

CONSENT NO.	AN0353501
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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)**

**CONSENT TO DISCHARGE**

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

The **ENVIRONMENT AGENCY** ("The Agency") in pursuance of its powers under the Water Resources Act 1991 **HEREBY CONSENTS** to the making of a discharge **OF SEWAGE EFFLUENT**, as follows:

Settled Storm Sewage Effluent

**FROM:** Monmouth Sewage Treatment Works.

**AT:** Redbrook Road, Redbrook, Monmouth.

**TO:** The River Wye.

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

Settled Storm Sewage      Schedule No. AN035350101

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, altering this consent without the agreement in writing of the consent holder, during a period of 4 years from the date this consent takes effect or such later date as may be specified in an endorsement to this document.

This consent is issued on the 31<sup>st</sup> day of March 2004  
and takes effect on the 31<sup>st</sup> day of March 2004.

Signed [Signature]  
Team Leader - Wye Environment Management



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SCHEDULE NO.	AN035350101
DATE ISSUED	7/4/04



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## CONDITIONS OF CONSENT TO DISCHARGE

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

**FROM:** Monmouth Sewage Treatment Works, Redbrook Road, Redbrook, Monmouth.

### 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 mm diameter pipe;
  - (b) discharging to The River Wye;
  - (c) at National Grid Reference SO 51532 11795;
  - (d) shown marked 'Consent Point' on Plan AN0353501 attached as Annex 1.

### SAMPLE POINT

3. An appropriately labelled sample point shall be provided and maintained at National Grid Reference SO 51548 11849, as shown marked 'Sample Point' on Plan AN0353501, so that a representative sample of the Discharge may be obtained. The consent holder shall ensure that all constituents of the Discharge pass through the said sampling point at all times and in any legal proceedings it shall, for the purposes of Section 10 of the Rivers (Prevention of Pollution) Act 1961, be presumed, until the contrary is shown that any sample of the Discharge taken at the said sampling point is a sample of what was discharging into controlled waters.

### VOLUME

4. The Discharge shall occur when and only for as long as, the storm tanks are full. The discharge of storm sewage to the storm tank shall only occur when the rate of flow at the storm sewage separating weir is in excess of 83.9 litres per second due to rainfall and/or snowmelt. The storm tanks shall be emptied and their contents returned for full treatment as soon as practicable after cessation of the overflow to the storm tanks.
5. The capacity of the storm tanks shall be at least 848 cubic metres.



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### COMPOSITION

6. (a) The Discharge shall have passed, without prior comminution or maceration, through a screening device having apertures no greater than 6 millimetres 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.

### RECORDING AND REPORTING

8. (a) The consent holder shall establish and operate a documented maintenance programme and record all non-routine actions undertaken that may have adversely affected the operation of the storm tanks. Copies of the programme shall be made available for inspection by the Agency's officers at all reasonable times.
  - (b) On request the consent holder shall supply the Agency with a written report on the maintenance and all non-routine actions that may have adversely affected the operation of the storm tanks.
9. 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" (set out in Annex 2 to this notice as updated from time to time and notified to the consent holder in writing), and any other substance considered by the consent holder as having or likely to have a significant effect on the receiving waters.



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### SUBSTANTIAL CHANGE

10. 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.
11. A discharge of trade effluent into the works is new if -
- (a) it is made by the sewerage undertaker and is of a kind not made into the works by the undertaker immediately before the date of effect of this variation; or
  - (b) it is made by a third party and the discharge is authorised on or after that date.
12. A discharge of trade effluent into the works is altered if -
- (a) it is made by the sewerage undertaker and its composition or quantity changes significantly on or after the date of effect of this variation; or
  - (b) it is made by a third party and the alteration of the discharge is authorised on or after that date.
13. An increase in the polluting effects of the Discharge on controlled waters is not significant for the purposes of this condition if it relates to any characteristic of the Discharge which is specifically regulated by conditions in this consent but it may be significant if it is caused by a change in some other characteristic of the Discharge.
14. For the purposes of this condition "trade effluent" means -
- (a) any discharge by the sewerage undertaker other than
    - (i) domestic sewage from premises connected directly or indirectly to the works; or
    - (ii) surface water run-off;
  - (b) any discharge by a third party which is authorised under Chapter III of Part IV of the Water Industry Act 1991 or which is accepted as a result of a contract with the sewerage undertaker.



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#### UNAUTHORISED DISCHARGES

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

#### START DATE

16. There shall be no discharge under the terms of this consent until the 31<sup>st</sup> March 2004 or the start of commissioning of the settled storm overflow whichever is the sooner.



## ANNEX 2



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Amgylchedd Cymru  
ENVIRONMENT  
AGENCY WALES

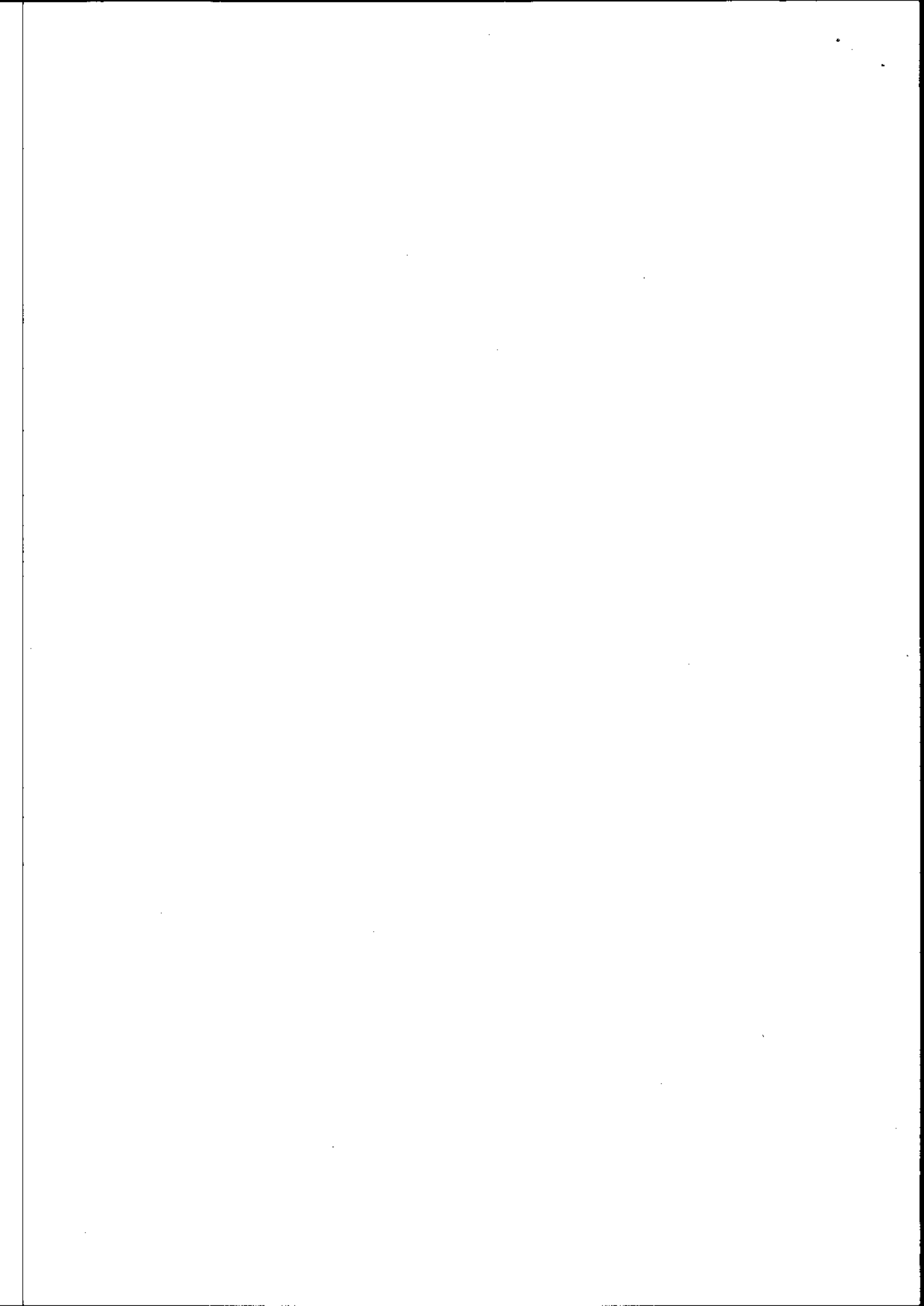
- |  |                              |
|--|------------------------------|
| 1. Mercury and its compounds   | 2. Cadmium and its compounds |
| 3. Hexachlorocyclohexane (lindane and related compounds)               |                              |
| 4. Carbon tetrachloride  |                              |
| 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 outside range 5.5 to 9.0                                       | 35. *Boron                   |
| 36. Vanadium   | 37. PCSD'S                   |
| 38. Cyfluthrin   | 39. Sulcofuron               |
| 40. Flucosufuron   | 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.







Eich cyf/Your ref.

Ein cyf/Our ref. ACSC/CUST/SE/SF/AN0353501

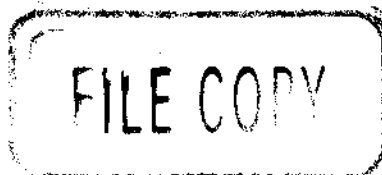
Dyddiad/Date: 07 April 2004

Dwr Cymru  
Pentwyn Road  
Nelson  
Treharris  
Caerphilly  
CF46 6YA



ASiantaeth Yr  
AMGYLCHEDD CYMRU  
ENVIRONMENT  
AGENCY WALES

P/R



Dear Dr. Kiel

**WATER RESOURCES ACT 1991, SCHEDULE 10 (AS AMENDED BY THE ENVIRONMENT ACT 1995) APPLICATION FOR CONSENT TO DISCHARGE SEWAGE EFFLUENT BY DWR CYMRU FROM MONMOUTH STW, REDBROOK ROAD, REDBROOK, MONMOUTH NP25 4LG  
APPLICATION NO: AN0353501**

Further to your application the Agency has decided that consent should be given subject to conditions. I enclose the Agency's formal consent to discharge sewage effluent at Monmouth STW, Redbrook Road, Redbrook, Monmouth NP25 4LG.

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

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

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

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

Asiantaeth yr Amgylchedd Cymru  
Plas Yr Afon, Parc Busnes Llanelirwg, Llanelirwg, Caerdydd, CF3 0EY  
Ffon: 029 20770088 Ffacs: 029 20798555  
[www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)

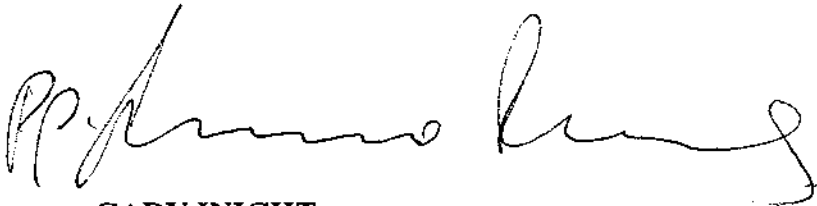
Environment Agency Wales  
Rivers House, St Mellons Business Park, St Mellons, Cardiff, CF3 0EY  
Tel: 029 20770088 Fax: 029 20798555  
[www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)



Please take careful note that if the holder of the consent changes, you must inform the Agency **IN WRITING** as soon as possible of the name of the new holder. This is to ensure that the rights and charges associated with the Consent are transferred to the 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.

If you have any queries regarding the enforcement of this consent, please do not hesitate to contact Dane Broomfield, Team Leader Environment Management, Environment Agency Wales.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Gary Inight', written in a cursive style.

**GARY INIGHT**  
Customer Contact Team Leader

Enc.



ASiantaeth YR  
AMGYLCHEDD  
ENVIRONMENT  
AGENCY

## WATER RESOURCES ACT 1991 (schedule 10)

(as amended by the Environment Act 1995)

### Application for variation to an existing consent\* to discharge Storm Discharge Application

<p><b>Regional/Area Address:</b></p> <p>The Regional Finance Manager Environment Agency Welsh Region PO Box 425 St Mellons Business Park CARDIFF CF3 0LT</p>	<p><i>Official Use Only</i> Dist/Area Ref: 1303 AN0553501 Application No. <del>AS1003201</del> Date Received: 11/9/03 Fee Received:</p> <p>Vmwd E.A. cheque £222.00 11 SEP 2003 PAID WELSH REGION</p>
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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).

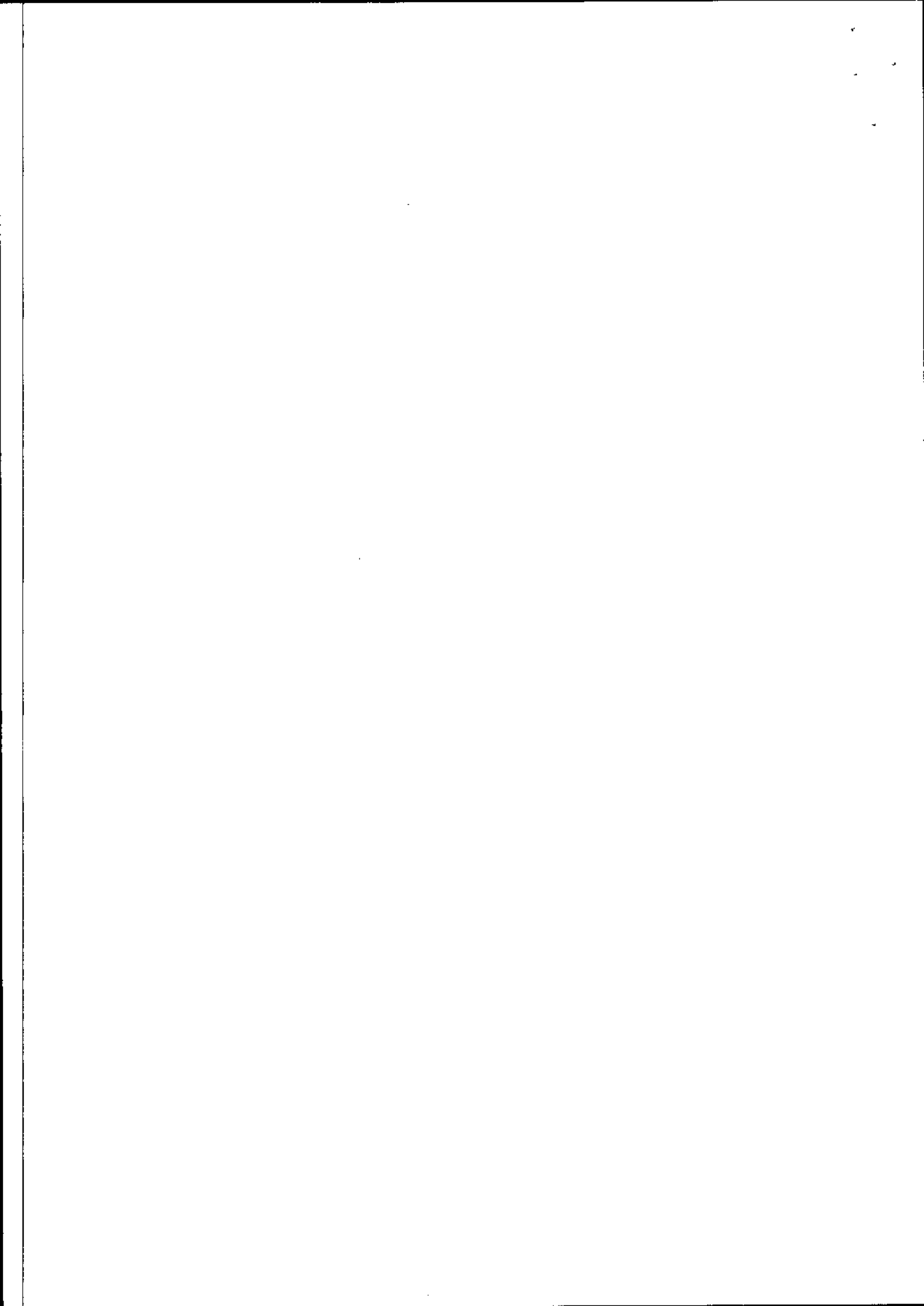
#### 1 SITE ADDRESS

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

Monmouth STW  
Redbrook Road,  
Redbrook,  
MONMOUTH

Post Code:

