cardiff CF10 3NQ.

Please take careful note that if the holder of the consent changes, you must inform the Agency IN WRITING as soon as possible of the name of the new holder. This to ensure that the rights and charges associated with the Consent are transferred to the new holder. A certificate of Holder notice will be sent to you shortly which is designed for this purpose, and should be kept safely with the Consent until required.

Asiantaeth yr Amgylchedd Cymru  
Ffordd Caer, Bwcle, Sir y Flint CH7 3AJ  
Ffon 08708 506 506, Ffacs 01244 550144

Environment Agency Wales  
Chester Road, Buckley, Flintshire CH7 3AJ  
Tel 08708 506 506, Fax 01244 550144



If you have any queries regarding the enforcement of this consent, please do not hesitate to contact Iwan Williams, Regulatory Water Quality Team Leader, Environment Agency, Chester Road, Buckley, Flintshire, CH7 3AJ.

Yours sincerely,

**Kelvin Graham**  
**Team Leader Customer Contact and Authorisations**  
Enc.

**Asiantaeth yr Amgylchedd Cymru**  
Ffordd Caer, Bwcle, Sir y Fflint CH7 3AJ  
Ffon 08708 506 506, Ffacs 01244 550144

**Environment Agency Wales**  
Chester Road, Buckley, Flintshire CH7 3AJ  
Tel 08708 506 506, Fax 01244 550144



**Cyngor Cefn Gwlad Cymru**  
**Countrywide Council for Wales**

SM47

**CADEIRYDD/CHAIRMAN: JOHN LLOYD JONES OBE**

Anfonwch eich ateb at/Please reply to:

John Ratcliffe

Llinell Union/Direct Line: 01248 672 506

Tel: 01248 672506 Ffacs/Fax: 01248 679259

Ebost/Email: j.ratcliffe@ccw.gov.uk

**PRIF WEITHREDWR/CHIEF EXECUTIVE: ROGER THOMAS**

Swyddfa Ardal Gogledd Orllewin/

North Wales Region Office

Llys y Bont

Parc Menai

BANGOR

Gwynedd

LL57 4BN

Kelvin Graham

Team Leader Customer Contact & Authorisations

Environment Agency Wales

Chester Rd

Buckley

Flintshire

CH7 3AJ

Your ref: WP/RP/CG0078002

4 March 2005

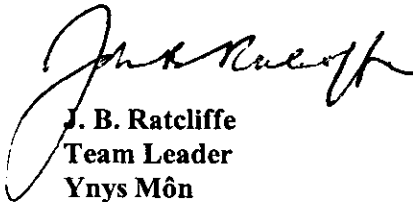
Dear Sir

**WATER RESOURCES ACT 1991 Sch 10 ETC / HD APENDIX 11 CONSULTATION**  
**CASE: Storm / emergency sewage discharge, Dwr Cymru, Llangefni WWTW**

Thank you for your letter of 10 January 2005.

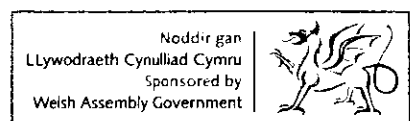
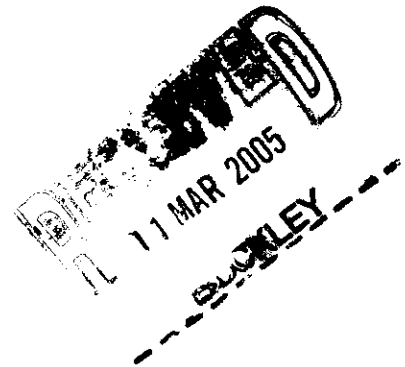
I attach copies of Appendix 11 with relevant comments.

Yours faithfully



**J. B. Ratcliffe**  
**Team Leader**  
**Ynys Môn**

Enc



*Gofalu am natur Cymru – ar y tir ac yn y môr • Caring for our natural heritage – on land and in the sea*

**Prif Swyddfa/Headquarters**

**MAES-Y-FFYNNON, PENRHOSGARNEDD, BANGOR, GWYNEDD LL57 2DW FFÔN/TEL: 01248 385500 FFACS/FAX: 01248 355782**

<http://www.ccw.gov.uk>

## APPENDIX 11

### Form HR01: Proforma for new applications within Stage 2 criteria.



**ENVIRONMENT  
AGENCY**

***Environment Agency Record of Assessment of Likely Significant Effect On A European Site (Stage 2)***

The new application for a *<please fill in details>* detailed below is within the Stage 1 criteria of *<please fill in details>*, and in order to progress the application a Stage 2 assessment and consultation with EN/CCW is required.

**PART A**

*To be completed by relevant technical/project officer in consultation with Conservation/Ecology section and EN/CCW*

<b>1. Type of permission/activity:</b>	Water Resources Act (1991) (as amended by Environment Act 1995) consent to discharge
<b>2. Agency reference no:</b>	CG0078002
<b>3. National Grid reference:</b>	SH 46097 74394
<b>4. Site reference:</b>	Llangefni WwTW, Industrial estate Road, Llangefni, Ynys Mon, LL77 7JA
<b>5. Brief description of proposal:</b>	Application to discharge screened sewage effluent under storm conditions to the Afon Cefni.
<b>6. European site name(s) and status:</b>	Glannau Mon: Cors Heli cSAC: UK0020025 Y Twyni o Abermenai I Aberffraw cSAC: UK0020021
<b>7. List of interest features:</b>	<ol style="list-style-type: none"> <li>1. Estuarine and intertidal habitats</li> <li>2. Coastal habitats (sensitive to acidification)</li> <li>3. Coastal Habitats</li> <li>4. Standing waters (not sensitive to acidification)</li> <li>5. Coastal plants</li> <li>6. Mosses and liverworts</li> </ol>
<b>8. Is the proposal directly connected with or necessary to the management of the site for nature conservation?</b>	No
<b>9. What potential hazards are likely to affect the interest features? (Refer to relevant sensitivity matrix and only include those to which the interest features are sensitive). Are the interest features potentially exposed to the hazard?</b>	

Sensitive Interest Feature:	Potential hazard:	Potential exposure to hazard and mechanism of effect/impact if known:

<b>Glannau Mon: Cors Heli cSAC features:</b>		
<b>1.12 Estuarine and intertidal habitats:</b> <ul style="list-style-type: none"> <li>▪ Atlantic salt meadows</li> <li>▪ Estuaries</li> <li>▪ Mudflats and sandflats not covered by seawater at low tide</li> <li>▪ <i>Salicornia</i> and other annuals colonising mud and sand</li> </ul>	A, b, c, d, e, f, g, h	Main risk : A
<b>Y Twyni o Abermenai I Aberffraw cSAC features:</b>		
<b>1.11 Coastal habitats (sensitive to abstraction):</b> <ul style="list-style-type: none"> <li>▪ Dunes with <i>Salix arenaria</i></li> <li>▪ Humid Dune slacks</li> </ul>	A, b, c, d, f, g	Main risk : A
<b>1.10 Coastal habitats:</b> <ul style="list-style-type: none"> <li>▪ Embryonic shifting dunes</li> <li>▪ Fixed dunes with herbaceous vegetation (grey dunes)</li> <li>▪ Shifting dunes along the shoreline with <i>Ammophil arenaria</i> (white dunes)</li> </ul>	A, c, f, g	Main risk : A
<b>1.5 Standing waters (not sensitive to acidification):</b> <ul style="list-style-type: none"> <li>▪ Natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i> type vegetation</li> </ul>	A, b, c, d, e, f,	Main risk : A
<b>2.11 Coastal plants:</b> <ul style="list-style-type: none"> <li>▪ Shore dock</li> </ul>	A, c, f, g	Main risk : A
<b>2.4 Mosses and Liverworts:</b> <ul style="list-style-type: none"> <li>▪ Petal wort</li> </ul>	N/A	
<b>Key: -</b> A – Toxic contamination B – Nutrient enrichment C – pH changes D – Changes in salinity regime E – Changes in thermal regime F – Physical damage G – Turbidity H - Siltation		

<b>10. Is the potential scale or magnitude of any effect likely to be significant?</b>	
<b>a) Alone?</b> (explain conclusion, e.g. in relation to de minimus criteria)	No – see point 10c

<p><b>b) In combination with other plans or projects?</b></p>	<p>No - see point 10c</p>	
<p><b>c) In combination with plans/projects of other Competent Authorities?</b></p>	<p>As a result of its risk assessment, the Agency can conclude that this application could not act in combination with plans/projects of other competent authorities. Consultation has not been necessary and our conclusion is that this project could not act alone or in combination with any other plans or projects</p> <p>AMP 3 is a national scheme undertaken by Welsh Water designed to improve water quality The scheme of improvements taking place Llangefni Wastewater Treatment Works has been assessed as a catchment resolution.</p> <p>All trade inputs to this works have been taking into account during the planning phase and, as such, there are no 'combined effects' expected from these discharges.</p>	
<p><b>11. Conclusion: Is the proposal likely to have a significant effect 'alone or in combination' on a European site?</b></p>	<p>This is an application to discharge screened sewage effluent under storm conditions to the Afon Cefni.</p> <p>This is an application for a variation to an existing consent to discharge for storm waters at Llangefni WwTW under the AMP 3 programme.</p> <p>Improvements include a provision for all flows to be screened through 6mm particle-sized screens prior to stormwater separation to replace the existing primary settlement method of treatment.</p> <p>Storm tanks will provide up to 810m<sup>3</sup> of storage and the discharge will take place if this capacity is exceeded and the flow exceeds 150l/s. In this event it is anticipated that the sewage will have undergone sufficient dilution before entering the watercourse.</p> <p>Extensive consultation has taken place between Dŵr Cymru Welsh Water and the Environment Agency to ensure the WwTW meets AMP design guidelines. It is anticipated that this discharge will have no detrimental effect upon the surrounding habitats, as it is part of a scheme by Welsh Water to improve effluent quality (and hence water quality) in the catchment, and is an improvement to the current effluent quality at the outlet.</p>	
<p><b>12. Name of EA Officer:</b></p>	<p>Sarah Middleton</p>	<p>04/01/05</p>

<p><b>13. EN/CCW comment on assessment:</b></p> <p>(If the EN/CCW officer disagrees with the conclusion of 10c, please include details of the other Competent Authorities which should be consulted).</p>	<p><i>Agreed no likely significant effect on SAC.</i></p>	
<p><b>14. Name of EN/CCW Officer:</b></p>	<p><i>John Nalaloff</i> <i>Team Leader Lays M.</i></p>	<p><b>Date:</b> <i>07 / 03 / 05</i></p>
<p><b>IF THE PROPOSAL IS LIKELY TO HAVE A SIGNIFICANT EFFECT AN APPROPRIATE ASSESSMENT WILL BE REQUIRED (see part B for suggested scope).</b></p>		

**Part B - SUGGESTED SCOPE OF THE APPROPRIATE ASSESSMENT:**

(see also EN and CCW Habitats Regulations Guidance Notes HRGN1 and OH 99/01)  
 (Water Resources, please see note in Appendix 4 of the guidance for assessing new permissions)

(add details to following framework)

- Other competent authorities involved (the scope of the appropriate assessment must be agreed with them).
- Characterise the site in relation to the qualifying features and their conservation objectives;
  - Existing information
  - Additional surveys
  - Management/ unauthorised impacts
- Detailed description of plan/project
- Assess each likely impact on the interest features;
  - Compare with historical data
  - predict impacts
  - compare with impact from management/unauthorised activities
- Determine the extent to which each possible impact can be avoided.
- What alternative solutions could be considered?

**15. EN/CCW Comment on scope of appropriate assessment:**

NA

**16. Name of EN/CCW Officer:**

*J. Blawie*

**Date:** 04/05/05



# Cyngor Cefn Gwlad Cymru Countryside Council for Wales

SM97

CADEIRYDD/CHAIRMAN: JOHN LLOYD JONES OBE

Anfonwch eich ateb at/Please reply to:

John Ratcliffe

Llinell Union/Direct Line: 01248 672 506

Tel: 01248 672506 Ffacs/Fax: 01248 679259

Ebost/Email: j.ratcliffe@ccw.gov.uk

PRIF WEITHREDWR/CHIEF EXECUTIVE: ROGER THOMAS

Swyddfa Ardal Gogledd Orllewin/

North Wales Region Office

Llys y Bont

Parc Menai

BANGOR

Gwynedd

LL57 4BN

Kelvin Graham  
Team Leader Customer Contact & Authorisations  
Environment Agency Wales  
Chester Rd  
Buckley  
Flintshire  
CH7 3AJ

Your ref: WP/RP/CG0078002

4 March 2005


Dear Sir

**WATER RESOURCES ACT 1991 Sch 10 ETC / HD APENDIX 11 CONSULTATION  
CASE: Storm / emergency sewage discharge, Dwr Cymru, Llangefni WWTW**

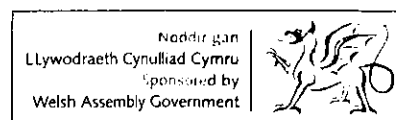
Thank you for your letter of 10 January 2005.

