

Irish  National Accreditation Board

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 2nd 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: 01:10:2012

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: Tom Dempsey

Mr Tom Dempsey

Chairperson: Maire Walsh

Dr Máire Walsh

Issued on 23 June 2008

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)

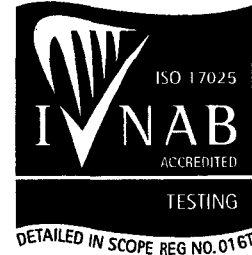
Permanent Laboratory:
Category A

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 standard should insist on receiving an accredited calibration certificate or test report. Users should contact the laboratory directly to ensure that its scope of accreditation is current. INAB will, on request, verify the status and scope.

Scope of Accreditation

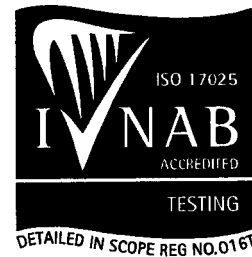


**Cork County Council
Chemical Testing Laboratory**

Permanent Laboratory:
Category A

INAB Classification number (P9) 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>	<p>Chemical analysis:</p> <p>Biochemical Oxygen Demand 2 - 145,000 mg/l</p> <p>pH 2 - 12</p> <p>Suspended Solids 0.5 - 17,500 mg/l</p> <p>Chemical Oxygen Demand 21 - 135 mg/l 120 - 670,000 mg/l</p> <p>Total phosphorus 0.2 - 5,300 mg/l</p> <p>Ammonia 0.1 - 1,000 mg/l NH₃ - N</p>	<p>Documented in-house methods based on Standard Methods for the Examination of Water & Wastewater 21 st Edition APHA (See Note 1)</p> <p>CP No. 1 Membrane electrode</p> <p>CP No. 5 Electrometry</p> <p>CP No. 3 Gravimetric</p> <p>CP No. 6 Reflux - colourmetric method</p> <p>US-EPA Approved method/HACH Method CP No.20</p> <p>Documented in-house method CP22 by Konelab based on Method for the Examination of Waters and Associated Material HMSO:1981</p>

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	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	Biochemical Oxygen Demand	2 - 145,000 mg/l	CP No. 1 Membrane electrode	
		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, 21st Edition

Scope of Accreditation



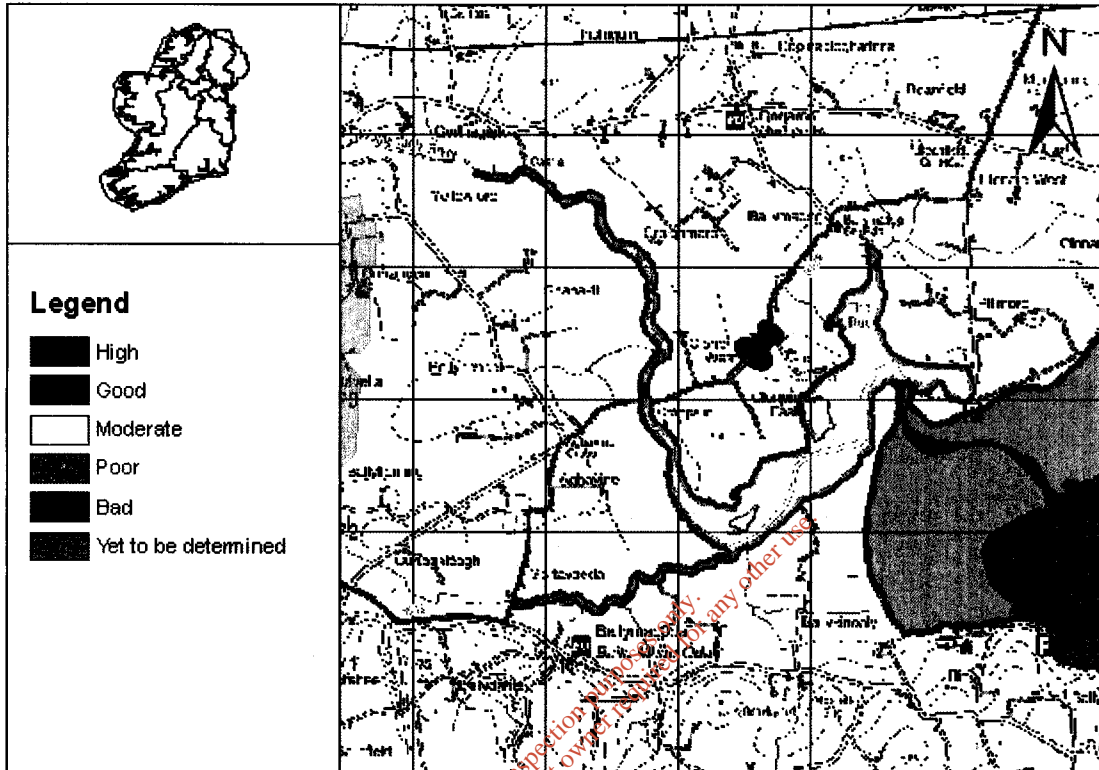
Cork County Council
Chemical Testing Laboratory