NP25 4LG



**2 DETAILS OF DISCHARGE(S)**

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

- Sewage Effluent - volume of 5 cubic metres per day or less
- Sewage Effluent - volume greater than 5 cubic metres per day (**complete annexe 1**)
- Sewage Effluent discharged under storm or emergency conditions (**complete annexe 2**)
- Cooling Water (**complete annexe 3**)
- Trade Effluent (*including site drainage*) (**complete annexe 3**)
- Others (*please specify*)

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

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"/> |

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

S	O	5	1	5	3	2	1	1	7	9	5
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(*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:

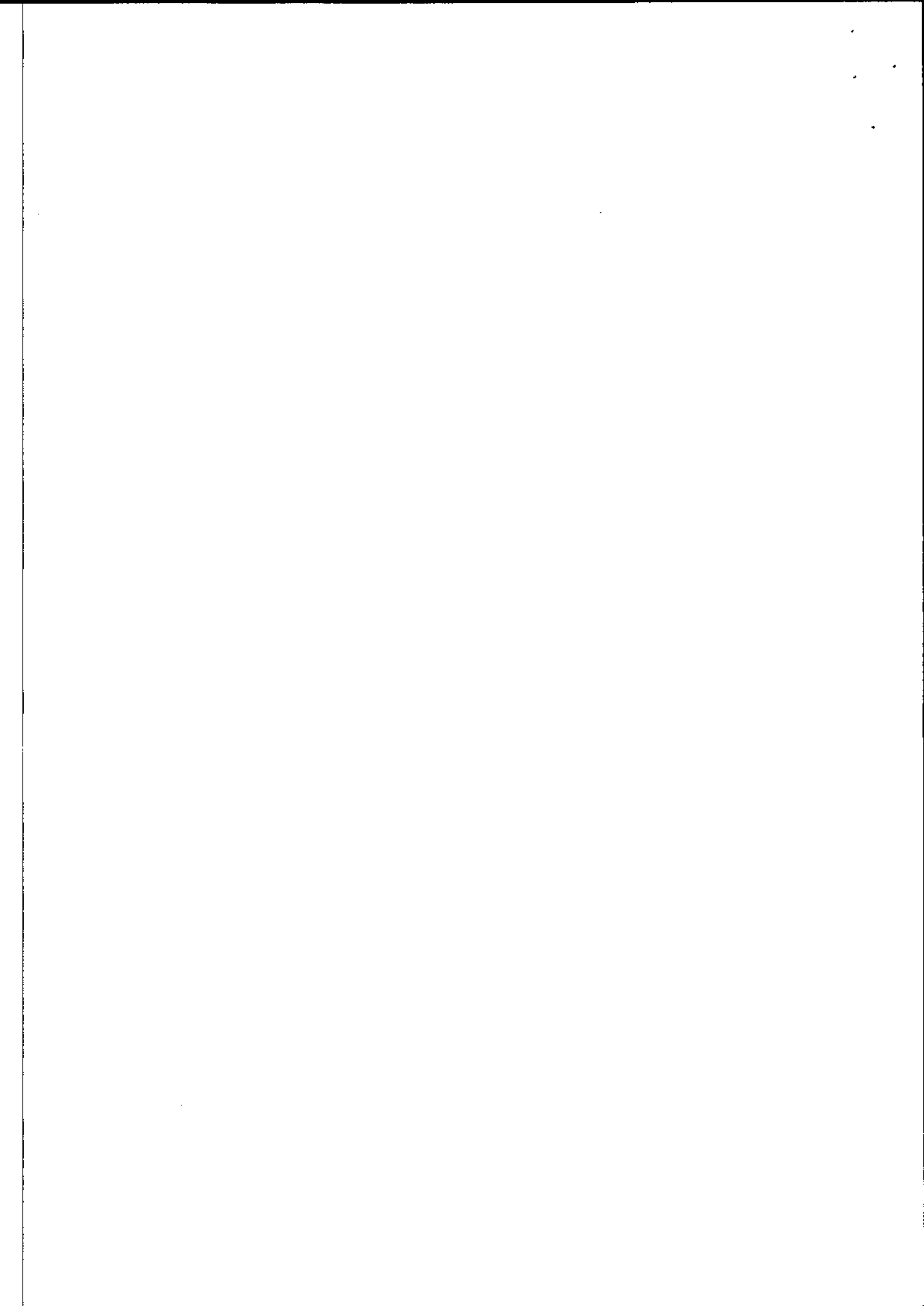
At the outlet  At a manhole or sampling chamber

Other (*please specify*)

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

S	O	5	1	5	4	8	1	1	8	4	9
---	---	---	---	---	---	---	---	---	---	---	---

(*please indicate on accompanying plans*)



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

None.

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

Septic Tank  Package Sewage Treatment Works  Other

- b) Will the treatment process involve the use of any chemicals (eg ferric salts, polyelectrolytes). If yes please give details.  No

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

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

to:

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

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

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

AS1003201

- b) Has any person had a Prohibition Notice serviced on them in respect of this site?  No  
If yes, please give the reference number.

### 3 SITE DETAILS

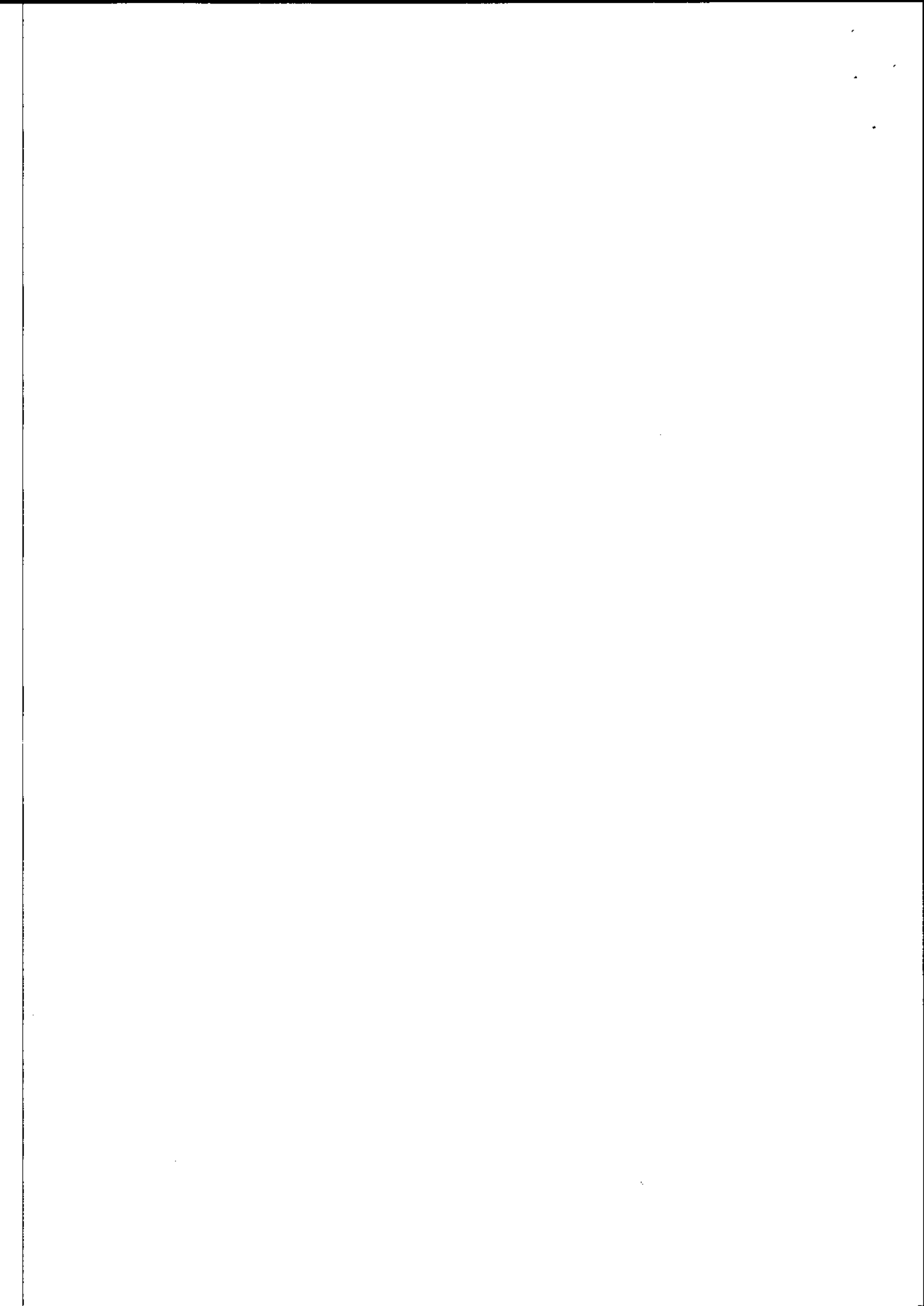
- 3.1 Please give the name of the relevant Planning Authority.

Monmouthshire

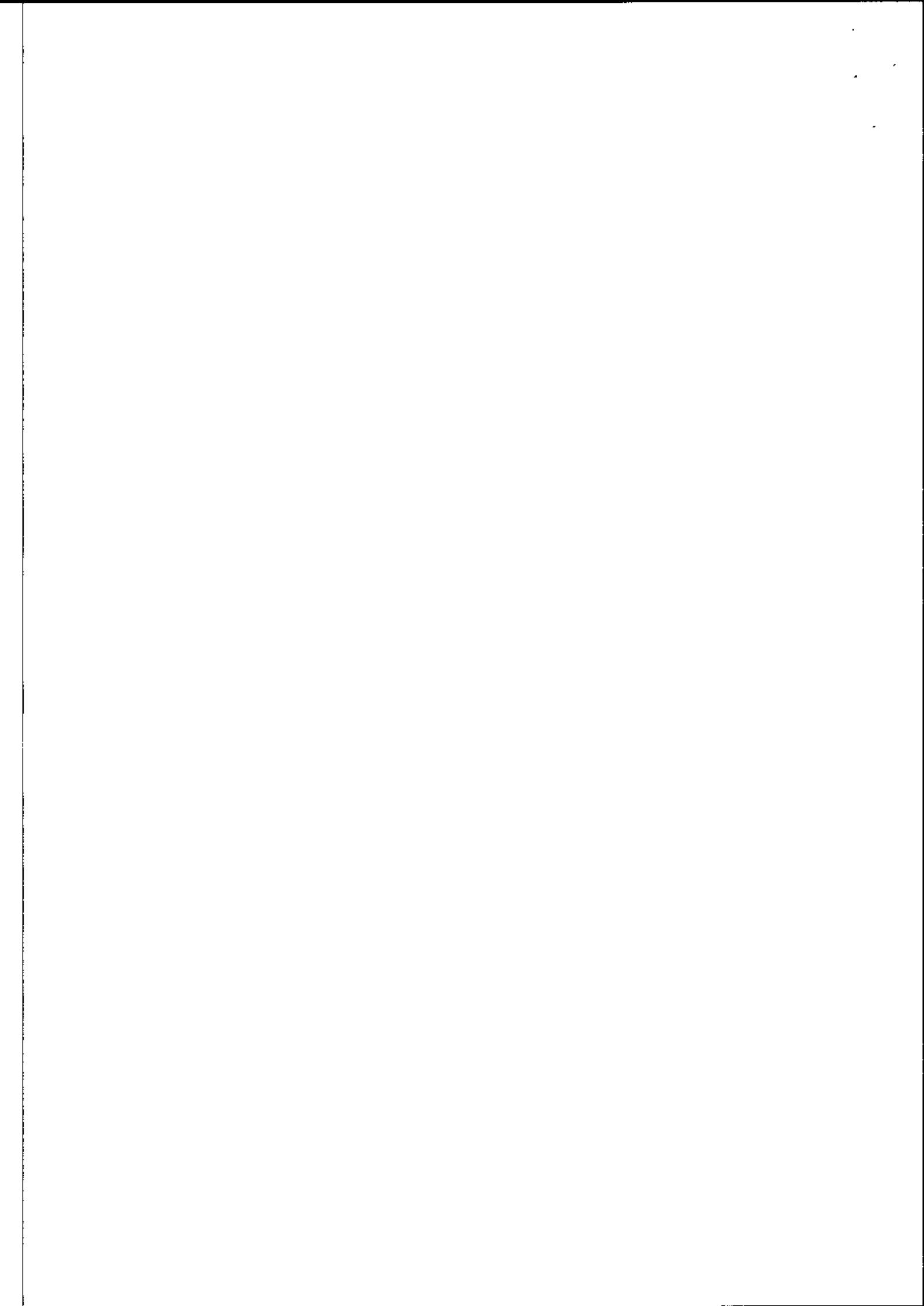
- 3.2 Please give details of the premises - tick as appropriate:

1. Single Dwelling  6. Fish Farm

2. Multiple Dwellings  7. Mineral Workings



- |  |                          |                                   |                                     |
|--|--------------------------|-----------------------------------|-------------------------------------|
| 3. Industrial Premises                         | <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 type="checkbox"/> | <input type="text"/>                      |                          |

