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ATTACHMENT B

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044-9285222

Rate-rite

Due to an increase in numbers, we are currently looking to recruit an experienced Pre-School assistant. A minimum qualification of ETAC level 5 in Childcare is required as is experience working in a Crèche or Nannies' School. You should have Good Communication Skills as well as the ability to Multi-Task.

The successful candidate will be responsible for the following:

- Care and supervision of the children with regard to their physical, emotional and intellectual needs.
- Create a safe, secure, fun and learning environment for the children.
- Communicate with the children on a one to one basis and also as part of a group.
- Monitor and encourage the development of the children and assist your manager if you have any concerns.
- Lead and guide parents in a positive and friendly manner.

The requirements necessary for this position are:

Westmeath County Childcare Committee
www.westmeathchildcare.ie
or Westmeath County Childcare Committee Offices
944 93 35454

Friday 14th December 2009.

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WINDY BOOTS

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100											

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DRAFT NEWSPAPER NOTICE



APPLICATION TO THE ENVIRONMENTAL PROTECTION AGENCY FOR A WASTE WATER DISCHARGE LICENCE

Meath County Council, County Hall, Railway Street, Navan, Co. Meath intends to apply to the Environmental Protection Agency for a Waste Water Discharge Licence for an existing discharge at the Wastewater Treatment Plant at **T.D. Gortmahorna, Ballinabrackey**, Meath (National Grid Reference 257,671E 240,863N). The treatment process at Ballinabrackey consists of septic tank with Bord Na Mona peat filters.

The application relates to the following discharge point:

The primary discharge point PSW1 – 257,690E, 240,863N (Receiving Water – Tributary of Castlejordan River)

A copy of the following documents shall, as soon as is practicable after receipt by the Agency, be available for inspection or purchase at the headquarters of the Environmental Protection Agency, P.O. Box 3000, Johnstown Castle Estate, Co. Wexford and at Meath County Council, County Hall, Railway Street, Navan, Co. Meath

- (i) the application for a waste water discharge licence
- (ii) such further information relating to the application as may be furnished to the Agency in the course of the Agency's consideration of the application.

Submissions in relation to the application may be made to the Environmental Protection Agency at its headquarters at P.O. Box 3000, Johnstown Castle Estate, Co. Wexford.

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ATTACHMENT D



JENNINGS O'DONOVAN
& PARTNERS
CONSULTING ENGINEERS

Finisklin Business Park
Sligo

T: 071-91 61416 / 071-91 29292
F: 071-91 61080

E: info@jodireland.com
W: www.jodireland.com

4654/122/001/YMcM

12th November 2009

Ms. Mary Boothman,
Development Application Unit,
Department of the Environment,
Dùn Scéine,
Hardcourt Lane,
Dublin 2.

Re: EPA Waste Water Discharge Licence for 16 Villages in County Meath

Dear Mary,

Jennings O'Donovan & Partners are preparing EPA Waste Water Discharge Certificates Applications for Meath sewerage schemes in County Meath listed below:

1. Ardcah Sewerage Scheme (discharge to groundwater)
2. Ballinabrackey Sewerage Scheme (discharges to surface water)
3. Batterstown Sewerage Scheme (discharges to surface water)
4. Bellewstown Sewerage Scheme (discharges to Groundwater)
5. Bohermeen Sewerage Scheme (discharges to surface water)
6. Castletown Sewerage Scheme (discharges to surface water)
7. Clonalvy Sewerage Scheme (discharges to groundwater)
8. Camaross Sewerage Scheme (discharges to groundwater)
9. Cortown Sewerage Scheme (discharges to groundwater)
10. Dunderry Sewerage Scheme (discharges to surface water)
11. Hill of Tara Sewerage Scheme (discharges to groundwater)
12. Kilberry Sewerage Scheme (discharges to surface water)
13. Lloyd, Kells Sewerage Scheme (discharges to surface water)
14. Lobinstown Sewerage Scheme (discharges to surface water)
15. Robinstown Sewerage Scheme (discharges to surface water)
16. Skryne Sewerage Scheme (discharges to surface water)

Please find enclosed site location drawings together with the local designated areas at the sixteen Wastewater Treatment Plants.

Section F of the application relating to the NPWS, requires us to give details of any designation that applies to the receiving water. After consultation with the EPA they advised us to get in contact with you to get a clear picture of the boundary of the SAC and SPA and in addition we require a letter from the NPWS stating whether the discharge is deemed impact the receivers waters or if an "Appropriate Assessment" is to be carried out.

We would be grateful for your input at your earliest convenience as the applications have to be submitted to the EPA by the 22nd of December 2009. If you have any questions regarding the above or wish to discuss the application, please do not hesitate to contact this office.

Yours sincerely,



Yvonne McMonagle
for: Jennings O'Donovan & Partners

Encl.

c.c. Mr. Gerry Boyle, Meath County Council

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AttachmentD.1 RBD_Office

From: Yvonne McMonagle
Sent: 12 November 2009 17:15
To: 'info@erbd.ie'
Subject: Meath Villages Wastewater Certificates License Application

Dear Sir/ Madame,

I am currently completing 16 discharge certificates application for Meath County Council as listed below:

1. Ardcah Sewerage Scheme (discharge to groundwater)
2. Ballinabrackey Sewerage Scheme (discharges to surface water)
3. Batterstown Sewerage Scheme (discharges to surface water)
4. Bellewstown Sewerage Scheme (discharges to Groundwater)
5. Bohermeen Sewerage Scheme (discharges to surface water)
6. Castletown Sewerage Scheme (discharges to surface water)
7. Clonalvy Sewerage Scheme (discharges to groundwater)
8. Carnaross Sewerage Scheme (discharges to groundwater)
9. Cortown Sewerage Scheme (discharges to groundwater)
10. Dundererry Sewerage Scheme (discharges to surface water)
11. Hill of Tara Sewerage Scheme (discharges to groundwater)
12. Kilberry Sewerage Scheme (discharges to surface water)
13. Lloyd, Kells Sewerage Scheme (discharges to surface water)
14. Lobinstown Sewerage Scheme (discharges to surface water)
15. Robinstown Sewerage Scheme (discharges to surface water)
16. Skryne Sewerage Scheme (discharges to surface water)

A specification of the license application is to get in contact with the local RBD office about the need to monitor certain substances listed in Annex X and XIII of the Water Framework Directive in the receiving waters. Please find attached the associated drawings showing the location of the waste water treatment plants and discharge points.

The section of the application which relates to the monitoring of the substances listed in Annex 8 and 10 are in section D. After consultation with the EPA they advised us to get in contact with yourselves and to see if any of these 69 substances are present in this receiving water and if there is a need for us to monitor some of these parameters. We also require a letter from yourselves to confirm your findings.

