


**SW01CROO**  
**Location of Discharge Point**  
**X: 142567**  
**Y: 065855**

Notes:  
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 DO NOT SCALE. Use figured dimensions only. If in doubt ask.  
 All dimensions to be checked on site.  
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**Cork County Council**  
**South Cork Division**



N. O'Keeffe, B.Eng., C.Eng., Eur.Ing., F.I.E.I., M.I.C.E.,  
 Acting County Engineer  
 County Hall, Cork.  
 P. Power  
 Director of Services  
 South Cork.

Project:  
**EPA LICENCE APPLICATION**  
**Crookstown Agglomeration**

Title:  
**Section C.1**  
**Operational Info**  
**WWTP & Discharge**

Designed: <b>BOL</b>	Checked: <b>BQ</b>	Scale: <b>1:2,500</b>	Drawing No. <b>07</b>
Drawn: <b>BOL</b>	Approved: <b>BQ</b>	Date: <b>14/12/09</b>	



# Accreditation Certificate

## Cork County Council

Wastewater Testing Laboratory, Inniscarra, Co. Cork

### Testing Laboratory

Registration number: 016T

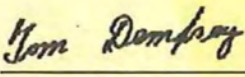
is accredited by the Irish National Accreditation Board (INAB) to undertake testing as detailed in the Schedule bearing the Registration Number detailed above, in compliance with the International Standard ISO/IEC 17025:2005 2<sup>nd</sup> Edition "General Requirements for the Competence of Testing and Calibration Laboratories" (This Certificate must be read in conjunction with the Annexed Schedule of Accreditation)

Date of award of accreditation: 01:10:2002

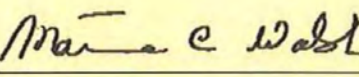
Date of last renewal of accreditation: 20:09:2007

Expiry date of this certificate of accreditation: 20:09:2012

This Accreditation shall remain in force until further notice subject to continuing compliance with INAB accreditation criteria, ISO/IEC 17025 and any further requirements specified by the Irish National Accreditation Board.

Manager: 

Mr Tom Dempsey

Chairperson: 

Dr Máire Walsh

Issued on 20th September 2007

Organisations are subject to annual surveillance and are re-assessed every five years. The renewal date on this Certificate confirms the latest date of renewal of accreditation. To confirm the validity of this Certificate, please contact the Irish National Accreditation Board.

The INAB is a signatory of the European co-operation for Accreditation (EA) Testing Multilateral Agreement (MLA) and the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement.

# Schedule of Accreditation



(Annex to Accreditation Certificate)

Permanent Laboratory:  
Category A

## CORK COUNTY COUNCIL

### Chemistry Testing Laboratory

*Initial Registration Date :* 25-April-1991  
*Postal Address:* Waste Water Laboratory  
*(Address of other locations as they apply)* Inniscarra  
Co. Cork  
*Telephone:* +353 (21) 4532700  
*Fax:* +353 (21) 4532777  
*E-mail:*  
*Contact Name:* Ms M Cherry  
*Facilities:* Normally not available for Public testing

# Schedule of Accreditation



Permanent Laboratory:  
Category A

THE IRISH NATIONAL ACCREDITATION BOARD (INAB) is the Irish body for the accreditation of organisations including laboratories.

Laboratory accreditation is available to testing and calibration facilities operated by manufacturing organisations, government departments, educational institutions and commercial testing/calibration services. Indeed, any organisation involved in testing, measurement or calibration in any area of technology can seek accreditation for the work it is undertaking.

Each accredited laboratory has been assessed by skilled specialist assessors and found to meet criteria which are in compliance with ISO/IEC 17025 or ISO/IEC 15189 (medical laboratories). Frequent audits, together with periodic inter-laboratory test programmes, ensure that these standards of operation are maintained.

## Testing and Calibration Categories:

- Category A:** Permanent laboratory calibration and testing where the laboratory is erected on a fixed location for a period expected to be greater than three years.
- Category B:** Site calibration and testing that is performed by staff sent out on site by a permanent laboratory that is accredited by the Irish National Accreditation Board.
- Category C:** Site calibration and testing that is performed in a site/mobile laboratory or by staff sent out by such a laboratory, the operation of which is the responsibility of a permanent laboratory accredited by the Irish National Accreditation Board.
- Category D:** Site calibration and testing that is performed on site by individuals and organisations that do not have a permanent calibration/testing laboratory. Testing may be performed using
- (a) portable test equipment
  - (b) a site laboratory
  - (c) a mobile laboratory or
  - (d) equipment from a mobile or site laboratory

## Standard Specification or Test Procedure Used:

The standard specification or test procedure that is accredited is the issue that is current on the date of the most recent visit, unless otherwise stated.

## Glossary of Terms

### Facilities:

- Public calibration/testing service:** Commercial operations which actively seek work from others.
- Conditionally available for public calibration/testing:** Established for another primary purpose but, more commonly than not, is available for outside work.
- Normally not available for public calibration/testing:** Unavailable for public calibration/testing more often than not.

Laboratory users wishing to obtain assurance that calibration or test results are reliable and carried out to the Irish National Accreditation Board criteria should insist on receiving an accredited calibration certificate or test report. Users should contact the laboratory directly to ensure that this scope of accreditation is current. INAB will, on request, verify the status and scope.

# Scope of Accreditation



**Cork County Council**  
**Chemical Testing Laboratory**

Permanent Laboratory:  
 Category A

INAB Classification number (P9)	Type of test/properties measured	Standard specifications
Materials/products tested	Range of measurement	Equipment/techniques used
766 Waters	Chemical analysis:	Documented in-house methods based on Standard Methods for the Examination of Water & Wastewater 21 st Edition APHA (See Note 1)
.01 Waters for domestic purposes <i>Surface and ground waters</i>	Biochemical Oxygen Demand 2 - 145,000 mg/l	CP No. 1 Membrane electrode
	Chloride 5 - 1,000 mg/l	CP No. 7 Argentometric method
	ph 2 - 12	CP No. 5 Electrometry
	Suspended Solids 0.5 - 17,500 mg/l	CP No. 3 Gravimetric
	Chemical Oxygen Demand 21 - 135 mg/l 120 - 670,000 mg/l	CP No. 6 Reflux - colourmetric method
	Total phosphorus 0.2 - 5,300 mg/l	US-EPA Approved method/HACH Method CP No.20
	Ammonia 0.1 - 1,000 mg/l NH <sub>3</sub> - N	Documented in-house method CP22 by Konelab based on Method for the Examination of Waters and Associated Material HMSO:1981

# Scope of Accreditation



**Cork County Council**  
**Chemical Testing Laboratory**

Permanent Laboratory:  
 Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
766 Waters .01 Waters for domestic purposes <i>Surface and ground waters</i>	Orthophosphate as P (Konelab) Range: 0.005-1.00 mg O-PO4 P/L High Range: 1000 mg O-PO4 P/L Method Detection Limit: 0.02 mg O-PO4 P/L  Chloride (Konelab) Range: 25-250 mg/L Cl- High Range Conc.: 86,000 mg/L Cl- Method Detection Limit: 25 mg/L Cl-  Sulphate (Konelab) Range: 30-250 mg/L SO4/L High Range Conc.: 35,000 mg/L SO4/L Method Detection Limit: 30 mg SO4/L	CP No. 23 Ascorbic Acid Method   CP No. 24 Ferricyanide Method   CP No. 25 Documented in-house method by Konelab based on method for the examination of waters and waste waters and associated material HMSO: 1981

