



**Solent European Marine Sites
Annual Management Report 2018**

Final Draft

8 November 2018

**Prepared by the Solent Forum on behalf of
the SEMS Management Scheme**

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Executive Summary 2018

The Solent European Marine Sites (SEMS) Annual Management Report provides an overview of the SEMS Management Scheme, in which the SEMS Management Group of relevant authorities act to comply with the Conservation of Habitats and Species Regulations 2017.

This report describes the five European Marine Sites around the Solent which form part of the SEMS Management Scheme. It shows the content, structure and process of undertaking the Management Scheme and its relationship to Natural England's Conservation Advice. It describes the activities that are monitored annually through an online survey and summarises the results of the monitoring.

For each activity for which concern was reported, the potential impacts of that activity on specific features of the SEMS are evaluated and discussed, and relevant evidence is referenced; these sections are shaded light yellow. Actions to address the issues raised are drafted for each activity, these are shaded light green; these draft actions have been endorsed by Natural England and are for consideration, amendment and agreement at the SEMS Management Group meeting in September 2018.

Analysis of the responses for the activities detailed in the SEMS Annual Monitoring Responses 2018 shows that, out of the sixteen activities that were monitored in 2018, there were ten where an increase in activity level, or levels of activity that remained elevated, were reported. The majority of responses stated 'no change'.

For recreation - powerboating or sailing with an engine, one authority believes there has been a residual impact on an area in the SEMS. Two authorities believe that there has been a residual impact on SEMS from fishing (shore based activities), due to localised bait digging activity.

Two activities are flagged as having particular potential to have an effect. These are littering and boat repair and maintenance; both are being investigated and monitored.

It is important to note that in all cases, apart from Land Recreation – Dog Walking and fishing (shore based activities), by far the majority of relevant authorities reported no concerns.

A summary of activity concerns can be found below:

[Land Recreation – Dog Walking and Land Recreation – Walking \(other than dog walking\)](#)

While it is important to continue monitoring these activities, Bird Aware has the potential to mitigate both residual and future impacts. On this basis we should not seek to evaluate the impacts of dog walking (and walking) until the next round of monitoring by the Solent Recreation and Mitigation Partnership has been completed.

[Recreation - Non-motorised water sports](#)

It is considered unlikely that these activities are having an adverse effect upon the SEMS, however they could result in localised impacts particularly if they continue to increase in popularity or occur together with other disturbing activities.

[Recreation - Powerboating or sailing with an engine](#)

One authority believes there has been a residual effect on the SEMS due to an increase in consented access. In the previous year another authority believed that levels of this activity were still not at an acceptable level to ensure no damage to SEMS, despite various management measures.

[Mooring and/or Anchoring](#)

This activity is unlikely to be having an adverse effect upon SEMS. The laying of new moorings and construction of marinas are subject to planning legislation whereby authorities with powers to permit ensure that they will not have an adverse impact upon SEMS features. A final report of anchoring and mooring impacts on English and Welsh MPAs has been produced by Defra however the recreational anchoring and mooring activity data project is still ongoing.

[Recreation – light aircraft](#)

An increase in the use of drones was reported by two authorities out of eight. At current levels of reported activity, it is unlikely that drone use is having an adverse effect upon SEMS; however this activity should continue to be monitored as usage has increased. Natural England and others are working with those who are producing guidance for drones, to try to ensure that drone users have all the information they need to make responsible and informed decisions. A further study will update the evidence base on the impacts of light aircraft and drones.

[Fishing \(including shellfisheries\)](#)

Following appropriate assessment by the IFCAs, management measurements have been put in place to address fisheries (including shellfisheries) around the Solent which will prevent adverse effects on SEMS features and supporting habitats.

[Fishing \(shore-based activities\)](#)

Some fishing (shore based activities) such as bait digging fall outside the scope of management measures and therefore further action will be needed to address this activity. It is possible that bait digging may be having a significant effect upon sensitive features/ supporting habitats in specific locations. Two authorities believe that there has been a residual impact on SEMS, however, at present it is not possible to conclude whether the extent and magnitude of this activity is adversely impacting SEMS at a site level and further research needs to be undertaken. A small pilot is suggested to establish a working group to develop a bait digging Memorandum of Agreement.

[Littering and removal of litter](#)

There were four reports of elevated levels of littering, however it is not considered to be having an adverse effect on SEMS at a site level, but should continue to be monitored as there are gaps in current knowledge with respect to direct and indirect impacts, and hotspots exist within designated sites. The Solent Forum Natural Environment Group has

begun a litter project entitled Clean Solent Shores and Seas which aims to reduce the prevalence of litter in the Solent.

[Operation of Coastal Flood and Erosion Risk Management Schemes, Barrages and Sluices](#)

Based on current understanding of the extent and magnitude of this activity (and the existing regulatory framework), it is not considered to be having an adverse effect on the SEMS.

[Boat repair and maintenance](#)

These activities have the potential to introduce invasive non-native species; however based on the current understanding of the extent and magnitude of this activity (and the existing regulatory framework such as the Habitats Regulation Assessment which assesses the construction and operational impacts at the planning stage) it is considered that boat repair and maintenance is not having an adverse effect on SEMS. However, increased use or expansion of existing facilities could have potential environmental impacts.

[Navigation \(maintenance of infrastructure\) and Operation of Ports and Harbours](#)

No issues have arisen in SEMS with regard to navigation (maintenance of infrastructure) and operation of ports and harbours over the past few years.

The activities which are monitored all have the potential to impact specific features of SEMS, although they are not having an adverse effect at present. It is therefore important that the SEMS Management Group continues its monitoring programme and takes action to prevent damage or deterioration. Gaps in understanding of the impacts are being addressed at both national and local levels.

1 Background

1.1. European Marine Sites

European Marine Sites (EMSs) are those areas below mean high water designated as Special Areas of Conservation (SACs) and Special Protected Areas (SPAs). The management of EMSs was established under what is now Regulation 38 of the Habitats Regulations¹. This gives relevant authorities (RAs) the responsibility for monitoring activities across designated sites annually, and for addressing any issues that are shown to be damaging these sites.

EMSs are one of a number of Marine Protected Area (MPA) designations in the UK. Other types of MPA include Marine Conservation Zones which are covered by separate legislation and are not included in the Solent European Marine Sites Management Scheme.

1.2. Solent European Marine Sites Management Scheme

The Solent European Marine Site (SEMS) covers the Solent Maritime SAC, Solent and Southampton Water SPA, Portsmouth Harbour SPA and Chichester and Langstone Harbours SPA. A potential SPA for foraging terns covers most of the offshore area; while awaiting designation it should be treated as if it has been designated. European Marine Sites within the Solent are shown in Figure 1.

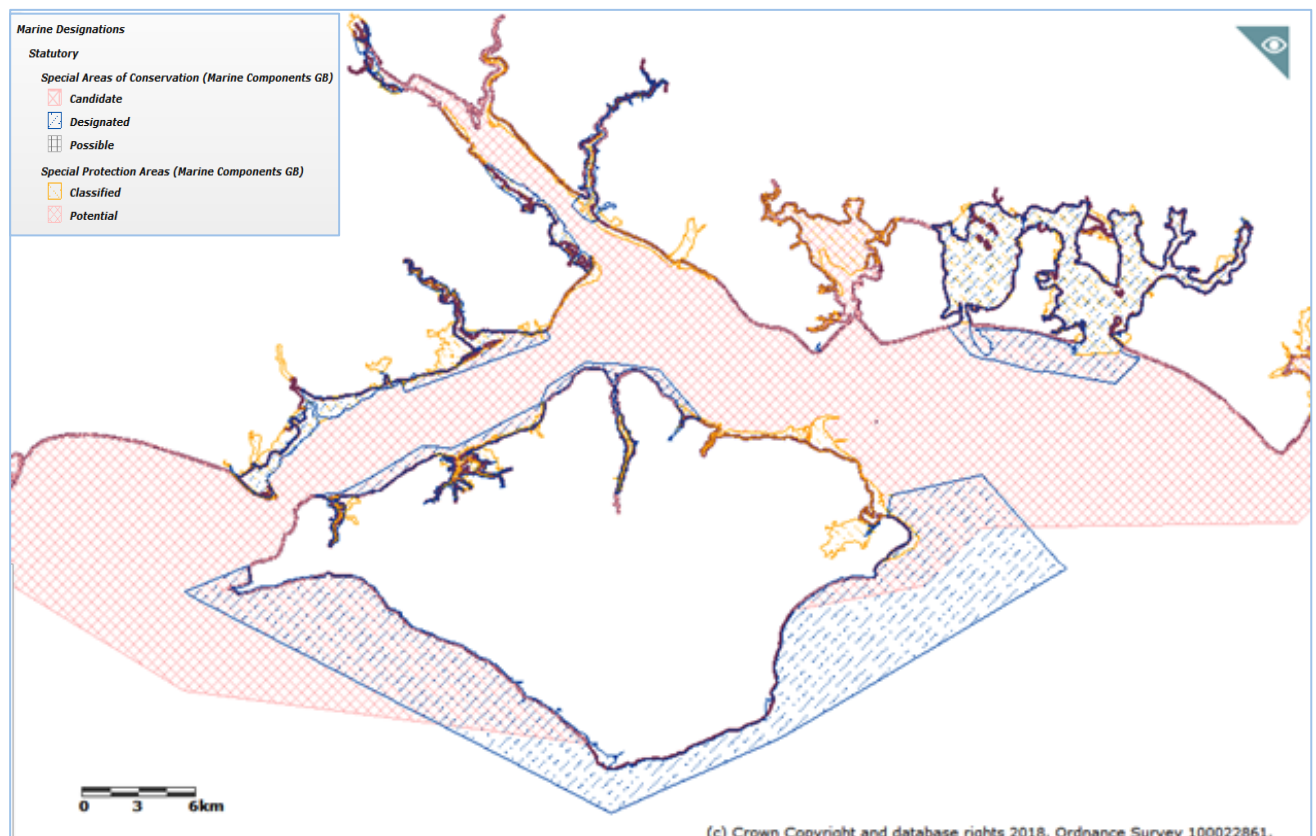


Figure 1 European Marine Sites within the Solent Correct as of June 2018 (Magic Map, Natural England) The Solent is a complex site encompassing a major estuarine system. The Solent and its inlets are unique in Britain and Europe for the complexity of the marine and estuarine habitats present within

¹ [The Conservation of Habitats and Species Regulations 2017](#)

the area. Sediment habitats within the estuaries include extensive areas of intertidal mudflats, saltmarshes, eelgrass *Zostera* spp. and natural shoreline transitions, such as drift line vegetation. The rich intertidal mudflats, saltmarsh, shingle beaches and adjacent coastal habitats, including grazing marsh, support nationally and internationally important numbers of migratory and over-wintering waders and waterfowl as well as important breeding gull and tern populations. A series of videos by Natural England show the importance of these habitats².

Within the Solent, a Management Scheme (MS) has been established by the RAs working together. The status of this Management Scheme is illustrated in Figure 2 and details are shown in Figure 3. The Solent Forum provides the secretariat for the SEMS MS.

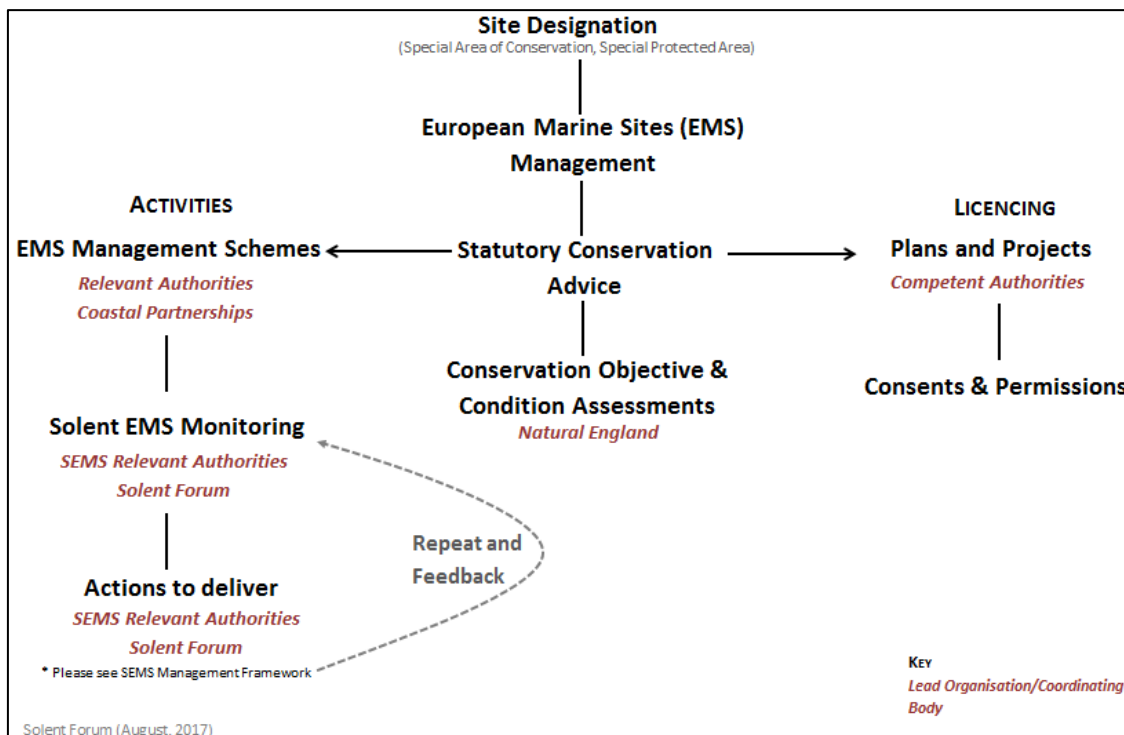


Figure 2 European Marine Sites and Management

Natural England’s Conservation Advice³, produced under regulation 37 of the Habitats Regulations 2017, lists activities that could cause damage to the SEMS and guides the MS. The RAs individually monitor parts of the SEMS within their area of responsibility and report on the level of any potentially damaging activities by completing an online survey every spring. This survey forms the basis of the annual monitoring, and gathers details of all activities within the SEMS and of any effect that these activities are having on the condition of the SEMS.