I attach copies of Appendix 11 with relevant comments.

Yours faithfully

  
J. B. Ratcliffe  
Team Leader  
Ynys Môn

Enc



*Gofalu am natur Cymru – ar y tir ac yn y môr • Caring for our natural heritage – on land and in the sea*

Prif Swyddfa/Headquarters

MAES-Y-FFYNNON, PENRHOSGARNEDD, BANGOR, GWYNEDD LL57 2DW FFÔN/TEL: 01248 385500 FFACS/FAX: 01248 355782

<http://www.ccw.gov.uk>

## APPENDIX 11

### Form HR01: Proforma for new applications within Stage 2 criteria.



**ENVIRONMENT  
AGENCY**

*Environment Agency Record of Assessment of Likely Significant Effect On A European Site (Stage 2)*

The new application for a <please fill in details> detailed below is within the Stage 1 criteria of <please fill in details>, and in order to progress the application a Stage 2 assessment and consultation with EN/CCW is required.

**PART A**

*To be completed by relevant technical/project officer in consultation with Conservation/Ecology section and EN/CCW*

<b>1. Type of permission/activity:</b>	Water Resources Act (1991) (as amended by Environment Act 1995) consent to discharge
<b>2. Agency reference no:</b>	CG0078002
<b>3. National Grid reference:</b>	SH 46097 74394
<b>4. Site reference:</b>	Llangefni WWTW, Industrial estate Road, Llangefni, Ynys Mon, LL77 7JA
<b>5. Brief description of proposal:</b>	Application to discharge screened sewage effluent under storm conditions to the Afon Cefni.
<b>6. European site name(s) and status:</b>	Glannau Mon: Cors Heli cSAC: UK0020025 Y Twyni o Abermenai I Aberffraw cSAC: UK0020021
<b>7. List of interest features:</b>	<ol style="list-style-type: none"> <li>1. Estuarine and intertidal habitats</li> <li>2. Coastal habitats (sensitive to acidification)</li> <li>3. Coastal Habitats</li> <li>4. Standing waters (not sensitive to acidification)</li> <li>5. Coastal plants</li> <li>6. Mosses and liverworts</li> </ol>
<b>8. Is the proposal directly connected with or necessary to the management of the site for nature conservation?</b>	No

**9. What potential hazards are likely to affect the interest features? (Refer to relevant sensitivity matrix and only include those to which the interest features are sensitive). Are the interest features potentially exposed to the hazard?**

Sensitive Interest Feature:	Potential hazard:	Potential exposure to hazard and mechanism of effect/impact if known:

<b>Glannau Mon: Cors Heli cSAC features:</b>		
<b>1.12 Estuarine and intertidal habitats:</b> <ul style="list-style-type: none"> <li>▪ Atlantic salt meadows</li> <li>▪ Estuaries</li> <li>▪ Mudflats and sandflats not covered by seawater at low tide</li> <li>▪ <i>Salicornia</i> and other annuals colonising mud and sand</li> </ul>	A, b, c, d, e, f, g, h	Main risk : A
<b>Y Twyni o Abermenai I Aberffraw cSAC features:</b>		
<b>1.11 Coastal habitats (sensitive to abstraction):</b> <ul style="list-style-type: none"> <li>▪ Dunes with <i>Salix arenaria</i></li> <li>▪ Humid Dune slacks</li> </ul>	A, b, c, d, f, g	Main risk : A
<b>1.10 Coastal habitats:</b> <ul style="list-style-type: none"> <li>▪ Embryonic shifting dunes</li> <li>▪ Fixed dunes with herbaceous vegetation (grey dunes)</li> <li>▪ Shifting dunes along the shoreline with <i>Ammophil arenaria</i> (white dunes)</li> </ul>	A, c, f, g	Main risk : A
<b>1.5 Standing waters (not sensitive to acidification):</b> <ul style="list-style-type: none"> <li>▪ Natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i> type vegetation</li> </ul>	A, b, c, d, e, f,	Main risk : A
<b>2.11 Coastal plants:</b> <ul style="list-style-type: none"> <li>▪ Shore dock</li> </ul>	A, c, f, g	Main risk : A
<b>2.4 Mosses and Liverworts:</b> <ul style="list-style-type: none"> <li>▪ Petal wort</li> </ul>	N/A	
Key: - A – Toxic contamination B – Nutrient enrichment C – pH changes D – Changes in salinity regime E – Changes in thermal regime F – Physical damage G – Turbidity H - Siltation		

**10. Is the potential scale or magnitude of any effect likely to be significant?**

a) Alone?  
 (explain conclusion, e.g. in relation to de minimus criteria)

No – see point 10c

<p><b>b) In combination with other plans or projects?</b></p>	<p>No - see point 10c</p>	
<p><b>c) In combination with plans/projects of other Competent Authorities?</b></p>	<p>As a result of its risk assessment, the Agency can conclude that this application could not act in combination with plans/projects of other competent authorities. Consultation has not been necessary and our conclusion is that this project could not act alone or in combination with any other plans or projects</p> <p>AMP 3 is a national scheme undertaken by Welsh Water designed to improve water quality The scheme of improvements taking place Llangefni Wastewater Treatment Works has been assessed as a catchment resolution.</p> <p>All trade inputs to this works have been taking into account during the planning phase and, as such, there are no 'combined effects' expected from these discharges.</p>	
<p><b>11. Conclusion: Is the proposal likely to have a significant effect 'alone or in combination' on a European site?</b></p>	<p>This is an application to discharge screened sewage effluent under storm conditions to the Afon Cefni.</p> <p>This is an application for a variation to an existing consent to discharge for storm waters at Llangefni WwTW under the AMP 3 programme.</p> <p>Improvements include a provision for all flows to be screened through 6mm particle-sized screens prior to stormwater separation to replace the existing primary settlement method of treatment.</p> <p>Storm tanks will provide up to 810m<sup>3</sup> of storage and the discharge will take place if this capacity is exceeded and the flow exceeds 150l/s. In this event it is anticipated that the sewage will have undergone sufficient dilution before entering the watercourse.</p> <p>Extensive consultation has taken place between Dŵr Cymru Welsh Water and the Environment Agency to ensure the WwTW meets AMP design guidelines. It is anticipated that this discharge will have no detrimental effect upon the surrounding habitats, as it is part of a scheme by Welsh Water to improve effluent quality (and hence water quality) in the catchment, and is an improvement to the current effluent quality at the outlet.</p>	
<p><b>12. Name of EA Officer:</b></p>	<p>Sarah Middleton</p>	<p>04/01/05</p>

