European Community Directive
on the Conservation of Natural Habitats
and of Wild Fauna and Flora
(92/43/EEC)

Fourth Report by the United Kingdom
under Article 17

on the implementation of the Directive
from January 2013 to December 2018

Supporting documentation for the
conservation status assessment for the habitat:

H1130 - Estuaries

NORTHERN IRELAND

IMPORTANT NOTE - PLEASE READ

- The information in this document is a country-level contribution to the UK Report on the conservation status of this habitat, submitted to the European Commission as part of the 2019 UK Reporting under Article 17 of the EU Habitats Directive.

- The 2019 Article 17 UK Approach document provides details on how this supporting information was used to produce the UK Report.

- The UK Report on the conservation status of this habitat is provided in a separate document.

- The reporting fields and options used are aligned to those set out in the European Commission guidance.

- Explanatory notes (where provided) by the country are included at the end. These provide an audit trail of relevant supporting information.

- Some of the reporting fields have been left blank because either: (i) there was insufficient information to complete the field; (ii) completion of the field was not obligatory; and/or (iii) the field was only relevant at UK-level (sections 10 Future prospects and 11 Conclusions).

- For technical reasons, the country-level future trends for Range, Area covered by habitat and Structure and functions are only available in a separate spreadsheet that contains all the country-level supporting information.

- The country-level reporting information for all habitats and species is also available in spreadsheet format.

Visit the JNCC website, https://jncc.gov.uk/article17, for further information on UK Article 17 reporting.

Report on the main results of the surveillance under Article 17 for Annex I habitat types (Annex D)

NATIONAL LEVEL	

1. General information

1.1 Member State	UK (Northern Ireland information only)
1.2 Habitat code	1130 - Estuaries

2. Maps

2.1 Year or period	2013-2018
2.3 Distribution map	Yes
2.3 Distribution map Method used	Based mainly on extrapolation from a limited amount of data
2.4 Additional maps	No

BIOGEOGRAPHICAL LEVEL	

3. Biogeographical and marine regions

3.1 Biogeographical or marine region where the habitat occurs	**Marine Atlantic (MATL)**
3.2 Sources of information	DAERA, 2015, Changes to Northern Ireland Marine Transitional and Coastal Water Body Boundaries for the Water Framework Directive Second Monitoring Cycle.

DAERA, Procedure for Import requests for Mussels for relaying.

DAERA, Procedure for Inspection of Mussels for Alien Species of Concern https://www.daera-ni.gov.uk/sites/default/files/publications/doe/Technical Supporting Document - Management of Protected areas under the Water Framework Directive.PDF

http://niopa.qub.ac.uk/bitstream/NIOPA/1095/1/proposed-changes-to-water-body-boundaries-2015.pdf

https://www.daera-ni.gov.uk/sites/default/files/publications/doe/water-report-north-eastern-river-basin-plan-2015.pdf

https://www.daera-ni.gov.uk/sites/default/files/publications/doe/water-report-north-western-river-basin-plan-2015.pdf

https://www.daera-ni.gov.uk/sites/default/files/publications/doe/water-report-neagh-bann-river-basin-plan-2015.pdf

https://www.daera-ni.gov.uk/sites/default/files/publications/doe/delivering-the-programme-of-measures-in-the-river-basin-management-plans.PDF

Autumn 2016 Coastwatch Survey Results, Island of Ireland. Part 1-Coast Character, Biodiversity and Water Quality.

JNCC, 2013. Estuaries H1130 in NORTHERN IRELAND, 3rd Reporting Cycle. http://jncc.defra.gov.uk/pdf/Article17Consult_20131010/H1130_NORTHERNIRELAND.pdf

DAERA, 2013. Lough Foyle SPA: Monitoring Report 2013. Internal condition assessment document.

