

RIVER BASIN MONITORING PLAN

# WATER FRAMEWORK DIRECTIVE 1<sup>ST</sup> CYCLE CLASSIFICATION SUMMARY

2009-2015

Coastal Water Body – Dundrum Bay  
Outer

31/05/2015



An Agency within the Department of the  
**Environment**  
[www.doeni.gov.uk](http://www.doeni.gov.uk)




**INVESTORS  
IN PEOPLE**



[www.doeni.gov.uk/niea](http://www.doeni.gov.uk/niea)

Northern Ireland  
**Environment**  
Agency


 <p>Department of the <b>Environment</b> <a href="http://www.doeni.gov.uk">www.doeni.gov.uk</a> <b>Marine Environment Division</b></p>	<b>WFD COASTAL WATER BODY CLASSIFICATION</b> <b>Dundrum Bay Outer</b>	
	<b>Version Date:</b>	31/05/2015
	<b>MONITORING AND ASSESSMENT TEAM</b>	

**DUNDRUM BAY OUTER**

Water body Information

- River Basin District: North Eastern
- Water Body Code: UKGBNI6NE150
- Water body type: CW5
- Water body characteristics: Euhaline, mesotidal, moderately exposed
- Water body area: 59.43 km<sup>2</sup>
- Heavily Modified Water Body: No
- 2015 Classification Objective: Good

<b>FINAL CLASSIFICATION</b>	<b>GOOD</b>	<b>PASS/FAIL 2015 OBJECTIVE</b>	<b>PASS</b>
-----------------------------	-------------	-------------------------------------	-------------

 <p>Department of the <b>Environment</b> www.doeni.gov.uk <b>Marine Environment Division</b></p>	<b>WFD COASTAL WATER BODY CLASSIFICATION Dundrum Bay Outer</b>	
	<b>Version Date:</b>	31/05/2015
<b>MONITORING AND ASSESSMENT TEAM</b>		

