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Wales

Special Protection Areas in Welsh waters

Indicative site level feature condition assessments 2018

NRW Evidence Report No: 236

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Summary

This document contains NRW's indicative assessments of the condition of marine features in special protection areas (SPAs) in Wales. Table 1 provides a quick summary of the indicative condition assessments by feature number on sites. It is important to look at the complete assessments as these give information on individual feature indicative condition assessments, confidence levels, data sources and any known reason for decline.

This report is divided into a series of sections as follows:

Section 1: a brief introduction to the importance and need for site level condition assessments

Section 2: a brief description and map of our Welsh SPAs.

Section 3: NRW's indicative condition assessments for the features of our SPAs by site.

Section 4: NRW's plans for the future development of site level condition assessments.

Annexes explain the process of producing indicative condition assessments for marine features of our SPAs.

Table 1: Summary of indicative condition of features across the SPAs in Wales.

SPA Name	Indicative Condition Assessment					
	Favourable (number of species)	Confidence ¹	Unfavourable (number of species)	Confidence	Unknown (number of species)	Confidence
The Dee Estuary	9	High	7	High	0	
Liverpool Bay	2	High	0		1	Not applicable
Traeth Lafan	3	High	1	High	1	Not applicable
Anglesey Terns	3	High	1	High	0	
Aberdaron Coast and Bardsey Island	1	High	0		0	
Northern Cardigan Bay	0		0		1	Not applicable
Skomer, Skokholm and the Seas off Pembrokeshire	3	High	1	High	1	Not applicable
Grassholm	1	High	0		0	
Carmarthen Bay	1	High	0		0	
Burry Inlet	7	High	5	High	1	Not applicable
Severn Estuary	3	High	4	High	0	
Total (no.)	33		19		5	

¹ Please see the confidence levels in Annex A

Crynodeb

Mae'r ddogfen hon yn cynnwys asesiadau dangosol CNC o gyflwr nodweddion morol mewn ardaloedd gwarchod arbennig (AGAAu) yng Nghymru. Mae Tabl 1 yn rhoi crynodeb byr o'r asesiadau cyflwr dangosol ar safleoedd yn ôl nifer y nodweddion. Mae'n bwysig edrych ar yr asesiadau cyflawn gan fod y rhain yn rhoi gwybodaeth ar asesiadau cyflwr dangosol nodweddion unigol, lefelau hyder, ffynonellau data ac unrhyw reswm dros ddirywiad sy'n hysbys.

Rhannwyd yr adroddiad hwn yn gyfres o adrannau fel a ganlyn

Adran 1: cyflwyniad byr i bwysigrwydd yr asesiadau cyflwr ar lefel safle a'r angen amdanynt.

Adran 2: disgrifiad cryno a map o'n Hardaloedd Gwarchod Arbennig yng Nghymru.

Adran 3: Asesiadau cyflwr dangosol CNC ar gyfer nodweddion ein AGAAu yn ôl safle.

Adran 4: Cynlluniau CNC ar gyfer datblygu asesiadau cyflwr ar lefel safle i'r dyfodol.

Mae **Atodiadau** yn esbonio'r broses o gynhyrchu asesiadau cyflwr dangosol ar gyfer nodweddion morol ein AGAAu.

Tabl 1: Crynodeb o gyflwr dangosol nodweddion ar draws yr AGAAu yng Nghymru.

Enw'r AGA	Asesiad Cyflwr Dangosol					
	Ffafriol (nifer y rhywogaet hau)	Hyder ²	Anffafriol (nifer y rhywogaetha u)	Hyder	Anhysbys (nifer y rhywogaet hau)	Hyder
Aber Afon Dyfrdwy	9	Uchel	7	Uchel	0	
Bae Lerpwl	2	Uchel	0		1	Ddim yn Gymwys
Traeth Lafan	3	Uchel	1	Uchel	1	Ddim yn Gymwys
Morwenoliaid Ynys Môn	3	Uchel	1	Uchel	0	
Glannau Aberdaron ac Ynys Enlli	1	Uchel	0		0	
Gogledd Bae Ceredigion	0		0		1	Ddim yn Gymwys
Sgomer, Sgogwm a moroedd Penfro	3	Uchel	1	Uchel	1	Ddim yn Gymwys
Grassholm	1	Uchel	0		0	
Bae Caerfyrddin	1	Uchel	0		0	
Cilfach Tywyn	7	Uchel	5	Uchel	1	Ddim yn Gymwys
Môr Hafren	3	Uchel	4	Uchel	0	
Cyfanswm (nifer)	33		19		5	

² Gweler y lefelau hyder yn Atodiad A

1. Site level feature condition assessments

Site level feature condition assessments are important for site management allowing the prioritisation of resources and the development of management measures to improve the condition of features. They also help with the assessments of plans and projects.

Our marine special protection areas (SPAs) cover extensive areas of sea and coast, much of which is remote and resource intensive to monitor. For marine SPAs, much of the evidence (including the Welsh population status for long-term (1986-2016) and short-term (2000-2016) trends) arises from bird monitoring schemes such as the Seabird Monitoring Programme (SMP) and Wetland Bird Survey (WeBS). These schemes are organised and data are analysed by third parties such as the British Trust for Ornithology (BTO), Joint Nature Conservation Committee (JNCC) and the Royal Society for the Protection of Birds (RSPB). It is widely accepted, that indicative condition assessments would not be possible without these monitoring schemes.

We previously undertook preliminary work on full, detailed assessments for our marine SACs using all available evidence and assessing all possible attributes. However, this process proved complex and resource intensive, we have not previously done this for our marine SPAs. We have therefore concluded that we will not be able to undertake this type of extensive assessment now or in the future. Instead we will develop a new serviceable and streamlined approach that can be embedded in our internal assessment and reporting tools and processes. Reporting on marine features of our SPAs will be part of this process.

As the first stage in developing ongoing streamlined and sustainable site condition assessment and reporting, NRW has undertaken indicative assessments of condition of all marine SAC and SPA features in Wales. The process followed for producing the indicative site level condition assessments for the marine features of our SPAs is detailed in Annex A, with a summary definition in Box 1.

Box 1: Indicative condition assessments - definition and use

The term 'indicative condition assessment' describes the use of readily available evidence and expert judgement in an intensive, collective workshop process to provide an indication of feature condition at the site level.

