

**Habitats Regulations Assessment document: NCSPA – tLSE 033**

<b>European Marine Site:</b>	<b>Northumbria Coast SPA</b>
<b>Generic sub-feature(s):</b>	<b>Surface feeding birds, Intertidal bedrock reef, Intertidal boulder and cobble reef, Water column</b>
<b>Gear type(s):</b>	<b>Gill nets</b>
<b>NIFCA tLSE type:</b>	<b>Detailed</b>
<b>Gear/feature interaction reference(s):<sup>1</sup></b>	<b>NCSPA – 265 NCSPA – 266 NCSPA – 267 NCSPA – 269</b>

<b>Revision history</b>		
<b><i>Date</i></b>	<b><i>Revision</i></b>	<b><i>Editor</i></b>
04/01/2016	Document created	VR
11/02/2016	Document revised following consultation with Natural England (05/02/16)	SM
01/07/2016	Document revised following consultation with Natural England (10/06/16)	VR

<b>Has Natural England been formally consulted on this tLSE (and do they agree)?</b>	<b>yes</b>
--	------------

<b>Date of document completion/'sign-off':</b>	<b>10/07/2016</b>
--	-------------------

## Test for Likely Significant Effect (LSE)

### NCSPA – 265: Surface feeding birds

<p><b>1. Is the activity/activities directly connected with or necessary to the management of the site for nature conservation?</b></p>	<p>No</p>
<p><b>2. What pressures (such as abrasion, disturbance) are potentially exerted by the gear type(s)?</b></p> <p><i>*Sensitivities as listed are based on DRAFT Interim conservation advice. Reference to Regulation 33 advice for the Northumbria Coast SPA and best judgement has been used to determine which of these pressures are truly exerted by the gear type(s).</i></p>	<p>Above water noise (Sensitive) <sup>1</sup></p> <p>Barrier to species movement (Sensitive)</p> <p>Collision ABOVE and BELOW water with static or moving objects not naturally found in the marine environment (Sensitive)<sup>2</sup></p> <p>Introduction or spread of non-indigenous species (Sensitive)<sup>3</sup></p> <p>Litter i.e. Ghost fishing (Sensitive)<sup>4</sup></p> <p>Removal of non-target species i.e. bycatch (Sensitive)<sup>5</sup></p> <p>Visual disturbance (Sensitive)<sup>6</sup></p>
<p><b>3. Is the feature potentially exposed to the pressure(s)?</b></p>	<p>Yes</p>

#### 4. What are the conservation objectives for the feature?

\*DRAFT interim conservation advice does not give definitive conservation objectives. However, completing an HRA without COs is difficult. The CO as listed in this document is based on current knowledge of the status, and the pressures, affecting designated features (see sections 4 &5).

Expert judgement has been used to determine which features may be exposed to the pressure(s) resulting in inferred COs. These COs are assigned a degree of uncertainty i.e. a subjective confidence level based on evidence 'High', 'Medium,' 'Low', and 'Unknown'.

Conservation objective for Surface feeding birds: **Maintain\***:

- The frequency, duration and/or intensity of disturbance affecting nesting and/or feeding birds should not reach levels that substantially affects the feature.
- the size of the population at a level which is above either the SPA Citation or an alternative baseline-population previously approved by Natural England Chief Scientist or that based on the current mean peak count or equivalent, whichever is the higher.
- safe passage of birds moving between roosting and feeding areas, generally within 6 km of breeding colonies.
- availability of key prey species (e.g. crustacea, annelids, sandeel, herring, clupeidae) at preferred prey sizes.
- the availability of shallow sloping nesting sites, grading to [<30 cm] above water level, or the probability that they will flood.
- vegetation cover (generally <15%) throughout areas used for nesting, providing sufficient bare ground for the colony as a whole.
- the abundance and structure of the assemblage at or above its current or target level (whichever is the higher) through [maintaining/restoring] breeding productivity and adult survival.
- the extent, distribution and availability of suitable breeding habitat which supports the feature for all necessary stages of its breeding cycle (courtship, nesting, feeding)
- water quality and quantity to a standard which provides the necessary conditions to support the SPA feature, where the supporting habitats of the feature are dependent on surface water

Those conservation objectives that might be affected by gill netting are underlined.