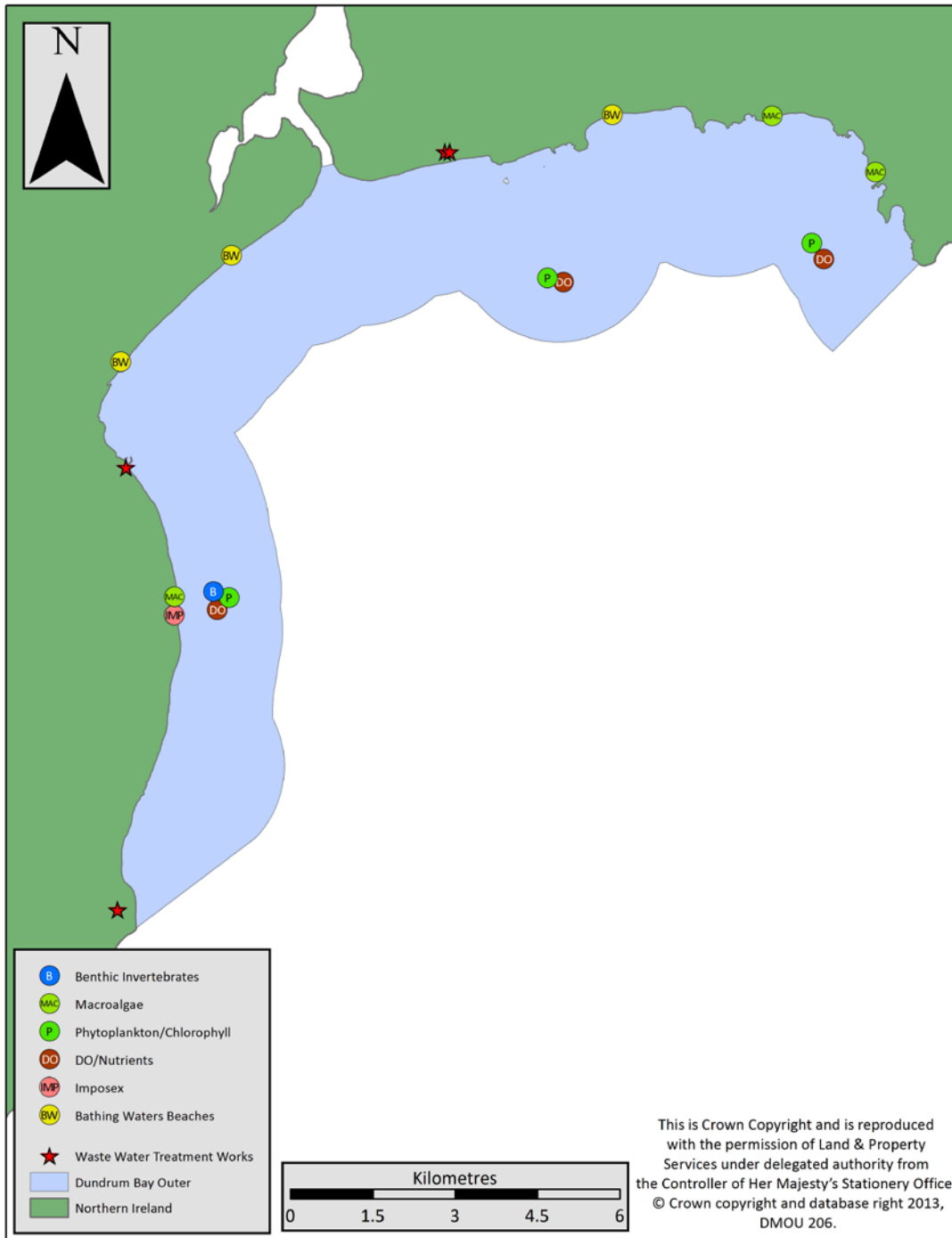


Figure 1: Waste water treatment pressures and monitoring points within Dundrum Bay Outer (Coastal Water).


 <p>Department of the <b>Environment</b> www.doeni.gov.uk <b>Marine Environment Division</b></p>	<b>WFD COASTAL WATER BODY CLASSIFICATION Dundrum Bay Outer</b>	
	<b>Version Date:</b>	31/05/2015
	<b>MONITORING AND ASSESSMENT TEAM</b>	

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.

<b>Ecological Quality Element</b>			
<b>Main Element</b>	<b>Sub-Element</b>	<b>Applied</b>	<b>Comment</b>
<b>Phytoplankton</b>	Biomass	✓	
	Elevated Taxa Count Index	✓	
<b>Macroalgae (Seaweeds)</b>	Opportunistic Macroalgae	☒	Tool Not Applicable
	Reduced Species List	✓	
<b>Angiosperms</b>	Saltmarsh	☒	Tool Not Applicable
	Seagrass	☒	Tool Not Applicable
<b>Benthic Invertebrates</b>	Infaunal Quality Index	✓	
	Imposex	✓	
<b>Physico-Chemical (Water)</b>	General Conditions		
	-Dissolved Oxygen	✓	
	-Nutrients	✓	
	Specific Pollutants ( Annex VIII subs)	☒	No data available
<b>Hydromorphological Quality Elements</b>	SEPA Rapid Designation	✓	
	TraC MIMAS	✓	
<b>Chemical Status</b>			
<b>Priority Hazardous Substances (Annex X)</b>	Annex X Substances	☒	No data available


 <p>Department of the <b>Environment</b> www.doeni.gov.uk <b>Marine Environment Division</b></p>	<b>WFD COASTAL WATER BODY CLASSIFICATION Dundrum Bay Outer</b>	
	<b>Version Date:</b>	31/05/2015
	<b>MONITORING AND ASSESSMENT TEAM</b>	

Table 2: Sampling frequency for each quality element.

*Monitoring Level: Surveillance*

Quality Elements		Data years contributing to classification	No. of sites/samples
<b>Biological</b>			
Phytoplankton	Chlorophyll Biomass Index	2009-2014	5 sites 22 samples
	Elevated Taxa Count Index	2009-2014	5 sites 21 samples
Macroalgae (Seaweeds)	RSL	2010, 2013	3 sites 6 surveys
Benthic Invertebrates	Infaunal Quality Index	2010-2013	1 site 18 samples
	Imposex	2010, 2013	1 site
<b>Physico-chemical</b>			
Nutrients		2010-2014	9 sites 25 samples
Dissolved Oxygen (DO)		2010-2014	41 daily averages
Other polluting substances (Annex VIII)		ND	
<b>Hydromorphology</b>		2007	
<b>Water chemistry</b>			
(Annex X)		ND	

