

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



CG0083402_2006_03_02

The Environment Agency ("the Agency") hereby confirm that the above named person is a/the registered holder of consent CG0083402

Nature of Discharge(s); SEWAGE EFF/STORM EFF/RAINFALL
at
BLAENAU FFESTINIOG 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:



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



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 21st April 2004. All details shown on this file note are based on the permission extant as of this date.

CONSENT REF :	CG0083402	VERSION :	2		
OPERATOR :	DWR CYMRU CYFYNGEDIG				
DISCHARGE SITE :	BLAENAU FFESTINIOG STW (SETTLED STO				
EXTANT CONSENT ISSUE DATE :	20/11/1995	EFFECTIVE DATE :	21/11/1995		
DWF (m ³ /day) :		MAX DAILY VOL. (m ³ /day) :	UNSPECIFIED	RATE (l/s) :	

Records held on WIMS show BLAENAU FFESTINIOG STW (SETTLED STO (CG0083402) to be extant under version 2 issued 20/11/1995 with numeric consent conditions, effective 21/11/1995. The works is currently consented to discharge a max daily volume of UNSPECIFIEDm³/day effluent to the AFON GOEDOL at NGR SH6942043720.

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 UNSPECIFIEDm³/day effluent to 'AFON GOEDOL', 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)

26th May, 1972.

CG 00835-01 02/
03/04/05.

Dear Sir,

Water (Pollution of Pollution) Act, 1951-1961
Discharge of Sewage and Sewage Effluent
Regulations, 1951-1961

With reference to your application of the 12th March 1971, the Gwynedd River authority in pursuance of their powers under the above Act, hereby consent to the discharge of screened storm sewage into the watercourses mentioned hereunder in accordance with the plans submitted.

- S.O. "A" Main outfall to Afon Gwedol in Co. Gwynedd, when the incoming flow of sewage to the treatment works exceeds nine times dry weather flow. SH 69434372
- S.O. "B" Afon Gwedol at the location of the old Gwynedd sewage treatment works when the flow in the sewer entering the storm overflow chamber exceeds nine times dry weather flow. SH 69994492
- S.O. "C" Gwynedd Sash, near Llandudno, at a point about 66 yards from where the sewer crosses the railway (Grid Ref SH 704443) when the flow in the sewer entering the storm overflow chamber exceeds nine times dry weather flow.
- S.O. "D" Afon Gwedol at the location of the old Pary-Oethn sewage treatment works (Twygrystan) when the flow in the sewer entering the storm overflow chamber exceeds nine times dry weather flow. SH 69874459
- S.O. "E" Afon Berbyrd where it adjoins Twygrystan head east of Calcey Square (Grid Ref SH 602707) when the flow in the sewer entering the storm overflow chamber exceeds nine times dry weather flow. SH 691704550

The terms of this consent will not, without the consent in writing of the person to whom this consent is given (or his successor) be altered before the expiration of the period ending with the 31st June 1976.

Yours faithfully,

Clerk of the Authority

The Clerk,
Prestatyn Urban District
Council,
Council Offices,
11, N. H. Street,
Prestatyn.

Copy sent to Messrs. Richards and Robinson,
Consulting Civil Engineers "Townings", Prestatyn.

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 : 23 February 2005

The Environment Agency ("the Agency") hereby confirm that the above named person (or organisation) is a / the registered Holder of the Consent : CG0083402 Consent Issued : 24 February 2005

Nature of Discharge(s) **SSOR Sewage effluent**

at **SH6942043720 BLAENAU FFESTINIOG WWTW (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 (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.

----- 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 : **CG0083402**

Name : **DWR CYMRU CYFYNGEDIG**

Consent Issued : **24 February 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 Dŵr 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
TRESHARRIS
MID GLAMORGAN CF46 6LY

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

Dyddiad Cychwyn y Daliwr : 23 Chwefror 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 : CG0083402 Cyhoeddwyd y Caniatâd : 24 Chwefror 2005

Natur y Gollyngiad(au) : SSOR Carthffrwd

yn SH6942043720 BLAENAU FFESTINIOG WWTW (STORM)

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.

---torrwrch yma---

Rhan B

Llenwch mewn priflythrennau bras neu deipio

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

Cyfeirnod y Caniatâd : CG0083402

Enw : DWR CYMRU CYFYNGEDIG

Cyhoeddwyd y 24 Chwefror 2005
Caniatâd :

Cyfeiriad : PENTWYN ROAD

NELSON

TRESHARRIS

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)

CONSENT NO.	CG0083402
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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. CG0083402 issued on the 21st November 1995

FROM: Blaenau Ffestiniog Wastewater Treatment Works

AT: land off the A470, Blaenau Ffestiniog, Gwynedd

TO: the Afon Goedol

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

Settled Storm Sewage

Schedule No. CG 0083402 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 24th day of February 2005
This variation of consent takes effect on the 31st day of December 2005

Signed *I Williams*
IWAN WILLIAMS
Regulatory Water Quality Team Leader

Environment Agency Wales
Chester Road, Buckley, Flintshire CH7 3AJ. Tel 08780 506 506, Fax 01244 550144

Asiantaeth yr Amgylchedd Cymru
Ffordd Caer, Bwcle, Sir Fflint CH7 3AJ. Ffôn 08780 506 506, Ffacs 01244 550144





CONSENT NO.	CG0083402
SCHEDULE NO.	CG0083402 01
DATE ISSUED	24 th February 2005

CONDITIONS OF CONSENT TO DISCHARGE

Settled Storm Sewage ("the Discharge")

**FROM: Blaenau Ffestiniog Wastewater Treatment Works, off the A470,
Blaenau Ffestiniog, Gwynedd**

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 300 millimetre diameter pipe;
 - (b) discharging to the Afon Goedol;
 - (c) at National Grid Reference SH 69420 43720;
 - (d) shown marked Consent Point on Plan CG0083402 attached as Annex 1.

SAMPLING POINTS

3. A sample point shall be provided and maintained at National Grid Reference SH 69669 44434, as shown marked 'Discharge Sample Point' on Plan Number CG0083402 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.	CG0083402
SCHEDULE NO.	CG0083402 01

VOLUME

4. The Discharge shall occur when and only for as long as, the storm tank is 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 56.6 litres per second due to rainfall and/or snow melt and shall consist only of flows in excess of this figure. The storm tank shall be emptied and its contents returned for full treatment as soon as practicable after cessation of the overflow to the storm tank.
5. The capacity of the storm tank shall be at least 402.3 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.	CG0083402
SCHEDULE NO.	CG0083402 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.	CG0083402
SCHEDULE NO.	CG0083402 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 tank. 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 tank.

START DATE

11. Until discharge is permitted under the terms of this consent, the quality of the effluent from the storm tank at Blaenau Ffestiniog Wastewater Treatment Works shall be controlled under the terms of the consent issued on 21st November 1995. There shall be no discharge under the terms of this consent until the 31st December 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.



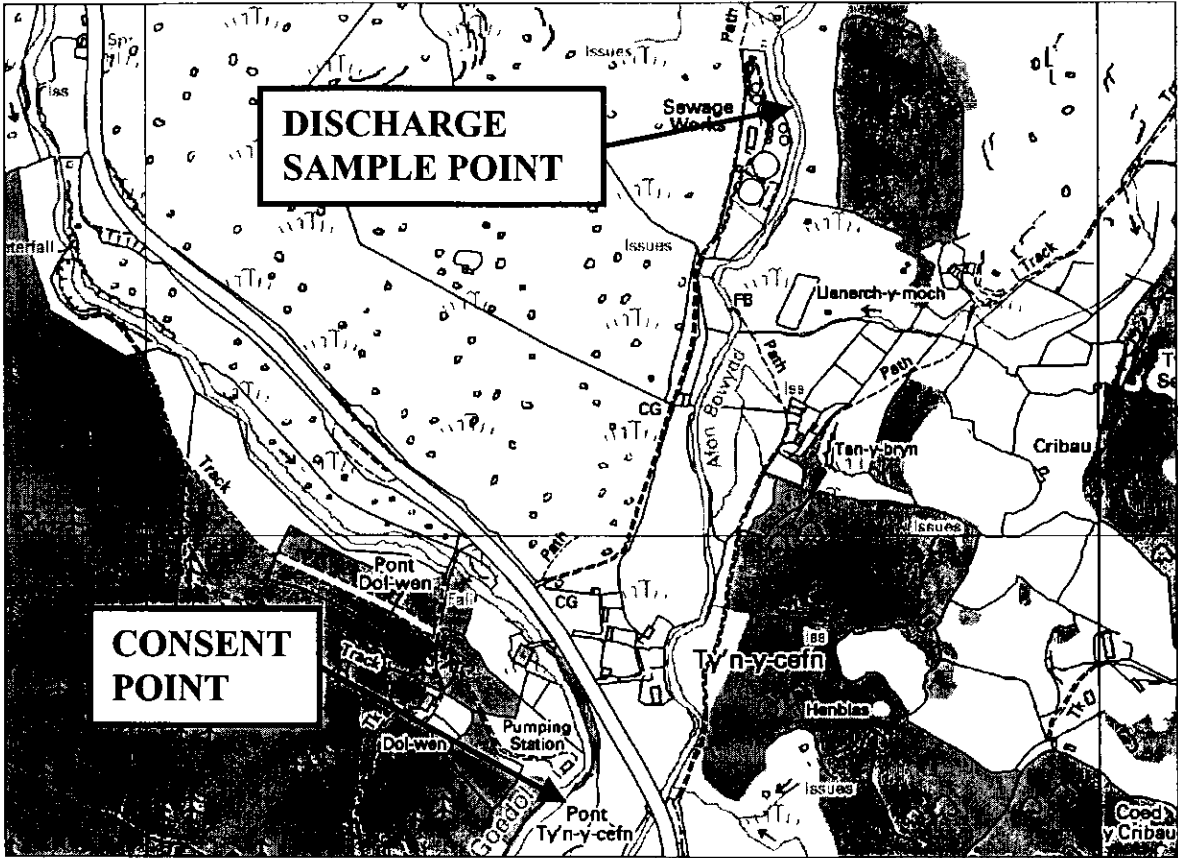
CONSENT NO.	CG0083402
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ASiantaeth yr
Amgylchedd Cymru
Environment
Agency Wales

ANNEX 1

PLAN No CG0083402



NOT TO SCALE





ASiantaeth YR
AMGYLCHEDD CYMRU
ENVIRONMENT
AGENCY WALES

Eich cyf/Your ref.
Ein cyf/Our ref. WP/RP/CG0083402
Enquiries Ruth Prichard
Dyddiad/Date: 1st March 2005

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

F.A.O Jan Edwards

Dear Jan Edwards,

RE: WATER RESOURCES ACT 1991, SCHEDULE 10 (AS AMENDED BY THE ENVIRONMENT ACT 1995) APPLICATION FOR VARIATION OF CONSENT TO DISCHARGE NO CG0083402

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 Blaenau Ffestiniog wastewater Treatment Works, Land off the A470, Blaenau Ffestiniog, Gwynedd.

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, Bwele, Sir y Fflint CH7 3AJ
Ffon 08708 506 506, Ffacs 01244 550144

Environment Agency Wales
Chester Road, Buckley, Flintshire CH17 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
COUNTRYSIDE COUNCIL FOR WALES

CADEIRYDD/CHAIRMAN: JOHN LLOYD JONES OBE

PRIF WEITHREDWR/CHIEF EXECUTIVE: ROGER THOMAS

Anfonwch eich ateb at/Please reply to:

Lucy Kay

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

Ebost/Email: l.kay@ccw.gov.uk

Rhanbarth y Gogledd – Swyddfa Bangor

North Region - Bangor Office

Llys y Bont

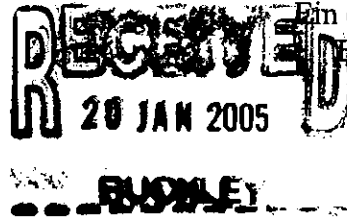
Parc Menai

BANGOR

Gwynedd

LL57 4BN

Laura Armitage
Authorisation Officer
Environment Agency Wales
Chester Road
Buckley
Flintshire
CH7 3AJ



Bin cyf/Our ref: LK/SH41.1.12.0

Eich cyf/Your ref: LA/301104

17th January 2005

Dear Ms Armitage

**WATER RESOURCES ACT 1991, SCHEDULE 10 (AS AMENDED BY THE
ENVIRONMENT ACT 1995)**

Firstly, I apologise for the delay in replying. Thank you for sending us copies of the following (8) discharge consent applications together with their associated appendix 11 documents:

- CG0431301 – Abererch WwTW (discharge screened sewage effluent intermittently)
- CG0111201 – Abererch WwTW (discharge up to 254.6m³/day of treated sewage effluent)
- CG0129801 – Barmouth WwTW (discharge up to 2891.8m³/day of treated sewage effluent)
- CG0130001 – Barmouth WwTW (discharge screened sewage effluent intermittently)
- CG0129901 – Barmouth WwTW (discharge screened sewage effluent intermittently)
- CG0431501 – Barmouth WwTW (discharge screened sewage effluent intermittently)
- CG0083401 – Blaenau Ffestiniog WwTW (discharge biologically treated sewage effluent)
- CG0083402 – Blaenau Ffestiniog WwTW (discharge screened sewage effluent intermittently)

The discharge applications represent improvements to existing discharges. In all cases there is currently no evidence that the existing discharges are having a significant effect on the features of the named SACs and therefore we agree with the conclusions of no likely significant effect from the modified (improved) discharges.

