Chichester and Langstone Harbours SPA Condition Assessment

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What is a Condition Assessment?

- Used to provide information on the condition of marine features for statutory and non-statutory reporting obligations (Marine and Coastal Access Act 2009, OSPAR Convention, Article 17 of the Habitats Directive, Environmental Targets (Marine Protected Areas) Regulations 2022)
- Underpins advice on site management and casework.
- Alongside policy drivers - favourable condition of 70% of sites
- Complete approach
    - Builds and improves on Common Standards Monitoring
    - Clear, accessible results
    - Uses all available evidence

Summary of the Process

Attributes- Metrics used to describe condition of the feature. Tested against targets using a range of evidence, pass/fail. Principal and secondary attributes form the assessment. Each judgement needs a confidence score & rationale

Feature Wide Attribute Assessment - Mobile bird features,. E.g. Common tern, Sanderling, Ringed Plover. Attributes are collated and weighted, condition is then ascribed

Feature Level Assessment – Due to bird features mobile nature, feature wide attribute assessments are the final steps and are transferred over entirely to the feature level assessment.

Guidance document

Summary of the process - Conditions

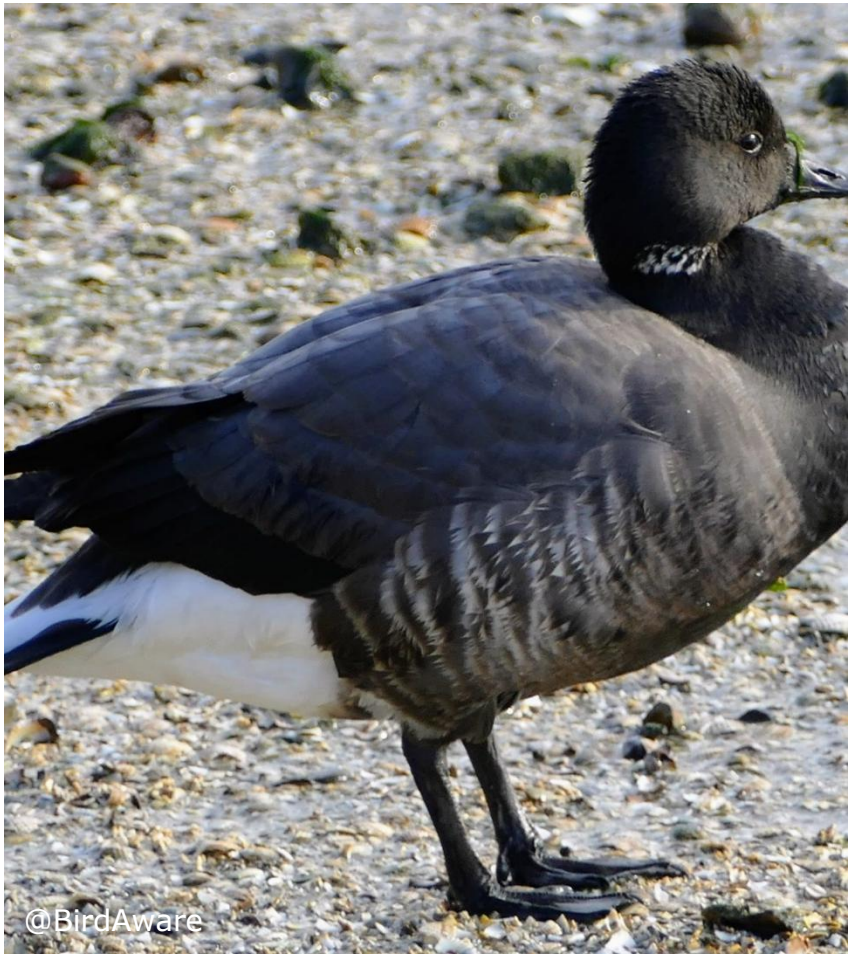
Favourable

- When a feature has passed both principal attributes:
  - Non-Breeding/Breeding population: Abundance
  - Supporting habitat: extent, distribution and availability of supporting habitat for the non-breeding season
- Case study: Pintail – reliant on stable habitats, abundance 19% increase above target

