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:

H1160 - Large shallow inlets and bays

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.

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1. General information

1.1 Member State	UK (Northern Ireland information only)
1.2 Habitat code	1160 - Large shallow inlets and bays

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

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, 2018. Strangford Lough Special Area of Conservation (SAC) Condition Assessment 2018. Internal Document.

DAERA, 2016. Marine PAH Risk Assessment and River Basin Management Plans (ii) Monitoring requirements. Supporting document.

4. Range

1 1	Curfoco	araa lin ka	.21	610.70
4.1	. Surrace	area (in km	1-)	618.78

4.2 Short-term trend Period

4.3 Short-term trend Direction

4.4 Short-term trend Magnitude

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

4.9 Long-term trend Method used

4.10 Favourable reference range

Stable (0)

a) Minimum

b) Maximum

b) Maximum

a) Minimum

a) Area (km²) b) Operator

c) Unknown

Nο

d) Method

4.11 Change and reason for change in surface area of range

No change

The change is mainly due to:

4.12 Additional information

5. Area covered by habitat

5.1 Year or period 2006-2018

5.2 Surface area (in km²) b) Maximum 618.78 a) Minimum 618.78 c) Best single 618.78 value

5.3 Type of estimate Best estimate

5.4 Surface area Method used Based mainly on extrapolation from a limited amount of data

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5.5 Short-term trend Period	2007-2018		
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 o	n 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	No change		
in surface area of range	The change is r	mainly due to:	

5.15 Additional information

6. Structure and functions

6.1 Condition of habitat	a) Area in good condition (km²)	Minimum 26	66.24 N	/laximum 2	66.24
	b) Area in not-good condition (km²)	Minimum 0	N	/laximum 0	
	c) Area where condition is not known (km²)	Minimum 35	52.54 N	/laximum 3	52.54
6.2 Condition of habitat Method used	Based mainly on extrapolati	on from a limit	ed amount of d	lata	
6.3 Short-term trend of habitat area in good condition Period	2007-2018				
6.4 Short-term trend of habitat area in good condition Direction	Stable (0)				
6.5 Short-term trend of habitat area	Based mainly on extrapolati	on from a limit	ed amount of d	lata	
in good condition Method used	Has the list of typical species	s changed in co	mparison to th	e previous	No
6.6 Typical species	reporting period?				
6.7 Typical species Method used					
6.8 Additional information					

7. Main pressures and threats

7.1 Characterisation of pressures/threats

Pressure	Ranking
Agricultural activities generating marine pollution (A28)	Н
Land, water and air transport activities generating marine pollution (E07)	M
Construction or modification of commercial / industrial infrastructure in existing commercial / industrial areas (F04)	М

Modification of coastline, estuary and coastal conditions for development, use and protection of residential, commercial, industrial and recreational infrastructure and areas (including sea defences or coastal protection works and infrastructures) (F08)	M
Residential or recreational activities and structures generating marine macro- and micro- particulate pollution (e.g. plastic bags, Styrofoam) (F22)	M
Industrial or commercial activities and structures generating marine macro- and micro- particulate pollution (e.g. plastic bags, Styrofoam) (F23)	M
Other impacts from marine aquaculture, including infrastructure (G19)	M
Other invasive alien species (other then species of Union concern) (I02)	Н
Threat	Ranking
Agricultural activities generating marine pollution (A28)	Н
Wind, wave and tidal power, including infrastructure (D01)	M
Development and operation of energy production plants (including bioenergy plants, fossil and nuclear energy plants) (D05)	M
Land, water and air transport activities generating marine pollution (E07)	M
Construction or modification of commercial / industrial infrastructure in existing commercial / industrial areas (F04)	M
Modification of coastline, estuary and coastal conditions for development, use and protection of residential, commercial, industrial and recreational infrastructure and areas (including sea defences or coastal protection works and infrastructures) (F08)	M
Residential or recreational activities and structures generating marine macro- and micro- particulate pollution (e.g. plastic bags, Styrofoam) (F22)	M
Industrial or commercial activities and structures generating marine macro- and micro- particulate pollution (e.g. plastic bags, Styrofoam) (F23)	M
Other impacts from marine aquaculture, including infrastructure (G19)	M
Other invasive alien species (other then species of Union concern) (IO2)	Н

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

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)

Adapt/manage extraction of non-energy resources (CC01)

Reduce impact of transport operation and infrastructure (CE01)

Other measures related to residential, commercial, industrial and recreational infrastructures, operations and activities (CF12)

Reduce/eliminate marine contamination with litter (CF08)

Other measures to reduce impacts from marine aquaculture infrastructures and operation (CG09)

Other measures related to exploitation of species (CG15)

DO NOT USE Management, control or eradication of other alien species (CIO4)