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>	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, 21st Edition

Full Report for Waterbody Womanagh Estuary



Date Reported to Europe: 22/12/2008

Date Report Created 17/08/2009

Summary Information:	
WaterBody Category:	Transitional Waterbody
WaterBody Name:	Womanagh Estuary
WaterBody Code:	IE_SW_030_0100
Overall Status:	Moderate
Overall Objective:	[REDACTED]
Overall Risk:	2b Not At Risk
Applicable Supplementary Measures:	Urban & Industrial; Report data based upon Draft RBMP, 22/12/2008.



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Date Reported to Europe: 22/12/2008

Date Report Created 17/08/2009



Status Report

WaterBody Category: Transitional Waterbody
WaterBody Name: Womanagh Estuary
WaterBody Code: IE_SW_030_0100
Overall Status Result: Moderate



	Status Element Description	Result
EX	Status from Monitored or Extrapolated Waterbody	Extrapolated
	General Conditions	
DIN	Dissolved Inorganic Nitrogen	
MRP	Molybdate Reactive Phosphorus	
DO	Dissolved Oxygen as percent saturation	
BOD	Biochemical Oxygen Demand	
T	Temperature	
	Biological Elements	
PB	Phytoplankton - Phytoplankton	
PBC	Phytoplankton - PhytoBiomass (Chlorophyll)	
MA	Macroalgae	
RSL	Reduced Species List	
SG	Angiosperms - Seagrass and Saltmarsh	
BE	Benthic Invertebrates	
FI	Fish	
	HydroMorphology	
HY	Hydrology	
MO	Morphology	
	Specific Pollutants	
SP	Specific Relevant Pollutants (Annex VII)	
	Conservation Status	
CN	Conservation Status (Expert Judgement)	
	Protected Area Status	
PA	Overall Protected Area Status	

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Date Reported to Europe: 22/12/2008

Date Report Created 17/08/2009

water matters

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Overall Status	
ES	Ecological Status
CS	Chemical Status
O	Overall Ecological Status

Moderate

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Date Reported to Europe: 22/12/2008

Date Report Created 17/08/2009



Risk Report	
WaterBody Category:	Transitional Waterbody
WaterBody Name:	Womanagh Estuary
WaterBody Code:	IE_SW_030_0100
Overall Risk Result:	2b Not At Risk

Risk Test Description	Risk
Point Risk Sources	
TP1 WWTPs (2008)	2b Not At Risk
TP2 CSOs	2b Not At Risk
TP3 IPPCs (2008)	2b Not At Risk
TP4 Section 4s (2008)	2b Not At Risk
TPO Overall Risk from Point Sources - Worst Case (2008)	2b Not At Risk
Hydrology	
THY1 Water balance - Abstraction	2b Not At Risk
Marine Direct Impacts	
TMDI Dangerous Substances 1	
TMDI OSPAR 2	
TMDI UWWT Regs Designations 3	
TMDI Marine Direct Impacts Overall - Worst Case O	
Point / MDI Worst Case	
TPOL Worst case of Point Overall and MDI Overall (MIMAS) Morphological Risk - Worst Case (2008)	2b Not At Risk
Overall Risk	
RA Transitional Overall - Worst Case (MIMAS) Morphological Risk - Worst Case (2008)	2b Not At Risk

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Date Reported to Europe: 22/12/2008

Date Report Created 17/08/2009



Objectives Report

WaterBody Category: Transitional Waterbody
WaterBody Name: Womanagh Estuary
WaterBody Code: IE_SW_030_0100
Overall Objective: [REDACTED]



Objectives Description		Result
Objectives		
OB1	Objective 1 - Protected Areas	[REDACTED]
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	[REDACTED]
Deadline		
YR	Default Year by which the objective must be met	2015
OBO	Overall Objective and Deadline	[REDACTED]

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Date Reported to Europe: 22/12/2008