Yours sincerely

Lucy Kay
Marine Conservation Officer



Llywodraeth Cynulliad Cymru
Welsh Assembly Government

CORFF NODDIEDIG SPONSORED BODY

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

1. Type of permission/activity:	Water Resources Act (1991) (as amended by Environment Act 1995) consent to discharge
2. Agency reference no:	CG0083402
3. National Grid reference:	SH 69687 44410
4. Site reference:	Blaenau Ffestiniog WwtW, Off A470, B Ffestingiog, Gwynedd, LL1 4AP
5. Brief description of proposal:	Application to discharge screened sewage effluent intermittently, under storm conditions, to the Afon Goedol.
6. European site name(s) and status:	Pen Llyn a'r Sarnau/ Lleyn Peninsular and the Sarnau cSAC, UK0013117 Coedydd Derw a Safleoedd Ystlumod Meirion / Meirionydd Oakwoods and Bat Sites cSAC, UK0014789
7. List of interest features:	12. Fens and wet habitats (not sensitive to acidification) 13. Bogs and Wet habitats, (sensitive to acidification) 14. Dry heathland habitats 15. Riverine habitats and running waters 16. Mammals of wooded habitats 17. Dry Woodlands and scrub 18. Estuarine and Intertidal habitats 19. Marine mammals 20. Coastal Habitats (sensitive to abstraction) 21. Submerged marine habitats 22. Mammals of riverine 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?

Sensitive Interest Feature:	Potential hazard:	Potential exposure to hazard and mechanism of effect/impact if known:
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<u>Coedydd Derw a Safleoedd Ystumod Meirion / Meirionydd Oakwoods and Bat Sites cSAC, Features</u>		
1.2 Fens and wet habitats (not sensitive to acidification): <ul style="list-style-type: none"> ▪ <i>Molinia</i> meadows on chalk and clay 	A, b, c e, f, h	
1.2 Bogs and wet habitats, (sensitive to acidification): <ul style="list-style-type: none"> ▪ Bog woodland 	A, b, c, e, h	
1.8 Dry heathland habitats: <ul style="list-style-type: none"> ▪ Dry heaths (all subtypes) 	B, c	
1.3 Riverine Habitats and running waters: <ul style="list-style-type: none"> ▪ Floating vegetation of <i>Ranunculus</i> of plain and sub-mountainous rivers 	A, b, c, d, e, f, g, h,	
2.8 Mammals of wooded habitats: <ul style="list-style-type: none"> ▪ Lesser horseshoe bat 	N/A	
1.6 Dry Woodlands and scrub: <ul style="list-style-type: none"> ▪ Old oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles ▪ Residual alluvial forests ▪ <i>Tilio-acerion</i> ravine woodlands 	N/A	
<u>Pen Llyn a'r Sarnau/ Llyn Peninsular and the Sarnau cSAC features</u>		
1.12 Estuarine and Intertidal habitats: <ul style="list-style-type: none"> ▪ Estuaries ▪ Atlantic salt meadows ▪ Large shallow inlets and bays ▪ Mudflats and sandflats not covered by sea water at low tide ▪ <i>Salicornia</i> and other annuals colonising mud and sand 	A, b, d, e, f, g, h	
1.13 Submerged marine habitats: <ul style="list-style-type: none"> ▪ Reefs ▪ Sandbanks which are slightly covered by sea water all the time. ▪ Submerged or partially submerged sea caves 	A, b, d, e, g, h	
1.11 Coastal Habitats (sensitive to abstraction): <ul style="list-style-type: none"> ▪ Lagoons 	A, b, d, f, g, h	

2.12 Marine mammals: <ul style="list-style-type: none"> ▪ Grey Seal – <i>Halichoerus grypus</i> ▪ Bottlenose dolphin – <i>Tursiops truncatus</i> 	A, e, g	
2.9 Mammals of riverine habitats: <ul style="list-style-type: none"> ▪ Otter – <i>Lutra lutra</i> 	A, b, c, d, e, g, h	
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
b) In combination with other plans or projects?	No – see point 10c
c) In combination with plans/projects of other Competent Authorities?	<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 at Blaenau Ffestiniog WwTW has been assessed as a catchment resolution, incorporating improvements to the storm discharge from the same works.</p>

<p>11. Conclusion: Is the proposal likely to have a significant effect 'alone or in combination' on a European site?</p>	<p>This is an application to discharge screened sewage effluent intermittently, under storm conditions, to the Afon Goedol.</p> <p>At present the storm tank receives macerated sewage and flows in excess of storm tank capacity before discharging directly to the watercourse. Macerated solids are not suitable for discharge to an outfall and, as such, a new storm screen will be provided to ensure all storm flows receive 6mm fine screening.</p> <p>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 overall effluent quality discharged.</p>	
<p>15. Name of EA Officer:</p>	<p>Sarah Middleton</p>	<p>Date: 24/11/04</p>
<p>16. EN/CCW comment on assessment:</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>This will provide improvements to the existing discharge. There is no evidence of significant effects from the existing discharge on the features of the SACs. Therefore agree with conclusion of no likely significant effect on the SAC features from this improved discharge.</i></p>	
<p>17. Name of EN/CCW Officer:</p>	<p>LUCY KAY</p>	<p>Date: 17/11/05</p>
<p>IF THE PROPOSAL IS LIKELY TO HAVE A SIGNIFICANT EFFECT AN APPROPRIATE ASSESSMENT WILL BE REQUIRED (see part B for suggested scope).</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:

16. Name of EN/CCW Officer:

Date:



ASiantaeth Yr
AMGylchedd Cymru
ENVIRONMENT
AGENCY WALES

Ein cyf/Our ref: CG0429001/CG0113301/CG0083401/CG0083402

Date: 30th September 2004

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

Dear Sir,

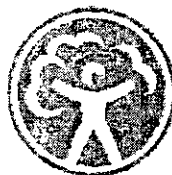
**WATER RESOURCES ACT 1991, SCHEDULE 10 (AS AMENDED BY THE ENVIRONMENT ACT 1995) APPLICATION FOR CONSENT TO DISCHARGE SEWAGE EFFLUENT AND SEWAGE EFFLUENT UNDER STORM OR EMERGENCY CONDITIONS BY DWR CYMRU CYF FROM BLAENAU FFESTINIOG WWTW AND MAENTWROG WWTW
APPLICATION NO: CG0429001/CG0113301/CG0083401/CG0083402**

Thank you for your application for consent to discharge together with your application fee of £743 X 4. It is receiving consideration and you will be hearing from us again shortly. Please state application as above in any correspondence with us relating to this application.

Yours faithfully

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

Please ask for Ruth Prichard



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)

Regional/Area Address: 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> C9 0083402 . <i>Date Received:</i> 30/09/2004 <i>Fee Received:</i> 30/09/2004
---	---

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.

Blaenau Ffestiniog WwTW
Un-named track off A470
Blaenau Ffestiniog
Gwynedd

Post Code:

LL41 4AP

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

N/A m³/day

Soc A flow is 120.3 l.s⁻¹ of which 56.6 l.s⁻¹ (3DWF) will pass to treatment and 63.7 l.s⁻¹ is the normal maximum flow through the storm tank system which gives a storm discharge of 5503.7 m³.d⁻¹. Refer to Blaenau Ffestiniog WwTW Supporting Document.

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 (300 mm dia) is existing

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

S	H	6	9	6	8	7	4	4	4	1	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	6	9	6	6	9	4	4	4	3	4
---	---	---	---	---	---	---	---	---	---	---	---

(please indicate on accompanying plans)

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

Flow to storm tank is measured using a flume. A transducer measures the level and produces a flow proportional output signal.

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

The works is a conventional biological treatment works with storm tank. All storm flows are passed through 6mm particle size screens

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?

31/12/05

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

to: / /

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

When flows exceed the treated capacity of 56.6 l.s⁻¹ and storm tank 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*).

Settled Storm Sewage Effluent CG0083402 dated 20th November 1995

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 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 (<i>please specify</i>) | <input type="checkbox"/> | 10. Other (<i>please specify</i>) | <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 Goedol

4.2 In the case of sub-irrigation systems, soakaways or boreholes: N/A

(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. N/A

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).

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:	J P Edwards
ON BEHALF OF:DWR CYMRU CYF.....		DATED: 28/9/04

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).

<i>Official Use Only</i> Application No.

1. Site Name.

Blaenau Ffestiniog WwTW

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

Storm tanks	<input checked="" type="checkbox"/>
Combined Sewer Overflow from sewerage system	<input type="checkbox"/>
Combined Sewer Overflow from pumping station	<input type="checkbox"/>
Emergency overflow from sewerage system	<input type="checkbox"/>
Emergency overflow from pumping station	<input type="checkbox"/>
Other (please specify)	<input type="checkbox"/>

--

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.

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

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)

S	H	6	9	6	6	9	4	4	4	3	4
---	---	---	---	---	---	---	---	---	---	---	---

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 | 56.6 l/s |
| b) Maximum flow to storm tanks | 63.7 l/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 | 402.3 m ³ |
| b) Retention time of storm tanks at maximum flow | 1.97 h @ FFT (56.6 l.s ⁻¹) hours |
| c) Storage capacity of sewer/wet well | N/A m ³ |

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

Refer to Blaenau Ffestiniog WwTW Supporting Data report dated September 2004

8. Will facilities be provided to raise alarms (eg telemetry)?

Y/N

If yes, please give details.

Storm overflow channel to storm tank is fitted with an ultrasonic level detector which produces a flow proportional signal to detect and measure storm flows.

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).

Flow to storm tank will be screened through a 6mm particle size screen

10. What provisions will be made to deal with:

a) power failure (eg standby generators)?

Facility exists to allow portable equipment to be connected if required

b) mechanical breakdown (eg standby pumps)?

N/A

c) rising main failure?

N/A

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).

<i>Official Use Only</i> Application No.

1. Site Name.

Blaenau Ffestiniog WwTW

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

Trade effluents are consented from two traders:- 1. Wastewater from plastics extrusion process – (40 m ³ .d ⁻¹) 2. Swimming Pool – (12 m ³ .d ⁻¹) backwash water from swimming pool

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 N/A

a) Is the volume going to be rainfall dependent?

Y/N

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

N/A m ²

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

N/A

4. Rainfall Independent Discharges N/A

a) What is the maximum rate of discharge?

N/A l/s

b) What is the average daily flow?

N/A m ³ /d

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

i) give the abstraction licence number

N/A

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

This discharge is controlled through trade effluent legislation within the Water Industry Act and is 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 change in discharges have been observed or declared by the trader and normal sanitary determinands are suite analysed. No known Red List or Grey List chemicals in the trade discharge which is disposed of by Blaenau Ffestiniog WwTW

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.

Blaenau Ffestiniog WwTW

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 300 mm dia is existing

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

Approx £100,000
This is for the installation of a storm screen and biological filter recirculation.