According to the EPA they have been in contact with yourselves about this issue and that you will be aware what is needed for the application. If you have any questions about this section you can contact the EPA ring or if there is someone else in the ERBD office I could get in contact with to gather the data.

Looking forward to hearing from you.

Regards,
Yvonne McMonagle,
Jennings O'Donovan & Partners,
Consulting Engineers,
Finisklin Business Park,
Sligo.
Tel.: 071 9161416
Fax: 071 9161080
Email: ymcmonagle@jodireland.com

AttachmentD.1 RBD_Office

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ATTACHMENT D.1



MEATH VILLAGES EFFLUENT DISCHARGE SURVEY

EXECUTIVE SUMMARY

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Client:

Meath County Council

Consulting Engineers:

Jennings O'Donovan & Partners
Consulting Engineers
Finisklin
Sligo



Unit 9, Block A,
Centrepont Business Park
Oak Road
Dublin 12
Tel: (01) 4605912
Fax: (01) 4605913

Issued 24th November 2009

Ballinabrackey

Site 1

Average Volume - 13.4 M3/Day @225/h/day - = 60 pe
 Maximum Rate of Discharge - 1.1 l/s
 Method of flow measurement - Area velocity flow monitor

Influent Sampling Point: Inlet to treatment works
 Effluent Sampling Point: M/H following treatment area

Table 1: Site 1 Sample Analysis Results for the 9th November

Parameter	COD mg/l	pH mg/l	BOD mg/l	Sus. Solids mg/l	Phosphorous (as P) mg/l	T. Nitrogen (as P) mg/l	Ammonia mg/l
Influent	1049	7.2	341	245	6.6	33.32	4.599
Effluent	282	7.2	74	797	7.1	24.275	1.280

Table 2: Site 1 Sample Analysis Results for the 10th November 2009

Parameter	COD mg/l	pH mg/l	BOD mg/l	Sus. Solids mg/l	Phosphorous (as P) mg/l	T. Nitrogen (as P) mg/l	Ammonia mg/l
Influent	427	7.0	192	252	6.2	66.955	25.406
Effluent	201	7.1	29	192	4.8	24.97	18.897

Summary: Daily Volumes (m3).

Date	MaxFlow Time	MaxFlow (l/s)	MinFlow Time	MinFlow (l/s)	AveFlow (l/s)	TotVolume (m3)
5-NOV-09	18:38	1.1	9:00	0.0	0.3	16.1
6-NOV-09	7:12	0.9	22:08	0.0	0.1	6.8
7-NOV-09	11:54	0.5	19:48	0.0	0.1	5.6
8-NOV-09	10:10	0.7	3:18	0.0	0.2	13.4
9-NOV-09	22:56	0.8	9:22	0.0	0.2	15.8
10-NOV-09	8:30	0.8	22:56	0.0	0.2	14.9
11-NOV-09	10:38	0.8	12:06	0.0	0.2	14.8
12-NOV-09	18:16	0.8	18:38	0.0	0.2	14.1
13-NOV-09	20:16	0.9	8:48	0.0	0.2	15.2
14-NOV-09	23:46	0.8	0:00	0.0	0.2	15.1
15-NOV-09	12:14	0.8	0:04	0.0	0.1	12.1
16-NOV-09	9:02	0.7	2:58	0.0	0.2	13.4
17-NOV-09	17:24	0.7	4:46	0.0	0.2	17.5
18-NOV-09	16:00	0.8	0:28	0.0	0.1	12.7
19-NOV-09	2:08	0.7	6:36	0.0	0.2	
-NOV-		1.1		0.0	0.2	187.5

Comments

Due to the nature of the flow at this site a theoretical flow value was used based on a Flow/Depth relationship. Flow was calculated based on depth and velocity spot checks and intermittent flow data. Outlined below is the equation used for the F/D relationship

$$\text{Flow} = A \times D^B$$

Where A = 0.3420E-5; D = Depth; B = 2.82 (A = Coefficient 1; B = Coefficient 2)

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ATTACHMENT D.2

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ATTACHMENT E.2



MEATH VILLAGES EFFLUENT DISCHARGE SURVEY

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Meath County Council

Consulting Engineers:

Jennings O'Donovan & Partners
Consulting Engineers
Finisklin
Sligo



Unit 9, Block A,
Centrepont Business Park
Oak Road
Dublin 12
Tel: (01) 4605912
Fax: (01) 4605913

Issued 24th November 2009

Ballinabrackey

Site 1

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 Maximum Rate of Discharge - 1.1 l/s
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 Effluent Sampling Point: M/H following treatment area

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Influent	1049	7.2	341	245	6.6	33.32	4.599
Effluent	282	7.2	74	797	7.1	24.275	1.280

Table 2: Site 1 Sample Analysis Results for the 10th November 2009

Parameter	COD mg/l	pH mg/l	BOD mg/l	Sus. Solids mg/l	Phosphorous (as P) mg/l	T. Nitrogen (as P) mg/l	Ammonia mg/l
Influent	427	7.0	192	252	6.2	66.955	25.406
Effluent	201	7.1	29	192	4.8	24.97	18.897

Summary: Daily Volumes (m3).

Date	MaxFlow Time	MaxFlow (l/s)	MinFlow Time	MinFlow (l/s)	AveFlow (l/s)	TotVolume (m3)
5-NOV-09	18:38	1.1	9:00	0.0	0.3	16.1
6-NOV-09	7:12	0.9	22:08	0.0	0.1	6.8
7-NOV-09	11:54	0.5	19:48	0.0	0.1	5.6
8-NOV-09	10:10	0.7	3:18	0.0	0.2	13.4
9-NOV-09	22:56	0.8	22:22	0.0	0.2	15.8
10-NOV-09	8:30	0.8	22:56	0.0	0.2	14.9
11-NOV-09	10:38	0.8	12:06	0.0	0.2	14.8
12-NOV-09	18:16	0.8	18:38	0.0	0.2	14.1
13-NOV-09	20:16	0.9	8:48	0.0	0.2	15.2
14-NOV-09	23:46	0.8	0:00	0.0	0.2	15.1
15-NOV-09	12:14	0.8	0:04	0.0	0.1	12.1
16-NOV-09	9:02	0.7	2:58	0.0	0.2	13.4
17-NOV-09	17:24	0.7	4:46	0.0	0.2	17.5
18-NOV-09	16:00	0.8	0:28	0.0	0.1	12.7
19-NOV-09	2:08	0.7	6:36	0.0	0.2	
-NOV-		1.1		0.0	0.2	187.5