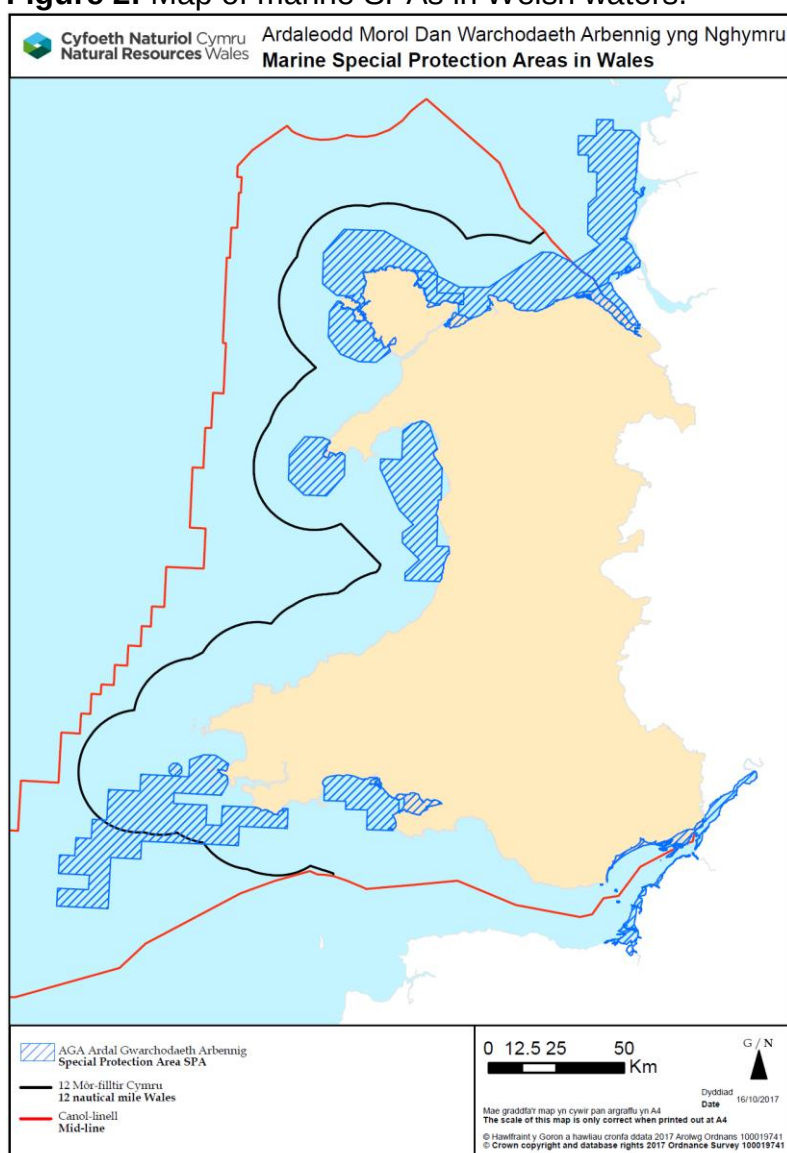
The confidence rating associated with the assessments is an **integral** part of the indicative assessment. Confidence levels for feature assessments should therefore **always** be quoted alongside the indicative condition result, together with NRW's definition of 'indicative condition assessment'.

2. Welsh Special Protection Areas

We currently have 11 SPAs that we consider part of our marine protected area (MPA) network. These sites have bird features that partly or wholly rely on the marine environment to complete their life cycles. Some of the SPAs in this report also have features not partly or wholly reliant on the marine environment to complete their life cycles, these were not assessed as part of this process.

More information on the individual sites can be found on the NRW website³ (including maps and conservation objectives), or the JNCC website⁴ where you can find more information on marine SPA across the UK and their standard data forms.

Figure 2: Map of marine SPAs in Welsh waters.



³ NRW website: sites search: <http://naturalresources.wales/guidance-and-advice/environmental-topics/wildlife-and-biodiversity/find-protected-areas-of-land-and-seas/designated-sites/?lang=en>

⁴ JNCC website – SPAs in the UK: <http://jncc.defra.gov.uk/page-1400>

4. Site level indicative feature condition assessments for Welsh SPAs

4.1 The Dee Estuary SPA

The Dee Estuary SPA (Welsh & English Counties) is a cross-border site jointly managed with Natural England (NE). Please note that the indicative condition assessments for the marine features of this site are based on the information collated and interpreted by NRW specialists and the judgements on the indicative condition assessments of the features of this site is NRW's alone. However, the data used in the assessment applies to both Welsh and English counties.

The Dee Estuary is one of the largest estuaries in the UK, with an area of over 14,000 ha. It is the largest macro-tidal coastal plain estuary between the larger Severn estuary and the Solway Firth. The site features can be found in Table 1. Many estuaries in the UK are of great importance to migratory and wintering wildfowl. The Dee Estuary forms part of a complex of estuaries, which provide habitats for migratory waterbirds along the shores of Liverpool Bay, which in turn forms part of a chain of such sites along the western coast of the UK. The relatively mild winter weather conditions found here, compared to continental Europe, can be of additional importance to the survival of wintering waterbirds during periods of severe weather. When applying the latest 5-year mean WeBS counts (2011/12 – 2015/16), the Dee Estuary is ranked 5th of importance out of the 60 principal sites for non-breeding waterbirds in the UK (Frost *et al.*, 2017). Outside of this period (winter), the Dee Estuary is also particularly important as a spring and autumn staging area for migratory waterbirds, lying on the East Atlantic Flyway route^e.

Table 1: Indicative condition assessments for qualifying features of The Dee Estuary SPA.

(i = indiv, p = pairs, 5-year peak mean = the mean of the annual peaks over 5 consecutive years)

Feature		Performance Indicator (5-year peak mean (1994/95-1998/99)) ¹	5-year peak mean (2011/12 - 2015/16) ²	Indicative condition assessment	Confidence in assessment	Wales population status		Comment
Common Name	Latin Name					25-year trend (1989/90-2014/15)	10-year trend (2004/05-2014/15)	
Sandwich tern (passage)	<i>Thalasseus sandvicensis</i>	957i	1,777i	Favourable	High	Increase ³	Increase ³	
Little tern (breeding)	<i>Sternula albifrons</i>	69p	129p	Favourable	High	Increase ⁴	Increase ⁴	
Common tern (breeding)	<i>Sterna hirundo</i>	392p	346p	Unfavourable	High	Increase ⁴	Increase ⁴	Breeding colony is slowly recovering after 5-year abandonment

^e Many species migrate along broadly similar, well-established routes known as flyways.

Feature		Performance Indicator (5-year peak mean (1994/95-1998/99)) ¹	5-year peak mean (2011/12 - 2015/16) ²	Indicative condition assessment	Confidence in assessment	Wales population status		Comment
Common Name	Latin Name					25-year trend (1989/90-2014/15)	10-year trend (2004/05-2014/15)	
Bar- tailed godwit	<i>Limosa lapponica</i>	1,150i	950i	Unfavourable	High	Decline ³	Decline ³	Numbers can be affected by shifts in winter spatial distribution i.e. short stopping ⁵ . The declines in Wales reflect the short-term decline in the UK ⁶ .
Redshank (passage)	<i>Tringa totanus</i>	8,795i	8,792i	Favourable	High	Unknown	Unknown	Numbers can be affected by shifts in winter spatial distribution i.e. short stopping. The 5-year peak mean (2011/12 - 2015/16) suggests numbers are stable for passage birds.
Shelduck (wintering)	<i>Tadorna tadorna</i>	7,725i	6,720i	Unfavourable	High	Increase ³	Decline ³	Numbers possibly affected by shifts in winter spatial distribution i.e. short stopping. The decreases at The Dee Estuary reflect the chronic declines throughout the UK where there has been a 32% decrease in non-breeding birds between 1989/90 – 2014/15 and a 27% decrease between 2004/05 – 2014/15.
Teal (wintering)	<i>Anas crecca</i>	5,251i	5,044i	Unfavourable	High	Increase ³	Decline ³	The trend data for Wales show a long-term increase in numbers.

Feature		Performance Indicator (5-year peak mean (1994/95-1998/99)) ¹	5-year peak mean (2011/12 - 2015/16) ²	Indicative condition assessment	Confidence in assessment	Wales population status		Comment
Common Name	Latin Name					25-year trend (1989/90-2014/15)	10-year trend (2004/05-2014/15)	
								This supports the UK trend where there has been a 41% increase in non-breeding birds between 1989/90 – 2014/15 ⁶ . However, the reasons for unfavourable status may be due to a shift in winter spatial distribution due to changes in climatic conditions.
Pintail (wintering)	<i>Anas acuta</i>	5,407i	3,928i	Unfavourable	High	Increase ³	Stable ³	The trend data for Wales show a long-term increase in numbers. This is the opposite to UK trends where there has been a 38% decrease in non-breeding birds between 1989/90 – 2014/15 ⁶ . However, the reasons for unfavourable status on this site maybe due to a shift in winter spatial distribution as a result of changes in climatic conditions
Oystercatcher (wintering)	<i>Haematopus ostralegus</i>	22,677i	24,271i	Favourable	High	Increase ³	Increase ³	The trend data for Wales show both a long-term and short-term increase in numbers. This is the