5. Is there any trade effluent component in the proposed 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: l/s

For proposed discharges of sewage in storm or emergency conditions:

7. Please confirm here that you have completed and enclosed both Annexes 1 and 2: Tick
Only Annexe 2 applicable for Storm consent

8. Please state:

Population served (head)	Pe = 5506 Refer to Blaenau Ffestiniog Supporting Document
Consumption (l/head/day) default = 180	180
Infiltration (m ³ /day)	1762.6
Industrial effluent flow (m ³ /day)	52
Dry Weather Flow (m ³ /day)	2805.7
Soc A (l/sec)	120.3
Predicted spill frequency (per annum)	Not known.

IMPORTANT NOTES FOR ALL CONSENT APPLICATIONS:

- 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.**
- Agents making an application on behalf of a client, must attach their clients written authority.**
- 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.**

Blaenau Ffestiniog WwTW

Blaenau Ffestiniog WwTW is a conventional biological treatment works discharging final effluent to the Afon Goedol. The works is currently consented to provide full biological treatment for flows up to 55.9 l.s^{-1} . Flows greater than 55.9 l.s^{-1} are passed into a storm tank. Flows in excess of storm tank capacity are passed direct to the combined outfall.

The limitations of the treatment process are: -

1. A potential risk of failing consent exists during dry weather when the flow is insufficient to maintain rotation of the filter arms and the biomass is starved of nutrient. The lack of adequate wetting risks humus solids detaching from the media surface.
2. The storm tank receives macerated sewage and flows in excess of storm tank capacity are discharged direct to the watercourse. Macerated solids are not suitable for discharge to an outfall.

Improvements to Wastewater Treatment at Blaenau Ffestiniog WwTW

Works to be upgraded with biological filter recirculation to ensure the biomass is adequately wetted

Improvements to Stormwater treatment

A new storm screen will be provided to ensure all storm flows receive 6mm fine screening.

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

CONSENT NO. CG0083401



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



CG0083401_2006_03_02

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. CG0083401 issued on the 29th day of August 1981

FROM: Blaenau Ffestiniog Wastewater Treatment Works

AT: land off the A470, Blaenau Ffestiniog, Gwynedd

TO: the River Goedol

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

Secondary-Treated Sewage Effluent

Schedule No. CG0083401 01

UWWT Regulations 1994

Schedule No. CG0083401 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 24th day of February 2005

This variation of consent is effective from the 31st December 2005

Signed *I Williams*

IWAN WILLIAMS

Regulatory Water Quality Team Leader





CONSENT NO.	CG0083401
SCHEDULE NO.	CG0083401 01
DATE ISSUED	24th February 2005

CONDITIONS OF CONSENT TO DISCHARGE

Secondary-Treated Sewage Effluent ("the Discharge")

**FROM: Blaenau Ffestiniog Wastewater Treatment Works, off the A470,
Blaenau Ffestiniog, Gwynedd**

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 300 millimetre diameter pipe;
 - (b) discharging to the River Goedol;
 - (c) at National Grid Reference SH 69420 43720;
 - (d) shown marked 'Consent Point' on Plan CG0083401 attached as Annex 3.

SAMPLE POINT

3. An appropriately labelled sample point shall be provided and maintained at National Grid Reference SH 69682 44410, as shown marked 'Discharge Sample Point' on the Plan CG0083401 attached as Annex 3 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 4891.8 cubic metres per day.
5. The Dry Weather Flow of the Discharge shall not exceed 2805.7 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 56.6 litres per second.

FLOW MEASUREMENT

7. A continuous flow measurement and recording system, to a specification provided by the Agency, shall be provided and operated to record the total daily volume and 15-minute instantaneous or integrated flow of sewage through the treatment works. An on-site visual display from which 15-minute integrated or instantaneous flow readings can be readily obtained by the Agency shall be provided and operated. The Consent Holder shall hold records of the flow readings.
8. As soon as practicable after completion of the flow system installation and subsequently on the expiry of any certificate issued, the Consent Holder shall employ an independent expert to certify that the installation and its quality management system complies with the Agency's specification. The independent expert shall be accredited to a competency scheme approved by the Agency. A copy of the certificate shall be sent to the Agency and the certifier's report shall be provided to the Agency on request. If a certificate issued for a flow system has no expiry date included then the certificate shall be deemed to expire five years after the issue date of the certificate.
9. The Consent Holder shall produce and maintain a documented quality management system, approved by the independent expert and to the satisfaction of the Agency, specifying procedures for the calibration, operation and maintenance of the flow measurement equipment. The flow measurement equipment shall be calibrated, operated and maintained by the Consent Holder in accordance with the provisions of the QMS. 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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10. The Consent Holder shall record all failures of the continuous flow measurement system and any other breaks in the flow record. The reasons for all significant failures and breaks, which lead to missing or suspect data, and all steps taken to prevent a re-occurrence shall be recorded and details shall be provided to the Agency on request. A failure or break is significant for the purposes of this condition if it prevents the calculation of the total daily volume to the required level of uncertainty. 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.
11. Records of the flow readings or the reasons for any breaks in the record, as described in condition 10 above, shall be provided to the Agency when requested, in a format specified by the Agency.
12. Flows of sewage through the treatment works shall be measured at the outlet works NGR SH 69639 44475, or such other points as is agreed by the Agency.

COMPOSITION

13. (a) Subject to paragraph (b) below, the Discharge shall not contain more than;
 - (i) 17 milligrammes per litre of biochemical oxygen demand (measured after 5 days at 20°C with nitrification suppressed by the addition of allyl-thiourea);
 - (ii) 26 milligrammes per litre of suspended solids (measured after drying at 105°C).
 - (iii) 5 milligrammes 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) 53 milligrammes per litre of biochemical oxygen demand (measured after 5 days at 20°C with nitrification suppressed by the addition of allyl-thiourea);
 - (b) 78 milligrammes per litre of suspended solids (measured after drying at 105°C).
 - (c) 20 milligrammes 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.
- (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;





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- (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 sewerage system, occurs that may increase or introduce into the effluent any "dangerous substance" included on Lists I, II, or Red List (set out in Annex 2 to this notice as updated by the Agency from time to time, and notified to the Consent Holder in writing), or 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 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 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. Until discharge is permitted under the terms of this consent, the quality of the effluent from Blaenau Ffestiniog Sewage Treatment Works shall be controlled under the terms of the consent issued on 29th August 1981. There shall be no discharge under the terms of this consent until the 31st December 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.





CONSENT NO.	CG0083401
SCHEDULE NO.	CG0083401 01/U
DATE ISSUED	24 th February 2005

CONDITIONS OF CONSENT TO DISCHARGE

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

**FROM: Blaenau Ffestiniog Sewage Treatment Works, at land off the A470,
Blaenau Ffestiniog, Gwynedd**

- 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.





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- (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.





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ANNEX 1

TABLE

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





ANNEX 2

- | | |
|--|------------------------------|
| 1. Mercury and its compounds | 2. Cadmium and its compounds |
| 3. Hexachlorocyclohexane
(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.



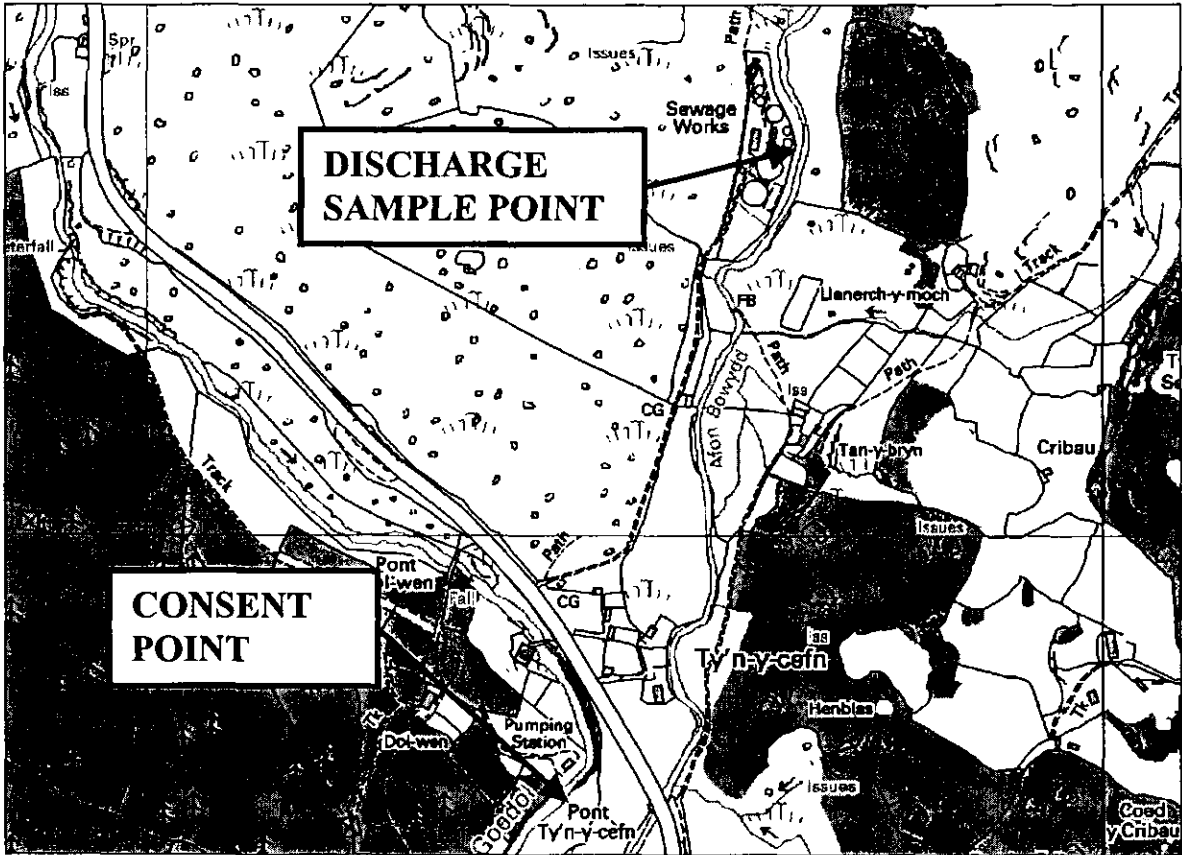
CONSENT NO.	CG0083401
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ASiantaeth yr
Amgylchedd Cymru
Environment
Agency Wales

ANNEX 3

PLAN No CG0083401



NOT TO SCALE

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ASiantaeth YR
AMGYLCHEDD CYMRU
ENVIRONMENT
AGENCY WALES

Eich cyf/Your ref.
Ein cyf/Our ref. WP/RP/CG0083401
Enquiries Ruth Prichard
Dyddiad/Date: 1st March 2005

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

F.A.O Jan Edwards

Dear Jan Edwards,

RE: WATER RESOURCES ACT 1991, SCHEDULE 10 (AS AMENDED BY THE ENVIRONMENT ACT 1995) APPLICATION FOR VARIATION OF CONSENT TO DISCHARGE NO CG0083401.

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 sewage effluent from Blaenau Ffestiniog wastewater Treatment Works, Land off the A470, Blaenau Ffestiniog, Gwynedd.

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 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



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
Ffôn 08708 506 506, Ffacs 01244 550144

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



ASiantaeth Yr
Amgylchedd Cymru
ENVIRONMENT
AGENCY WALES

Ein cyf/Our ref: CG0429001/CG0113301/CG0083401/CG0083402

Date: 30th September 2004

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

Dear Sir,

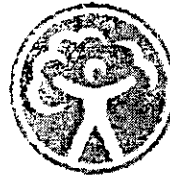
WATER RESOURCES ACT 1991, SCHEDULE 10 (AS AMENDED BY THE ENVIRONMENT ACT 1995) APPLICATION FOR CONSENT TO DISCHARGE SEWAGE EFFLUENT AND SEWAGE EFFLUENT UNDER STORM OR EMERGENCY CONDITIONS BY DWR CYMRU CYF FROM BLAENAU FFESTINIOG WWTW AND MAENTWROG WWTW
APPLICATION NO: CG0429001/CG0113301/CG0083401/CG0083402

Thank you for your application for consent to discharge together with your application fee of £743 X 4. It is receiving consideration and you will be hearing from us again shortly. Please state application as above in any correspondence with us relating to this application.

Yours faithfully

Kelvin Graham
Team Leader Customer Contact and Authorisations

Please ask for Ruth Prichard



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)

Regional/Area Address: 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> C9 0083401 <i>Date Received:</i> 30/09/2004 <i>Fee Received:</i> 30/09/2004
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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.

