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

Conservation status assessment for the habitat:

H1160 - Large shallow inlets and bays

UNITED KINGDOM

IMPORTANT NOTE - PLEASE READ

- The information in this document represents 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.
- It is based on supporting information provided by the geographically-relevant Statutory Nature Conservation Bodies, which is documented separately.
- The 2019 Article 17 UK Approach document provides details on how this supporting information contributed to the UK Report and the fields that were completed for each parameter.
- The reporting fields and options used are aligned to those set out in the European Commission guidance.
- Maps showing the distribution and range of the habitat are included (where available).
- Explanatory notes (where provided) are included at the end. These provide additional audit trail information to that included within the UK assessments. Further underpinning explanatory notes are available in the related country-level and/or UK offshorelevel reports.
- Some of the reporting fields have been left blank because either: (i) there was insufficient information to complete the field; and/or (ii) completion of the field was not obligatory.
- The UK-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.

NATIONAL LEVEL

1. General information

1.1 Member State	UK
1.2 Habitat code	1160 - Large shallow inlets and bays

2. Maps

2.1 Year or period	1994-2018
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

3.2 Sources of information

Marine Atlantic (MATL)

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4.1 Surface area (in km²)
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

8067 2007-2018 Stable (0)

a) Minimum b) Maximum

Based mainly on expert opinion with very limited data

a) Minimum

a) Area (km²) 8067

b) Operator

c) Unknown No

d) Method The favourable reference range is likely to remain the

b) Maximum

same as the actual range given the physiographic nature of the feature. Therefore, the current range is, considered to be the favourable reference range. The known range has decreased due to improved knowledge and this has led a

change in the Favourable reference range.

4.11 Change and reason for change in surface area of range

Improved knowledge/more accurate data Use of different method

The change is mainly due to: Improved knowledge/more accurate data

4.12 Additional information

4.1-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.

4.3-Large shallow inlets and bays 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. The trend is thought to be stable. While the surface area of some of these individual habitats may have declined due to localised pressures, the geographic spread and distribution of features is not thought to have been reduced.

4.11-As a result of improved mapping of the habitat, the surface area of range in UK Large shallow inlets and bays is smaller than the figure that was reported in 2013.

Further details on the approach taken in this section are provided on the JNCC website in the 2019 UK Approach Document.

5. Area covered by habitat

5.1 Year or period
5.2 Surface area (in km²)
5.3 Type of estimate
5.4 Surface area Method used
5.5 Short-term trend Period
5.6 Short-term trend Direction
5.7 Short-term trend Magnitude

1994-2018

a) Minimum b) Maximum

um c) Best single 8066.62

value

Best estimate

Based mainly on extrapolation from a limited amount of data

2007-2018 Stable (0)

a) Minimum

b) Maximum

c) Confidence interval

5.8 Short-term trend Method used5.9 Long-term trend Period5.10 Long-term trend Direction5.11 Long-term trend Magnitude

Based mainly on expert opinion with very limited data

a) Minimum

b) Maximum

c) Confidence

interval

5.12 Long-term trend Method used5.13 Favourable reference area

a) Area (km²)

8067

b) Operator

d) Method

c) Unknown No

Surface area is neither restricted, nor notably fragmented.

Further, since this parameter is determined by physical, rather than biological processes it is appropriate to use the current estimate as a baseline favourable reference area estimate. The known area has decreased due to improved knowledge and this

has led to a change in the Favourable reference range.

5.14 Change and reason for change in surface area of range

Improved knowledge/more accurate data Use of different method

The change is mainly due to: Improved knowledge/more accurate data

5.15 Additional information

5.1-The data sources used to produce this map ranged from 1994 to 2018.
5.4-The 2013 UK Article 17 surface area data for Annex I Large shallow inlets and bays was revised at a UK level by the JNCC following updates submitted by the UK Country Agencies. For further details see JNCC website (JNCC 2018a).
5.6-Expert judgement was used to determine the short-term trend at the UK-level. The surface area of the feature is thought to be stable in Scotland. Wales

level. The surface area of the feature is thought to be stable in Scotland, Wales, Northern Ireland and England. A very small decrease has been identified in England.

