

Solent Bird Sensitivity and Activity Mapping Project

Project Brief: August 2022

1. Background

The Solent Marine Sites Scheme (SEMS) Annual Survey shows year on year concerns regarding disturbance to birds from a range of non-licensable activities.

SEMS trend data shows five activities that are regularly reported as increasing/impacting on designated sites. This information was taken from the 2021 SEMS AMR detailed in Appendix A. The 2022 SEMS AMR shows a similar picture.

SEMS Activities where Relevant Authorities have concerns about bird disturbance
Fishing – Shore based activities (Bait digging/Shellfish Hand Gathering)
Land Recreation - Dog Walking
Land recreation - Walking (not dog walking)
Recreation - non-motorised watercraft
Aerial recreation

This project seeks to better understand the bird sensitive hotspots at risk from recreational activities in the Solent and propose appropriate management options to reduce disturbance.

There are three key elements:

1. Strategic mapping of bird sensitive areas – develop a criterion to map digitally using known datasets, using the expertise of key organisations. Recommend improved datasets.
2. Mapping of the above activities using know datasets. Recommend improved datasets.
3. Designing a management system to show the data above digitally and set-out a range of management options for consideration.

The bird sensitivity mapping is a priority. Activity overlays can then be inserted.

An approach in Poole Harbour originally inspired this project. The Poole Harbour Aquatic Management Plan 2011 details how they defined Bird Sensitive Areas - [Management \(phc.co.uk\)](http://phc.co.uk).

The criteria for bird sensitivity mapping in the Solent to be set as part of the project and consultants should look at the applicability of the Poole Aquatic model for the Solent and how it may differ for the larger scale of the Solent and the designated habitats and species. The Solent are particularly concerned with non-licensable activities at the shore. Mapping of bird sensitivity and activities to be digital and web-based so layers can be switched on and off. The value of the evidence of these layers will drive good management.

An example of one of the activities datasets includes the Solent Mudflat Disturbance Project work led by the Solent Forum (currently on hold seeking funding). [Solentems - Solent Mudflat Disturbance Group](#). This project aspired to build on the TEMITH project managed by the University of Portsmouth which mapped bait digging/hand gathering sites using existing data/satellite imagery in Chichester Harbour. The project mapped the metadatasets of for all bait digging hand gathering in the Solent. [Solent Mudflat Disturbance Incidence DRAFT Map - Google Maps](#).

An approach in Cornwall may provide inspiration to how mapping of sensitive sites could lead to a management strategy. Whilst the information gathered and methodology used by Cornwall is not endorsed, the document they produced shows the type of output that could be used in the Solent. [Marine Wildlife Disturbance in Cornwall Summary Report 2021 final.pdf](https://www.cornwallwildlifetrust.org.uk/wp-content/uploads/2021/07/Marine-Wildlife-Disturbance-in-Cornwall-Summary-Report-2021-final.pdf) ([cornwallwildlifetrust.org.uk](https://www.cornwallwildlifetrust.org.uk)).

A small project group has been formed and has met on many occasions to form the brief. They comprise:

Natural England	Jessica Taylor
Coastal Partners	Ed Rowsell
Southern IFCA	Patrick Cooper
Bird Aware	Julie Sims
Solent Forum	Karen McHugh

2. Objective

To map bird sensitive areas at risk from a range of non-licensable activities, so as to inform strategic management options

3. Methodology

3.1 Bird Sensitivity Mapping

The working group has started to evaluate data held on birds and wish to understand if any areas coincide with intertidal areas where bird populations may be particularly threatened by limited food supply/disturbance and where breeding takes place. An understanding of the temporal use of sites would be useful. Winter/Summer/nesting.

The project Group agreed that data would be required to show:

- Winter disturbance to feeding birds
- Disturbance to passage birds in Autumn and Spring
- Disturbance to nesting and post nesting birds
- Consideration also to be given to:
 - To what extent disturbance of different species is mapped
 - Whether there is a need to also look at sub-tidal disturbance
 - Consider displacement

Format of final outputs, publicly available web site with data layers that can be manipulated, paper maps showing overlap between specific activities and bird usage (perhaps plotted by season and by species/species group).