Blaenau Ffestiniog WwTW
Un-named track off A470
Blaenau Ffestiniog
Gwynedd

Post Code:

LL41 4AP

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 annex 1**)
- Sewage Effluent discharged under storm or emergency conditions (**complete annex 2**)
- Cooling Water (**complete annex 3**)
- Trade Effluent (*including site drainage*) (**complete annex 3**)
- Others (*please specify*)

2.2 Please state the maximum quantity it is proposed to discharge in any one day 4891.8 m³/day
 Briefly state how this figure was calculated (see note ii).

WwTW provides treatment for a 3DWF of 4891.8 m³.d⁻¹ (56.6 l.s⁻¹) based on PE of 5506 with a water consumption of 180 l.h⁻¹.d⁻¹, infiltration of 1762.6 m³.d⁻¹ (20.4 l.s⁻¹) and a trade flow of 52 m³.d⁻¹. Refer to Blaenau Ffestiniog WwTW Supporting Document.

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 (300 mm dia) is existing

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

S	H	6	9	6	8	7	4	4	4	1	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	6	9	6	8	2	4	4	4	1	0
---	---	---	---	---	---	---	---	---	---	---	---

(please indicate on accompanying plans)

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

Flow to treatment is measured using a flume. A transducer measures the level and produces a flow proportional output signal.

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

The treatment process consists of inlet screen, followed by primary settlement tanks, biological filters and humus settlement tanks

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?

31/12/05

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

to: / /

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

N/A

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 CG0083401 dated 29th August 1981

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 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"/> | | |

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 Goedol

4.2 In the case of sub-irrigation systems, soakaways or boreholes: N/A

- (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.
- (e) For sub-irrigation systems, soakaway pits, wells and boreholes, state maximum depth in metres.
- (f) For boreholes, state details of lining in metres:
- (i) Depth of lining
 - (ii) Depth of perforated lining
 - (iii) Depth of unperforated lining
- (g) A percolation test must be carried out in accordance with British Standard BS6297:1983. N/A
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).

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:	J.P. Edwards
ON BEHALF OF:	DWR CYMRU CYF.....	DATED:	23/9/04

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.

Blaenau Ffestiniog WwTw

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

Flow to Treatment 6mm Screen (1)
Primary Settlement Tanks (2)
Biological Filters (2) with recirculation
Humus Settlement Tanks (2)
Sludge Holding Tanks (2)

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

- | | |
|---|--------------------------|
| a) Maximum flow to full treatment.
(see note ii) in main guidance notes for population equivalents). | 4891.8 m ³ /d |
| b) Dry weather flow of discharge(s). | 2805.7 m ³ /d |
| c) Average daily flow. | 3507.1 m ³ /d |
| d) Maximum rate of discharge(s) | 56.6 l/s |

4. Will there be provisions for storm/emergency discharges?

Y/N

If yes, please complete Annexe 2.

5. a) Will any self monitoring take place?

Y/N

If yes, please give details.

Visual monitoring of final effluent quality by United Utilities Operational Services
UWWTD monitoring will be undertaken as required

b) Will automatic sampling equipment be provided?

Y/N

If yes, please give details of type and location (*please indicate on plan*).

For UWWTD monitoring an approved sampler at final effluent sampling point

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

The works is designed to treat raw sewage from a future population equivalent of 5506 derived from a property count and assessment of visitor population with information from tourist centre office.

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

The catchment is predominantly stable resident population with a small visitor numbers in summer months

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

Mainly private residential domestic properties with a small trade input

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

The 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.*

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

This discharge is controlled through trade effluent legislation within the Water Industry Act and is 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 change in discharges have been observed or declared by the trader and normal sanitary determinands are suite analysed. No known Red List or Grey List chemicals in the trade discharge which is disposed of by Blaenau Ffestiniog WwTW

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 annex for every proposed discharge.

Official Use Only
Application No.

For all proposed discharges:

1. Site Name.

Blaenau Ffestiniog WwTW

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 300 mm dia is existing

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

Approx £100,000
This is for the installation of a storm screen and biological filter recirculation.

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: l/s

For proposed discharges of sewage in storm or emergency conditions:

7. Please confirm here that you have completed and enclosed both Annexes 1 and 2: Tick
Only Annexe 1 applicable for Final Effluent consent

8. Please state:

Population served (head)	Pe = 5506 Refer to Blaenau Ffestiniog Supporting Document
Consumption (l/head/day) default = 180	180
Infiltration (m ³ /day)	1762.6
Industrial effluent flow (m ³ /day)	52
Dry Weather Flow (m ³ /day)	2805.7
Soc A (l/sec)	120.3
Predicted spill frequency (per annum)	N/A 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.**



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:

Lucy Kay

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

Ebostr/Email: l.kay@ccw.gov.uk

Rhanbarth y Gogledd - Swyddfa Bangor

North Region - Bangor Office

Llys y Bont

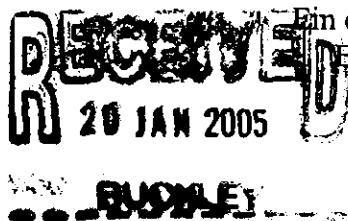
Parc Menai

BANGOR

Gwynedd

LL57 4BN

Laura Armitage
Authorisation Officer
Environment Agency Wales
Chester Road
Buckley
Flintshire
CH7 3AJ



Ein cyf/Our ref: LK/SH41.1.12.0

Eich cyf/Your ref: LA/301104

17th January 2005

Dear Ms Armitage

**WATER RESOURCES ACT 1991, SCHEDULE 10 (AS AMENDED BY THE
ENVIRONMENT ACT 1995)**

Firstly, I apologise for the delay in replying. Thank you for sending us copies of the following (8) discharge consent applications together with their associated appendix 11 documents:

- CG0431301 – Abererch WwTW (discharge screened sewage effluent intermittently)
- CG0111201 – Abererch WwTW (discharge up to 254.6m³/day of treated sewage effluent)
- CG0129801 – Barmouth WwTW (discharge up to 2891.8m³/day of treated sewage effluent)
- CG0130001 – Barmouth WwTW (discharge screened sewage effluent intermittently)
- CG0129901 – Barmouth WwTW (discharge screened sewage effluent intermittently)
- CG0431501 – Barmouth WwTW (discharge screened sewage effluent intermittently)
- CG0083401** – Blaenau Ffestiniog WwTW (discharge biologically treated sewage effluent)
- CG0083402 – Blaenau Ffestiniog WwTW (discharge screened sewage effluent intermittently)

The discharge applications represent improvements to existing discharges. In all cases there is currently no evidence that the existing discharges are having a significant effect on the features of the named SACs and therefore we agree with the conclusions of no likely significant effect from the modified (improved) discharges.

Yours sincerely

Lucy Kay
Marine Conservation Officer



Llywodraeth Cynulliad Cymru
Welsh Assembly Government

CRŮF NODDIDIG / SPONSORED BODY

Prif Swyddfa/Headquarters

MAES-Y-FFYNNON, PENRHOSGARNEDD, BANGOR, GWYNEDD LL57 2DW FFÓN/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

1. Type of permission/activity:	Water Resources Act (1991) (as amended by Environment Act 1995) consent to discharge
2. Agency reference no:	CG0083401
3. National Grid reference:	SH 69687 44410
4. Site reference:	Blaenau Ffestiniog WwTW, Off A470, B Ffestingiog, Gwynedd, LL1 4AP
5. Brief description of proposal:	Application to discharge up to 4891m ³ /day of biologically treated sewage effluent to the Afon Goedol.
6. European site name(s) and status:	Pen Llyn a'r Sarnau/ Lleyn Peninsular and the Sarnau cSAC, UK0013117 Coedydd Derw a Safleoedd Ystlumod Meirion / Meirionydd Oakwoods and Bat Sites cSAC, UK0014789
7. List of interest features:	<ol style="list-style-type: none"> 1. Fens and wet habitats (not sensitive to acidification) 2. Bogs and Wet habitats, (sensitive to acidification) 3. Dry heathland habitats 4. Riverine habitats and running waters 5. Mammals of wooded habitats 6. Dry Woodlands and scrub 7. Estuarine and Intertidal habitats 8. Marine mammals 9. Coastal Habitats (sensitive to abstraction) 10. Submerged marine habitats 11. Mammals of riverine 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?**

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

<u>Coedydd Derw a Safleoedd Ystlumod Meirion / Meirionydd Oakwoods and Bat Sites cSAC, Features</u>		
1.1 Fens and wet habitats (not sensitive to acidification): <ul style="list-style-type: none"> ▪ <i>Molinia</i> meadows on chalk and clay 	A, b, c e, f, h	
1.2 Bogs and wet habitats, (sensitive to acidification): <ul style="list-style-type: none"> ▪ Bog woodland 	A, b, c, e, h	
1.8 Dry heathland habitats: <ul style="list-style-type: none"> ▪ Dry heaths (all subtypes) 	B, c	
1.3 Riverine Habitats and running waters: <ul style="list-style-type: none"> ▪ Floating vegetation of <i>Ranunculus</i> of plain and sub-mountainous rivers 	A, b, c, d, e, f, g, h,	
2.8 Mammals of wooded habitats: <ul style="list-style-type: none"> ▪ Lesser horseshoe bat 	N/A	
1.6 Dry Woodlands and scrub: <ul style="list-style-type: none"> ▪ Old oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles ▪ Residual alluvial forests ▪ <i>Tilio-acerion</i> ravine woodlands 	N/A	
<u>Pen Llyn a'r Sarnau/ Llyn Peninsular and the Sarnau cSAC features</u>		
1.12 Estuarine and Intertidal habitats: <ul style="list-style-type: none"> ▪ Estuaries ▪ Atlantic salt meadows ▪ Large shallow inlets and bays ▪ Mudflats and sandflats not covered by sea water at low tide ▪ <i>Salicornia</i> and other annuals colonising mud and sand 	A, b, d, e, f, g, h	
1.13 Submerged marine habitats: <ul style="list-style-type: none"> ▪ Reefs ▪ Sandbanks which are slightly covered by sea water all the time. ▪ Submerged or partially submerged sea caves 	A, b, d, e, g, h	
1.11 Coastal Habitats (sensitive to abstraction): <ul style="list-style-type: none"> ▪ Lagoons 	A, b, d, f, g, h	
2.12 Marine mammals: <ul style="list-style-type: none"> ▪ Grey Seal – <i>Halichoerus grypus</i> ▪ Bottlenose dolphin – <i>Tursiops truncatus</i> 	A, e, g	

2.9 Mammals of riverine habitats: ▪ Otter – <i>Lutra lutra</i>	A, b, c, d, e, g, h	
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?	No	
b) In combination with other plans or projects?	No	
c) In combination with plans/projects of other Competent Authorities?	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 AMP 3 is a national scheme undertaken by Welsh Water designed to improve water quality The scheme of improvements taking place at Blaenau Ffestiniog WwTW has been assessed as a catchment resolution, incorporating improvements to the storm discharge from the same works.	

<p>11. Conclusion: Is the proposal likely to have a significant effect 'alone or in combination' on a European site? (</p>	<p>Application to discharge up to 4891m³/day of biologically treated sewage effluent to the Afon Goedol.</p> <p>The treatment process will consist of 6mm inlet screens, primary settlement tanks, biological filtration and humus settlement tanks. At present, during dry weather, when the flow is insufficient to maintain rotation of the filter arms and the biomass is starved of nutrient, the lack of adequate wetting risks humus solids detaching from the media surface. Within this application there is a provision for the works to be upgraded with biological filter re-circulation to ensure biomass is adequately wetted, thus alleviating this problem.</p> <p>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 represents an improvement to the current effluent quality at the outlet.</p>	
<p>12. Name of EA Officer:</p>	<p>Sarah Middleton</p>	<p>Date: 24/11/04</p>
<p>13. EN/CCW comment on assessment: (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>This represents an improvement on the current treatment process. There is no evidence that the current discharge is having a significant effect on the features of the SACs, therefore agree with conclusion of no likely significant effect from this new consent</i></p>	
<p>14. Name of EN/CCW Officer:</p>	<p>LUCY KAY</p>	<p>17/1/05</p>
<p>IF THE PROPOSAL IS LIKELY TO HAVE A SIGNIFICANT EFFECT AN APPROPRIATE ASSESSMENT WILL BE REQUIRED (see part B for suggested scope).</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:

16. Name of EN/CCW Officer:

Date:

AAC



NRA

CONSENT NO.

