


RIVER BASIN MONITORING PLAN

WATER FRAMEWORK DIRECTIVE 1ST CYCLE CLASSIFICATION SUMMARY

2009-2015

Transitional Heavily Modified Water Body
– Quoile Pondage

31/05/2015

RIVER BASIN MANAGEMENT PLAN	
 <p>Department of the Environment www.doeni.gov.uk Marine Environment Division</p>	<p>WFD TRANSITIONAL WATER BODY CLASSIFICATION Quoile Pondage</p>
	<p>Version Date: 31/05/2015</p>
<p>MONITORING & ASSESSMENT TEAM</p>	

QUOILE PONDAGE (TRANSITIONAL WATER)

Water body Information

- River Basin District: NE
- Water body type: Transitional Water 2 (TW2)
- Water Body Code: UKGBNI5NE130010
- Water body characteristics: Partly mixed/stratified, mesotidal, sand and mud, mesohaline
- Water body area: 0.59 km²
- Heavily Modified Water Body: Yes
- 2015 Classification Objective: Moderate Ecological Potential

<i>FINAL CLASSIFICATION</i>	MODERATE ECOLOGICAL POTENTIAL	<i>PASS/FAIL 2015 OBJECTIVE</i>	PASS
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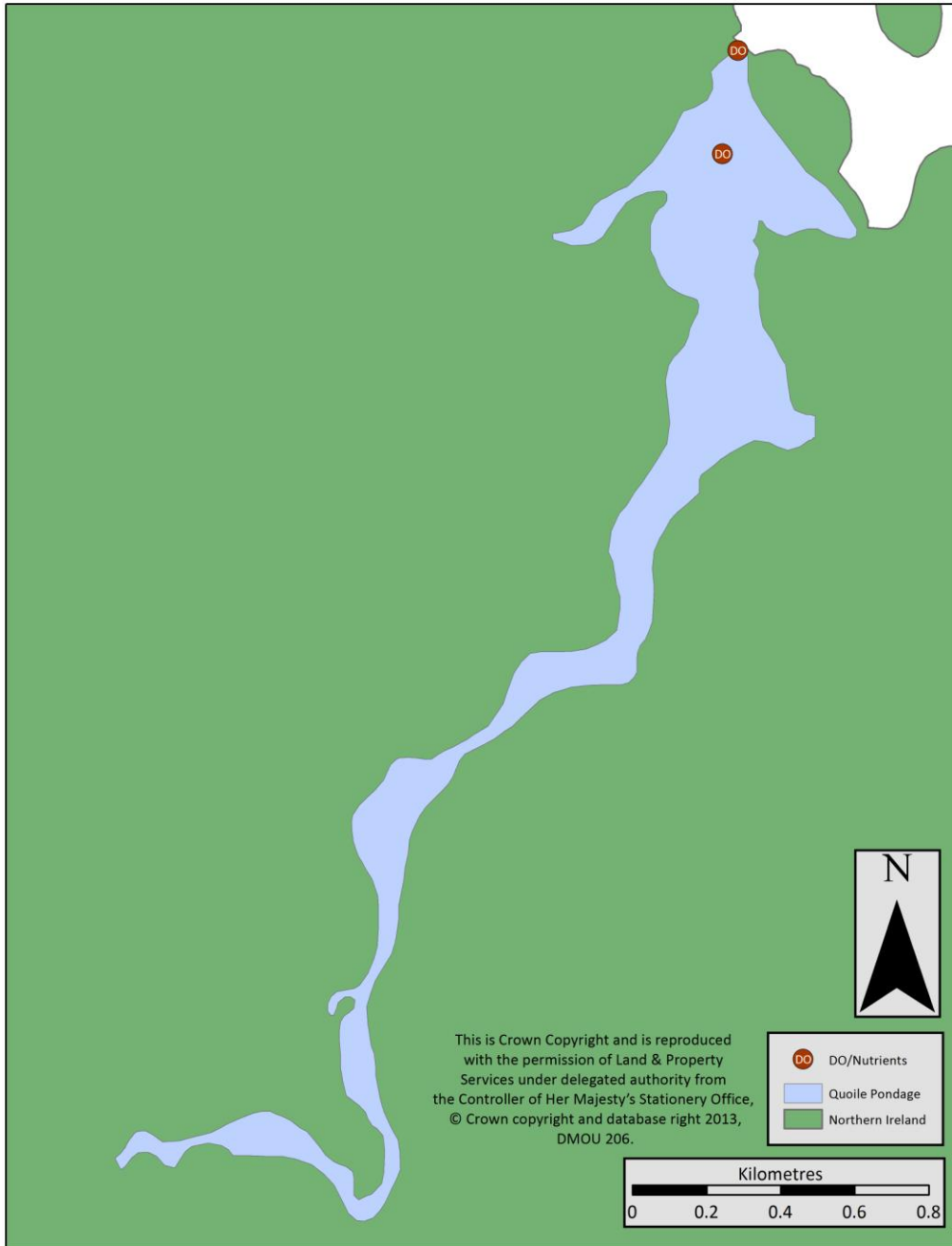


