

Habitats Regulations Assessment document: NCSPA – tLSE 034

European Marine Site:	Northumbria Coast SPA
Generic sub-feature(s):	Intertidal bedrock reef, Intertidal boulder and cobble reef, Water column
Gear type(s):	Pots/creels
NIFCA tLSE type:	Detailed
Gear/feature interaction reference(s):¹	NCSPA - 270 NCSPA - 271 NCSPA - 228

Revision history		
<i>Date</i>	<i>Revision</i>	<i>Editor</i>
17/02/2016	Document created	SM
01/07/2016	Document revised following consultation with Natural England (10/06/16)	VR

Has Natural England been formally consulted on this tLSE (and do they agree)?	Yes
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Date of document completion/'sign-off':	01/07/2016
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Test for Likely Significant Effect (LSE)

NCSPA – 270: Intertidal bedrock reef

NCSPA – 271: Intertidal boulder and cobble reef

<p>1. Is the activity/activities directly connected with or necessary to the management of the site for nature conservation?</p>	<p>No</p>
<p>2. What pressures (such as abrasion, disturbance) are potentially exerted by the gear type(s)?</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 seabed¹</p> <p>Introduction or spread of non-indigenous species²</p> <p>Penetration and/or disturbance of the substrate below the surface of the seabed, including abrasion³</p> <p>Removal of non-target species⁴</p> <p>Removal of target species</p>
<p>3. Is the feature potentially exposed to the pressure(s)?</p>	<p>Yes</p>
<p>4. What are the conservation objectives for the feature?</p> <p><i>*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).</i></p> <p><i>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'.</i></p>	<p>The conservation objectives for 'Intertidal' supporting habitat for designated bird feature(s) are set to:</p> <p>Maintain*:</p> <ul style="list-style-type: none"> - <u>the distribution, abundance and availability of key prey items (e.g. <i>Mytilus</i>, <i>Littorina</i>, <i>Nucella</i>, kelp-fly larvae) at preferred prey sizes (purple sandpiper);</u> - <u>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);</u> - <u>safe passage of birds moving between roosting and feeding areas (purple sandpiper & turnstone);</u> - <u>the distribution, abundance and availability of key prey items (e.g. <i>Balanus</i>, <i>Mytilus</i>, <i>Carcinus</i>, <i>Gammarus</i>, <i>Littorina</i>, dipertan flies, kelp-fly larvae) at preferred prey sizes (turnstone).</u> <p><i>Those conservation objectives that might be affected by potting activity are underlined.</i></p> <p><i>*Confidence level for interim, inferred Conservation Objective: MEDIUM (see section 6 for detail).</i></p>

<p>5. What are the potential effects/impacts of the pressure(s) on the feature, taking into account the exposure level?</p>	<p>Potting for European lobster <i>Homarus gamarus</i> and brown crab <i>Cancer pagurus</i> is the principle fishery within the Northumberland IFCA district, with 115 active commercial shellfish permit holders in 2015 and approximately 38,000 [commercial] pots fished within the district (2014). Potting occurs predominantly on subtidal hard substrates, although some activity may occur on intertidal rocky reef particularly during neap tides where the greatest risk to the conservation objectives for the supporting feature 'Intertidal rock' may occur as a result of 'Abrasion/disturbance of the substrate on the surface of the seabed¹', 'Removal of non-target species' (i.e. prey species)⁴ and disturbance for foraging/roosting birds.</p> <p>Potting within the intertidal zone is more typical of recreational fishing activity and pots are more likely to be set individually (as opposed to in fleets of 10-30 pots typical of potting in subtidal areas prosecuted by commercial vessels). Recreational potting activity is at a low level throughout the district, with more recreational fishers targeting lobsters and crab from the shore using a 'cleek' (a long pole modified for removing shellfish from rock crevices) and is highly seasonal, concentrated during the summer months. As of January 2016, NIFCA have introduced an annual permit scheme for recreational potting, which will enable recreational effort to be monitored on an annual basis. At current levels, potting in the intertidal zone is unlikely to cause significant abrasion/disturbance of the substrate, or have a significant impact on the availability of key prey species e.g. <i>Mytilus</i>, <i>Balanus</i> or <i>Carcinus</i>.</p> <p>The NCSPA boundary stretches sporadically along the Northumberland coastline from the river Tweed to Blackhall Rocks (NEIFCA district). At current low levels, potting within the NCSPA is not deemed to have a significant adverse impact on Intertidal rock habitats.</p>
<p>6. Condition and Conservation Objective Inferences</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>7. Is the potential scale or magnitude of any effect likely to be significant?</p>	<p>Alone:</p> <p>No</p>	<p>OR In-combination</p> <p>No</p>
<p>6. Have NE been consulted on this LSE test? If yes, what was NE's advice?</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 – 228: Water column