CG00834

WATER RESOURCES ACT 1991

SECTION 88 - SCHEDULE 10

NOTICE OF REVIEW OF CONSENT TO DISCHARGE

TO: Dŵr Cymru Cyfyngedig
 Plas y Ffynnon
 Cambrian Way
 Brecon
 Powys LD3 7HP

The NATIONAL RIVERS AUTHORITY ("The Authority") in pursuance of its powers under the Water Resources Act 1991 HEREBY GIVES NOTICE OF REVIEW OF CONSENT to the making of a discharge OF SEWAGE EFFLUENT as follows:

Settled Storm Sewage Effluent
 with respect to Consent No. CG0083402 issued on the 26th day of May 1972

FROM: Blaenau Ffestiniog Sewage Treatment Works

AT: Blaenau Ffestiniog, Gwynedd

TO: Afon Goedol

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

Settled Storm Sewage Effluent Schedule CG0083402

Subject to the provisions of Paragraphs 6 and 7 of Schedule 10 of the Water Resources Act 1991, no notice shall be served by the Authority, which alters the effect of modifications made by this notice, without the agreement in writing of the discharger, during a period of 2 years from the date this notice is served.

Dated this 20th day of November 1995

Signed
 Area Environmental Quality Manager



Dr JOHN STONER Rheolwr Cyffredinol Rhanbarthol / Regional General Manager

Awdurdod Afonydd Cenedlaethol, Rhanbarth Cymru / National Rivers Authority, Welsh Region
 Highfield, Ffordd Priestley, Caernarfon, Gwynedd, LL55 1HR. Ffôn: (01286) 672247, Ffacs: (01286) 674451
 Highfield, Priestley Road, Caernarfon, Gwynedd LL55 1HR. Tel: (01286) 672247. Fax: (01286) 674451

CONSENT NO.	CG00834
SCHEDULE NO.	CG0083402
DATED	20/11/95

CONDITIONS OF CONSENT TO DISCHARGE

SETTLED STORM SEWAGE EFFLUENT ("the Discharge")

FROM: BLAENAU FFESTINIOG SEWAGE TREATMENT WORKS

1. (a) The Discharge shall not contain any poisonous, noxious or polluting matter or solid waste matter.
- (b) Provided that the Discharge hereby consented is made in accordance with the following conditions of this consent, such discharge shall not be taken to be in breach of condition (a) above by reason of containing substances or having properties identified in and controlled by those conditions.

NATURE

2. The Discharge shall consist solely of settled storm sewage effluent.

LOCATION

3. The Discharge shall be made in the manner and at the place specified as:
 - (a) discharging via a 8 inch diameter pipe.
 - (b) discharging to Afon Goedol.
 - (c) at National Grid Reference SH 6942 4372.
 - (d) shown marked "Discharge Point 1" on Plan CG0083402 attached as Annex 1.



SAMPLE POINT

4. An appropriately labelled sample point shall be provided and maintained at National Grid Reference SH 6966 4445, as shown marked "Sampling Point" on Plan CG0083402, so that a representative sample of the Discharge may be obtained. The discharger 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.

VOLUME

5. 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 inlet sewer is in excess of 55.9 litres per second due to rainfall and/or snowmelt. The storm tanks shall be emptied automatically and their contents returned for full treatment as soon as practicable after cessation of the overflow to the storm tanks.
6. Inlet flows in excess of 138 litres per second shall be discharged via the storms and at the place specified as:
 - (a) discharging via a 12 inch diameter pipe
 - (b) discharging to Afon Bowydd
 - (c) at National Grid Reference SH 6967 4446
 - (d) as shown marked "Discharge Point 2" on Plan CG0083402 attached as Annex 1.
7. The capacity of the storm tanks shall be at least 595 cubic metres.





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 21st April 2004. All details shown on this file note are based on the permission extant as of this date.

CONSENT REF :	CG0083401	VERSION :	1		
OPERATOR :	DWR CYMRU CYFYNGEDIG				
DISCHARGE SITE :	BLAENAU FFESTINIOG STW (SETTLED STO)				
EXTANT CONSENT ISSUE DATE :	29/08/1981	EFFECTIVE DATE :	29/08/1981		
DWF (m ³ /day) :	1072	MAX DAILY VOL. (m ³ /day) :	4824	RATE (l/s) :	55.9

Records held on WIMS show BLAENAU FFESTINIOG STW (SETTLED STO (CG0083401) to be extant under version 1 issued 29/08/1981 with numeric consent conditions, effective 29/08/1981. The works is currently consented to discharge a max daily volume of 4824m³/day effluent to the AFON GOEDOL at NGR SH6942043720.

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 4824m³/day effluent to 'AFON GOEDOL', for the purposes of this review, is described as 'secondary treated effluent to surface waters'. This treatment / receiving water combination has been assessed* as APPROPRIATE under the UWWTD review. This consent is reviewed as APPROPRIATE 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 : 07 March 2005

The Environment Agency ("the Agency") hereby confirm that the above named person (or organisation) is a / the registered Holder of the Consent : CG0083401 Consent Issued : 24 February 2005

Nature of Discharge(s) **STEC Sewage effluent**
at **SH6942043721 BLAENAU FFESTINIOG WWTW**

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.

----- 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 : **CG0083401**

Name : **DWR CYMRU CYFYNGEDIG**

Consent Issued : **24 February 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)



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 : 7 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 : CG0083401 Cyhoeddwyd y Caniatâd : 24 Chwefror 2005

Natur y Gollyngiad(au) : STEC Carthffrwd

yn SH6942043721 BLAENAU FFESTINIOG WWTW

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.

Rhan B

Llenwch mewn priflythrennau bras neu deipio

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

Cyfeirnod y Caniatâd : CG0083401

Enw : DWR CYMRU CYFYNGEDIG

Cyhoeddwyd y 24 Chwefror 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

* dilêr fel yn briodol

Enw(au) y Daliwr / Deiliaid newydd :

Côd Post :

Dyddiad Trosglwyddo i'r Daliwr / Deiliaid newydd :

Llofnodwyd :

Dyddiedig :

Enw (priflythrennau bras) :

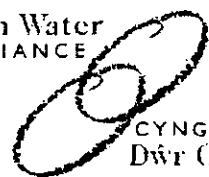
Swydd (os yn briodol) :

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



DŴR CYMRU
WELSH WATER

Welsh Water
ALLIANCE



CYNGHRAIR
Dŵr Cymru

Improvements in Quality of Wastewater Treatment at Blaenau Ffestiniog WwTW

Supporting Data Report

September 2004

**To be read in conjunction with Consent
Application**

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1 INTRODUCTION

1.1 Background

Blaenau Ffestiniog WwTW is a conventional biological treatment works discharging final effluent to the Afon Goedol. The works is currently consented to provide full biological treatment for flows up to 55.9 l.s⁻¹. Flows greater than 55.9 l.s⁻¹ are passed into a storm tank. Flows in excess of storm tank capacity are passed direct to the combined outfall.

To comply with the Urban Waste Water Treatment Directive the quality of waste water discharged will have to meet a more stringent consent to be imposed by 31st March 2005.

	Current	Advised
BOD mg. l ⁻¹	26	25
TSS mg. l ⁻¹	39	35
Amm.N mg. l ⁻¹	N/A	5

The works is achieving compliance. Over the period June 2000 to May 2003 there have been no failures of consent. Mean and std dev values for the works are:-

Date	BOD mg.l ⁻¹	TSS mg.l ⁻¹	Amm.N mg.l ⁻¹
Mean	6.6	11.6	1.17
Std dev	4.1	6.0	1.3

The highest BOD and TSS values were recorded on the 26th March 2003. Measured values were:-

Date	BOD mg.l ⁻¹	TSS mg.l ⁻¹	Amm.N mg.l ⁻¹
26-Mar-03	18.9	27.0	3.2

In summer months the measured values of final effluent quality determinands appears to rise slightly above the mean values as indicated below :-

Date	BOD mg.l ⁻¹	TSS mg.l ⁻¹	Amm.N mg.l ⁻¹
27-Sept-02	9.6	27.0	5.6
08-April 03	13.7	20.0	2.3
01-Aug-02	13.3	14.0	4.4
26-Jul-00	13.6	10.0	1.4

The higher values of BOD, TSS and Amm.N indicate a deterioration in biological treatment efficiency during drier periods of the year. The highest values were recorded on the 26th March. This coincided with a period of 13 days from 18th – 30th March when no rainfall occurred. The deterioration in filter performance is indicative of insufficient wetting of the media to sustain the biomass. This is supported by observations made last year that there was insufficient flow to maintain rotation of the filter arms.

1.2 Scope of Work

The proposed improvements at the works are :

1. Provide biological filter recirculation
2. Provide 6mm screening for storm flows

HYDRAULIC INFORMATION AND BASIS OF DESIGN

2.1 Dry Weather Flow

To assess the performance of the works a flow and load survey was commissioned and undertaken by Titan Environmental. (Report No. HS 0263/DS/1/01/01 dated July 2004). Flow data was collected over the period 26th May to 15^h June 2004. The 26th and 15th were incomplete days being the first and last days of the survey. Crude sewage was sampled over two days 27th to 28th May (Day 1) and 28th to 29th May (Day 2) providing a snapshot of the works performance.

The survey was characterized by unsettled weather with rainfall recorded on 11 of the 19 day period (Appendix Table 1). The survey confirmed significant rainfall in the catchment is passed to the works. On a day with 18.8 mm of rainfall (30th May) the total flow received at the works was 2596.8 m³.d⁻¹. This figure compares with flows of 1714 m³.d⁻¹ and 1717 m³.d⁻¹ on the 13th and 14th June respectively when no rainfall occurred. The absence of any extended periods of dry weather during the survey period prevented any accurate observations of DWF.

2.2 Population Served

Population data from property count

A check on population was made using Dwr Cymru's AIS system. The sewerage catchment area was identified on the system and a boundary drawn around the properties connected to the sewer. Using this system the number of properties within the boundary was determined as 2246 and then multiplied by an occupancy factor of 2.4 persons per property derived from census data to give a resident population figure of 5391. To this figure was added a further 17 Pe to include for growth/planning developments discussed with Gwynedd County Council. Overnight visitor population was estimated as 50 Pe based on a count of available hotel and guesthouse rooms. The number of day visitors was estimated as 350 based on tourist centre information. The design PE for the works was taken to be 5506.

	Meica count	Water consumption l.h ⁻¹ d ⁻¹	Pe	Water usage m ³ .d ⁻¹
Domestic Properties	2246 @ 2.4	180	5390.4	970.3
Planned Developments	7 @ 2.4	180	16.8	3.0
Hotel/Guesthouse rooms	25 @ 2.4 df=0.75	200	50	9.0
Day visitors	350	25	48.6	8.75
[(PG) _{residents} + (PG) _{visitors}]				991.1
Pe			5506	

df=occupancy factor

Population data from Flow and Load survey

The data collected during the flow and load survey included 24 hourly composite samples of raw sewage. The analysis of these samples yielded concentrations of the main sanitary determinands which were very low due to high infiltration flows which are known to exist in this catchment. Deriving PE data from crude composite load data was not undertaken as it was considered this would give unrepresentative PE data.

2.3 Infiltration

The infiltration flow for Blaenau Ffestiniog WwTW was taken from the Montgomery Watson Model Build and Verification Report RT-NW-1916-02 dated December 2002. According to the report the total infiltration figure is 20.4 l.s⁻¹ (1762.6 m³.d⁻¹) and is derived from three sub-catchments infiltration rates detailed below:

	Infiltration l.s ⁻¹
Tanygrisiau	3.9
Town Centre	7.0
Manod	9.5

2.4 Trade Effluent

There are two consented traders in the catchment. They are :-

- Plastics extrusion trade effluent consented to discharge flows up to 40 m³.d⁻¹
- Swimming Pool consented to discharge trade flows up to 12 m³.d⁻¹

2.5 Catchment / Hydraulic Model

A Model Build and Verification Report No RT-NW-1916-02 has been prepared by Montgomery Watson Harza in December 2002. The preparation of the Phase 3 report and programme for CSO improvements is likely to be part of AMP 4.