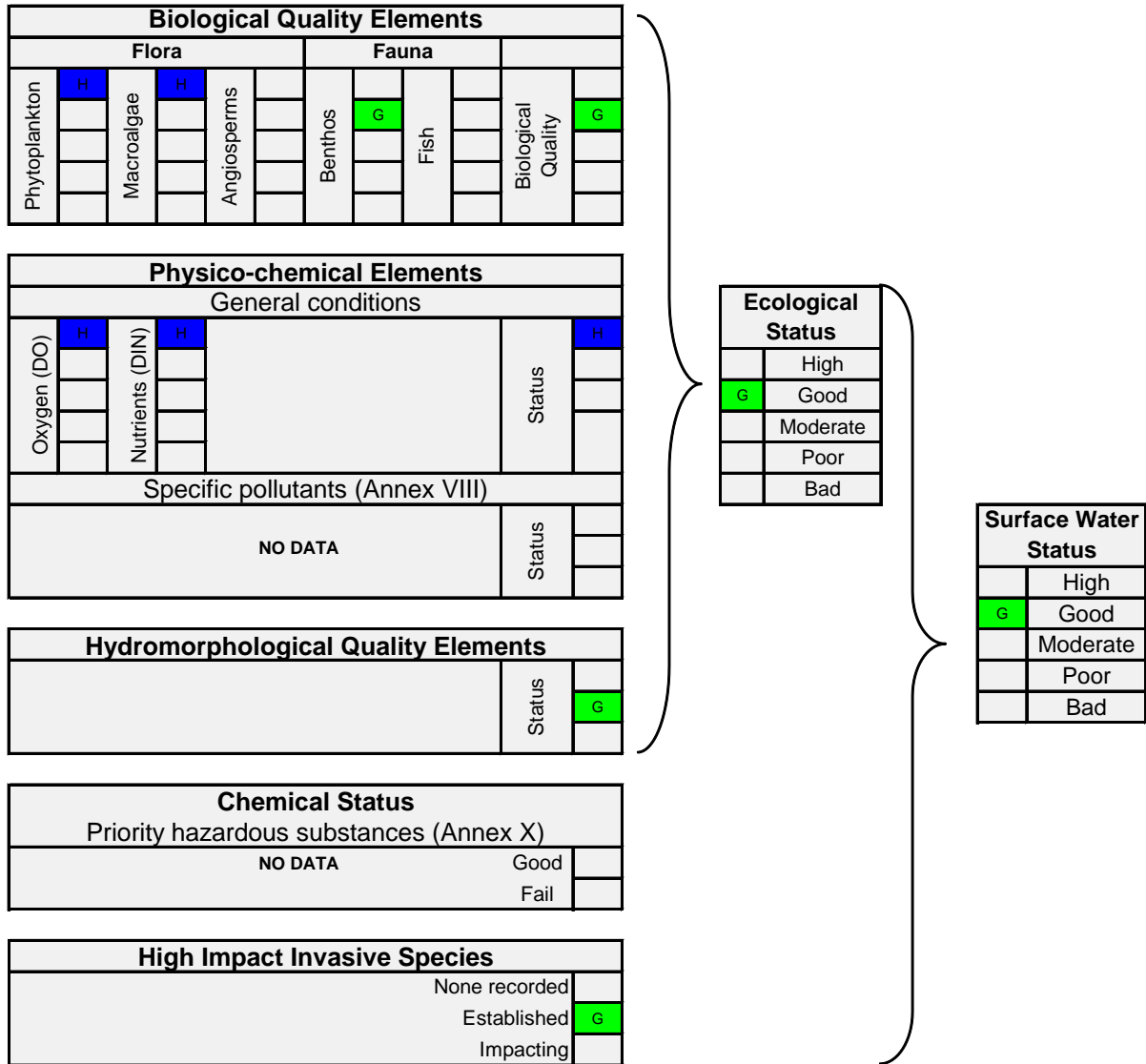



Figure 2: Overall classification of Dundrum Bay Outer (Coastal Water)

 <p>Department of the <b>Environment</b> www.doeni.gov.uk Marine Environment Division</p>	WFD COASTAL WATER BODY CLASSIFICATION Dundrum Bay Outer	
	Version Date:	31/05/2015
	MONITORING AND ASSESSMENT TEAM	

## ANNEX A: Classification of Biological Quality Elements

### QE: Phytoplankton

QE phytoplankton assessment (+ Data confidence):	<b>HIGH (94.3%)</b>	
--	---------------------	--