Feature		Performance Indicator (5-year peak mean (1994/95-1998/99)) ¹	5-year peak mean (2011/12 - 2015/16) ²	Indicative condition assessment	Confidence in assessment	Wales population status		Comment
Common Name	Latin Name					25-year trend (1989/90-2014/15)	10-year trend (2004/05-2014/15)	
								opposite to UK trends where there has been a 26% decrease in non-breeding birds between 1989/90 – 2014/15 and a 15% decline in numbers between 2004/05 – 2014/15 ⁶ .
Grey plover (wintering)	<i>Pluvialis squatarola</i>	1,643i	985i	Unfavourable	High	Decline ³	Decline ³	Numbers can be affected by shifts in winter spatial distribution i.e. short stopping. Both the long-term and short-term decreases for Wales support UK trends where there has been a 30% decrease in non-breeding birds between 1989/90 – 2014/15 and a 19% decline between 2004/05 – 2014/15 ⁶
Knot (wintering)	<i>Calidris canutus</i>	12,394i	23,923i	Favourable	High	Decline ³	Increase ³	Numbers can be affected by shifts in winter spatial distribution i.e. short stopping. The trend data for Wales show a long-term decrease in numbers this supports UK trends where there has been a 16% decrease in non-breeding birds between

Feature		Performance Indicator (5-year peak mean (1994/95-1998/99)) ¹	5-year peak mean (2011/12 - 2015/16) ²	Indicative condition assessment	Confidence in assessment	Wales population status		Comment
Common Name	Latin Name					25-year trend (1989/90-2014/15)	10-year trend (2004/05-2014/15)	
								1989/90 – 2014/15 and a similar 16% decrease between 2004/05 – 2014/15 ⁶ .
Dunlin (wintering)	<i>Calidris alpina</i>	27,769i	16,387i	Unfavourable	High	Decline ³	Decline ³	Numbers can be affected by shifts in winter spatial distribution i.e. short stopping. Both the long and short-term decreases in Wales and the unfavourable status support the UK trends where there has been a 40% decrease in non-breeding birds between 1989/90 – 2014/15 and a 19% decrease between 2004/05 – 2014/15 ⁶ .
Black-tailed godwit (wintering)	<i>Limosa limosa</i>	1,747i	5,904i	Favourable	High	Increase ³	Decrease ³	The favourable status and Welsh trends support the UK long-term trend where this species has increased by 300% between 1989/90 – 2014/15 but not the UK short-term trend that shows a 33% increase between 2004/05 – 2014/15 ⁶ .
Curlew (wintering)	<i>Numenius arquata</i>	3,899i	3,890i	Favourable	High	Increase ³	Decline ³	Numbers can be affected by shifts in winter spatial distribution i.e. short

Feature		Performance Indicator (5-year peak mean (1994/95-1998/99)) ¹	5-year peak mean (2011/12 - 2015/16) ²	Indicative condition assessment	Confidence in assessment	Wales population status		Comment
Common Name	Latin Name					25-year trend (1989/90-2014/15)	10-year trend (2004/05-2014/15)	
								stopping. The short-term decrease in Wales supports the UK trend where there has been a 13% decrease in non-breeding birds between– 2004/05 - 2014/15 ⁶ . The population on The Dee Estuary is considered stable and therefore is given a favourable status
Redshank (wintering)	<i>Tringa totanus</i>	5,293i	8,792i	Favourable	High	Increase ³	Increase ³	Numbers can be affected by shifts in winter spatial distribution i.e. short stopping. The trend data for Wales show increases in numbers, this is the opposite to UK trends where there has been a 20% decrease in non-breeding birds between 1989/90 – 2014/15 and a 18% decline between 2004/05 – 2014/15 ⁶
Waterbird assemblage (wintering) ^f	Not applicable	120,726i	130,254i	Favourable	High	Not assessed	Not assessed	

^f Species present in nationally important numbers or species whose populations exceed 2,000 individuals between 1994/5 and 1998/9 include: Great crested grebe *Podiceps cristatus*, cormorant *Phalacrocorax carbo*, shelduck, wigeon *Anas penelope*, teal, pintail, oystercatcher, grey plover, lapwing *Vanellus vanellus*, knot, sanderling *Calidris alba*, dunlin, black-tailed godwit, bar-tailed godwit, curlew and redshank.

Table notes:

1. Conservation advice for the Dee Estuary SPA and the performance indicators⁹ used in Table 1:
http://naturalresources.wales/media/673576/Dee%20Estuary-Reg33-Volume%201-English-091209_1.pdf
2. WeBS online data base: <https://app.bto.org/webs-reporting/?tab=alerts>
3. WeBS online data base: <https://app.bto.org/webs-reporting/?tab=alerts>
4. Seabird Monitoring Programme: <http://jncc.defra.gov.uk/smp>
5. Short-stopping: range shifts that involve shortening of the migratory corridor, qualified by season (i.e. breeding/winter) and degree (i.e. full or partial range shift).
6. Frost, et al., (2017). *Waterbirds in the UK 2015/16: The Wetland Bird Survey*

Noted activities

The following high or medium pressures were identified for the features of this site^h:

- Access & Recreation (Angling Sea) - High
- Climate change - High
- Invasive species – Terrestrial - High
- Agriculture and Land management / Predation and pest control - Medium

⁹ Performance indicators for SPAs are species numbers used to assesses current survey data against see Annex A for a fuller explanation.

^h These activities have been taken from NRW's Prioritised Improvement Plan (PIP) for The Dee Estuary SPA. Other information on the activities of the site can be seen in the Site Improvement Plan (SIP) for the site carried out as part of Natural England's Improvement Programme for England's Natura 2000 Sites (IPENS) <http://publications.naturalengland.org.uk/publication/6579320399069184?category=6329101765836800>

4.2 Liverpool Bay / Bae Lerpwl SPA

Liverpool Bay / Bae Lerpwl SPA is a cross-border site jointly managed with Natural England (NE). Please note that the indicative condition assessments for the marine features of this site are based on the information collated and interpreted by NRW specialists and the judgements on the indicative condition assessments of the features of this site is NRW's alone. However, the data used in the assessment applies to both Welsh and English counties.

Liverpool Bay / Bae Lerpwl SPA lies in Welsh and English waters and was classified jointly by the Welsh Ministers and UK Secretary of State in 2010. This site is the UK's most important wintering area for common scoter and the 4th most important wintering area for red-throated diver. A consultation to extend and add features (little gull, little tern and common tern) to the site was held in late 2016 / early 2017, the site was reclassified in December 2017. The results in Table 2 reflect the monitoring for the existing site and the two main features The waterbird assemblage was not assessed.

Table 2: Indicative condition assessments for Liverpool Bay / Bae Lerpwl SPA.

(i = indiv, p = pairs, 5-year peak mean = the mean of the annual peaks over 5 consecutive years)

Feature		Performance Indicator ¹ (5-year peak mean 2001/02 – 2006/07)	Winter 2015/16 ²	Indicative condition assessment	Confidence in assessment	Wales population status		Comment
Common Name	Latin Name					Long-term trend (1989/90-2014/15)	Short-term trend (2004/05-2015/16)	
Red-throated diver (wintering)	<i>Gavia stellata</i>	922i	1,525i ¹	Favourable	High	Unknown	Unknown	The increase in numbers may be the result of i) a proportion of the biogeographic population moving further west from Baltic wintering grounds, ii) a change in survey method i.e. visual aerial to digital aerial where there is greater confidence in the estimate or iii) a combination of the two. Note: the assessment is defined as favourable and is assessed from the single winter survey (2015/16) ¹