5.14-As a result of improved mapping of the habitat, the surface area of UK Large shallow inlets is smaller than the figure that was reported in 2013. For further details on the approaches taken in this section please refer to the

JNCC website for the 2019 UK Approach Document.

6. Structure and functions

6.1 Condition of habitat

a) Area in good condition Min

Minimum 4722.34317

Maximum 4722.34317

(km²)

b) Area in not-good

Minimum 1746.2965

Maximum 1746.2965

condition (km²)

c) Area where condition is

Minimum 1597.98256

Maximum 1597.98256

not known (km²)

Based mainly on extrapolation from a limited amount of data

6.2 Condition of habitat Method used

2007-2018

6.3 Short-term trend of habitat area in good condition Period

Stable (0)

6.4 Short-term trend of habitat area in good condition Direction

Stable (U)

6.5 Short-term trend of habitat area in good condition Method used

Based mainly on expert opinion with very limited data

6.6 Typical species

Has the list of typical species changed in comparison to the previous reporting period?

6.7 Typical species Method used

6.1-The area of habitat in 'good' (favourable) 'not good (unfavourable) and

6.8 Additional information

15

unknown condition was assessed in each of the four countries and the results were summed. 22% of the habitat is thought to be in unfavourable (not good) condition, 59% of the habitat is thought to be in favourable (good condition) and 20% of the habitat is in unknown condition. The structure and functions conservation status is, therefore, unfavourable-inadequate.

The overall UK short-term trend for structure and functions has been identified as stable. The parameter conservation status was unfavourable-bad in 2013. The change in status is thought to be due to a change in methods as data sources used to determine condition may have changed between reporting years. It should be noted that if some of the area (>3% of the total area) in unknown condition were deemed to be in unfavourable 'not good' condition, this would result in an unfavourable-bad conclusion for this parameter.

6.4-The short-term trend of habitat in good condition was assessed by the four countries and the results were aggregated (see 2019 UK Approach Document). The overall UK short-term trend is thought to be stable compared with 2013 when the trend was declining. This is because the majority of the resource was assessed as stable. There were no notable deteriorations in assessed Scottish SACs and existing management measures in Northern Ireland are thought to be mitigating against pressures within assessed SACs.

For details on the approaches taken in this section please refer to the JNCC website for the 2019 UK Approach Document and the country-level reporting information.

7. Main pressures and threats

7.1 Characterisation of pressures/threats

Pressure	Ranking
Agricultural activities generating marine pollution (A28)	Н
Shipping lanes, ferry lanes and anchorage infrastructure (e.g. canalisation, dredging) (E03)	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)	H
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
Marine fish and shellfish harvesting (professional, recreational) causing reduction of species/prey populations and disturbance of species (G01)	M
Marine fish and shellfish harvesting (professional, recreational) activities causing physical loss and disturbance of seafloor habitats (G03)	M
Modification of coastal conditions for marine aquaculture (G15)	M
Marine aquaculture generating marine pollution (G16)	M

Mixed source marine water pollution (marine and coastal) H (J02)

· /	
Threat	Ranking
Shipping lanes, ferry lanes and anchorage infrastructure (e.g. canalisation, dredging) (E03)	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)	H
Industrial or commercial activities and structures generating marine macro- and micro- particulate pollution (e.g. plastic bags, Styrofoam) (F23)	M
Marine fish and shellfish harvesting (professional, recreational) causing reduction of species/prey populations and disturbance of species (G01)	Н
Marine fish and shellfish harvesting (professional, recreational) activities causing physical loss and disturbance of seafloor habitats (G03)	M
Marine aquaculture generating marine pollution (G16)	Н
Other invasive alien species (other then species of Union concern) (I02)	Н
Temperature changes (e.g. rise of temperature & extremes) due to climate change (N01)	М
Sea-level and wave exposure changes due to climate change (N04)	Н
Change of species distribution (natural newcomers) due to climate change (N08)	M

7.2 Sources of information

7.3 Additional information

There were often more than ten pressures, threats (of high or medium importance), or conservation measures identified, and an aggregation method was used to identify the top ten of each. As a result the top ten lists for the habitat may not correspond with each other. For example, a pressure may be in the reported top ten list, but the corresponding conservation measure might not appear in the top ten list of conservation measures. This does not mean that the measure is not in place, but instead it is in the extended list of measures that did not make the top ten but are detailed in the additional information section.