#### 4 DETAILS OF RECEIVING ENVIRONMENT

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

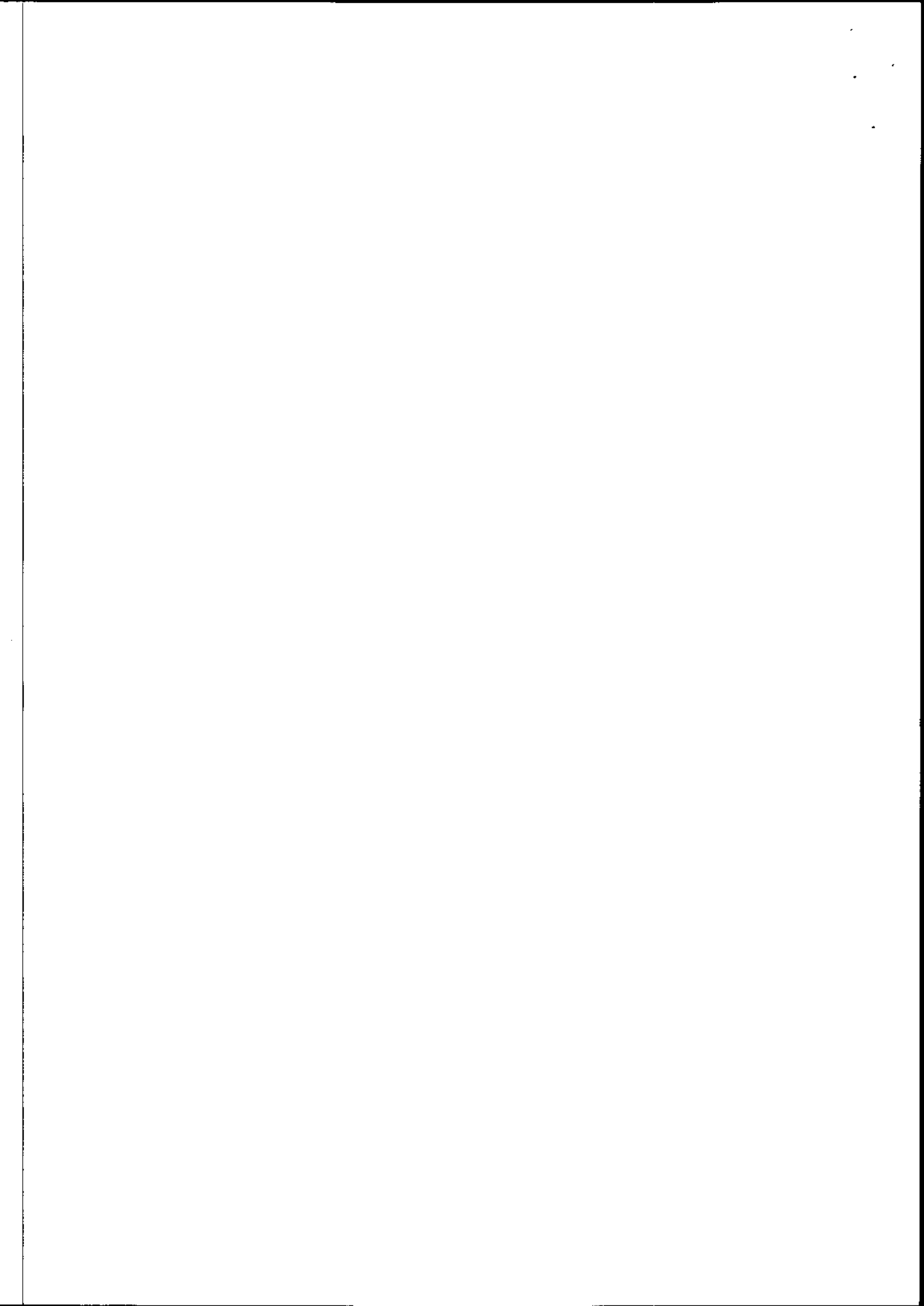
- |  |                                     |                                 |                          |
|--|-------------------------------------|---------------------------------|--------------------------|
| 1. Estuarial Water (tidal river or stream) | <input type="checkbox"/>            | 5. Into 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:

Wye

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

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

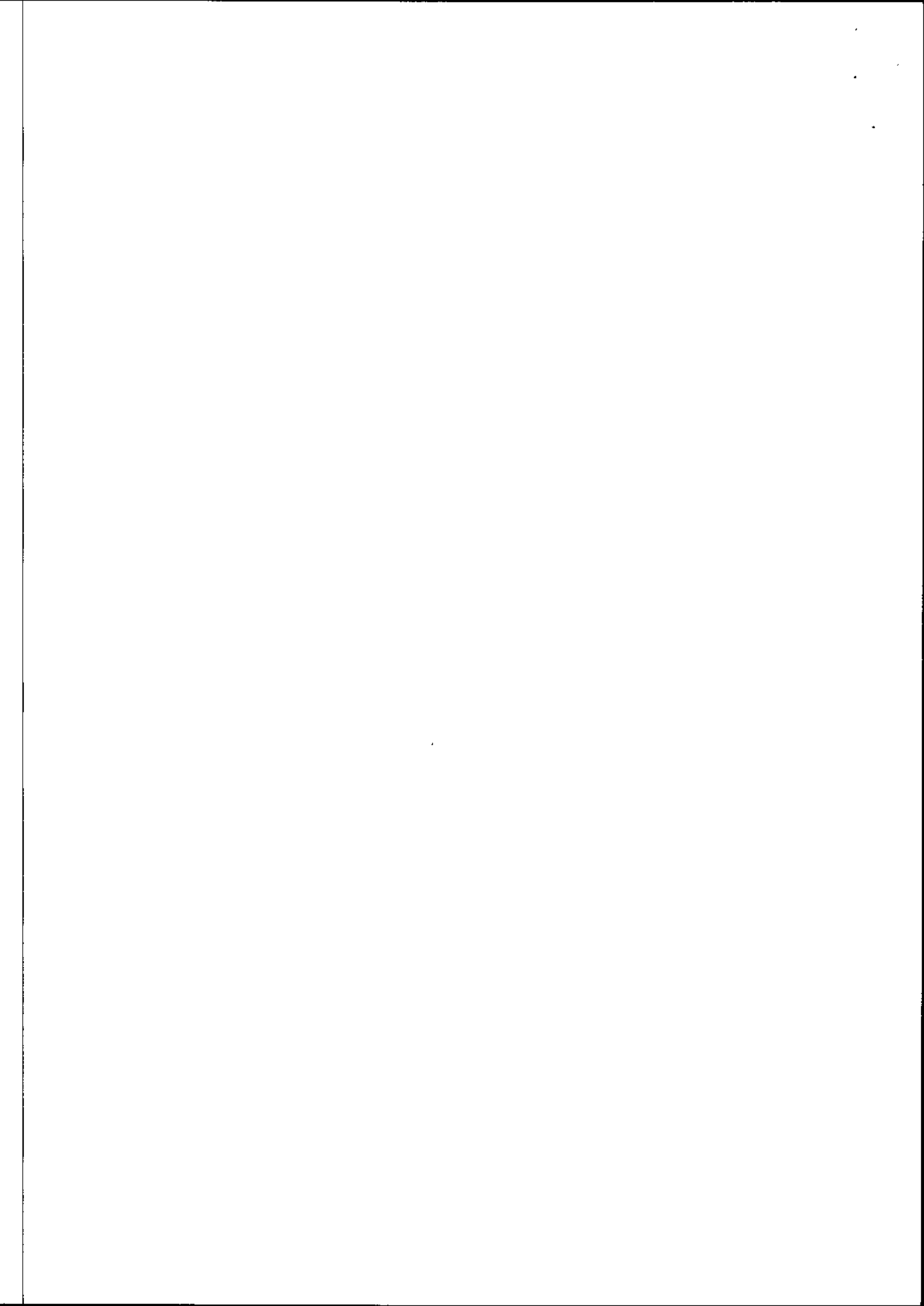


Have the results been provided?

Y/N

- 4.3 Is there a foul sewer available to which the discharge(s) could be made (see note viii)?  
If yes, please give the reasons it is not practical to connect to it (eg distance, flow etc).

Y/N



## 5 DETAILS OF APPLICANT AND OTHER INFORMATION

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

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

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

Post Code: CF46 6LY

Daytime Telephone Number:

Company Registration Number (if appropriate): 2366777

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

- \*
- \*
- \*
- \*
- \*
- \*
- \*

Post Code:

Contact Name and Daytime Telephone Number:

### 5.2

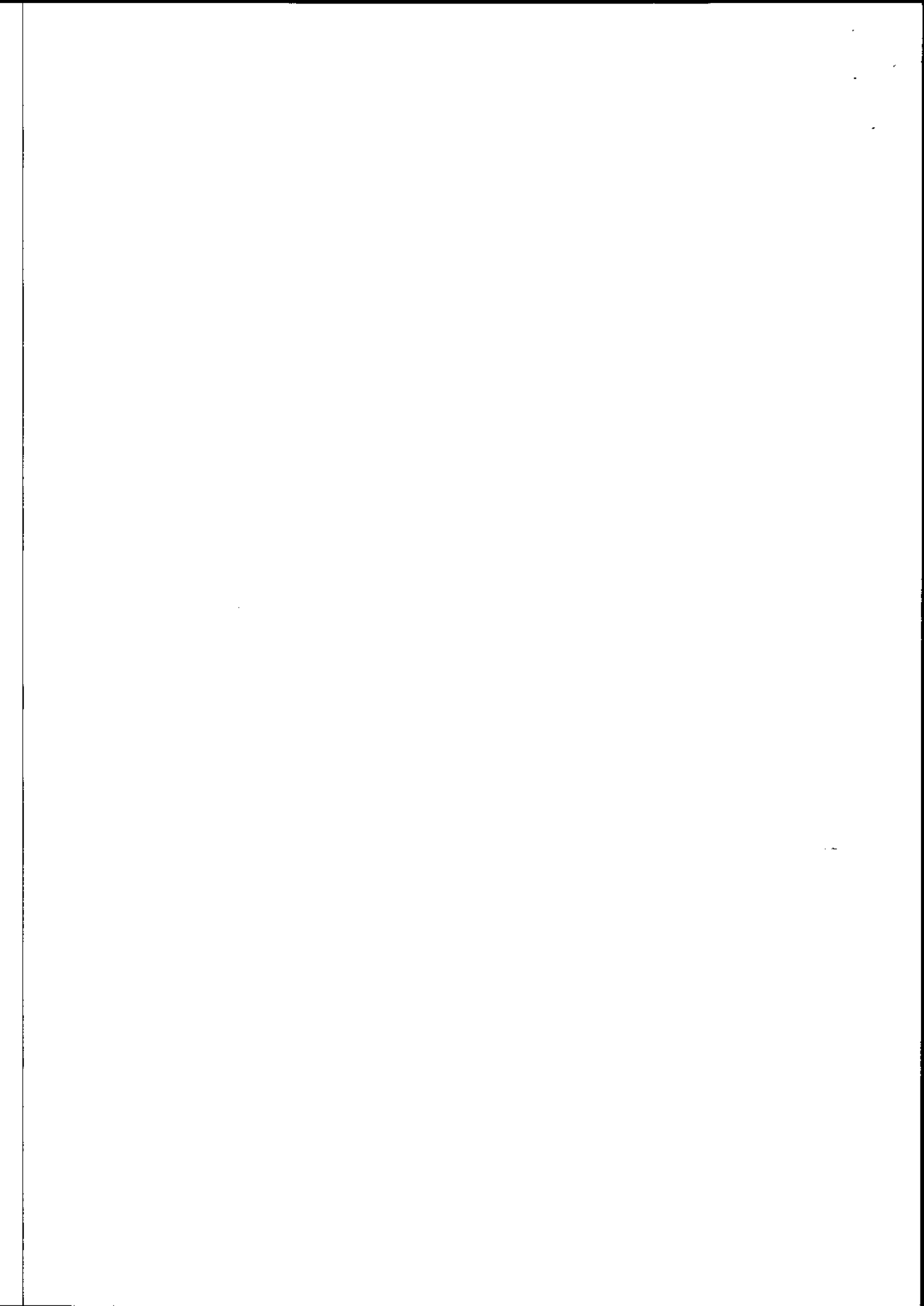
Please give full name and address to which bills should be sent if different to that given above:

- \*
- \*
- \*
- \*
- \*
- \*
- \*

Post Code:

Daytime Telephone Number:

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



**DECLARATION**

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 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 true to the best of our knowledge, information and belief and 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 we will pay any annual charges due should a consent be granted YES. If no please indicate who will be completing section 5.2 above (see note xiv).

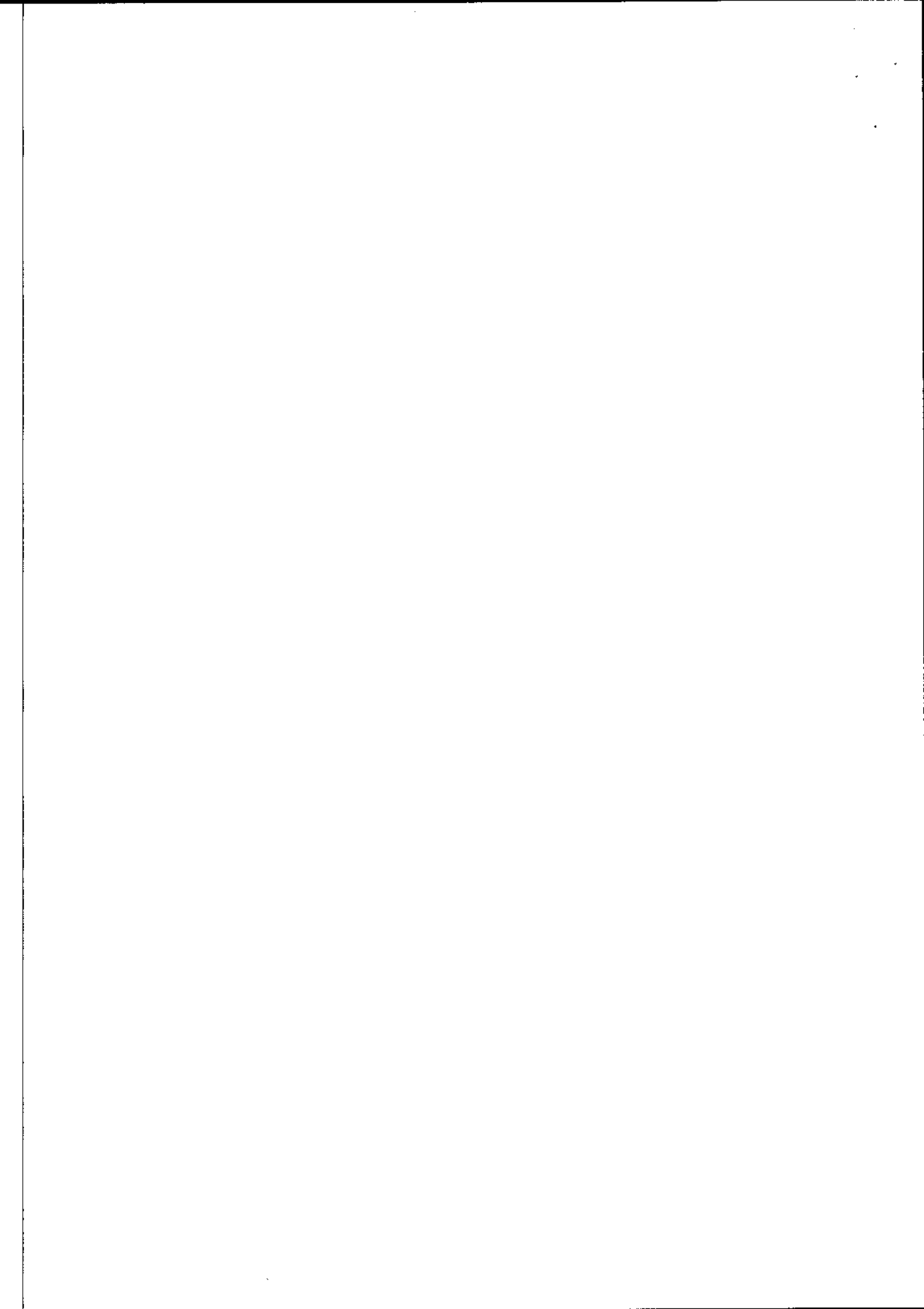
SIGNED: <i>Lewis Keil</i>	PRINT NAME: LEWIS KEIL
ON BEHALF OF: DWR CYMRU CYF	DATED: 9/2/03