Feature		Performance Indicator ¹ (5-year peak mean 2001/02 – 2006/07)	Winter 2015/16 ²	Indicative condition assessment	Confidence in assessment	Wales population status		Comment
Common Name	Latin Name					Long-term trend (1989/90-2014/15)	Short-term trend (2004/05-2015/16)	
Common scoter (wintering)	<i>Melanitta nigra</i>	54,675i	206,853i ²	Favourable	High	Unknown	Unknown	The significant change in numbers may be the result of i) a proportion of the biogeographic population moving from Baltic wintering grounds, ii) a change in survey method i.e. visual aerial to digital aerial where there is greater confidence in the estimate or iii) a combination of the two. Note: the assessment is defined as favourable and is assessed from the single winter survey (2015/16) ¹
Waterbird Assemblage (wintering)	<i>Not applicable</i>	55,597i	Not assessed	Unknown	Not applicable	Not assessed	Not assessed	

Table notes:

1. Performance indicator taken from the standard data form for the site: <http://jncc.defra.gov.uk/pdf/SPA/UK9020294.pdf>
2. Unpublished Hi-Def reports to Dong Energy (2015)

Noted activities

No activities have been identified as having an adverse impact on the features of this site. The Site Improvement Plan (SIP) for Liverpool Bayⁱ carried out as part of Natural England's Improvement Programme for England's Natura 2000 Sites (IPENS) did not identify any major pressures or threats for the Welsh portion of the site and no high or medium pressures or threats have been entered into NRW's Actions Database^j for this site.

ⁱ <http://publications.naturalengland.org.uk/publication/5296526586806272?category=6329101765836800>

^j The Action Database is an NRW database of all known actions needed to bring a feature into favourable condition.

4.3 Traeth Lafan / Lavan Sands, Conway Bay SPA

Traeth Lafan / Lavan Sands, Conway Bay SPA is lies in Conwy Bay between Bangor and Llanfairfechan in north-west Wales. This large area of intertidal sand- and mud-flats lies at the eastern edge of the Menai Strait. The area has a range of different exposures and a diversity of conditions, enhanced by freshwater streams that flow across the flats. The site is important for wintering waterbirds, especially oystercatcher (*Haematopus ostralegus*) and curlew (*Numenius arquata*). The site is an important moulting roost for great crested grebe (*Podiceps cristatus*) in late summer / early autumn.

Table 3: Indicative condition assessments for Traeth Lafan SPA.

(i = indiv, p = pairs, 5-year peak mean = the mean of the annual peaks over 5 consecutive years)

Feature		Performance Indicator ¹ (Five-year peak mean – 1985/86 – 1989/90)	5-year peak mean (2011/12 – 2015/16) ²	Indicative condition assessment	Confidence in assessment	Wales population status		Comment
Common Name	Latin Name					25-year trend (1989/90-2014/15) ²	10-year trend (2004/05-2014/15) ²	
Oystercatcher (wintering)	<i>Haematopus ostralegus</i>	5,500i.	6,864i	Favourable	High	Increase	Increase	The trend data for Wales show both a long-term and short-term increase in numbers. This is the opposite to UK trends where there has been a 26% decrease in non-breeding birds between 1989/90 – 2014/15 and a 15% decline in numbers between 2004/05 – 2014/15 ³
Curlew (wintering)	<i>Numenius arquata</i>	1,500i	2,049i	Favourable	High	Increase	Decline	Numbers can be affected by shifts in winter spatial distribution i.e. short stopping ⁴ . The short-term decrease in Wales supports the UK trend where there has been a 13% decrease in non-breeding birds between–

Feature		Performance Indicator ¹ (Five-year peak mean – 1985/86 – 1989/90)	5-year peak mean (2011/12 – 2015/16) ²	Indicative condition assessment	Confidence in assessment	Wales population status		Comment
Common Name	Latin Name					25-year trend (1989/90-2014/15) ²	10-year trend (2004/05-2014/15) ²	
								2004/05 - 2014/15 ³ . Similar to The Dee Estuary SPA the non-breeding curlew population for Traeth Lafan is in favourable condition
Great-crested Grebe (wintering)	<i>Podiceps cristatus</i>	500i	291i	Unfavourable	High	Increase	Increase	Numbers can be affected by shifts in winter spatial distribution i.e. short stopping. Both the long-term and short-term trend data for Wales show increases in numbers, this is the opposite to UK short-term trend (2004/05 – 2014/15) where there has been a 21% decrease in non-breeding birds ³
Red-breasted mergansers	<i>Mergus serrator</i>	120i	Unknown	Unknown	High	Increase	Decline	Numbers can be affected by shifts in winter spatial distribution i.e. short stopping. The short-term decrease in Wales supports the UK trend where there has been a 20% decrease in non-breeding birds between– 2004/05 - 2014/15 ³ .

Feature		Performance Indicator ¹ (Five-year peak mean – 1985/86 – 1989/90)	5-year peak mean (2011/12 – 2015/16) ²	Indicative condition assessment	Confidence in assessment	Wales population status		Comment
Common Name	Latin Name					25-year trend (1989/90-2014/15) ²	10-year trend (2004/05-2014/15) ²	
Redshank	<i>Tringa totanus</i>	1,200i	1,407	Favourable	High	Increase	Increase	Numbers can be affected by shifts in winter spatial distribution i.e. short stopping. The trend data for Wales show increases in numbers, this is the opposite to UK trends where there has been a 20% decrease in non-breeding birds between 1989/90 – 2014/15 and a 18% decline between 2004/05 – 2014/15 ³

Table notes:

1. Performance indicators contained within the Standard data form for the site: <http://jncc.defra.gov.uk/pdf/SPA/UK9013031.pdf>
2. WeBS online data base: <https://app.bto.org/webs-reporting/?tab=alerts>
3. Frost, *et.al.* (2017). *Waterbirds in the UK 2015/16: The Wetland Bird Survey*
4. Short-stopping: range shifts that involve shortening of the migratory corridor, qualified by season (i.e. breeding/winter) and degree (i.e. full or partial range shift).

Noted activities

The following high or medium **pressures** were identified for the features of this site during the LIFE N2K Programme^k:

- Access & Recreation / Inappropriate vehicle use - high

No high or medium **threats** were identified for this site.

^k <https://naturalresources.wales/about-us/our-projects/nature-projects/life-n2k-wales/life-n2k-wales/?lang=en>

4.4 Anglesey Terns / Morwenoliaid Ynys Môn SPA

Anglesey Terns SPA is a newly extended site, in the north-west of Wales, and consists of three component breeding sites these are Ynys Feurig, Cemlyn Bay and The Skerries breeding colony sites and a new marine feeding area. The data collated and the performance indicators are based on work done on the original site. The site is classified for four species of breeding terns. The site was originally classified in June 1992 and extended in January 2017

Table 4: Indicative condition assessments for Anglesey Terns / Morwenoliaid Ynys Môn SPA.

(i = indiv, p = pairs, 5-year peak mean = the mean of the annual peaks over 5 consecutive years)

Feature		Performance Indicator ¹ (5-year mean (1992-1996))	5-year mean (2011/12 – 2015/16) ²	Indicative condition assessment	Confidence in assessment	Wales population status		Comment
Common Name	Latin Name					Long-term trend (1986-2016) ²	Short-term trend (2000-2016) ²	
Arctic tern (breeding)	<i>Sterna paradisaea</i>	1,290p	4,100p ^{4,5}	Favourable	High	Increase	Increase	Both the UKs long-term trend (1986-2015) and short-term trend (2000-2016) show an increase of 19% and 17% respectively ³
Common tern (breeding)	<i>Sterna hirundo</i>	189p	558p ^{4,5}	Favourable	High	Increase	Increase	The Welsh trends buck the UK's long-term trend (1986-2015) and short-term trend (2000-2016) of a decrease of 17% and 10% respectively ³
Roseate tern (breeding)	<i>Sterna dougallii</i>	3p	0.2p ^{4,5}	Unfavourable	High	Decline	Decline	The Roseate terns have abandoned the SPA and relocated to Rockabill Island SPA on the east coast of Ireland.
Sandwich tern (breeding)	<i>Thalasseus sandvicensis</i>	460p	2,395p ^{4,5}	Favourable	High	Increase	Increase	Both the UKs long-term trend (1986-2015) and short-term trend (2000-2016) show an increase of 5% and 13% respectively ³