\*Confidence level for interim, inferred Conservation Objective: **MEDIUM** (see section 6 for detail).

<p><b>5. What are the potential effects/impacts of the pressure(s) on the feature, taking into account the exposure level?</b></p>	<p>Levels of static netting activity throughout the Northumberland IFCA district have declined significantly in recent years and are currently very low, with just 5/6 boats known to set nets on an infrequent basis (Jon Green, pers. comms.).</p> <p>The NCSPA boundary stretches sporadically along the Northumberland coastline from the river Tweed to Blackhall Rocks (NEIFCA district). The gear/feature interaction risk for surface feeding birds is limited to a 6km radius around Low Newton, identified area for the breeding little terns (<i>Sternula albifrons</i>) within the SPA.</p> <p>NIFCA Byelaw 6 (Fixed Engines) includes a number of technical, spatial and temporal restrictions designed to minimise the potential of accidental bycatch of birds, including a prohibition on the use of bottom-set nets with a headline less than 4 metres below the surface of the water from 26<sup>th</sup> March – 31<sup>st</sup> October.</p> <p>Considering the low levels of gill netting activity within the NIFCA district and the area of relevant use of the feature within the SPA, it is highly unlikely to cause a significant effect. However given the status of the species (Annex I) and importance of the supporting feature more information is needed to confirm this.</p>
<p><b>6. Condition and Conservation Objective Inferences</b></p>	<p>The Conservation Objective given in the Regulation 33 advice for the Northumbria Coast SPA for little terns is set to ‘Maintain’. At the time of publication (June 2000), 40 breeding pairs equating to 1.7% of the UK population were using the site (5 year peak mean 1992-1997). During the 2015 season, 27 (70 nests) breeding pairs of little terns were recorded, and generally numbers have increased since the National Trust began protecting the site in 1977, at which time only 3 breeding pairs were present<sup>10</sup>. From 2010-2014 the NCSPA supported an average of 31 breeding pairs of little tern (1.64% of GB breeding population)<sup>11</sup>. Based on this evidence and in lieu of an up to date conservation objective for the feature, a conservation objective of ‘Maintain’ has been inferred for little terns, with a medium level of confidence.</p>

<p><b>7. Is the potential scale or magnitude of any effect likely to be significant?</b></p>	<p><b>Alone:</b></p> <p><b>No*</b></p> <p>*However further analysis of netting activity within area is required to assess current scale and magnitude of risk.</p>	<p><b>OR In-combination</b></p> <p><b>No</b></p>
<p><b>8. Have NE been consulted on this LSE test? If yes, what was NE's advice?</b></p>	<p>Yes</p> <p>Synthesis of evidence and local knowledge informing this decision occurred between January 2014 and the date of this document's creation with stakeholders (where appropriate) and other statutory authorities. Natural England (CS) was involved with this formal process.</p>	

## Conclusion

**Is the proposal likely to have a significant effect 'alone or in combination' on the Northumberland Coast SPA?**

No, however a full Appropriate Assessment is required to confirm this.

## Test for Likely Significant Effect (LSE)

### NCSPA – 266: Intertidal bedrock reef

### NCSPA – 267: Intertidal boulder and cobble reef

<p><b>1. Is the activity/activities directly connected with or necessary to the management of the site for nature conservation?</b></p>	<p>No</p>
<p><b>2. What pressures (such as abrasion, disturbance) are potentially exerted by the gear type(s)?</b></p> <p><i>*Sensitivities as listed are based on DRAFT Interim conservation advice. Reference to Regulation 33 advice for the Northumberland Coast SPA and best judgement has been used to determine which of these pressures are truly exerted by the gear type(s).</i></p>	<p>Abrasion/disturbance of the substrate on the surface of the seabed (Sensitive)<sup>7</sup></p> <p>Introduction or spread of non-indigenous species (Sensitive)<sup>3</sup></p> <p>Organic enrichment (Sensitive)<sup>8</sup></p> <p>Penetration and/or disturbance of the substrate below the surface of the seabed, including abrasion (Sensitive)<sup>9</sup></p> <p>Removal of non-target species i.e. bycatch (Sensitive)<sup>5</sup></p>
<p><b>3. Is the feature potentially exposed to the pressure(s)?</b></p>	<p>Yes</p>