Date Report Created 17/08/2009

Basic Measures Report

WaterBody Category: Transitional Waterbody

WaterBody Name: Womanagh Estuary

WaterBody Code: IE_SW_030_0100



	Basic Measures Description	Applicable
Key Directives		
BA	Bathing Waters Directive	No
BI	Birds Directive	Yes
HA	Habitats Directive	Yes
DW	Drinking Waters Directive	No
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
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	No
DWS	Protection of drinking water sources	No
AB	Control of abstraction and impoundments	No
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 17/08/2009

Urban and Industrial Discharges Supplementary Measures Report

WaterBody Category: Transitional Waterbody

WaterBody Name: Womanagh Estuary

WaterBody Code: IE_SW_030_0100



	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?	No
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.	No
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.	No
PB6	Basic Measure 6 - Investigate contributions to the collection system of specific substances known to impact ecological status.	No
PB7	Basic Measure 7 - Upgrade WWTP to increase capacity.	No
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

Date Reported to Europe: 22/12/2008

Date Report Created 17/08/2009

water matters

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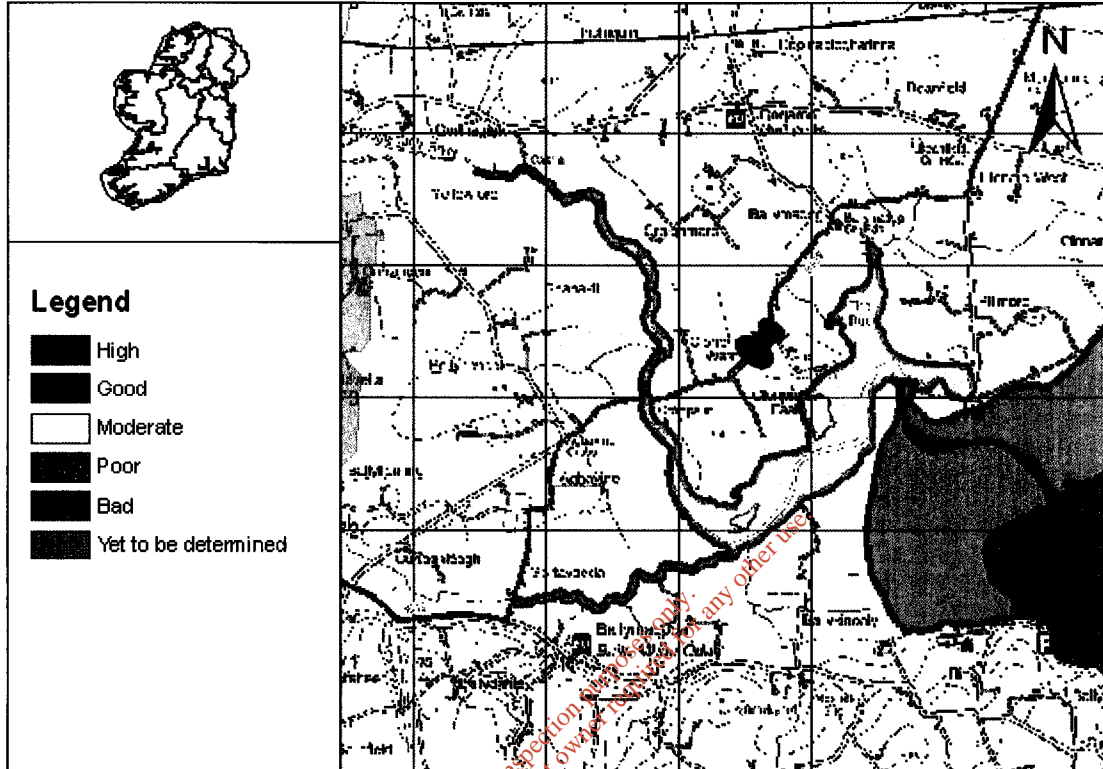
PS8	Supplementary Measure 8 - Upgrade the plant to remove specific substances known to impact on water quality status.	No
PS9	Supplementary Measure 9 - Install ultra-violet or similar type treatment.	No
PS10	Supplementary Measure 10 - Relocate the point of discharge.	No

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Date Reported to Europe: 22/12/2008

Date Report Created 17/08/2009

Full Report for Waterbody Womanagh Estuary



Date Reported to Europe: 22/12/2008

Date Report Created 17/08/2009

Summary Information:	
WaterBody Category:	Transitional Waterbody
WaterBody Name:	Womanagh Estuary
WaterBody Code:	IE_SW_030_0100
Overall Status:	Moderate
Overall Objective:	[REDACTED]
Overall Risk:	2b Not At Risk
Applicable Supplementary Measures:	Urban & Industrial; Report data based upon Draft RBMP, 22/12/2008.