**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 Annex 3 should also be completed).

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

1. Site Name.

Monmouth
----------

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

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

--

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

Yes
-----

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

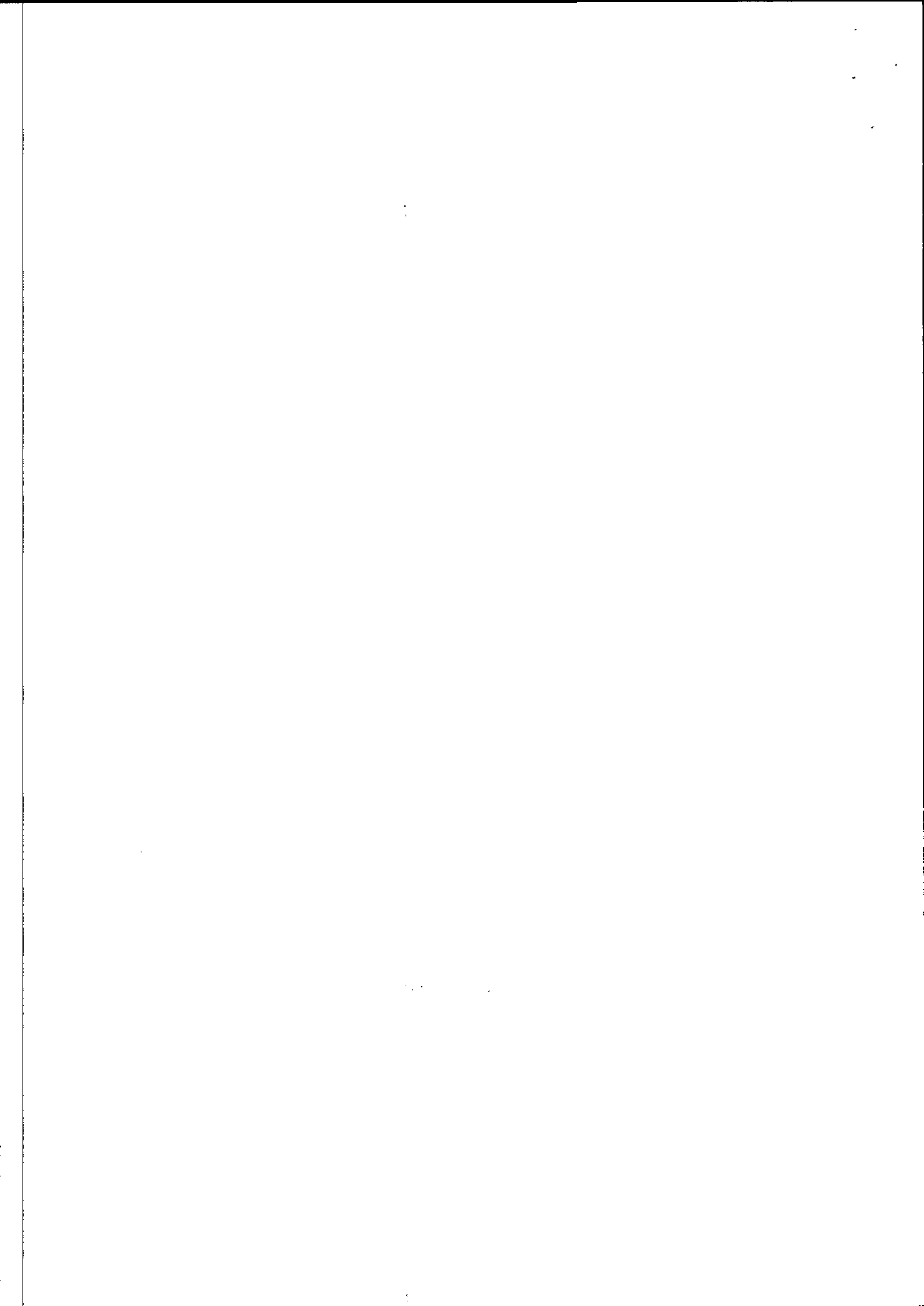
--

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

S	O	5	1	5	3	2	1	1	7	9	5
---	---	---	---	---	---	---	---	---	---	---	---

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

N
---



5. Overflow settings

- a) Overflow setting to storm tanks 89.3 l/s
- b) Maximum flow to storm tanks 136 l/s
- c) Overflow setting to storm sewage overflow l/s
- d) Maximum flow to storm sewage overflow l/s

6. Storage capacity

- a) Volume of Storm tanks 848 m<sup>3</sup>
- b) Retention time of storm tanks at <sup>FFT</sup>maximum flow 2.8 hours
- c) Storage capacity of sewer/wet well m<sup>3</sup>

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

**See calculation number 151248-00-1004 Rev C**

8. Will facilities be provided to raise alarms (eg telemetry)? No  
If yes, please give details.

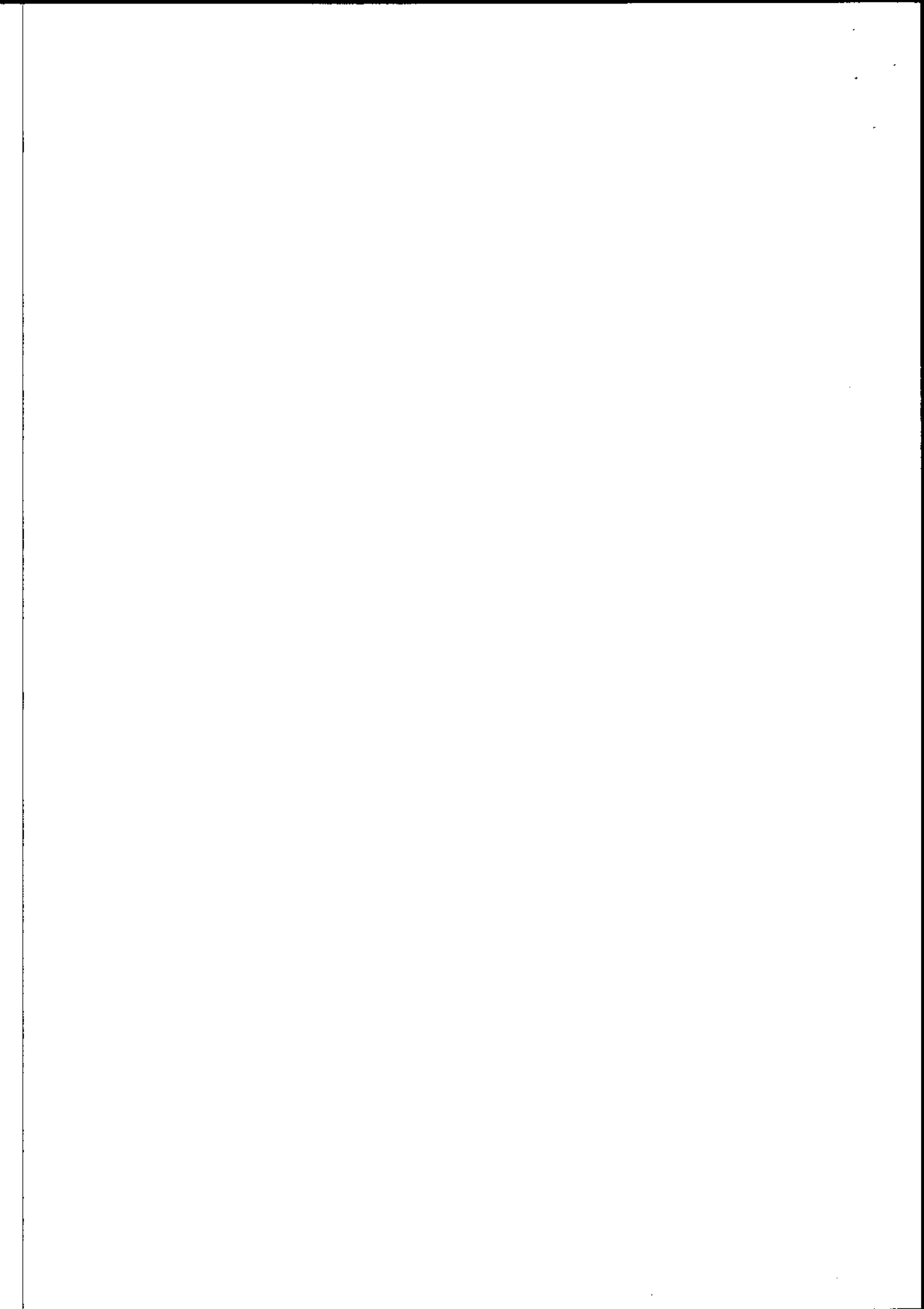
9. Will facilities be provided to prevent the discharge of gross solids? Yes  
If yes, please give details (for screens give bar spacing or aperture).

**Yes – Screening of flows in a 6mm perforated plate screen**

10. What provisions will be made to deal with:

- a) power failure (eg standby generators)?  
Not applicable
- b) mechanical breakdown (eg standby pumps)?  
Not applicable
- c) rising main failure?  
Not applicable
- d) tanker access?  
Not applicable

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





### ANNEXE 3 TRADE EFFLUENT DISCHARGES

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

Official Use Only  
Application No.

1. Site Name.

Monmouth STW  
Redbrook Rd  
Redbrook  
Monmouth

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

See attached "Monmouth Trade Effluent Discharges 2003"

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).

3. Rainfall Dependent Discharges

a) Is the volume going to be rainfall dependent?

N

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

m<sup>2</sup>

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

4. Rainfall Independent Discharges

a) What is the maximum rate of discharge?

1.8 l/s

b) What is the maximum daily flow?

62 m<sup>3</sup>/d

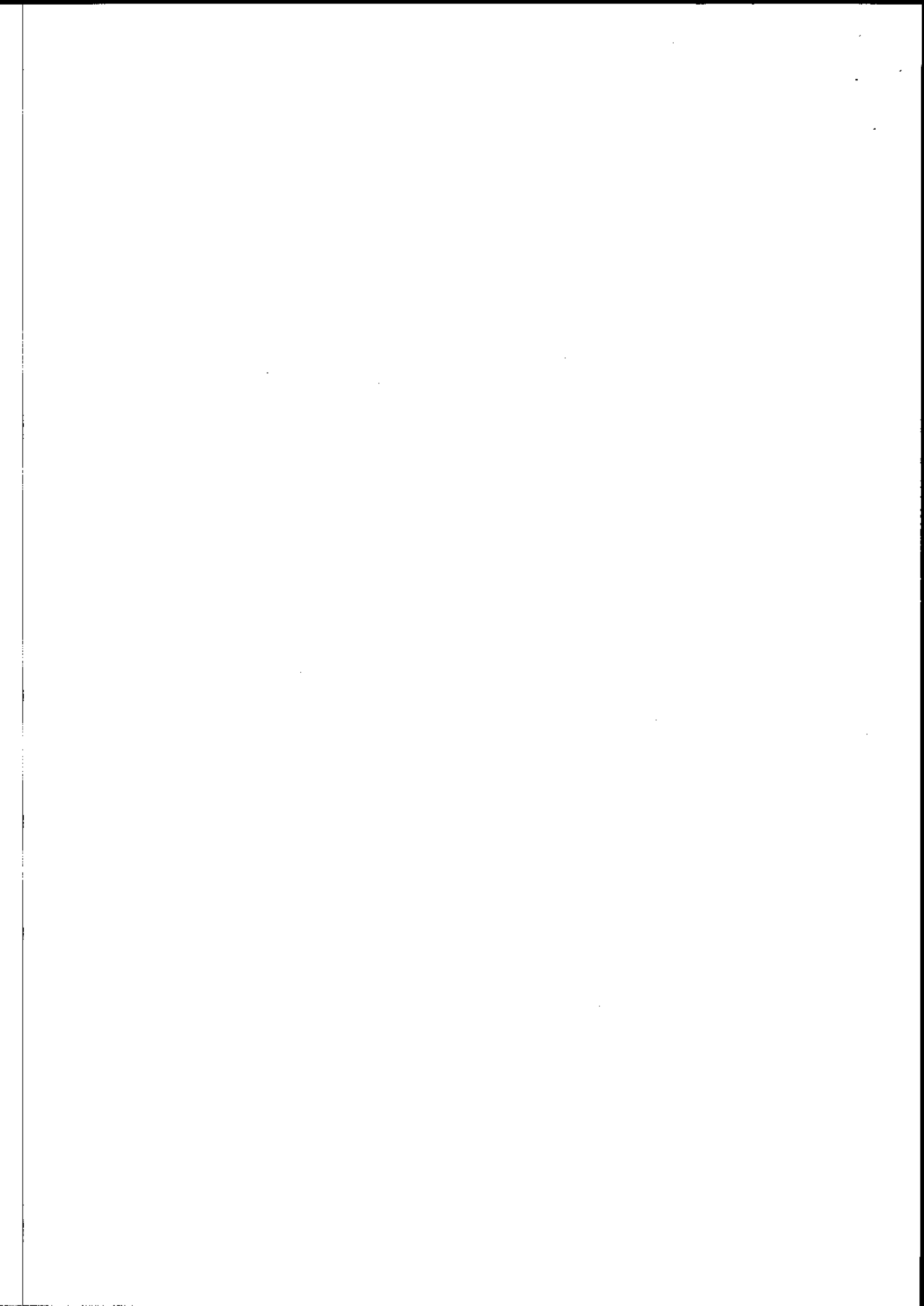
c) For discharges where the source of supply is other than mains water:

i) give the abstraction licence number

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

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

(please mark on the plan)



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

b) Will automatic sampling equipment be provided? 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.