Table notes:

1. Performance indicators and activity information is contained within the standard data form for the site: <http://jncc.defra.gov.uk/pdf/SPA/UK9013061.pdf>
2. Seabird Monitoring Programme: <http://jncc.defra.gov.uk/smp>
3. Eaton *et. al.* (2017). The state of the UK's birds 2016.
4. Unpublished North Wales Wildlife Trust reports (2016)
5. Unpublished RSPB report (2016)

Noted activities

The following high or medium **pressures** were identified for the features of this site through the NRW LIFE N2K Programme:

- Water management and issues / Coastal flood defence and erosion control (squeeze) - high

The following high or medium **threats** were identified for this site:

- Water management and issues / Natural coastal processes and sediment supply – high

The extended site was also judged to have the following high and medium pressure/threats¹:

- Industrial or commercial areas - High
- Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.) - High
- Interspecific faunal relations – High
- Outdoor sports and leisure activities, recreational activities - High
- Marine water pollution - Medium
- Changes in abiotic conditions - Medium
- Human induced changes in hydraulic conditions - Medium
- Other ecosystem modifications - Medium
- Threats and pressures from outside the Member State - Medium
- Renewable abiotic energy use - Medium

¹ Threats and pressures were taken from the standard data form for the site: <http://jncc.defra.gov.uk/pdf/SPA/UK9013061.pdf>

4.5 Glannau Aberdaron ac Ynys Enlli / Aberdaron Coast and Bardsey Island SPA.

Glannau Aberdaron ac Ynys Enlli / Aberdaron Coast and Bardsey Island SPA lies at the very south-western tip of the Llŷn Peninsula, almost surrounded by the Irish Sea and exposed to the prevailing winds and weather systems. The site includes three islands, Ynys Enlli and two small islands known as Ynysoedd y Gwylanod. The site is particularly important for its Manx shearwater breeding population. Manx shearwaters spend most of their lives out in the open sea, but congregate at breeding sites to which they faithfully return throughout their lives. These tend to be offshore islands that are free of predators (Brooke, 1990). Bardsey supports over 2% of the UK breeding population (Bardsey Island Bird Observatory, 2016).

Table 5: Indicative condition assessments for Aberdaron Coast and Bardsey Island SPA.

(i = indiv, p = pairs, 5-year peak mean = the mean of the annual peaks over 5 consecutive years)

Feature		Performance Indicator ¹	2015 & 2016 ^{2,3}	Indicative condition assessment	Confidence in assessment	Wales population status		Comment
Common Name	Latin Name					Long-term trend (1986-2016)	Short-term trend (2000-2016) ^{2,3}	
Manx shearwater (breeding)	<i>Puffinus puffinus</i>	10,000p (AOB) ⁴	Approx. 20,675 ³ (AOB)	Favourable	High	Unknown	Increase	

Table notes:

1. Performance indicator for this species can be found within the core management plan for the site: <http://naturalresources.wales/media/672092/Glannau%20Aberdaron%20Plan%20English.pdf>
2. Seabird Monitoring Programme: <http://jncc.defra.gov.uk/page-1550>
3. Bardsey Island Bird Observatory (2016), Bardsey Island Trust. Unpublished report to Natural Resources Wales
4. Apparently occupied burrows

Noted activities

The following high or medium **pressures** were identified for the features of this site through the LIFE N2K Programme:

- Agriculture and Land management / Scrub invasion – high
- Agriculture and Land management / Cutting / Mowing – insufficient – medium
- Agriculture and Land management / Fire - deliberate or accidental – medium

- Agriculture and Land management / Grazing - insufficient grazing – medium
- Agriculture and Land management / Grazing type and/or timing (inc. shepherding) – medium
- Invasive Species / Terrestrial - native and archaeophyte - medium

The following high or medium **threats** were identified for the features of this site through the LIFE N2K Programme:

- Access & Recreation / Access/Use - erosion/disturbance/damage – high
- Agriculture and Land management / Herbicide/ pesticide use – high
- Agriculture and Land management / Predation and pest control – high
- Agriculture and Land management / Grazing - insufficient grazing – medium
- Agriculture and Land management / Grazing type and/or timing (inc. shepherding) – medium
- Shipping, Ports, Marinas / Vessel accidents and associated issues – medium

4.6 Northern Cardigan Bay / Gogledd Bae Ceredigion SPA

Northern Cardigan Bay SPA as the name suggests occupies the northern half of Cardigan Bay on the west coast of Wales. The site was designated in 2016 for red-throated diver (RTD). The site is one of the most important wintering sites in GB waters for RTD, and the most important in Welsh waters. In Great Britain, wintering red-throated divers are associated with inshore waters, often occurring within sandy bays, firths and sea lochs, although open coastline is also frequently used (Skov *et al.*, 1995; Stone *et al.*, 1995). Wintering red-throated divers start to arrive in UK coastal waters from September, with numbers peaking during the winter and declining in Welsh waters from late February.

Table 6: Indicative condition assessments for Northern Cardigan Bay / Gogledd Bae Ceredigion SPA.

(i = indiv, p = pairs, 5-year peak mean = the mean of the annual peaks over 5 consecutive years)

Feature		Performance Indicator ¹ (2001/02 – 2003/04)	Status	Indicative condition assessment	Confidence in assessment	Wales population status		Comment
Common Name	Latin Name					Long-term trend (1986-2016) ²	Short-term trend (2000-2016) ²	
Red-throated diver (wintering)	<i>Gavia stellata</i>	1,186i	Not surveyed since 2003/04	Unknown	Not applicable	Unknown	Unknown	

Table notes:

1. Performance indicators and activity information taken from the standard data form for the site: <http://jncc.defra.gov.uk/pdf/SPA/UK9020327.pdf>
2. There has been no aerial survey since 2003/04 therefore the indicative condition assessment is “Unknown”

Noted activities

No high or medium pressures or threats have been identified for this site^m.

^m In the standard data form for the site: <http://jncc.defra.gov.uk/pdf/SPA/UK9020327.pdf>

4.7 Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro SPA

Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro SPA is a newly extended site encompassing the former known Skomer and Skokholm SPA and a new marine feeding area. This SPA supports an estimated 150,968 breeding pairs of Manx shearwater (*Puffinus puffinus*) (Stroud *et al.* 2001), representing 68.6% of the GB population and up to 57% of the global population. Perrins (2012), using a new census method, suggested an even higher population estimate for Manx shearwater of 316,070 breeding pairs. The site was reclassified in 2016 to provide foraging habitat for breeding Manx shearwater and Atlantic puffin (*Fratercula arctica*). The data collected, the performance indicators and some of the activity data is based on work done on the original site.

Table 7: Indicative condition assessments for Skomer, Skokholm and the Seas off Pembrokeshire /Sgomer, Sgogwm a Moroedd Penfro SPA.