² <https://www.youtube.com/user/naturalenglandvideo/videos>, including for example: What’s special about mud and sand? <https://www.youtube.com/watch?v=usoS2fj0wV8>

³ The Conservation Advice packages can be found at <https://www.gov.uk/government/publications/eastern-channel-marine-area-index-map-and-site-packages>. Links to further guidance on NE’s Designated Sites System can be found at http://www.solentems.org.uk/sems/Conservation_objectives/ and <https://designatedsites.naturalengland.org.uk/SiteSearch.aspx>

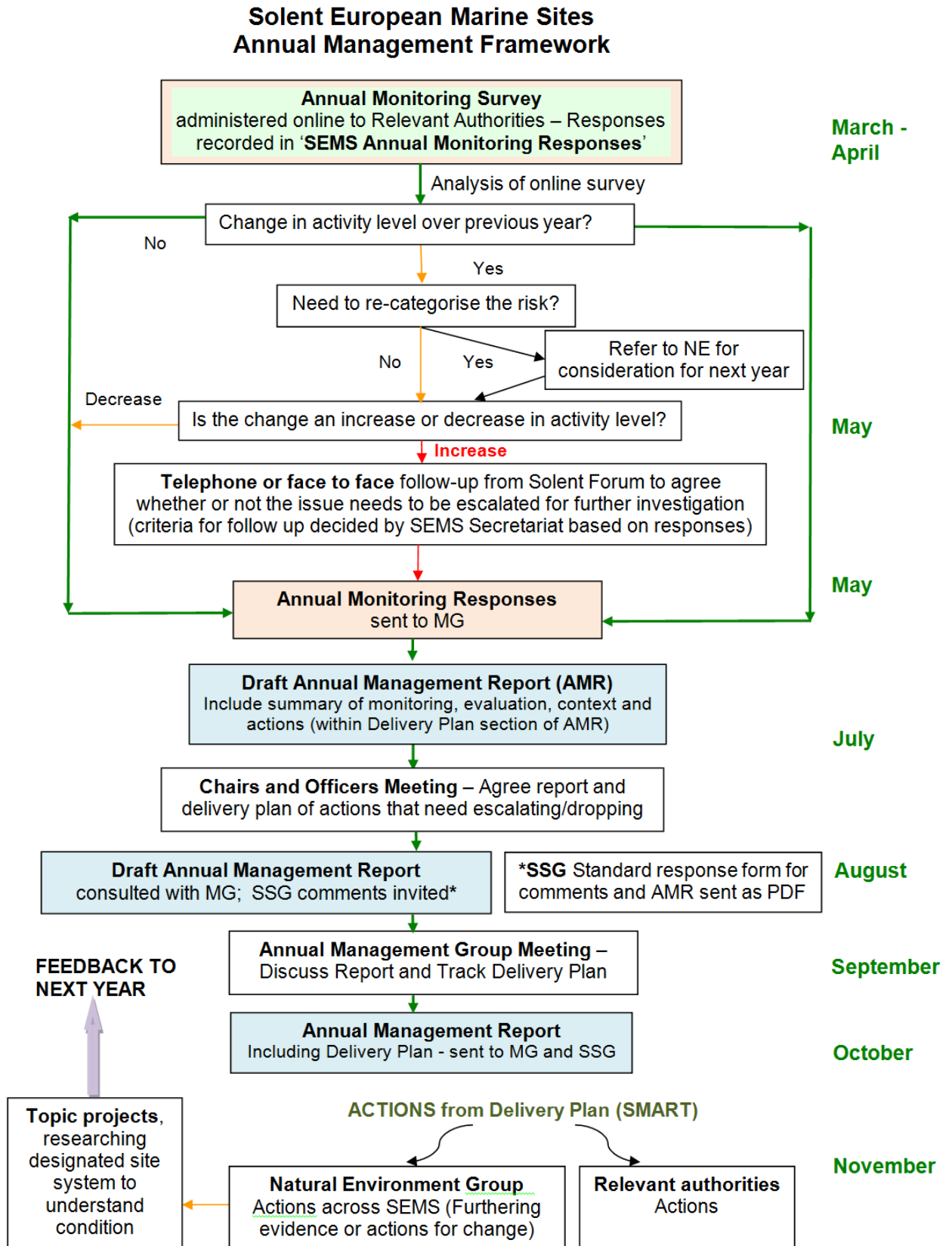


Figure 3 SEMS Annual Management Framework

The overall MS components include the annual monitoring, analysis and evaluation of the monitoring, context building, the annual meeting of RAs and an agreed delivery plan that documents actions to be taken forward. Appendix 1 shows which activities are covered by the

SEMS MS, and which are excluded. New terms of reference are being written for SEMS and these will be available on the SEMS website.

This SEMS Annual Management Report (see blue shaded boxes in Figure 3) summarises and assesses the SEMS monitoring responses for 2018 (from both the online survey and any subsequent follow-up interviews and comments). It is based on the responses of the RAs who completed the monitoring survey (see Table 1). It documents the whole process and forms the basis for discussion and agreement by the MG at their annual meeting, where they determine the actions to take forward.

The Natural Environment Group (NEG) consists of all SEMS RAs who wish to take part and many other organisations with a particular interest in the natural environment. NEG aims to assist the SEMS MG in their implementation of the SEMS MS and to initiate and manage further research (see Figures 2 and 3).

A Strategic Stakeholder Group (SSG) also exists to ensure that legitimate stakeholders are fully briefed on the implementation of the SEMS management scheme. The SSG is asked annually to provide relevant information on the management and impact of activities in the SEMS and to provide feedback to the management group on key strategic issues. Membership of the SSG includes each of the key sectors involved in the SEMS. Figures 3 and 4 show the working relationship between the SSG and SEMS and between NEG and SEMS.

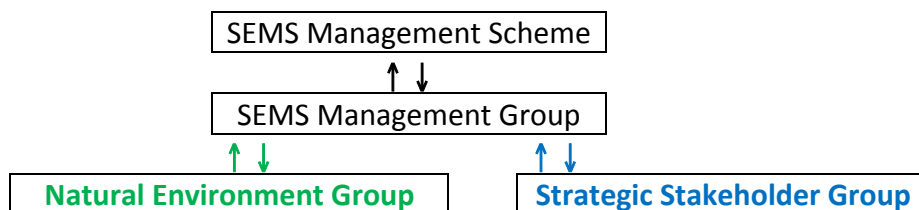


Figure 4 Working relationship between SEMS, NEG and the SSG

Other plans also have an effect on the management and condition of SEMS, for example Catchment Management Plans and the South Marine Plans. The former embed collaborative working at a river catchment scale to deliver cross-cutting improvements to water environments. The Habitat Regulations Assessment for the South Marine Plan⁴ details a wide range of pathways and impacts of activities.

1.3. Annual Monitoring Methodology

An online monitoring survey is conducted every year and this forms the central core of the MS by providing information from the RAs on activities that are potentially damaging to the SEMS. A Strategic Stakeholder Group (SSG) is invited to comment and to provide additional relevant information.

⁴ The Habitat Regulations Assessment for the South Marine Plan can be found at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/569671/Habitat_Regulations_Assessment.pdf

In 2018, thirty one RAs were invited to answer the survey and 23 responded (see Table 1). Further telephone interviews were conducted with RAs who had indicated activities that may have a detrimental effect on the SEMS, and with those who noted a possible residual impact. Full details of the online survey results are given in the SEMS Annual Monitoring Responses 2018, which can be found at Appendix 2 and on the SEMS web site at <http://www.solentems.org.uk/publications/>.

Table 1 Relevant authorities and abbreviations

Authority	Code	Responded to 2018 Online Survey
Associated British Ports	ABP	✓
Beaulieu River Management	BRM	✓
Chichester District Council	CDC	✓
Chichester Harbour Conservancy	CHC	✗
Cowes Harbour Commissioners	CoHC	✓
Eastleigh Borough Council	EBC	✗
Environment Agency	EA	✓
Fareham Borough Council	FBC	✓
Gosport Borough Council	GBC	✗
Hampshire County Council	HCC	✗
Havant Borough Council	HBC	✓
Isle of Wight Council	IoWC	✓
Langstone Harbour Board	LHB	✓
Lymington Harbour Commissioners	LHC	✓
Natural England	NE	✓
New Forest District Council	NFDC	✗
New Forest National Park Authority	NFNPA	✓
Portsmouth City Council	PCC	✓
Portsmouth International Port	PIP	✗
QHM Portsmouth	QHM	✓
River Hamble Harbour Authority (Hampshire County Council)	RHHA	✓
Southampton City Council	SCC	✓
Southern Inshore Fisheries and Conservation Authority	SoIFCA	✓
Southern Water	SWS	✓
Sussex Inshore Fisheries and Conservation Authority	SxIFCA	✓
Test Valley Borough Council	TVBC	✓
Trinity House Lighthouse Service	THLS	✗
West Sussex County Council	WSCC	✓
Wightlink	WL	✓
Winchester City Council	WCC	✗
Yarmouth Harbour Commissioners	YHC	✓

The annual monitoring methodology is constantly being improved and this year includes extra questions, including on whether responses are based on fact, empirical evidence or if they are anecdotal. This will assist evaluation of the monitoring and prioritisation of any actions required.

New data and evidence regarding the impacts of activities on interest features is constantly becoming available. The SEMS Management Scheme Activities web pages⁵ are updated regularly with new information and resources.

⁵ Information on SEMS Management Scheme Activities and impacts can be found at http://www.solentems.org.uk/sems/SEMS_Activities/

2 Understanding the condition of the SEMS

2.1. Site Condition

SEMS site condition is important in supporting management decisions. Annual monitoring of activities by the SEMS MG aims to identify threats to site condition or, at worst, early signs of any deterioration, so that timely management action can be taken to avoid damage or further evidence can be collected.

The condition of component SSSIs of the SEMS is assessed by Natural England (NE) every six years on a rolling programme⁶. The most recent site condition can be found on Natural England's [Magic Map](#)⁷ website.

During 2015-16 Natural England reviewed, refined and tested their SAC condition assessment methodology to provide more robust results. They employed this methodology to carry out a rolling programme of marine feature condition assessments in 2016-17. Condition assessments have been completed for the Solent Maritime SAC, which is in unfavourable condition. This unfavourable status is largely due to a few key factors:

- Elevated nutrient levels
- Elevated aqueous contaminants
- Low infaunal quality index (IQI)

Condition assessments have also been completed for the South Wight Maritime SAC, which is in favourable condition, and for the Solent and Isle of Wight Lagoons SAC which is in broadly favourable condition. NE's condition assessments for the Solent will be available on NE's Designated Sites System⁸ later this year; SPA condition assessments will be done after SACs as the new methodology for SPAs will be available in 2018 - 19. Once the SPA condition assessments have been completed they will also be available on NE's designated Sites System.

Condition assessments for SEMS interest features indicate whether or not they are in favourable condition, and identify threats which have the potential to impact their condition and therefore require further monitoring or management. A summary of the condition assessments can be found at Appendix 3. In this report, site condition is referenced where further action is needed.

A poster detailing the methodology and role of NE's condition assessments for marine features can be found at http://www.solentems.org.uk/sems/Condition_assessments/.

⁶ Natural England's condition assessments for Marine Features
http://www.solentems.org.uk/sems/Condition_assessments/

⁷ The MAGIC website provides authoritative geographic information about the natural environment from across government in an interactive map which can be explored using various mapping tools that are included. It can be found at <http://magic.gov.uk/>

⁸ NE's Designated Sites System for Solent Maritime SAC is at
<https://designatedsites.naturalengland.org.uk/Marine/MarineSiteDetail.aspx?SiteCode=UK0030059&SiteName=&countyCode=&responsiblePerson=&unitId=>

2.2. Risk Categories

Until 2016, SEMS used a list of activities that originated from the European Marine Site Risk Review that Natural England conducted on behalf of Defra in 2010 to monitor annually. Activities were categorised according to whether they posed a high, medium or low risk to EMS features. A new list of activities was developed in 2017 by NE and SEMS [see Chapters 4 and 5] which is more aligned with NE's conservation advice.

Risk is often defined as the combination of the probability of an event and its consequences. Risk can be either positive or negative. Where there is a sensitive receptor, the likelihood and severity (intensity level, duration etc) of each impact is analysed and evaluated. Thus risk is not only associated with the *level* of activity, but also with its *likelihood* and the *severity* of its impact. Paramotors are an example of where a low level of activity can nevertheless pose a serious risk at certain times and places.

Standard risk assessment aims to identify those risks with the greatest impact and the greatest probability of occurring – these are normally addressed first, and risks with lower probability of occurrence and lower impact or threat are handled in descending order.

SEMS annual monitoring addresses the risk posed by each activity, and Natural England provides advice to the MG on the potential impact of these in light of the levels of each activity reported. It is therefore considered unnecessary to categorise activities in relation to the risk they pose, as this report already contains a detailed account of the risk, therefore, risk categories have now been discontinued.

2.3. Conservation Advice Packages

NE's conservation advice (CA) packages⁹ are the statutory driver in the Habitats Regulations for the SEMS MS. All designated MPAs within SEMS now have a package in either draft or formal format. NE's conservation advice for the Solent Maritime SAC can be found on their Designated Sites System¹⁰. Other packages can be found by searching for them by name¹¹. NE provided training for the SEMS MG in March 2017; notes from the workshop and many other resources are available on the SEMS web site¹².