### ANNEX A: Classification of Biological Quality Elements

#### Classification tools:

1. Chlorophyll biomass index (90%ile)
2. Elevated taxa count index- not applied

**Data store (classification):** [M:\Projects\\_14\Phycology\\_2014\MM14-14\\_Phytoplankton and Chlorophyll\classification\\_15\Coastal\\_data\DUNDRUM OUTER 2015 - Copy - Copy.XLS](M:\Projects_14\Phycology_2014\MM14-14_Phytoplankton_and_Chlorophyll\classification_15\Coastal_data\DUNDRUM OUTER 2015 - Copy - Copy.XLS)

[M:\Projects\\_14\Phycology\\_2014\MM14-14\\_Phytoplankton and Chlorophyll\classification\\_15\Coastal\\_data\Dundrum Bay Outer 90th Percentile.xls](M:\Projects_14\Phycology_2014\MM14-14_Phytoplankton_and_Chlorophyll\classification_15\Coastal_data\Dundrum Bay Outer 90th Percentile.xls)

- **Data Availability (spot & continuous samples):**

Phytoplankton = NA  
Chl = spot (2009-2014) NIEA

1. *Chlorophyll Biomass Index - 90%ile (Chl  $\mu\text{g l}^{-1}$ )*  
(Growing Season 1<sup>st</sup> Mar – 31<sup>st</sup> Oct)

Waterbody Chl. biomass assessment

**GOOD (62.0%)**

#### Thresholds:

Water Ref. Area		Status				
		High	Good	Moderate	Poor	Bad
North/Irish Sea	Chl $\mu\text{g l}^{-1}$	<5	5-10	10-15	15-20	>20
	EQR	0 -1.0	1.0-0.8	0.8-0.6	0.6-0.4	0.4-0.2


#### Results:

90%ile	Status	EQR	Data Years	No. of Sites	No. of Samples	Data Confidence
5.10	<b>GOOD</b>	0.8	2009,10,13,14	5	22	62.0%

**Data confidence: 62.0%**

Temporal spread of data is low as the waterbody wasn't sampled in 2011 and 2012, EQR calculated on low amount of samples.

Data analysed using [M:\Projects\\_14\Phycology\\_2014\MM14-14\\_Phytoplankton and Chlorophyll\classification\\_15\2015CW\\_Phytoplankton CoC tool v107 UKTAG.xls](M:\Projects_14\Phycology_2014\MM14-14_Phytoplankton_and_Chlorophyll\classification_15\2015CW_Phytoplankton_CoC_tool_v107_UKTAG.xls)

 <p>Department of the <b>Environment</b> www.doeni.gov.uk Marine Environment Division</p>	<b>WFD COASTAL WATER BODY CLASSIFICATION Dundrum Bay Outer</b>	
	Version Date:	31/05/2015
	<b>MONITORING AND ASSESSMENT TEAM</b>	

## 2. Elevated Taxa Count Index Waterbody Elevated Taxa Assessment

### Thresholds:

Tool	Thresholds	
	North/Irish Sea	Atlantic
I <sub>1</sub> - Individual Species Count (excl. Phaeocystis) (%)	500,000 (cells l <sup>-1</sup> )	
I <sub>2</sub> - Total Taxa Count (%)	10 <sup>7</sup> (cells l <sup>-1</sup> )	
I <sub>3</sub> - Elevated Biomass Count (%)	>10 (µg l <sup>-1</sup> )	>5 (µg l <sup>-1</sup> )

### EQR Boundaries:

% exceedances (Face value range)	Metric range (0-1)	Class
0 - <10	≥0.8 - 1.0	High
≥10 - < 20	≥0.6 - < 0.8	Good
≥20 - < 40	≥0.4 - < 0.6	Moderate
≥40 - <60	≥0.2 - < 0.4	Poor
≥60 - 100	≥0 - < 0.2	Bad

### Results % Exceedence:

I <sub>1</sub>	I <sub>2</sub>	I <sub>3</sub>	Elevated Count EQR	Status	Data Years	No. of phytoplank ton samples	Data confidence
9.5%	0%	0%	0.937	HIGH	2009-2014	21	91.5%

Data confidence: 93.5%


Data analysed using [M:\Projects 14\Phycology 2014\MM14-14 Phytoplankton and Chlorophyll\classification 15\2015CW Phytoplankton CoC tool v10.7 UKTAG.xls](#)

Presence of alien/ nuisance species: *none*

### Overall Waterbody Status

HIGH (94.3%)



 <p>Department of the <b>Environment</b> www.doeni.gov.uk Marine Environment Division</p>	<b>WFD COASTAL WATER BODY CLASSIFICATION Dundrum Bay Outer</b>	
	<b>Version Date:</b>	31/05/2015
	<b>MONITORING AND ASSESSMENT TEAM</b>	