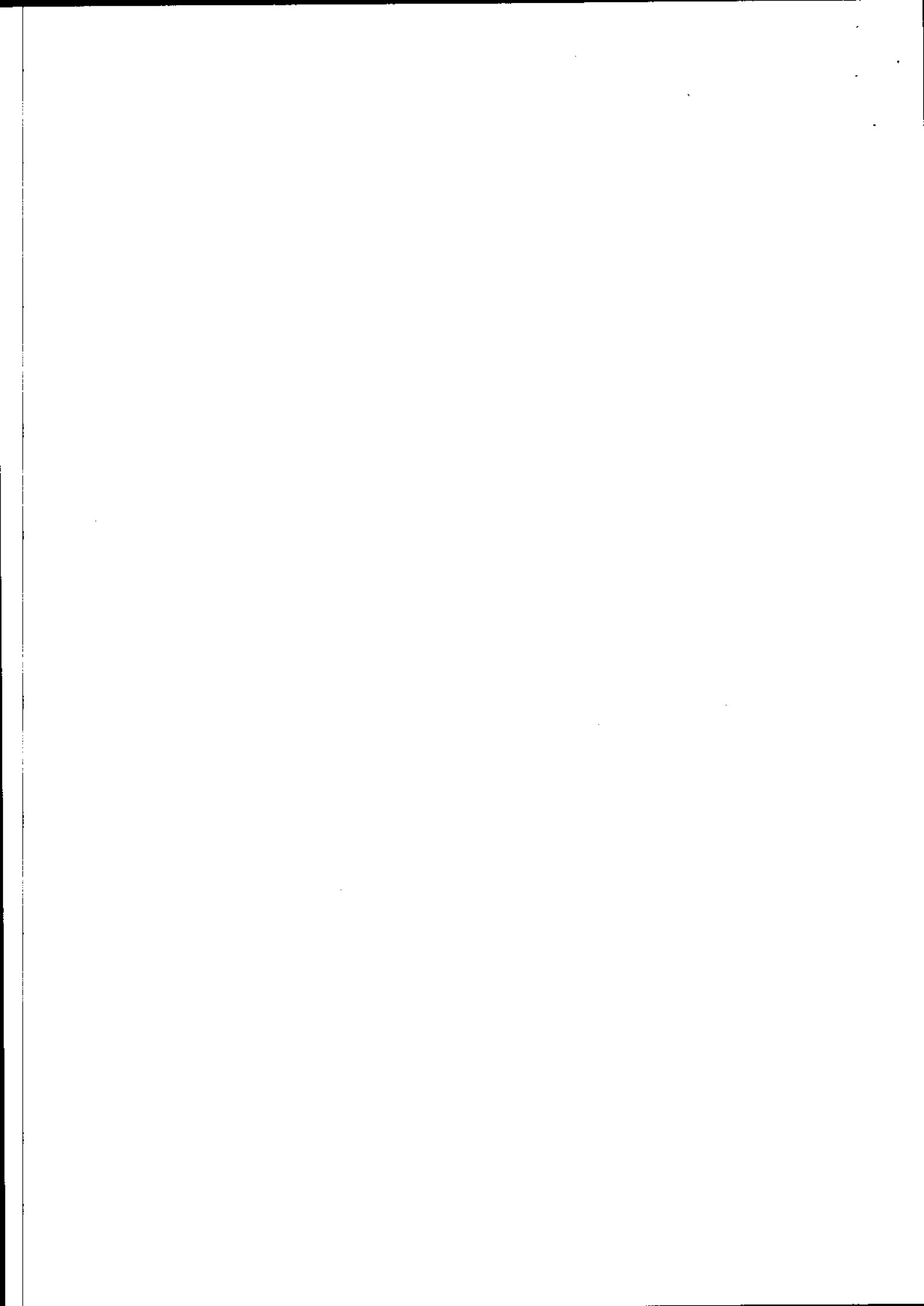
b) Will the discharge be monitored for temperature? N  
If yes, please give details of type and location (*please indicate on plan*)

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

If yes, please complete the following:

a) The application reference.

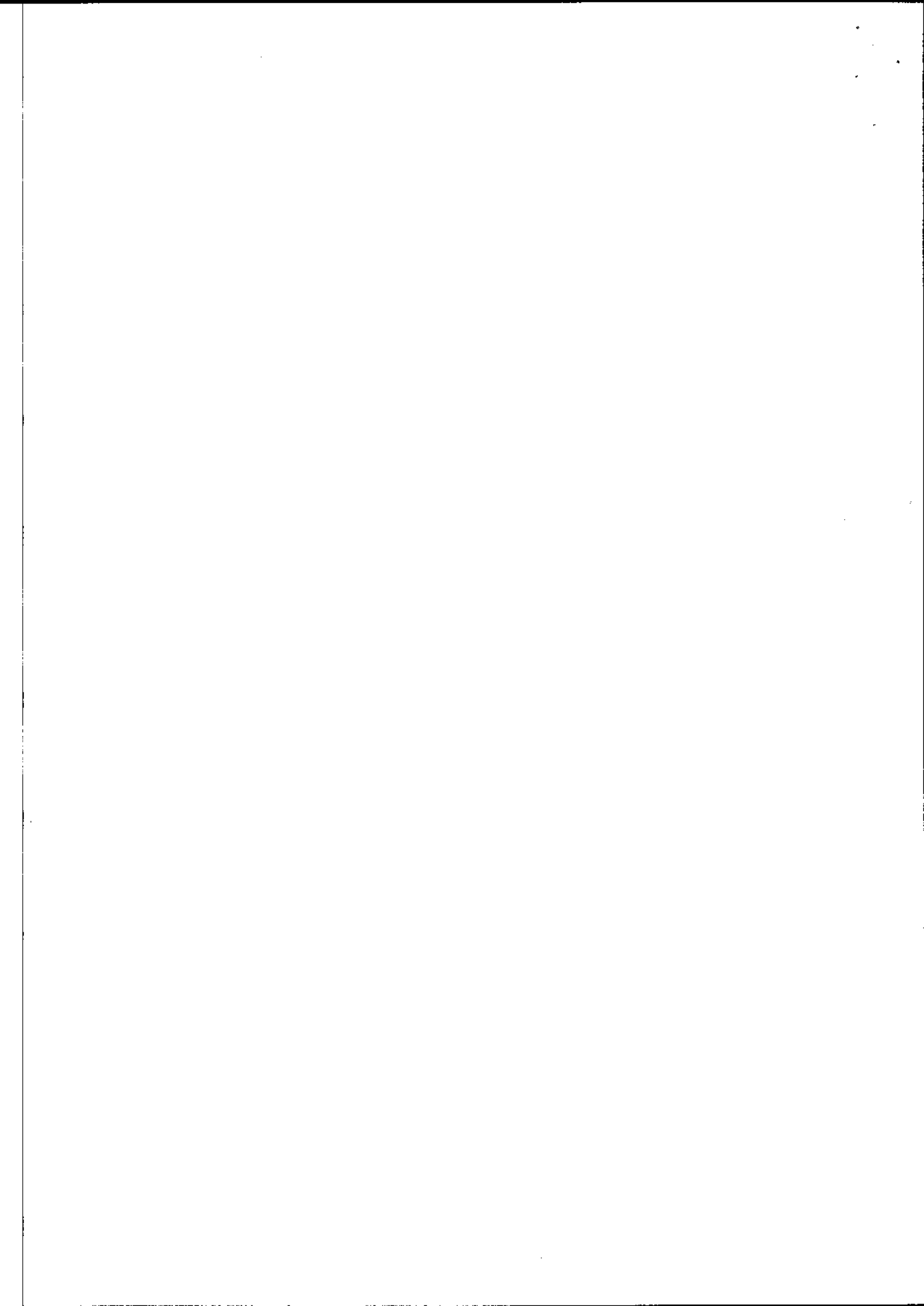
b) Contact name of case officer.



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? N  
If yes, please give details.

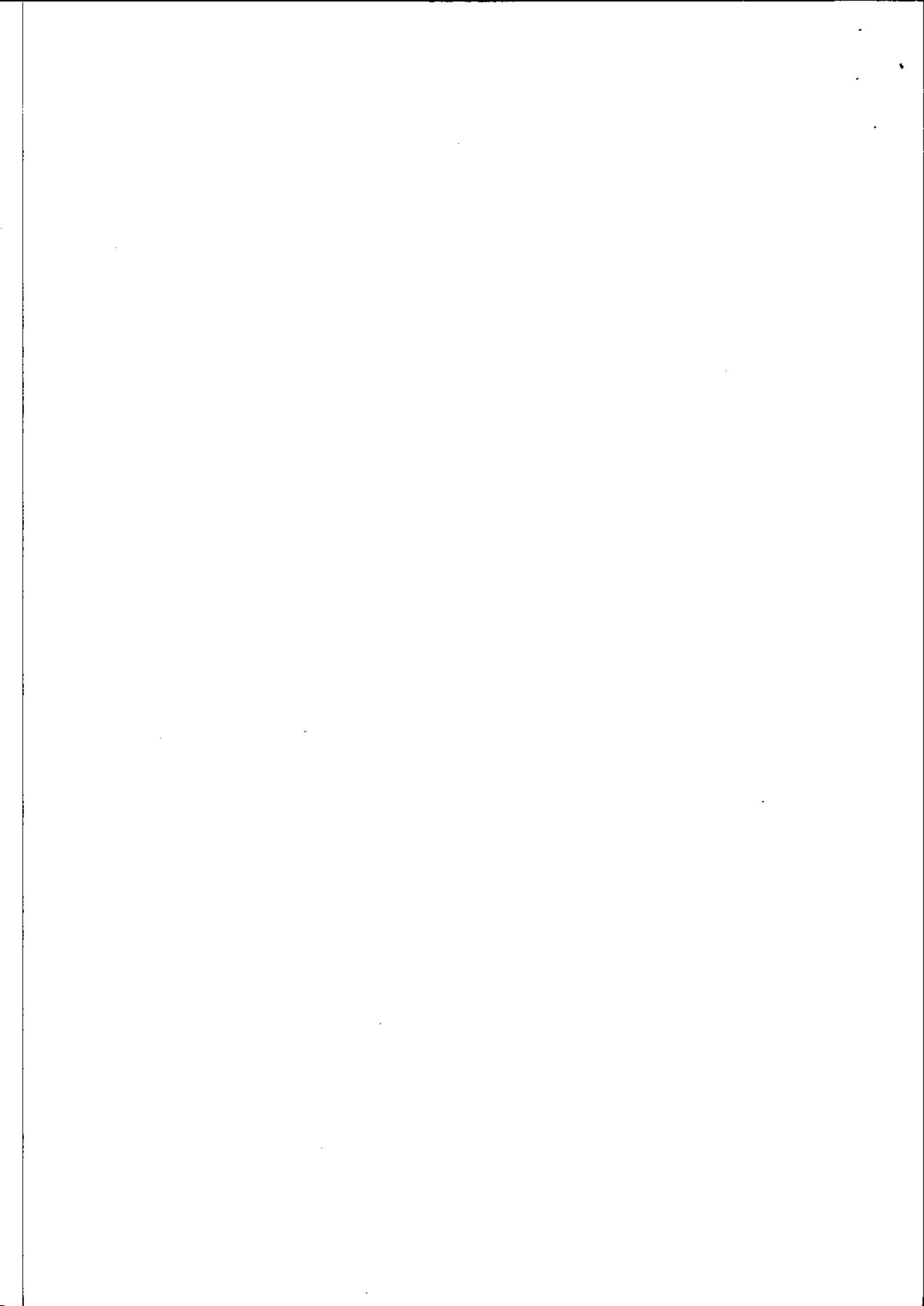


MONMOUTH TRADE EFFLUENT DISCHARGES 2003

TRADER

CONSENT CONDITIONS

	Daily Flow (m <sup>3</sup> ) m <sup>3</sup> /day	Max Rate (m <sup>3</sup> /hr) m <sup>3</sup> /hr	Salt COD mg/l	COD Load kg/day	Solids mg/l	Sulphide mg/l	Sulphate mg/l	Oil/Grease mg/l	Copper mg/l	Lead mg/l	Chromium mg/l	Nickel mg/l	Zinc mg/l	Phanols mg/l
Triwall	50	5	5000	150	3000		1000	500	0.5	0.5	0.5	0.5	3	
Monmouth Market	12	1.5	2000		1500	10	500	50						10





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.

Monmouth

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

No

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

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

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

300 mm

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

£400,000

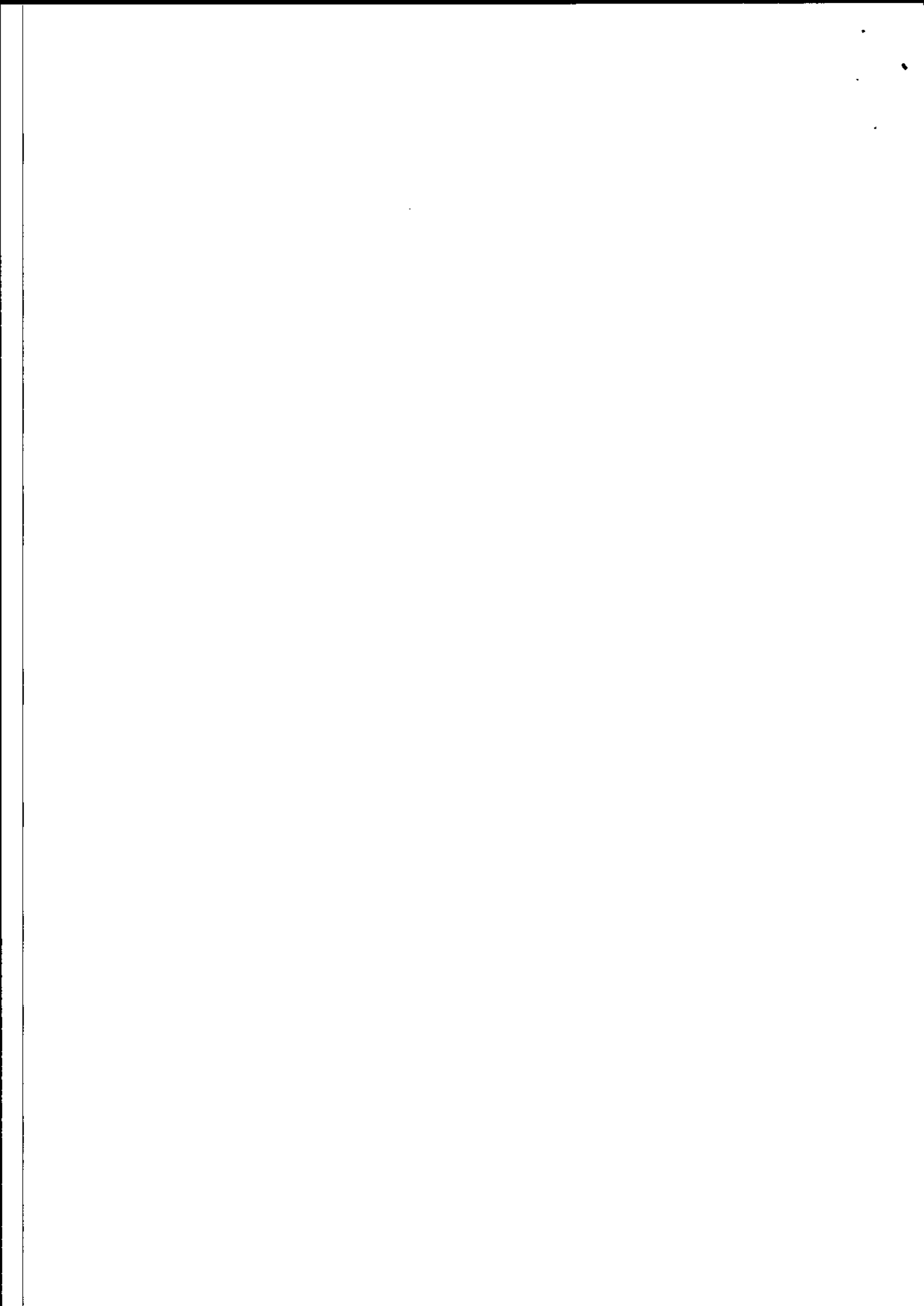
5. Is there any trade effluent component in the proposed discharge?