The relationship between risk, site condition and NE's CA packages is as follows. The CA package includes Advice on Operations which identifies pressures associated with the most commonly occurring marine activities, and provides a detailed assessment of the feature/sub-feature or supporting habitat sensitivity to these pressures. For a particular activity, the risk of harm will be determined by the extent, magnitude and duration of the activity together with the sensitivity of the feature/sub-feature or supporting habitat. Where available, site condition data will also be

⁹ NE's Conservation Advice can be found at <https://www.gov.uk/government/publications/eastern-channel-marine-area-index-map-and-site-packages>

¹⁰ Conservation advice for the Solent Maritime SAC can be found at <https://designatedsites.naturalengland.org.uk/Marine/MarineSiteDetail.aspx?SiteCode=UK0030059&SiteName=&countyCode=&responsiblePerson=&unitId>

¹¹ Search for designated site details <https://designatedsites.naturalengland.org.uk/SiteSearch.aspx>

¹² Solent Conservation Advice Workshop 2017

http://www.solentems.org.uk/sems/Conservation_objectives/Conservation_advice_workshop/

used to inform this assessment. The aim of this process is to identify whether the risks posed by a particular activity are likely to have an adverse effect upon the integrity of designated sites.

3 Introduction to Activities

The list of activities monitored by the SEMS MG (Table 2) was updated in 2017 in order to align it more closely with Natural England's (NE's) conservation advice packages.

Table 2 List of Activities monitored by SEMS Management Group
(only *unregulated* activities are monitored)

Activity	Brief Description of Activity
Land Recreation - Dog walking	Activities that involve dogs, including when dogs are used for wildfowling
Land Recreation - Walking (other than dog walking)	Walking on upper shore or intertidal zone (other than dog walking)
Land Recreation - Other	Activities that involve educational or scientific studies, horses and riding, fireworks displays, swimming, rock pooling, surfing, non-motorised land craft (e.g. sand yachting, kite buggying). Excludes paddle boarding (see Recreation - non-motorised water sports)
Recreation - Non-Motorised Water Sports	Includes windsurfing, kite surfing, kayaks, canoes, row boats, punts, paddle boards, dinghies, sailing boats and all related activity - participation, launching/recovery, events, racing and competitions, activity during travel, launching and when stationary
Recreation - Powerboating or Sailing with an Engine	Any motorised boat activity, including Personal Watercraft, hovercraft, powerboating and water-skiing. Launching or recovery and when activity is underway or making way. Other novel uses of power boats such as flyboarding are also included. Impacts of different craft will vary and should be considered on a case by case basis
Mooring and/or Anchoring	Operational use of berths, moorings, anchorages including the presence of these structures and vessels using them. Includes impacts from anchors and impacts of boats when at anchor or mooring. Does not include impacts from boats getting to and from moorings, these should be assessed in the relevant 'participation' category. The activity of anchoring generically and use of allocated anchorage areas where ships are permitted to anchor inside and outside harbours/ports. Includes consideration of vessels when anchoring, anchored or weighing anchor
Recreation - Light Aircraft	Includes all types of craft used for recreation in the air e.g. small planes and helicopters, microlights, paramotors, hang gliding, parascending (on beach), parasailing (by boat), drones, model aircraft etc.
Fishing (unlicensed only, including shellfisheries)	Anchored nets/lines, Electrofishing, Traps, Pelagic fishing (or fishing activities that do not interact with sea bed), Hydraulic dredges, Dredges, Demersal trawl, Demersal seines, Diving, Sea angling
Fishing (shore-based activities, unlicensed only)	Includes crab tiling, bait digging, shellfish collection (including seed mussel) e.g. by hand (with or without digging apparatus), rake or through the use of 'tiles'. Also includes rod & line angling, the setting of pots and nets from the shore and use of vehicles or vessels to access the shoreline

Activity	Brief Description of Activity
Accidental Vessel Discharges / Emissions (including oil spill and clean-up)	Includes operational, incidental and accidental discharges/emissions from all types of vessels, including exhaust fumes, wastes and waste water, sewerage, oils, lubricants and chemicals, including oil spill and clean-up. Does not include marine litter and other flotsam and jetsam (this is included in Littering below)
Littering and Removal of Litter	Includes operational, incidental and accidental discharges from land, water, air, and from all types of vessels, of particulate or solid wastes e.g. plastics, micro-plastics, marine litter and other flotsam and jetsam (other than vessel discharges – see above). Includes strandline clearance and beach management. The toxicity and damage caused by materials should be considered as should the clean-up of toxic debris.
Wildfowling	Use of firearms to shoot wild fowl. This does not take into account use of dogs during these activities
Operation of Coastal Flood and Erosion Risk Management Schemes, Barrages and Sluices	Operational effects of coastal defence schemes including accretion of sediment, erosion of intertidal, coastal habitats, on-going sediment recycling schemes, coastal squeeze, operation of sluices etc. Includes effects of associated vessels/machinery/vehicles
Boat Repair/Maintenance	Vessel maintenance and repair on land and afloat, hull cleaning. Includes consideration of associated vessels / machinery / vehicles
Navigation (maintenance of infrastructure) and Operation of Ports and Harbours	Maintenance of all port/harbour structures including quay walls, jetties, slipways, navigation markers, coastal defence structures etc. Includes consideration of vessels / machinery / vehicles associated with activity. Day-to-day operational use of these structures, also lights, buoys, posts, towers, transit marks, supply of fuel/bunkering operations onshore / offshore etc.
Slipway and Jetty Cleaning and Maintenance	Ongoing maintenance (washing down, clearing mud, sediment, algal growth or similar) of a slipway or jetty.
Grazing	Grazing on saltmarsh or intertidal areas

In addition to monitoring these activities annually, and acting to prevent damage to SEMS through the Management Scheme, relevant authorities (RAs) have regard to the Habitats Regulations and aspire to good practice through their normal work and roles. Appendix 1 clarifies what is included in the Management Scheme and what is excluded.

RAs are referred to in this report using abbreviations which are shown in Table 1.

4 Summary and Evaluation of 2018 Annual Monitoring

4.1. Summary of all activities

Activities taking place across the SEMS were recorded in an online survey by 23 of the thirty one RAs that comprise the SEMS MG, and are detailed in the SEMS Annual Monitoring Responses 2018. The full survey results can be found in Appendix 2 – SEMS Annual Monitoring Responses 2018.

Table 3 lists activities for which responses were received and shows the change, if any, in each activity which was reported. This report only considers activities that have increased, remained elevated or decreased; these are highlighted red, orange or green respectively in Table 3.

Table 3 Reported changes in level of activity in 2018 compared to 2017

Activities with an **increase – red**, activities **remained elevated – orange**, activities **decreased – green**

Activity	No change (this means that current activity levels are not having an impact. If an impact is suspected then 'Remains elevated' should have been used)	Increase	Remains Elevated since last year (this shows a concern that the current level of activity may be causing an impact)	Decrease	Total Responses
Land recreation - Dog walking	6	0	6	0	12
Land recreation - Walking (other than dog walking)	8	1	4	0	13
Land recreation – Other	11	3	0	1	15
Recreation - non-motorised water sports	8	3	3	0	14
Recreation - Powerboating or sailing with an engine	8	1	2	0	11
Mooring and/or anchoring	8	0	0	1	9
Recreation Light Aircraft	5	2	0	0	7
Fishing (including shellfisheries)	6	0	0	3	9
Fishing (shore-based activities)	5	1	4	0	10
Accidental vessel discharges / emissions including oil spill and clean-up	11	0	0	0	11
Littering and removal of litter	7	0	4	0	11
Navigation (maintenance of infrastructure) and operation of ports and harbours	10	1	0	0	11
Operation of coastal flood and erosion risk management schemes, barrages and sluices	8	1	0	0	9
Boat repair / maintenance	9	0	0	0	9
Slipway and jetty cleaning and maintenance	11	0	0	0	11
Wildfowling	0	0	0	2	2

This year there were 10 activities where RAs reported an increase in activity level, or levels that remain elevated, as shown in Table 3. There were many reports of 'no change'. The 'Unknown'

category was removed in 2018. It is important to note that for all activities, apart from 'Land Recreation – Dog Walking', by far the majority of RAs reported no concerns.

This chapter covers the 13 activities out of the seventeen that were monitored, where online monitoring indicated that levels increased, remained elevated or decreased during 2018. It should be noted that 'Grazing' was monitored, however it did not fall within the jurisdiction of any responding authority so no data was submitted for this activity.

All of those RAs who reported an increase or level of activity that remained elevated were contacted (or attempts made to contact them) by the SEMS secretariat to determine whether or not they consider the issues need to be escalated for further investigation or action. These comments received from SEMS RAs can be found in Appendix 5.

The following headings are used for each activity: Definition of Activity, Summary of Responses, Evaluation and Discussion and Actions.

For each activity for which concern was reported, the potential impacts of that activity on specific features of the SEMS are evaluated and discussed, and relevant evidence is referenced; these sections are shaded light yellow. Actions to address the issues raised are drafted for each activity; these are shaded light green.

More information on the activities, their potential impacts and examples of good practice provide a resource bank which can be found at http://www.solentems.org.uk/sems/SEMS_Activities/

For all recreation activities, refer to the report on 'Managing marine recreational activities: a review of evidence'¹³ by Natural England and the Marine Management Organisation. This report includes a management toolkit and 13 individual Evidence Briefing Notes on activities including wind surfing and kite surfing, motorised and non-motorised personal watercraft, motorised watercraft, hovercraft, light aircraft, drones, general beach life, wildlife watching and land vehicles.

4.2. Tracking Actions

Before and at each annual meeting, the MG will review every action and note what has been accomplished and which actions have been completed. Progress on actions will be shown in **blue font**. The final Annual Management Report (AMR) will show this for each action and will state that actions have been completed and will be deleted from the following year's AMR. New proposed actions will be shown in **red font**, these are for discussion / agreement at the MG meeting. This will maintain an audit trail for completed actions.

¹³ The report on report on 'Managing marine recreational activities: a review of evidence', a Toolkit on Management Measures and 13 Evidence reports on impacts of individual activities can be found at <http://publications.naturalengland.org.uk/publication/5164654430519296?category=4891006631149568>

4.3. Land Recreation - Dog walking

4.3.1. Definition of Activity

The definition of land recreation – dog walking, from Natural England’s conservation advice for Marine Protected Areas, is activities that involve dogs, including when dogs are used for wildfowling.

In 2016 and previous years, this activity was classified slightly differently under one single category as ‘Access / Land recreation’, therefore a direct comparison with results from 2016 and earlier is not possible.

4.3.2. Summary of Responses

Activity	No change	Increase	Remains Elevated	Decrease	Total No of Responses
Land Recreation - Dog walking	6	0	6	0	12

Half of the respondents reported no change for the level of land recreation – dog walking. The other half reported that it remained elevated, mostly all year round; this is higher than in 2017 when only 3 out of 13 reported an increase or level that remained elevated. In 2018, 5 of the 6 reporting a level that remained elevated believe the activity is creating a residual impact on the Solent European Marine Site, and 2 believe that this may cause the condition of the site to change.

Some areas of the North Solent National Nature Reserve have a continuing issue with off-lead or uncontrolled dog walking causing disturbance.

Local bird watchers at Weston Shore say that walkers allow and/or encourage their dogs to chase the birds. This activity has been occurring for a long time.

4.3.3. Evaluation and discussion

Issues identified in previous years

In several previous years, various RAs reported that Access / Land Recreation increased or remained elevated due to levels of housing development that existed before 2012, some considered there may be an impact on the SEMS through impacts on feeding, breeding and non-breeding bird populations of the SPAs.

Potential Impact

Natural England’s draft Advice on Operations identifies pressures arising from dog walking that may impact breeding and non-breeding bird populations of SPAs. These include above water noise, visual disturbance, litter and the removal of species. A number of designated bird species within the SEMS are considered to be sensitive to these pressures, which can result in displacement and/or mortality. (Natural England, personal communication, July 2018)

Management Measures (Bird Aware Solent)

The Solent Recreation Mitigation Strategy (SRMS) – which aims to reduce the impact on birds' habitat from new housing developments came into force on 1 April 2018. In the strategy, developers may make financial contributions depending on the size and number of homes they are planning. Alternatively, developers may agree and implement their own bespoke mitigation package in consultation with the relevant Local Planning Authority and Natural England. Developer contributions to the SRMS are used to fund:

- A team of coastal rangers to raise awareness on how to avoid bird disturbance and encourage behavioural change
- Communications, marketing and education initiatives
- Initiatives to facilitate and encourage responsible dog walking
- The preparation of codes of conduct for a variety of coastal activities
- Site-specific projects to help manage recreation at the coast and provide secure habitats for the birds
- The provision of new/enhanced greenspaces as alternatives to visiting the coast
- A delivery officer
- Monitoring to help adjust the mitigation measures as necessary.

Bird Aware Solent is only funded to mitigate the additional impact of new development since 2014. No-one is proposing to address pre-2014 development. However some of the on-site access improvements planned for the future, combined with the educational work and behavioural messages may have the side benefit of addressing the impacts of pre-existing development. Bird Aware's ranger team has been expanded. A new leaflet targeted at raising awareness of recreational disturbance amongst dog owner/walkers is being trialled in summer 2018, with the intention that it will be extensively used by the ranger team during winter 2018/19.

No "on the ground" capital projects have been brought forward by the partnership as yet. The realisation of these work streams will be important to ensure residual impacts to the SEMS do not occur.

The Bird Aware Solent – coastal code can be found at <http://www.birdaware.org/coastalcode> and the Bird Aware Solent Factfile on birds is at <http://www.birdaware.org/birds>.

Most authorities do not have policing resources, but Natural England try to address disturbance through signage and interpretation, local and permit holder information letters and updates.

In Chichester, the Graylingwell and Roussillon mitigation project mitigates the additional impacts of certain new developments built since 2010. Chichester District Council have also introduced a 'dogs on lead by direction' order for Fishbourne Creek.