Summary of Flow Conditions

Calculated DWF for Blaenau Ffestiniog WwTW based on a summer Pe of 5506 is 2805.7 m³.d⁻¹ (32.5 l.s⁻¹). Calculated 3DWF is 4891.8 m³.d⁻¹ (56.6 l.s⁻¹). In deriving the DWF and 3DWF figure infiltration has been taken as 20.4 l.s⁻¹ as detailed in the Montgomery Watson Model Build and Verification Report No RT-NW-1916-02 dated December 2002. A summary of the design flow conditions for the works is presented in the following table. Detailed calculations are presented in the appendices.

Design flow conditions – Blaenau Ffestiniog WwTW

Description	Derived Flows		Current consent condition
	m ³ /d	L/s	
DWF	2805.7	32.5	1072 m ³ .d ⁻¹ (12.4 l.s ⁻¹)
3DWF	4891.8	56.6	4824 m ³ .d ⁻¹ (55.9 l.s ⁻¹)
Form A	10397.9	120.3	

2.6 Comparison with current flow conditions

- Information provided in the flow and load survey report demonstrates that a figure of 2000 m³.d⁻¹ would be indicative of a dry day flow.

Date and Time	Daily Flow m ³ .d ⁻¹	Rainfall mm
27-May-04 04:00 to 28-May-04 04:00	1999.96	0
28-May-04 04:00 to 29-May-04 04:00	1814.62	<0.2
29-May-04 04:00 to 30-May-04 04:00	1992.63	Note 1
30-May-04 04:00 to 31-May-04 04:00	2431.06	Note 1
31-May-04 04:00 to 01-June-04 04:00	2541.64	Note 1

Note 1 13.1 mm of rainfall at 03:00 on the morning of the 30th followed by 4.5 mm rainfall at 04:00 resulted in the increase of flows to the works

- Using this data a comparison was made between theoretical influent BOD, TSS and Amm.N concentrations (based on per capita figures) and those measured by the flow and load survey:-

	BOD	TSS	Amm.N
Domestic Load kg.d ⁻¹	323.4	377.3	37.7
Trade Load kg.d ⁻¹	7.5	8.8	0.88
Total Load kg.d ⁻¹	330.9	386.1	38.6
Typical dry day flow m ³ .d ⁻¹	2000	2000	2000
Derived Conc'n mg.l ⁻¹	166	193	19
Measured Conc'n mg.l ⁻¹ For Day 2 (Ref Table 2)	103-132	105-159	29-31

- The measured concentration of BOD and TSS suggests that the flow and load survey has under-estimated infiltration flow and that the dry day flow should be close to the derived DWF of 2805.7 m³.d⁻¹.

	BOD	TSS	Amm.N
Domestic Load kg.d ⁻¹	323.4	377.3	37.7
Trade Load kg.d ⁻¹	7.5	8.8	0.88
Total Load kg.d ⁻¹	330.9	386.1	38.6
Typical dry day flow m ³ .d ⁻¹	2805.7	2805.7	2805.7
Derived Conc'n mg.l ⁻¹	118	138	14
Measured Conc'n mg.l ⁻¹ For Day 2 (Ref Table 2)	103-132	105-159	29-31 (Day2) 7-22 (Day 1)

SCHEME DEFINITION

3.1 Description of existing works

A flow diagram of the works is included with the attachments to the consent application.

Raw sewage flows by gravity to the works and enters an inlet channel with a side mounted storm weir. Flows up to 3DWF pass forward through a 6mm screen which is provided with a screenings conditioning plant. Screened sewage flow to treatment passes forward through a flume where the upstream level is measured by a transducer which produces a flow proportional signal. After flow measurement the flow is distributed to two radial flow primary tanks equipped with sludge scrapers. Settled sludge is then passed to two large biological filters containing both furnace slag and granite media. Filter effluent then passes to two radial flow humus settlement tanks. Final effluent then enters a combined outfall pipe to the Afon Goedol.

Flows greater than 3DWF pass over the storm weir and currently pass through a macerator before entering the storm tank. Flow to the storm tank is measured downstream of the macerator using an ultrasonic level/flow transducer. In the event of the macerator not operating the upstream raw sewage level will rise and overflow a by-pass weir plate and flow direct to the storm tank. The level rise above the bypass weir is detected by an ultra sonic level detector.

The works was originally constructed with a sludge conditioning plant (sludge press, two picket fence thickeners and a filtrate tank). The sludge conditioning plant is now not used. Primary tanks are deslugged by airlift to the two PFTs which are used as

sludge holding tanks. Final settlement tanks are desludged by airlift to the decant and humus sludge well which also receives supernatant from the sludge holding tanks. Liquor is pumped back to the primary tank distribution chamber.

3.2 Limitations of the existing works

The limitations of the treatment process are: -

1. A potential risk of failing consent exists during dry weather when the flow is insufficient to maintain rotation of the filter arms and the biomass is starved of nutrient. The lack of adequate wetting risks humus solids detaching from the media surface.
2. The storm tank receives macerated sewage and flows in excess of storm tank capacity are discharged direct to the watercourse. Macerated solids are not suitable for discharge to an outfall.

3.3 Improvements to Wastewater Treatment at Blaenau Ffestiniog WwTW

1. Works to be upgraded with biological filter recirculation to ensure the biomass is adequately wetted

3.4 Improvements to Stormwater treatment

1. A new storm screen will be provided to ensure all storm flows receive 6mm fine screening

3. DISCHARGE CONSENTS

The **current** consent conditions (Cg 0083401) for discharge from Blaenau Ffestiniog WwTW to the Afon Goedol are:

DWF	1072 m ³ /d
Max Rate of Discharge	≤ 55.9 l/s
FFT	≤ 4824 m ³ /d
BOD	26 mg.l ⁻¹
SS	39 mg.l ⁻¹

Proposed Modifications

The **proposed** conditions for discharge from Blaenau Ffestiniog WwTW to the Afon Goedol are:

DWF	≤ 2805.7m ³ /d (32.5 l/s)
Max Rate of Discharge	≤ 56.6 l/s
3DWF	≤ 4891.8m ³ /d
Formula "A"	≤ 120.3 l/s
	≤ 10397.9 m ³ /d

Derivation of Flowrates

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

$$\begin{aligned}\text{DWF} &= [(PG)_{\text{residents}} + PG_{\text{visitors}}] + I + E \\ &= (5506 \times 180)/1000 + 1762.6 + 52 \text{ m}^3/\text{d} \\ &= \mathbf{2805.7 \text{ m}^3/\text{d} (32.5 \text{ l/s) }\end{aligned}$$

$$\begin{aligned}\text{3DWF} &= 3PG + I + 3E \\ &= 3 [(5506 \times 180)/1000] + 1762.6 + 3 \times 52 \text{ m}^3/\text{d} \\ &= \mathbf{4891.8 \text{ m}^3/\text{d} (56.6 \text{ l/s) }\end{aligned}$$

$$\begin{aligned}\text{SOC 'A'} &= \text{DWF} + 1.36 P + 2E \\ &= 2805.68 + 1.36(5506) + 2 \times 52 \text{ m}^3/\text{d} \\ &= \mathbf{10397.9 \text{ m}^3/\text{d} (120.3 \text{ l/s) }\end{aligned}$$

APPENDIX

Titan Environmental Ltd Survey May-June 2004 (Extract)

Table 1 Rainfall

Date	Rainfall (mm)
26/05/04	0.0
27/05/04	0.0
28/05/04	0.3
29/05/04	0.8
30/05/04	18.8
31/05/04	5.1
01/06/04	2.4
02/06/04	0.0
03/06/04	3.3
04/06/04	0.3
05/06/04	0.0
06/06/04	0.3
07/06/04	0.5
08/06/04	0.0
09/06/04	0.0
10/06/04	1.3
11/06/04	2.8
12/06/04	0.0
13/06/04	0.0
14/06/04	0.0
15/06/04	0.0

Table 2 Total Daily Influent Flows

Date	MaxFlow Time	MaxFlow (l/s)	MinFlow Time	MinFlow (l/s)	AveFlow (l/s)	TotVolume (m3)
26-May-04	14:58	36.10	14:46	0.00	25.10	831.7
27-May-04	21:28	38.70	02:48	16.20	23.10	1993.4
28-May-04	16:24	38.20	03:44	15.00	21.40	1845.7
29-May-04	09:24	46.30	04:08	13.20	21.30	1837.2
30-May-04	03:34	203.00	03:58	6.40	30.10	2596.9
31-May-04	22:04	97.50	04:04	13.80	24.50	2109.8
01-Jun-04	01:04	81.90	23:48	14.40	23.10	1991.0
02-Jun-04	10:06	27.30	02:08	12.40	16.40	1415.7
03-Jun-04	18:34	191.00	01:48	11.60	33.50	2892.8
04-Jun-04	09:06	29.10	02:02	15.00	18.50	1598.7
05-Jun-04	17:48	27.80	02:48	13.20	17.40	1505.3
06-Jun-04	11:08	29.60	03:52	12.40	17.50	1513.6
07-Jun-04	17:06	31.00	01:18	13.20	18.20	1568.9
08-Jun-04	15:06	31.00	01:04	12.70	18.20	1571.2
09-Jun-04	07:42	105.50	03:28	12.90	23.70	2043.6
10-Jun-04	04:06	80.10	00:30	13.50	26.30	2268.8
11-Jun-04	17:50	76.70	02:58	13.50	21.90	1892.9
12-Jun-04	09:06	33.00	04:22	13.80	19.30	1668.1
13-Jun-04	19:36	33.50	01:32	14.10	19.90	1714.0
14-Jun-04	21:24	37.70	04:26	13.80	19.90	1716.9
15-Jun-04	08:06	32.00	03:30	13.50	16.90	525.9

**Part day only

Quality Data

Table 3 Intensive (4h Composite) Sampling of Crude Sewage Concentration

Date	Time	BOD _{atu} mg/l	BOD _{atu} (filt) mg/l	COD mg/l	TSS mg/l	NH ₃ -N mg/l	NO ₃ mg/l
27-May-04	08:00	130	112	282	147	22.1	0.6
27-May-04	12:00	113	80	211	115	13.3	0.6
27-May-04	16:00	96	69	174	71	15.4	0.6
27-May-04	20:00	83	35	106	55	13.6	0.7
28-May-04	00:00	22	10	40	19	7.5	0.7
28-May-04	04:00	27	18	58	22	12.0	0.7
	Max	130	112	282	147	22.1	0.7
	Min	22	10	40	19	7.5	0.6
	Average	78.5	54.0	145.2	71.5	14.0	0.7

Date	Time	BOD _{atu} mg/l	BOD _{atu} (filt) mg/l	COD mg/l	TSS mg/l	NH ₃ -N mg/l	NO ₃ mg/l
28-May-04	08:00	125	57	222	152	28.8	0.4
28-May-04	12:00	132	52	223	144	28.9	0.4
28-May-04	16:00	104	47	240	105	29.3	0.4
28-May-04	20:00	103	61	273	145	29.3	0.3
29-May-04	00:00	117	52	271	159	28.9	0.3
29-May-04	04:00	115	52	255	155	31.3	1.6
	Max	132	61	273	159	31.3	1.6
	Min	103	47	222	105	28.8	0.3
	Average	116.0	53.5	247.3	143.3	29.4	0.6