DAERA, 2017. River Basin Management Plan WFD 2nd Cycle Classification Summary-Foyle Harbour and Faughan HMWB. Internal Document

DAERA, 2017. River Basin Management Plan WFD 2nd Cycle Classification Summary-Newry River HMWB. Internal Document

DAERA, 2017. River Basin Management Plan WFD 2nd Cycle Classification Summary-Lagan Estuary HMWB. Internal Document

DAERA, 2017. River Basin Management Plan WFD 2nd Cycle Classification Summary-Bann Estuary HMWB. Internal Document

Report on the main results of the surveillance under Article 17 for Annex I habitat types (Annex D)

4. Range

4.1 Surface area (in km²)	5.36	
4.2 Short-term trend Period		
4.3 Short-term trend Direction	Stable (0)	
4.4 Short-term trend Magnitude	a) Minimum	b) Maximum
4.5 Short-term trend Method used		
4.6 Long-term trend Period		
4.7 Long-term trend Direction		
4.8 Long-term trend Magnitude	a) Minimum	b) Maximum
4.9 Long-term trend Method used		
4.10 Favourable reference range	a) Area (km²)	
	b) Operator	
	c) Unknown No	
	d) Method	
4.11 Change and reason for change in surface area of range	Improved knowledge/more accurate data	
	The change is mainly due to: Improved knowledge/more accurate data	
4.12 Additional information		

5. Area covered by habitat

5.1 Year or period	2013-2018		
5.2 Surface area (in km²)	a) Minimum 5.36	b) Maximum 5.36	c) Best single value 5.36
5.3 Type of estimate	Best estimate		
5.4 Surface area Method used	Based mainly on extrapolation from a limited amount of data		
5.5 Short-term trend Period	2013-2018		
5.6 Short-term trend Direction	Stable (0)		
5.7 Short-term trend Magnitude	a) Minimum	b) Maximum	c) Confidence interval
5.8 Short-term trend Method used	Based mainly on extrapolation from a limited amount of data		
5.9 Long-term trend Period			
5.10 Long-term trend Direction			
5.11 Long-term trend Magnitude	a) Minimum	b) Maximum	c) Confidence interval
5.12 Long-term trend Method used			
5.13 Favourable reference area	a) Area (km²)		
	b) Operator		
	c) Unknown No		
	d) Method		
5.14 Change and reason for change in surface area of range	Improved knowledge/more accurate data		
	The change is mainly due to: Improved knowledge/more accurate data		
5.15 Additional information			

6. Structure and functions

6.1 Condition of habitat	a) Area in good condition (km²)	Minimum 0	Maximum 0

Report on the main results of the surveillance under Article 17 for Annex I habitat types (Annex D)

	b) Area in not-good condition (km²)	Minimum	5.36	Maximum	5.36
	c) Area where condition is not known (km²)	Minimum	0	Maximum	0

6.2 Condition of habitat Method used	Based mainly on extrapolation from a limited amount of data
6.3 Short-term trend of habitat area in good condition Period	2009-2018
6.4 Short-term trend of habitat area in good condition Direction	Stable (0)
6.5 Short-term trend of habitat area in good condition Method used	Based mainly on extrapolation from a limited amount of data
6.6 Typical species	Has the list of typical species changed in comparison to the previous reporting period? No
6.7 Typical species Method used	
6.8 Additional information	

7. Main pressures and threats

7.1 Characterisation of pressures/threats

Pressure	Ranking
Use of other pest control methods in agriculture (excluding tillage) (A23)	H
Agricultural activities generating marine pollution (A28)	M
Illegal harvesting, collecting and taking (G11)	M

Threat	Ranking
Use of other pest control methods in agriculture (excluding tillage) (A23)	H
Agricultural activities generating marine pollution (A28)	M
Development and operation of energy production plants (including bioenergy plants, fossil and nuclear energy plants) (D05)	M
Shipping lanes, ferry lanes and anchorage infrastructure (e.g. canalisation, dredging) (E03)	M
Land, water and air transport activities generating marine pollution (E07)	M
Illegal harvesting, collecting and taking (G11)	M
Other invasive alien species (other then species of Union concern) (I02)	M

7.2 Sources of information	
7.3 Additional information	

8. Conservation measures

8.1 Status of measures	a) Are measures needed?	Yes
	b) Indicate the status of measures	Measures identified and taken

Report on the main results of the surveillance under Article 17 for Annex I habitat types (Annex D)

8.2 Main purpose of the measures taken	Maintain the current range, population and/or habitat for the species
8.3 Location of the measures taken	Both inside and outside Natura 2000
8.4 Response to the measures	Long-term results (after 2030)
8.5 List of main conservation measures	