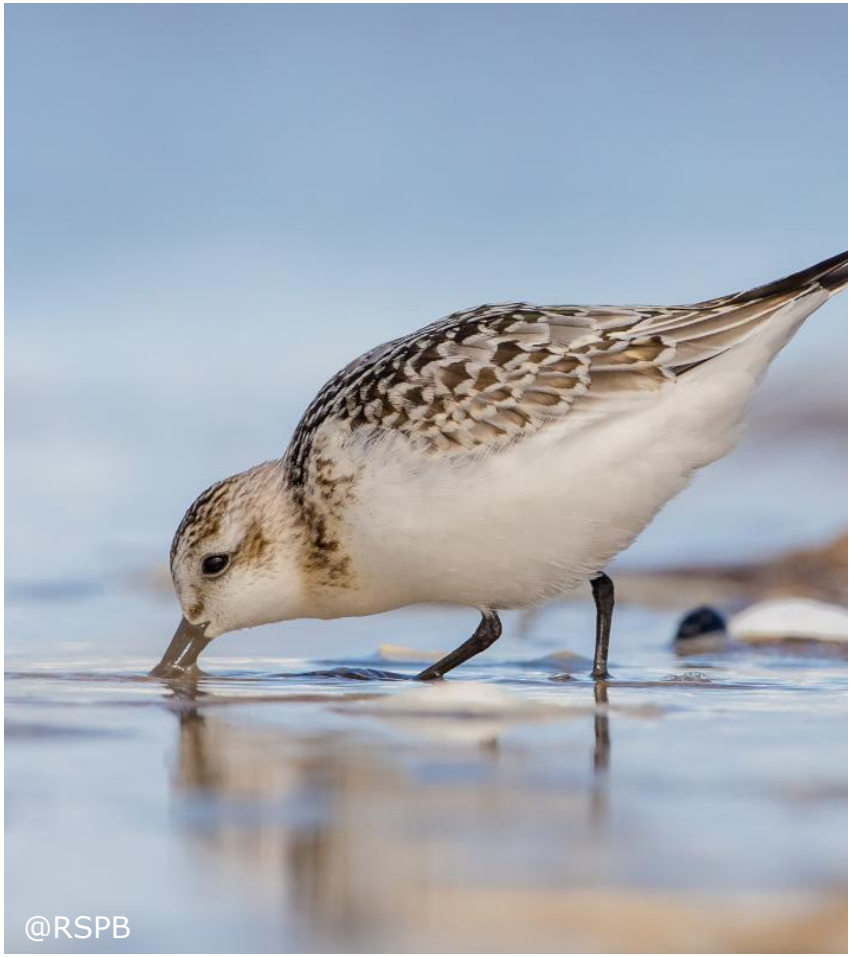
Summary of the process - Conditions

Unfavourable – Recovering

- When a feature has failed one principal attribute, but the feature is showing positive signs with regard to abundance numbers or other relevant targets
- Case study: Dark-bellied brent goose – habitat of seagrass failing, but abundance within natural fluctuation at 12% below target