Figure 1: Waste water treatment pressures and monitoring points within Quoile Pondage (Transitional Water).

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Table 1: Parameters for which classification systems are available and have been used in this round of classification. Some biological assessment tools are not suitable for all water bodies due to habitat type.

Ecological Quality Element			
Main Element	Sub-Element	Applied	Comment
Plants	Macro Algae		
	- <i>Opportunistic Macroalgae</i>	<input checked="" type="checkbox"/>	Tool not applicable
	- <i>Reduced Species List</i>	<input checked="" type="checkbox"/>	Tool not applicable
	Angiosperms	<input checked="" type="checkbox"/>	Tool not applicable
	Phytoplankton	<input checked="" type="checkbox"/>	Tool under development
Benthic Invertebrates	Infaunal Quality Index	<input checked="" type="checkbox"/>	Tool under development
	Imposex	<input checked="" type="checkbox"/>	Tool not applicable
Fish	Transitional Fish Classification Index	<input checked="" type="checkbox"/>	No data available
Physico-Chemical	General Conditions		
	- <i>Dissolved Oxygen</i>	✓	
	- <i>Nutrients</i>	<input checked="" type="checkbox"/>	Tool not applicable (salinity)
	Specific Pollutants (Annex VIII subs)	✓	
Hydromorphological Quality Elements	SEPA Rapid Designation	✓	
	TraC MIMAS	✓	
Chemical Status			
Priority Hazardous Substances (Annex X)	Annex X Substances	✓	

Table 2: Sampling frequency for each quality element.

Monitoring Level: *Surveillance*

Quality Elements	Data years contributing to classification	No. of sites/samples
Physio-chemical		
Nutrients	TNA	
Dissolved Oxygen	2006-2010	253 daily averages
Specific Pollutants (Annex VIII subs)	2008-2009	
Hydromorphology	2007	
Water chemistry (Annex X)		
Priority Hazardous Substances	2008-2009	

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ANNEX A: Classification of Biological Quality Elements


QE: Phytoplankton – tool not applicable/ tool under development

QE Macrophytes: – tool not applicable/ tool under development

QE Angiosperms: – tool not applicable

QE: Benthic Invertebrates – tool under development

QE: Transitional Fish – no data available

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ANNEX B: Classification of physico-chemical Quality Elements: General

QE: Dissolved Oxygen

Dissolved oxygen assessment (+ data confidence):	MODERATE (M)	
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Classification tools: Comparison of 5% ile against reference standards

- Data Store: [..DO FIELD VALUES 2013 update.xls](#)
- Data Availability: 2006 – 2010.
- Data Source (spot & continuous samples): Spot & Continuous.

Thresholds:


WFD Status	Marine 5%ile	Objectives
HIGH	≥5.7 mg/L	All life stages of salmonids and transitional fish
GOOD	≥4.0 <5.7 mg/L	Presence of salmonids and transitional fish
MODERATE	≥2.4 <4.0 mg/L	Most life stages of non-salmonid adults
POOR	≥1.6 <2.4 mg/L	Presence of non-salmonids, poor survival of salmonids
BAD	<1.6 mg/L	No salmonids present, marginal survival of resident species

Results:

5% ile DO (mg/L)	Status	Data years	Data Quality	No. of daily averages	Data Coverage (proportion of possible months with data*)
2.94	Moderate	2006 - 2010	**	253	48.94%

* Proportion of possible months for which data are available

QE: Nutrients – N regulation – NO DATA.