Yes

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

Tick

X



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

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

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

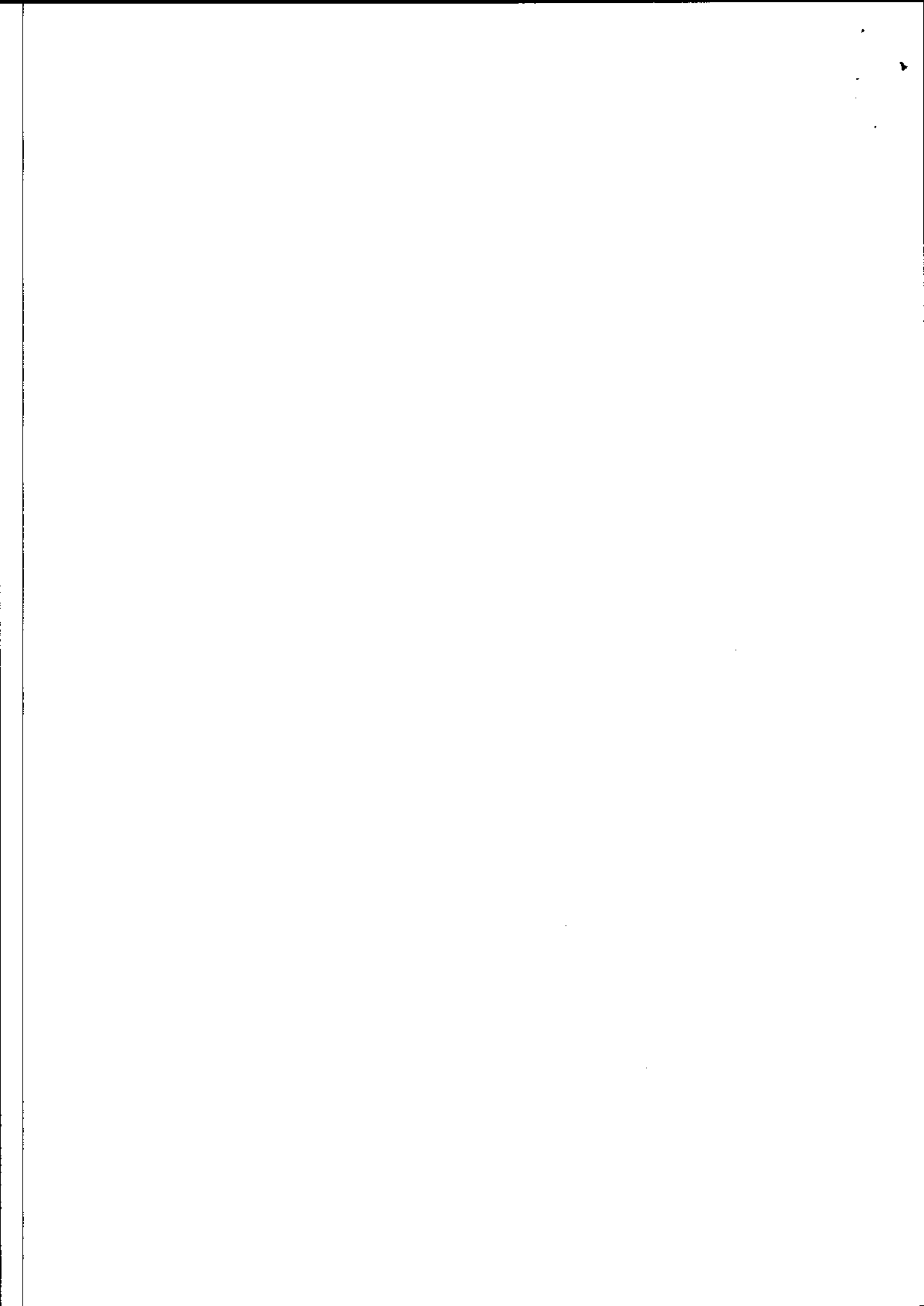
7. Please confirm here that you have completed and enclosed both Annexes 1 and 2:

8. Please state:

Population served (head)	11892
Consumption (l/head/day) default = 180	180
Infiltration (m <sup>3</sup> /day)	642
Industrial effluent flow (m <sup>3</sup> /day)	62
Dry Weather Flow (m <sup>3</sup> /day)	2845
Soc A (l/sec)	220
Predicted spill frequency (per annum)	Not Known

**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.**



# Calculations

**Document Number :** 1248-00-1004

**Title :** Loading onto plant based on Population Equivalents and survey of industrial components.

**Tag No.**

**Client :**

**Contract Title :** Monmouth

**Contract Number :** 1248

Rev	Date	Revision Description	Pages	Prepared	Checked	Approved
A	19th Feb 2002	For Approval	4	PJW	SEJ	SMS
B	19th January 2003	For Quality scheme	4	PJW	SEJ	SMS
C	4th September 03	For EA application	4	PJW	SEJ	SMS

**Reason for Issue**

- |   |  |
|---|--|
| <input type="checkbox"/> For Enquiry<br><input type="checkbox"/> For Information<br><input type="checkbox"/> For Construction | <input checked="" type="checkbox"/> For Review<br><input checked="" type="checkbox"/> For Approval |
|---|--|

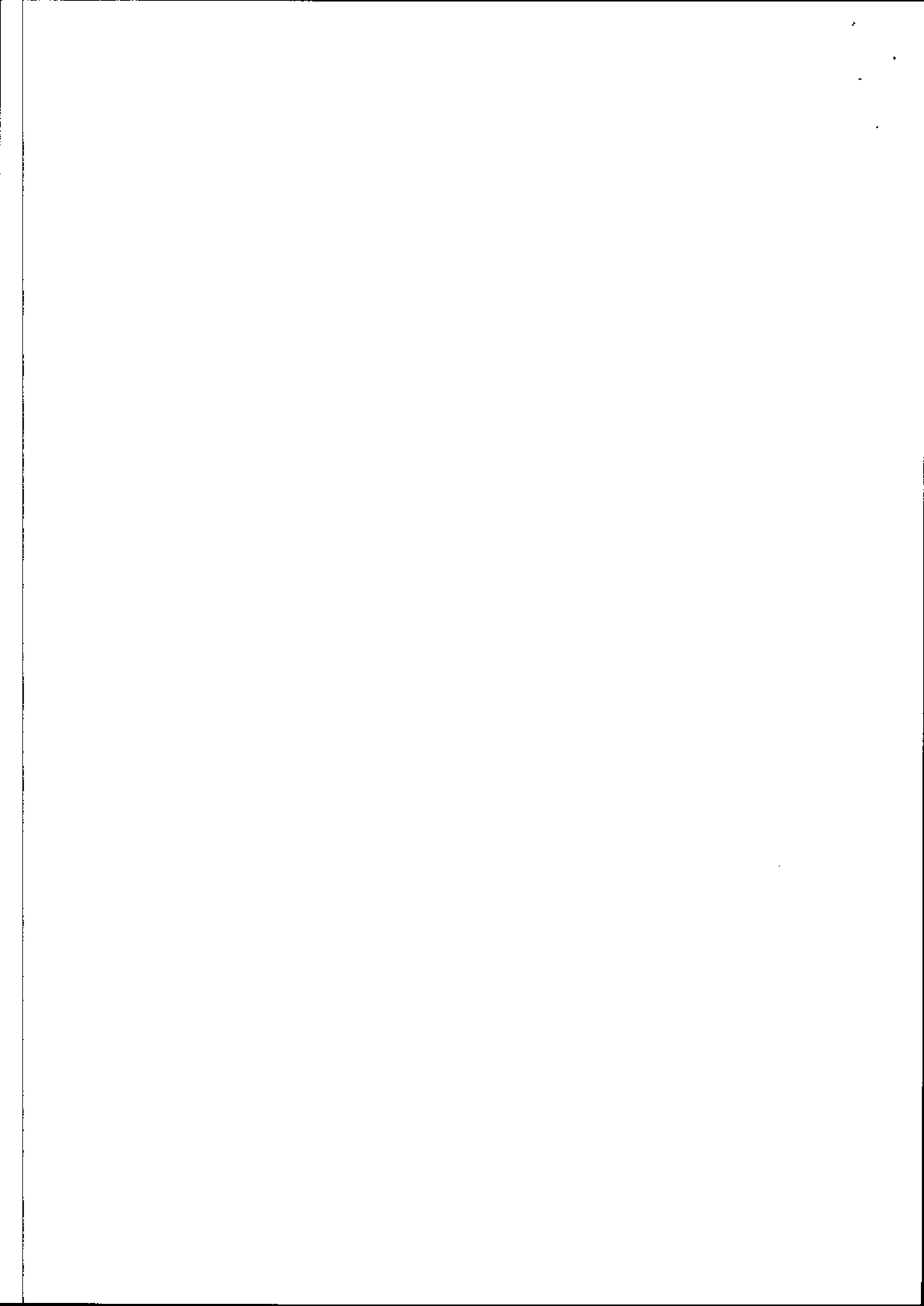
**Paterson Candy Ltd.**  
 A Black And Veatch Company  
 632/652 London Road,  
 Isleworth,  
 Middlesex,  
 TW7 4EG



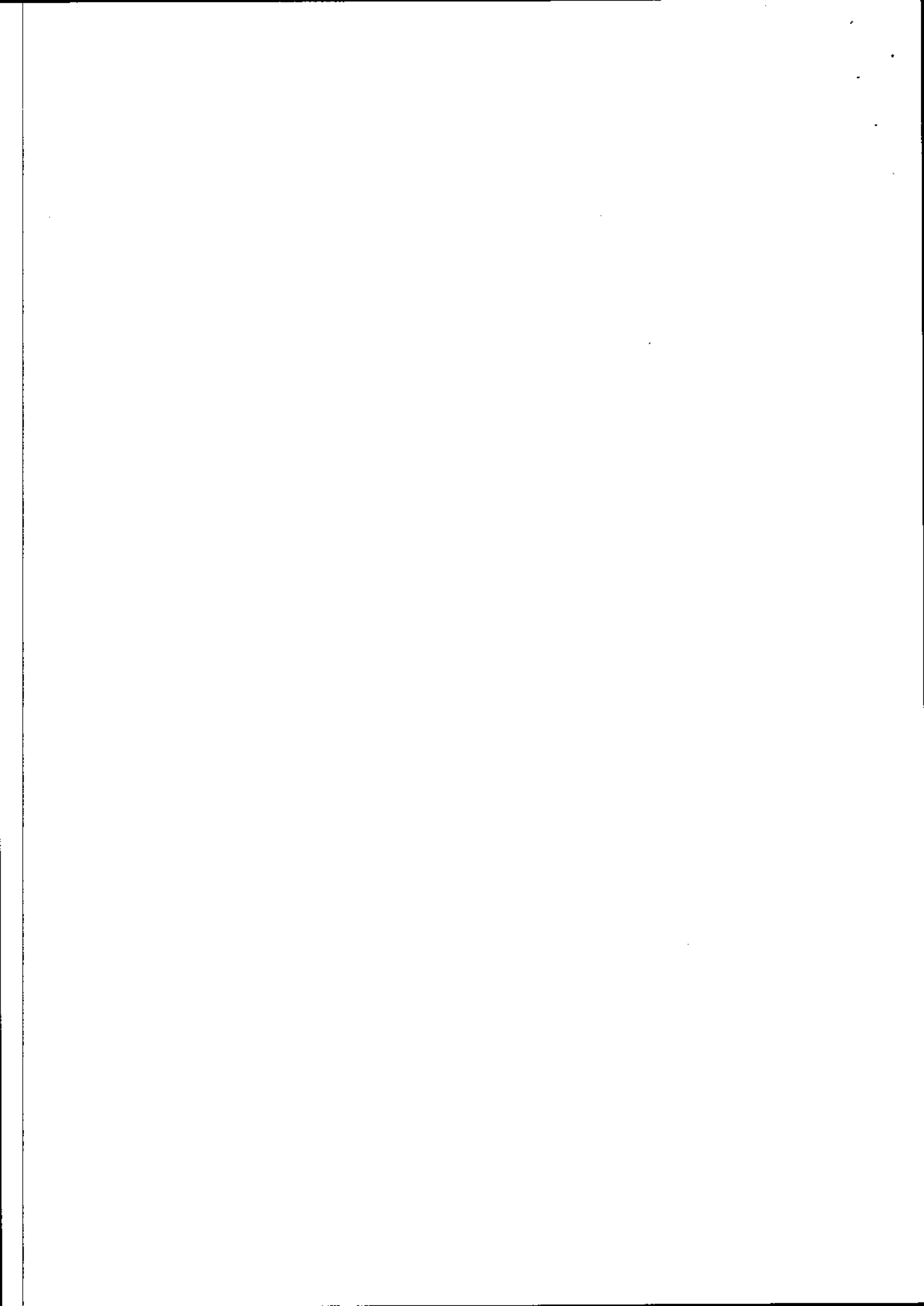
**PATERSON CANDY**

Tel: 44 (0) 20-8560-5199  
 Fax: 44 (0) 20-8568-5479

This design is the property of Paterson Candy Ltd. and is not to be used, copied, communicated or disclosed, in whole or in part, except in accordance with a contract, licence or agreement, in writing with Paterson Candy Ltd.