# Scope of Accreditation



## Cork County Council Chemical Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9)	Type of test/properties measured	Standard specifications
Materials/products tested	Range of measurement	Equipment/techniques used
766 Waters	Chemical analysis	Documented in-house methods based on Standard Methods for the Examination of Water & Wastewater 21 st Edition APHA (See Note 1)
.05 Trade Wastes <i>Industrial effluents</i> <i>Urban Wastewater</i> <i>Municipal Wastewater</i>	Biochemical Oxygen Demand 2 - 145,000 mg/l	CP No. 1 Membrane electrode
	Chloride 5 - 1,000 mg/l	CP No. 7 Argentometric method
	pH 2 - 12	CP No. 5 Electrometry
	Suspended Solids 0.5 - 17,500 mg/l	CP No. 3 Gravimetric
	Chemical Oxygen Demand 21 - 135 mg/l 120 - 670,000 mg/l	CP No. 6 Reflux - colourmetric method
	Total phosphorus 0.2 - 5,300 mg/l	US-EPA Approved method/HACH Method CP No.20
	Ammonia 0.1 - 1,000 mg/l NH3-N	Documented in-house method CP22 by Konelab based on Method for the Examination of Waters and Associated Material HMSO: 1981.

Notes  
1. APHA American Public Health Association, USA, 21<sup>st</sup> Edition



# Scope of Accreditation



Cork County Council

Permanent Laboratory:

Chemical Testing Laboratory

Category A

INAB Classification number (P9)	Materials/products tested	Type of test/properties measured	Standard specifications
		Range of measurement	Equipment/techniques used
766	Waters	Chemical analysis	Documented in-house methods based on Standard Methods for the Examination of Water & Wastewater 21 st Edition APHA (See Note 1)
.05	Trade Wastes Industrial effluents Urban Wastewater Municipal Wastewater	Orthophosphate as P (Konelab) Range: 0.005 - 1.00 mg O-PO4 P/L High Range: 1000 mg O-PO4 P/L Method Detection Limit: 0.02 mg O-PO4 P/L	CP No. 1 Membrane electrode  CP No. 23 Ascorbic Acid Method
		Chloride (Konelab) Range: 25-250 mg/L Cl- High Range Conc.: 86,600 mg /L Cl- Method Detection Limit: 25mg / L Cl-	CP No. 24 Ferricyanide Method
		Sulphate (Konelab)) Range: 30-250 mg/L SO4 /L High Range Conc.: 35,000 mg/L SO4 /L Method Detection Limit: 30 mg SO4 /L	CP No. 25 Documented in-house method by Konelab based on method for the examination of waters and waste waters and associated material HMSO: 1981

**Notes**

1. APHA American Public Health Association, USA, 21<sup>st</sup> Edition

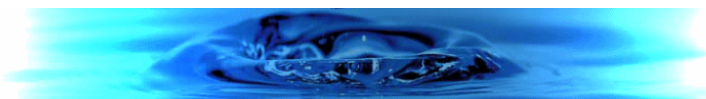


### Attachment E4 Crookstown Table E4

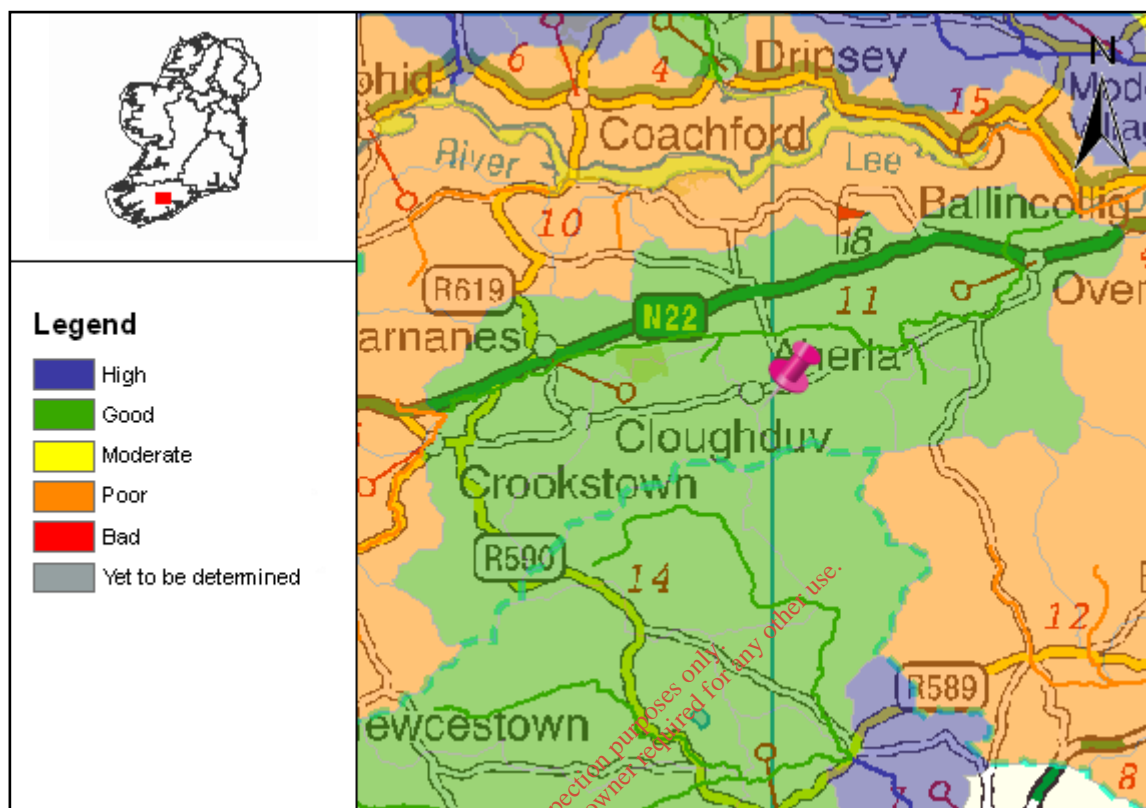
Sample Date	12/10/2009		12/10/2009	
Sample	Septic tank Discharge		River Bride d/s of Septic tank	
Sample Code	GT1234		GT1235	
Flow M <sup>3</sup> /Day	not available		not available	
pH	7.1		7.6	
Temperature °C	No result		No result	
Conductivity uS/cm 20 °C	855		186	
Suspended Solids mg/L	68		<2.5	
Ammonia-N mg/L	44.4		<0.1	
BOD mg/L	324		2	
COD mg/L	564		<21	
TN-N mg/L	83.99		3.51	
Nitrite-N mg/L	<0.1		<0.1	
Nitrate-N mg/L	<0.5		2.57	
TP-P mg/L	9.42		<0.05	
O-PO4-P mg/L	6.22		<0.05	
SO4 mg/L	53.5		<30	
Phenols µg/L	***		No result	
Atrazine µg/L	***		No result	
Dichloromethane µg/L	<1		No result	
Simazine µg/L	***		No result	
Toluene µg/L	62.745		No result	
Tributyltin µg/L	not required		not required	
Xylenes µg/L	<0.73		No result	
Arsenic µg/L	0.3		No result	
Chromium ug/L	<20		<20	
Copper ug/L	159.8		<20	
Cyanide µg/L	<5		No result	
Fluoride µg/L	0.079		0.051	
Lead ug/L	<20		<20	
Nickel ug/L	<20		<20	
Zinc ug/L	73.6		<20	
Boron ug/L	45.1		<20	
Cadmium ug/L	<20		<20	
Mercury µg/L	<0.03		No result	
Selenium µg/L	<2.12		No result	
Barium ug/L	<20		<20	