Reduce/eliminate marine pollution from agricultural activities (CA13)

Reduce impact of transport operation and infrastructure (CE01)

Management, control or eradication of other invasive alien species (CI03)

8.6 Additional information

9. Future prospects

9.1 Future prospects of parameters	a) Range
	b) Area
	c) Structure and functions
9.2 Additional information	

10. Conclusions

10.1. Range	
10.2. Area	
10.3. Specific structure and functions (incl. typical species)	
10.4. Future prospects	
10.5 Overall assessment of Conservation Status	
10.6 Overall trend in Conservation Status	
10.7 Change and reasons for change in conservation status and conservation status trend	a) Overall assessment of conservation status
	No change
	The change is mainly due to:
	b) Overall trend in conservation status
	No change
	The change is mainly due to:
10.8 Additional information	

11. Natura 2000 (pSCIs, SCIs, SACs) coverage for Annex I habitat types

11.1 Surface area of the habitat type inside the pSCIs, SCIs and SACs network (in km² in biogeographical/ marine region)	a) Minimum	0
	b) Maximum	0
	c) Best single value	0
11.2 Type of estimate	Best estimate	
11.3 Surface area of the habitat type inside the network Method used	Based mainly on extrapolation from a limited amount of data	

Report on the main results of the surveillance under Article 17 for Annex I habitat types (Annex D)

11.4 Short-term trend of habitat area in good condition within the network Direction	Stable (0)
11.5 Short-term trend of habitat area in good condition within network Method used	Based mainly on extrapolation from a limited amount of data
11.6 Additional information	

12. Complementary information

12.1 Justification of % thresholds for trends	
12.2 Other relevant information	

Distribution Map
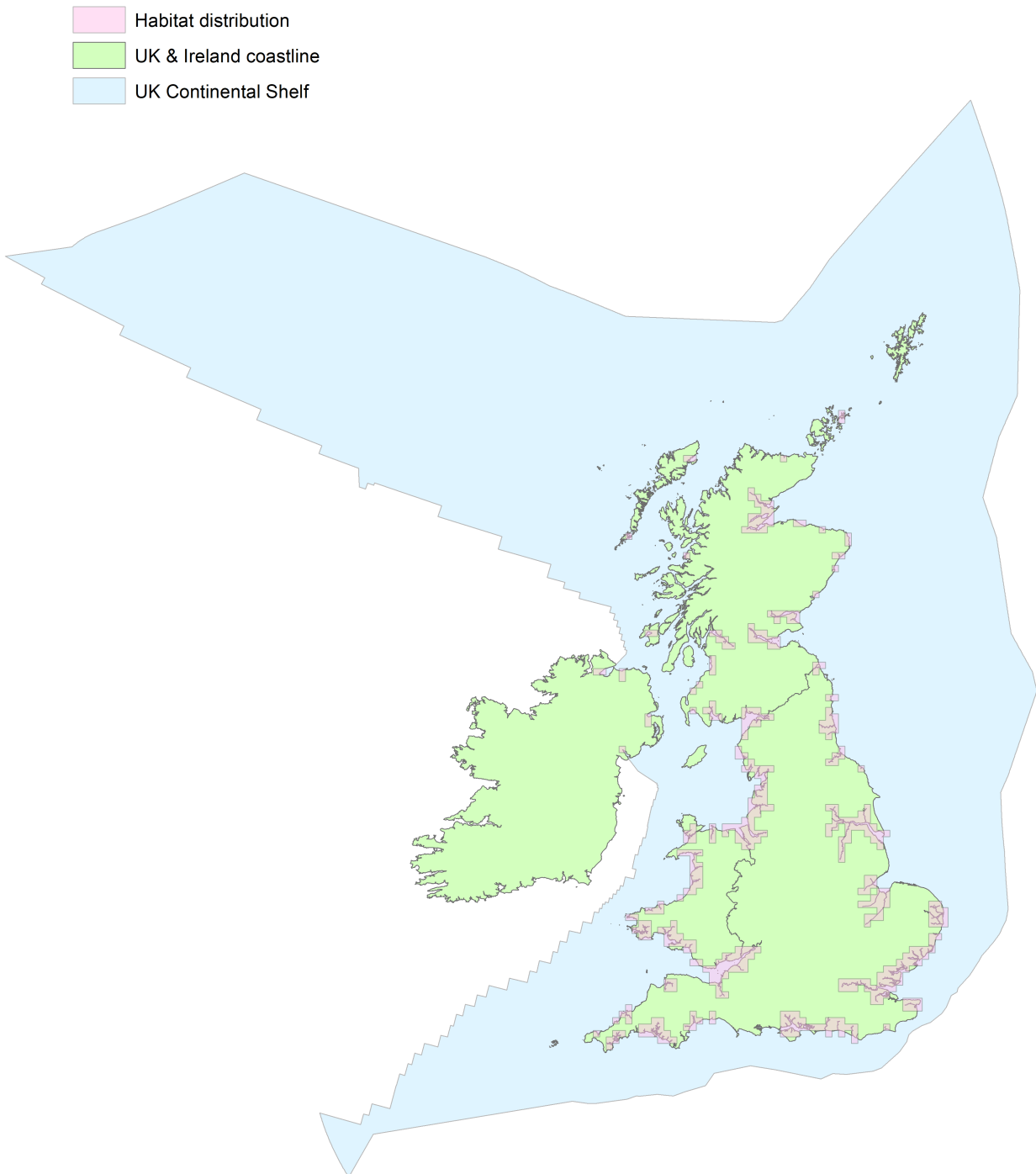
Figure 1: UK distribution map for H1130 - Estuaries.