Comments

Due to the nature of the flow at this site a theoretical flow value was used based on a Flow/Depth relationship. Flow was calculated based on depth and velocity spot checks and intermittent flow data. Outlined below is the equation used for the F/D relationship

$$\text{Flow} = A \times D^B$$

Where A = 0.3420E-5; D = Depth; B = 2.82 (A = Coefficient 1; B = Coefficient 2)

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ATTACHMENT E.3

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ATTACHMENT E.4

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Test Report

Customer: Jennings O'Donovan & Pa
Consulting Engineers
Finisklin Business Park
Sligo
Co. Sligo
Account.: 9413

Report No.: 51454
Report Date: 02/12/2009
Received Date: 10/11/2009
Analysis Date: 10/11/2009
Order No.:
Page: 1 of 2
Revision Date:

Sample ID: 77007

Description: Final Effluent Sample taken @ Ballinabrackey 09.11.09 09.20hrs by Conor (Q-Lab)

Ref No:

ID	Test	SOP	Results
<input type="checkbox"/> 77007	Total Nitrogen as N, mg/l	STM-C-13.1.0	48.4
<input type="checkbox"/> 77007	Copper as Cu, mg/l	Subcontracted	1.892
<input type="checkbox"/> 77007	Chromium as Cr mg/l	Subcontracted	0.235
<input type="checkbox"/> 77007	Arsenic as As mg/l	Subcontracted	0.166
<input type="checkbox"/> 77007	Sulphates as SO ₄ , mg/l	STM-C-18.2.0	46
<input type="checkbox"/> 77007	Ortho Phosphates (as mg P/L)	STM-C-20.2.0	
<input type="checkbox"/> 77007	Total Phosphorous as P, mg/l	STM-C-19.2.0	
<input checked="" type="checkbox"/> 77007	pH value	STM-C-3.1.00	6.59
<input type="checkbox"/> 77007	Nitrites as NO ₂ , mg/l	STM-C-8.2.04	<0.010
<input type="checkbox"/> 77007	Zinc as Zn mg/l	Subcontracted	10.63
<input type="checkbox"/> 77007	Dissolved oxygen, mg/l	STM-C-10.3.0	1.02
<input checked="" type="checkbox"/> 77007	COD mg/l	STM-C-11.2.0	>3000
<input checked="" type="checkbox"/> 77007	BOD, mg/l	STM-C-10.2.0	898
<input type="checkbox"/> 77007	Ammonia as NH ₃ -N, mg/l	STM-C-7.2.04	42.2
<input checked="" type="checkbox"/> 77007	Suspended Solids, mg/l	STM-C-2.1.00	5400
<input checked="" type="checkbox"/> 77007	Conductivity, uS/cm @ 20°C	STM-C-4.1.00	884
<input checked="" type="checkbox"/> 77007	Nitrates as NO ₃ mg/l	STM-C-9.3.08	1.0
<input type="checkbox"/> 77007	Simazine ug/l	Subcontracted	<0.01
<input type="checkbox"/> 77007	Xylenes ug/l	Subcontracted	<0.5
<input type="checkbox"/> 77007	Tributyltin ug/l	Subcontracted	To Follow
<input type="checkbox"/> 77007	Boron as B mg/l	Subcontracted	0.33
<input type="checkbox"/> 77007	Nickel as Ni mg/l	Subcontracted	0.616

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Quality Systems and Laboratory Services

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Test Report

Customer: Jennings O'Donovan & Pa
Consulting Engineers
Finisklin Business Park
Sligo
Co. Sligo
Account.: 9413

Report No.: 51454
Report Date: 02/12/2009
Received Date: 10/11/2009
Analysis Date: 10/11/2009
Order No.:
Page: 2 of 2
Revision Date:

<input type="checkbox"/>	77007	Fluoride as F, mg/l	Subcontracted	0.45	✓
<input type="checkbox"/>	77007	Phenols, ug/l	Subcontracted	<0.5	
<input type="checkbox"/>	77007	Cyanide mg/l	Subcontracted	0.029	✓
<input type="checkbox"/>	77007	Toluene ug/l	Subcontracted	<0.5	✓
<input type="checkbox"/>	77007	Lead as Pb, mg/l	Subcontracted	0.772	✓
<input type="checkbox"/>	77007	Dichloromethane ug/l	Subcontracted	<5.0	✓
<input type="checkbox"/>	77007	Atrazine ug/l	Subcontracted	<0.01	✓
<input type="checkbox"/>	77007	Barium as Ba mg/l	Subcontracted	6.63	
<input type="checkbox"/>	77007	Selenium as Se mg/l	Subcontracted	0.0225	
<input type="checkbox"/>	77007	Mercury as Hg mg/l	Subcontracted	0.0044	
<input type="checkbox"/>	77007	Cadmium as Cd mg/l	Subcontracted	0.0445	
<input checked="" type="checkbox"/>	77007	Total Hardness as CaCO ₃ , mg/l	STM-C-6.1.00	250	
<input type="checkbox"/>	77007	Temperature, °C	STM-C-41.1.0	8.3	

Comments:

Report Authorised By:

Peter O'Byrne

Peter O'Byrne Chem. Lab. Manager

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Test Report

Customer: Jennings O'Donovan & Pa
Consulting Engineers
Finisklin Business Park
Sligo
Co. Sligo
Account.: 9413

Report No.: 51456
Report Date: 02/12/2009
Received Date: 10/11/2009
Analysis Date: 10/11/2009
Order No.:
Page: 1 of 2
Revision Date:

Sample ID: 77009

Description: Downstream Sample taken @ Ballinabrackey 09.11.09 08.35hrs by Conor (Q-Lab)

Ref No:

ID	Test	SOP	Results
<input type="checkbox"/> 77009	Nickel as Ni mg/l	Subcontracted	0.0020 ✓
<input type="checkbox"/> 77009	Ammonia as NH ₃ -N, mg/l	STM-C-7.2.04	<0.02
<input checked="" type="checkbox"/> 77009	Suspended Solids, mg/l	STM-C-2.1.00	8
<input checked="" type="checkbox"/> 77009	Conductivity, uS/cm @ 20°C	STM-C-4.1.00	778
<input checked="" type="checkbox"/> 77009	pH value	STM-C-3.1.00	8.14
<input checked="" type="checkbox"/> 77009	Total Hardness as CaCO ₃ , mg/l	STM-C-6.1.00	376
<input type="checkbox"/> 77009	Xylenes ug/l	Subcontracted	,0.5 ✓
<input type="checkbox"/> 77009	Atrazine ug/l	Subcontracted	<0.01
<input type="checkbox"/> 77009	Boron as B mg/l	Subcontracted	0.06
<input type="checkbox"/> 77009	Dissolved oxygen, mg/l	STM-C-10.3.0	8.77
<input type="checkbox"/> 77009	Fluoride as F, mg/l	Subcontracted	<0.1
<input type="checkbox"/> 77009	Phenols, ug/l	Subcontracted	<0.5
<input type="checkbox"/> 77009	Temperature, °C	STM-C-41.1.0	5.8
<input type="checkbox"/> 77009	Toluene ug/l	Subcontracted	<0.5 ✓
<input type="checkbox"/> 77009	Simazine ug/l	Subcontracted	<0.01 ✓
<input type="checkbox"/> 77009	Dichloromethane ug/l	Subcontracted	<5.0
<input type="checkbox"/> 77009	Tributyltin ug/l	Subcontracted	To Follow
<input type="checkbox"/> 77009	Arsenic as As mg/l	Subcontracted	0.0009 ✓
<input type="checkbox"/> 77009	Selenium as Se mg/l	Subcontracted	0.0009 ✓
<input type="checkbox"/> 77009	Mercury as Hg mg/l	Subcontracted	<0.00002
<input type="checkbox"/> 77009	Cadmium as Cd mg/l	Subcontracted	<0.0001
<input type="checkbox"/> 77009	Zinc as Zn mg/l	Subcontracted	0.0095 ✓

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Quality Systems and Laboratory Services

P.O. Box 27,
Strandfield Business Park,
Rosslare Road,
Wexford
Tel/Fax 053 9145600
Email: info@qlab.ie

Test Report

Customer: Jennings O'Donovan & Pa
Consulting Engineers
Finisklin Business Park
Sligo
Co. Sligo
Account.: 9413

Report No.: 51456
Report Date: 02/12/2009
Received Date: 10/11/2009
Analysis Date: 10/11/2009
Order No.:
Page: 2 of 2
Revision Date:

<input type="checkbox"/>	77009	Lead as Pb, mg/l	Subcontracted	<0.0003	✓
<input type="checkbox"/>	77009	Cyanide mg/l	Subcontracted	<0.005	✓
<input checked="" type="checkbox"/>	77009	BOD, mg/l	STM-C-10.2.0	3.0	
<input type="checkbox"/>	77009	Chromium as Cr mg/l	Subcontracted	<0.001	✓
<input checked="" type="checkbox"/>	77009	COD mg/l	STM-C-11.2.0	19	
<input type="checkbox"/>	77009	Sulphates as SO ₄ , mg/l	STM-C-18.2.0	34	
<input type="checkbox"/>	77009	Ortho Phosphates (as mg P/L)	STM-C-20.2.0	0.33	
<input type="checkbox"/>	77009	Total Phosphorous as P, mg/l	STM-C-19.2.0	0.41	
<input checked="" type="checkbox"/>	77009	Nitrates as NO ₃ mg/l	STM-C-9.3.08	11.4	
<input type="checkbox"/>	77009	Nitrites as NO ₂ , mg/l	STM-C-8.2.04	0.128	
<input type="checkbox"/>	77009	Total Nitrogen as N, mg/l	STM-C-13.1.0	3.8	
<input type="checkbox"/>	77009	Barium as Ba mg/l	Subcontracted	0.0482	
<input type="checkbox"/>	77009	Copper as Cu, mg/l	Subcontracted	<0.003	✓

Comments:

Report Authorised By:

Peter O'Byrne

Peter O'Byrne Chem. Lab. Manager

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Test Report

Customer: Jennings O'Donovan & Pa
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Finisklin Business Park
Sligo
Co. Sligo
Account.: 9413

Report No.: 51455
Report Date: 02/12/2009
Received Date: 10/11/2009
Analysis Date: 10/11/2009
Order No.:
Page: 1 of 2
Revision Date:

Sample ID: 77008

Description: Upstream Sample taken @ Ballinabrackey 09.11.09 09.30hrs by Conor (Q-Lab)

Ref No:

ID	Test	SOP	Results
<input type="checkbox"/> 77008	Total Nitrogen as N, mg/l	STM-C-13.1.0	2.9
<input type="checkbox"/> 77008	Copper as Cu, mg/l	Subcontracted	0.004 ✓
<input type="checkbox"/> 77008	Chromium as Cr mg/l	Subcontracted	<0.001 ✓
<input type="checkbox"/> 77008	Arsenic as As mg/l	Subcontracted	0.0012 ✓
<input type="checkbox"/> 77008	Sulphates as SO ₄ , mg/l	STM-C-18.2.0	33
<input type="checkbox"/> 77008	Ortho Phosphates (as mg P/L)	STM-C-20.2.0	0.44
<input type="checkbox"/> 77008	Total Phosphorous as P, mg/l	STM-C-19.2.0	0.72
<input checked="" type="checkbox"/> 77008	pH value	STM-C-3.1.00	8.09
<input type="checkbox"/> 77008	Nitrites as NO ₂ , mg/l	STM-C-8.2.04	0.041
<input type="checkbox"/> 77008	Zinc as Zn mg/l	Subcontracted	0.0612 ✓
<input type="checkbox"/> 77008	Dissolved oxygen, mg/l	STM-C-10.3.0	9.45
<input checked="" type="checkbox"/> 77008	COD mg/l	STM-C-11.2.0	68
<input checked="" type="checkbox"/> 77008	BOD, mg/l	STM-C-10.2.0	3.7
<input type="checkbox"/> 77008	Ammonia as NH ₃ -N, mg/l	STM-C-7.2.04	<0.02
<input checked="" type="checkbox"/> 77008	Suspended Solids, mg/l	STM-C-2.1.00	200
<input checked="" type="checkbox"/> 77008	Conductivity, uS/cm @ 20°C	STM-C-4.1.00	788
<input checked="" type="checkbox"/> 77008	Nitrates as NO ₃ mg/l	STM-C-9.3.08	8.2
<input type="checkbox"/> 77008	Simazine ug/l	Subcontracted	<0.01 ✓
<input type="checkbox"/> 77008	Xylenes ug/l	Subcontracted	<0.5 ✓
<input type="checkbox"/> 77008	Tributyltin ug/l	Subcontracted	To Follow
<input type="checkbox"/> 77008	Boron as B mg/l	Subcontracted	0.05
<input type="checkbox"/> 77008	Nickel as Ni mg/l	Subcontracted	0.0030 ✓

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Report No.: 51455
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Order No.:
Page: 2 of 2
Revision Date:

<input type="checkbox"/>	77008	Fluoride as F, mg/l	Subcontracted	<0.1
<input type="checkbox"/>	77008	Phenols, ug/l	Subcontracted	<0.5
<input type="checkbox"/>	77008	Cyanide mg/l	Subcontracted	<0.005
<input type="checkbox"/>	77008	Toluene ug/l	Subcontracted	<0.5
<input type="checkbox"/>	77008	Lead as Pb, mg/l	Subcontracted	0.0048 ✓
<input type="checkbox"/>	77008	Dichloromethane ug/l	Subcontracted	<5.0 ✓
<input type="checkbox"/>	77008	Atrazine ug/l	Subcontracted	<0.01 ✓
<input type="checkbox"/>	77008	Barium as Ba mg/l	Subcontracted	0.0574
<input type="checkbox"/>	77008	Selenium as Se mg/l	Subcontracted	0.0009
<input type="checkbox"/>	77008	Mercury as Hg mg/l	Subcontracted	<0.00002
<input type="checkbox"/>	77008	Cadmium as Cd mg/l	Subcontracted	0.0002
<input checked="" type="checkbox"/>	77008	Total Hardness as CaCO ₃ , mg/l	STM-C-6.1.00	374
<input type="checkbox"/>	77008	Temperature, °C	STM-C-41.1.0	7.3

Comments:

Report Authorised By:

Peter O'Byrne

Peter O'Byrne Chem. Lab. Manager

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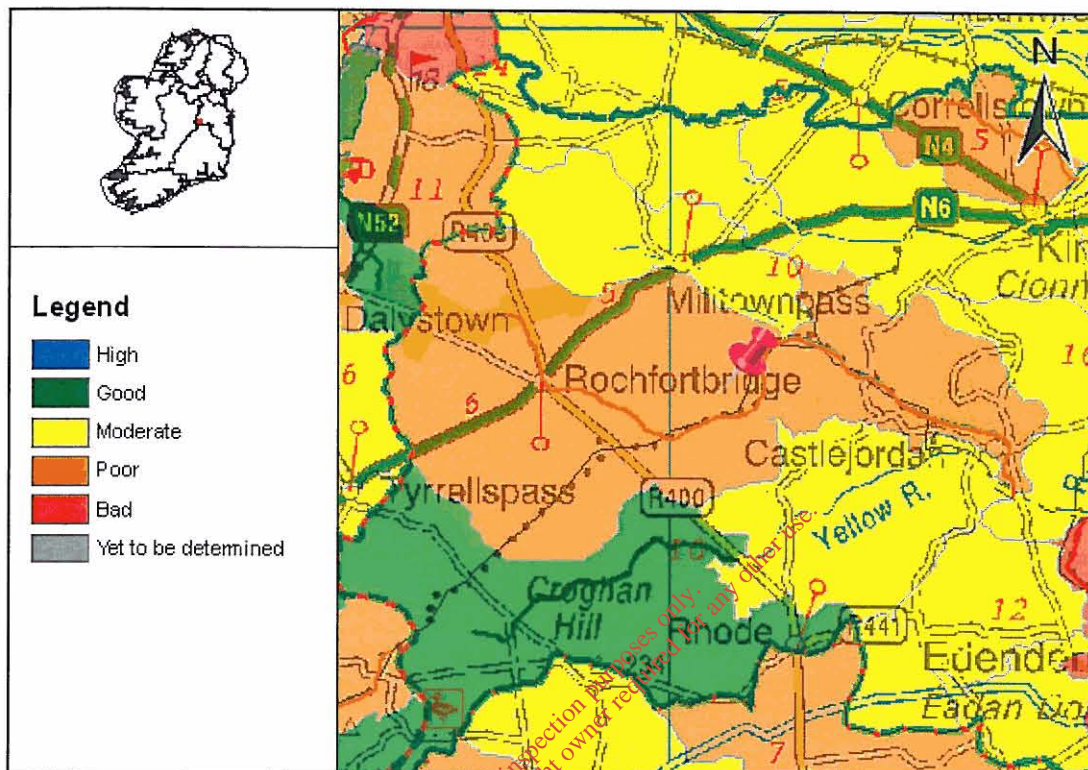


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ATTACHMENT F.1

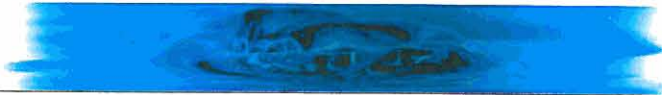


Full Report for Waterbody Castlejordan, Trib of Yellow and Boyne



Date Reported to Europe: 22/12/2008

Date Report Created 23/11/2009



Summary Information:

WaterBody Category:	Subbasin Waterbody
WaterBody Name:	Castlejordan, Trib of Yellow and Boyne
WaterBody Code:	IE_EA_07_1025
Overall Status:	Poor
Overall Objective:	Restore
Overall Risk:	1a At Risk
Applicable Supplementary Measures:	Unsewered; Urban & Industrial; Morphology; Forestry; Report data based upon Draft RBMP, 22/12/2008.



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Date Reported to Europe: 22/12/2008

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Status Report

WaterBody Category: Subbasin Waterbody
WaterBody Name: Castlejordan, Trib of Yellow and Boyne
WaterBody Code: IE_EA_07_1025
Overall Status Result: Poor

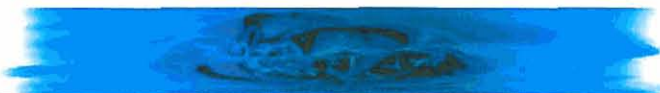


Status Element Description		Result
EX	Status from Monitored or Extrapolated Waterbody	
Biological Elements		
Q	Macroinvertebrates (Q-Value)	Poor
F	Fish	n/a
DI	Phytobenthos (Diatoms)	n/a
FPM	Status value as determined by Margartifera	n/a
Supporting Elements		
MOR	Hydromorphology	n/a
SP	Specific Pollutants	n/a
PC	General Physico-Chemical	Fail
Chemical Status		
PAS	Chemical Status	n/a
Overall Ecological Status		
O	Overall Ecological Status	Poor

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Date Reported to Europe: 22/12/2008

Date Report Created 23/11/2009



Risk Report

WaterBody Category: Subbasin Waterbody
WaterBody Name: Castlejordan, Trib of Yellow and Boyne
WaterBody Code: IE_EA_07_1025
Overall Risk Result: 1a At Risk