The following pressures were also identified but a maximum of ten could be reported: E07-Land, water and air transport activities generating marine pollution,F04-Construction or modification of commercial / industrial infrastructure in existing commercial / industrial areas,G19-Other impacts from marine aquaculture, including infrastructure,D05-Development and operation of energy production plants (including bioenergy plants, fossil and nuclear energy plants),F10-Deposition and treatment of waste/garbage from commercial and industrial facilities,N01-Temperature changes (e.g. rise of temperature & extremes) due to climate change,N04-Sea-level and wave exposure changes due to climate change,I02-Other invasive alien species (other then species of Union concern), F07- Sports, tourism and leisure

activities.

The following threats were also identified, however, a maximum of ten could be reported: E07-Land, water and air transport activities generating marine pollution,F04-Construction or modification of commercial / industrial infrastructure in existing commercial / industrial areas,G19-Other impacts from marine aquaculture, including infrastructure,D05-Development and operation of energy production plants (including bioenergy plants, fossil and nuclear energy plants),A28-Agricultural activities generating marine pollution,D01-Wind, wave and tidal power, including infrastructure,F22-Residential or recreational activities and structures generating marine macroand micro- particulate pollution (e.g. plastic bags, Styrofoam),J02-Mixed source marine water pollution (marine and coastal),G15-Modification of coastal conditions for marine aquaculture,N05-Change of habitat location, size, and / or quality due to climate change, F07- Sports, tourism and leisure activities.

For methods see JNCC website for 2019 UK Approach Document and country-level reporting 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, populati	on 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	Medium-term results (within the nex	t two reporting periods, 2019-2030)
8.5 List of main conservation measures		

Reduce/eliminate marine pollution from agricultural activities (CA13)

Reduce impact of transport operation and infrastructure (CE01)

Reduce impact of outdoor sports, leisure and recreational activities (CF03)

Reduce/eliminate marine pollution from industrial, commercial, residential and recreational areas and activities (CF07)

Reduce/eliminate marine contamination with litter (CF08)

Manage changes in hydrological and coastal systems and regimes for construction and development (CF10)

Management of professional/commercial fishing (including shellfish and seaweed harvesting) (CG01)

Reduce/eliminate marine pollution from marine aquaculture (CG08)

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

Management, control or eradication of other invasive alien species (CIO3)

8.6 Additional information

There were often more than ten pressures, threats (of high or medium importance), or conservation measures identified, and an aggregation method was used to identify the top ten of each. As a result the top ten lists for the habitat may not correspond with each other. For example, a pressure may be in the reported top ten list, but the corresponding conservation measure might not appear in the top ten list of conservation measures. This does not mean that the measure is not in place, but instead it is in the extended list of measures that did not make the top ten but are detailed in the additional information section. The following measures are also being implemented, however, only a maximum

of ten could be reported: CC01-Adapt/manage extraction of non-energy resources, CF12-Other measures related to residential, commercial, industrial and recreational infrastructures, operations and activities, CG15-Other measures related to exploitation of species, CC05-Adapt/manage fossil energy installation, facilities and operation, CF02-Habitat restoration of areas impacted by residential, commercial, industrial and recreational infrastructure, operations and activities, CG02-Management of hunting, recreational fishing and recreational or commercial harvesting or collection of plants, Cl01-Early detection and rapid eradication of invasive alien species of Union concern, CJ01-Reduce impact of mixed source pollution, CC03-Adapt/manage renewable energy installation, facilities and operation, CG07-Manage changes in coastal conditions for marine aquaculture, CN02-Implement climate change adaptation measures. For methods see JNCC website for 2019 UK Approach Document and country-level reporting information.

9. Future prospects

9.1 Future prospects of parameters

a) Range Good b) Area Good c) Structure and functions Poor

9.2 Additional information

Future trends for each parameter were selected by the four countries and then aggregated to give a future trend for the UK (see 2019 UK Approach Document). Table 32 in the EU Guidelines was used to bring the future trend and conservation status of each parameter together to conclude on future prospects. 9.1a) Future prospects are good because the future trend for range is thought to be stable and the conservation status for range is favourable. Future prospects were also good in 2013.