\*\*\*awaiting on results for atrazine, simazine and phenl- bottle broke in transit

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Full Report for Waterbody Bride, Trib of Lee



Date Reported to Europe: 22/12/2008

Date Report Created 12/08/2009



Summary Information:

WaterBody Category: Subbasin Waterbody

WaterBody Name: Bride, Trib of Lee

WaterBody Code: IE\_SW\_19\_1709

Overall Status: Good

Overall Objective: Protect

Overall Risk: 2b Not At Risk

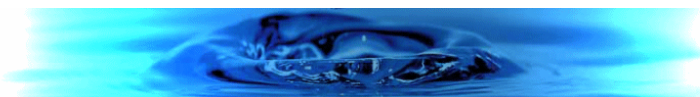
Applicable Supplementary Measures: Unsewered; Urban & Industrial; Morphology; Forestry;  
Report data based upon Draft RBMP, 22/12/2008.



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Date Reported to Europe: 22/12/2008

Date Report Created 12/08/2009



Status Report

WaterBody Category: Subbasin Waterbody

WaterBody Name: Bride, Trib of Lee

WaterBody Code: IE\_SW\_19\_1709

Overall Status Result: **Good**

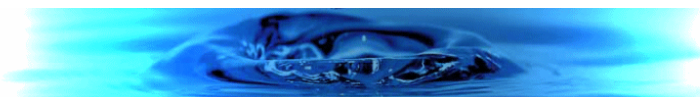


	Status Element Description	Result
EX	Status from Monitored or Extrapolated Waterbody	
	Biological Elements	
Q	Macroinvertebrates (Q-Value)	<b>Good</b>
F	Fish	n/a
DI	Phytobenthos (Diatoms)	n/a
FPM	Status value as determined by Margartifera	n/a
	Supporting Elements	
MOR	Hydromorphology	n/a
SP	Specific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

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Date Reported to Europe: 22/12/2008

Date Report Created 12/08/2009



Risk Report

WaterBody Category: Subbasin Waterbody

WaterBody Name: Bride, Trib of Lee

WaterBody Code: IE\_SW\_19\_1709

Overall Risk Result: **2b** Not At Risk

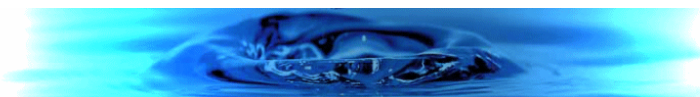


Risk Test Description	Risk
<b>Point Risk Sources</b>	
RP1 WWTPs (2008)	<b>1a</b> At Risk
RP2 CSOs	<b>2b</b> Not At Risk
RP3 IPPCs (2008)	<b>2b</b> Not At Risk
RP4 Section 4s (2008)	<b>2b</b> Not At Risk
RPO Overall Risk from Point Sources - Worst Case (2008)	<b>1a</b> At Risk
<b>Diffuse Risk Sources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

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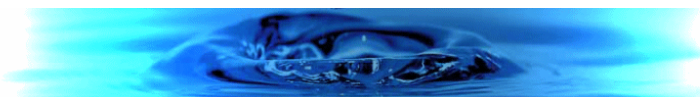
<b>Morphological Risk Sources</b>		
RM1	Channelisation (2008)	2b Not At Risk
RM2	Embankments (2008)	2b Not At Risk
RM3	Impoundments	2b Not At Risk
RM4	Water Regulation	2b Not At Risk
RM0	Morphology Overall - Worst Case (2008)	2b Not At Risk
<b>Q/RDI or Point/Diffuse</b>		
OPD	Q class/EPA Diffuse Model or worst case of Point and Diffuse (2008)	2b Not At Risk
<b>Hydrology</b>		
RHY1	Water balance - Abstraction	2b Not At Risk
<b>Overall Risk</b>		
RA	Rivers Overall - Worst Case (2008)	2b Not At Risk

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Date Reported to Europe: 22/12/2008

Date Report Created 12/08/2009





Objectives Report

WaterBody Category: Subbasin Waterbody  
 WaterBody Name: Bride, Trib of Lee  
 WaterBody Code: IE\_SW\_19\_1709  
 Overall Objective: **Protect**

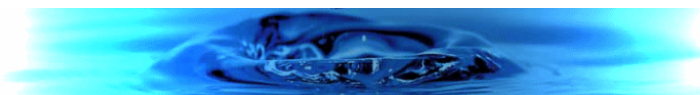


Objectives Description		Result
<b>Objectives</b>		
OB1	Objective 1 - Protected Areas	<b>Protect</b>
OB2	Objective 2 - Protect High and Good Status	Not Applicable
OB3	Objective 3 - Restore Less Than Good Status	Not Applicable
OB4	Objective 4 - Reduce Chemical Pollution	Not Applicable
OBO	Overall Objective	<b>Protect</b>
<b>Deadline</b>		
YR	Default Year by which the objective must be met	2015
EX	Revised Objective Deadline	2007
OBO	Overall Objective and Deadline	<b>Protect</b>

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Date Report Created 12/08/2009



Basic Measures Report

WaterBody Category: Subbasin Waterbody

WaterBody Name: Bride, Trib of Lee

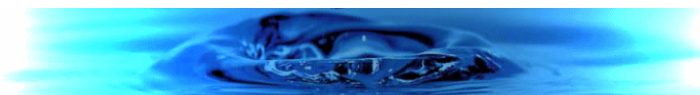
WaterBody Code: IE\_SW\_19\_1709



	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	No
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 12/08/2009



Urban and Industrial Discharges Supplementary Measures Report

WaterBody Category: Subbasin Waterbody

WaterBody Name: Bride, Trib of Lee

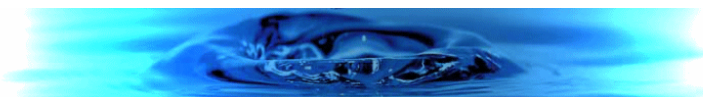
WaterBody Code: IE\_SW\_19\_1709



	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?	No
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.	No
PB4	Basic Measure 4 - Review existing IPPC license conditions and reduce allowable pollution load.	No
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.	Yes
PB8	Basic Measure 8 - Upgrade WWTP to provide nutrient removal treatment.	No
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.	No
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.	No
PS5	Supplementary Measure 5 - Use decision making tools in point source discharge management.	No
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.	No

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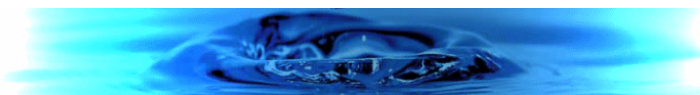