Risk Test Description		Risk	
Point Risk Sources			
RP1	WWTPs (2008)	1a	At Risk
RP2	CSOs	2b	Not At Risk
RP3	IPPCs (2008)	1a	At Risk
RP4	Section 4s (2008)	2b	Not At Risk
RPO	Overall Risk from Point Sources - Worst Case (2008)	1a	At Risk
Diffuse Risk Sources			
RD1	EPA diffuse model (2008)	1b	Probably At Risk
RD2a	Road Wash - Soluble Copper	2b	Not At Risk
RD2b	Road Wash - Total Zinc	2b	Not At Risk
RD2c	Road Wash - Total Hydrocarbons	2b	Not At Risk
RD3	Railways	2b	Not At Risk
RD4a	Forestry - Acidification (2008)	2b	Not At Risk
RD4b	Forestry - Suspended Solids (2008)	2b	Not At Risk
RD4c	Forestry - Eutrophication (2008)	2a	Probably Not At Risk
RD5a	Unsewered Areas - Pathogens (2008)	2a	Probably Not At Risk
RD5b	Unsewered Phosphorus (2008)	2b	Not At Risk
RD5	Overall Unsewered (2008)	2b	Not At Risk
RD6a	Arable	2b	Not At Risk
RD6b	Sheep Dip	2b	Not At Risk
RD6c	Forestry - Dangerous Substances	2b	Not At Risk
RDO	Diffuse Overall -Worst Case (2008)	1b	Probably At Risk

Date Reported to Europe: 22/12/2008

Date Report Created 23/11/2009

Morphological Risk Sources		
RM1	Channelisation (2008)	1a At Risk
RM2	Embankments (2008)	2b Not At Risk
RM3	Impoundments	2b Not At Risk
RM4	Water Regulation	2b Not At Risk
RMO	Morphology Overall - Worst Case (2008)	1a At Risk
Q/RDI or Point/Diffuse		
QPD	Q class/EPA Diffuse Model or worst case of Point and Diffuse (2008)	1a At Risk
Hydrology		
RHY1	Water balance - Abstraction	2b Not At Risk
Overall Risk		
RA	Rivers Overall - Worst Case (2008)	1a At Risk

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Objectives Report

WaterBody Category: Subbasin Waterbody
WaterBody Name: Castlejordan, Trib of Yellow and Boyne
WaterBody Code: IE_EA_07_1025
Overall Objective: Restore

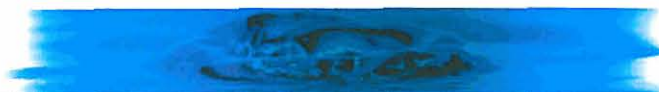


Objectives Description		Result
Objectives		
OB1	Objective 1 - Protected Areas	Not Applicable
OB2	Objective 2 - Protect High and Good Status	Not Applicable
OB3	Objective 3 - Restore Less Than Good Status	Restore
OB4	Objective 4 - Reduce Chemical Pollution	Not Applicable
OBO	Overall Objective	Restore
Deadline		
YR	Default Year by which the objective must be met	2015
EX	Revised Objective Deadline	2021
OBO	Overall Objective and Deadline	Restore - 2021

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Basic Measures Report

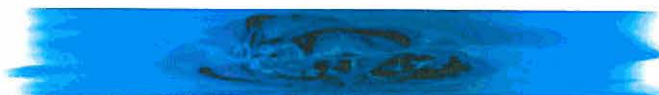
WaterBody Category: Subbasin Waterbody
WaterBody Name: Castlejordan, Trib of Yellow and Boyne
WaterBody Code: IE_EA_07_1025



	Basic Measures Description	Applicable
Key Directives		
BA	Bathing Waters Directive	No
BI	Birds Directive	No
HA	Habitats Directive	No
DW	Drinking Waters Directive	Yes
SEV	Major Accidents and Emergencies (Seveso) Directive	Yes
EIA	Environmental Impact Assessment Directive	Yes
SE	Sewage Sludge Directive	Yes
UW	Urban Waste Water Treatment Directive	Yes
PL	Plant Protection Products Directive	Yes
NI	Nitrates Directive	Yes
IP	Integrated Pollution Prevention Control Directive	Yes
Other Stipulated Measures		
CR	Cost recovery for water use	Yes
SU	Promotion of efficient and sustainable water use	Yes
DWS	Protection of drinking water sources	Yes
AB	Control of abstraction and impoundments	Yes
PT	Control of point source discharges	Yes
DI	Control of diffuse source discharges	Yes
GWD	Authorisation of discharges to groundwater	No
PS	Control of priority substances	Yes
MOR	Control of physical modifications to surface waters	Yes
OA	Controls on other activities impacting on water status	Yes
AP	Prevention or reduction of the impact of accidental pollution incidents	Yes

Date Reported to Europe: 22/12/2008

Date Report Created 23/11/2009



Urban and Industrial Discharges Supplementary Measures Report

WaterBody Category: Subbasin Waterbody
WaterBody Name: Castlejordan, Trib of Yellow and Boyne
WaterBody Code: IE_EA_07_1025



	Point discharges to waters from municipal and industrial sources	Result
PINDDIS	Is there one or more industrial discharge (Section 4 licence issued by the local authority or IPPC licence issued by the EPA) contained within the water body?	Yes
PINDDISR	Are there industrial discharges (Section 4 licence issued by the local authority or IPPC licence issued by the EPA) that cause the receiving water to be 'At Risk' within the water body?	Yes
PB1	Basic Measure 1 - Measures for improved management.	Yes
PB2	Basic Measure 2 - Optimise the performance of the waste water treatment plant by the implementation of a performance management system.	No
PB3	Basic Measure 3 - Revise existing Section 4 license conditions and reduce allowable pollution load.	Yes
PB4	Basic Measure 4 - Review existing IPPC license conditions and reduce allowable pollution load.	Yes
PB5	Basic Measure 5 - Investigate contributions to the collection system from unlicensed discharges.	Yes
PB6	Basic Measure 6 - Investigate contributions to the collection system of specific substances known to impact ecological status.	Yes
PB7	Basic Measure 7 - Upgrade WWTP to increase capacity.	No
PB8	Basic Measure 8 - Upgrade WWTP to provide nutrient removal treatment.	Yes
PS1	Supplementary Measure 1 - Measures intended to reduce loading to the treatment plant.	No
PS2	Supplementary Measure 2 - Impose development controls where there is, or is likely to be in the future, insufficient capacity at treatment plants.	Yes
PS3	Supplementary Measure 3 - Initiate investigations into characteristics of treated wastewater for parameters not presently required to be monitored under the urban wastewater treatment directive.	No
PS4	Supplementary Measure 4 - Initiate research to verify risk assessment results and determine the impact of the discharge.	Yes
PS5	Supplementary Measure 5 - Use decision making tools in point source discharge management.	Yes
PS6	Supplementary Measure 6 - Install secondary treatment at plants where this level of treatment is not required under the urban wastewater treatment directive.	No
PS7	Supplementary Measure 7 - Apply a higher standard of treatment (stricter emission controls) where necessary.	Yes

Date Reported to Europe: 22/12/2008

Date Report Created 23/11/2009

water matters

"Help us plan!"