9.1b) Future prospects are good because the future trend for area is thought to be stable and the conservation status for area is favourable. Future prospects were also good in 2013.

9.1c) The future trend for structure and functions is thought to be positive and the conservation status for structure and functions is unfavourable-inadequate. This results in poor prospects for the parameter. Prospects were bad in 2013, however, the condition of the habitat is predicted to improve in Scotland, which has led to an improvement in the prospects of the parameter.

For further details on approaches taken in this section please refer to the JNCC website for 2019 UK Approach Document and relevant country-level reporting 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

Favourable (FV)

Favourable (FV)

Unfavourable - Inadequate (U1)

Unfavourable - Inadequate (U1)

Unfavourable - Inadequate (U1)

Stable (=)

10.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

Genuine change Use of different method

The change is mainly due to: Use of different method

b) Overall trend in conservation status

No change

The change is mainly due to:

10.8 Additional information

10.1-Conclusion on Range reached because: (i) the short-term trend direction in Range surface area is stable; and (ii) the current Range surface area is approximately equal to the Favourable Reference Range.

10.2-Conclusion on Area covered by habitat reached because: (i) the short-term trend direction in Area is stable; and (ii) the current Area is approximately equal to the Favourable Reference Area.

10.3-Conclusion on Structure and functions reached because habitat condition data indicates that between c.5-25% of the habitat is in unfavourable (not good) condition. 22% of the habitat is in unfavourable (not good) condition, 59% of the habitat is in favourable (good) condition, 20% of the habitat is in unknown condition. It should be noted that if some of the area (>3% of the total area) in unknown condition were deemed to be in unfavourable 'not good' condition, this would result in an unfavourable-bad conclusion for this parameter. The structure and functions conclusion has changed from bad (2013) to inadequate. The change in status is thought to be due to a change in methods as data sources used to determine condition may have changed between reporting years.

10.4-Conclusion on Future prospects reached because: (i) the Future prospects for Range are good (ii) the Future prospects for Area covered by habitat are good and (iii) the Future prospects for Structure and functions are poor .

The Future prospects have improved for this habitat with Scotland predicting an improvement in condition in the next two reporting cycles. The Future prospects conclusion has changed from bad (2013) to inadequate.

10.5-Overall assessment of Conservation Status is Unfavourable-inadequate because one or more of the conclusions are Unfavourable-inadequate.
10.6-Overall trend in Conservation Status is based on the combination of the short-term trends for Range-stable, Area covered by habitat-stable, and

10.7-The overall assessment of Conservation Status has changed between 2013 and 2019. The Future prospects have improved for this habitat with Scotland predicting an improvement in condition in the next two reporting cycles. The Future prospects conclusion has changed from bad (2013) to inadequate. The structure and functions conclusion has also changed from bad (2013) to inadequate. The change in status is thought to be due to a change in methods as data sources used to determine condition may have changed between reporting years. It should be noted that if some of the area (>3% of the total area) in unknown condition were deemed to be in unfavourable 'not good' condition, this would result in an unfavourable-bad conclusion for this parameter and would result in the overall assessment of Conservation Status being unfavourable-bad.

For methods see JNCC website for 2019 UK Approach Document and country-level reporting information.

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

Structure and functions-stable.

11.1 Surface area of the habitat type
inside the pSCIs, SCIs and SACs
network (in km² in biogeographical/
marine region)

- 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

- a) Minimum
- b) Maximum
- c) Best single value 4653.56834

Best estimate

Based mainly on expert opinion with very limited data

Stable (0)

Based mainly on expert opinion with very limited data

11.3-The Large shallow inlets and bays surface area map was intersected with all Natura 2000 sites that contain qualifying marine habitats or species (JNCC, 2018b). The cut-off used for SAC designations was Tranche 56 in November 2017. For further details see JNCC website for 2019 UK Approach Document and relevant country-level reporting information.