**QE: Macroalgae: Dundrum Bay Outer**

<b>QE macroalgal assessment (+ data confidence):</b>	<b>HIGH (94.6%)</b>	
--	---------------------	--

**Classification tools:**

1. Reduced species list (RSL),
2. Macroalgal Blooming Tool (MBT), not applicable.
3. Angiosperms, not applicable.

**1. RSL assessment:**


- Data Availability (classification): 2010 – 3 sites, 2013 – 3 sites
- Data Store [M:\Projects\\_14\Phycology\\_2014\MM14-12 Intertidal Rocky Shore\FSL-RSL Classification update 2015 \(09-14\)\Datasheet.xls](#)

**• Boundaries:**

Parameters	Quality Status	Bad	Poor	Moderate	Good	High
	Sub-metric quality status	0.0 – 0.2	0.21 – 0.4	0.41 – 0.6	0.61 – 0.8	0.81 – 1.0
Species richness (adj. for shore)		0 – 3	3 – 10	10 – 20	20 – 34	34 – 68
Proportion of Chlorophyta (% G)		80 – 100	45 – 80	30 – 45	20 – 30	0 – 20
Proportion of Rhodophyta (% R)		0 – 10	10 – 25	25 – 35	35 – 45	45 – 100
Ecological Status Group ratio (ESG)		0.0 – 0.2	0.2 – 0.4	0.4 – 0.6	0.6 – 0.8	0.8 – 1.2
Proportion of opportunists (% opp)		50 – 100	35 – 50	25 – 35	15 – 25	0 – 15

**Results**

Shore	Sub-Metric EQR							RSL EQR	Status
	Shore desc.	Sp. richness	Adj. Sp. Richness	% G	% R	ESG	% Opp		
Corels Pt 2010	13	49	55.9	16.3	57.1	1.23	8.16	0.889	HIGH
Bloody Bridge 2010	14	40	42.8	17.5	47.5	0.74	15.0	0.765	GOOD
Ringmore Point 2010	14	46	49.22	15.2	50.0	1.19	10.8	0.863	HIGH
Bloody Bridge 2013	16	42	39.06	14.29	52.38	1	7.14	0.85	HIGH
Ringmore Point 2013	18	56	44.8	16.07	48.2	52.7	10.9	0.8	HIGH
Corels Point 2013	14	55	58.85	12.73	52.73	0.96	10.91	0.86	HIGH
<b>Mean</b>								<b>0.839 +/- 0.046</b>	<b>HIGH</b>

 <p>Department of the <b>Environment</b> www.doeni.gov.uk <b>Marine Environment Division</b></p>	<b>WFD COASTAL WATER BODY CLASSIFICATION</b> Dundrum Bay Outer	
	<b>Version Date:</b>	31/05/2015
	<b>MONITORING AND ASSESSMENT TEAM</b>	


### Macroalgae (cont'd)

#### Confidence of Classification: High (94.6%)

- Data analysed for Confidence of Class using [M:\Projects 14\Phycology 2014\MM14-12 Intertidal Rocky Shore\PIRATES v04 - Class update 2015 \(09-14\) for UKTAG.xls](#)
- Standard Deviation ( $\pm$ ) is included with the mean EQR.
- Data QA (expert team).
- WFD specific data (reduced species list completed; FSL not yet carried out).
- Three shores (good spatial coverage) over two years (moderate temporal trend assessment).

**Alien taxa:** None present.

**QE: Angiosperms Dundrum Outer – tool not applicable**

 <p>Department of the <b>Environment</b> www.doeni.gov.uk Marine Environment Division</p>	<b>WFD COASTAL WATER BODY CLASSIFICATION</b> Dundrum Bay Outer	
	Version Date:	31/05/2015
	<b>MONITORING AND ASSESSMENT TEAM</b>	

**QE: Benthic Invertebrates**

<b>QE benthic invertebrate assessment (+ Data confidence):</b>	<b>GOOD (L)</b>	
--	-----------------	--

Classification tools: 1. Infaunal Quality Index (IQI) – good no data.  
2. Imposex tool (VDSI).

**1. IQI (UKTAG v01 20140228)**

Water body IQI assessment:

**Good (Low)**

WFD surveillance monitoring:

- **Data store:** [..\Dundrum bay Outer water body\Dundrum Bay Outer waterbody 08-13 fauna data 1mm.xlsx](#)
- **Benthic invertebrates** UNICORN (NMMT) Database
- **Supporting Parameters** Water Quality Data Set
- **Digital images** AMAP Project folder
- **Data Availability (classification):** 1 site, 5 & 3 reps, 4 years, Day Grab, 1 mm sieve, n=18.