(i = indiv, p = pairs, 5-year peak mean = the mean of the annual peaks over 5 consecutive years)

Feature		Performance Indicator ¹	5-year mean (2011/12 – 2015/16) ²	Indicative condition assessment	Confidence in assessment	Wales population status		Comment
Common Name	Latin Name					Long-term trend (1986-2016) ²	Short-term trend (2000-2016) ²	
Storm petrel (breeding)	<i>Hydrobates pelagicus</i>	3,500p (AOS) ³	2,130 (AOB) full census 2016 ⁴	Unknown	Not assessed	Unknown	Unknown	The 2016 census used a different method to the previous census that estimated 3,500 AOS (Wood <i>et al</i> 2016) ⁴ . Note, historical data will be re-analysed using the 2016 analytical method in 2017/18 to determine the level of confidence in the qualifying numbers provided at the time of classification.
Lesser black-backed gull (breeding)	<i>Larus fuscus</i>	20,300p	6,936 (AOS) ²	Unfavourable	High	Unknown	Decrease ²	
Manx shearwater (breeding)	<i>Puffinus puffinus</i>	150,968p	316,070 (AOB) ^{5,6}	Favourable	High	Unknown	Increase ²	The method has changed from the original count to the present, which may have affected the results ⁷
Puffin (breeding)	<i>Fratercula arctica</i>	9,500 p (AOB)	29,231 (AOB) ²	Favourable	High	Increase ²	Increase ²	

Feature		Performance Indicator ¹	5-year mean (2011/12 – 2015/16) ²	Indicative condition assessment	Confidence in assessment	Wales population status		Comment
Common Name	Latin Name					Long-term trend (1986-2016) ²	Short-term trend (2000-2016) ²	
Assemblage ⁿ (breeding)	<i>n/a</i>	394,260i	719,528i ²	Favourable	High	Not assessed	Not assessed	

Table notes:

1. Performance indicators were taken from the standard data form for the site: <http://jncc.defra.gov.uk/pdf/SPA/UK9014051.pdf>
2. Seabird Monitoring Programme: <http://jncc.defra.gov.uk/page-1550>
3. Apparently occupied sites
4. Wood, *et. al.* (2017).
5. Perrins, *et. al.* (2012).
6. Apparently occupied burrows
7. The population of Manx shearwater has gone from 137,000 pairs (SPA citation) to 150,968 pairs (Stroud *et al* 2001), representing 68.6% of the GB population and up to 55% of the global population. Using a new census method, Perrins *et al* (2012) suggested a population estimate for Manx shearwater of 316,070 breeding pairs. In both cases the population estimates vastly exceed the population thresholds for SPA selection under the UK guidelines. Though it is debatable if i) the new method overestimates the population, ii) if the old method underestimates breeding pairs or iii) if numbers have indeed increased considerably between the two counts, it is accepted that the reasons for the discrepancy between the census methods needs to be better understood. This may be achieved by either a repeat whole island census using the methods of Perrins *et al* (2012) or an experimental count where both methods are used at the same time

Noted activities

During NRW's LIFE N2K Programme no high or medium **pressures** were identified for the features of this site:

The following high or medium **threats** were identified for the features of the site:

- Shipping, Ports, Marinas / Vessel accidents and associated issues - medium

ⁿ Razorbill *Alca torda*, Common guillemot *Uria aalge*, Black-legged kittiwake *Rissa tridactyla*, Puffin *Fratercula arctica*, Lesser black-backed gull *Larus fuscus*, Manx shearwater *Puffinus puffinus*, European storm petrel *Hydrobates pelagicus*

For the extended site, the following **pressures/threats** were identified in the standard data form^o:

- Marine water pollution - high
- Interspecific faunal relations - high
- Renewable abiotic energy use - medium

^o <http://jncc.defra.gov.uk/pdf/SPA/UK9014051.pdf>

4.8 Grassholm SPA

Grassholm Island is situated 10 miles off the Pembrokeshire coast. Grassholm SPA is the only colony of northern gannets (*Morus bassanus*) in Wales and is the third largest gannetry in Britain and Ireland. It holds 8.6% of the NE Atlantic population and supports approximately 7% of the world population (Murray, 2015). Grassholm SPA was first classified in 1986. In 2014 the site was extended to include adjacent sea areas that are used by birds from within the existing SPA for behaviours that are directly linked to their use of the breeding site.

Table 8: Indicative condition assessments for Grassholm SPA.

(i = indiv, p = pairs, 5-year peak mean = the mean of the annual peaks over 5 consecutive years)

Feature		Performance Indicator ¹	2015	Indicative condition assessment	Confidence in assessment	Wales population status		Comment
Common Name	Latin Name					Long-term trend (1986-2016) ²	Short-term trend (2000-2016) ²	
Gannet (breeding)	<i>Morus bassanus</i>	30,000 (AOS) ³	36,011 (AOS) ⁴	Favourable	High	Increase	Increase	Both the UKs long-term trend (1986-2015) and short-term trend (2000-2016) show an increase of 86% and 34% respectively ⁵

Table notes:

1. The performance indicator was taken from the Core management plan for the site: [http://naturalresources.wales/media/674134/Grassholm%20SPA%20Management%20Plan%202021\[1\].4.08%20\(English\).pdf](http://naturalresources.wales/media/674134/Grassholm%20SPA%20Management%20Plan%202021[1].4.08%20(English).pdf)
2. Seabird Monitoring Programme: <http://jncc.defra.gov.uk/page-1550>
3. Apparently occupied sites (AOS)
4. Murray, S. (2105).
5. Eaton et al. (2017).

Noted activities

No high or medium pressure or threats were identified for the feature of this site during NRW's LIFE N2K Programme.

4.9 Bae Caerfyrddin / Carmarthen Bay SPA

Carmarthen Bay SPA was the first fully marine SPA classified in the UK. The site was classified in June 2003, qualifying under Article 4.2 of the Birds Directive (79/409/EEC) for wintering common scoter (*Melanitta nigra*), as it is used regularly by at least 1.1 % of the biogeographic population. Carmarthen Bay is one of the most important wintering sites in Britain and Ireland for this species.

Table 9: Indicative condition assessments for Carmarthen Bay SPA.

(i = indiv, p = pairs, 5-year peak mean = the mean of the annual peaks over 5 consecutive years)

Feature		Performance Indicator ¹	Winter 2016/17	Indicative condition assessment (IAC)	Confidence level	Wales population status		Comment
Common Name	Latin Name	(five-year peak mean 1997 - 2001/02)				Long-term trend (1986-2016)	Short-term trend (2000-2016)	
Common scoter (wintering)	<i>Melanitta nigra</i>	16,946i	35,763i ²	Favourable	High	Unknown	Unknown	Note, the assessment is defined as favourable but this assessment is based on a single winter survey (2016/17) as opposed to a 5-year peak mean.

Table notes:

1. Performance indicator and activity information taken from the standard data form for the site published in December 2015: <http://jncc.defra.gov.uk/pdf/SPA/UK9014091.pdf>
2. Voet, *et.al.* (2017). Census of common scoter in Carmarthen Bay SPA: winter 2016 – 2017. APEM Ltd. Unpublished Science Report to Natural Resources Wales

Noted activities: No high or medium pressure or threats were identified for the feature of this site in the standard data form published in 2017.

4.10 Burry Inlet SPA

The Burry Inlet SPA regularly supports large numbers of overwintering wildfowl and waders that feed in the saltmarshes and on the intertidal areas. The site is the most important wholly Welsh estuary for overwintering waterfowl and is particularly significant for oystercatcher (*Haematopus ostralegus*). The Burry Inlet is ranked 28th of importance out of the 60 principal sites for non-breeding waterbirds in the UK (Frost *et al.*, 2017)

Table 10: Indicative condition assessments for Burry Inlet SPA.