<p><b>13. EN/CCW comment on assessment:</b></p> <p>(If the EN/CCW officer disagrees with the conclusion of 10c, please include details of the other Competent Authorities which should be consulted).</p>	<p><i>Agreed no likely significant effect on SAC.</i></p>	
<p><b>14. Name of EN/CCW Officer:</b></p>	<p><i>John Nalodoff</i> <i>Team Leader Lays M.</i></p>	<p><b>Date:</b> <i>04 / 03 / 05</i></p>
<p><b>IF THE PROPOSAL IS LIKELY TO HAVE A SIGNIFICANT EFFECT AN APPROPRIATE ASSESSMENT WILL BE REQUIRED (see part B for suggested scope).</b></p>		

**Part B - SUGGESTED SCOPE OF THE APPROPRIATE ASSESSMENT:**

(see also EN and CCW Habitats Regulations Guidance Notes HRGN1 and OH 99/01)  
(Water Resources, please see note in Appendix 4 of the guidance for assessing new permissions)

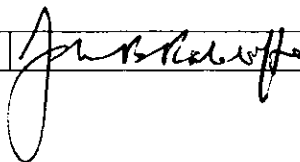
(add details to following framework)

- Other competent authorities involved (the scope of the appropriate assessment must be agreed with them).
- Characterise the site in relation to the qualifying features and their conservation objectives;
  - Existing information
  - Additional surveys
  - Management/ unauthorised impacts
- Detailed description of plan/project
- Assess each likely impact on the interest features;
  - Compare with historical data
  - predict impacts
  - compare with impact from management/unauthorised activities
- Determine the extent to which each possible impact can be avoided.
- What alternative solutions could be considered?

**15. EN/CCW Comment on scope of appropriate assessment:**

NA.

**16. Name of EN/CCW Officer:**



**Date:** 04/05/05

## The CROW Act 2000 and Environment Agency Permissions - Formal Notice



ENVIRONMENT  
AGENCY

### Environment Agency Formal Notice To English Nature/Countryside Council For Wales

Requirements of section 28I of the Wildlife & Countryside Act 1981 as incorporated by the Countryside and Rights of Way Act (CROW) 2000.

Duty in relation to granting any consent, licence or permit for activities to be carried out in or capable of affecting Sites of Special Scientific Interest (SSSI).

To be completed by relevant technical/project officer in consultation with Conservation section, referring to the Agency Guidance and the flow chart in CROW Appendix 2 titled 'The CROW Act 2000 and Environment Agency Permissions'.

NB: [1] It is expected that there has been preliminary Consultation with EN/CCW, where the application timetable permits.

[2] Complete this form for any proposed permissions which the Agency is minded to approve, having taken account of the Agency's S28G duties. This applies to all proposed permissions within an SSSI which relate to operations listed on the OLD list, and to permissions outside an SSSI which are likely to damage its special features.

1. Agency Region and Area Office:	Environment Agency Wales, Chester Road, Buckley, Flintshire
2. Name of SSSI(s):	Malltraeth Marsh and Newborough Warren SSSI's.
3. Type of permission:	Application for a discharge of sewage effluent from a Wastewater Treatment Works to surface waters
4. Date for Agency determination:	N/A
5. Predicted 28 day date for EN/CCW Response (under S28 I(4)):	ASAP
6. Agency reference no:	CG0078002
7. National Grid reference:	SH 46097 74394
8. Description of proposal:	Application to discharge sewage effluent intermittently under storm conditions to the Afon Cefni.
9. Is the proposed activity within (wholly or partially) the SSSI boundary?	Discharge flows into the forementioned SSSI's via the Afon Cefni.

**10. If within the SSSI and on the OLD list, and/or outside the SSSI boundary, what aspect of the proposed permission is likely in the Agency view to adversely affect the notified interest of the SSSI?**

This is an application for a variation to an existing consent to discharge for storm waters at Llangefni WwTW under the AMP 3 programme.

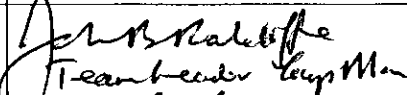
Improvements include a provision for all flows to be screened through 6mm particle-sized screens prior to stormwater separation to replace the existing primary settlement method of treatment.

Storm tanks will provide up to 810m<sup>3</sup> of storage and the discharge will take place if this capacity is exceeded and the flow exceeds 150l/s. In this event it is anticipated that the sewage will have undergone sufficient dilution before entering the watercourse.

Extensive consultation and modelling has taken place between Dŵr Cymru Welsh Water and the Environment Agency to ensure the WwTW meets AMP design guidelines. It is anticipated that this discharge will have no detrimental effect upon the surrounding habitats, as it is part of a scheme by Welsh Water to improve effluent quality (and hence water quality) in the catchment, and is an improvement to the current effluent quality at the outlet.

**13b: Modification to the structure of watercourses including rivers....**

<b>11. Name &amp; job title of Agency Officer:</b>	Sarah Middleton	<b>Date form sent to EN/CCW:</b> 4 <sup>th</sup> January 2005
--	-----------------	--

For Agency use only, once EN/CCW response received		
<b>12. EN/CCW comment on assessment:</b>	<p><b>Please circle one of following:</b></p> <p>1) <u>No comment/advice</u></p> <p>2) Advise approval</p> <p>3) Advise approval with conditions</p> <p>4) Advise refusal</p> <p><b>Please ensure that the EN/CCW response is attached to this Formal Notice.</b></p>	
<b>13. Name &amp; job title of EN/CCW Officer:</b>	 Team Leader Temp Man 04/02/05	<b>Date of receipt of EN/CCW response:</b>

## APPENDIX 11

### Form HR01: Proforma for new applications within Stage 2 criteria.



**ENVIRONMENT  
AGENCY**

***Environment Agency Record of Assessment of Likely Significant Effect On A European Site (Stage 2)***

The new application for a <please fill in details> detailed below is within the Stage 1 criteria of <please fill in details>, and in order to progress the application a Stage 2 assessment and consultation with EN/CCW is required.