Table 4 Intensive (4h Composite) Sampling of Final Effluent Concentration

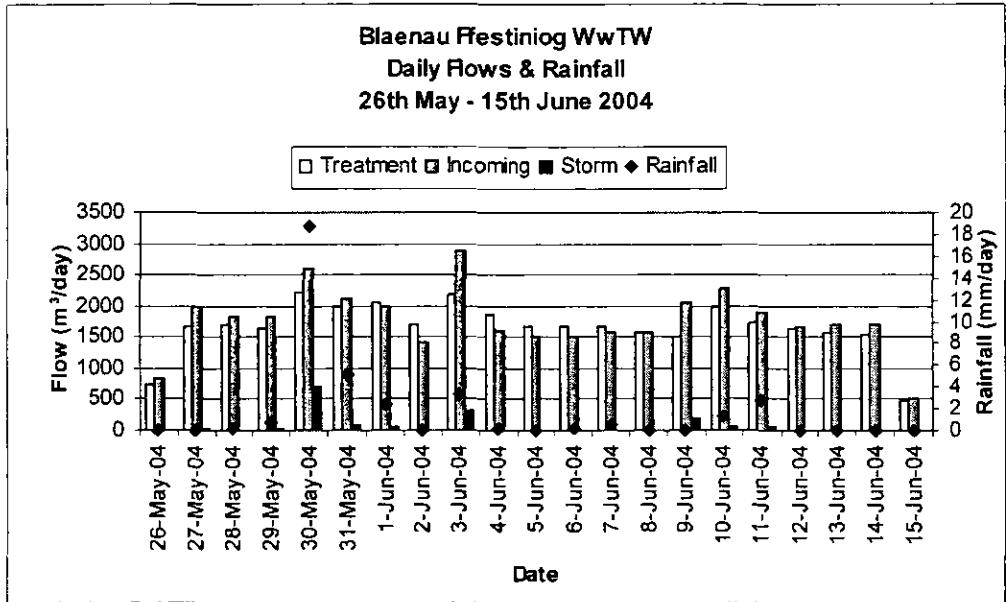
Date	Time	BOD _{atu} mg/l	BOD _{atu} (filt) mg/l	COD mg/l	TSS mg/l	NH ₃ -N mg/l	NO ₃ mg/l
27-May-04	08:00	5	3	65	26	1.2	13.0
27-May-04	12:00	12	5	80	44	2.2	15.7
27-May-04	16:00	9	5	73	25	1.2	15.0
27-May-04	20:00	9	4	47	25	1.1	15.4
28-May-04	00:00	10	5	66	25	1.5	15.1
28-May-04	04:00	14	4	115	53	1.8	16.0
	Max	14	5	115	53	2.2	16
	Min	5	3	47	25	1.1	13
	Average	9.8	4.3	74.3	33.0	1.5	15.0

Date	Time	BOD _{atu} mg/l	BOD _{atu} (filt) mg/l	COD mg/l	TSS mg/l	NH ₃ -N mg/l	NO ₃ mg/l
28-May-04	08:00	4	3	42	14	1.2	14.8
28-May-04	12:00	8	2	45	18	1.7	17.7
28-May-04	16:00	7	3	63	14	8.6	17.3
28-May-04	20:00	8	2	46	15	3.1	16.9
29-May-04	00:00	5	1	71	20	2.5	16.6
29-May-04	04:00	14	2	75	38	2.4	15.6
	Max	14	3	75	38	8.6	17.7
	Min	4	1	42	14	1.2	14.8
	Average	7.7	2.2	57.0	19.8	3.3	16.5

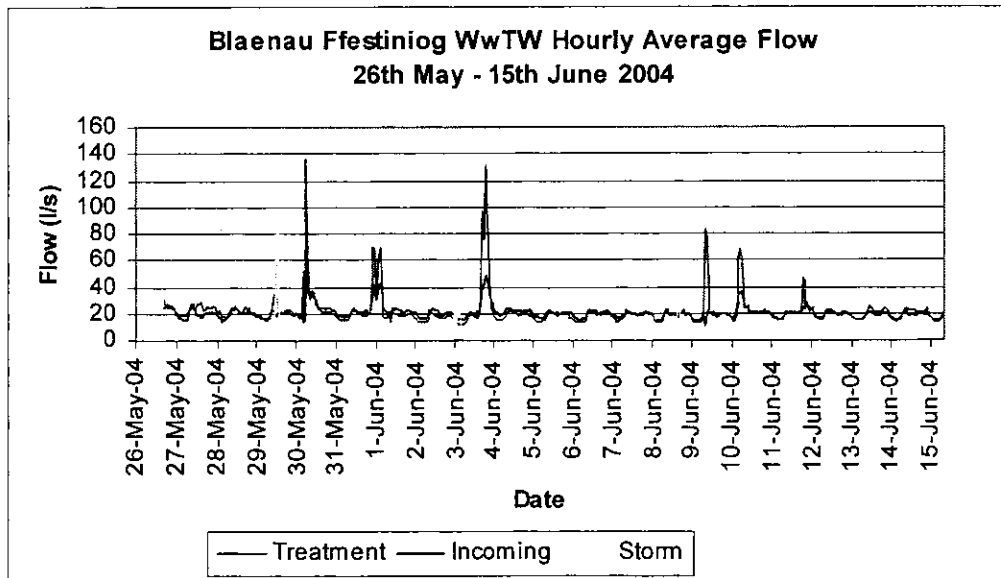
Table 5 Crude Sewage Load and Population Equivalent

Date	BOD mg.l⁻¹	COD mg.l⁻¹	TSS mg.l⁻¹	Amm.N mg.l⁻¹
29 th -May-04	50	116	70	17.2
30 th May- 04	51	132	82	23.2
31 st -May- 04	69	128	86	25
Average	57	125	79	22

Graphs
Graph 1 Influent Flowrate and Daily rainfall



Graph 2 Influent Hourly Average Flowrate



COPY



ASiantaeth Yr
Amgylchedd Cymru
ENVIRONMENT
AGENCY WALES

Ein cyf/Our ref:

CG0429001/CG0113301/CG0083401/CG0083402

Date:

30th September 2004

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

Dear Sir,

WATER RESOURCES ACT 1991, SCHEDULE 10 (AS AMENDED BY THE ENVIRONMENT ACT 1995) APPLICATION FOR CONSENT TO DISCHARGE SEWAGE EFFLUENT AND SEWAGE EFFLUENT UNDER STORM OR EMERGENCY CONDITIONS BY DWR CYMRU CYF FROM BLAENAU FFESTINIOG WWTW AND MAENTWROG WWTW
APPLICATION NO: CG0429001/CG0113301/CG0083401/CG0083402

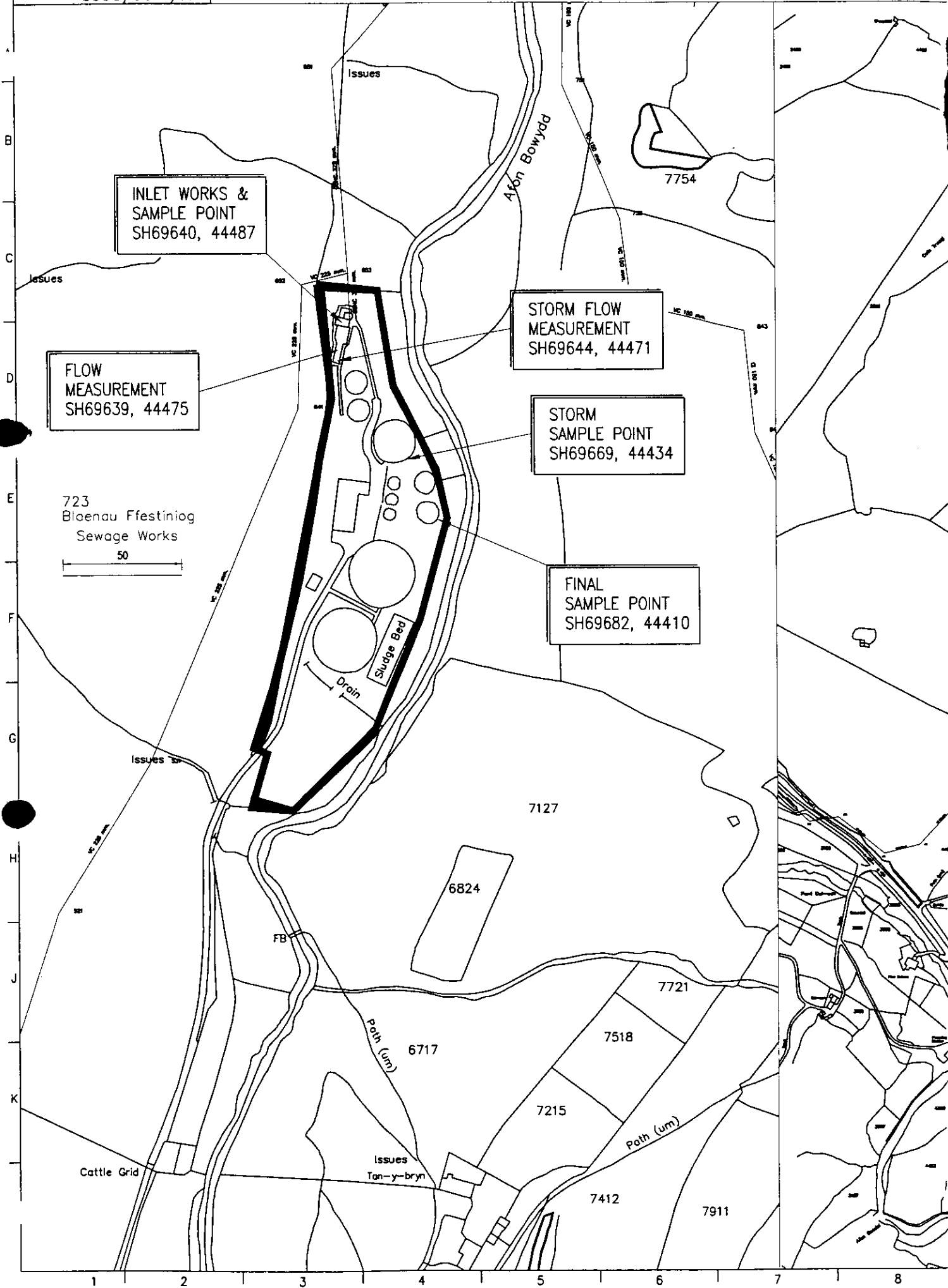
Thank you for your application for consent to discharge together with your application fee of £743 X 4. It is receiving consideration and you will be hearing from us again shortly. Please state application as above in any correspondence with us relating to this application.

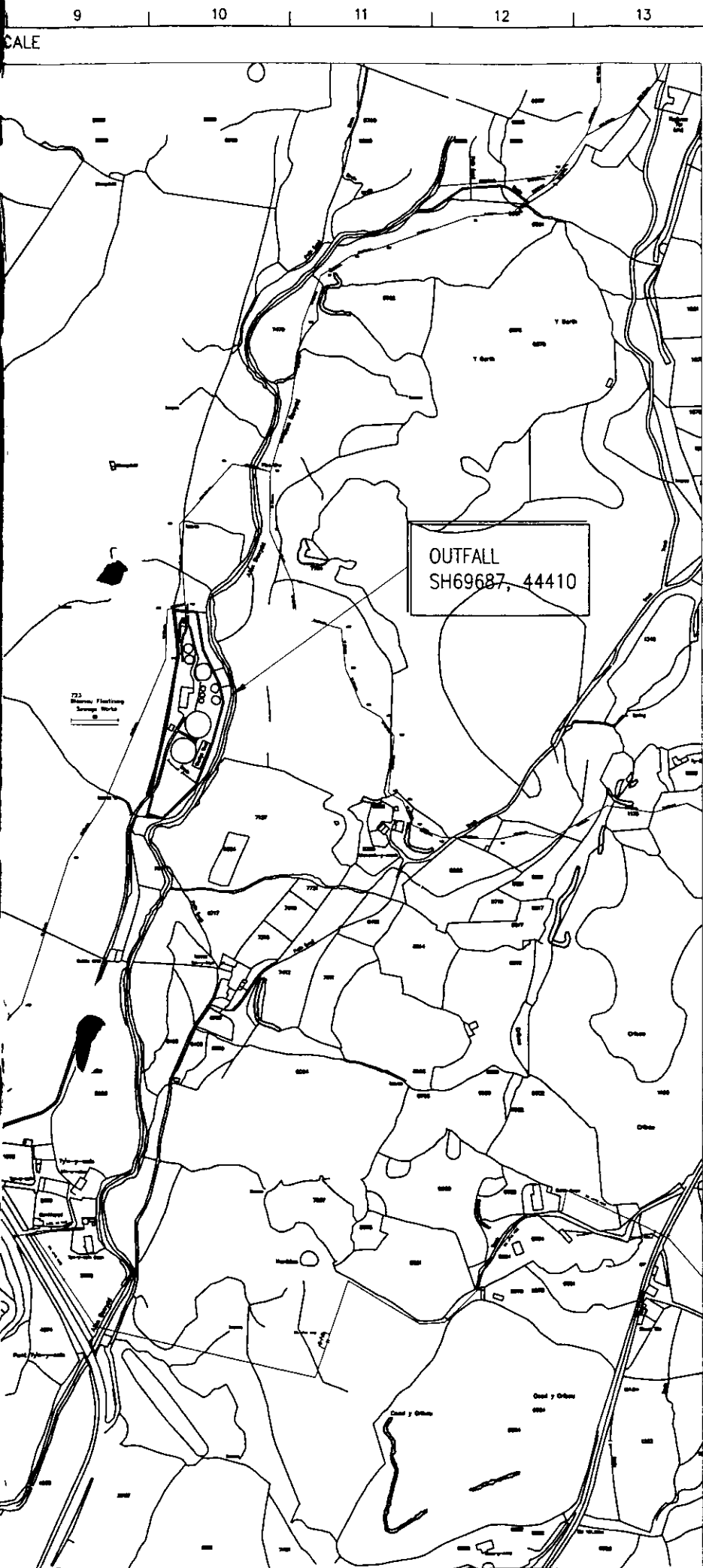
Yours faithfully

Kelvin Graham
Team Leader Customer Contact and Authorisations

Please ask for Ruth Prichard







SCALE

SEE PREVIOUS ISSUES FOR PAST REVISION DETAILS			
REV.	REVISION DESCRIPTION		
A		DRAWN BY	JNICHOLLS
		DATE	
DESIGN APPROVAL			
ELECTRICAL ENGINEER		PROCESS ENGINEER	
MECHANICAL ENGINEER		MANAGER APPROVAL	