<p>1. Is the activity/activities directly connected with or necessary to the management of the site for nature conservation?</p>	<p>No</p>
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<p>2. What pressures (such as abrasion, disturbance) are potentially exerted by the gear type(s)?</p> <p>*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).</p>	<p>Barrier to species movement⁵</p> <p>Genetic modification and translocation of indigenous species⁶</p> <p>Hydrocarbon & PAH contamination. Includes those priority substances listed in Annex II of Directive 2008/105/EC.⁷</p> <p>Introduction of light⁸</p> <p>Introduction of other substances (solid, liquid or gas)⁹</p> <p>Introduction or spread of non-indigenous species²</p> <p>Litter¹⁰</p> <p>Removal of non-target species⁴</p> <p>Removal of target species</p> <p>Synthetic compound contamination (incl. pesticides, antifoulants, pharmaceuticals). Includes those priority substances listed in Annex II of Directive 2008/105/EC¹¹</p> <p>Transition elements & organo-metal (e.g. TBT) contamination. Includes those priority substances listed in Annex II of Directive 2008/105/EC.¹¹</p> <p>Underwater noise changes¹²</p> <p>Visual disturbance¹³</p>
<p>3. Is the feature potentially exposed to the pressure(s)?</p>	<p>Yes</p>
<p>4. What are the conservation objectives for the feature?</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 &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 Maintain*:</p> <ul style="list-style-type: none"> - availability of key prey species (e.g. crustacea, annelids, sandeel, herring, clupeidae) at preferred prey sizes (little tern) <p>*Confidence level for interim, inferred Conservation Objective: LOW (see section 6 for detail).</p>

<p>5. What are the potential effects/impacts of the pressure(s) on the feature, taking into account the exposure level?</p>	<p>Potting for European lobster <i>Homarus gammarus</i> and brown crab <i>Cancer pagurus</i> is the principle fishery within the Northumberland IFCA district, with 115 active commercial shellfish permit holders in 2015 and approximately 38,000 [commercial] pots fished within the district (2014).</p> <p>Potting in the district occurs predominantly on subtidal hard substrates, outside of the NCSPA, although some (typically recreational) activity may occur on intertidal rocky reef particularly during neap tides where the greatest risk to the conservation objectives for the supporting feature 'Water column' may occur as a result of 'Removal of non-target species' (i.e. prey species)⁴. Potting predominantly targeting lobster and crab is unlikely to impact on prey species for the little tern as these live in the water column and are too small to be caught in pots. Furthermore, the gear/feature interaction risk for little terns is limited to a 6km radius around Low Newton¹⁴.</p> <p>Therefore, at current levels, potting is not deemed to have a significant adverse impact on the water column within the NCSPA.</p>	
<p>6. Condition and Conservation Objective Inferences</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>7. Is the potential scale or magnitude of any effect likely to be significant?</p>	<p>Alone:</p> <p>No</p>	<p>OR In-combination</p> <p>No</p>
<p>8. Have NE been consulted on this LSE test? If yes, what was NE's advice?</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.

References

1. Gubbay and Knapman, 1999; Kaiser et al., 2001; Polet and Depestele, 2010; Roberts et al., 2010; Sewell et al., 2007; Sewell and Hiscock, 2005; Wildfowl and Wetlands Trust (WWT) Consulting, 2012. "Pressure would result from contact between gear and seabed; magnitude of pressure will depend on spatial scale/intensity of activity and extent to which gear moves around." **560 (UK9006131_Northumbria_Coast_SPA_Advice_on_Operations)**
2. 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)**
3. Gubbay and Knapman, 1999; Polet and Depestele, 2010; Sewell et al., 2007; Sewell and Hiscock, 2005. "Pressure would be caused by anchors; magnitude of pressure will depend on spatial scale/intensity of activity." **549 (UK9006131_Northumbria_Coast_SPA_Advice_on_Operations)**
4. Gubbay and Knapman, 1999; ICES (International Council for Exploration of the Sea), 2013; Kaiser et al., 2001; Sewell et al., 2007; Sewell and Hiscock, 2005; Wildfowl and Wetlands Trust (WWT) Consulting, 2012. "Pressure may be exerted by, for example, by-catch associated with fish traps. However, vulnerability of feature to pressure will need to be considered on a case-by-case basis." **548 (UK9006131_Northumbria_Coast_SPA_Advice_on_Operations)**
5. 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)**
6. 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)**
7. 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)**
8. 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)**
9. 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)." **684 (UK9006131_Northumbria_Coast_SPA_Advice_on_Operations)**
10. No reference(s). "Activity may result in litter but unlikely to be at level that would cause concern." **18 (UK9006131_Northumbria_Coast_SPA_Advice_on_Operations)**
11. 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)**
12. 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 and gear deployment/towing/hauling. Whether pressure was exerted at benchmark level would depend on nature and scale/intensity of the activity." **535 (UK9006131_Northumbria_Coast_SPA_Advice_on_Operations)**
13. 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)**
14. Natural England, 2015. Departmental brief: Northumberland Marine potential Special Protection Area.