**PART A**

*To be completed by relevant technical/project officer in consultation with Conservation/Ecology section and EN/CCW*

<b>1. Type of permission/activity:</b>	Water Resources Act (1991) (as amended by Environment Act 1995) consent to discharge
<b>2. Agency reference no:</b>	CG0078002
<b>3. National Grid reference:</b>	SH 46097 74394
<b>4. Site reference:</b>	Llangefni WwTW, Industrial estate Road, Llangefni, Ynys Mon, LL77 7JA
<b>5. Brief description of proposal:</b>	Application to discharge screened sewage effluent under storm conditions to the Afon Cefni.
<b>6. European site name(s) and status:</b>	Glannau Mon: Cors Heli cSAC: UK0020025 Y Twyni o Abermenai I Aberffraw cSAC: UK0020021
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<b>8. Is the proposal directly connected with or necessary to the management of the site for nature conservation?</b>	No

**9. What potential hazards are likely to affect the interest features? (Refer to relevant sensitivity matrix and only include those to which the interest features are sensitive). Are the interest features potentially exposed to the hazard?**

Sensitive Interest Feature:	Potential hazard:	Potential exposure to hazard and mechanism of effect/impact if known:

<b>Glannau Mon: Cors Heli cSAC features:</b>		
<b>1.12 Estuarine and intertidal habitats:</b> <ul style="list-style-type: none"> <li>▪ Atlantic salt meadows</li> <li>▪ Estuaries</li> <li>▪ Mudflats and sandflats not covered by seawater at low tide</li> <li>▪ <i>Salicornia</i> and other annuals colonising mud and sand</li> </ul>	A, b, c, d, e, f, g, h	Main risk : A
<b><u>Y Twyni o Abermenai I Aberffraw cSAC features:</u></b>		
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<b>1.5 Standing waters (not sensitive to acidification):</b> <ul style="list-style-type: none"> <li>▪ Natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i> type vegetation</li> </ul>	A, b, c, d, e, f,	Main risk : A
<b>2.11 Coastal plants:</b> <ul style="list-style-type: none"> <li>▪ Shore dock</li> </ul>	A, c, f, g	Main risk : A
<b>2.4 Mosses and Liverworts:</b> <ul style="list-style-type: none"> <li>▪ Petal wort</li> </ul>	N/A	
Key: - A – Toxic contamination B – Nutrient enrichment C – pH changes D – Changes in salinity regime E – Changes in thermal regime F – Physical damage G – Turbidity H – Siltation		
<b>10. Is the potential scale or magnitude of any effect likely to be significant?</b>		
<b>a) Alone?</b> (explain conclusion, e.g. in relation to de minimus criteria)	No – see point 10c	

<p><b>b) In combination with other plans or projects?</b></p>	<p>No - see point 10c</p>	
<p><b>c) In combination with plans/projects of other Competent Authorities?</b></p>	<p>As a result of its risk assessment, the Agency can conclude that this application could not act in combination with plans/projects of other competent authorities. Consultation has not been necessary and our conclusion is that this project could not act alone or in combination with any other plans or projects</p> <p>AMP 3 is a national scheme undertaken by Welsh Water designed to improve water quality The scheme of improvements taking place Llangefni Wastewater Treatment Works has been assessed as a catchment resolution.</p> <p>All trade inputs to this works have been taking into account during the planning phase and, as such, there are no 'combined effects' expected from these discharges.</p>	
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<p><b>12. Name of EA Officer:</b></p>	<p>Sarah Middleton</p>	<p>04/01/05</p>

<p><b>13. EN/CCW comment on assessment:</b></p> <p>(If the EN/CCW officer disagrees with the conclusion of 10c, please include details of the other Competent Authorities which should be consulted).</p>		
<p><b>14. Name of EN/CCW Officer:</b></p>		<p><b>Date:</b></p>
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**Part B - SUGGESTED SCOPE OF THE APPROPRIATE ASSESSMENT:**  
(see also EN and CCW Habitats Regulations Guidance Notes HRGN1 and OH 99/01)  
(Water Resources, please see note in Appendix 4 of the guidance for assessing new permissions)  
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- Determine the extent to which each possible impact can be avoided.
- What alternative solutions could be considered?

**15. EN/CCW Comment on scope of appropriate assessment:**

**16. Name of EN/CCW Officer:**

**Date:**

# The CROW Act 2000 and Environment Agency Permissions - Formal Notice



ENVIRONMENT  
AGENCY

## Environment Agency Formal Notice To English Nature/Countryside Council For Wales

Requirements of section 28I of the Wildlife & Countryside Act 1981 as incorporated by the Countryside and Rights of Way Act (CROW) 2000.

Duty in relation to granting any consent, licence or permit for activities to be carried out in or capable of affecting Sites of Special Scientific Interest (SSSI).

To be completed by relevant technical/project officer in consultation with Conservation section, referring to the Agency Guidance and the flow chart in CROW Appendix 2 titled 'The CROW Act 2000 and Environment Agency Permissions'.

NB: [1] It is expected that there has been preliminary Consultation with EN/CCW, where the application timetable permits.

[2] Complete this form for any proposed permissions which the Agency is minded to approve, having taken account of the Agency's S28G duties. This applies to all proposed permissions within an SSSI which relate to operations listed on the OLD list, and to permissions outside an SSSI which are likely to damage its special features.

1. Agency Region and Area Office:	Environment Agency Wales, Chester Road, Buckley, Flintshire
2. Name of SSSI(s):	Malltraeth Marsh and Newborough Warren SSSI's.
3. Type of permission:	Application for a discharge of sewage effluent from a Wastewater Treatment Works to surface waters
4. Date for Agency determination:	N/A
5. Predicted 28 day date for EN/CCW Response (under S28 I(4)):	ASAP
6. Agency reference no:	CG0078002
7. National Grid reference:	SH 46097 74394
8. Description of proposal:	Application to discharge sewage effluent intermittently under storm conditions to the Afon Cefni.
9. Is the proposed activity within (wholly or partially) the SSSI boundary?	Discharge flows into the forementioned SSSI's via the Afon Cefni.

**10. If within the SSSI and on the OLD list, and/or outside the SSSI boundary, what aspect of the proposed permission is likely in the Agency view to adversely affect the notified interest of the SSSI?**

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Improvements include a provision for all flows to be screened through 6mm particle-sized screens prior to stormwater separation to replace the existing primary settlement method of treatment.