PS8	Supplementary Measure 8 - Upgrade the plant to remove specific substances known to impact on water quality status.	No
PS9	Supplementary Measure 9 - Install ultra-violet or similar type treatment.	No
PS10	Supplementary Measure 10 - Relocate the point of discharge.	Yes

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Physical Modifications Supplementary Measures Report

WaterBody Category: Subbasin Waterbody

WaterBody Name: Castlejordan, Trib of Yellow and Boyne

WaterBody Code: IE_EA_07_1025

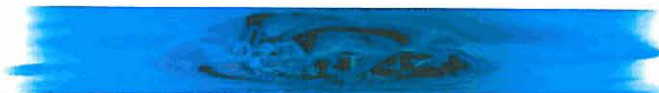


	Physical Modifications Supplementary Measures	Applicable
	Reduce	
SM1	Codes of Practice	Yes
SM2	Support for voluntary initiatives	Yes
	Remediate	
SM3	Channelisation impact remediation schemes	No
SM4	Channelisation investigation	Yes
SM5	Overgrazing remediation	No
SM6	Impassable barriers, impact confirmed, investigation into feasibility of remediation required	No
SM7	Impassable barriers investigation	Yes

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Unsewered Properties Supplementary Measures Report

WaterBody Category: Subbasin Waterbody

WaterBody Name: Castlejordan, Trib of Yellow and Boyne

WaterBody Code: IE_EA_07_1025

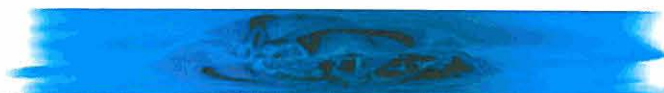


Supplementary Measures for Unsewered Properties		Applicable
SP1	Amend building regulations	Yes
SP2	Establish certified expert panels for site investigation and certification of installed systems	Yes
SP3	Assess applications for new unsewered systems by applying risk mapping/decision support systems and codes of practice	Yes
SP4	Carry out an inspection programme in prioritised locations for existing systems and record results in an action tracking system	No
SP5	Enforce requirements for percolation	No
SP6	Enforce requirements for de-sludging	Yes
SP7	Consider connection to municipal systems	No

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Date Report Created 23/11/2009



Forestry Measures Report

WaterBody Category: Subbasin Waterbody

WaterBody Name: Castlejordan, Trib of Yellow and Boyne

WaterBody Code: IE_EA_07_1025



	Forestry Measures for	Applicable
	Forestry	
SF1	Management Instruments - Ensure regulations and guidance are cross referenced and revised to incorporate proposed measures	No
SF2	Acidification - Avoid or limit afforestation on 1st and 2nd order stream catchments in acid sensitive areas	No
SF3	Acidification - Revise the Acidification Protocol to ensure actual minimum alkalinities are detected and revise boundary conditions for afforestation in acid sensitive areas	No
SF10	Pesticide Use - Pre-dip trees in nurseries prior to planting out	No
SF11	Pesticide Use - Maintain registers of pesticide use	No
SF12	Acidification - Restructure existing forests to include open space and structural diversity through age classes and species mix, including broadleaves	No
SF13	Acidification - Mitigate acid impacts symptomatically using basic material	No
SF14	Acidification - Manage catchment drainage to increase residence times and soil wetting	No
SF15	Acidification - Implement measures to increase stream production.	No
SF16	Eutrophication - Establish riparian zone management prior to clearfelling	No
SF17	Eutrophication and Sedimentation - Enhance sediment control	No
SF18	Eutrophication - Manage catchment drainage to increase residence times and soil wetting, including no drainage in some locations	No
SF19	Sedimentation - Establish riparian zone management prior to clearfelling	No
SF20	Sedimentation - Enhance sediment control	No
SF21	Sedimentation - Manage catchment drainage to increase residence times and soil wetting, including no drainage in some locations	No
SF22	Hydromorphology - Enhance drainage network management, minimise drainage in peat soils	No
SF23	Pesticide Use - Develop biological control methods	No

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water matters

"Help us plant!"

SF4	Eutrophication and Sedimentation - Avoid or limit forest cover on peat sites	No
SF5	Eutrophication and Sedimentation - Change the tree species mix on replanting	No
SF6	Eutrophication and Sedimentation - Limiting felling coup size	No
SF7	Eutrophication and Sedimentation - Establish new forest structures on older plantation sites	No
SF8	Hydromorphology - Audit existing drainage networks in forest catchments	No
SF9	Pesticide Use - Reduce pesticide usage	No

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Station No: 0100**River Code:** 07C04**Situated On:** [CASTLEJORDAN](#)**Location:** Baltinoran Br**Hydrometric Area:** Boyne**Chemical Data Available For:**[2001 to 2003](#)[1998 to 2000](#)[1995 to 1997](#)**Biological Data:**

YEAR	QUALITY
2003	3
2000	4
1997	3-4
1994	3-4
1990	4
1985	3-4
1981	4-5

[Close Window](#)

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Station No: 0100**River Code:** 07C04**Situated On:** [CASTLEJORDAN](#)**Location:** Baltinoran Br**Hydrometric Area:** Boyne**Chemical Data Available For:**[2001 to 2003](#)[1998 to 2000](#)[1995 to 1997](#)**Biological Data:**

YEAR	QUALITY
2003	3
2000	4
1997	3-4
1994	3-4
1990	4
1985	3-4
1981	4-5

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Environmental Protection Agency

River Water Quality Details



Code 07C040100
Name Castlejordan
Location OY/WH
EPA River Code 07C04
River Basin District ERBD
Hydrometric Area 07
Catchment Area Boyne



Q Value

Most Recent	2001	2002	2003	2004	2005
3			3		

The presence of pollution causes changes in flora and fauna of rivers. Well documented changes occur in the macroinvertebrate community in the presence of organic pollution: sensitive species are progressively replaced by more tolerant forms as pollution increases. The Q Value system describes the relationship between water quality and the macroinvertebrate community in numerical terms. Q5 waters have high diversity of macroinvertebrates and good water quality, while Q1 have little or no macroinvertebrate diversity and bad water quality. Intermediate values, Q1-2, 2-3, 3-4 etc denote transitional conditions. For more information on the Q-Value system, see Water Quality in Ireland 2001 - 2003, EPA 2005 (go to What we do/Environmental Monitoring/Water/Rivers).