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 266.24b) Maximum 266.24c) Best single value 266.24

11.2 Type of estimate

11.3 Surface area of the habitat type inside the network Method used

11.4 Short-term trend of habitat area in good condition within the network Direction

11.5 Short-term trend of habitat area in good condition within network Method used

11.6 Additional information

Best estimate

Based mainly on extrapolation from a limited amount of data

Stable (0)

Based mainly on extrapolation from a limited amount of data

12. Complementary information

12.1 Justification of % thresholds for trends

12.2 Other relevant information

Distribution Map

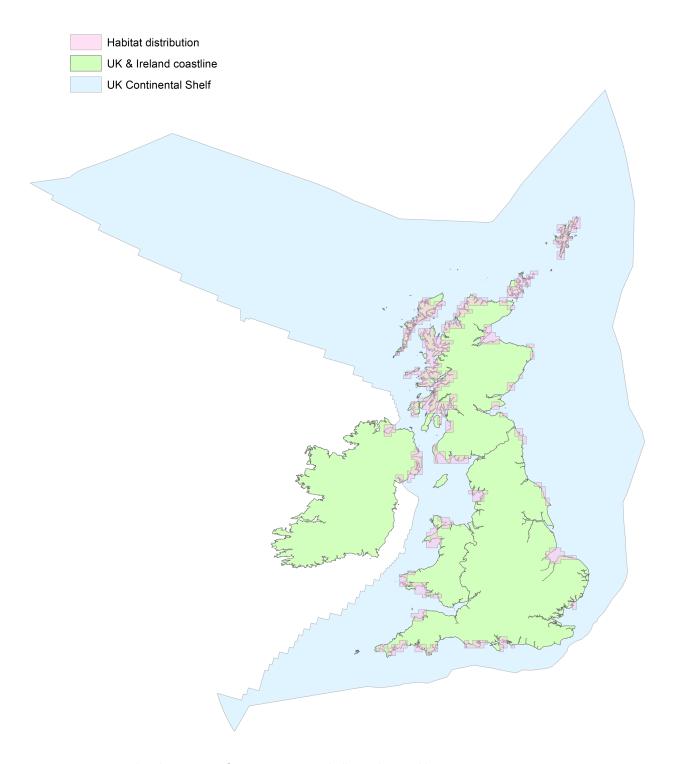


Figure 1: UK distribution map for H1160 - Large shallow inlets and bays.

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

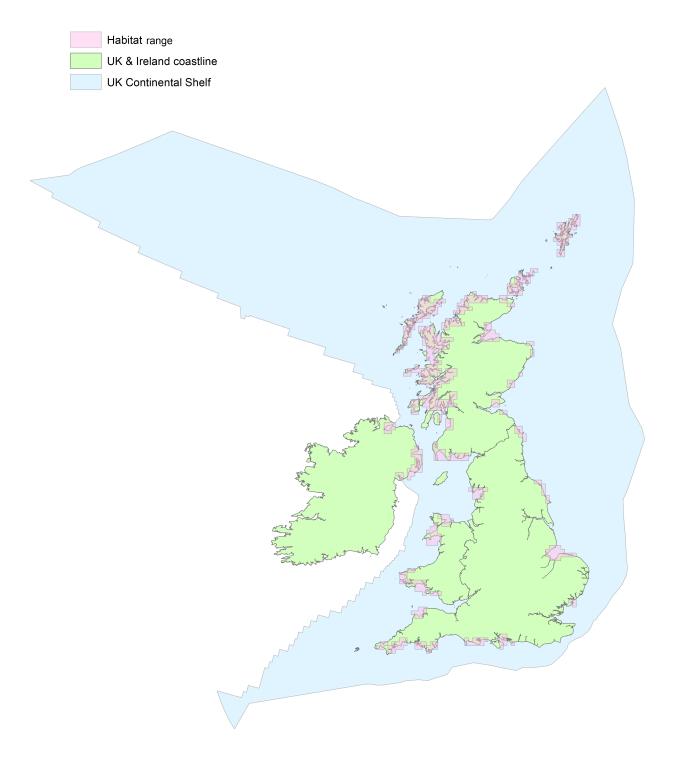


Figure 2: UK range map for H1160 - Large shallow inlets and bays.

Large shallow inlets and bays are physiographic features and so their range is determined primarily by geomorphological and hydrographic processes occurring over long time-scales and is not related to biological communities or processes supported by communities. Therefore, the range was considered equivalent to the surface area of the habitat.