Storm tanks will provide up to 810m<sup>3</sup> of storage and the discharge will take place if this capacity is exceeded and the flow exceeds 150l/s. In this event it is anticipated that the sewage will have undergone sufficient dilution before entering the watercourse.

Extensive consultation and modelling has taken place between Dŵr Cymru Welsh Water and the Environment Agency to ensure the WwTW meets AMP design guidelines. It is anticipated that this discharge will have no detrimental effect upon the surrounding habitats, as it is part of a scheme by Welsh Water to improve effluent quality (and hence water quality) in the catchment, and is an improvement to the current effluent quality at the outlet.

**13b: Modification to the structure of watercourses including rivers....**

<b>11. Name &amp; job title of Agency Officer:</b>	Sarah Middleton	<b>Date form sent to EN/CCW:</b> 4 <sup>th</sup> January 2005
--	-----------------	--

For Agency use only, once EN/CCW response received		
<b>12. EN/CCW comment on assessment:</b>	<b>Please circle one of following:</b> 1) No comment/advice 2) Advise approval 3) Advise approval with conditions 4) Advise refusal <b>Please ensure that the EN/CCW response is attached to this Formal Notice.</b>	
<b>13. Name &amp; job title of EN/CCW Officer:</b>		<b>Date of receipt of EN/CCW response:</b>



ASiantaeth YR  
AMGYLCHEDD CYMRU  
ENVIRONMENT  
AGENCY WALES

Eich cyf/Your ref.

Ein cyf/Our ref. WP/RP/CG0078002

Dyddiad/Date: 10<sup>th</sup> January 2005

Mr J Ratcliffe  
Countryside Council for Wales North West Area  
Llys y Bont  
Ffordd y Parc  
Parc Menai  
Bangor  
Gwynedd LL57 4BH

Dear Mr Ratcliffe,

**WATER RESOURCES ACT 1991, SCHEDULE 10 (AS AMENDED BY THE ENVIRONMENT ACT 1995): FORMAL CONSULTATION. APPLICATION FOR CONSENT TO DISCHARGE SEWAGE EFFLUENT UNDER STORM OR EMERGENCY CONDITIONS BY DWR CYMRU CYF FROM LLANGEFNI WWTW, INDUSTRIAL ESTATE ROAD, LLANGEFNI, YNYS MON, LL77 7JA  
APPLICATION NO: CG0078002**

I append a copy of the application for consent to discharge received from Dwr Cymru Cyf and Appendix 11. If you have any comments regarding this application could you please respond by 24<sup>th</sup> January 2005.

Yours sincerely

**Kelvin Graham**  
**Team Leader Customer Contact & Authorisations**

Please ask for Ruth Prichard ext 4502

Asiantaeth yr Amgylchedd Cymru  
Ffordd Caer, Bwele, Sir y Fflint CH7 3AJ  
Ffon 08708 506 506 Ffacs 01244 550144

Environment Agency Wales  
Chester Road, Buckley, Flintshire CH7 3AJ  
Tel 08708 506 506 Fax 01244 550144





ENVIRONMENT AGENCY WALES  
NORTHERN AREA  
CONSENT REVIEW 2004

UWWTD

[URBAN WASTE WATER TREATMENT DIRECTIVE 1991]

FILE NOTE

A snapshot of WRA 91 Discharge Consents qualifying for review under UWWTD was extracted from WIMS (EA electronic Public Register) on the 21<sup>st</sup> April 2004. All details shown on this file note are based on the permission extant as of this date.

CONSENT REF :	CG0078002	VERSION :	3		
OPERATOR :	DWR CYMRU CYFYNGEDIG				
DISCHARGE SITE :	LLANGFNI SETTLED STORM STW				
EXTANT CONSENT ISSUE DATE :	17/09/2002	EFFECTIVE DATE :	18/09/2002		
DWF (m <sup>3</sup> /day) :		MAX DAILY VOL. (m <sup>3</sup> /day) :	UNSPECIFIED	RATE (l/s) :	

Records held on WIMS show LLANGFNI SETTLED STORM STW (CG0078002) to be extant under version 3 issued 17/09/2002 with descriptive consent conditions, effective 18/09/2002. The works is currently consented to discharge a max daily volume of UNSPECIFIEDm<sup>3</sup>/day effluent to the AFON CEFNI at NGR SH4609774394.

UWWTD directive aims to deliver a standard level of sewage treatment throughout EC member states. This has been interpreted as prescribing a minimum of secondary biological treatment (package plant or equivalent) on all discharges made to a controlled surface water; or a minimum of primary (septic tank or equivalent) treatment on all discharges made to ground.

The discharge of UNSPECIFIEDm<sup>3</sup>/day effluent to 'AFON CEFNI', for the purposes of this review, is described as 'irrelevant (intermittent discharge that does not qualify under UWWTD)'. This treatment / receiving water combination has been assessed\* as NON UWWTD under the UWWTD review. This consent is reviewed as NON UWWTD under UWWTD as of 01/09/2005.

\* NB: the assessment of this Discharge Consent to meet UWWTD 'appropriate treatment' criteria is based solely on provision of the appropriate 'threshold' level of minimum treatment for the receiving medium. This review does not assess appropriateness in terms of the specific river needs of the receiving water stretch.

Iwan Williams  
Regulatory Team Leader (Water Quality)

# Water Resources Act 1991

as amended by the Environment Act 1995



ASiantaeth Yr  
Amgylchedd Cymru  
ENVIRONMENT  
AGENCY WALES

## Consents to Discharge

### Certificate of Holder

#### Part A

To: **DWR CYMRU CYFYNGEDIG**  
**PENTWYN ROAD**  
**NELSON**  
**TREHARRIS**  
**MID GLAMORGAN CF46 6LY**

*NB: For a body corporate the job title is a point of contact.*

**Holder Start Date : 31 March 2005**

*The Environment Agency ("the Agency") hereby confirm that the above named person (or organisation) is a / the registered Holder of the Consent : CG0078002 Consent Issued : 31 March 2005*

*Nature of Discharge(s) SSOR Sewage effluent*

*at SH4609774394 LLANGFNI WWTW STORM OVERFLOW*

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*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 (Part B), 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 will 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, quoting the Consent Reference.*