The 10km grid square distribution map is based on available habitat records which are considered to be representative of the distribution within the current reporting period. For further details see the 2019 Article17 UK Approach document.

Range Map
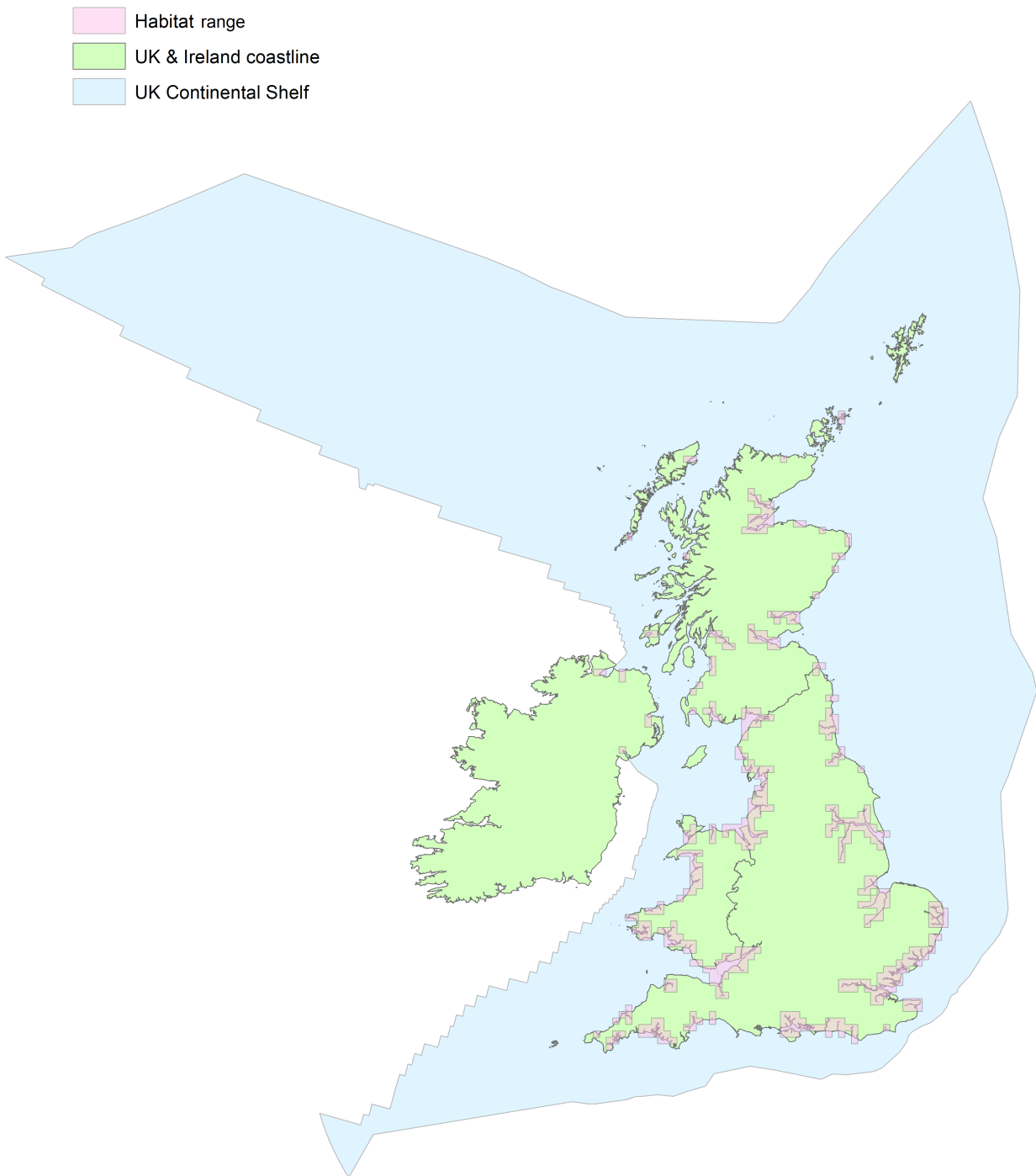
Figure 2: UK range map for H1130 - Estuaries.