Explanatory Notes

Field label	Note
4.3 Short term trend; Direction	This was listed as 'Stable', after discussions with the Marine Habitats Expert Group, as a physiographic feature, the range is highly unlikely to change within this relatively short period of time.
4.11 Change and reason for change in surface area of range	No change in range since the last assessment
5.2 Surface area	Calculated by JNCC and no change since previous Art 17 report.
5.6 Short term trend; Direction	There was a slight decrease in the estimated area of LSIB since the previous Art 17 report but this was due to improved mapping.
6.1 Condition of habitat	The calculations were taken from spreadsheet of area of LSIB in SACs provided by JNCC. The area value here includes Strangford Lough which is designated for LSIB & Murlough SAC. The latter is an SAC but is not a designated LSIB however the condition of the SAC is favourable and the pressures and threats have management measures in place to mitigate against any likely damage from these activities. The condition of the remaining LSIBs are unknown however there are management measures in place for the pressures and threats identified for these areas.
6.4 Short term trend of habitat area in good condition; Direction	The S&F was assessed as 'Stable' as Strangford & Murlough were assessed as in 'Favourable' condition and while the remaining LSIB Annex I features were not assessed. Within the SACs identified was felt that existing management measures are mitigating against the pressures & threats identified in these areas.
7.1 Characterisation of pressures/ threats	G19: Other impacts from marine aquaculture, including infrastructure - The majority of NI's aquaculture is located within LSIBs. The pressures and threats associated with this activity include damage to seabed from clearing, predator control and harvesting of subtidal cultivation of mussels. Intertidal aquaculture activites may impact the habitats within LSIBs from removal of boulders during site clearing, compaction of sediment from vehicles driving back and forth to trestle sites, movement of trestles, siltation and fouling of trestles leading to damage of sediment underneath. There is also the potential for the translocation of non-native species from infected bays to non-infected bays. This is managed through Aquaculture inspections and movement bans. The risk of damage from this activity was assessed as medium as there are management measures in place to mitigate against these risks.
7.1 Characterisation of pressures/ threats	A28: Agricultural activities generating marine pollution are thought to be a high risk pressure for all LSIBs which are bounded by agricultural land.
7.1 Characterisation of pressures/ threats	D01: Wind, wave and tidal power, including infrastructure - is considered a medium threat to Strangford Lough LSIB as it contains an area identified for potential resource zone for renewable Tidal Energy. A temporary licence was awarded for the Trial of a Marine Current Turbine in the Narrows of Strangford Lough. The installation and operation of the structure were strictly controlled and monitoring within the conditions of the licence to mitgate against any potential damage to Annex I features. The Turbine has since been removed under a deconstruction licence again which again had conditions attached to minimise the likelihood of damage to Annex I features. Post-decomissioning monitoring within 12 months of the removal of the device was also included as part of the licence conditions.]

7.1 Characterisation of
pressures/ threats

E03:Shipping lanes, ferry lanes and anchorage infrastructure (e.g. canalisation, dredging)- Foyle, Larne, Belfast and Carlingford all have busy ports within them which require navigation channels to be dredged to a maintained depth. Strangford has a busy ferry route and visiting cruise ship are on the increase. The threat of damage to LSIBs from these activities is considered as High.

7.1 Characterisation of pressures/ threats

E07: Land, water and air transport activities generating marine pollution- Potential pollutants from this activity could include hydrocarbons from combustion, road run-off, and other pollutants e.g. from Marine Traffic transiting through the LSIBs to NI ports. In addition Belfast, Strangford & Foyle all have airports adjacent to this Annex I habitat. The WFD has classified most of Belfast, Carlingford, Larne, Strangford LSIB area as having Moderate Ecological Potential. The parameters which are causing this failure in WFD classification seem to be Annex VIII & X hazardous substances. There is however a high level of uncertainty in the confidence 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 the 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 PAH failures will be monitored over a 12 month period in accordance with the WFD. Many of these pollutants come from hydrocarbons generated by transport. The risk of damage is considered medium until the breaches of thresholds can be confirmed.

7.1 Characterisation of pressures/ threats

F04: Construction or modification of commercial / industrial infrastructure in existing commercial / industrial areas- All 4 of NI's major port and harbours as well as main population centres are located within Annex I LSIBs. In considering potential expansion of these areas within the Annex I feature, consideration must be given to the potential impact on the feature. Activities associated with this pressure were considered to have a medium risk of damage.

7.1 Characterisation of pressures/ threats

F22 & F23: Marine Litter from Industrial, Commercial, Residential and Recreational Activities - Marine litter is monitored and reported through a number of programmes, as part of the Bathing Water programme, additional information gathered on Scientific Research Surveys, Departmental sponsered shoreline and beach cleans. Marine litter is an issue in all of our LSIB due to their proximity to large population centres & industrial areas and the fact that litter tends to wash in and accumulate in sheltered areas. Semienclosed bays such as Strangford, Larne, Foyle and to a lesser degree Carlingford all have the potential to retain litter longer than open coastal areas and this can cause problems with underlying habitats and species. The risk of damage was assessed as medium.