(i = indiv, p = pairs, 5-year peak mean = the mean of the annual peaks over 5 consecutive years)

Feature		Performance Indicator ¹ (5-year peak mean (1991/92 – 1995/96)	5-year peak mean (2011/12 – 2015/16) ²	Indicative condition assessment	Confidence in assessment	Wales population status		Comment
Common Name	Latin Name					25-year trend (1989/90-2014/15) ²	10-year trend (2004/05-2014/15) ²	
Oystercatcher (wintering)	<i>Haematopus ostralegus</i>	13,590i	13,286i	Unfavourable	High	Increase	Increase	The population appears to be recovering after a significant cockle die-off which may have contributed to a reduction in numbers. The trend data for Wales show both a long-term and short-term increase in numbers. This is the opposite to UK trends where there has been a 26% decrease in non-breeding birds between 1989/90 – 2014/15 and a 15% decline in numbers between 2004/05 – 2014/15 ³ .
Knot (wintering)	<i>Calidris canutus</i>	2,153i	3,758i	Favourable	High	Decline	Increase	Numbers can be affected by shifts in winter spatial distribution i.e. short stopping. The trend data for Wales show a long-term decrease in

Feature		Performance Indicator ¹ (5-year peak mean (1991/92 – 1995/96))	5-year peak mean (2011/12 – 2015/16) ²	Indicative condition assessment	Confidence in assessment	Wales population status		Comment
								numbers. This supports UK trends where there has been a 16% decrease in non-breeding birds between 1989/90 – 2014/15 and a similar 16% between 2004/05 – 2014/15 ³ . It is not known why short-term decreases are not reflected on the Burry Inlet SPA.
Turnstone (wintering)	<i>Arenaria interpres</i>	Unknown	27	Unknown	High	Decline	Stable	Numbers can be affected by shifts in winter spatial distribution i.e. short stopping. The trend data for Wales show a long-term decrease in numbers. This supports UK trends where there has been a 47% decrease in non-breeding birds between 1989/90 – 2014/15 ³ .
Pintail (wintering)	<i>Anas acuta</i>	1,772i	2,077i	Favourable	High	Increase	Stable	Numbers can be affected by shift in winter spatial distribution i.e. short stopping. The trend data for Wales show a long-term increase in numbers. This is the opposite to UK trends where there has been a 38% decrease in non-breeding birds between 1989/90 – 2014/15 and 46% decrease between 2004/05 – 2014/15 ³ . It is not known why

Feature		Performance Indicator ¹ (5-year peak mean (1991/92 – 1995/96))	5-year peak mean (2011/12 – 2015/16) ²	Indicative condition assessment	Confidence in assessment	Wales population status		Comment
								short-term decreases are not reflected on the Burry Inlet SPA.
Shoveler (wintering)	<i>Anas clypeata</i>	356i	164i	Unfavourable	High	Increase	Decline	Numbers can be affected by shift in winter spatial distribution i.e. short stopping. The trend data for Wales show a short-term decrease in numbers. This is the opposite to UK trends where there has been a 7% increase in non-breeding birds between 1989/90 – 2014/15 ³
Teal (wintering)	<i>Anas crecca</i>	433i	502i	Favourable	High	Increase	Decline	Numbers can be affected by shifts in winter spatial distribution i.e. short stopping. The trend data for Wales show a long-term increase in numbers. This supports the UK trend where there has been a 41% increase in non-breeding birds between 1989/90 – 2014/15 ³
Wigeon (wintering)	<i>Anas penelope</i>	1,797i	1,591i	Unfavourable	High	Increase	Decline	Numbers can be affected by shifts in winter spatial distribution i.e. short stopping. The unfavourable status and the short-term Welsh decrease supports the UK short-term trend where there has been a 18% decrease in

Feature		Performance Indicator ¹ (5-year peak mean (1991/92 – 1995/96))	5-year peak mean (2011/12 – 2015/16) ²	Indicative condition assessment	Confidence in assessment	Wales population status		Comment
								non-breeding birds between 1989/90 – 2014/15 ³
Dunlin (wintering)	<i>Calidris alpina</i>	6,242i	8,777i	Favourable	High	Decline	Decline	Numbers can be affected by shifts in winter spatial distribution i.e. short stopping. The long-term and short-term downward trends in Wales support the UK trends where there has been a 40% decrease in non-breeding birds between 2004/05 – 2014/15 and a 19% decrease in numbers between 2004/05 – 2014/15 ³
Curlew (wintering)	<i>Numenius arquata</i>	1,234i	1,091i	Unfavourable	High	Increase	Decline	Numbers can be affected by shifts in winter spatial distribution i.e. short stopping. The short-term decrease in Wales supports the UK trend where there has been a 13% decrease in non-breeding birds between 2004/05 - 2014/15 ³
Grey plover (wintering)	<i>Pluvialis squatarola</i>	329i	503i	Favourable	High	Decline	Decline	Numbers can be affected by shifts in winter spatial distribution i.e. short stopping. Both the long-term and short-term decreases for Wales support UK trends where there has been a 30% decrease in non-breeding birds between 1989/90 –

Feature		Performance Indicator ¹ (5-year peak mean (1991/92 – 1995/96))	5-year peak mean (2011/12 – 2015/16) ²	Indicative condition assessment	Confidence in assessment	Wales population status		Comment
								2014/15 and a 19% decline between 2004/05 – 2014/15 ³
Redshank (wintering)	<i>Tringa totanus</i>	616i	653i	Favourable	High	Increase	Increase	Numbers can be affected by shifts in winter spatial distribution i.e. short stopping. The trend data for Wales show increases in numbers. This is the opposite to UK trends where there has been a 20% decrease in non-breeding birds between 1989/90 – 2014/15 ³
Shelduck (wintering)	<i>Tadorna tadorna</i>	968i	830i	Unfavourable	High	Increase	Decline	Numbers possibly affected by shift in winter spatial distribution i.e. short stopping. The decreases at the Burry Inlet SPA reflect the short-term decline in Wales and the chronic declines throughout the UK where there has been a 32% decrease in non-breeding birds between 1989/90 – 2014/15 ³
Waterbird assemblage ^p (wintering)	Not applicable	34,962i	38,106i	Favourable	High	Not assessed	Not assessed	

^p Curlew *Numenius arquata*, dunlin *Calidris alpina alpina*, grey plover *Pluvialis squatarola*, shelduck *Tadorna tadorna*, shoveler *Anas clypeata*, teal *Anas crecca*, turnstone *Arenaria interpres*, and wigeon *Anas penelope*.

Table notes:

1. Performance indicators taken from the standard data form for the site published in 2006.
2. WeBS online data base: <https://app.bto.org/webs-reporting/?tab=alerts>
3. Frost, et al. (2017). *Waterbirds in the UK 2015/16: The Wetland Bird Survey*

Noted activities

The following high or medium **pressures** were identified for the features of this site during the LIFE N2K Programme:

- Agriculture and Land management / Grazing overgrazing – high
- Agriculture and Land management / Scrub invasion – high
- Invasive Species / Terrestrial - non-native – high
- Access & Recreation / Access/Use - erosion/disturbance/damage – medium
- Agriculture and Land management / Grazing insufficient grazing – medium

The following high or medium **threats** were identified for the features of this site:

- Access & Recreation / Wildfowling – medium

4.11 Severn Estuary SPA

Severn Estuary SPA is a cross-border site jointly managed with Natural England (NE). Please note that the indicative condition assessments for the marine features of this site are based on the information collated and interpreted by NRW specialists and the judgements on the indicative condition assessments of the features of this site is NRW's alone. However, the data used in the assessment applies to both Welsh and English counties. The Severn Estuary is ranked 13th of importance out of the 60 principal sites for non-breeding waterbirds in the UK (Frost *et al.* 2017).

Table 11: Indicative condition assessments for Severn Estuary SPA.