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ANNEX C: Classification of physico-chemical quality elements: Other specific Pollutants

Specific pollutants assessment (+data confidence)	GOOD/HIGH	
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Classification tools: Comparison with EQS levels.


Data Availability:

Herbicides 2008 & 2009
 Marine BTEX 2008 & 2009
 Marine WFD monitoring 2008
 Marine Volatiles 2008

<G:\MARINE\Water Framework Directive\WFD ANNUAL CLASSIFICATION UPDATE 2012\Chemical Classification Results 2012>

Data confidence: Low – all below LOD or less than EQS

No Ammonia Data

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ANNEX D: Hydromorphological quality elements

Overall hydromorphology assessment	HMWB-GEP	
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Classification tools:

1. TRaC Hydromorphology metrics
2. MIMAS

Moderate ecological potential due to modifications to hydromorphology.

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ANNEX E: Chemical Status – Annex X Chemicals

Priority hazardous substances (+data confidence)	GOOD	
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Classification tools: Comparison with EQS levels.


Annex X: Overall Compliance	Pass
Annex X: Pass/Fail	Pass

Data Availability:

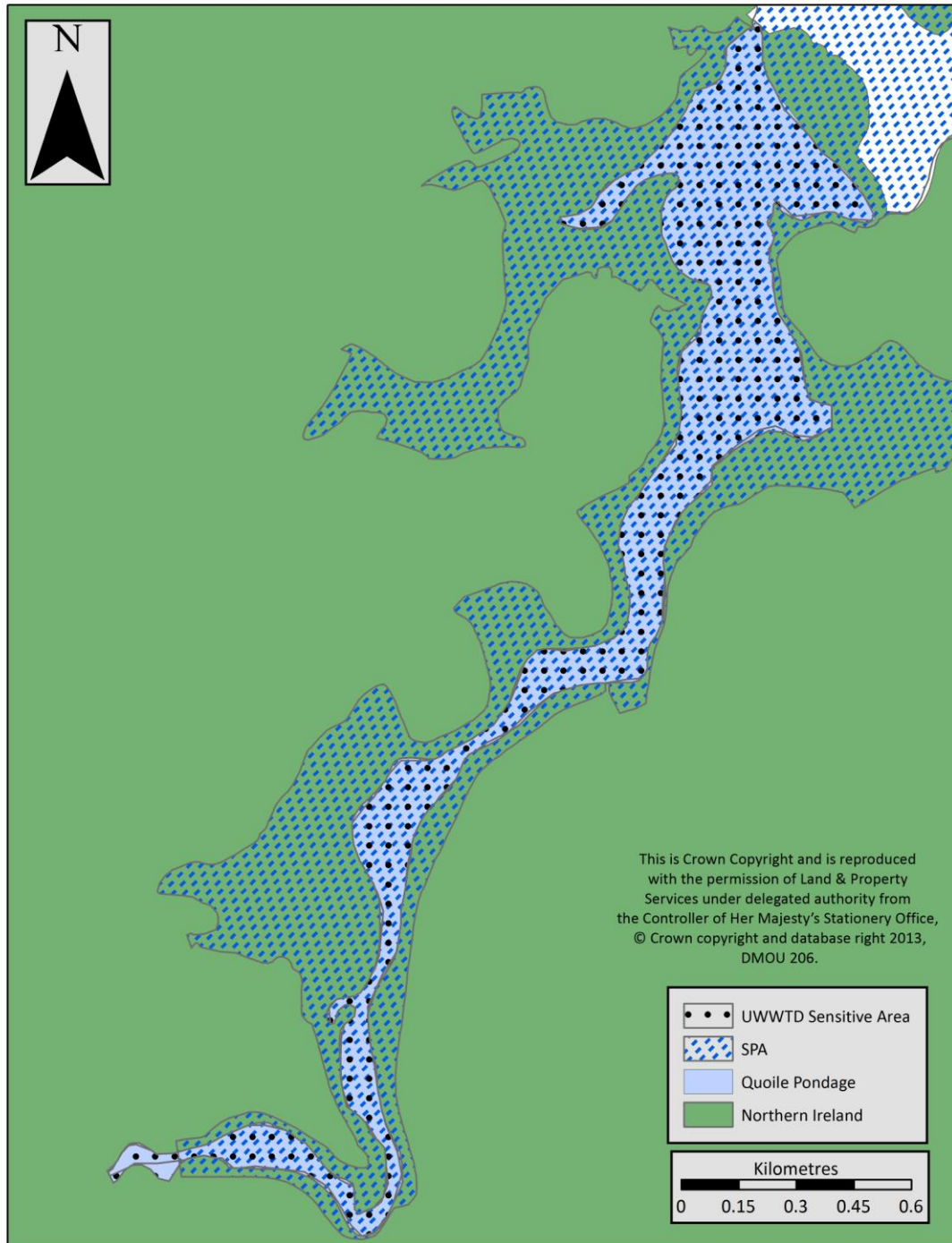
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Data confidence: Low – all below LOD or less than EQS