#### 4. What are the conservation objectives for the feature?

\*DRAFT interim conservation advice does not give definitive conservation objectives. However, completing an HRA without COs is difficult. The CO as listed in this document is based on current knowledge of the status, and the pressures, affecting designated features (see sections 4 &5).

Expert judgement has been used to determine which features may be exposed to the pressure(s) resulting in inferred COs. These COs are assigned a degree of uncertainty i.e. a subjective confidence level based on evidence 'High', 'Medium,' 'Low', and 'Unknown'.

The conservation objectives for 'Intertidal' supporting habitat for designated bird feature(s) are set to:

##### Maintain\*:

- the distribution, abundance and availability of key prey items (e.g. *Mytilus mytilus*, *Littorina* spp., *Nucella lapillus*, kelp-fly larvae) at preferred prey sizes (purple sandpiper);
- the frequency, duration and/or intensity of disturbance affecting foraging and/or roosting birds should not reach levels that substantially affects the feature (purple sandpiper & turnstone);
- safe passage of birds moving between roosting and feeding areas (purple sandpiper & turnstone);
- the distribution, abundance and availability of key prey items (e.g. *Semibalanus* sp., *Mytilus mytilus*, *Carcinus maenus*, *Gammarus* spp., *Littorina* spp, dipertan flies, kelp-fly larvae) at preferred prey sizes (turnstone).

Those conservation objectives that might be affected by gill netting are underlined.

\*Confidence level for interim, inferred Conservation Objective: **MEDIUM** (see section 6 for detail).

<p><b>5. What are the potential effects/impacts of the pressure(s) on the feature, taking into account the exposure level?</b></p>	<p>Levels of static netting activity throughout the Northumberland IFCA district have declined significantly in recent years and are currently very low, with just 5/6 boats known to set nets on an infrequent basis (Jon Green, pers. comms.).</p> <p>The NCSPA boundary (as with this supporting feature) stretches sporadically throughout the whole NIFCA district from the river Tweed to Blackhall Rocks (NEIFCA district). However the gear/feature interaction risk for surface feeding birds is limited to a 6km radius around Low Newton, designated site for the breeding little terns (<i>Sternula albifrons</i>)<sup>11</sup>.</p> <p>Bottom set, static netting activity within the district predominantly targets whitefish e.g. Cod, Saithe and Flatfish or lobsters for which mesh sizes are too large to capture the small benthic prey species listed. The greatest risk from gill netting on the intertidal zone comes from Abrasion/disturbance of the substrate<sup>7</sup>, it is unlikely that gill nets are set in the intertidal zone and NIFCA Byelaw 6 (Fixed Engines) prohibits setting a net with a in waters less than 7 metres in depth from 26<sup>th</sup> March – 31<sup>st</sup> October. Therefore given the low very low exposure levels of gill netting within the intertidal zone, it is not deemed to have a significant adverse impact on the supporting habitats of ‘Intertidal bedrock reef’ or ‘Intertidal boulder and cobble reef’ within the NCSPA.</p>	
<p><b>6. Condition and Conservation Objective Inferences</b></p>	<p>No evidence is available on the current condition of ‘Intertidal bedrock reef’ or ‘Intertidal boulder and cobble reef’ within the NCSPA. Regulation 33 advice (June 2000) for the NCSPA gives a conservation objective of ‘Maintain’ for ‘Intertidal rock’. In lieu of an up to date conservation objective, it is set to ‘Maintain’ with a medium level of confidence.</p>	
<p><b>7. Is the potential scale or magnitude of any effect likely to be significant?</b></p>	<p><b>Alone:</b></p> <p><b>No</b></p>	<p><b>OR In-combination</b></p> <p><b>No</b></p>
<p><b>8. Have NE been consulted on this LSE test? If yes, what was NE’s advice?</b></p>	<p>Yes</p> <p>Synthesis of evidence and local knowledge informing this decision occurred between January 2014 and the date of this document’s creation with stakeholders (where appropriate) and other statutory authorities. Natural England (CS) was involved with this formal process.</p>	