12. Complementary information

12.1 Justification of % thresholds for trends

12.2 Other relevant information

Distribution Map

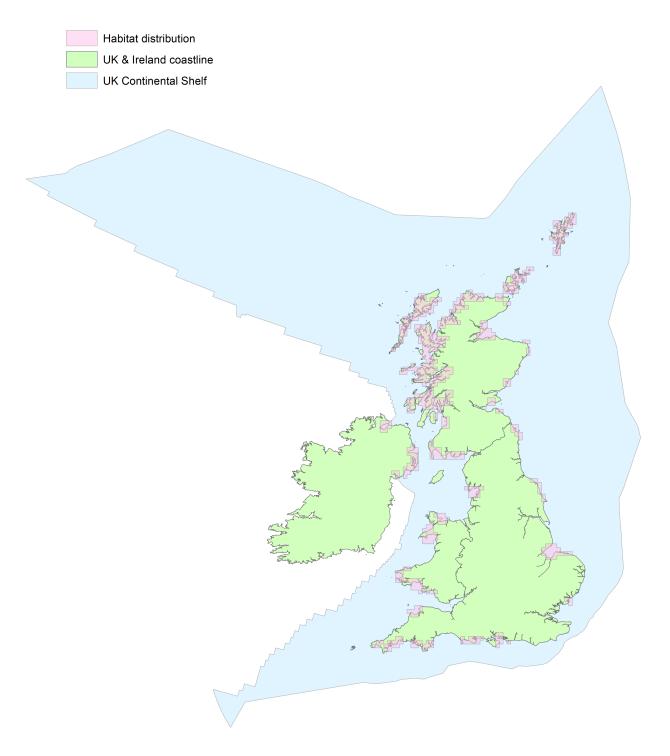


Figure 1: UK distribution map for H1160 - Large shallow inlets and bays.

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

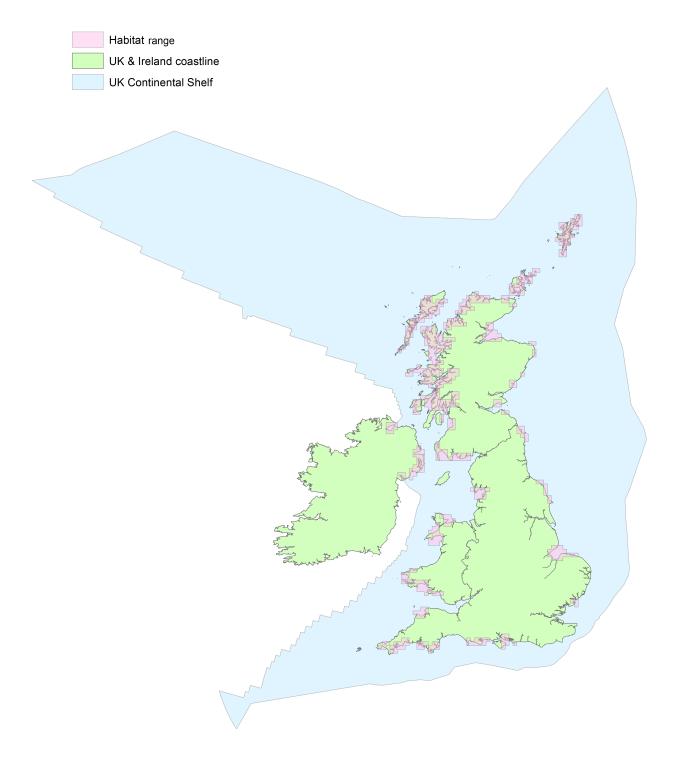


Figure 2: UK range map for H1160 - Large shallow inlets and bays.