**Boundaries (Intercalibrated NEAGIG):**

Class	Bad	Poor	Moderate	Good	High
<b>IQI</b>	>0.0 ≤0.24	≥0.24 <0.44	≥0.44 <0.64	≥0.64 <0.75	≥0.75

**Results:**


Year	Survey	Station	N	Annual Mean	Annual ± S.D	Status
2010	MM-Benthos	BLBR (3)	3	0.70	0.01	Good
2011	MM-Benthos	BLBR (5)	5	0.70	0.02	Good
2012	MM-Benthos	BLBR (5)	5	0.69	0.02	Good
2013	MM-Benthos	BLBR (5)	5	0.71	0.02	Good
2014	MM-Benthos	BLBR (5)	-	-	-	-
2015	MM-Benthos	BLBR (5)	-	-	-	-
<b>Overall 6 year waterbody means</b>			<b>4.5</b>	<b>0.70 (0.68*)</b>	<b>0.02</b>	<b>Good</b>

\* IQI derived from data averaged minus Standard Deviation (see issues with tools paper).  
This figure is used for classification.

**Data confidence:**

**Low**

- Sample analysis QA'd through NMBAQC (Good)
- Database QA'd (Good)
- No specific WFD data (single points with reps)

 <p>Department of the <b>Environment</b> www.doeni.gov.uk <b>Marine Environment Division</b></p>	<b>WFD COASTAL WATER BODY CLASSIFICATION Dundrum Bay Outer</b>	
	<b>Version Date:</b>	31/05/2015
	<b>MONITORING AND ASSESSMENT TEAM</b>	

## 2. VDSI (*Nucella lapillus*)

Waterbody VDSI assessment:

**High (M)**

- **Data store:** [..\\..\\BIOEFFECTS\\Imposex\\Imposex\\_2013\\Report\\IMPOSEX MASTER DATA SHEET TEMPLATE.xls](#)
- **Data availability:** 2004/2007/2010/2013 NI survey

### Boundaries:

Class	Good	High
VDSI	≥0.3 to <4.0	<0.3
EQR	≥0.34 to <0.95	≥0.95


### Results:

Year	Shore	VDSI	EQR	Status
2013	Bloody Bridge	0.00	1.00	High
	<b>Mean</b>	<b>0.00</b>		<b>High</b>

### Data confidence:

**Medium**

- Sample analysis QA through QUASIMEME (High)
- <3 sites (Medium)

 <p>Department of the <b>Environment</b> www.doeni.gov.uk <b>Marine Environment Division</b></p>	<b>WFD COASTAL WATER BODY CLASSIFICATION</b> Dundrum Bay Outer	
	<b>Version Date:</b>	31/05/2015
	<b>MONITORING AND ASSESSMENT TEAM</b>	

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

### QE: Dissolved Oxygen

<b>Dissolved oxygen (+ data confidence):</b>	<b>HIGH (High 100%)</b>	
--	-------------------------	--

Classification tools: Comparison of 5% ile against reference standards

- Data Availability: 2010-14.
- Data Store: [..\DO Classification 2012\Shortcut to DO FIELD VALUES 2006 -2010.lnk](#)
- Data Availability (spot & continuous samples): Spot


### 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*)
7.92	HIGH	2010-14	**	41	18.6%

\* Proportion of possible months for which data are available

 <p>Department of the <b>Environment</b> www.doeni.gov.uk Marine Environment Division</p>	<b>WFD COASTAL WATER BODY CLASSIFICATION</b> Dundrum Bay Outer	
	Version Date:	31/05/2015
	<b>MONITORING AND ASSESSMENT TEAM</b>	

**QE: Nutrients – N regulation**

<b>QE N regulation assessment (+ Data confidence):</b>	<b>HIGH (100%)</b>	
--	--------------------	--

- **Data store:** [..\Coastal WB inc AFBI 15.xls](#)
- **Data Availability:** 2010 to 2014  
DIN & salinity (Nov to Feb)
- **Data Source (spot & continuous samples):** spot and continuous

**Thresholds:**


Area	Salinity range	DIN (uM) Winter mean H	DIN (uM) Winter mean G	DIN (uM) Winter mean M
Coastal  (at salinity 32)	30-34.5	<12	12-18	18 +