## **Conclusion**

**Is the proposal likely to have a significant effect 'alone or in combination' on the Northumberland Coast SPA?**

No

## Test for Likely Significant Effect (LSE)

### NCSPA – 269: Water column

<p><b>1. Is the activity/activities directly connected with or necessary to the management of the site for nature conservation?</b></p>	<p>No</p>
<p><b>2. What pressures (such as abrasion, disturbance) are potentially exerted by the gear type(s)?</b></p> <p><i>*Sensitivities as listed are based on DRAFT Interim conservation advice. Reference to Regulation 33 advice for the Northumberland Coast SPA and best judgement has been used to determine which of these pressures are truly exerted by the gear type(s).</i></p>	<p>Barrier to species movement (Sensitive)<sup>12</sup></p> <p>Genetic modification &amp; translocation of indigenous species (Sensitive)<sup>13</sup></p> <p>Hydrocarbon &amp; PAH contamination. Includes those priority substances listed in Annex II of Directive 2008/105/EC.(Sensitive)<sup>14</sup></p> <p>Introduction of light (Sensitive)<sup>15</sup></p> <p>Introduction of other substances (solid, liquid or gas)(Sensitive)<sup>16</sup></p> <p>Introduction or spread of non-indigenous species (Sensitive)<sup>3</sup></p> <p>Litter i.e. Ghostfishing (Sensitive)<sup>4</sup></p> <p>Organic enrichment (Sensitive)<sup>8</sup></p> <p>Removal of non-target species(Sensitive)<sup>5</sup></p> <p>Synthetic compound contamination (incl. pesticides, antifoulants, pharmaceuticals). Includes those priority substances listed in Annex II of Directive 2008/105/EC. (Sensitive)<sup>16</sup></p> <p>Transition elements &amp; organo-metal (e.g. TBT) contamination. Includes those priority substances listed in Annex II of Directive 2008/105/EC. (Sensitive)<sup>16</sup></p> <p>Underwater noise changes. (Sensitive)<sup>18</sup></p> <p>Visual disturbance. (Sensitive)<sup>19</sup></p>
<p><b>3. Is the feature potentially exposed to the pressure(s)?</b></p>	<p>Yes</p>

<p><b>4. What are the conservation objectives for the feature?</b></p> <p>*DRAFT interim conservation advice does not give definitive conservation objectives. However, completing an HRA without COs is difficult. The CO as listed in this document is based on current knowledge of the status, and the pressures, affecting designated features (see sections 4 &amp;5).</p> <p>Expert judgement has been used to determine which features may be exposed to the pressure(s) resulting in inferred COs. These COs are assigned a degree of uncertainty i.e. a subjective confidence level based on evidence 'High', 'Medium,' 'Low', and 'Unknown'.</p>	<p>Conservation objectives for supporting habitat 'Coastal and offshore waters' for <u>all</u> designated SPA bird features are to <b>Maintain*</b>:</p> <ul style="list-style-type: none"> <li>- availability of key prey species (e.g. crustacea, annelids, sandeel, herring, clupeidae) at preferred prey sizes (little tern)</li> </ul> <p>*Confidence level for interim, inferred Conservation Objective: <b>LOW</b> (see section 6 for detail).</p>
<p><b>5. What are the potential effects/impacts of the pressure(s) on the feature, taking into account the exposure level?</b></p>	<p>Levels of static netting activity throughout the Northumberland IFCA district have declined significantly in recent years and are currently very low, with just 5/6 boats known to set nets on an infrequent basis (Jon Green, pers. comms.).</p> <p>The NCSPA boundary (as with this supporting feature) stretches sporadically throughout the whole NIFCA district from the river Tweed to Blackhall Rocks (NEIFCA district). However the gear/feature interaction risk for surface feeding birds is limited to a 6km radius around Low Newton, designated site for the breeding little terns (<i>Sternula albifrons</i>)<sup>11</sup>.</p> <p>Bottom set, static netting activity within the district predominantly targets whitefish e.g. Cod, Saithe and Flatfish or lobsters for which mesh sizes are too large to capture the small benthic prey species listed. The greatest risks from gill netting on the conservation objectives listed for the water column supporting habitat for designated SPA bird species comes from Abrasion/disturbance of the substrate<sup>7</sup> and the barrier to species movement / accidental bycatch of birds<sup>12</sup>. However, NIFCA Byelaw 6 (Fixed Engines) prohibits setting a net with a in waters less than 7 metres in depth and with a headline less than 4 metres below the water surface from 26<sup>th</sup> March – 31<sup>st</sup> October, thereby minimising the potential for bycatch of birds, particularly the surface feeding little terns. Given the current low levels of activity in the district and existing regulations, gill netting is not deemed to have a significant adverse impact on the water column within the NCSPA.</p>