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----- cut here -----

#### Part B

*Please complete in block capitals or type*

To: **Water Resources Act 1991 : Notice of transfer of Consent to Discharge**

**Consent Reference : CG0078002**

**Name : DWR CYMRU CYFYNGEDIG**

**Consent Issued : 31 March 2005**

**Address : PENTWYN ROAD**

**NELSON**

**TREHARRIS**

**MID GLAMORGAN CF46 6LY**

*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 the new Holder(s) :**

**Post Code :**

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

**Signed : .....**

**Dated : .....**

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

**Position (if appropriate) : .....**

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

^  
**Deddf Adnoddau Dwr 1991**  
*fel y'i diwygiwyd gan Ddeddf yr Amgylchedd 1995*



**ASiantaeth yr  
AMGYLCHEDD CYMRU**  
**ENVIRONMENT  
AGENCY WALES**

## Caniatâd Gollwng

Tystysgrif Daliwr

**Rhan A**

**At : DWR CYMRU CYFYNGEDIG**

**PENTWYN ROAD**

**NELSON**

**TREHARRIS**

**MID GLAMORGAN CF46 6LY**

*DS: I gorfforaeth gorfforedig mae teitl y swydd yn bwynt cysylltu.*

*Dyddiad Cychwyn y Daliwr : 31 Mawrth 2005*

*Mae Asiantaeth yr Amgylchedd ("yr Asiantaeth") yn cadarnhau drwy hyn mai / bod y sawl (neu sefydliad) a enwyd uchod yw / yn ddaliwr cofrestredig y caniatâd : CG0078002 Cyhoeddwyd y Caniatâd : 31 Mawrth 2005*

*Natur y Gollyngiad(au) : SSOR Carthffrwd*

*yn SH4609774394 LLANGEFNI WWTW STORM OVERFLOW*

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*Noder : Dylid cadw'r dystysgrif hon gyda'r ddogfen ganiatâd i gyfeirio ati yn y dyfodol. Os byddwch yn trosglwyddo cyfrifoldeb am y gollyngiad i rywun arall, rhaid i chi drosglwyddo'r caniatâd iddo ef neu hi a dweud wrth yr Asiantaeth cyn pen 21 diwrnod. Ni all y Daliwr wadu cyfrifoldeb am y caniatâd, ond gall cofrestriad y Daliwr gael ei drosglwyddo i olynnydd. I wneud hynny, byddwch gystal â llenwi'r ffurflen isod (Rhan B), yna'i dychwelyd i'r cyfeiriad a nodir. Os fethwch â throsglwyddo'r caniatâd, hyd yn oed os nad ydych ar y safle mwyach, gallwch gael eich erlyn am achosi llygredd. Os trosglwyddwch y caniatâd ond heb ddweud wrthym, yna byddwch yn cyflawni trosedd. Os bydd gennych unrhyw ymholiadau a fydddech gystal â chysylltu â'ch swyddfa Asiantaeth yr Amgylchedd lleol, gan ddyfynnu Cyfeirnod y Caniatâd.*

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- - - - -torrwrch yma - - - - -

**Rhan B**

*Llenwch mewn priflythrennau bras neu deipio*

**At : Deddf Adnoddau Dwr 1991 : Hysbysiad am drosglwyddo Caniatâd Gollwng**

**Cyfeirnod y Caniatâd : CG0078002**

**Enw : DWR CYMRU CYFYNGEDIG**

**Cyhoeddwyd y 31 Mawrth 2005**

**Cyfeiriad : PENTWYN ROAD**

**Caniatâd :**

**NELSON**

**TREHARRIS**

**MID GLAMORGAN CF46 6LY**

*Yr wyf fi / Yr ydym ni\* drwy hyn yn hysbysu'r Asiantaeth nad fi / ni mwyach yw\* Daliwr / Deiliaid y caniatâd uchod a fydd yn cael / cafodd ei drosglwyddo i*

*\* dilêer fel yn briodol*

**Enw(au) y Daliwr / Deiliaid newydd :**

**Côd Post :**

**Dyddiad Trosglwyddo i'r Daliwr / Deiliaid newydd :**

**Llofnodwyd :** .....

**Dyddiedig :** .....

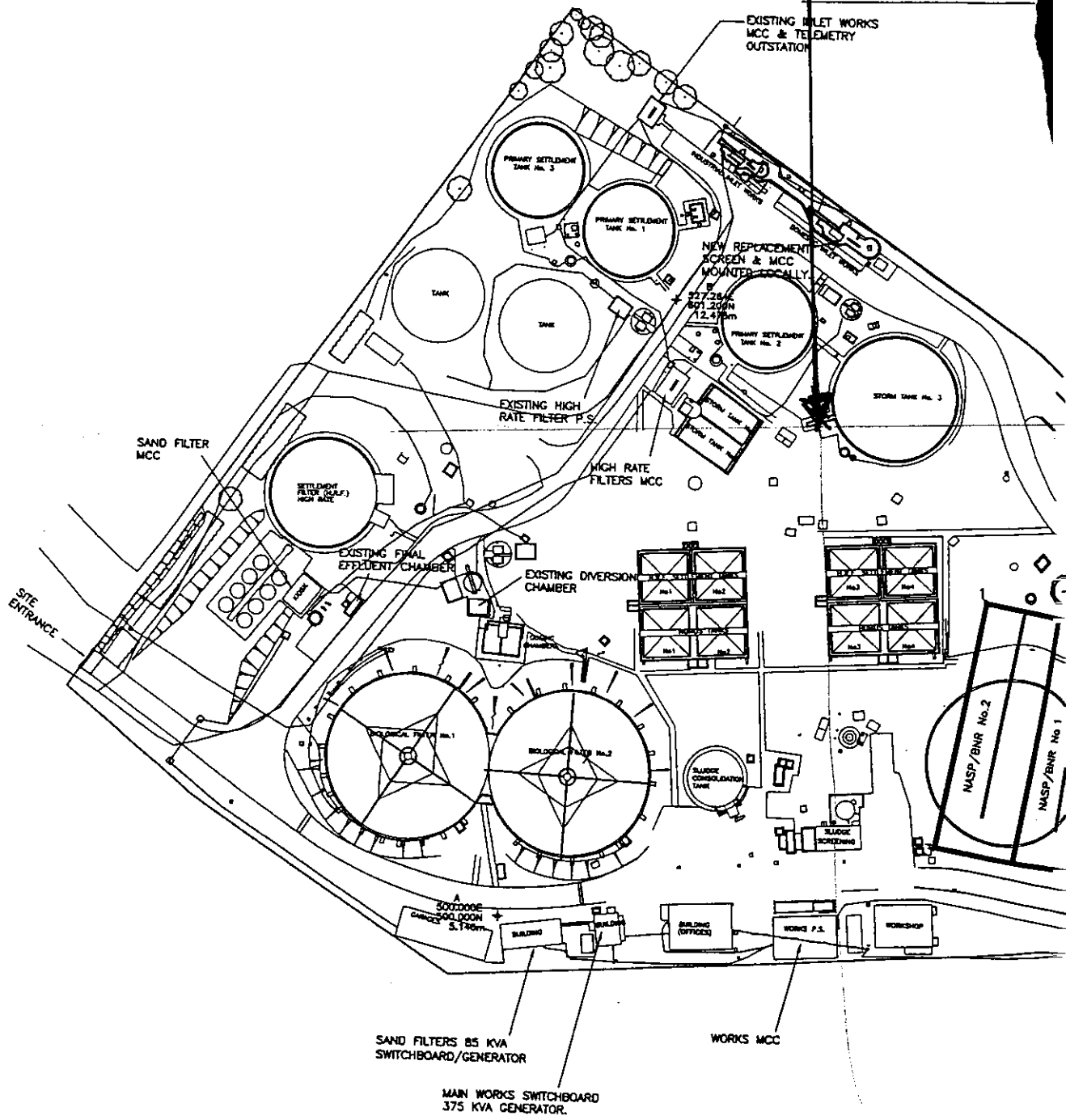
**Enw (priflythrennau bras) :** .....