Summary of the process - Conditions



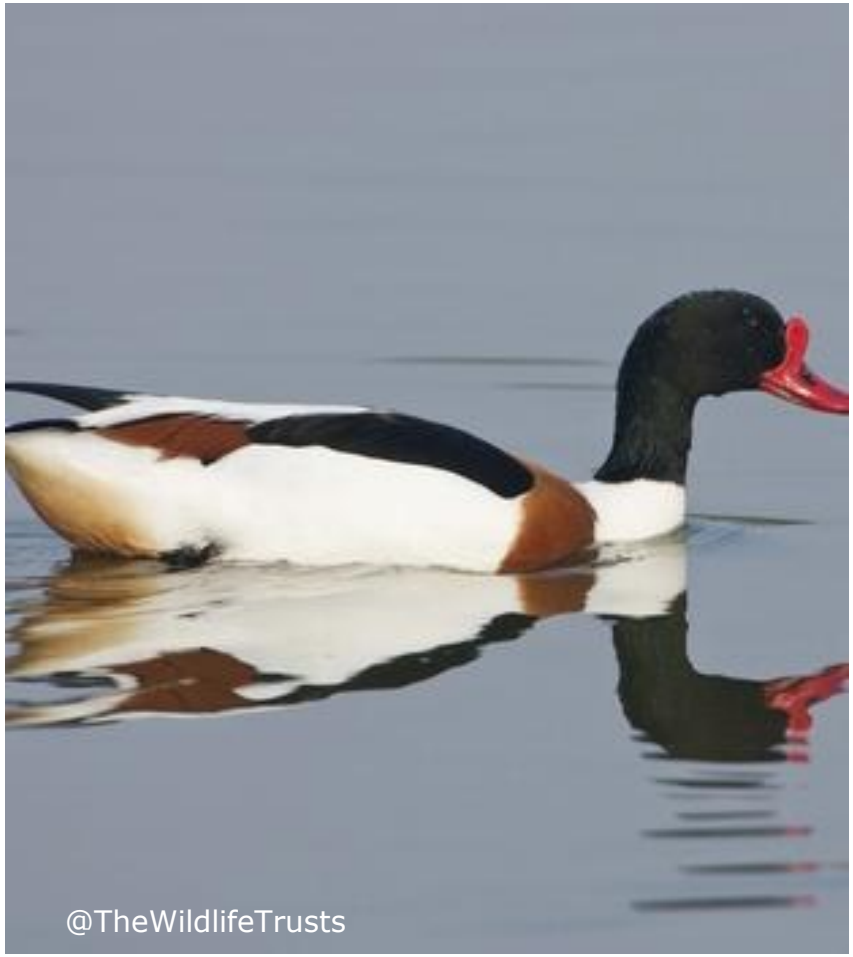
Unfavourable – No Change

- Where one or both attributes have failed and the feature is in stagnant decline, showing no signs of recovery
- Case study: Sanderling – 49% decline in abundance, borderline fail, reliance on saltmarsh means a fail, but also able to use sediment

Summary of the process - Conditions

Unfavourable – Declining

- When one or both principal attributes have failed and are declining significantly in comparison with the target
- Case Study: Shelduck – 82% decline in abundance below target, habitats key to roosting process failed



Chichester and Langstone Harbours SPA

- 19 Bird Features as demonstrated below:

Non-Breeding (Overwintering)

<u>Waterfowl</u>
Dark-bellied brent goose
Shelduck
Wigeon
Teal
Pintail
Shoveler
Red-breasted merganser

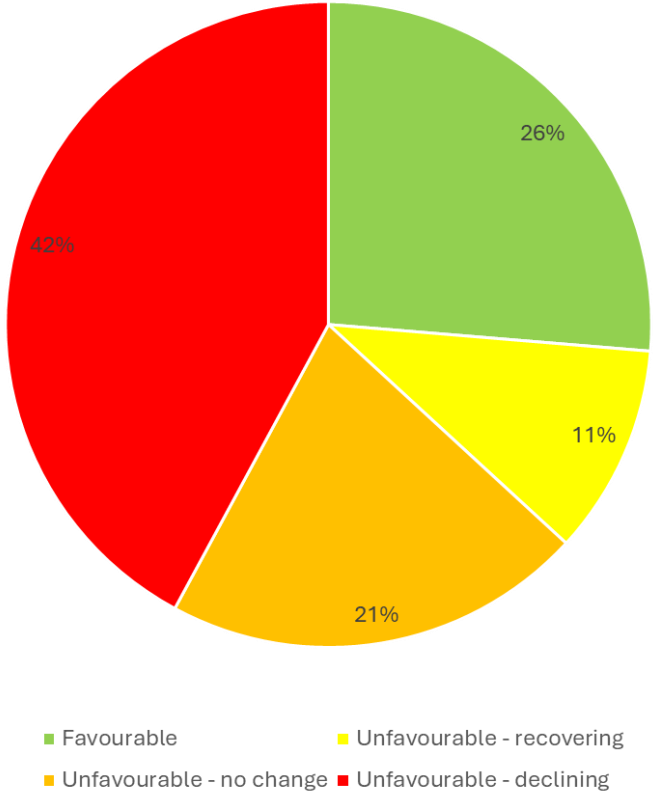
<u>Waders</u>
Ringed plover
Grey plover
Sanderling
Dunlin
Bar-tailed godwit
Curlew
Redshank
Turnstone

Breeding (March – September)
Common Tern
Little Tern
Sandwich Tern

Aggregations
All non-breeding waterbird assemblage qualifying features

Results – Summary of Feature Level Assessment

Favourable	Unfavourable - declining
Pintail	Shelduck
Red-breasted merganser	Teal
Curlew	Grey plover
Redshank	Dunlin
Turnstone	Bar-tailed godwit
Unfavourable - recovering	Little tern
Dark-bellied brent goose	Ringed Plover
Wigeon	Waterbird assemblage
Unfavourable – no change	**Total:** 5 features favourable, 2 features unfavourable recovering, 4 features unfavourable no change and 8 features unfavourable declining
Sanderling	
Shoveler	
Sandwich tern	
Common tern	