GENERAL NOTES

A

B

C

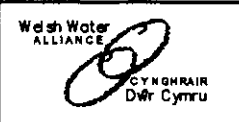
D

E

F

G

H



MEICA
PROCESS LTD

17 Station Road, Four Ashes
Bokerhampston, WY10 7DB
Tel: 01902 791616
Fax: 01902 791772

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CUSTOMER: DWR CYMRU WELSH WATER

PROJECT TITLE: BLAENAU FFESTINIOG WwTW

TITLE: EA CONSENT APPLICATION

ORIGINAL ISSUE DRAWN BY: JNICHOLLS

ORIGINAL ISSUE DATE:

ORIGINAL ISSUE APPROVED BY:

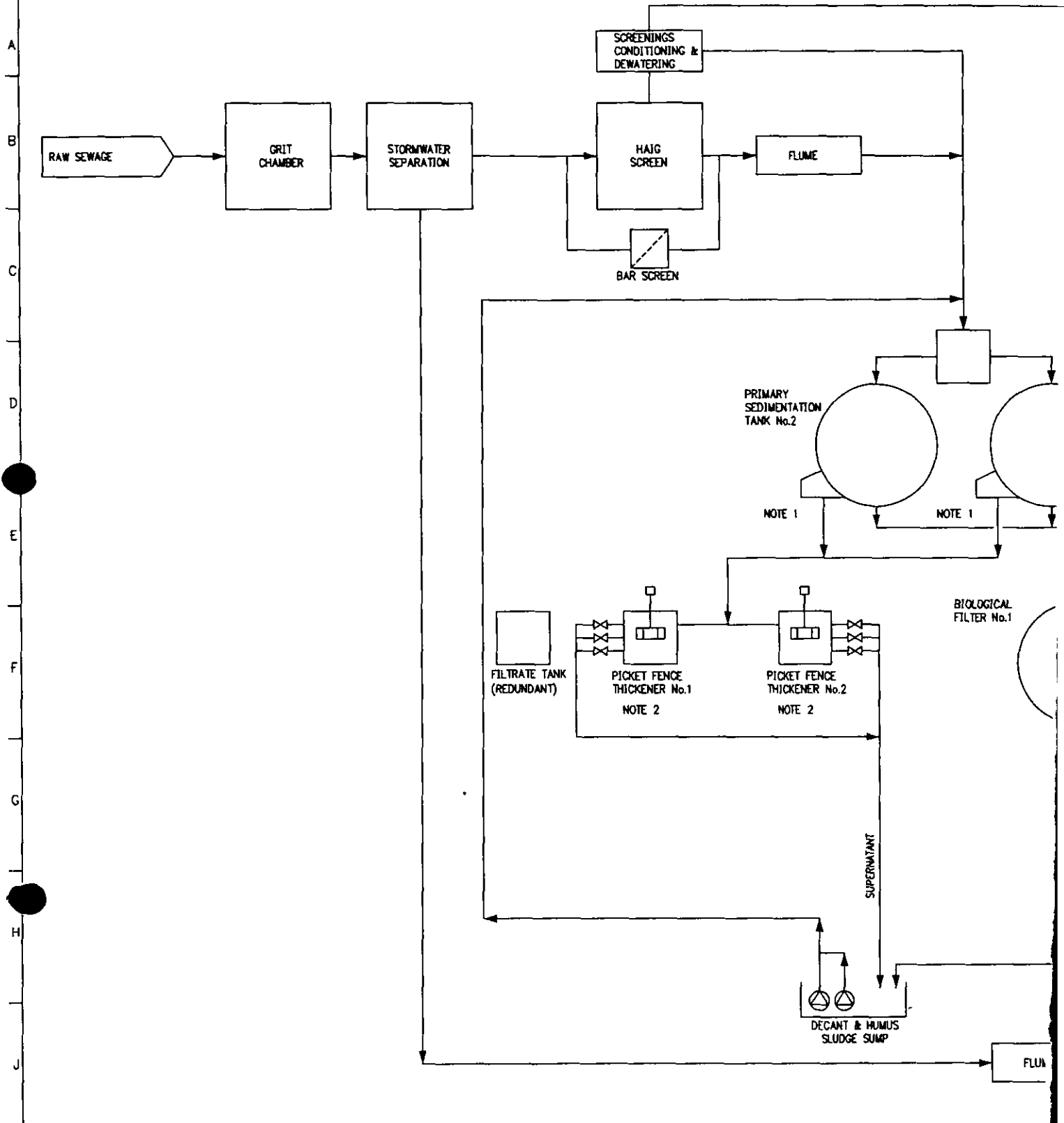
DRAWN: C990/9011

SCALE: 1:1000

1:3000

REV. A

NEW DRAWING



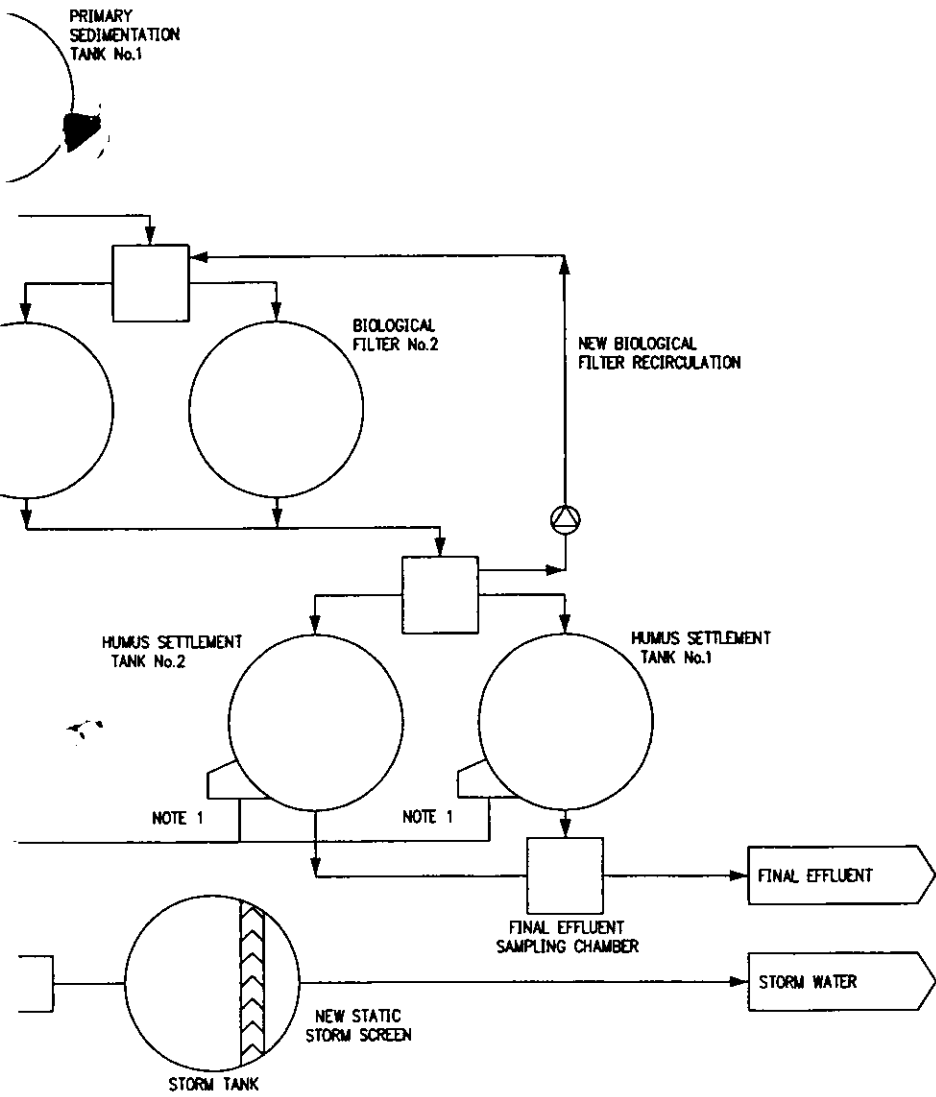
CRITICAL PROCESS INFORMATION

FORMULA 'A'	(l/s)	120.3
3 DWF	(l/s)	56.6
6 DWF	(l/s)	92.8
DWF	(l/s)	32.5
BOD Load	(kg/d)	330
SS Load	(kg/d)	330
PE		5506

PRIMARY TANK	Upward Flow Vel (m/h)	1.5 @ 3 DWF
	HYDRAULIC RETENTION TIME (h)	1.9 @ 3 DWF
BIOLOGICAL FILTER	Loading Rate (kg/cu.m/d)	0.10
	BOD Load (kg/d)	243
HUMUS TANK	Upward Flow Vel. m/h @ FFT	5 @ 3 DWF
	HYDRAULIC RETENTION TIME (h)	1.5 @ 3 DWF

ALE

SCREENINGS REMOVAL
OFF-SITE



STORM RETENTION (h)	1.94h @ 3 DWF
SLUDGE	
DESLEDGING METHOD	Airlift Desludging of Primary Tank & Humus Tank
PRODUCTION	
STORAGE PERIOD	
OTHER COMMENTS	

SEE PREVIOUS ISSUES FOR PAST REVISION DETAILS

REV.	REVISION DESCRIPTION	DRAWN BY	JNICHOLLS
A			
		DATE	

DESIGN APPROVAL

ELECTRICAL ENGINEER	PROCESS ENGINEER
MECHANICAL ENGINEER	MANAGER APPROVAL

GENERAL NOTES

1. AIRLIFT DESLUDGING OF PRIMARY AND HUMUS TANKS OPERATED BY TIMER.
2. PICKET FENCE THICKENER TANKS No1 & No2 NOW USED FOR SLUDGE STORAGE.

EQUIPMENT LIST

TITLE	SIZE (m)
PRIMARY TANK (2)	9.1m (Dia) x 2.4m (Sidewall)
BIOLOGICAL FILTER (2)	27.4m(Dia) x 2.1m(Depth)
HUMUS TANK (2)	9.1m (Dia) x 2.1m (Sidewall)
STORM TANK (1)	15.2m (Dia) x 1.8m (Sidewall)

<p>Welsh Water ALLIANCE CYNGHAIR Dŵr Cymru</p>	<p>DWR CYMRU WELSH WATER</p>
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<p>MEICA PROCESS LTD</p>	<p>17 Station Road, Four Ashes Wolverhampton, WV10 7DB Tel: 01902 791616 Fax: 01902 791772</p>
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CUSTOMER: DWR CYMRU WELSH WATER

PROJECT TITLE: BLAENAU FFESTINOG WwTW

TITLE: PROCESS FLOW DIAGRAM - (PROPOSED)

ORIGINAL ISSUE DRAWN BY JNICHOLLS	ORIGINAL ISSUE DATE	ORIGINAL ISSUE APPROVED BY
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ORIG. NO. C990/1101	SCALE	REV. A
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NEW DRAWING