Estuaries are physiographic features and so their range is determined primarily by geomorphological and hydrographic processes occurring over geological time-scales and is not related to biological communities or processes supported by communities. Therefore, the range was considered equivalent to the surface area (distribution) of the habitat.

Explanatory Notes

Habitat code: 1130 Region code: MATL

Field label	Note
4.3 Short term trend; Direction	This was listed as 'Stable', after discussions with the Marine Habitats Expert Group, despite the fact that the number and area of NIs Estuaries has changed as a result of a WFD review of the areas identified as Estuaries (Transitional Waters in Water Framework terms) this was as a result of improved knowledge.
4.11 Change and reason for change in surface area of range	A review of Estuaries (Transitional Waters in the WFD context) was carried out in 2015. As a result of this review The Faughan, Roe, and Conswater estuaries have now been merged with adjacent waterbodies as they no longer met with the criteria for WFD transitional waters. The rationale for removing these can be found in the WFD Technical Supporting Document 'Changes to Northern Ireland Marine Transitional and Coastal Water Body Boundaries for the Water Framework Directive Second Monitoring Cycle.'
5.6 Short term trend; Direction	This tab relates to 'Area of Habitat'. It is highly unlikely that the area of this Annex I habitat is likely to change in the short term which is why the short term trend was identified as 'Stable'.
6.1 Condition of habitat	Rationale for classifying the Estuaries feature as in 'Not goodcondition'- According to the WFD classification the Foyle Harbour & Faughan, Lagan and Newry Estuaries were classified as having Moderate Ecological Potential which means that they are failing under WFD classification status. The Bann was classified as having Poor Ecological Potential which again means its failing. Although it varies between area, the main parameters causing the failure are nutrients, Annex VIII & X hazardous substances. There is however a high level of uncertainty in the confidence, of the latter two parameters, that these are true breaches due to the low numbers of samples available to calculate the annual average. This was due to a quarterly sampling programme that failed to deliver sufficient sample numbers, however DAERA took a precautionary approach and reported them as failures for this monitoring cycle with the aim of addressing the issues of data availability in the next cycle. Water bodies potentially at risk of failures will be monitored over a 12 month period in accordance with the WFD. It is worth mentioning that there is currently a paper with the EC commission to review the Hazardous Substances threshold limits. In addition Northern Ireland's estuaries continues to support a sizeable sea bird and overwintering bird population. Part of the Foyle Harbour and Faughan estuary is an SPA and the total number of individual birds at the site has increased overall since designation.
6.4 Short term trend of habitat area in good condition; Direction	Annual review of the WFD classification of the four Estuaries in NI shows a consistently 'Stable' trend of failing the WFD classification achieving at best Moderate Ecological Potential. The reasons for this failure have been described in 6.1 above.
7.1 Characterisation of pressures/ threats	E03:Shipping lanes, ferry lanes and anchorage infrastructure (e.g. canalisation, dredging)- All NI estuaries are heavily modified water bodies which require dredging to maintain a navigable channel.
7.1 Characterisation of pressures/ threats	A23: Use of other pest control methods in agriculture (excluding tillage), this is specifically relating to the exceedence of the threshold concentration of Cypermethrin a biocide found in Sheep dip which is one of the Annex X priority hazardous substances assessed under WFD.
7.1 Characterisation of pressures/ threats	D05: Development and operation of energy production plants (including bioenergy plants, fossil and nuclear energy plants), Coolkeeragh Power Station falls within Foyle Harbour and Faughan Estuary.