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ANNEX F: Protected Areas



Protected areas within Quoile Pondage (Transitional Water).

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The following Protected Areas are situated either wholly or partly within the Quoile Pondage water body:

Natura 2000 sites (Habitats Directive and Birds Directive):

Site Name	2014 Condition Status	Designated Water Dependant habitat/species	Feature(s) not meeting objective	Reason for not meeting objective
Strangford Lough SPA	Favourable	Bar tailed Godwit; Golden plover; Knot; Light bellied brent goose; Redshank; Shell duck; Water bird assemblage	None	n/a

Nitrates Directive/ Urban Waste Water Treatment Directive Sensitive Areas:

- Quoile Pondage UWWTD Sensitive Area

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ANNEX G: High Impact Invasive Species

QE High Impact Invasive Species assessment		NO DATA
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Ecoregion 17 Marine High Impact Invasive Species List

Phylum	Species	P	E	I	Record
<i>Chordata</i>	<i>Didemnum</i> spp.				
<i>Chordata</i>	<i>Styela clava</i>				
<i>Crustacea</i>	<i>Eriocheir sinensis</i>				
<i>Mollusca</i>	<i>Crassostrea gigas</i>				
<i>Mollusca</i>	<i>Crepidula fornicata</i>				
<i>Phaeophyceae</i>	<i>Sargassum muticum</i>				
<i>Angiosperms</i>	<i>Spartina anglica</i>				

P= Present; E= Established; I= Impacting

NB Established populations of high impact species automatically downgrade overall surface water classification from 'high' to 'good'.

Record should be inputted as follows. PO= personal observation outside of surveys; W= WFD survey; M= museum / institute records.

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GLOSSARY

AFBI	Agri-Food and Biosciences Institute (under contract to NIEA)
AMBI	AZTI Marine Biotic Index
Annex X	Annex 10 Priority Hazardous Substances
Annex VIII	Annex 8 Specific Pollutants
Article 5	Characterisation, typology, pressures and impacts analysis
ASSI	Area of Special Scientific Interest
DIN	Dissolved Inorganic Nitrogen
DO	Dissolved Oxygen
EQR	Ecological Quality Ratio
EQS	Ecological Quality Status
EUNIS	European Nature Information System
FSL	Full Species List
GEP	Good Ecological Potential
gH	Good/High
H/G/M/P/B	High/Good/Moderate/Poor/Bad (Classification Status)
H/M/L	High/Medium/Low (Confidence)
HMWB	Heavily Modified Water Body
IQI	Infaunal Quality Index
IRBD	International River Basin District
LOD	Limit of Detection
MBT	Macroalgal Blooming Tool
MEP	Moderate Ecological Potential
NB	Neagh Bann
ND	No data
NE	North Eastern
NEAGIG	North Eastern Atlantic Geographical Intercalibration Group
NIEA	Northern Ireland Environment Agency
N-regs	Nitrogen Regulation
NVZ	Nitrate Vulnerable Zone
NW	North Western
Physico-chem	Physical and chemical monitoring
RSL	Reduced Species List
SAC	Special Area of Conservation
SEPA	Scottish Environment Protection Agency
SPA	Special Protected Area
TNA	Tool Not Applicable
TraC MImAS	Transitional and Coastal Morphology Impact Assessment System
TUD	Tool Under Development
UKAS	United Kingdom Accreditation Service
UKTAG	United Kingdom Technical Advisory Group for Water Framework Directive
UNICORN	Database for marine organisms.
UWWTD	Urban Waste Water Treatment Directive (91/271/EEC)
VDSI	Vas Deferens Sequence Index
WFD	Water Framework Directive