Client: DCWW - AMP3 Monmouth		Subject: Design loading from population equivalent.			
<b><u>1 Works population and input data</u></b>					
Design population	=	11892			<b>C</b>
	=	<b>11892</b>			
Flow per capita	=	180	l/hd.d		
Infiltration	=	54	l/hd.d		
BOD per capita	=	0.06	kg/hd.d		
TSS per capita	=	0.072	kg/hd.d		
Ammonia per capita	=	0.008	kg/hd.d		
<b><u>2 Flows</u></b>					
Industrial component	62	m <sup>3</sup> /d			
DWF	PG + I + E	2845	m <sup>3</sup> /d	32.9	l/s <b>C</b>
ADWF	1.2 DWF	3414	m <sup>3</sup> /d	39.5	l/s <b>C</b>
FFT	3PG + I + 3E	7250	m <sup>3</sup> /d	83.9	l/s <b>C</b>
SOCa	DWF + 1.36P	19018	m <sup>3</sup> /d	220.1	l/s <b>C</b>
Storm flow	SOCa - FFT	11768	m <sup>3</sup> /d	136.2	l/s <b>C</b>
<b><u>3 Loading</u></b>					
Assumed sewage characteristics					
Ratio of COD to BOD in crude sewage		2.2			
Calculated by:	Checked by:	Job no:	Revision C		
Peter Woollard	Sharon Jones	1248-00-1004	Sheet 1 of 4		



Client:

DCWW - AMP3 Monmouth

Subject:

Design loading from population equivalent.

**4 Industrial load**

There are two principal industrial discharges in the catchment:

Source	COD		Consent TSS		Flow	
	mg/l	kg/d	mg/l	kg/d	m3/d	l/s
Cattle Market	2000	24	1500	18	12	0.14
Cardboard Box Factory	5000	150	3000	150	50	0.58
Carboard Box Avg last period	2610	78.3	2034	61.02	30	0.35
<b>Total</b>		<b>174</b>		<b>168</b>	<b>62</b>	

A BOD to COD ratio of 2.0 is assumed for calculating the industrial BOD.

**5 Return liquors**

Indigenous sludges from the site and imported sludges from satellite sites, principally Newlands are centrifuged prior to export to drying facilities at Afan and Cardiff. These were measured in the flow and load survey and were found to contain the following daily loads.

BOD	78	kg/d
TSS	22	kg/d
Amonia	8	kg/d

**6 Summary of loads**

	BOD	TSS	NH3	COD	
Industrial	87	168		174	kg/d
Municipal	791.5	878.2	103.1	1897	kg/d
<b>Total</b>	<b>878.5</b>	<b>1046</b>	<b>103.1</b>	<b>2071</b>	<b>kg/d</b>

**C**

Calculated by:

Peter Woollard

Checked by:

Sharon Jones

Job no:

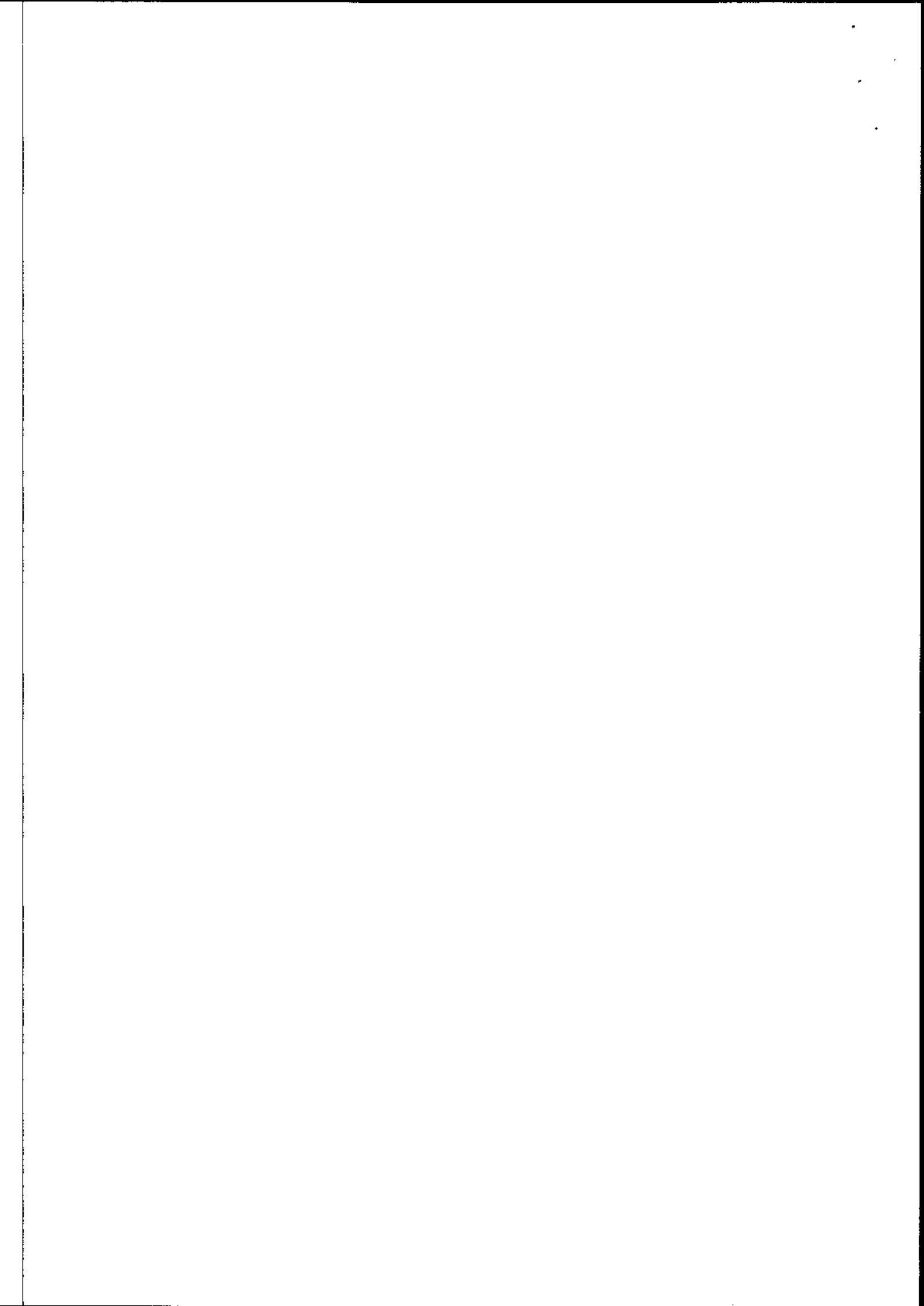
1248-00-1004

Revision

Sheet

C

2 of 4



Client:

DCWW - AMP3 Monmouth

Subject:

Design loading from population equivalent.

### 6 Summary of flow and load survey

A flow load survey was carried out by Titan Environmental Surveys between 11th and 13th April 2002. The Full document is filed as 1125-00-1007 Rev A. the following data summarises the survey findings.

#### 6.1 Raw sewage data averaged from total result set.

Determinand	Conc mg/l	Load kg/d	Population
BOD	255	538	8967
TSS	205	441	7359
Ammonia	29.8	63.8	7975

#### 6.2 Raw sewage data based on daily 2 hourly composites

Determinand	Conc mg/l	Load kg/d	Population
BOD	146	636	10600
TSS	222	989	13736
COD	306	1351	
Ammonia	26.6	120	13928

COD:BOD ratio	=	2.1
TSS:BOD ratio	=	1.2

#### Notes:

1. The daily loads averaged over the whole sample period predict a lower population than does the house count and the daily surveys. The loading predicted by the survey will be tested in the model but the load based on the counted population will be used to define the worst case.
2. The COD to BOD ratio appear normal for a municipal crude sewage
3. The TSS to BOD ratio is averaged from the two data sets available.

Calculated by:

Peter Woollard

Checked by:

Sharon Jones

Job no:

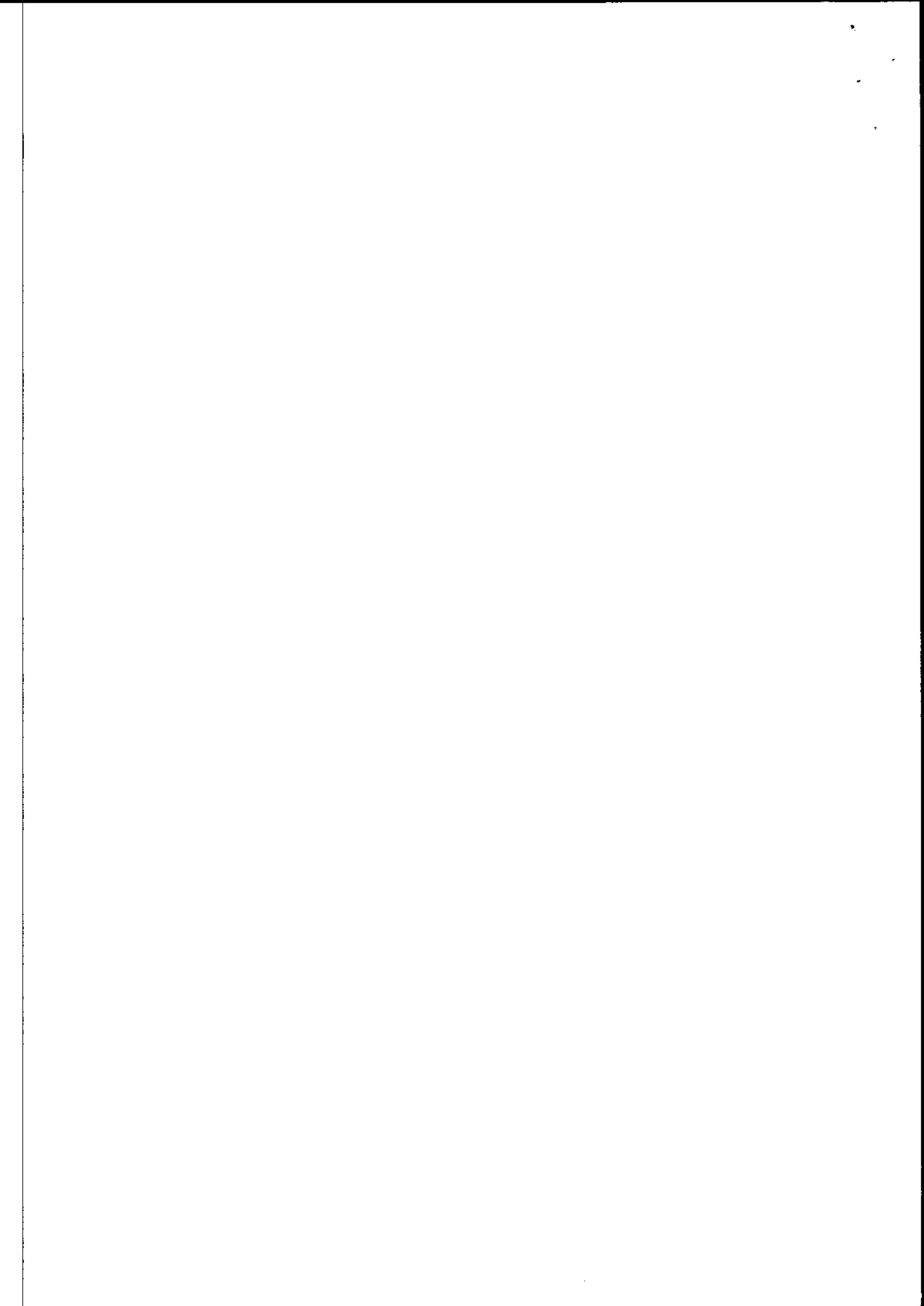
1248-00-1004

Revision

Sheet

C

3 of 4



**Client:**  
DCWW - AMP3 Monmouth

**Subject:**  
Design loading from population equivalent.

**6.3 Final effluent data averaged from result sets**

Determinand	Conc mg/l			Consent
	All data	Day 1	Day 2	
BOD	15.2	17	15	40
TSS	23.2	27	37	60
COD		82	77	125
Ammonia	14.2	12.6	13.9	30

**C**  
**C**  
**C**  
**C**

The survey data would indicate that the works will meet the new consent.

**6.4 Flows**

**C**

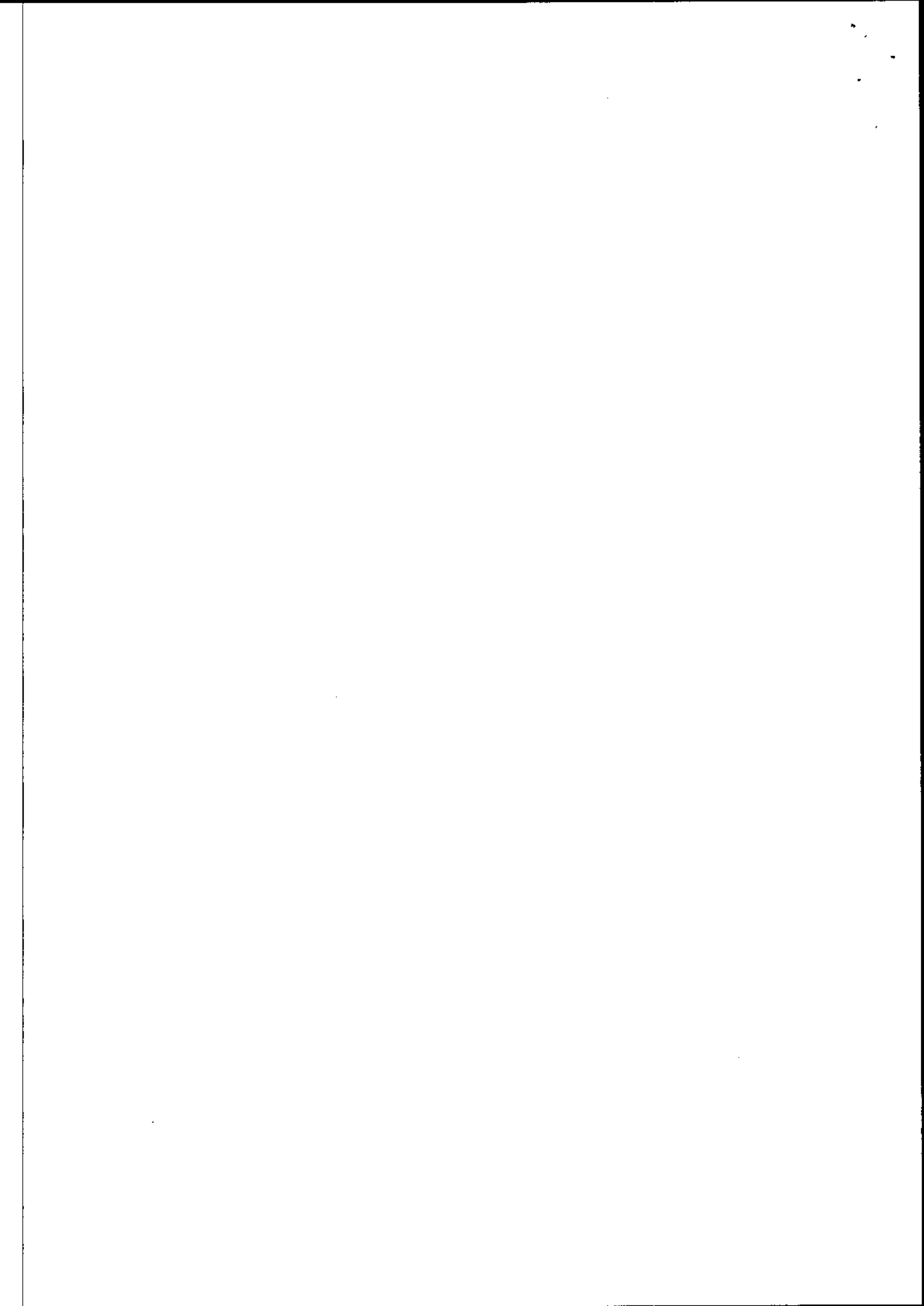
The loading predicted by the survey and the population count carried out by BVCL suggest that the flows and loads are similar to the original consent. The Flows calculated in section 2 will be used or the new consent application.