PS8	Supplementary Measure 8 - Upgrade the plant to remove specific substances known to impact on water quality status.	No
PS9	Supplementary Measure 9 - Install ultra-violet or similar type treatment.	No
PS10	Supplementary Measure 10 - Relocate the point of discharge.	No

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Physical Modifications Supplementary Measures Report

WaterBody Category: Subbasin Waterbody

WaterBody Name: Bride, Trib of Lee

WaterBody Code: IE\_SW\_19\_1709

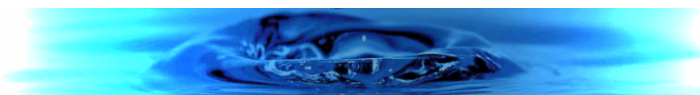


	Physical Modifications Supplementary Measures	Applicable
	<b>Reduce</b>	
SM1	Codes of Practice	Yes
SM2	Support for voluntary initiatives	Yes
	<b>Remediate</b>	
SM3	Channelisation impact remediation schemes	No
SM4	Channelisation investigation	No
SM5	Overgrazing remediation	No
SM6	Impassable barriers,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

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Date Reported to Europe: 22/12/2008

Date Report Created 12/08/2009



Unsewered Properties Supplementary Measures Report

WaterBody Category: Subbasin Waterbody

WaterBody Name: Bride, Trib of Lee

WaterBody Code: IE\_SW\_19\_1709

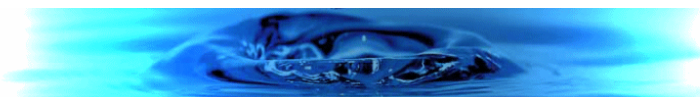


Supplementary Measures for <b>Unsewered Properties</b>		Applicable
SP1	Amend building regulations	Yes
SP2	Establish certified expert panels for site investigation and certification of installed systems	Yes
SP3	Assess applications for new unsewered systems by applying risk mapping/decision support systems 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 Reported to Europe: 22/12/2008

Date Report Created 12/08/2009



Forestry Measures Report

WaterBody Category: Subbasin Waterbody

WaterBody Name: Bride, Trib of Lee

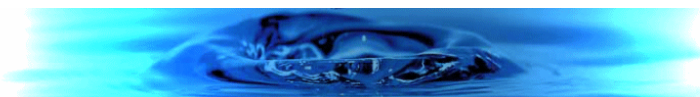
WaterBody Code: IE\_SW\_19\_1709



	Forestry Measures for Forestry	Applicable
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

Date Reported to Europe: 22/12/2008

Date Report Created 12/08/2009



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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Date Reported to Europe: 22/12/2008

Date Report Created 12/08/2009



# Attachment G.1. Capital Investment Programme

## Cork County

### Water Services Investment Programme 2007 - 2009

Schemes at Construction	W/S	Est. Cost	Schemes to start 2009 cont'd.	W/S	Est. Cost
<b>Cork North</b>			<b>Cork South</b>		
Mitchelstown Sewerage Scheme (Nutrient Removal)	S	221,000	Ballinoolig Sewerage Scheme (Upgrade) (G)	S	22,248,000
			Cork Lower Harbour Sewerage Scheme (excl. Crosshaven SS)S		73,542,000
<b>Cork South</b>			Shamagarry/Garryvoe/Ballyodion Sewerage Scheme	S	3,780,000
Ballycurney/Ballymaekery Sewerage Scheme	S	3,049,000	Youghal Sewerage Scheme	S	14,420,000
Cobh/Midleton/Carrigrohilly Water Supply Scheme	W	10,135,000			
<b>Cork Lower Harbour Sewerage Scheme (Crosshaven SS) (G)</b>	S	4,850,000	<b>Cork West</b>		
Cork Water Strategy Study (G)	W	941,000	Ballydohob Sewerage Scheme	S	683,000
Kinsale Sewerage Scheme	S	20,000,000	Bantry Water Supply Scheme	W	14,935,000
Midleton Sewerage Scheme (Infiltration Reduction) (G)	S	2,078,000	Cronakilly Sewerage Scheme (Plant Capacity Increase)	S	3,677,000
		41,274,000	Courtmaashery/Timoleague Sewerage Scheme	S	2,472,000
<b>Schemes to start 2007</b>			Dunmanway Regional Water Supply Scheme Stage 1	W	12,669,000
					164,629,000
<b>Cork North</b>			<b>Service Land Initiative</b>		
North Cork Grouped DBO Wastewater Treatment Plant (Buttevant, Doneraile & Kibrin)	S	5,150,000	<b>Cork North</b>		
			Ballydough Water Supply Scheme	W	139,000
<b>Cork West</b>			Ballydooley Improvement Scheme	W/S	139,000
Skibbereen Sewerage Scheme	S	20,000,000	Broggilly-Rathgoggin Sewerage Scheme	S	406,000
		25,150,000	Bweeng Water Supply Scheme	W	115,000
<b>Schemes to start 2008</b>			Churchtown Sewerage Scheme (incl. Water)	W/S	543,000
<b>Cork North</b>			Condulane Sewage Treatment Plant	S	417,000
Mallow/Ballyvinter Regional Water Supply Scheme (H)	W	8,652,000	Freemount Sewerage Scheme	S	190,000
Mallow Sewerage Scheme (H)	S	5,408,000	Pike Road Sewerage Scheme (incl. Water)	W/S	2,080,000
			Rathgoggin Sewerage Scheme (incl. Water)	W/S	635,000
<b>Cork South</b>			Ros Gully Sewerage Scheme	S	736,000
Ballinoolig Sewerage Scheme (Nutrient Removal) (G)	S	948,000	Uppal Farmoy Sewerage Scheme (incl. Water)	W/S	1,174,000
Ballygeary Sewerage Scheme	S	1,296,000	Watergrasshill Water Supply Scheme (incl. Sewerage) (G)	W/S	4,151,000
Bandon Sewerage Scheme Stage 2	S	14,729,000			
City Environs (CASP) Strategic Study (G)	S	2,000,000	<b>Cork South</b>		
Cloghros Sewerage Scheme (Upgrade)	S	823,000	Ballinoolig Sewerage Scheme (Bany's Rd Foulard Storm Drainage) (G)	S	1,164,000
Coashford Water Supply Scheme	W	1,316,000	Belgrosley Water Supply Scheme (incl. Sewerage)	W/S	2,913,000
Garretstown Sewerage Scheme	S	2,153,000	Bantry Water Supply Scheme (Ext. to Station Rd) (G)	W	416,000
Inniscaura Water Treatment Plant Extension Phase 1	W	2,678,000	Carrigrohilly Sewerage Scheme (Treatment and Storm Drain) (G)	S	7,632,000
Little Island Sewerage Scheme (G)	S	2,200,000	Castlemartyr Wastewater Treatment Plant Extension	S	1,200,000
			Crookstown Sewerage Scheme (incl. Water)	W/S	1,200,000
<b>Cork West</b>			Dripsey Water Supply Scheme (incl. Sewerage)	W/S	1,112,000
Bantry Sewerage Scheme	S	7,148,000	Glurthene Sewerage Scheme (G)	S	1,576,000
Dunmanway Sewerage Scheme	S	2,153,000	Inishannon Sewerage Scheme	S	277,000
Leap/Baltimore Water Supply Scheme	W	6,365,000	Inishannon Wastewater Treatment Plant	S	694,000
Sohull Water Supply Scheme	W	5,253,000	Kerrypike Sewerage Scheme	S	832,000
		61,137,000	Kerrypike Water Supply Scheme	W	416,000
<b>Schemes to start 2009</b>			Kilbegh Wastewater Treatment Plant Extension	S	1,200,000
<b>Cork North</b>			Kilbegh Water Supply Scheme (includes Sewerage)	W/S	485,000
Banteen/Dromahane Regional Water Supply Scheme	W	1,576,000	Kilbena Sewerage Scheme	S	420,000
Conna Regional Water Supply Scheme Extension	W	2,627,000	Kinagoe Sewerage Scheme	S	694,000
Cork NE Water Supply Scheme	W	4,326,000	Midleton Wastewater Treatment Plant Extension	S	4,030,000
Cork NW Regional Water Supply Scheme	W	6,046,000			
Millstreet Wastewater Treatment Plant (Upgrade)	S	1,628,000			