Discussion

While it is important to continue monitoring land recreation impacts via dog walking (and walking), Bird Aware has the potential to mitigate both residual and future impacts (through its rangers, awareness raising etc). On this basis we should not seek to evaluate the impacts of dog walking (and walking) until the next round of SRMP monitoring has been completed. (Natural England, personal communication, July 2018)

4.3.4. Actions for Land Recreation - Dog walking

SEMS Actions	Action Progress	Lead and Partners	Date for Completion	Actions for SEMS to Agree Sept 2018
The Solent Recreation Mitigation Strategy (SRMS) should be mitigating sufficiently against bird disturbance after 2015. NEG to keep track of Solent Recreation Mitigation Partnership (SRMP) actions and continue liaison and support of SRMS. This action has been in place since 2015	2018 Progress: No need for specific action this year	K Chesman, Natural Environment Group (NEG), SRMP Partners	Action ongoing KC give brief annual updates on SRMS progress	Ongoing and Remains Agreed in 2017
In 2021 when the 5 year monitoring of the effectiveness of the SRMP is complete, or sooner if possible, an assessment should be made as to how successful of otherwise the mitigation has been in not only mitigating new housing development in the Solent since the SRMP formed, but whether through the promotion of the Bird Aware messaging by third parties it is also helping to bring down the baseline disturbance from existing housing to sufficiently reduce harm to birds (SRMP monitoring 2021). Monitoring to be commissioned by SRMP and NEG to check whether it has achieved its objectives and whether it has delivered sufficiently to mitigate against disturbance prior to 2010	SRMP Chair and NEG to update 2018 Progress: NEG agree to liaise and LM both involved in monitoring. All details of it on SRMP website. There was general confidence expressed in this work	All RAs and NEG	2021	Ongoing and Remains Action amended in 2017
RAs to identify any of their own rangers or other staff who are distributing Bird Aware's leaflets to support Bird Aware's wardens in engaging with coastal dog-walkers (and walkers) between October and March (plenty of leaflets are available)		All RAs with 'countryside' staff or wardens	Over winter	Ongoing and Remains Agreed in 2017
To identify whether there is any potential for Bird Aware to record other information to supplement the AMR		SEMS- KC/ Bird Aware	A.S.A.P	Agreed
To invite a representative from the Coastal Path Team to give a presentation regarding the Coastal Path and addresses potential monitoring ideas to assess the impact on SEMS at 2019 Management Group meeting.		SEMS- KC	Spring-summer 2019	Agreed

Measure/s of effectiveness of actions – new heading proposed by SEMS – this should be incorporated with each of the actions. The measures of effectiveness will be identified after condition assessments, risk categories and NE's monitoring are available; they could be identified by groups of RAs working together.

4.4. Land Recreation - Walking (other than dog walking)

4.4.1. Definition of Activity

Walking on upper shore or intertidal zone (other than dog walking).

In 2016 and previous years, this activity was classified slightly differently under one single category as 'Access / Land recreation', therefore a direct comparison with results from 2016 and earlier is not possible.

4.4.2. Summary of Responses

Activity	No change	Increase	Remains Elevated	Decrease	Total No of Responses
Land Recreation - Walking (other than dog walking)	8	1	4	0	13

Of 13 responses from those for whom land recreation - walking (other than dog walking) falls within their jurisdiction, 5 reported that the level of activity had increased or remained elevated. Most reported no change in this activity.

New Forest National Park Authority reported an increase, however this was with low confidence based on an increase in dwellings. There is a Recreation Management Strategy for the National Park, and Bird Aware seem to be developing good systems for improved monitoring of visitor levels and behaviour.

Two of the 4 RAs who reported that levels remained elevated referred to the absence of measures to address disturbance caused by pre-2014 levels of this activity. Three of the 4 believe there has been a residual impact on the Solent European Marine Site, and one of these believes this may cause the condition of the site to change through long term declines in over-wintering bird populations.

4.4.3. Evaluation and discussion

Issues identified in previous years

In several previous years, including 2016, various RAs reported that Access / Land Recreation increased or remained elevated due to levels of housing development that existed before 2012, some considered there may be an impact on the SEMS through impacts on feeding, breeding and non-breeding bird populations of the SPAs. (Natural England, personal communication, July 2018)

Potential Impact

Natural England's draft Advice on Operations identifies pressures arising from walking that may impact breeding and non-breeding bird populations of SPAs. These include above water noise, visual disturbance and litter. A number of designated bird species within the SEMS are considered to be sensitive to these pressures, which can result in displacement and/or mortality.

Management Measures - SRMP and Bird Aware

See above – the same as for Land Recreation – Dog Walking

Discussion

While it is important to continue monitoring land recreation impacts via dog walking (and walking), Bird Aware has the potential to mitigate both residual and future impacts (through its rangers, awareness raising and other actions). On this basis we should not seek to evaluate the impacts of dog walking (and walking) until the next round of SRMP monitoring has been completed. (Natural England, personal communication, July 2018)

4.4.4. Actions for Land Recreation – other than dog walking

(note that in 2016 and previous years these two activities ('Land Recreation – dog walking' and 'Land Recreation – other than dog walking') were treated as one, referred to as Land Recreation)

The key pressures and pathways for Land Recreation – other than dog walking are largely the same as those for Land Recreation – dog walking, therefore the actions are the same.

SEMS Actions	Action Progress	Lead and Partners	Date for Completion	Actions for SEMS to Agree Sept 2018
Actions are the same as those for 4.2.4 (Land Recreation - dog walking)				Ongoing and Remains Agreed in 2017

Measure/s of effectiveness of actions – new heading proposed by SEMS – this should be incorporated with each of the actions. The measures of effectiveness will be identified after condition assessments, risk categories and NE’s monitoring are available; they could be identified by groups of RAs working together.

4.5. Recreation - Non-Motorised Water Sports

4.5.1. Definition of Activity

This activity includes windsurfing, kite surfing, kayaks, canoes, row boats, punts, paddle boards, dinghies, sailing boats and all related activity - participation, launching/recovery, events, racing and competitions, activity during travel, launching and when stationary.

In 2016 and previous years, this activity was classified slightly differently under two different categories as 'Water sports (e.g. hovercraft, kayaking and kite surfing)' and 'Recreational Boating', therefore a direct comparison with earlier years is not possible.

4.5.2. Summary of Responses

Activity	No change	Increase	Remains Elevated	Decrease	Total Responses
Recreation - Non-Motorised Water Sports	8	3	3	0	14

3 out of 14 respondents for whom recreation - non-motorised water sports falls within their jurisdiction reported an increase in recreation – non-motorised sports; all 3 are monitoring this activity observationally and managing it by providing information about sensitive features.

3 authorities reported that this activity remained elevated including in navigable waterways and creeks on the Isle of Wight where it causes disturbance to breeding and feeding waterfowl. Natural England believes there is a residual impact due to an increase in use of small watercraft (paddle-boarders, kayakers etc) and subsequent disturbance to birds around the North Solent National Nature Reserve (NNR). This comment does not relate to any impacts on the EMS these views are from the NNR rather than the SEMS as a whole and therefore taking this comment and applying it to activity levels across the entire area should be done with caution (although it is entirely possible that this is a wider problem). This could be significant if other disturbing activities also occurred.

4.5.3. Evaluation and discussion

Issues in previous Annual Monitoring

In 2017, 2 organisations reported an increase; one of these was Beaulieu River Management (BRM) who reported a further increase in 2018. In 2016, one authority (NE) believed there was a residual impact on SEMS that may cause its condition to change. NE also held this view in 2014 and 2015.

Potential Impact

Natural England's draft Advice on Operations identifies pressures arising from non-motorised water sports that may impact breeding and non-breeding bird populations of SPAs. These include above water noise, visual disturbance and the introduction or spread of invasive non-native species. A number of designated bird species within the SEMS are considered to be sensitive to these pressures, which can result in displacement and/or mortality. (Natural England, personal communication, 25th August 2017 and July 2018)

Discussion

The RYA's 2017 Watersports Participation Survey¹⁴ reports that nationally stand up paddleboarding continues to grow in popularity, with a 0.4% increase, and canoeing also increased by 0.6%. These increases reflect what RAs around the Solent are reporting. The RYA survey also notes that the volume of participants in 'any activity' and 'any boating activity' are the highest since their survey began; approximately 4 million UK adults took part in a boating activity in 2017, 461,000 more than in 2016.

There may still be some cause for concern about the effect/s of water based recreational use around the shoreline and harbours on bird disturbance. It is hoped that the SRMP Scheme will mitigate for this, as the rangers under Bird Aware are also working with water users to distil the message to be more careful to avoid disturbing birds. In 2021 the SRMP will be fully monitored and it is at this stage that an assessment can be made. Further discussion about this can be found in Appendix 4 to this report.

This activity could result in localised impacts, for example in Chichester Harbour (2017) and North Solent NNR, particularly if it continues to increase in popularity or if other disturbing activities also occurred.

In conclusion, based on current levels of reported activity, it is unlikely that recreation – non-motorised water sports is having an adverse effect upon SEMS. Although not specifically causing an adverse effect at this stage, it is a potential threat and one to follow up in terms of whether others are observing that this activity is increasing in usage and causing disturbance elsewhere. (Natural England, personal communication, July 2018)

4.5.4. Actions for Recreation - Non-Motorised Water Sports

SEMS Actions	Action Progress	Lead and Partners	Date for Completion	Actions for SEMS to Agree September 2018
RAs can, if they wish, use and disseminate the Paddlesports Guidelines; they are asked to add the SEMS logo to their own material (high resolution logo is available from SEMS)	RHHA have disseminated the Guidelines			
RAs to inform SEMS or send a link to where and when they have used the Paddlesports Guidelines	Ongoing	All RAs	Actions ongoing	Ongoing and Remains These actions were agreed in 2017
MG to watch for evidence of uptake of disturbance messages in the Paddlesports Guidelines after 2016 and report via SEMS annual monitoring each year	Ongoing			
Disseminate the Green Blue Wildlife Guide for Boaters (available at https://thegreenblue.org.uk/wildlifegui)	Ongoing			

¹⁴ <http://www.rya.org.uk/SiteCollectionDocuments/sportsdevelopment/2017-watersports-study-final-summary.pdf>

SEMS Actions	Action Progress	Lead and Partners	Date for Completion	Actions for SEMS to Agree September 2018
de and refer to SEMS website on marine recreation http://www.solentems.org.uk/sems/SEMS_Activities/recreational_boating/				
Integrate marine management into all recreation strategies for relevant authorities, in particular for Councils	Portsmouth City Council have produced several reports (Authority Monitoring Report and Habitats Regulation Assessment – Screening Report) MMO meetings with RAs and Solent Forum	All RAs with recreation strategies	Action ongoing	Ongoing and Remains Agreed in 2017
Ask RYA if the data in their Annual Watersports Participation Survey covers the Solent and, if it is available free of charge, obtain it for use in 2019	Emails from Duncan Savage July & Aug 2018 - Survey is produced by a partnership, and is only accessible to members, being hosted by British Marine. I have been unable to get a response from the data owner. As far as I am aware, the data is not separated into regions such as the Solent	SEMS – KC	a.s.a.p.	Agreed in 2017 Action to be carried forward and follow up with Duncan Savage

Measure/s of effectiveness of actions

The measures of effectiveness will be identified after condition assessments, risk categories and NE's monitoring are available; they could be identified by groups of RAs working together.

4.6. Recreation - Powerboating or sailing with an engine

4.6.1. Definition of Activity

Any motorised boat activity, including Personal Watercraft (PWC), hovercraft, powerboating and water-skiing. Launching or recovery i.e. slipway or beach/shore launching (this may include trailers), and participation i.e. when activity is underway or making way. Other novel uses of powerboats such as flyboarding are also included.

Impacts of different craft will vary and should be considered on a case by case basis e.g. sailing boats with low power engines moving at slow speeds are unlikely to pose a threat.

In 2016 and previous years, this activity was classified slightly differently under two different categories as 'Water sports (e.g. hovercraft, kayaking and kite surfing)' and 'Recreational Boating', therefore a direct comparison between earlier years is not possible.

4.6.2. Summary of Responses

Activity	No change	Increase	Remains Elevated	Decrease	Total Responses
Recreation - Powerboating or sailing with an engine	8	1	2	0	11

In this year's annual monitoring one authority, out of 11 for whom Recreation - Powerboating or sailing with an engine falls within their jurisdiction reported an increase, and 2 reported that levels remained elevated.

In 2017-18, Langstone Harbour Board (LHB) sold 33% more jetski permits than during the previous season. LHB employs seasonal patrol officers between Easter and October and enforces byelaws vigorously to manage these activities.

One authority, the Isle of Wight Council (IoWC), believes there has been a **residual effect on the SEMS** due to an increase in consented access, including for a jetty, slipway and pontoons at various designated sites. However, for each planning application impacts to the designated sites were ruled out, each was determined on its own merits and mitigation will have been secured. This observation is only a perception and so confidence in this assessment is low. Consenting improved access within the designated sites is nevertheless likely to increase the amount of recreational marine use.

4.6.3. Evaluation and discussion

Issues in Previous Years

In 2017 the only changes in the level of Recreation - Powerboating or sailing with an engine was a decrease noted by Chichester Harbour Commissioners (ChHC) and Yarmouth Harbour Commissioners (YHC).

In 2016 and previous years, this activity was classified slightly differently under two different categories as ‘Water sports (e.g. hovercraft, kayaking and kite surfing)’ and ‘Recreational Boating’, therefore a direct comparison between earlier years is not possible.

Potential Impact

Natural England’s draft Advice on Operations identifies a range of pressures arising from powerboating or sailing with an engine that may impact breeding and non-breeding bird populations of SPAs. These include above water noise and visual disturbance. A number of designated bird species within the SEMS are considered to be sensitive to these pressures, which can result in displacement and/or mortality. Similarly, powerboating or sailing with an engine may impact SPA supporting habitats and designated SAC features via pressures such as abrasion/disturbance of the seabed and penetration/disturbance of the substratum below the seabed.