Datasets include:

<p>Coastal Partners – Ed Rowsell</p> <p>Ed.Rowsell@havant.gov.uk M: 07702 516253</p>	<p>Solent Wide Network Study on Strategic Environmental Sites - Scoping</p> <p>Microsoft PowerPoint - HEP presentation. Solent Bird Study & Recreation Mitigation Strategy. 2015_12_08 (HF000010826743) [Compatibility Mode] (hants.gov.uk)</p>
<p>Natural England – Jess Taylor</p> <p>Habitat Layers from Magic Map based on SPA which show key areas for birds rather than bird abundance</p>	<p>Magic Map</p> <p>Marine GI team – may be able to interpret Magic Map</p>
<p>Harbour Authorities</p> <p>RHHA (Jason Scott) can input</p>	<p>Specific knowledge</p>
<p>HIWWT</p>	<p>Specific knowledge</p> <p>Solent Waders and Brent Goose Strategy Maps Strategy, Maps and Data – Solent Waders and Brent Goose Strategy (wordpress.com).</p>
<p>Solent Marine Sites Annual Monitoring Data (SEMS)</p>	<p>Relevant Authorities reporting of disturbance incidences – available each year from late summer</p>
<p>Footprint Ecology/Solent Disturbance and Mitigation Project work – which informed Bird Aware/SRMP</p>	<p>Vast Bird data and disturbance data from SDMP Project (2018) - Solent Forum has all the files. Pay them some money to provide data layers</p>
<p>Bird Aware</p>	<p>Birds - Specific knowledge. Natalie Hands has sent polygons of observed refuge areas</p>
<p>SRMP/Bird Aware Forthcoming 5 year Review</p>	<p>The 5 year monitoring review is tendered and an appropriate consultant has been appointed. Should that provide reassurance to our Governance Board that we are moving in the right direction, then our monitoring work will move to just an intensive monitoring period every 5 years (as is done by some other Partnerships and is seen as less resource intensive on the Ranger staff).</p>
<p>RSPB</p>	<p>Specific knowledge</p> <p>Life on the Edge</p> <p>Important Bird Areas (IBAs) but it looks as though they include all intertidal areas of the Solent, and we are looking for something more targeted. IBAs UK IBAs UK RSPB Open Data (arcgis.com)</p>
<p>WeBs</p>	<p>This may be the main dataset. Needs to be analysed properly for the Solent</p>

BTO 5 year low tide counts	<p>Would give best understanding of abundance. What birds present and where feed. Also presence at night?</p> <p>Can we get this put into GIS data layers – request via NE teams or student</p>
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3.2 Non-licensable activities

Overlay any existing datasets (these are limited at the moment) on activities, such as paddleboarding and baitdigging/hand gathering.

The MMO Evidence work (by ABPmer) on non-licensable activities provides some data.

Format of final outputs, publicly available web site with data layers that can be manipulated, paper maps showing overlap between specific activities and bird usage (perhaps plotted by season and by species/species group).

The activities are as follows and some ideas of datasets. We need support from a consultant to derive quick and easy results.

Activity	Datasets
Fishing – Shore based activities (Bait digging/Shellfish Hand Gathering)	University of Portsmouth TEMITH for Chichester Harbour. Need more perhaps using satellite imagery Solent Forum MyMaps showing metadata
Land Recreation - Dog Walking	Solent Disturbance and Mitigation Data Bird Aware data SEMS Annual Monitoring
Land recreation - Walking (not dog walking)	See above SEMS Annual Monitoring Bird aware data
Recreation - non-motorised watercraft	MMO data SEMS Annual Monitoring Lymington and Chichester, both have Paddlesports guidelines that maps sensitive areas Bird Aware data
Aerial Recreation (drones in particular)	MMO Data, some bird aware data SEMS Annual Monitoring Bird Aware Data

3.3 Bird Aware Data on disturbance

Bird Aware (Julie Sims) have sent us data of disturbance events by location for a 5 year period. Email filed under outlook Forum/NEG Project/SBS Mapping

This is all of the winter data (Oct – March) collected by Bird Aware since 2017 and until March 21.

There are 2383 records, thus around 480 per year.

Column O states whether disturbance of a bird was observed.

Further columns then give details of where and what.

4. Consultation and Workshops

Experts in the field - It is also suggested that the opinions of local experts are sought and attempt to fill possible data gaps.

Consultation with affected organisation – Once activity layers are populated to run consultation with key affected organisations i.e.: SEMS Relevant Authorities, RYA, Rights of Way. See Voluntary Management Plan progress.

How to generate data if/when there are data gaps. This could include identifying areas through stakeholder consultation, specifically gathering data scientifically, or using other methods (such as plotting an average distance walked by people from car parks etc).

5. Potential Management Options

How to reduce disturbance from human recreational activities. E.g. stakeholder engagement to develop codes of conduct, physical methods (e.g. temporary fencing), improving public awareness through signage, social media campaigns etc. The measures pursued would need to be proportionate to the estimated scale of the impact.

To actively encourage all Partners to engage with and promote the work of Bird Aware Solent and their ranger team, who are mitigating against disturbance from human recreational activities to offset disturbance to birds from housing pressures in the Solent particularly during the winter months.

This work to be fed into a Voluntary Management Plan for the Solent. To be developed in parallel.

6. Appendix A

EVIDENCE

Activities that may cause intertidal disturbance

Of the 17 activities monitored by SEMS annually, there are 5 activities which annually show particular concern about disturbance to birds, shown in Table 1 below. The table also shows which relevant Authorities reported it as an issue in 2021.