(i = indiv, p = pairs, 5-year peak mean = the mean of the annual peaks over 5 consecutive years)

Feature		Performance Indicator ¹ (5-year peak mean 1988/9 to 1992/3)	5-year peak mean (2011/12 – 2015/16) ²	Indicative condition assessment	Confidence in assessment	Wales population status		Comment
Common Name	Latin Name					Long-term trend (1986-2016) ²	Short-term trend (2000-2016) ²	
Bewick's swan (wintering)	<i>Cygnus columbianus</i>	289i	186i	Unfavourable	High	Decline	Decline	Numbers possibly affected by shift in winter spatial distribution i.e. short stopping. The decreases at the Severn Estuary reflect the chronic long-term (1989/90 – 2014/15) and short-term (2004/05 – 2014/15) declines throughout the UK where there has been 95% and 74% decreases respectively ³ .
European white-fronted goose (wintering)	<i>Anser albifrons</i>	3,002i	204i	Unfavourable	High	Decline	Decline	Numbers possibly affected by shifts in winter spatial distribution i.e. short stopping. The decreases at the Severn Estuary reflect the chronic declines throughout the UK where there has been a 69% decrease in non-breeding birds between 1989/90 – 2014/15 ³
Dunlin (wintering)	<i>Calidris alpina</i>	41,683i	25,730i	Unfavourable	High	Decline	Decline	Numbers possibly affected by shift in winter spatial distribution i.e. short stopping. The decreases at

Feature		Performance Indicator ¹ (5-year peak mean 1988/9 to 1992/3)	5-year peak mean (2011/12 – 2015/16) ²	Indicative condition assessment	Confidence in assessment	Wales population status		Comment
Common Name	Latin Name					Long-term trend (1986-2016) ²	Short-term trend (2000-2016) ²	
								the Severn Estuary reflect the chronic long-term (1989/90 – 2014/15) and short-term (2004/05 – 2014/15) declines throughout the UK where there has been 40% and 19% decreases respectively ³
Redshank (wintering)	<i>Tringa totanus</i>	2,013i	4,642i	Favourable	High	Increase	Increase	Numbers can be affected by shifts in winter spatial distribution i.e. short stopping. The trend data for Wales show increases in numbers. This is the opposite to UK trends where there has been a 20% decrease in non-breeding birds between 1989/90 – 2014/15 ³
Shelduck (wintering)	<i>Tadorna tadorna</i>	2,892i	3,726i	Favourable	High	Increase	Decline	Numbers possibly affected by shift in winter spatial distribution i.e. short stopping. The increases for the Burry Inlet SPA do not reflect the short-term decline in Wales and the chronic long-term (1989/90 – 2014/15) and short-term (2004/05 – 2014/15) declines throughout the UK where there has been 32% and 27% decreases respectively ³
Gadwall (wintering)	<i>Anas strepera</i>	330i	199i	Unfavourable	High	Increase	Increase	Reason(s) for unfavourable status are unknown and are opposite to both Welsh and UK long-term (1989/90 – 2014/15) and short-term (2004/05 – 2014/15) trends

Feature		Performance Indicator ¹ (5-year peak mean 1988/9 to 1992/3)	5-year peak mean (2011/12 – 2015/16) ²	Indicative condition assessment	Confidence in assessment	Wales population status		Comment
Common Name	Latin Name					Long-term trend (1986-2016) ²	Short-term trend (2000-2016) ²	
								where in the UK there has been a 149% increase in non-breeding birds between 1989/90 – 2014/15 and a 15% increase between 2004/-5 – 2014/15 ³
Waterbird assemblage (wintering) ⁴	Not applicable	68,026i ⁵	76,134i	Favourable	High	Not assessed	Not assessed	

Table notes:

1. Performance indicators taken from the conservation advice package for the site:
<http://naturalresources.wales/media/673887/severn-estuary-sac-spa-and-ramsar-reg-33-advice-from-ne-and-ccw-june-09.pdf>
2. WeBS online Data base: <https://app.bto.org/webs-reporting/?tab=alerts>
3. Frost, *et. al.* (2017). *Waterbirds in the UK 2015/16: The Wetland Bird Survey*
4. Bewick's swan (w), European white-fronted goose (w) Shelduck (w) Dunlin (w, p) Redshank (w, p) Gadwall (w) Ringed plover (w, p), Whimbrel (p), Teal (w), Pintail (w), Wigeon (w), Pochard (w), Tufted duck (w), Grey plover (w), Curlew (w), Spotted redshank (w). w = wintering, p = passage
5. Comprising 17,502 wildfowl and 50,524 waders

Noted activities

The following high or medium **pressures** were identified for the features of this site during the LIFE N2K Programme:

- Access & Recreation / Access/Use - erosion/disturbance/damage – high
- Agriculture and Land management / Grazing type and/or timing (inc. shepherding) – high
- Pollution and waste / Water pollution - diffuse sources - medium

No high or medium **threats** were identified for this site.

5. Future development of site level assessments

NRW would like to work towards a system of producing site level feature condition reports on a regular basis. A series of projects are in the planning stage to try to achieve this. We are unlikely to ever be able to monitor and report on all features to the level we and stakeholders would wish but we hope to achieve a process useful for site management within the next four to five years.

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Annex I Process for producing indicative condition assessments

The indicative condition assessments for SPAs were carried out by the NRW ornithologists using the best available data for bird population numbers and assessing this information against the performance indicators for the feature on each site. The process is summarised in Figure AI.1.

A performance indicator (PI) for bird population numbers was available for each of the 12 sites, this PI is based on the conservation objective set for the features of the site soon after designation or during data reviews (e.g. 2001 SPA review).

Figure AI.1: Summary of the procedure undertaken to produce indication condition assessments for marine SPAs in Wales.

Stages undertaken to produce indicative site level condition assessment reports for Welsh European marine sites (EMS)

1. Indicative condition assessments carried out by specialists
2. Production of SPA report containing site indicative assessments
3. SPA report sent out internally for comment
4. Issues with SPA report resolved
5. Final draft SPA report produced
6. Internal sign off * - draft site level report
7. External quality assurance of site level report
8. Final Internal sign off ** - final site level report

* 1st internal sign off by a dedicated task & finish group for the work

** Final internal sign off by the Marine Programme Board (and Evidence Board?)

Performance indicators for SPAs:

The conservation objectives for the feature of a site provide the basis for assessing the condition of a feature and the status of factors that affect it. NRW uses '**performance indicators**' within the conservation objectives for many SPAs, as the basis for monitoring and reporting. The performance indicators are what make the conservation objectives measurable. Performance indicators are selected to provide useful information about the condition of a feature and for these indicative condition assessments the performance indicator for the feature population levels only were used.

The performance indicators for these assessments were taken from information on the features either at designation or during subsequent reviews and is recorded in either standard data forms for the site or as part of the conservation objectives. The sources of the performance indicator for each site can be found in the relevant table.

Future work on the condition assessments for SPAs is likely to include a review of the performance indicators used for each site.

Data sources:

A variety of data sources were used for the indicative condition assessments and the data sources for each site can be found under the relevant site level table.

Noted activities:

The LIFE N2K Programme focussed on producing Prioritised Improvement Plans (PiPs) for each European site in Wales. These provided information on the pressure and threats for each feature of each marine SPAs. The relevant assessors were also aware of relevant ongoing casework at the site level that may have impacted site condition.

Information on activities relevant to the Welsh element of cross-border sites arising from the Natural England IPENS project were incorporated into the Welsh PIPs for these sites.

For sites not covered by this programme information on pressure/threats to the site were taken from the standard data form for the site.

Confidence levels used**Level of confidence in the evidence used to make the SPA assessments:**

The degree of confidence in the assessments was based on the quantity, quality, relevance or consistency of the evidence used. The categories were high, medium and low confidence as described below.

High confidence in evidence used for component assessment:

- Clear evidence from complete monitoring surveys (high quality data collected to relevant standards with robust analysis of results and appropriate positional data) to support assessment relevant to condition components.

Medium confidence in evidence used for component assessment:

- Partial survey or one of lower quality (i.e. lacking detail or appropriate positional data);
- Indirectly relevant to condition components but evidence may be from a complete survey, scientifically accurate study, peer reviewed research or other surveys;
- Site based, expert knowledge directly relevant to targets, supported by evidence (i.e. records, casework history, photos, positional data).

Low confidence in evidence used for component assessment:

- Incomplete, older or lower quality survey;
- High quality data but from only a small portion of the component (e.g. data only available for one small area of a habitat on a site where that habitat is extensive and varied);
- Modelled information;
- Site based, expert knowledge information either indirectly relevant to component condition or lacking sufficient supporting information.

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