Discussion

One authority believes there has been a **residual effect on the SEMS** due to an increase in consented access even though mitigation has been secured, although confidence in this assessment is low. However, consenting improved access is likely to continue and to increase the amount of recreational marine use.

In 2017, ChHC believed that levels of Recreation - Powerboating or Sailing with an Engine were still not at an acceptable level to ensure no damage to SEMS, despite various management measures.

4.6.4. Actions for Powerboating or sailing with an engine

SEMS Actions	Action Progress	Lead and Partners	Date for Completion	Actions for SEMS to Agree September 2018
To discuss with NEG the quality of monitoring on the effects of boating and whether any further monitoring or surveying might be recommended.		NEG-KC, IoWC	Ongoing	Agreed in 2018

Measure/s of effectiveness of actions – new heading proposed by SEMS – this should be incorporated with each of the actions. The measures of effectiveness will be identified after condition assessments, risk categories and NE’s monitoring are available; they could be identified by groups of RAs working together.

4.7. Mooring and/or Anchoring

4.7.1. Definition of Activity

Operational use of berths, moorings and anchorages including the presence of these structures and vessels using them. Includes impacts from anchors and impacts of boats when at anchor or mooring. Does not include impacts from boats getting to and from moorings, these should be assessed in the relevant 'participation' category. The activity of anchoring generically and use of allocated anchorage areas where ships are permitted to anchor inside and outside harbours/ports. Includes consideration of vessels when anchoring, anchored or weighing anchor.

4.7.2. Summary of Responses

Activity	No change	Increase	Remains Elevated	Decrease	Total No of Responses
Mooring and/or Anchoring	8	0	0	1	9

In this year's annual monitoring one authority, Langstone Harbour Board, out of nine for whom mooring and / or anchoring falls within their jurisdiction, reported a decrease in mooring and / or anchoring.

4.7.3. Evaluation and discussion

Issues in Previous Years

This activity was previously recorded under two separate headings: 'Moorings (management)' and 'Anchoring'. In recent years there have been no issues raised about either activity.

Potential Impact

Natural England's draft Advice on Operations identifies pressures arising from mooring and/or anchoring that may impact SPA supporting habitats and designated SAC features. These include abrasion/disturbance of the seabed, penetration/disturbance of the substratum below the seabed and the introduction or spread of invasive non-native species. A number of designated features within the SEMS are considered to be sensitive to these pressures. (Natural England, personal communication, July 2018).

NE's condition assessment for the Solent Maritime SAC shows there has been a reduction in eelgrass and says that further investigation is required, therefore NE will undertake further investigation.

There is a sensitivity assessment in the MarLIN description of *Zostera marina* beds that summarises the evidence base¹⁵.

Following proposals for Studland Bay Recommended Marine Conservation Zone in Dorset, there is debate in the literature about the sensitivity of eelgrass in the context of anchoring pressures¹⁶.

¹⁵ <https://www.marlin.ac.uk/habitats/detail/257>

A final report of anchoring and mooring impacts on English and Welsh MPAs¹⁷ has been produced by Defra however the recreational anchoring and mooring activity data project is still ongoing.

The RYA website has a page on Environmentally Friendly or EcoMooring¹⁸.

Discussion

Given that the increase in moorings reported by EBC in 2017 related to berths within existing marinas, it is unlikely that this activity will have an adverse effect upon SEMs. (Natural England, personal communication, 2017)

4.7.4. Actions for Mooring and/or Anchoring

SEMS Actions	Action Progress	Lead and Partners	Date for Completion	Actions for SEMs to Agree September 2018
1] Disseminate the findings of Defra's anchoring impacts study once it is completed, via Solent Forum's eNews and SID ¹⁹ : Griffiths, C.A., Langmead, O.A., Readman, J.A.J., Tillin, H.M. 2017 Anchoring and Mooring Impacts in English and Welsh Marine Protected Areas: Reviewing sensitivity, activity, risk and management. A report to Defra Impacts Evidence Group	http://sciencesearch.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=19777		Complete	Agreed in 2017
Link to study to be placed on SEMs activity page ²⁰ .		SEMS	A.S.A.P	Actions ongoing and remain
2] Disseminate further work to be undertaken on anchoring and mooring impacts during 2017 as part of Defra Impacts and Evidence Group (it is likely that a number of Solent sites will be considered for this work)	Reduction in eel grass study - NE bid has been submitted for LIFE funding	NE	When studies available	
3] Condition assessments are available in 2018; compare them to the findings of the impacts study to identify if further action is needed in SEMs		2018 – NE will do action 3]	As above	
To discuss with NEG the quality of monitoring on the effects of boat mooring and anchoring and whether any further monitoring or surveying might be recommended.		NEG- KC and IoWC	Ongoing	Agreed in 2018

¹⁶ Studland Bay Recommended Marine Conservation Zone - https://consult.defra.gov.uk/marine/consultation-on-the-third-tranche-of-marine-conser/supporting_documents/Studland%20Bay%20Factsheet.pdf

and

Eelgrass: the MarLIN MarESA Sensitivity Review in the Context of Anchoring Pressures by Michael Simons of the Boat Owners' Response Group, May 2017, updated July 2018, for BORG <http://boatownersresponse.org.uk/Marlin-Maresa-Eelgrass-Review.pdf>

¹⁷ Recreational and commercial anchoring and mooring impacts in marine protected areas in Wales and England ME6003: <http://sciencesearch.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=19777>

¹⁸ www.rya.org.uk/go/efms or www.rya.org.uk/go/ecomoorings

¹⁹ Solent Information Database (SID): <http://www.solentforum.org/publications/sid/>

²⁰ SEMs Activity page on Mooring and Anchoring: http://www.solentems.org.uk/sems/SEMS_Activities/mooring/

SEMS Actions	Action Progress	Lead and Partners	Date for Completion	Actions for SEMS to Agree September 2018
KC to attend RYA Eco-Moorings Workshop in November and will report findings and discussion to NEG		SEMS- KC	NEG Nov 2018	Agreed in 2018

Measure/s of effectiveness of actions

The measures of effectiveness will be identified after condition assessments, risk categories and NE's monitoring are available; they could be identified by groups of RAs working together.

4.8. Recreation - Light Aircraft

4.8.1. Definition of Activity

Includes all types of craft used for recreation in the air e.g. small planes and helicopters, microlights, paramotors, hang gliding, parascending (on beach), parasailing (by boat), drones, model aircraft etc.

4.8.2. Summary of Responses

Activity	No change	Increase	Remains Elevated	Decrease	Total No of Responses
Recreation - Light Aircraft	5	2	0	0	7

This year, two authorities out of seven for whom recreation – light aircraft falls within their jurisdiction reported an increase in the number of drones being used above the Beaulieu River and Lymington Harbour. Both the relevant authorities reporting this (Beaulieu River Management and Lymington Harbour Commissioners) manage this activity by consenting it, and neither considers it to be a risk to SEMS under current management.

4.8.3. Evaluation and discussion

Issues identified in previous years

In previous years, this activity was referred to as ‘Airborne Sports’. In some years, paramotors and microlights were reported over Chichester Harbour in particular. In 2014, one authority believed there was residual impact on SEMS that may cause its condition to change and that the category for this activity should be raised from medium to high risk. In 2015 and 2016, there was no change in the level of airborne sports and no authority raised concerns, although in 2015, Langstone Harbour Board (LHB) reported that drones were becoming an issue over some port jurisdictions. In 2017, drone activity was mentioned by three RAs as having increased, and one (LHB) was monitoring the reaction of harbour wildlife to drones to determine any impact, as well as monitoring commercial drone flights.

Potential Impact

Natural England’s draft Advice on Operations identifies pressures arising from light aircraft (including drones) that may impact breeding and non-breeding bird populations of SPAs. These include above water noise, visual disturbance and collision. A number of designated bird species within the SEMS are considered to be sensitive to these pressures, which can result in displacement and/or mortality. (Natural England, personal communication, July 2018)

Natural England are working on a document that explains the regulations surrounding the use of unmanned aerial vehicles (UAV) and when local authorities might like to contact Natural England for advice; it should be available in 2018.

Airspace is controlled by the Civil Aviation Authority (CAA), and some authorities have no powers to

manage light aircraft of any kind. The CAA launched a drone code²¹ in 2016. Alongside the drone code there is a free, interactive app²² which provides an airspace map for drone users in the UK, showing airspace closures, navigation warnings, potential ground hazards and areas where privacy restrictions may be tighter (schools, hospitals, etc). It does not yet show any protected areas which are sensitive because of their wildlife. Natural England and others are working with those who are producing guidance for drones, to try to ensure that drone users have all the information they need to make responsible and informed decisions about where and how they fly, including maps of sensitive and protected wildlife areas.

Government introduced new laws on 30 May 2018 that restrict all drones from flying above 400 feet and within 1 kilometre of airport boundaries. More new laws will come into force on 30 November 2019 which will also require owners of drones weighing 250 grams or more to register with the Civil Aviation Authority (CAA) and for drone pilots to take an online safety test to ensure the UK's skies are safe from irresponsible flyers.²³

NE and the MMO commissioned a study to collate and update the evidence base on the impacts of marine recreational activities in MPAs – including light aircraft and drones. The report on drones can be found at <http://publications.naturalengland.org.uk/publication/5340291749380096>. More information and evidence of the impacts and management of recreation - light aircraft can be found at http://www.solentems.org.uk/sems/SEMS_Activities/Recreational_light_aircraft/ and <http://publications.naturalengland.org.uk/publication/5699448457396224?category=4891006631149568>

An EC public consultation on 'Drones (unmanned aircraft) – technical standards for drones as a product and conditions for drone operations' took place from 13 April 2018 - 13 July 2018²⁴.

Management Measures

Hampshire County Council (HCC) has adopted the drone code which, by default, means people are unable to fly their drones on HCC land. HCC have an "if asked" statement until they have decided on an agreed stance. The "if asked" statement states Hampshire County Council's Countryside Service asks that unmanned aircraft (drones) are not operated from its land holdings. This follows guidance recently issued by the Civil Aviation Authority (CAA) to help drone pilots fly safely and responsibly by following the drone code²¹. HCC Countryside Service is considering how drone operators could be compliant with the drone code whilst on its land holdings in the future. There will also be new signage as part of the transformation of HCC's country parks stating 'no drones'.

Drone flying and disturbance from drones is not a major problem in HCC Country Parks and does not seem to have caused any displacement of people onto more sensitive sites. The main areas where they do have problems are inland (pers. comm. Carly Harrod HCC August 2018)

²¹ The CAA drone code can be found at <http://dronesafe.uk/drone-code/>

²² The airspace map can be found at <https://www.altitudeangel.com/>

²³ <https://www.gov.uk/government/news/new-drone-laws-bring-added-protection-for-passengers>

²⁴ https://ec.europa.eu/info/consultations/2018-drones_en

Discussion

Based on current levels of reported activity, it is unlikely that drone use is having an adverse effect upon SEMS. This activity should continue to be monitored as usage has increased as drones become more affordable. (Natural England, personal communication, July 2018)

4.8.4. Actions for Recreation - Light Aircraft

SEMS Actions	Action Progress	Lead and Partners	Date for Completion	Actions for SEMS to Agree September 2018
<p>NECR242 Report</p> <p>The NE / MMO Study on impacts of marine recreational activities in MPAs - including by drones - has been circulated. Consider the evidence and whether further work is needed locally.</p> <p>Also consider whether a standard methodology is available or included to monitor local impacts, to help RAs in decision making</p> <p>Action:</p> <ul style="list-style-type: none"> All to consider the report, Managing marine recreational activities: a review of evidence (NECR242), now available at http://publications.naturalengland.org.uk/publication/5164654430519296?category=4891006631149568, for discussion at the next meeting. Note there is a separate evidence briefing for drones as well as the main report and toolkit <p>Action:</p> <ul style="list-style-type: none"> Next NEG meeting (Nov 18) to consider the evidence and whether further work is needed locally, in light of Report NECR242 	<p>NECR242 Report is now available and has been circulated; it has a category for drones and a category for light aircraft.</p> <p>This gives us a standard methodology to assess the impacts of these activities. NEG agreed to pursue following actions below</p>	<p>SEMS / NEG</p> <p>All</p> <p>NEG</p> <p>KMCH/KC</p>	<p>Complete</p> <p>NEG Meeting Nov 2018</p> <p>2018</p>	<p>Agreed in 2017</p> <p>2018 Action to take report findings further – see below</p> <p>2018 Actions agreed</p>
<p>NE/MMO Desk Research report by Chloe Smith</p> <p>Simple desk research on the effect of drones on designated sites and features, informed by</p>	<p>Released Aug 2018 and considers the effects of drones on designated sites. This may be shared with LAs but not publicised. It does not ID hotspots. Now up to</p>			

SEMS Actions	Action Progress	Lead and Partners	Date for Completion	Actions for SEMS to Agree September 2018
the study commissioned by NE and the MMO. RAs who raised drones as a concern can inform where hotspots are. A tool kit could be developed for RAs to use	RAs to consider if drones are causing damage and if so to apply bye-law to manage activity. There are signs that drones will be licenced. Any further methodology to be managed nationally.	NEG	NEG Nov 2018	Action: NEG to consider what further actions if any
To identify appropriate ways of engaging with drone operators to influence their behaviours		All		Agreed 2018
Distil key messages regarding use of drones in SEMS for all RAs to use	Drone guide circulated 17 Aug 2018	NE		Complete
<p>Monitoring Actions</p> <ul style="list-style-type: none"> Establish a standard central recording mechanism for drone activity: NEG officer to draw out a methodology and form from NECR242 and Chloë Smith's paper (this paper will be for RA cautious reference only) Lindsay to ask Anna Parry if Bird Aware Rangers could monitor drone activity NEG officer to ask WeBS recorders if they could include drone surveillance Consider developing CoastXplore app so public could monitor drone activity 		<p>NEG</p> <p>LM /KC/ AP</p> <p>NEG</p> <p>NEG</p>		Agreed 2018

Measure/s of effectiveness of actions – new heading proposed by SEMS – this should be incorporated with each of the actions. The measures of effectiveness will be identified after condition assessments, risk categories and NE's monitoring are available; they could be identified by groups of RAs working together.