The flows specified in the future consents are:

DWF	=	2845	m3/d
FFT	=	7250	m3/d
Max discharge	=	83.9	l/s

The average daily flow to the works over the period of the survey was 2136 m3/d, the peak flow on the two hourly surveys was 40 l/s. The whole data set thus represents dry weather conditions.

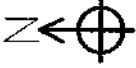
Calculated by:	Checked by:	Job no:	Revision	C
Peter Woollard	Sharon Jones	1248-00-1004	Sheet	4 of 4





# Monmouth STW

Jul 21 2003



**Water Resources Act  
Storm Effluent Sample Point  
SO 51548 11849**

Landing Stage

ED Bay

Sewage Works

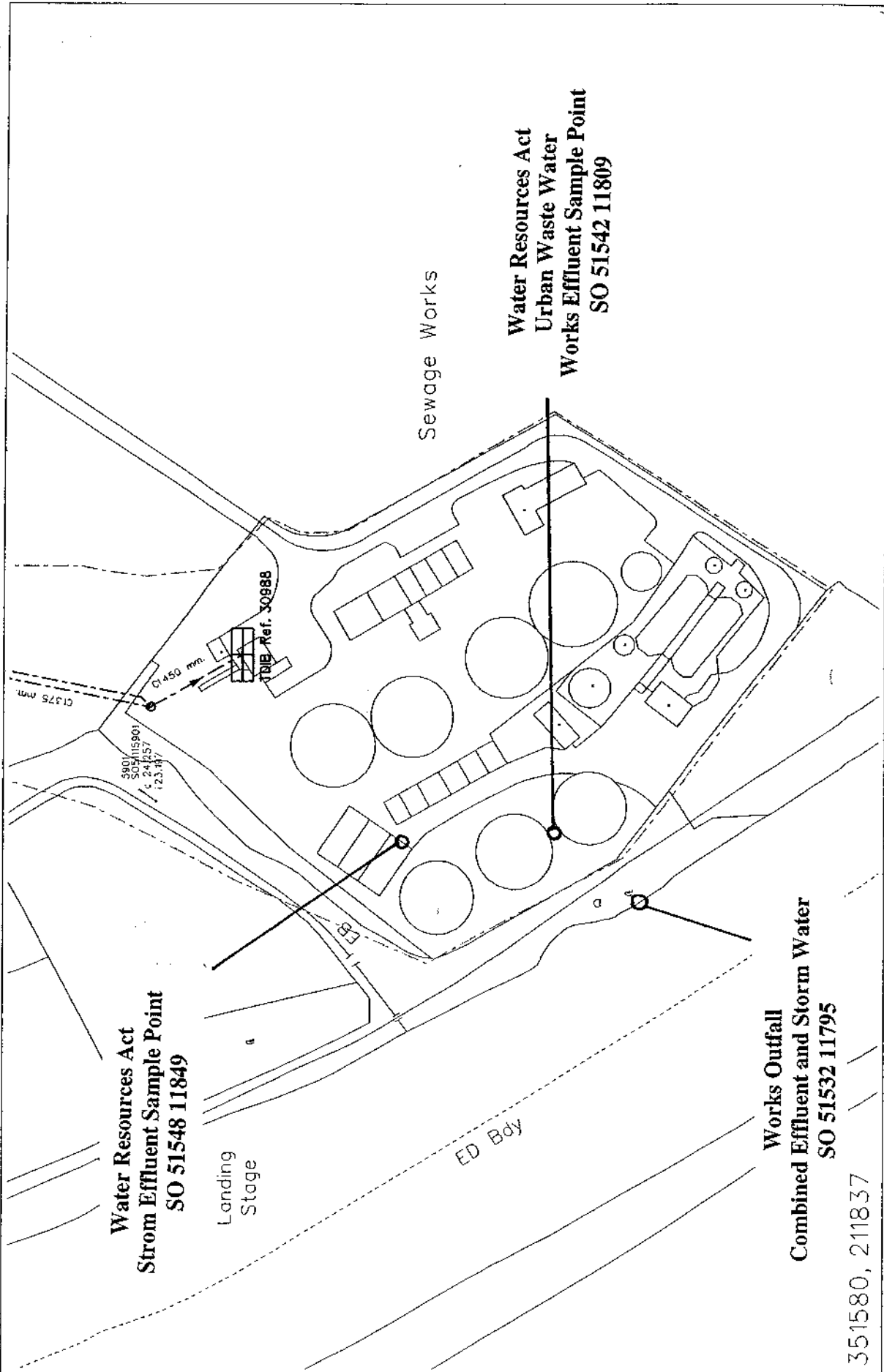
**Water Resources Act  
Urban Waste Water  
Works Effluent Sample Point  
SO 51542 11809**

**Works Outfall  
Combined Effluent and Storm Water  
SO 51532 11795**

351580, 211837

**Legend:**

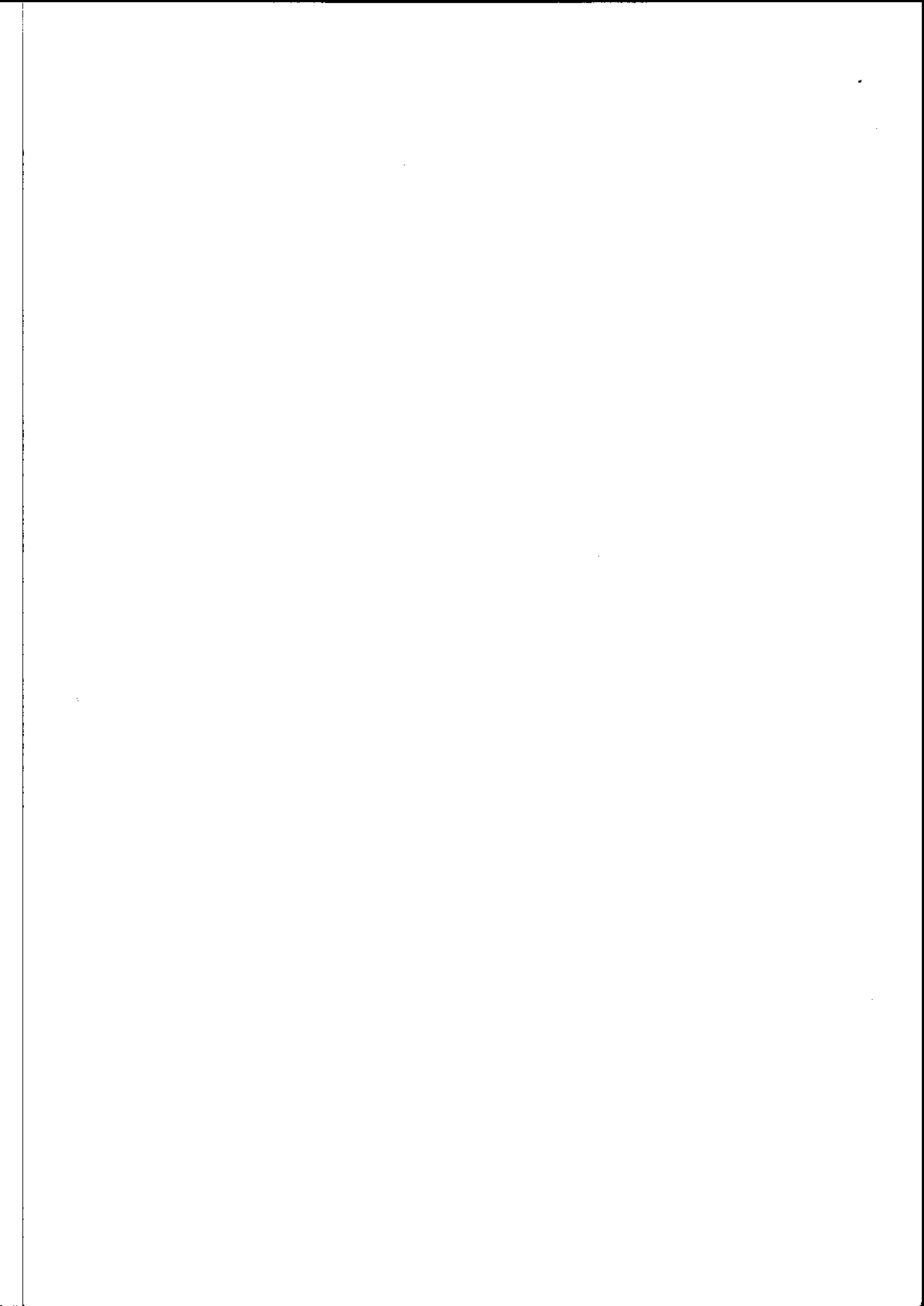
- Proposed Effluent
- Proposed Storm
- Proposed Combined
- Proposed WWSW
- Proposed Private
- Treatment Works
- Pumping Station
- Combined Overflow
- Special Purpose Overflow
- Urban Effluent
- Outfall
- Lamp Posts
- Map Edge

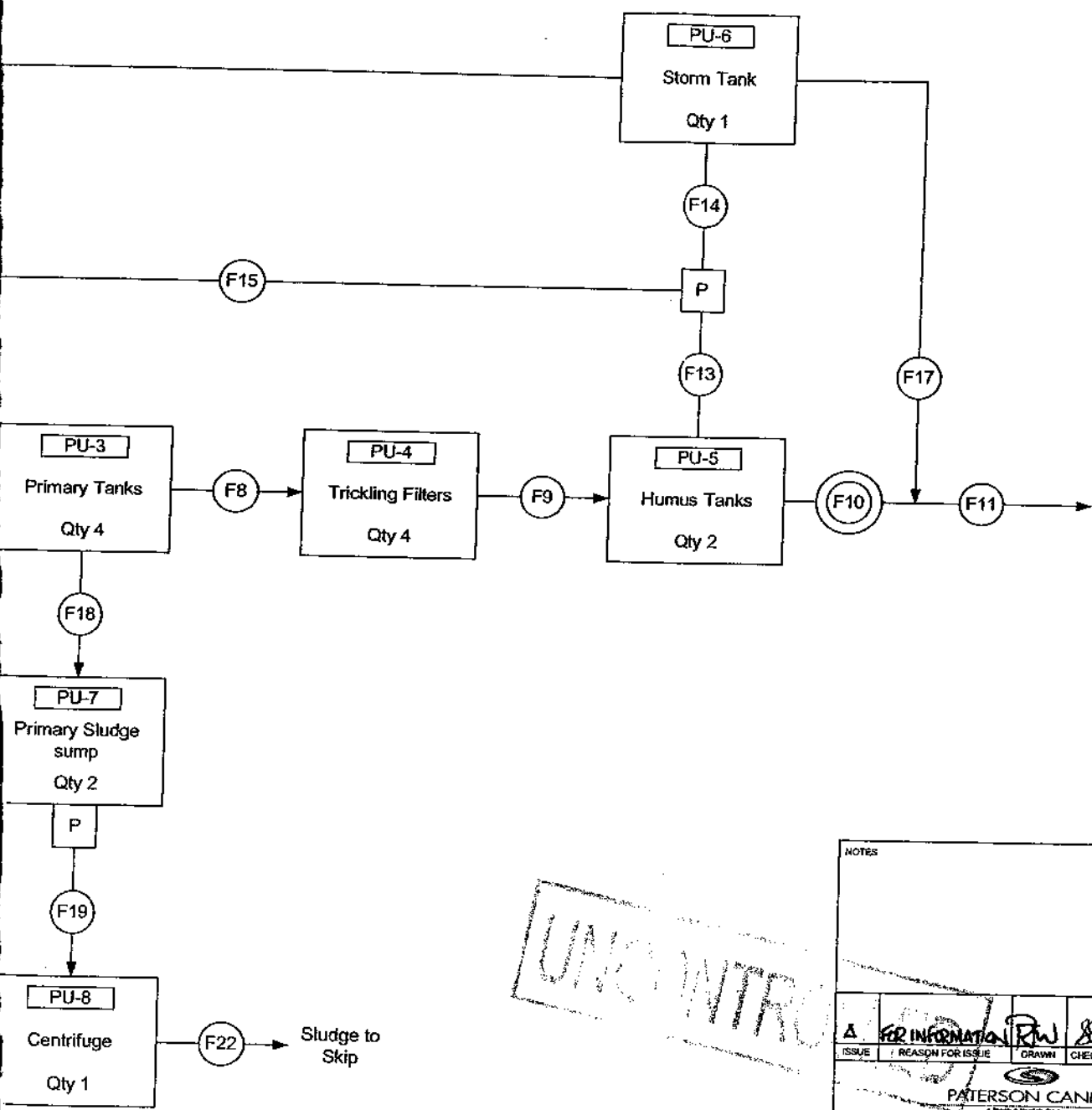


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**EXACT LOCATIONS OF ALL APPARATUS TO BE DETERMINED ON SITE.**

Scale: 1:1250





UNCONTROLLED

NOTES					
A	FOR INFORMATION	Rw	Rw	Rw	11/02/03
ISSUE	REASON FOR ISSUE	DRAWN	CHECKED	APPROVE	DATE
<b>PATERSON CANDY</b> <small>A BAKER &amp; MASON COMPANY</small> <b>PATERSON CANDY LIMITED</b> 632/652 London Road, Isleworth, Middlesex, TW7 4EY, England Telephone 0181 560 5199, Fax 0181 569 5479 <small>© Paterson Candy Limited</small>					
CLIENT					
DCWW AMP 3 Monmouth STW					
TITLE					
Process Block Diagram					
SCALE	NTS	SIZE	Drawing Number	ISSUE	
		A3	1248-00-1000	A	