7.1 Characterisation of pressures/ threats	E07: Land, water and air transport activities generating marine pollution- Pollution from this source would include, combustion products and other pollutants from Marine Traffic transiting through the estuaries to NI ports.
7.1 Characterisation of pressures/ threats	I02: Other invasive alien species (other than species of Union concern)- A number of non-native species have been recorded within NIs estuaries apart from the Pacific oyster (Crassostrea gigas referred to in G17), there are two species of barnacle (Astrominius modestus & Amphibalanus improvisus), the soft shell clam (Mya arenaria) and two sea squirt species (Corella eumyota & Aplidium glabrum). The risk of damage from this activity was assessed as medium.
7.1 Characterisation of pressures/ threats	A28: Agricultural activities generating marine pollution are thought to be a high risk pressure and threat for all estuaries which are fed by rivers bounded by agricultural land, to a lesser degree in the Lagan due to the fact that in principally lies in an urbanised area.
8.1 Status of measures	None of the Annex I Estuaries have been designated within NI however they do fall within other 'protected areas' including UWWT sensitive area and Nitrate Sensitive area which have targeted management measures in place to help improve the water quality in these areas. In addition there is a high level of uncertainty that the failure of Annex X and VIII parameters under WFD are true breaches of threshold values due to the low numbers of samples available to calculate the annual average. This was due to a quarterly sampling programme that failed to deliver sufficient sample numbers, however DAERA took a precautionary approach and reported them as failures for this monitoring cycle with the aim of addressing the issues of data availability in the next cycle. Water bodies potentially at risk of failures will be monitored over a 12 month period in accordance with the WFD.
8.5 List of main conservation measures	CA13: Reduce/eliminate marine pollution from agricultural activities- None of the Annex I Estuaries have been designated within NI however they do fall within other 'protected areas' including UWWT sensitive area and Nitrate Sensitive area which have targeted management to help improve the water quality in these areas under the Water Framework Directive.
8.5 List of main conservation measures	CE01: Reduce impact of transport operation and infrastructure- All of the Annex I estuaries have a navigation channel which must be maintained through dredging operations. Dredging and the disposal of the dredge material is a licenced activity for which DAERA is the licensing authority under Marine and Coastal Access Act.
8.5 List of main conservation measures	CG15: Other measures related to exploitation of species - DAERA is currently developing legislation to introduce strategic management of unregulated harvesting & gathering of shellfish in intertidal areas through fisheries regulations through seasonal closures and closed areas.
8.5 List of main conservation measures	CI03: Management, control or eradication of other invasive alien species- There is a Spartina Eradication programme in place which uses a herbicide under licence and specific conditions to eradicate swarths of Spartina anglica, an invasive species, however the two estuaries in which this invasive species has been recorded, Foyle Harbour and Faughan & Newry Estuary are not part of the current eradication programme area. The Department also runs an aquatic invasive species surveillance monitoring programme with regular checks of harbours & marina's. In addition Fisheries Officers also check aquaculture imports and movement of stock between sea loughs for the presence of non-native species.
9.1 Future prospects of parameters	After reviewing annual WFD classification in NI Estuaries since the last reporting cycle there has been no change in their WFD classification status as Moderate-Poor Ecological Potential indicating little likelihood of change (ie stable) despite the managment measures put in place for improvement. This in addition to Stable Range and Area would seem to indicate that the future prospect for the habitat is 'OverallStable'.

| 9.1 Future prospects of parameters | On reviewing the biological and chemical parameters assessed as part of WFD monitoring, the data showed that while there was a little oscillation between parameters but the overall potential ecological status was the same annually. For this reason the short term trend was 'Stable'. |