Adverse Condition Drivers

Several reasons for unfavourable status:

- **Abundance declines;**
- **Decrease in extent of key habitats, including saltmarsh and seagrass;**
- **Elevated nutrient levels;**
- **Recreational Disturbance**

Abundance

- 10 of 19 features failed abundance (including assemblage feature and one breeding feature)
- Climactic factors an issue for some features – but uncertainty around site-specific pressure
- Issues: WeBS Alerts outdated, pandemic counts

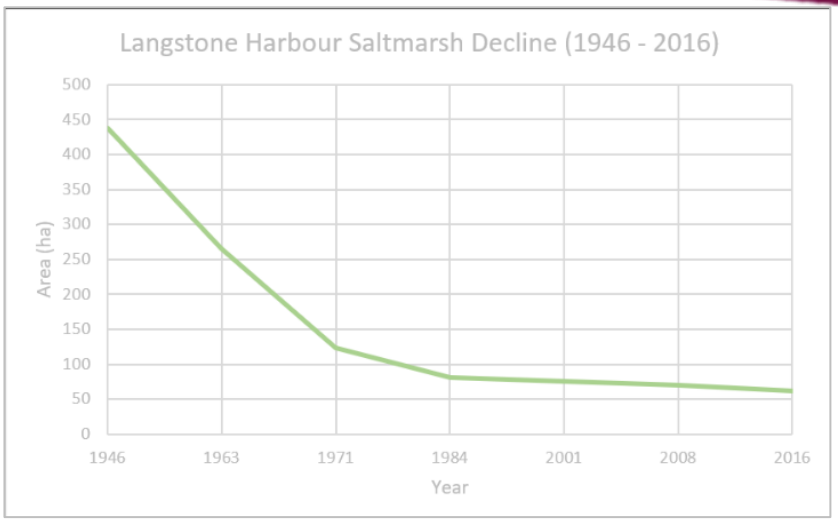
WeBS alerts: tracks abundance from baseline winter (1984/85) to the reference winter (2017/18) - >50% decline is a fail

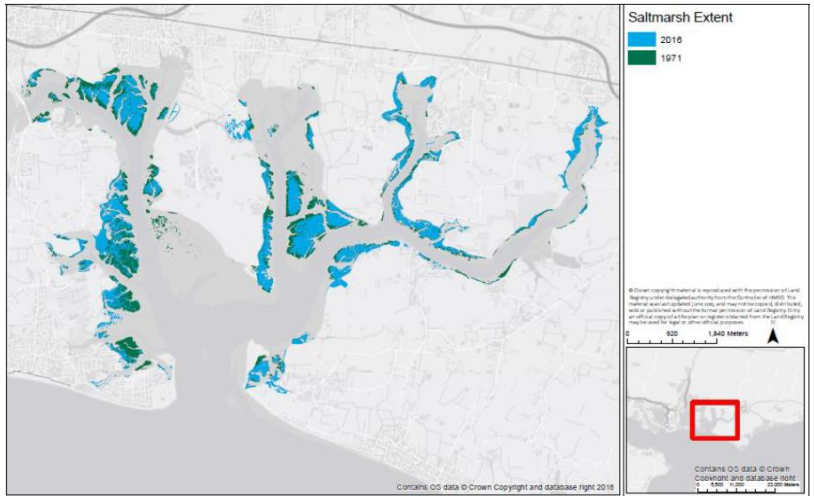
Comparison between the highest latest count in the latest five-year period (2017/18 – 2021/22) and the lowest earliest count in the five-year period prior to designation (1982/83 – 1986/87) – highest latest < lowest earliest is a fail

Comparison between the baseline five-year peak mean (1982/83 – 1986/87) and the most recent five-year peak mean (2017/18 – 2021/22) - >50% decline is a fail

However, results are subject to assessors' discretion!