4.9. Fishing (including shellfisheries)

4.9.1. Definition of Activity

Anchored nets/lines, Electrofishing, Traps, Pelagic fishing (or fishing activities that do not interact with sea bed), Hydraulic dredges, Dredges, Demersal trawl, Demersal seines, Diving, Sea angling. Only unlicensed activities are monitored and reported.

4.9.2. Summary of Responses

Activity	No change	Increase	Remains Elevated	Decrease	Total No of Responses
Fishing (including shellfisheries)	6	0	0	3	9

In 2018, 3 out of 9 authorities for whom fishing (including shellfisheries) falls within their jurisdiction reported a decrease in this activity. These were Southern and Sussex IFCAs and Langstone Harbour Board. All 3 believe the level of fishing (including shellfisheries) has now returned to an acceptable level that will not be causing damage to SEMS. No-one reported an increase, nor a level that remained elevated. For details see [Appendix 2](#).

4.9.3. Evaluation and discussion

Issues in previous Annual Monitoring

In 2017, two authorities, Langstone Harbour Board (LHB) and Sussex IFCA (SxIFCA), out of ten RAs for whom fishing (including shellfisheries) falls within their jurisdiction, reported an increase. Both stated that this was having a residual impact on SEMS and LHB said it may cause the condition of SEMS to change. In 2016, SxIFCA and SolIFCA both considered that there may be a residual impact from fishing activity that may cause the condition of the SEMS to change.

Potential Impact

Natural England's draft Advice on Operations identifies a range of pressures arising from shellfish dredging that may impact breeding and non-breeding bird populations of SPAs. These include above water noise and visual disturbance. A number of designated bird species within the SEMS are considered to be sensitive to these pressures, which can result in displacement and/or mortality. Similarly, shellfish dredging may impact SPA supporting habitats and designated SAC features via pressures such as abrasion/disturbance of the seabed and penetration/disturbance of the substratum below the seabed. (Natural England, personal communication, July 2018)

Marine recreational fishing is also important and Defra recognise the need to determine its impacts and separate them from other anthropogenic impacts on the marine environment, particularly in coastal habitats²⁵.

More information on fishing (including shellfisheries) can be found at http://www.solentems.org.uk/sems/SEMS_Activities/commercial_fishing/.

²⁵ <https://marinescience.blog.gov.uk/2017/11/21/marine-recreational-fishing-is-there-a-catch/>

Management Measures

Following appropriate assessment by the IFCA's, a number of byelaws have been introduced to manage fisheries around the Solent²⁶ (see also [Appendix 2](#)). Further management is not considered necessary by any relevant authority.

Discussion

There are several fishing management initiatives to protect fisheries and habitats.

One of the three 2017 - 2022 'Water Land and Biodiversity Ambition Statements' for the Environment Agency's (EA's) Solent and South Downs Area is 'Shellfish waters support healthy, local economies'. This 'ambition' was included to raise awareness of, and prioritise improvement measures for shellfish waters. This year, there has been a particular focus on improving the evidence base and showcasing the high economic value of the shellfisheries, for example the 'Shellfish Valuation'²⁷ in Chichester Harbour, which applies the principles of 'natural capital' accounting and shows that better water quality leads to a higher direct and indirect 'gross value added' as a result of the increases in oyster harvest; it also points to the significant ecosystem services offered by the low impact nature of bivalve mollusc production acting as a carbon and nitrogen sink as well as a water 'cleanser'. Any improvements to shellfish waters will also have benefits for both people and wildlife in the wider catchment – Jackie Mellan, Environment Agency, pers. comm.

NE is content that the impacts of fishing in SEMS have been correctly assessed by SolFCA and SxIFCA, and the management measures proposed will prevent adverse effects on site features / supporting habitats. (Natural England, personal communication, July 2018)

4.9.4. Actions for Fishing (including shellfisheries)

No additional actions are required.

Measure/s of effectiveness of actions

The measures of effectiveness will be identified after condition assessments, risk categories and NE's monitoring are available; they could be identified by groups of RAs working together.

²⁶ Management measures

<https://designatedsites.naturalengland.org.uk/SiteMMO.aspx?SiteCode=UK0030059&SiteName=solent&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=>

²⁷ <https://secure.toolkitfiles.co.uk/clients/34087/sitedata/files/Research/Chichester-Shellfish-Valuation-Report-2018.pdf>

4.10. Fishing (shore-based activities)

4.10.1. Definition of Activity

Includes crab tiling, bait digging, shellfish collection (including seed mussel) e.g. by hand (with or without digging apparatus), rake or through the use of 'tiles'. Also includes rod & line angling, the setting of pots and nets from the shore and use of vehicles or vessels to access the shoreline. Only unlicensed activities are monitored and reported.

4.10.2. Summary of Responses

Activity	No change	Increase	Remains Elevated	Decrease	Total No of Responses
Fishing (shore-based activities)	5	1	4	0	10

In 2018, one authority out of 10 RAs for whom fishing (shore-based activities) falls within their jurisdiction, reported an increase and 4 reported that the level of this activity remained elevated. 2 authorities – Langstone Harbour Board (LHB) and River Hamble Harbour Authority (RHHA) believe that **there has been a residual impact** on the Solent European Marine Site.

The increase in fishing (shore-based activities) was in commercial shellfish collection at Weston Shore and, as the shellfishery in Southampton was closed, this was reported to the police and Port Health authority.

The two activities reported in the SEMS area are hand gathering of clams and bait digging. Large numbers of bait diggers, seemingly collecting bait in commercial amounts, are a regular presence all year round in Langstone Harbour and have been for some years.

The impact of clam digging on a small scale is negligible, although diggers can leave scars on the mudflats that are visible for several tidal cycles; bait digging is similar. As well as a visual impact, bait digging/hand gathering can release toxins into the water column. However, at the levels at which these activities currently take place within Chichester Harbour the disturbance to sediment composition is minimal/negligible. The main concern around hand gathering/bait collection is the potential impact to the seagrass beds within the harbour, where there are four known beds that are protected under SEMS. The digging/hand gathering might also cause an impact on internationally important populations of regularly occurring Annex 1 species, and migratory bird species, which are qualifying features of the Chichester and Langstone Harbour Special Protection Area.

RHHA reported elevated levels of bait digging intensity consistent with last year, when an increase was reported. Disturbance to the foreshore is physical and the impact on the food source for SPA birds is unknown. Bait digging occurs mainly from Spring to Autumn.

Regarding the residual impact on the Solent European Marine Site, LHB say that visual inspection to the mudflats at Southmoor shows large amounts of damage to the intertidal zone caused by digging and trampling. The presence of multiple bait diggers on the mud also inevitably causes disturbance to wildlife such as wildfowl and waders.

RHHA report potential residual impact, perceived (albeit widely perceived) so confidence is low without hard evidence as to the extent of impact bait digging has on the Hamble foreshore areas, both in terms of physical disturbance and on any reduction in food source for SPA birds.

4.10.3. Evaluation and discussion

Issues in previous Annual Monitoring

For some years, RHHA have observed either an increase or elevated levels of bait digging in the Hamble estuary. Large numbers of bait diggers have been a regular presence all year round in Langstone Harbour for some years.

Potential Impact

Natural England's draft Advice on Operations identifies a range of pressures arising from shore-based fishing activities that may impact breeding and non-breeding bird populations of SPAs. These include above water noise, visual disturbance and the removal of target and non-target species. A number of designated bird species within the SEMS are considered to be sensitive to these pressures, which can result in displacement and/or mortality. Similarly, shore-based fishing activities may impact SPA supporting habitats and designated SAC features via pressures such as abrasion/disturbance of the seabed and penetration/disturbance of the substratum below the seabed. (Natural England, personal communication, July 2018)

A great deal of evidence exists on the impacts of bait digging²⁸ (see also SEMS Annual Monitoring Report 2016), for example several reports in the literature have shown that during the process of bait collection, by hand, mechanical digging or boulder turning, many animals and plants other than those being sought in the intertidal mudflat habitat will be damaged and their population levels reduced.

Management Measures

For clam digging, IFCA's can only enforce a minimum size limit for commercial diggers; recreationally there are no restrictions. IFCA's nationally are now starting to consider management measures for hand gathering and bait collection as these activities are currently unregulated and there is a poor level of understanding of level of these activities that is deemed sustainable.

RHHA continues to enforce its byelaw regarding minimum digging distance from structures and moorings. It is harder to influence activity when diggers are away from structures but still digging within the SEMS areas, due to lack of other management measures and lack of proof that the activity is having an impact. Joint operations took place with police during 2017 when groups of more than 6 bait diggers were present and RHHA staff have presented at local fora on the topic to encourage residents to report sightings, thereby helping to extend the evidence base.

²⁸ Impacts on non-target species at http://www.ukmarinesac.org.uk/activities/bait-collection/bc2_3_3.htm and Impact of bait collecting in Poole Harbour and other estuaries within the Southern IFCA District (Sarah Birchenough) at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/312998/fcf-baitcollecting.pdf

SEMS has a Code of Conduct for Bait Collection²⁹ and more information is available at http://www.solentems.org.uk/sems/SEMS_Activities/Shore_based_fisheries/.

Sussex IFCA (SxIFCA) have produced Guidance for Solent Relevant Authorities for Monitoring Shore-based Fishing which was circulated to SEMS MG on 5 September 2018.

Details of Southern IFCA's (SoIFCA) Prohibition of Gathering (Sea Fisheries Resources) in Seagrass Beds Byelaw can be found at: [http://www.southern-ifca.gov.uk/byelaws#Prohibitionofgathering\(seafisheriesresources\)inSeagrassBeds](http://www.southern-ifca.gov.uk/byelaws#Prohibitionofgathering(seafisheriesresources)inSeagrassBeds)

Details of SxIFCA's Chichester Harbour European Marine Site (Specified Areas) Prohibition of Fishing Method Byelaw can be found at: <http://www.sussex-ifca.gov.uk/chichester-harbour-european-marine-site-specified-> and at <https://secure.toolkitfiles.co.uk/clients/34087/sitedata/files/Seagrass-byelaw-Impact-Assessment.pdf>.

LHB note the complexity of introducing any management measures and caution that these could displace bait digging to more sensitive parts of SEMS.

Discussion

There appears to be a gap in evidence for the effects of bait digging and clam gathering **on SEMS interest features**. Clearer guidance would be welcome on the impacts on SEMS, actions open to landowners (private and public authority) and actions open to SEMS authorities with bait digging activity within their jurisdiction.

Bait digging was raised again in 2017 on the Hamble where the police have frequently been involved. It is possible that bait digging may be having a significant effect upon sensitive features / supporting habitats in specific locations. However, at present it is not possible to conclude whether the extent and magnitude of this activity is adversely impacting SEMS at a site level. (Natural England, personal communication, July 2018)

Due to the extent and complexity of bait digging in the Solent a pilot is suggested, initially in one area of SEMS, using the Poole Harbour model (i.e. establishing a working group to develop a bait digging Memorandum of Agreement). NE will explore the idea of piloting the Poole Harbour model with SoIFCA and will amend the actions as appropriate. (Natural England, personal communication, 25th August 2017)

The Crown Estate (TCE) is a large land owner; a statement from TCE on how to manage bait digging on their sites is given in Appendix 6. This statement was also included in the SEMS Annual Management Report 2017.

²⁹ The Bait Collector's Code can be found at <http://www.solentems.org.uk/resources/pdf/BaitCollectCode.pdf>

4.10.4. Actions for Fishing (shore-based activities)

SEMS Actions	Action Progress	Lead and Partners	Date for Completion	Actions for SEMS to Agree September 2018
<p>The following action could be taken forward as a pilot in one area of SEMS:</p> <p>NE and the IFCAs to clarify what work they are doing to address bait digging, and the timescale with regard to previous action to set up a Solent Bait Digging Working Group with IFCAs, other RAs and landowners to monitor bait digging and collect evidence of any damage caused. Working Group to develop, agree and introduce a sustainable strategic bait collection management regime across the SEMS</p>	<p>SoIFCA update- they were working with the MMO on a national project considering bait collection which could have potentially included a pilot study. However this project has been discontinued and will not be taken further. SoIFCA are now part of a bait collection project led by NE, looking at developing best practice when assessing bait digging impacts. Project is in the early stages and there will be further updates in the future</p>	<p>NE SoIFCA SxIFCA</p>	<p>To be advised depending on resources</p>	<p>Ongoing and Remains Agreed in 2017</p>
<p>RHHA is working with the police and compiling evidence for SoIFCA on gangs of bait diggers</p>	<p>Ongoing</p>	<p>RHHA SoIFCA</p>	<p>Action ongoing</p>	<p>Ongoing and Remains Agreed in 2017</p>
<p>IFCA/s to produce guidance for Harbour authorities and other RAs on how best to build the evidence base and what actions all can take to help achieve improved management</p>	<p>Guidance for Solent RAs for Monitoring Shore-based Fishing circulated 5 Sept 2018</p>	<p>Kathryn Nelson</p>	<p>End of December 2017</p>	<p>Completed</p>
<p>RAs to continue to gather evidence on bait digging and impacts</p>		<p>All RAs</p>	<p>Ongoing</p>	<p>Ongoing and Remains Agreed in 2017</p>
<p>Ask The Crown Estate (TCE) for guidance or a position statement on how to manage bait digging on their sites</p>	<p>Completed See Appendix 6</p>			<p>Completed</p>
<p>RAs to continue to gather evidence on bait digging, hand collection of shellfish by groups (e.g. at Weston Shore) and impacts and send their reports on this to SoIFCA or SxIFCA</p>		<p>All RAs</p>	<p>Ongoing</p>	<p>Ongoing and Remains Agreed in 2017</p>
<p>Send data to SEMS from SxIFCA's Assessment work on bait</p>	<p>Pending clarity from Defra. NE and IFCAs are working on a project to develop a</p>	<p>Erin Lawes</p>		<p>Ongoing and Remains Agreed in 2017</p>

SEMS Actions	Action Progress	Lead and Partners	Date for Completion	Actions for SEMS to Agree September 2018
	coordinated approach to assessing bait collection impacts with a deadline of the end of December 2018 to have all assessments completed and potential management measures identified			
New action: Contact SolFCA regarding concerns about scale of shellfish collection at Weston Shore that may exceed personal use.		LM	a.s.a.p.	Agreed and ongoing
New action: Check whether there is a byelaw regarding hand gathering of shellfish. There is a Poole Harbour Shellfish Hand Gathering Byelaw ³⁰ prohibiting hand gathering between 1 st November to 31 st March, but no such byelaw in the rest of the SolFCA district.	Completed See left in blue font	CF	a.s.a.p.	Completed

Measure/s of effectiveness of actions

The measures of effectiveness will be identified after condition assessments, risk categories and NE's monitoring are available; they could be identified by groups of RAs working together.