Table 1

Activities which were reported to having some impact on inter-tidal bird disturbance in 2021.

Activity	Relevant Authorities reporting an issue
Fishing – Shore based activities (Bait digging/Shell fish Hand Gathering)	ChHC, LHB, SxIFCA, EBC, HCC, SCC
Land Recreation - Dog Walking	ChHC, LHB, BRM, EBC, WSCC, NE, CDC, MMO, IOWC, GBC, FBC, HCC, WCC
Land recreation - Walking (not dog walking)	ChHC, LHB, EBC, NE, CDC, MMO, IOWC, GBC, FBC, HCC, WCC
Recreation - non-motorised watercraft	ChHC, LHB, BRM, EBC, NE, MMO, QHM, NFDC, RHHA, HCC, WCC
Aerial recreation	EBC

Source: 2021 SEMS AMR

- Key to organisations
- Chichester Harbour Conservancy (ChHC)
- Langstone Harbour Board (LHB)
- Beaulieu River Management (BRM)
- Eastleigh Borough Council (EBC)
- West Sussex County Council (WSCC)
- Natural England (NE)
- Chichester District Council (CDC)
- Marine Management Organisation (MMO)
- Isle of Wight Council (IoWC)
- Gosport Borough Council (GBC)
- Fareham Borough Council (FBC)
- Hampshire County Council (HCC)
- Winchester City Council (WCC)
- New Forest District Council (NFDC)
- Portsmouth International Port (PIP)
- River Hamble Harbour Authority (RHHA)
- Queen's Harbour Master (Portsmouth) (QHM)
- Gosport Borough Council (GBC)

Fishing – Shore Based Activities

This relates particularly to Bait Digging and Hand gathering. The Solent Forum is working in partnership to develop a Mudflat Disturbance Strategy. The University of Portsmouth (using TEMITH

data in particular) and Chichester Harbour are mapping the extent of these activities and introducing management measures. It is hoped that this approach is rolled out to other sites in the Solent. The Forum have produced a MyMaps dataset to show the areas in the Solent where there has reported to be disturbance by a number of sources including Chichester Harbour, SEMS, Hampshire Isle of Wight Wildlife Trust and Bird Aware.

This strategy will particularly benefit from a mapping layer which shows the intertidal areas in the Solent most sensitive to bird disturbance.

Land Recreation (walking with or without dogs)

This activity is reported to cause the greatest disturbance. This disturbance is being mitigated by the Bird Aware initiative, and a full project review will begin in 2022 to measure its effectiveness.

The Bird Aware rangers annually monitor activities over the Solent coastline and is an important source of disturbance data.

Recreation - non-motorised watercraft

The widespread use of paddleboards, canoes and kayaks in the Solent enables people close access intertidal areas and these sports have become very popular in recent years. The Solent Forum is running a project called Impacts and Management of Paddlesports in the Solent (IMP Solent). The project aims to: Develop the evidence base on the impacts of paddle sports on the Solent's designated habitats and species, in particular birds, as explore suitable management options, using Chichester Harbour as a case study. Part of this project is identifying areas where Paddlesports take place.

This project will particularly benefit from a mapping layer which shows the intertidal areas in the Solent most sensitive to bird disturbance.

Aerial Recreation

This was only mentioned in Eastleigh. Bird Aware data shows little evidence of damage in the winter to birds; however NEG is tasked with checking if summer disturbance to nesting birds is a problem.

This task will benefit from a mapping layer which shows the areas in the Solent most sensitive to bird disturbance.

7. Appendix B

Key Contacts and Datasets

<p>Coastal Partners – Ed Rowsell</p> <p>Ed.Rowsell@havant.gov.uk M: 07702 516253</p>	<p>Solent Wide Network Study on Strategic Environmental Sites - Scoping</p> <p>Microsoft PowerPoint - HEP presentation. Solent Bird Study & Recreation Mitigation Strategy. 2015 12 08 (HF000010826743) [Compatibility Mode] (hants.gov.uk)</p>
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<p>SRMP/Bird Aware Forthcoming 5 year monitoring</p>	<p>The 5 year monitoring review will be tendered and Spring 2022 and an appropriate consultant appointed to undertake this work. Should that provide reassurance to our Governance Board that we are moving in the right direction, then our monitoring work will move to just an intensive monitoring period every 5 years (as is done by some other Partnerships and is seen as less resource intensive on the Ranger staff).</p>
<p>RSPB</p>	<p>Specific knowledge Life on the Edge Important Bird Areas (IBAs) but it looks as though they include all intertidal areas of the Solent, and we are looking for something more</p>

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WeBs	This may be the main dataset. Needs to analysed properly for the Solent
BTO 5 year low tide counts	Would give best understanding of abundance. What birds present and where feed. Also presence at night? Can we get this put into GIS datalayers – request via NE teams or student
University sector	University of Southampton – Jasmine Godbold has offered to circulate a request to student