## Cork County contd.

### Water Services Investment Programme 2007 - 2009

Serviced Land Initiative contd.	W/S	Est. Cost	Schemes to Advance through Planning contd.	W/S	Est. Cost
<b>Cork South contd.</b>			<b>Cork South</b>		
Mogely Castlemarye & Ladsbridge Water Supply Scheme	W	2,566,000	Carriwohill Sewerage Scheme (G)	S	20,000,000
North Cdh. Sewerage Scheme (G)	S	3,193,000	Cork Sludge Management (G)	S	14,420,000
Rivestick Water Supply Scheme (Ind. Sewerage)	W/S	525,000	Cork Water Supply Scheme (Storage - Mount Emla, Ballinoolig & Chetwind) (G)	W	8,500,000
Rohestown Water Supply Scheme	W	2,700,000	Intracama Water Treatment Plant (Sludge Treatment)(G/W)		5,356,000
Saleen Sewerage Scheme	S	1,051,000	Macroom Sewerage Scheme	S	5,150,000
Youghal Water Supply Scheme	W	2,300,000	Minane Bridge Water Supply Scheme	W	1,421,000
<b>Cork West</b>			<b>Cork West</b>		
Castletownend Sewerage Scheme	S	1,576,000	Bantry Regional Water Supply Scheme (Distribution)	W	9,455,000
		50,787,000	Cape Clear Water Supply Scheme	W	1,679,000
<b>Rural Towns &amp; Villages Initiative</b>			Castletownbere Regional Water Supply Scheme		
			Glenamiff Sewerage Scheme	S	2,500,000
<b>Cork North</b>			Roscarberry/Owenahinchu Sewerage Scheme		
Buttevant Sewerage Scheme (Collection System)	S	2,446,000	Skibbereen Regional Water Supply Scheme Stage 4	W	7,880,000
Doneraile Sewerage Scheme (Collection System)	S	1,738,000			95,646,000
<b>Cork South</b>			<b>Water Conservation Allocation</b>		
Imisharmon (Ballinacoe/Ballinspittle/Garretstown) Water Supply Scheme	W	6,726,000			12,206,000
<b>Cork West</b>			<b>Asset Management Study</b>		
					300,000
Ballydy Sewerage Scheme	S	2,153,000	South Western River Basin District (WFD) Project <sup>1</sup>		
Baltimore Sewerage Scheme	S	3,162,000			9,400,000
Castletownbere Sewerage Scheme	S	5,202,000	<b>Programme Total</b>		
Schull Sewerage Scheme	S	3,523,000			<b>485,489,000</b>
		<b>24,550,000</b>			
<b>Schemes to Advance through Planning</b>					
<b>Cork North</b>					
Milchtstown North Gales Water Supply Scheme	W	3,620,000			
Milchtstown Sewerage Scheme	S	3,460,000			
Newmarket Sewerage Scheme	S	3,152,000			

<sup>1</sup> This project is being led by Cork County Council on behalf of other authorities in the River Basin District

(H) Refers to a Hub as designated in the National Spatial Strategy

(G) Refers to a Gateway as designated in the National Spatial Strategy

**CORK COUNTY COUNCIL**



**WATER SERVICES INVESTMENT PROGRAMME**

**2010 - 2012**

**NEEDS ASSESSMENT 2009**

**(IN ACCORDANCE WITH CIRCULAR L6/09)**

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**Mr Noel O'Keeffe,  
County Engineer,  
Cork County Council,**

**Issue Date: 14<sup>th</sup> December 2009**

Each Member of the Council

**Re: Circular L6/09**

**Water Services Investment Programme 2010-2012**  
**Needs Assessment 2009**

The current Water Services Investment Programme (WSIP) covers the period 2007-2009 and the Department has commenced work on the development of the WSIP for the period 2010-2012.

Water services authorities are required to submit completed assessment of needs and to incorporate the requirements of Town Councils as an integral part of the assessment for the county.

There is a new focus on contracts for works that can go ahead in the period 2010-2012. Many schemes are made up of separate substantial contracts, some of which are more urgently required than others. The WSIP 2010-2012 will accordingly show contracts in progress; contracts to go to construction 2010-2012 and schemes that will continue in planning in the period 2010-2012 but be constructed post 2012.

The Department has identified four broad categories of need and requires authorities to prepare separate lists for each.

- Category 1: Water Conservation
- Category 2: Works to respond to ECJ judgements
- Category 3: Works to meet Public Health/Environment Objectives
- Category 4: Works to support sustainable development, strategic developing areas and support employment creation.

The total investment required in water services in Cork County to meet statutory requirements in drinking water and wastewater, to establish district metering and commence initial investment in mains rehabilitation and to support key economic and employment creation objectives amounts to €629,039,034. This is made up of €269,545,717 to be expended in planning and construction in the period 2010-2012 and €359,493,317 post-2012. A relevant proportion of the planning cost for the works post 2012 is included in the 2010-2012 period.

The proposed programme highlights the significant immediate investment required to ensure that all of the Councils domestic, commercial and industrial consumers are supplied with water of the highest quality complying at all times with all statutory drinking water quality parameters. Works impacting on drinking water quality have been given a high priority.

The programme identifies that there is a major backlog in works required to ensure that wastewater is adequately treated before discharge and to take account of issues arising under the Water Framework Directive. The programme proposed gives particular attention to discharges which may pose a threat to drinking water intakes.

The overall investment programme is designed to meet the Councils investment need in major capital water services and can be summarised as follows

Investment Area	Priority Objective	Contracts 2010-2012  (incl. Planning Costs)	Works Post 2012	
			Planning Costs 2010-2012	Planning and Construction Costs Post 2012
		A	B	C
Water Conservation	Establish District metering and Replace defective mains.	€ 30,201,179	-	Not Quantified
Drinking Water Quality	Meet Prescribed Quality Standards in Drinking Water	€ 82,556,919	€ 12,438,119	€ 123,976,817
Wastewater Treatment	Reduce Risk to Drinking Water Sources	€ 29,818,000	€ 700,000	€ 13,300,000
	Meet remaining statutory requirements in Wastewater Treatment and support key economic objectives.	€ 75,639,000	€ 38,192,500	€ 222,216,500
	<i>Sub-Total</i>	€ 218,215,098	€ 51,330,619	€ 359,493,317
Programme Expenditure 2010-2012		A+B	€269,545,717	
Programme Expenditure Post 2012		C	€359,493,317	

The programme for the period 2010-2012 is necessarily ambitious given the scale of the deficit identified in meeting basic statutory requirements. The Council is however satisfied that it has the organisation and technical resources to meet the targets.