³⁰ <http://www.southern-ifca.gov.uk/byelaws#PooleHarShellHandGath>

4.11. Littering and Removal of Litter

4.11.1. Definition of Activity

The definition of littering from Natural England’s conservation advice for Marine Protected Areas includes operational, incidental and accidental discharges from land, water, air, and from all types of vessels, of particulate or solid wastes e.g. plastics, micro-plastics, marine litter and other flotsam and jetsam, strandline clearance and beach management. The toxicity and damage caused by materials should be considered as should the clean-up of toxic debris.

4.11.2. Summary of Responses

Activity	No change	Increase	Remains Elevated	Decrease	Total No of Responses
Littering and Removal of Litter	7	0	4	0	11

The majority of respondents did not have an issue with littering and removal of litter, however 4 reported that the activity remains elevated. Two of the 4 refer to general documentation on the issue of plastic littering. Langstone Harbour Board (LHB) reports storm water discharges into Langstone Harbour which contain large quantities of micro-plastics that can be found on every strandline. Other litter such as fishing litter, food wrappings and plastic bottles are also encountered throughout the harbour in large amounts. Periodical beach clean events in Langstone Harbour indicate that litter is increasing.

Southampton City Council (SCC) reported an increase in the level of litter on the shore, particularly large items such as floats from pontoons at Chessel Bay on the River Itchen.

Two authorities – Fareham Borough Council (FBC) and SCC - consider there is a residual impact on SEMS and SCC also believes this may cause the condition of the Solent European Marine site to change.

4.11.3. Evaluation and discussion

Issues in previous Annual Monitoring

The issue of littering has been raised in the past few years by SCC and LHB. In 2016, SCC reported a significant increase in the level of littering at Chessel Bay. In particular, the number of large items had increased, including sections of pontoon, presumably due to winter storms. Some of these remained on the foreshore, blocking access to the mudflats until they break down. Smaller items such as plastics had also increased and SCC weighed the total litter collected in litter picks.

Littering remained elevated in Langstone Harbour in 2016, having increased in the previous year. LHB recorded large amounts of litter, particularly plastic food and drinks packaging, that continue to wash up on to the strandlines around the harbour. Plastic waste also enters Langstone Harbour from storm water discharges, even when outfalls are functioning correctly.

In 2016, SCC and LHB believed there was a residual impact on the SEMS from littering and that this may cause the condition of the SEMS to change. Also in 2016, SCC and LHB believed that the

classification for littering should be increased from low to medium risk (it was categorised as low risk in 2016). LHB also believed this for the previous two years.

Potential Impact

Natural England's draft Advice on Operations identifies a range of pressures arising from litter that may impact breeding and non-breeding bird populations of SPAs. These include ingestion and entanglement; however there is currently insufficient evidence to assess the sensitivity of wading and intertidal bird species to these pressures. Similarly, there is currently insufficient evidence to assess the generic impacts of litter on SPA supporting habitats and designated SAC features. (Natural England, personal communication, July 2018)

Natural England condition assessments for the Solent European Marine Sites (Summary at [Appendix 3](#)), provide a much better understanding of the impacts of litter on the specific features of the sites and whether litter is an issue for concern. In 2017, it was believed that littering does not drive adverse condition of SEMS.

More information and evidence of the impacts of littering, and best practice already occurring on litter education and management, can be found at http://www.solentems.org.uk/sems/SEMS_Activities/Littering/, and also in the Habitats Regulations Assessment for the South Marine Plans at https://consult.defra.gov.uk/mmo/draft-south-marine-plan-consultation/user_uploads/habitat-regulations-assessment-3.pdf.

Management Measures

The Solent Forum Natural Environment Group has begun a litter project entitled Clean Solent Shores and Seas which includes many RAs from SEMS, and aims to reduce the prevalence of litter in the Solent (see Actions table below).

SCC continues twice yearly litter picks but does not have the resources to remove larger items. FBC carries out normal litter collection. LHB provide garbage and recycling facilities for harbour users at the harbour office, as well as the sailing clubs/marinas in Langstone. LHB also promotes Southern Water's campaigns³¹ regarding what should not be flushed.

Discussion

Plastic is integrated into the substrate on the beach and is likely to prove difficult or impossible to remove. Research is needed to establish how much plastic enters the food chain and whether it is likely to be a particular problem for the interest features of the SEMS, including the Solent and Southampton Water SPA/Ramsar site.

The extent to which littering, in particular plastics littering, in the Solent may cause adverse effects to SEMS is not fully determined. National studies show that the ingestion of plastics can cause adverse effects to birds. The protected birds in the Solent may not necessarily ingest large plastics when feeding, but may be affected by the breakdown products such as micro-plastics. Some birds and other species may be affected by bio-accumulation of micro-plastics.

³¹ Keep It Clear - <https://www.southernwater.co.uk/keep-it-clear> and The Unflushables - <https://www.southernwater.co.uk/the-unflushables>

Based on current understanding of the extent and magnitude of this activity, it is considered that it is not having an adverse effect on SEMS at a site level. However, it is important to acknowledge the gaps in current knowledge with respect to direct and indirect impacts; and the fact that hotspots exist within designated sites. (Natural England, personal communication, July 2018)

Littering and removal of litter should continue to be monitored so that wider actions can be taken if it becomes a problem in the future.

4.11.4. Actions for Littering and removal of litter

SEMS Actions	Action Progress	Lead and Partners	Date for Completion	Actions for SEMS to Agree September 2018
<p>NEG to make proposals to produce products to help prevent marine littering; these could include the following:</p> <ol style="list-style-type: none"> 1. Target waterfront occupiers with information and advice on littering with existing leaflets or web links. This would involve identifying which businesses to target, e.g. polystyrene packaging users, marinas etc. and how to target them (e.g. directly and via fairs e.g. Boat Show) 2. Produce a generic Solent leaflet based on MCS Beach Clean data for RAs to use if they wish – RAs could produce and drop leaflets in their area of jurisdiction, targeted at their local residents and businesses 3. Produce a generic Solent poster that RAs could distribute if they wish 4. Invite the public to a biannual litter pick – this could be by supporting the Great British Beach Clean and encouraging local people to participate. Feedback relevant results to SEMS. 5. New action proposed: A business which has recently installed a new contained area could be used to exemplify good practice <p>Funding is available from Defra to prevent marine littering</p>	<p>2018: The 'Clean Solent Seas and Shores' (CSSS) project is delivering these actions. First Project Group meeting held; KMc produced a draft PID in Aug 2018 which went out for consultation</p> <p>CSSS is an umbrella project - it will also include actions on water quality + work with others' initiatives</p> <p>Funding currently being sourced for a project officer</p>	NEG	<p>NEG Meeting 22 Nov 2017</p> <p>Time frame for each to be decided by NEG depending on resources</p>	<p>Ongoing and Remains</p> <p>These actions have all been taken on by the Clean Solent Shores and Seas Project</p> <p>Action agreed and ongoing</p>
EA to take action against the storage of nurdles and businesses dumping large items along the coast and rivers		EA		Action agreed and ongoing

Measure/s of effectiveness of actions

The measures of effectiveness will be identified after condition assessments, risk categories and NE's monitoring are available; they could be identified by groups of RAs working together.

4.12. Operation of Coastal Flood and Erosion Risk Management Schemes, Barrages and Sluices

4.12.1. Definition of Activity

Operational effects of coastal defence schemes including accretion of sediment, erosion of intertidal, coastal habitats, on-going sediment recycling schemes, coastal squeeze, operation of sluices etc. Includes effects of associated vessels/machinery/vehicles.

4.12.2. Summary of Responses

Activity	No change	Increase	Remains Elevated	Decrease	Total No of Responses
Operation of Coastal Flood and Erosion Risk Management Schemes, Barrages and Sluices	8	1	0	0	9

The Isle of Wight Council (IoWC) reported an increase in impacts associated with construction at three locations on the Island. It is important to distinguish between construction and operation of coastal defence works because the impacts and management implications are different. IoWC note that, for each planning application, impacts to the designated sites were ruled out and mitigation will have been secured for each.

4.12.3. Evaluation and discussion

Issues in previous Annual Monitoring

Part of this activity was not monitored until 2017 (only Operation of Coastal Flood and Erosion Risk Management Schemes was monitored until 2016). For barrage and sluice operation no issues were raised in previous years.

In 2017, Eastleigh Borough Council (EBC) reported an increase in applications for defence in the SPA at Netley. The concerns raised by EBC related to construction and are dealt with through licensing. There was therefore nothing to evaluate, discuss or act on in 2017 for Operation of Coastal Flood and Erosion Risk Management Schemes, Barrages and Sluices.

Potential Impact

Natural England's draft Advice on Operations identifies a range of pressures arising from coastal flood and erosion risk management schemes that may impact breeding and non-breeding bird populations of SPAs. These include above water noise, visual disturbance and barriers to species movement. A number of designated bird species within the SEMS are considered to be sensitive to these pressures, which can result in displacement. Similarly, flood and erosion risk management schemes may impact SPA supporting habitats and designated SAC features via pressures such as abrasion, penetration and physical change or loss of habitat. (Natural England, personal communication, July 2018)

Based on current understanding of the extent/magnitude of this activity (and the existing regulatory framework) NE suggests that it is not having an adverse effect on SEMS. (Natural England, personal communication, July 2018)

4.12.4. Actions for Operation of Coastal Flood and Erosion Risk Management Schemes, Barrages and Sluices

There are no actions for this activity.

Measure/s of effectiveness of actions

The measures of effectiveness will be identified after condition assessments, risk categories and NE's monitoring are available; they could be identified by groups of RAs working together.

4.13. Boat Repair/Maintenance

4.13.1. Definition of Activity

Vessel maintenance and repair on land and afloat, hull cleaning. Includes consideration of associated vessels / machinery / vehicles.

4.13.2. Summary of Responses

Activity	No change	Increase	Remains Elevated	Decrease	Total No of Responses
Boat Repair/Maintenance	9	0	0	0	9

All authorities for whom boat repair / maintenance falls within their jurisdiction reported no change in this activity.

4.13.3. Evaluation and discussion

Issues in previous Annual Monitoring

No issues have arisen in SEMS with regard to boat repair / maintenance over the past few years until 2017. In 2017, 3 out of 12 authorities for whom boat repair / maintenance fell within their jurisdiction reported an increase in this activity due to infrastructure improvements or expansions to a number of boatyards in the Solent. Anti-pollution measures should be in place, but monitoring should continue with regard to potential environmental impacts.

Potential Impact

Natural England's draft Advice on Operations identifies a range of pressures arising from boat repair/maintenance that may impact breeding and non-breeding bird populations of SPAs. These include above water noise, visual disturbance and the introduction or spread of invasive non-native species. A number of designated bird species within the SEMS are considered to be sensitive to these pressures, which can result in displacement and/or mortality. Similarly, the construction of boat repair/maintenance facilities may impact SPA supporting habitats and designated SAC features via pressures such as physical change or loss of habitat, smothering and siltation. (Natural England, personal communication, July 2018)

Boat repair / maintenance has the potential to introduce invasive non-native species (INNS) into the marine environment and it needs careful management. Recreational craft have been identified as one of several vectors by which INNS can be introduced to new areas. There is currently no legislation that requires businesses to take steps to deal with INNS, although the Wildlife & Countryside Act 1981 requires the prevention of spreading of INNS from a site where they are known to be present.

There is a distinction between construction of boat repair / maintenance facilities, and their operation. Construction of boat/repair maintenance facilities in SEMS is subject to planning permission / marine licensing and is therefore subject to a Habitats Regulation Assessment (HRA). The HRA assesses both the construction and operational impacts. However, increased use or

expansion of existing facilities could have potential environmental impacts such as pollution or the spread of INNS. (Natural England, personal communication, July 2018)

Management Measures

There are many examples of management measures around the country³². An example of a Biosecurity Plan has been published by The Tamar Estuaries Consultative Forum³³. RAPID LIFE is a three-year project (2017-2020) piloting innovative approaches to management of invasive alien species in freshwater aquatic, riparian and coastal environments across England³⁴. The project has produced an animation to help explain marine INNS and biosecurity³⁵.

Discussion

In 2017, it was noted that use of ECOSubsea's cleaning mechanism by ABP in the Port of Southampton is a positive management action. In smaller boatyards, much work has also been done to prevent introduction of INNS.