<p><b>6. Condition and Conservation Objective Inferences</b></p>	<p>No evidence is available on the current condition of the 'Water column' within the NCSPA. In lieu of a definitive conservation objective for this feature, a CO of 'Maintain' has been inferred, based on a low level of confidence.</p>	
<p><b>7. Is the potential scale or magnitude of any effect likely to be significant?</b></p>	<p><b>Alone:</b>  <b>No</b></p>	<p><b>OR In-combination</b>  <b>No</b></p>
<p><b>8. Have NE been consulted on this LSE test? If yes, what was NE's advice?</b></p>	<p>Yes  Synthesis of evidence and local knowledge informing this decision occurred between January 2014 and the date of this document's creation with stakeholders (where appropriate) and other statutory authorities. Natural England (CS) was involved with this formal process.</p>	

## Conclusion

**Is the proposal likely to have a significant effect 'alone or in combination' on the Northumberland Coast SPA?**

No.

**References**

1. ICES (International Council for Exploration of the Sea), 2013; Stillman et al., 2007; Wildfowl and Wetlands Trust (WWT) Consulting, 2012. "Whilst activity would cause pressure, impact considered better captured by 'visual disturbance". **706 (UK9006131\_Northumbria\_Coast\_SPA\_Advice\_on\_Operations)**
2. Davenport and Davenport, 2006. "Collision can occur as a result of this activity in instances where a vessel in used". **150 (UK9006131\_Northumbria\_Coast\_SPA\_Advice\_on\_Operations)**
3. ICES (International Council for Exploration of the Sea), 2009 'The introduction and movement of invasive non-indigenous species may occur as a result of vessel movements, hull fouling and fishing activities.' **619 (UK9006131\_Northumbria\_Coast\_SPA\_Advice\_on\_Operations)**
4. Wildfowl and Wetlands Trust (WWT) Consulting, 2012. "Discarded/lost lines, hooks and nets which could be problematic for mobile species. Other types of litter generated by activity generally not considered to occur at level that would cause concern." **190 (UK9006131\_Northumbria\_Coast\_SPA\_Advice\_on\_Operations)**
5. Gubbay and Knapman, 1999; ICES (International Council for Exploration of the Sea), 2013; Kaiser et al., 2001; Sewell and Hiscock, 2005; Wildfowl and Wetlands Trust (WWT) Consulting, 2012. "Pressure may be exerted by by-catch associated with fixed nets and lines. However, vulnerability of feature to pressure will need to be considered on a case-by-case basis." **543 (UK9006131\_Northumbria\_Coast\_SPA\_Advice\_on\_Operations)**
6. Stillman et al., 2007; Wildfowl and Wetlands Trust (WWT) Consulting, 2012, "May result from the presence/movement of the vessel and potentially also the presence/movement of the gear. Magnitude of pressure would depend on nature and scale/intensity of activity." **362 (UK9006131\_Northumbria\_Coast\_SPA\_Advice\_on\_Operations)**
7. Gubbay and Knapman, 1999; Kaiser et al., 2001; Polet and Depestele, 2010; Sewell et al., 2007; Sewell and Hiscock, 2005; Wildfowl and Wetlands Trust (WWT) Consulting, 2012 "Pressure would result from contact between anchor and potentially footrope and seabed; magnitude of pressure will depend on spatial scale/intensity of activity and extent to which gear moves around." **559 (UK9006131\_Northumbria\_Coast\_SPA\_Advice\_on\_Operations)**