**Results:**

Mean Winter DIN (uM) (Avg DIN)*	Winter DIN Daily average (n)	No. of samples (n)	No. of sites	Data Years	Data Quality	Status
8.06	0	25	9 (inc con mon)	2010- 2014	Database not yet QA'd	<b>HIGH</b>

\*Average DIN used as  $r^2$  value of regression model is less than 0.75

**Data confidence source:** [..\CofCDINth.xlsx](#)


 <p>Department of the <b>Environment</b> <a href="http://www.doeni.gov.uk">www.doeni.gov.uk</a> <b>Marine Environment Division</b></p>	<b>WFD COASTAL WATER BODY CLASSIFICATION</b> Dundrum Bay Outer	
	<b>Version Date:</b>	31/05/2015
	<b>MONITORING AND ASSESSMENT TEAM</b>	

**ANNEX C: Classification of physico-chemical quality elements: Specific Pollutants  
(Annex VIII)**

<b>Specific pollutants assessment (+data confidence)</b>	<b>NO DATA</b>	
--	----------------	--

**Classification tools:** Comparison with EQS levels.

**Data Availability:** No data.

 <p>Department of the <b>Environment</b> <a href="http://www.doeni.gov.uk">www.doeni.gov.uk</a> <b>Marine Environment Division</b></p>	<b>WFD COASTAL WATER BODY CLASSIFICATION</b> Dundrum Bay Outer	
	<b>Version Date:</b>	31/05/2015
	<b>MONITORING AND ASSESSMENT TEAM</b>	


**ANNEX D: Hydromorphological quality elements**

Overall hydromorphology assessment	gH	
------------------------------------	----	--

Classification tools:

1. TRaC Hydromorphology metrics
2. MIMAS



 <p>Department of the <b>Environment</b> www.doeni.gov.uk <b>Marine Environment Division</b></p>	<b>WFD COASTAL WATER BODY CLASSIFICATION Dundrum Bay Outer</b>	
	<b>Version Date:</b>	31/05/2015
	<b>MONITORING AND ASSESSMENT TEAM</b>	


**ANNEX E: Chemical Status – Annex X Chemicals**

<b>Priority hazardous substances (+data confidence)</b>	<b>NO DATA</b>	
---	----------------	--

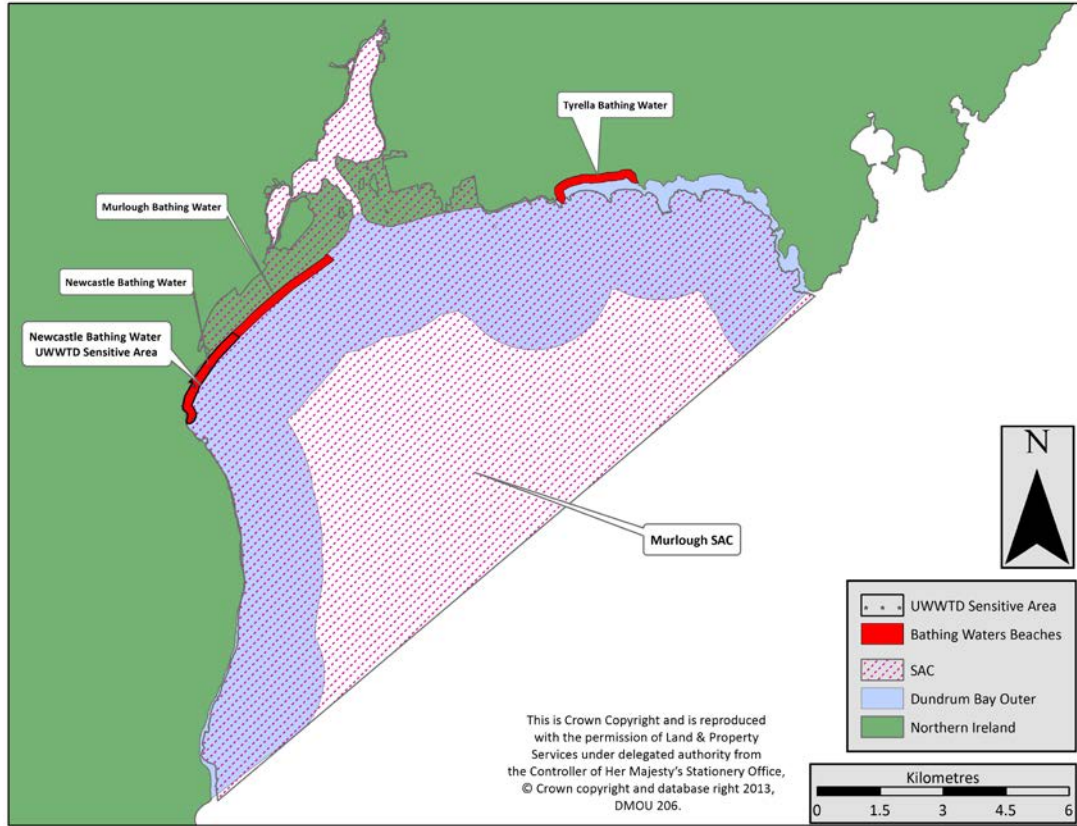
<b>Annex X: Overall Compliance</b>	No data
<b>Annex X: Pass/Fail</b>	No data