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If you have a query about this mapping tool, contact the Environmental Protection Agency,
GIS Unit, Office of Environmental Assessment, PO Box 3000, Johnstown Castle Estate,
Co. Wexford.
Tel: Locall 1890 33 55 99 or 053 91 60600; Fax 053 91 60699.
Email queries should be directed to info@epa.ie for the attention of the GIS Unit.

MRP_(mgP/	TON_(mgN/L)	NO2_(mgN/L)	Chloride_(mgCl/L)	Alkalinity_(mg	Total Hardne	Colour_	Cu_(mç	Zn_(mg/L)
0.020	4.61	0.049						
0.032	3.83	0.051					106	
0.016	4.17	0.039	16.5	312	372		76	
0.009	3.33	0.015						
0.006	2.84	0.019	16.3	336	400		36	
0.018	2.35	0.018						
0.019	2.27	0.057						
0.016	2.71	0.028	14.5	340	384		97	
0.013	2.36	0.020						
0.018	2.71	0.034						
0.025	2.47	0.040	16.1	284	340		96	
0.018	4.35	0.039						
0.023	4.63	0.048						
0.027	3.70	0.042	16.2	340	396		44	
0.009	3.07	0.041						
0.014	2.61	0.031	16.4	352	404		45	
0.017	2.38	0.063						
0.025	2.75	0.070	14.7	270	304		219	
0.019	2.30	0.037	13.5	324	364		109	
0.017	3.18	0.026	18.6	348	394		58	
0.017	4.33	0.047						
0.028	3.54	0.043					106	
0.014	3.94	0.037	18.9	308	372		80	
0.021	3.20	0.025						
0.006	2.74	0.021	16.1	340	408		35	
0.009	2.21	0.025						
0.012	2.24	0.067						
0.011	2.58	0.030	14.4	320	384		103	
0.013	2.24	0.032						
0.015	2.39	0.030						
0.015	2.51	0.041	15.8	268	336		102	
0.016	4.19	0.038						
0.020	4.52	0.045						
0.028	3.49	0.039	15.9	348	392		45	
0.009	2.79	0.045						
0.020	2.51	0.044	16.5	348	400		48	
0.012	2.24	0.078						
0.014	2.70	0.074	14.2	264	320		235	
0.017	2.30	0.040	13.6	314	352		117	
0.014	2.90	0.023	18.6	340	384		61	

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SampleCode	EPA_Site_Cor	SampleDate	Sample DO_Sat_(%Sat)	DO_(mg/L)	Temperature	pH_Units	Conductivity_(uS/cm)	BOD (mg/L)	Suspended_solid_(mgN/L)
07990030	07C040190	17/01/2007	Grab	86.1	10.21	6.5	7.93	726	0.169
07990165	07C040190	21/02/2007	Grab	84.1	9.89	7.6	7.96	673	0.262
07990273	07C040190	14/03/2007	Grab	89.9	10.6	8.7	7.77	698	1.75
07990418	07C040190	17/04/2007	Grab	128.7	13.45	13.1	8.25	761	0.013
07990489	07C040190	14/05/2007	Grab	125.8	13.17	12.2	8.22	755	1.81
07990611	07C040190	19/06/2007	Grab	93.6	9.21	15.5	8.06	744	0.037
07990795	07C040190	19/07/2007	Grab	79.6	7.49	18.2	7.76	630	0.047
07990896	07C040190	22/08/2007	Grab	81.5	7.99	15.6	7.77	729	1.02
07990974	07C040190	24/09/2007	Grab	106.3	10.75	14.2	8.14	748	0.009
07991093	07C040190	23/10/2007	Grab	104.3	11.05	12.8	8.08	752	0.020
07991226	07C040190	20/11/2007	Grab	85.6	10.09	7.5	7.98	662	1.86
07991338	07C040190	11/12/2007	Grab	81.8	10	7.2	7.85	691	0.230
08990007	07C040190	23/01/2008	Grab	77.1	8.56	10.4	7.84	654	0.201
08990117	07C040190	19/02/2008	Grab	91.7	11.35	6.3	7.96	735	1.57
08990242	07C040190	22/04/2008	Grab	116.7	12.35	12.1	8.16	764	0.094
08990353	07C040190	20/05/2008	Grab	110.2	11.85	11.9	8.18	778	1.78
08990478	07C040190	15/07/2008	Grab	87.3	8.26	18.2	7.92	721	0.051
08990625	07C040190	14/08/2008	Grab	71.5	7.15	14.8	7.65	624	1.5
08990741	07C040190	13/11/2008	Grab	85.2	9.58	10.1	7.82	693	1.38
09990036	07C040190	10/02/2009	Grab	85.1	10.66	5.5	7.86	756	1.38
07990029	07C040100	17/01/2007	Grab	84.5	10	6.5	7.87	721	0.254
07990164	07C040100	21/02/2007	Grab	82.8	9.75	7.4	7.92	663	0.347
07990272	07C040100	14/03/2007	Grab	90	10.55	8.8	7.85	697	2.09
07990417	07C040100	17/04/2007	Grab	128.4	13.73	12.2	8.14	766	0.024
07990488	07C040100	14/05/2007	Grab	111.9	12.05	11.1	8.01	764	1.6
07990610	07C040100	19/06/2007	Grab	88.2	8.84	16.6	7.96	754	0.022
07990794	07C040100	19/07/2007	Grab	72.7	6.84	18.1	7.7	625	0.058
07990895	07C040100	22/08/2007	Grab	74	7.24	15.7	7.68	724	1.13
07990973	07C040100	24/09/2007	Grab	104.1	10.47	14.4	8.02	748	0.022
07991092	07C040100	23/10/2007	Grab	97.8	10.32	13	7.92	753	0.043
07991225	07C040100	20/11/2007	Grab	80.8	9.5	7.6	7.88	651	1.98
07991337	07C040100	11/12/2007	Grab	79.1	9.68	7.2	7.78	686	0.269
08990006	07C040100	23/01/2008	Grab	73.4	8.14	10.4	7.8	652	0.236
08990116	07C040100	19/02/2008	Grab	89.3	11.05	6.4	7.9	735	1.52
08990241	07C040100	22/04/2008	Grab	127.5	13.47	12.1	8.13	763	0.201
08990352	07C040100	20/05/2008	Grab	98.9	10.8	11.2	8.03	782	1.65
08990477	07C040100	15/07/2008	Grab	82.0	7.83	17.7	7.84	718	0.100
08990624	07C040100	14/08/2008	Grab	67.0	6.77	14.6	7.60	614	2.27
08990740	07C040100	13/11/2008	Grab	82.4	9.25	10.3	7.78	678	1.69
09990035	07C040100	10/02/2009	Grab	83.3	10.41	5.6	7.80	754	1.34