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

Habitat code: 1160	
Field label	Note
2.1 Year or period	The data sources used to produce this map ranged from 1994 to 2018.
2.3 Distribution map; Method used	The surface area map was gridded to create the distribution map. The 2013 UK Article 17 area data for Annex I Large shallow inlets and bays were revised at a UK level by the JNCC following updates submitted by the UK Country Agencies. For further details see JNCC website (JNCC 2018a).
Habitat code: 1160 Region cod	de: MATL
Field label	Note
4.1 Surface area	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.
4.3 Short term trend; Direction	Large shallow inlets and bays 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. The trend is thought to be stable. While the surface area of some of these individual habitats may have declined due to localised pressures, the geographic spread and distribution of features is not thought to have been reduced.
4.11 Change and reason for change in surface area of range	As a result of improved mapping of the habitat, the surface area of range in UK Large shallow inlets and bays is smaller than the figure that was reported in 2013.
5.1 Year or period	The data sources used to produce this map ranged from 1994 to 2018.
5.4 Surface area; Method used	The 2013 UK Article 17 surface area data for Annex I Large shallow inlets and bays was revised at a UK level by the JNCC following updates submitted by the UK Country Agencies. For further details see JNCC website (JNCC 2018a).
5.6 Short term trend; Direction	Expert judgement was used to determine the short-term trend at the UK-level. The surface area of the feature is thought to be stable in Scotland, Wales, Northern Ireland and England. A very small decrease has been identified in England.
5.14 Change and reason for change in surface area	As a result of improved mapping of the habitat, the surface area of UK Large shallow inlets is smaller than the figure that was reported in 2013.
6.1 Condition of habitat	The area of habitat in 'good' (favourable) 'not good (unfavourable) and unknown condition was assessed in each of the four countries and the results were summed. 22% of the habitat is thought to be in unfavourable (not good) condition, 59% of the habitat is thought to be in favourable (good condition) and 20% of the habitat is in unknown condition. The structure and functions conservation status is, therefore, unfavourable-inadequate. The overall UK short-term trend for structure and functions has been identified as stable. The parameter conservation status was unfavourable-bad in 2013. The change in status is thought to be due to a change in methods as data sources used to determine condition may have changed between reporting years. It should be noted that if some of the area (>3% of the total area) in unknown condition were deemed to be in unfavourable 'not good' condition, this would result in an unfavourable-bad conclusion for this parameter.

6.4 Short term trend of habitat area in good condition; Direction	The short-term trend of habitat in good condition was assessed by the four countries and the results were aggregated (see 2019 UK Approach Document). The overall UK short-term trend is thought to be stable compared with 2013 when the trend was declining. This is because the majority of the resource was assessed as stable. There were no notable deteriations in assessed Scottish SACs and existing management measures in Northern Ireland are thought to be mitigating against pressures within assessed SACs.
9.1 Future prospects of parameters	Future trends for each parameter were selected by the four countries and then aggregated to give a future trend for the UK (see 2019 UK Approach Document). Table 32 in the EU Guidelines was used to bring the future trend and conservation status of each parameter together to conclude on future prospects.
9.1a Future prospects of parameters - Range	Future prospects are good because the future trend for range is thought to be stable and the conservation status for range is favourable. Future prospects were also good in 2013.
9.1b Future prospects of parameters - Area	Future prospects are good because the future trend for area is thought to be stable and the conservation status for area is favourable. Future prospects were also good in 2013.
9.1c Future prospects of parameters - Structure and functions	The furture trend for structure and functions is thought to be positive and the conservation status for structure and functions is unfavourable-inadequate. This results in poor prospects for the the parameter. Prospects were bad in 2013, however, the condition of the habitat is predicted to improve in Scotland, which has led to an improvement in the prospects of the parameter.
10.7a Overall assessment of conservation status	The overall assessment of Conservation Status has changed between 2013 and 2019. The Future prospects have improved for this habitat with Scotland predicting an improvement in condition in the next two reporting cycles. The Future prospects conclusion has changed from bad (2013) to inadequate. The structure and functions conclusion has also changed from bad (2013) to inadequate. The change in status is thought to be due to a change in methods as data sources used to determine condition may have changed between reporting years. It should be noted that if some of the area (>3% of the total area) in unknown condition were deemed to be in unfavourable 'not good' condition, this would result in an unfavourable-bad conclusion for this parameter and would result in the overall assessment of Conservation Status being unfavourable-bad.
11.3 Surface area of the habitat type inside the network; Method used	The Large shallow inlets and bays surface area map was intersected with all Natura 2000 sites that contain qualifying marine habitats or species (JNCC, 2018b). The cut-off used for SAC designations was Tranche 56 in November 2017.