south
western
river basin district



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Date Reported to Europe: 22/12/2008

Date Report Created 17/08/2009



Status Report

WaterBody Category: Transitional Waterbody
WaterBody Name: Womanagh Estuary
WaterBody Code: IE_SW_030_0100
Overall Status Result: Moderate



	Status Element Description	Result
EX	Status from Monitored or Extrapolated Waterbody	Extrapolated
	General Conditions	
DIN	Dissolved Inorganic Nitrogen	
MRP	Molybdate Reactive Phosphorus	
DO	Dissolved Oxygen as percent saturation	
BOD	Biochemical Oxygen Demand	
T	Temperature	
	Biological Elements	
PB	Phytoplankton - Phytoplankton	
PBC	Phytoplankton - PhytoBiomass (Chlorophyll)	
MA	Macroalgae	
RSL	Reduced Species List	
SG	Angiosperms - Seagrass and Saltmarsh	
BE	Benthic Invertebrates	
FI	Fish	
	HydroMorphology	
HY	Hydrology	
MO	Morphology	
	Specific Pollutants	
SP	Specific Relevant Pollutants (Annex VII)	
	Conservation Status	
CN	Conservation Status (Expert Judgement)	
	Protected Area Status	
PA	Overall Protected Area Status	

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Date Reported to Europe: 22/12/2008

Date Report Created 17/08/2009

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Overall Status	
ES	Ecological Status
CS	Chemical Status
O	Overall Ecological Status

Moderate

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Date Reported to Europe: 22/12/2008

Date Report Created 17/08/2009



Risk Report

WaterBody Category: Transitional Waterbody

WaterBody Name: Womanagh Estuary

WaterBody Code: IE_SW_030_0100

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

Risk Test Description	Risk
Point Risk Sources	
TP1 WWTPs (2008)	2b Not At Risk
TP2 CSOs	2b Not At Risk
TP3 IPPCs (2008)	2b Not At Risk
TP4 Section 4s (2008)	2b Not At Risk
TPO Overall Risk from Point Sources - Worst Case (2008)	2b Not At Risk
Hydrology	
THY1 Water balance - Abstraction	2b Not At Risk
Marine Direct Impacts	
TMDI Dangerous Substances 1	
TMDI OSPAR 2	
TMDI UWWT Regs Designations 3	
TMDI Marine Direct Impacts Overall - Worst Case O	
Point / MDI Worst Case	
TPOL Worst case of Point Overall and MDI Overall (MIMAS) Morphological Risk - Worst Case (2008)	2b Not At Risk
Overall Risk	
RA Transitional Overall - Worst Case (MIMAS) Morphological Risk - Worst Case (2008)	2b Not At Risk

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Date Reported to Europe: 22/12/2008
 Date Report Created 17/08/2009

Objectives Report

WaterBody Category: Transitional Waterbody
WaterBody Name: Womanagh Estuary
WaterBody Code: IE_SW_030_0100
Overall Objective: [REDACTED]



Objectives Description		Result
Objectives		
OB1	Objective 1 - Protected Areas	[REDACTED]
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	[REDACTED]
Deadline		
YR	Default Year by which the objective must be met	2015
OBO	Overall Objective and Deadline	[REDACTED]

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water matters

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Basic Measures Report

WaterBody Category: Transitional Waterbody

WaterBody Name: Womanagh Estuary

WaterBody Code: IE_SW_030_0100



Basic Measures Description		Applicable
Key Directives		
BA	Bathing Waters Directive	No
BI	Birds Directive	Yes
HA	Habitats Directive	Yes
DW	Drinking Waters Directive	No
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
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	No
DWS	Protection of drinking water sources	No
AB	Control of abstraction and impoundments	No
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 17/08/2009

Urban and Industrial Discharges Supplementary Measures Report

WaterBody Category: Transitional Waterbody

WaterBody Name: Womanagh Estuary

WaterBody Code: IE_SW_030_0100

south
western
water basin district



	Point discharges to waters from municipal and industrial sources	Result
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PB2	Basic Measure 2 - Optimise the performance of the waste water treatment plant by the implementation of a performance management system.	No
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PB6	Basic Measure 6 - Investigate contributions to the collection system of specific substances known to impact ecological status.	No
PB7	Basic Measure 7 - Upgrade WWTP to increase capacity.	No
PB8	Basic Measure 8 - Upgrade WWTP to provide nutrient removal treatment.	No
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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

Date Reported to Europe: 22/12/2008

Date Report Created 17/08/2009

water matters

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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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