Attachments:

- *Category 1 List*
- *Category 2 List*
- *Category 3 List*
- *Category 4 List*

Priority No.	Scheme Name	Contract Title	Description of Works/Outcome	Estimated Cost	Planning Estimate	Construction Start	Need Under Category 3	Need Under Category 4	Contracts at Construction	Contracts to go to Construction 2010-2012	Schemes/ Contracts to Advance through Planning
38	Courtmacsherry/Timoleague Sewerage Scheme	<i>Courtmacsherry/Timoleague Sewerage Scheme</i>	Cease untreated discharges and provide Collection System and Waste Water Treatment Plant to treat sewerage in accordance with Urban Waste Water Treatment Regulations, Bathing Water Quality Regulations.	€5,000,000.00	Incl.	Q2-12	✓			✓	
39	Ballingeary Sewerage Scheme	<i>Ballingeary Sewerage Scheme</i>	Cease discharge from overloaded septic tank and provide Appropriate Treatment in accordance with Urban Waste Water Treatment Regulations	€2,200,000.00	Incl.	Q4-10	✓			✓	
40	Ballyourney/Ballymakerra Sewerage Scheme	<i>Ballyourney/Ballymakerra Sewerage Scheme</i>	Cease discharge from overloaded septic tanks and provide Appropriate Treatment in accordance with Urban Waste Water Treatment Regulations	€1,800,000.00	Incl.	Q4-10	✓			✓	
41	Innishannon Sewerage Scheme	<i>Innishannon Sewerage Scheme</i>	Cease untreated discharges and provide Waste Water Treatment Plant to treat sewerage in accordance with Urban Waste Water Treatment Regulations. Provide minor collection system upgrades	€2,000,000.00	Incl.	Q2-11	✓			✓	
42	Mitchelstown Sewerage Scheme	<i>Mitchelstown Sewerage Scheme - Nutrient Reduction &amp; Storm Overflow</i>	Screen Storm Water Overflow at Waste Water Treatment Plant. Provide Nutrient Reduction	€200,000.00	Incl.	Q3-10	✓	✓		✓	
43	Newmarket Sewerage Scheme	<i>Newmarket Sewerage Scheme - Collection System Upgrade</i>	Upgrade and provide storm water separation in existing combined system	€5,000,000.00	Incl.	Q2-11	✓			✓	
44	Glenville Sewerage Scheme	<i>Glenville Sewerage Scheme - Waste Water Treatment Plant</i>	Provide upgrade to Waste Water Treatment Plant to treat sewerage in accordance with Urban Waste Water Treatment Regulations, Quality of Salmonid Waters Regulation	€1,632,000.00	Incl.	Q1-10	✓			✓	
45	Crookstown Sewerage Scheme	<i>Crookstown Sewerage Scheme - Collection System</i>	Provide Collection System to collect existing properties	€1,600,000.00	Incl.	Q3-10	✓			✓	
46	Crookstown Sewerage Scheme	<i>Crookstown Sewerage Scheme - Wastewater Treatment Plant Design / Build Contract</i>	Cease discharges from overloaded septic tank. Provide Waste Water Treatment Plant to treat sewerage in accordance with Urban Waste Water Treatment Regulations, Quality of Salmonid Waters Regulations. Meet requirements of EPA Section 63 Notice	€1,400,000.00	Incl.	Q3-10	✓			✓	
47	Crookstown WSS	<i>Crookstown WSS</i>	New groundwater source developed for Crookstown. Rising main, reservoir and associated pipework to be constructed. Distribution system upgraded.	€1,200,000.00	Incl.	Q3-10	✓			✓	
48	Dunmanway Sewerage Scheme	<i>Dunmanway Sewerage Scheme - Collection System Upgrade Contract</i>	Repair of existing system due to collapse, cross connections, route ingress.	€400,000.00	Incl.	Q2-11	✓			✓	
49	Crosshaven Sewerage Scheme	<i>Crosshaven Sewerage Scheme</i>	Meet condition of Foreshore licence	€330,000.00	Incl.	Q3-10	✓			✓	
50	Kinsale Sewerage Scheme	<i>Kinsale Sewerage Scheme - Storm Tank</i>	Meet Article 3 of Urban Waste Water Treatment Regulations	€1,000,000.00	Incl.	Q2-10	✓			✓	
51	Innishannon Regional Water Supply Scheme	<i>Innishannon Regional Water Supply Scheme</i>	Extension of Innishannon RWSS to Belgooly and Riverstick and replace the at risk local sources.	€1,500,000.00	Incl.	Q4-10	✓	✓		✓	
52	Leap Baltimore Water Supply Scheme	<i>Leap Baltimore Water Supply Scheme - Phase 1</i>	Advanced Contract to supply water to Baltimore Village	€2,200,000.00	Incl.	Q4-10	✓			✓	

Agglomeration details

Leading Local Authority	Cork County Council
Co-Applicants	
Agglomeration	Crookstown
Population Equivalent	170
Level of Treatment	Primary Treatment
Treatment plant address	Bellmount Estate, Bellmount Lower, Crookstown
Grid Ref (12 digits, 6E, 6N)	142567 / 065855 (Verified using GPS)
EPA Reference No:	

Contact details

Contact Name:	Patricia Power
Contact Address:	Water Services Section Cork County Council Southern Division Carrigrohane Road Cork
Contact Number:	021-4276891
Contact Fax:	021-4276321
Contact Email:	patricia.power@corkcoco.ie

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Table D.1(i)(a): EMISSIONS TO SURFACE/GROUND WATERS (Primary Discharge Point)

Discharge Point Code: SW-1

Local Authority Ref No:	BOL/CROO/1209	
Source of Emission:	Treated Effluent	
Location:	Bellmount Lower	
Grid Ref (12 digits, 6E, 6N)	142567 / 065855 (Verified using GPS)	
Name of Receiving waters:	River Bride (South)	
Water Body:	River Water Body	
River Basin District	South Western RBD	
Designation of Receiving Waters:	Good Status	
Flow Rate in Receiving Waters:	0	m <sup>3</sup> .sec <sup>-1</sup> Dry Weather Flow
	0	m <sup>3</sup> .sec <sup>-1</sup> 95% Weather Flow
Additional Comments (e.g. commentary on zero flow or other information deemed of value)	River flow data not available	

Emission Details:

(i) Volume emitted			
Normal/day	35 m <sup>3</sup>	Maximum/day	45 m <sup>3</sup>
Maximum rate/hour	1.875 m <sup>3</sup>	Period of emission (avg)	60 min/hr 24 hr/day 365 day/yr
Dry Weather Flow	0.000405 m <sup>3</sup> /sec		