Seagrass and Saltmarsh Declines





- The SPA has seen a decrease of 45.16% in saltmarsh and 20.69% in seagrass in comparison with the target
- Threshold for passing is for decline to be within 5% of the target
- 13 of 19 features failed the primary attribute of Supporting Habitat: extent, distribution and availability of supporting habitat for the non-breeding/breeding season

Water Quality - Nutrients

- Both harbours ecological status are rated as moderate by the Environment Agency (EA)
- Chichester is rated moderate for Dissolved Inorganic Nitrogen (DIN), Langstone is rated good
- Eutrophication evident across both harbours through macroalgal bloom density data provided by the EA

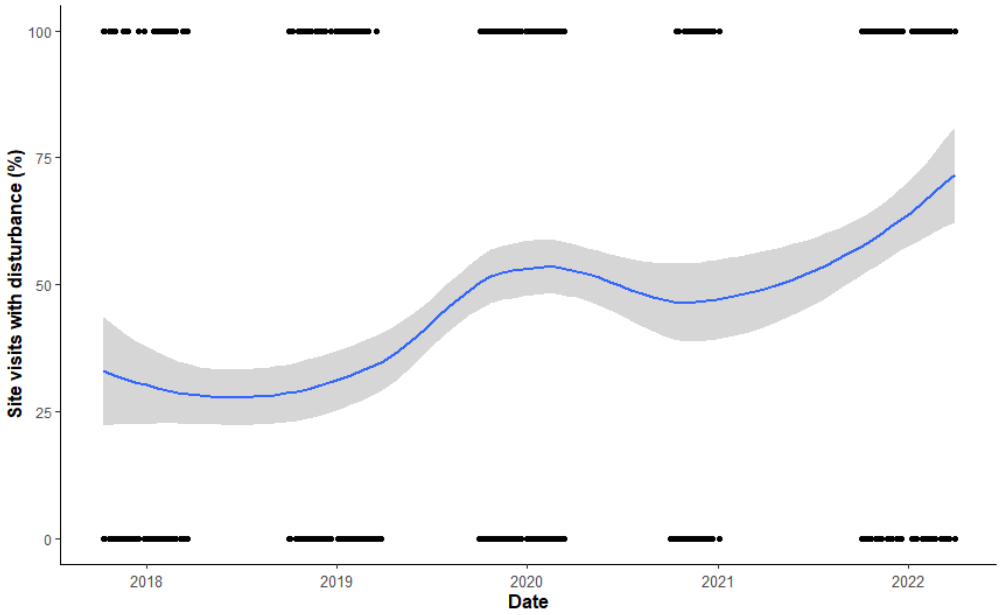
All units	Total available intertidal sediment (AIS) in units (ha) (APEM, 2016)	25-50% cover in units (ha)	50-75% cover in units (ha)	75-100% cover in units (ha)	Total available sediment covered by macroalgae (25-100% coverage) (ha)
2009	1203.37	144.6 (12% of total intertidal sediment)	74.6 (6.2% of total intertidal sediment)	44.2 (3.6% of total intertidal sediment)	263.4 (21.8% of total intertidal sediment)
2011	1203.37	231.2 (19.2% of total intertidal sediment)	114.2 (9.4% of total intertidal sediment)	77.1 (6.5% of total intertidal sediment)	422.5 (35.1% of total intertidal sediment)
2014	1203.37	100.1 (8.2% of total intertidal sediment)	112.2 (9.3% of total intertidal sediment)	99.4 (8.3% of total intertidal sediment)	311.7 (25.8% of total intertidal sediment)
2018	1203.37	153.9 (12.8% of total intertidal sediment)	83.3 (6.9% of total intertidal sediment)	121.7 (10.1% of total intertidal sediment)	237.2 (29.8% of total intertidal sediment)

Green = Attribute Passed | Red = Attribute failed

Assessment area name	Assessment area (ha)	Area of intertidal habitat (AIH)(ha)	Percentage coverage of AIH of opportunistic macroalgae 2011	Percentage coverage of AIH of opportunistic macroalgae 2014	Percentage coverage of AIH of opportunistic macroalgae 2018
Fishbourne Channel*	325.11	223.98	42.84	22.52	35.58
Bosham Channel*	208.39	145.85	62.21	32.23	42.46
Thorney Channel*	597.55	450.40	48.30	12.76	21.41
Emsworth Channel	510.89	382.42	52.70	17.16	29.44
Harbour East	246.94	146.52	39.94	15.58 (borderline)	21.27
Harbour West	447.57	359.55	32.39	7.29	15.17 (borderline)
Harbour Central (sandy)	572.03	333.36	15.12 (borderline)	5.91	6.47
Harbour Outer	371.28	44.92	0.24	0.05	0.43

Recreational Disturbance

- Bird aware Solent Ranger visits show increases from around 30% in 2017/18 to 65% in 2021-2022
- Matches with population – 8.7% increase from 2011-2021 in East Hampshire
- ReMEDIES surveys showed prevalence of windsurfing, paddleboarding and kayak/canoe use in Langstone Harbour (17.1 vessel movements per survey)