**Swydd (os yn briodol) :** .....

*(i'w llenwi pan yn llofnodi ar ran corfforaethau corfforedig)*

2006

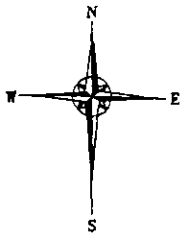
Storm Sample Point  
SH 4660



SAND FILTERS 85 KVA SWITCHBOARD/GENERATOR

MAIN WORKS SWITCHBOARD 375 KVA GENERATOR

WORKS MCC



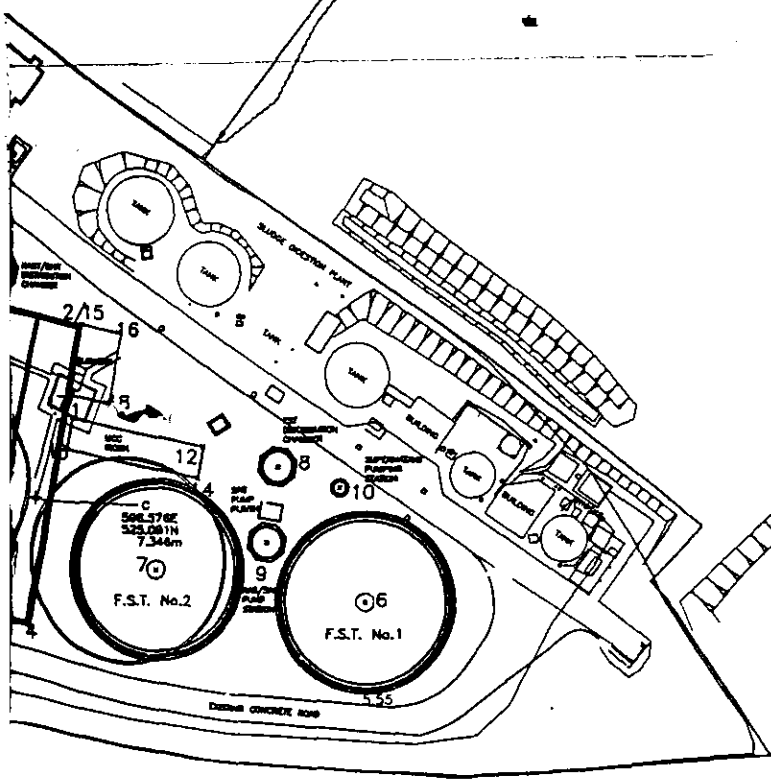
74602

SETTING OUT CO-ORDINATES

CO-ORDINATES GIVEN FOR SETTING OUT OF STRUCTURES RELATE TO EXISTING TEMPORARY SITE SURVEY STATIONS. DETAILS ARE AS FOLLOWS:

STN LOCATION	NORTHING	EASTING
A ADJ GARAGES	500.000	500.000
B ADJ PST NO.1	601.200	527.284
C ADJ F'BED 3/4	525.091	598.576
REF STRUCTURE		
1 NAST/BNR(NW CNR)	553.293	579.455
2 NAST/BNR(NE CNR)	548.430	605.404
3 NAST/BNR(SW CNR)	512.798	571.867
4 NAST/BNR(SE CNR)	507.935	597.815
5 NAST DIST CH (CEN)	555.284	593.258
6 FST NO.1 (CEN)	512.059	643.951
7 FST NO.2 (CEN)	516.263	615.748
8 FST DIST CH (CEN)	529.948	632.183
9 RAS/SAS P.ST(CEN)	519.983	630.697
10 SUPERNATANT P.S (CEN)	527.095	640.498
11 MCC FDN (NW CNR)	535.977	604.077
12 MCC FDN (NE CNR)	532.570	622.260
13 MCC FDN (SW CNR)	531.800	603.294
14 MCC FDN (SE CNR)	528.392	621.478
15 BLOWER FDN (NW)	548.430	605.404
16 BLOWER FDN (NE)	547.377	611.043
17 BLOWER FDN (SW)	539.080	603.852
18 BLOWER FDN (SE)	538.024	609.298

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C	FOR CONSTRUCTION	CSR	MLH	PLP
B	FOR CONSTRUCTION	CSR	MLH	PLP
A	FOR CONSTRUCTION	CSR	MLH	PLP
REV	REVISION	ISSUED	DATE	BY
<p>CONSULTING ENGINEERS</p> <p><b>Babtie</b></p> <p>PRINCIPAL CONTRACTOR</p> <p><b>MEICA</b></p> <p>DISTRICT</p> <p>Partnership Process Dier <b>WATER PROCESS</b> partners</p> <p>PROJECT TITLE</p> <p>LLANGFNI STW</p> <p>TITLE</p> <p>SETTING OUT</p> <p>DRAWING No. C703-2006</p> <p>SCALE 1:500</p> <p>REV C</p>				

**RECEIVED**  
13 NOV 2001