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Table D.1(i)(b): EMISSIONS TO SURFACE/GROUND WATERS - Characteristics of The Emission (Primary Discharge Point)

Discharge Point Code: SW-1

Substance	As discharged			
	Unit of Measurement	Sampling Method	Max Daily Avg.	kg/day
pH	pH	Grab	= 9	
Temperature	°C	Grab	= 25	
Electrical Conductivity (@ 25°C)	µS/cm	Grab	= 1000	
Suspended Solids	mg/l	Grab	= 35	1.575
Ammonia (as N)	mg/l	Grab	= 5	0.225
Biochemical Oxygen Demand	mg/l	Grab	= 25	1.125
Chemical Oxygen Demand	mg/l	Grab	= 125	5.625
Total Nitrogen (as N)	mg/l	Grab	= 0	0
Nitrite (as N)	mg/l	Grab	= 0	0
Nitrate (as N)	mg/l	Grab	= 0	0
Total Phosphorous (as P)	mg/l	Grab	= 4	0.18
OrthoPhosphate (as P)	mg/l	Grab	= 3	0.135
Sulphate (SO <sub>4</sub> )	mg/l	Grab	= 0	0
Phenols (Sum)	µg/l	Grab	= 0	0

For Orthophosphate: this monitoring should be undertaken on a sample filtered on 0.45µm filter paper  
 For Phenols: USEPA Method 604, AWWA Standard Method 6240, or equivalent.

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Table D.1(i)(c): DANGEROUS SUBSTANCE EMISSIONS TO SURFACE/GROUND WATERS - Characteristics of The Emission (Primary Discharge Point)

Discharge Point Code: SW-1

Substance	As discharged			
	Unit of Measurement	Sampling Method	Max Daily Avg.	kg/day
Atrazine	µg/l	Grab	= 0	0
Dichloromethane	µg/l	Grab	= 0	0
Simazine	µg/l	Grab	= 0	0
Toluene	µg/l	Grab	= 0	0
Tributyltin	µg/l	Grab	= 0	0
Xylenes	µg/l	Grab	= 0	0
Arsenic	µg/l	Grab	= 0	0
Chromium	µg/l	Grab	= 0	0
Copper	µg/l	Grab	= 0	0
Cyanide	µg/l	Grab	= 0	0
Flouride	µg/l	Grab	= 0	0
Lead	µg/l	Grab	= 0	0
Nickel	µg/l	Grab	= 0	0
Zinc	µg/l	Grab	= 0	0
Boron	µg/l	Grab	= 0	0
Cadmium	µg/l	Grab	= 0	0
Mercury	µg/l	Grab	= 0	0
Selenium	µg/l	Grab	= 0	0
Barium	µg/l	Grab	= 0	0

For Orthophosphate: this monitoring should be undertaken on a sample filtered on 0.45µm filter paper

For Phenols: USEPA Method 604, AWWA Standard Method 6246, or equivalent.

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TABLE E.1(i): WASTE WATER FREQUENCY AND QUANTITY OF DISCHARGE – Primary and Secondary Discharge Points

Identification Code for Discharge point	Frequency of discharge (days/annum)	Quantity of Waste Water Discharged (m <sup>3</sup> /annum)
SW-1	365	12775

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TABLE E.1(ii): WASTE WATER FREQUENCY AND QUANTITY OF DISCHARGE – Storm Water Overflows

Identification Code for Discharge point	Frequency of discharge (days/annum)	Quantity of Waste Water Discharged (m <sup>3</sup> /annum)	Complies with Definition of Storm Water Overflow
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TABLE F.1(i)(a): SURFACE/GROUND WATER MONITORING

Primary Discharge Point

Discharge Point Code:	SW-1
MONITORING POINT CODE:	aSW-1d
Grid Ref (12 digits, 6E, 6N)	142511 / 065783

Parameter	Results (mg/l)				Sampling method	Limit of Quantitation	Analysis method / technique
	01/01/09	12/10/09					
pH		= 7.6			Grab	2	Electrochemical
Temperature	= 0				Grab	0.5	Electrochemical
Electrical Conductivity (@ 25°C)		= 186			Grab	0.5	Electrochemical
Suspended Solids		< 2.5			Grab	0.5	Gravimetric
Ammonia (as N)		< 0.1			Grab	0.02	Colorimetric
Biochemical Oxygen Demand		= 2			Grab	0.06	Electrochemical
Chemical Oxygen Demand		< 21			Grab	8	Digestion & Colorimetric
Dissolved Oxygen	= 0				Grab	0.2	ISE
Hardness (as CaCO <sub>3</sub> )	= 0				Grab	1	Titrimetric
Total Nitrogen (as N)		= 3.51			Grab	0.5	Digestion & Colorimetric
Nitrite (as N)		< 0.1			Grab	0.1	Colorimetric
Nitrate (as N)		= 2.57			Grab	0.5	Colorimetric
Total Phosphorous (as P)		< 0.05			Grab	0.2	Digestion & Colorimetric
OrthoPhosphate (as P)		< 0.05			Grab	0.02	Colorimetric
Sulphate (SO <sub>4</sub> )		< 30			Grab	30	Turbidimetric
Phenols (Sum)	= 0				Grab	0.1	GC-MS2

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For Orthophosphate: this monitoring should be undertaken on a sample filtered on 0.45µm filter paper

For Phenols: USEPA Method 604, AWWA Standard Method 6240, or equivalent.

Additional Comments:	default of 01/01/09 and 0 where no results are available
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TABLE F.1(i)(b): SURFACE/GROUND WATER MONITORING (Dangerous Substances)

Primary Discharge Point

Discharge Point Code:	SW-1
MONITORING POINT CODE:	aSW-1d
Grid Ref (12 digits, 6E, 6N)	142511 / 065783

Parameter	Results (µg/l)			Sampling method	Limit of Quantitation	Analysis method / technique
	01/01/09	12/10/09				
Atrazine	= 0			Grab	0.96	HPLC
Dichloromethane	= 0			Grab	1	GC-MS1
Simazine	= 0			Grab	0.01	HPLC
Toluene	= 0			Grab	0.02	GC-MS1
Tributyltin	= 0			Grab	0.02	GC-MS1
Xylenes	= 0			Grab	1	GC-MS1
Arsenic	= 0			Grab	0.96	ICP-MS
Chromium		< 20		Grab	20	ICP-OES
Copper		< 20		Grab	20	ICP-OES
Cyanide	= 0			Grab	5	Colorimetric
Flouride		= 51		Grab	100	ISE
Lead		< 20		Grab	20	ICP-OES
Nickel		< 20		Grab	20	ICP-OES
Zinc		< 20		Grab	20	ICP-OES
Boron		< 20		Grab	20	ICP-OES
Cadmium		< 20		Grab	20	ICP-OES
Mercury	= 0			Grab	0.2	ICP-MS
Selenium	= 0			Grab	0.74	ICP-MS
Barium		< 20		Grab	20	ICP-OES

Additional Comments:	TBT value is 0.02ug/l as Sn default of 01/01/09 and 0 where no results are available, TBT testing not required
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**Annex 2: Check List For Regulation 16 Compliance**

Regulation 16 of the waste water discharge (Authorisation) Regulations 2007 (S.I. No. 684 of 2007) sets out the information which must, in all cases, accompany a discharge licence application. In order to ensure that the application fully complies with the legal requirements of regulation 16 of the 2007 Regulations, all applicants should complete the following.