**Classification tools:** Comparison with EQS levels


**Data Availability:** No data.

 <p>Department of the <b>Environment</b> www.doeni.gov.uk <b>Marine Environment Division</b></p>	<b>WFD COASTAL WATER BODY CLASSIFICATION Dundrum Bay Outer</b>	
	<b>Version Date:</b>	31/05/2015
<b>MONITORING AND ASSESSMENT TEAM</b>		

### ANNEX F: Protected Areas



Protected areas within Dundrum Bay Outer (Coastal Water).

 <p>Department of the <b>Environment</b> www.doeni.gov.uk Marine Environment Division</p>	<b>WFD COASTAL WATER BODY CLASSIFICATION</b> <b>Dundrum Bay Outer</b>	
	<b>Version Date:</b>	31/05/2015
<b>MONITORING AND ASSESSMENT TEAM</b>		

The following Protected Areas are situated either wholly or partly within the Dundrum Bay Outer 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
Murlough SAC	Unfavourable	<p>Atlantic Decalcified fixed dunes (<i>Calluno-Ulicetea</i>);</p> <p>Fixed dunes with herbaceous vegetation ('grey dunes');</p> <p>Atlantic salt meadows (<i>Glauco-Puccinellitalia maritima</i>);</p> <p>Mudflats and sandflats not covered by seawater at low tide;</p> <p><i>Phoca vitulina</i>,</p> <p>Sandbanks which are slightly covered by seawater all the time</p> <p>Dunes with <i>Salix repens</i> ssp. <i>argentea</i> (<i>Salicion arenariae</i>)</p> <p>Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ('white dunes')</p>	<p>Atlantic decalcified fixed dunes (<i>Calluno-Ulicetea</i>)</p> <p>Mudflats and sandflats not covered by seawater at low tide</p> <p>Fixed dunes with herbaceous vegetation ('grey dunes')</p> <p>Atlantic salt meadows (<i>Glauco-Puccinellitalia maritima</i>)</p> <p>Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ('white dunes')</p> <p>Dunes with <i>Salix repens</i> ssp. <i>argentea</i> (<i>Salicion arenariae</i>)</p>	<p>Mudflats and sandflats: Loss of <i>Zostera</i>, smothering from opportunistic green algae and invasive species.</p> <p>All other features non marine water quality related.</p>

**Bathing Waters Directive Beaches:**

Beach	2011-2014 Revised Bathing Waters Classification
Tyrella	Excellent
Murlough	Excellent
Newcastle	Good

**Nitrates Directive/ Urban Waste Water Treatment Directive Sensitive Areas:**

- Newcastle Bathing Water UWWTD Sensitive Area

 <p>Department of the <b>Environment</b> www.doeni.gov.uk Marine Environment Division</p>	<b>WFD COASTAL WATER BODY CLASSIFICATION</b> <b>Dundrum Bay Outer</b>	
	<b>Version Date:</b>	31/05/2015
	<b>MONITORING AND ASSESSMENT TEAM</b>	

### ANNEX G: High Impact Invasive Species

QE High Impact Invasive Species assessment	<b>GOOD</b>
--	-------------


#### Ecoregion 17 Marine High Impact Invasive Species List

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

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.

 <p>Department of the <b>Environment</b> www.doeni.gov.uk <b>Marine Environment Division</b></p>	<b>WFD COASTAL WATER BODY CLASSIFICATION</b> Dundrum Bay Outer	
	<b>Version Date:</b>	31/05/2015
<b>MONITORING AND ASSESSMENT TEAM</b>		

## GLOSSARY

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