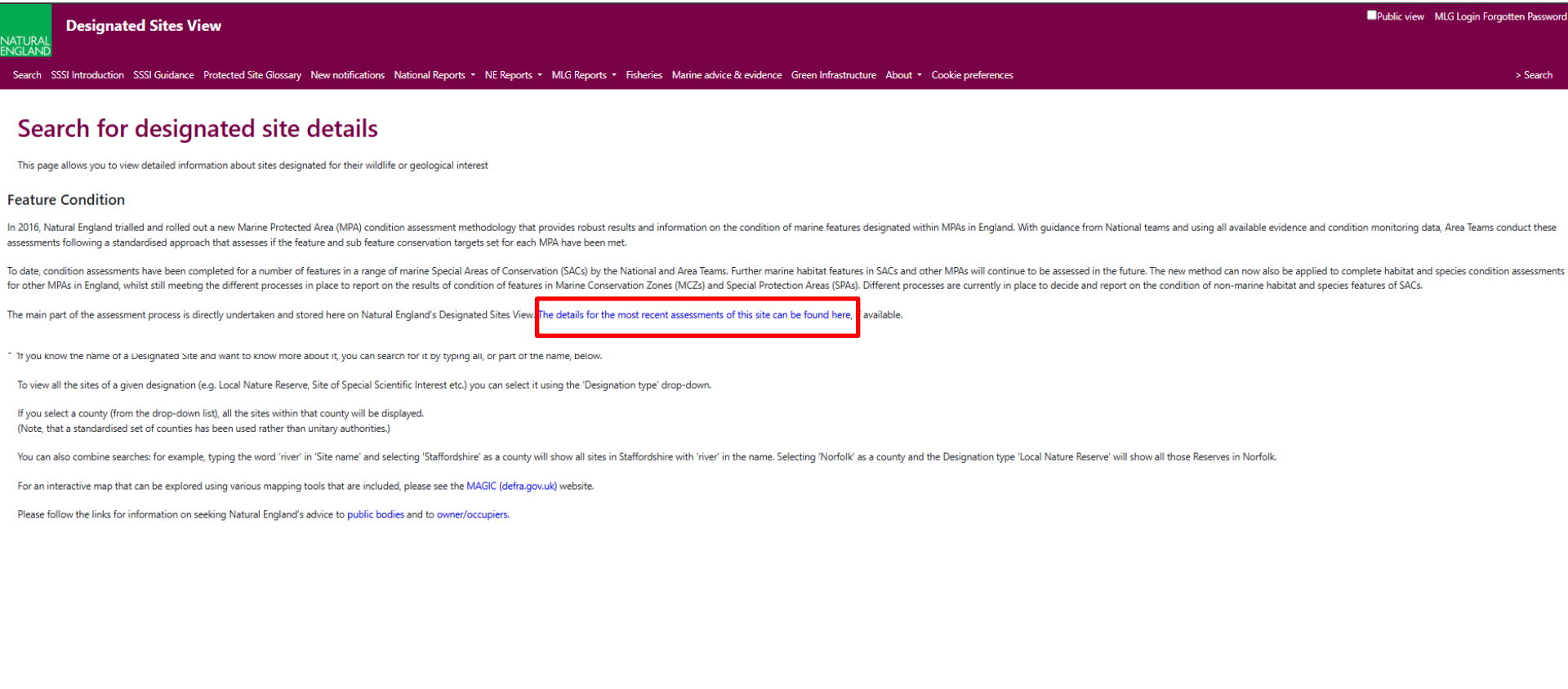


Data Gaps

- No saltmarsh extent surveys at the SPA since 2016 – almost 10 years old
- No intertidal sediment survey since 2015, with potential signs of stressors cited in the last completed survey
- Latest Macroalgal mat data was in 2018
- Lack of shingle and coastal grazing marsh data

Where to Access the Condition Assessment

- Designated Sites View: https://designatedsites.naturalengland.org.uk/SiteSearch.aspx
- Simple search tool



Conclusions

The Chichester and Langstone SPA condition assessment:

- Builds on other work in recent years to show the declining condition of designated species and the habitat upon which they rely across Chichester and Langstone Harbours SPA
- Demonstrates the need for continuing data collection and new evidence
- Identifies site-specific issues
- Aids better management

Thank you! Any questions?

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