In each case, refer to the attachment number(s), of your application which contains(s) the information requested in the appropriate sub-article.

<b>Regulation 16(1)</b> <b>In the case of an application for a waste water discharge licence, the application shall -</b>		<b>Attachment Number</b>	<b>Checked by Applicant</b>
(a)	give the name, address, telefax number (if any) and telephone number of the applicant (and, if different, of the operator of any treatment plant concerned) and the address to which correspondence relating to the application should be sent and, if the operator is a body corporate, the address of its registered office or principal office,		Yes
(b)	give the name of the water services authority in whose functional area the relevant waste water discharge takes place or is to take place, if different from that of the applicant,		Yes
(c)	give the location or postal address (including where appropriate, the name of the townland or townlands) and the National Grid reference of the location of the waste water treatment plant and/or the waste water discharge point or points to which the application relates,		Yes
(d)	state the population equivalent of the agglomeration to which the application relates,		Yes
(e)	specify the content and extent of the waste water discharge, the level of treatment provided, if any, and the flow and type of discharge,		Yes
(f)	give details of the receiving water body, including its protected area status, if any, and details of any sensitive areas or protected areas or both in the vicinity of the discharge point or points likely to be affected by the discharge concerned, and for discharges to ground provide details of groundwater protection schemes in place for the receiving water body and all associated hydrogeological and geological assessments related to the receiving water environment in the vicinity of the discharge.		Yes
(g)	identify monitoring and sampling points and indicate proposed arrangements for the monitoring of discharges and, if Regulation 17 does not apply, provide details of the likely environmental consequences of any such discharges,		Yes
(h)	in the case of an existing waste water treatment plant, specify the sampling data pertaining to the discharge based on the samples taken in the 12 months preceding the making of the application,		Yes
(i)	describe the existing or proposed measures, including emergency procedures, to prevent unintended waste water discharges and to minimise the impact on the environment of any such discharges,		Yes
(j)	give particulars of the nearest downstream drinking water abstraction point or points to the discharge point or points,		Yes
(k)	give details, and an assessment of the effects, of any existing or proposed emissions on the environment, including any environmental medium other than those into which the emissions are, or are to be made, and of proposed measures to prevent or eliminate or, where that is not practicable, to limit any pollution caused in such discharges,		Yes
(l)	give detail of compliance with relevant monitoring requirements and treatment standards contained in any applicable Council Directives of Regulations,		Yes
(m)	give details of any work necessary to meet relevant effluent discharge standards and a timeframe and schedule for such work.		Yes
(n)	Any other information as may be stipulated by the Agency.		Yes
<b>Regulation 16(3)</b> <b>Without prejudice to Regulation 16 (1) and (2), an application for a licence shall be accompanied by -</b>		<b>Attachment Number</b>	<b>Checked by Applicant</b>
(a)	a copy of the notice of intention to make an application given pursuant to Regulation 9,		Yes
(b)	where appropriate, a copy of the notice given to a relevant water services authority under Regulation 13,		Yes
(c)	Such other particulars, drawings, maps, reports and supporting documentation as are necessary to identify and describe, as appropriate -		Yes
(c) (i)	the point or points, including storm water overflows, from which a discharge or discharges take place or are to take place, and		Yes
(c) (ii)	the point or points at which monitoring and sampling are undertaken or are to be undertaken,		Yes
(d)	such fee as is appropriate having regard to the provisions of Regulations 38 and 39.		Yes

Regulation 16(4) An original application shall be accompanied by 2 copies of it and of all accompanying documents and particulars as required under Regulation 16(3) in hardcopy or in an electronic or other format as specified by the Agency.		Attachment Number	Checked by Applicant
1	An Original Application shall be accompanied by 2 copies of it and of all accompanying documents and particulars as required under regulation 16(3) in hardcopy or in electronic or other format as specified by the agency.		Yes
Regulation 16(5) For the purpose of paragraph (4), all or part of the 2 copies of the said application and associated documents and particulars may, with the agreement of the Agency, be submitted in an electronic or other format specified by the Agency.		Attachment Number	Checked by Applicant
1	Signed original.		Yes
2	2 hardcopies of application provided or 2 CD versions of application (PDF files) provided.		Yes
3	1 CD of geo-referenced digital files provided.		Yes
Regulation 17 Where a treatment plant associated with the relevant waste water works is or has been subject to the European Communities (Environmental Impact Assessment) Regulations 1989 to 2001, in addition to compliance with the requirements of Regulation 16, an application in respect of the relevant discharge shall be accompanied by a copy of an environmental impact statement and approval in accordance with the Act of 2000 in respect of the said development and may be submitted in an electronic or other format specified by the Agency		Attachment Number	Checked by Applicant
3	2 CD versions of EIS, as PDF files, provided.		Yes
1	EIA provided if applicable		Yes
2	2 hardcopies of EIS provided if applicable.		Yes
Regulation 24 In the case of an application for a waste water discharge certificate of authorisation, the application shall –		Attachment Number	Checked by Applicant
(a)	give the name, address, telefax number (if any) and telephone number of the applicant and the address to which correspondence relating to the application should be sent and, if the operator of the waste water works is a body corporate, the address of its registered office or principal office		Yes
(b)	give the name of the water services authority in whose functional area the relevant waste water discharge takes place or is to take place, if different from that of the applicant,		Yes
(c)	give the location or postal address (including where appropriate, the name of the townland or townlands) and the National Grid reference of the location of the discharge point or points to which the application relates,		Yes
(d)	state the population equivalent of the agglomeration to which the application relates,		Yes
(e)	in the case of an application for the review of a certificate, specify the reference number given to the relevant certificate in the register,		Yes
(f)	specify the content and extent of the waste water discharge, the level of treatment provided and the flow and type of discharge,		Yes
(g)	give details of the receiving water body, its protected area status, if any, and details of any sensitive areas or protected areas, or both, in the vicinity of the discharge point or points or likely to be affected by the discharge concerned,		Yes
(h)	identify monitoring and sampling points and indicate proposed arrangements for the monitoring of discharges and of the likely environmental consequences of any such discharges,		Yes
(i)	in the case of an existing discharge, specify the sampling data pertaining to the discharge based on the samples taken in the 12 months preceding the making of the application,		Yes
(j)	describe the existing or proposed measures, including emergency procedures, to prevent unauthorised or unexpected waste water discharges and to minimise the impact on the environment of any such discharges,		Yes
(k)	give particulars of the location of the nearest downstream drinking water abstraction point or points to the discharge point or points associated with the waste water works,		Yes
(l)	give details of any designation under any Council Directive or Regulations that apply in relation to the receiving waters,		Yes
(m)	give details of compliance with any applicable monitoring requirements and treatment standards,		Yes
(n)	give details of any work necessary to meet relevant effluent discharge standards and a timeframe and schedule for such work,		Yes
(o)	give any other information as may be stipulated by the Agency, and		Yes
(p)	be accompanied by such fee as is appropriate having regard to the provisions of Regulations 38 and 39.		Yes