8. Dayton et al., 1995 "Discarded fish or fish that experience fishing mortality that are retained within the marine environment decompose and add organic material to the benthic environment." **752 (UK9006131\_Northumbria\_Coast\_SPA\_Advice\_on\_Operations)**
9. Gubbay and Knapman, 1999; Polet and Depestele, 2010; Sewell et al., 2007; Sewell and Hiscock, 2005; Wildfowl and Wetlands Trust (WWT) Consulting, 2012 "Pressure would be caused by anchors; magnitude of pressure will depend on spatial scale/intensity of activity." **550 (UK9006131\_Northumbria\_Coast\_SPA\_Advice\_on\_Operations)**
10. Finan J., Hendry T., Knight V., Rodriguez S.M. & Reid H. 2015. National Trust: Long Nanny tern colony 2015 report.
11. Natural England, 2015. Departmental brief: Northumberland Marine potential Special Protection Area.
12. No reference(s). "While unlikely this could occur as a result of setting nets in confined water bodies/estuaries, or behavioural effects from the use of 'pingers' on nets – the impacts from the latter may be better covered under 'under water noise' pressures." **704 (UK9006131\_Northumbria\_Coast\_SPA\_Advice\_on\_Operations)**
13. Gubbay and Knapman, 1999; Kaiser et al., 2001; Sewell et al., 2007; Sewell and Hiscock, 2005. "Fishing can lead to genetic selection for different body and reproductive traits, result in changes in the genetic makeup of populations and can extirpate distinct local stocks." **256 (UK9006131\_Northumbria\_Coast\_SPA\_Advice\_on\_Operations)**
14. Ware, 2009. "Fishing vessels could result in hydrocarbon contamination but considered unlikely to generally occur at level that would cause concern (with exception of large scale pollution event)." **258 (UK9006131\_Northumbria\_Coast\_SPA\_Advice\_on\_Operations)**
15. BirdLife International, 2012b. "Lighted vessels pose a collision risk to many species of birds. Birds drawn to light often become disoriented and collide with these structures, resulting in injury and death." **323 (UK9006131\_Northumbria\_Coast\_SPA\_Advice\_on\_Operations)**

## NCSPA-tLSE 033

16. Ware, 2009. "Vessels used during these activities could result in e.g. oil slicks but considered unlikely to generally occur at level that would cause concern (with exception of large scale pollution event)." **284 (UK9006131\_Northumbria\_Coast\_SPA\_Advice\_on\_Operations)**
17. Ospar Commission, 2011. "Could occur as a result of vessels associated with this activity. Generally considered unlikely to occur at level that would cause concern (with exception of large scale pollution event)." **166 (UK9006131\_Northumbria\_Coast\_SPA\_Advice\_on\_Operations)**
18. Thomsen and Intersessional correspondence group on underwater noise (2007 - 2009), 2009. "Pressure (e.g. increase in noise above ambient level) would be exerted via vessel movement, gear deployment/towing/hauling and the use of fish finding sonars." **536 (UK9006131\_Northumbria\_Coast\_SPA\_Advice\_on\_Operations)**
19. Stillman et al., 2007; Wildfowl and Wetlands Trust (WWT) Consulting, 2012. "May result from the presence/movement of the vessel and potentially also the presence/movement of the gear. Magnitude of pressure would depend on nature and scale/intensity of activity." **362 (UK9006131\_Northumbria\_Coast\_SPA\_Advice\_on\_Operations)**