7.1 Characterisation of pressures/ threats

IO2: Other invasive alien species (other then species of Union concern) - A number of non-native species have been recorded within NIs LSIBs including Slipper limit (Crepidula fornicata), Japanese wireweed (Sargassum muticum), Pacific oyster (Magalla gigas), there are two species of barnacle (Astrominius modestus & Amphibalanus improvisus), the soft shell clam (Mya arenaria) and two sea squirt species High.

7.1 Characterisation of pressures/ threats

F08: Modification of coastline, estuary and coastal conditions for development, use and protection of residential, commercial, industrial and recreational infrastructure and areas (including sea defence or coast protection works and infrastructures) - This pressure in NI primarily covers repair/installation of shoreline reinforcement for roads, flood defences & coastal rail infrastructure and the vulnerability of LSIB to this activity was assessed as medium.

8.5 List of main conservation measures

CA13: Reduce/eliminate marine pollution from agricultural activities - LSIB 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 WFD.

8.5 List of main conservation measures	CC01: Adapt/manage extraction of non-energy resources - this a licensable activity under the Marine and Coastal Access Act, although there is no agreggation extraction taking place in NI coastal waters currently.
8.5 List of main conservation measures	CCO3: Adapt/manage renewable energy installation, facilities and operation - Marine Renewable development is a licensable activity which is managed by the Marine Licencing Team in DAERA. There is currently a single licence within NIs LSIB in Strangford Lough for a Marine Current Turbine. The application was subject to screening and EIAs which consider impact on Annex I features. There is currently a decomissioning licence in place again with set conditions to consider and monitor Annex I features in the dismanteling of the MCT.
8.5 List of main conservation measures	CE01: Reduce impact of transport operation and infrastructure- LSIBs that have a navigation channel must be maintained to a certain depth 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	CF12: Other measures related to residential, commercial, industrial and recreational infrastructures, operations and activities All activities which have the potential to impact the seabed including the foreshore area are subject to marine licence. If an application for work is in an SAC a Habitat Regulation Assessment will be required and if necessary an EIA to assess the likely risks from this activity to the designated habitat. The Marine licencing process is managed by DAERAs Marine Licencing team under the Marine and Coastal Access Act. In addition all planning applications down to the low water mark (ie covering the Intertidal Area) within ASSIs are subject to review under the Evironment Order. This is considered mitigation against F08 pressure.
8.5 List of main conservation measures	CF08: Reduce/eliminate marine contamination with litter - At NI level the Department (DAERA) is are addressing the problem of marine litter through the NI Marine litter Strategy. The Strategy's goals are to tackle marine litter through measures to reduce the amount of litter entering the sea and removing some of the litter pollution already there. Measures to reduce litter entering the sea are grouped around the following: 1. Awareness raising - these measures include campaigns such as Live Here Love Here or Fishing for Litter part sponsored by DAERA; 2. Enforcement of Statutory Deterrents - eg enforcing the Litter (Northern Ireland) Order 1994 (as amended) which makes it an offence to drop litter and waste legislation; 3. Data gathering and reports - eg through the Marine Litter Survey delivered by KNIB sponsored by DAERA, Coastwatch - all island survey and report led by Ulster Wildlife in NI, and the Marine Conservation - Great British Beachclean in September. These also feed into awareness raising and removing litter. 4. Coastal infrastructure - having appropriate sewage treatment works and litter bins eg compactor bins. Measures to remove litter already in the sea are primarily beach cleans. These are facilitated by local charities such as KNIB, Ulster Wildlife, volunteer groups eg Love Your Lough, divers and kayakers.In addition DAERA intends bringing forward the draft Environmental Protection (Microbeads) Regulations 2018 to ban the manufacture and sale of cosmetic products containing plastic microbeads.
8.5 List of main conservation measures	CG09: Other measures to reduce impacts from marine aquaculture infrastructures and operation - DAERA aquaculture and fish health team carry out regular inspections on licenced aquaculture plots in NI to ensure that they are adhering to the conditions of their licence and keeping the site in good condition. Ad hoc inspections can be carried out should any issues arise.

CG15: Other measures related to exploitation of species - DAERA is currently

closures and closed areas.

developing legislation to introduce strategic management of unregulated harvesting &

gathering of shellfish in intertidal areas through fisheries regulations through seasonal

8.5 List of main conservation

measures

8.5 List of main conservation measures	CIO4: Management, control or eradication of other 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 in areas of Strangford and Murlough LSIBs. 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 & diseases.
9.1 Future prospects of parameters	Overall stable - as the management measures and surveillance programmes in place to mitigate against and monitor the pressures and threats identified for this feature.