To continue this work, a toolkit could be made to help those responsible to recognise and address the risk from INNS. 2017 would be a good time to start this as the Marine Biological Association are surveying the Solent at present and Portsmouth University, Hampshire and Isle of Wight Wildlife Trust, NE and others are also involved in related actions. Reference should first be made to NE's condition assessments to identify which INNS present a risk in SEMS, and to the website of the GB Non-native Species Secretariat³⁶ where identification sheets for INNS are available.

Despite the large amount of information, advice and plans available, the problem of INNS still pervades. The sources are wide ranging and it is important to use appropriate opportunities to raise awareness. RAs continue to disseminate biosecurity guides.

Based on current understanding of the extent and magnitude of this activity (and the existing regulatory framework) it is considered that boat repair / maintenance is not having an adverse effect on SEMS. However, increased use or expansion of existing facilities could have potential environmental impacts, for example pollution, spread of INNS. (Natural England, personal communication, July 2018)

³² Marine Biosecurity Planning www.nonnativespecies.org/downloadDocument.cfm?id=1401

Biosecurity for boat and kayak users <http://www.nonnativespecies.org/checkcleandry/biosecurity-for-boat-and-kayak-users.cfm>

Marine biosecurity: protecting indigenous marine species
https://pure.uhi.ac.uk/portal/files/1944060/Cook_et_al._RRBS_63402_marine_biosecurity_protecting_indigenous_marine_species_011316.pdf

Marine Biosecurity Planning 2016/17 www.nonnativespecies.org/downloadDocument.cfm?id=1531

MBA Biosecurity training and advice on non-native species <https://www.mba.ac.uk/projects/biosecurity-training-and-advice-non-native-species>

Marine biosecurity planning <http://www.abpmer.co.uk/buzz/marine-biosecurity-planning-protecting-against-invasive-non-native-species/>

³³ Tamar Estuaries Biosecurity Plan <http://www.plymouth-mpa.uk/home/managing-the-mpa/projects-research/>

³⁴ RAPID LIFE project <http://www.nonnativespecies.org/index.cfm?sectionid=139>

³⁵ INNS animation: <https://www.youtube.com/watch?v=EogtzYr4Qk&feature=youtu.be>

³⁶ ID sheets for INNS are available at <http://www.nonnativespecies.org/index.cfm?sectionid=47>

4.13.4. Actions for Boat Repair/Maintenance

SEMS Actions	Action Progress	Lead and Partners	Date for Completion	Actions for SEMS to Agree September 2018
Harbour Authorities to continue to promote best practice with respect to potential environmental impacts of boat repair / maintenance		All Harbour Authorities / RAs	Action ongoing	Ongoing and Remains Agreed in 2017
Consider identifying and publicising existing material on invasive non-native species (INNS) relevant to SEMS features, focusing on those that NE's condition assessments show are causing unfavourable conditions	<p>Progress 2018: NE's condition assessments show that all marine SACs in the Solent region are subject to threats from INNS, recreational craft is one of several vectors by which INNS can be introduced to new areas.</p> <p>Action:</p> <ul style="list-style-type: none"> NE to send an update on INNS to SF for distribution 	NEG, NE	NEG Nov 2018	Ongoing and Remains NEG, NE to agree, amend or reject action and agree lead and date
To discuss whether engagement with businesses to undertake best practice in boat repair and maintenance might be a useful tool	NEG November 2018	KC, NEG		Action agreed

Measure/s of effectiveness of actions

The measures of effectiveness will be identified after condition assessments, risk categories and NE's monitoring are available; they could be identified by groups of RAs working together.

4.14. Navigation (maintenance of infrastructure) and operation of ports and harbours

4.14.1. Definition of Activity

Maintenance of all port/harbour structures including quay walls, jetties, slipways, navigation markers, coastal defence structures etc. Includes consideration of vessels / machinery / vehicles associated with activity. Day-to-day operational use of these structures, also lights, buoys, posts, towers, transit marks, supply of fuel/bunkering operations onshore / offshore etc.

4.14.2. Summary of Responses

Activity	No change	Increase	Remains Elevated	Decrease	Total No of Responses
Navigation (maintenance of infrastructure) and operation of ports and harbours	10	1	0	0	11

Natural England reported an increase in this activity in North Solent NNR which has not yet occurred. Further clarification was obtained regarding this comment at the management group and this refers to future work being undertaken by Lymington Harbour Commissioners and Beaulieu River Management which will ultimately lead to an increase in activity in the North Solent NNR.

4.14.3. Evaluation and discussion

Issues in previous Annual Monitoring

No issues have arisen in SEMS with regard to navigation (maintenance of infrastructure) and operation of ports and harbours over the past few years.

Potential Impact

Natural England's draft Advice on Operations identifies a range of pressures arising from the maintenance and operation of ports and harbours that may impact breeding and non-breeding bird populations of SPAs. These include above water noise and visual disturbance. A number of designated bird species within the SEMS are considered to be sensitive to these pressures, which can result in displacement and/or mortality. Similarly, the maintenance and operation of ports and harbours may impact SPA supporting habitats and designated SAC features via pressures such as abrasion/disturbance of the seabed, penetration/disturbance of the substratum below the seabed, smothering and siltation. (Natural England, personal communication, July 2018)

Discussion

4.14.4. Actions for Navigation (maintenance of infrastructure) and operation of ports and harbours

There are no actions for this activity

Measure/s of effectiveness of actions

The measures of effectiveness will be identified after condition assessments, risk categories and NE's monitoring are available; they could be identified by groups of RAs working together.

5 Delivery Plan of Actions

4.3 Land Recreation - Dog walking

(note that in 2016 and previous years Land Recreation - Dog walking AND Land Recreation – other than dog walking were treated as one, referred to as Access / Land Recreation)

SEMS Actions	Action Progress	Lead and Partners	Date for Completion	Actions for SEMS to Agree Sept 2018
The Solent Recreation Mitigation Strategy (SRMS) should be mitigating sufficiently against bird disturbance after 2015. NEG to keep track of Solent Recreation Mitigation Partnership (SRMP) actions and continue liaison and support of SRMS. This action has been in place since 2015	2018 Progress: No need for specific action this year	K Chesman, Natural Environment Group (NEG), SRMP Partners	Action ongoing KC give brief annual updates on SRMS progress	Ongoing and Remains Agreed in 2017
In 2021 when the 5 year monitoring of the effectiveness of the SRMP is complete, or sooner if possible, an assessment should be made as to how successful of otherwise the mitigation has been in not only mitigating new housing development in the Solent since the SRMP formed, but whether through the promotion of the Bird Aware messaging by third parties it is also helping to bring down the baseline disturbance from existing housing to sufficiently reduce harm to birds (SRMP monitoring 2021). Monitoring to be commissioned by SRMP and NEG to check whether it has achieved its objectives and whether it has delivered sufficiently to mitigate against disturbance prior to 2010	SRMP Chair and NEG to update 2018 Progress: NEG agree to liaise and LM both involved in monitoring. All details of it on SRMP website. There was general confidence expressed in this work	All RAs and NEG	2021	Ongoing and Remains Action amended in 2017
RAs to identify any of their own rangers or other staff who are distributing Bird Aware's leaflets to support Bird Aware's wardens in engaging with coastal dog-walkers (and walkers) between October and March (plenty of leaflets are available)		All RAs with 'countryside' staff or wardens	Over winter	Ongoing and Remains Agreed in 2017
To identify whether there is any potential for Bird Aware to record other information to supplement the AMR		SEMS- KC/ Bird Aware	A.S.A.P	Agreed
To invite a representative from the Coastal Path Team to give a presentation regarding the Coastal Path and addresses potential monitoring ideas to assess the impact on SEMS at 2019 Management Group meeting.		SEMS- KC	Spring-summer 2019	Agreed

4.4 Land Recreation - Walking (other than dog walking)

SEMS Actions	Action Progress	Lead and Partners	Date for Completion	Actions for SEMS to Agree Sept 2018
Actions are the same as those for 4.2.4 (Land Recreation - dog walking)				Ongoing and Remains Agreed in 2017

4.5 Recreation - Non-Motorised Water Sports

SEMS Actions	Action Progress	Lead and Partners	Date for Completion	Actions for SEMS to Agree September 2018
<p>RAs can, if they wish, use and disseminate the Paddlesports Guidelines; they are asked to add the SEMS logo to their own material (high resolution logo is available from SEMS)</p> <p>RAs to inform SEMS or send a link to where and when they have used the Paddlesports Guidelines</p> <p>MG to watch for evidence of uptake of disturbance messages in the Paddlesports Guidelines after 2016 and report via SEMS annual monitoring each year</p> <p>Disseminate the Green Blue Wildlife Guide for Boaters (available at https://thegreenblue.org.uk/wildlife/guide/) and refer to SEMS website on marine recreation http://www.solentems.org.uk/sems/SEMS_Activities/recreational_boatimg/</p>	<p>RHHA have disseminated the Guidelines</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p>	All RAs	Actions ongoing	<p>Ongoing and Remains</p> <p>These actions were agreed in 2017</p>
Integrate marine management into all recreation strategies for relevant authorities, in particular for Councils	<p>Portsmouth City Council have produced several reports (Authority Monitoring Report and Habitats Regulation Assessment – Screening Report)</p> <p>MMO meetings with RAs and Solent Forum</p>	All RAs with recreation strategies	Action ongoing	<p>Ongoing and Remains</p> <p>Agreed in 2017</p>
Ask RYA if the data in their Annual Watersports Participation Survey covers the Solent and, if it is available free of charge, obtain it for use in 2019	<p>Emails from Duncan Savage July & Aug 2018 - Survey is produced by a partnership, and is only accessible to members, being hosted by British Marine. I have been unable to get a response from the data owner. As far as I am aware, the data is not separated into regions such as the Solent</p>	SEMS – KC	a.s.a.p.	<p>Agreed in 2017</p> <p>Action to be carried forward and follow up with Duncan Savage Oct 2018</p>

4.6 Recreation – Powerboating or sailing with an engine

SEMS Actions	Action Progress	Lead and Partners	Date for Completion	Actions for SEMS to Agree September 2018
To discuss with NEG the quality of monitoring on the effects of boating and whether any further monitoring or surveying might be recommended.		NEG-KC, IoWC	Ongoing	Agreed in 2018

4.7 Mooring and/or Anchoring

SEMS Actions	Action Progress	Lead and Partners	Date for Completion	Actions for SEMS to Agree September 2018
<p>1] Disseminate the findings of Defra's anchoring impacts study once it is completed, via Solent Forum's eNews and SID³⁷: Griffiths, C.A., Langmead, O.A., Readman, J.A.J., Tillin, H.M. 2017 Anchoring and Mooring Impacts in English and Welsh Marine Protected Areas: Reviewing sensitivity, activity, risk and management. A report to Defra Impacts Evidence Group</p> <p>Link to study to be placed on SEMS activity page³⁸.</p>	<p>http://sciencesearch.defra.gov.uk/Default.aspx?Menu=More&Location=None&Completed=0&ProjectID=19777</p>		Complete	Agreed in 2017
<p>2] Disseminate further work to be undertaken on anchoring and mooring impacts during 2017 as part of Defra Impacts and Evidence Group (it is likely that a number of Solent sites will be considered for this work)</p>	Reduction in eel grass study - NE bid has been submitted for LIFE funding	SEMS NE	A.S.A.P When studies available	Actions ongoing and remain
<p>3] Condition assessments are available in 2018; compare them to the findings of the impacts study to identify if further action is needed in SEMS</p>		2018 – NE will do action 3]	As above	
<p>To discuss with NEG the quality of monitoring on the effects of boat mooring and anchoring and whether any further monitoring or surveying might be recommended.</p>		NEG- KC and IoWC	Ongoing	Agreed in 2018
<p>KC to attend RYA Eco-Moorings Workshop in November and will report findings and discussion to NEG</p>		SEMS- KC	NEG Nov 2018	Agreed in 2018

³⁷ Solent Information Database (SID): <http://www.solentforum.org/publications/sid/>

³⁸ SEMS Activity page on Mooring and Anchoring: http://www.solentems.org.uk/sems/SEMS_Activities/mooring/

4.8 Recreation - Light Aircraft

SEMS Actions	Action Progress	Lead and Partners	Date for Completion	Actions for SEMS to Agree September 2018
<p>NECR242 Report</p> <p>The NE / MMO Study on impacts of marine recreational activities in MPAs - including by drones - has been circulated. Consider the evidence and whether further work is needed locally.</p> <p>Also consider whether a standard methodology is available or included to monitor local impacts, to help RAs in decision making</p> <p>Action:</p> <ul style="list-style-type: none"> All to consider the report, Managing marine recreational activities: a review of evidence (NECR242), now available at http://publications.naturalengland.org.uk/publication/5164654430519296?category=4891006631149568, for discussion at the next meeting. Note there is a separate evidence briefing for drones as well as the main report and toolkit <p>Action:</p> <ul style="list-style-type: none"> Next NEG meeting (Nov 18) to consider the evidence and whether further work is needed locally, in light of Report NECR242 	<p>NECR242 Report is now available and has been circulated; it has a category for drones and a category for light aircraft.</p> <p>This gives us a standard methodology to assess the impacts of these activities. NEG agreed to pursue following actions below</p>	<p>SEMS / NEG</p> <p>All</p> <p>NEG</p> <p>KMCh/ KC</p>	<p>Complete</p> <p>NEG Meeting Nov 2018</p> <p>2018</p>	<p>Agreed in 2017</p> <p>2018 Action to take report findings further – see below</p> <p>2018 Actions agreed</p>
<p>NE/MMO Desk Research report by Chloe Smith</p> <p>Simple desk research on the effect of drones on designated sites and features, informed by the study commissioned by NE and the MMO. RAs who raised drones as a concern can inform where hotspots are. A tool kit could be developed for RAs to use</p>	<p>Released Aug 2018 and considers the effects of drones on designated sites. This may be shared with LAs but not publicised. It does not ID hotspots. Now up to RAs to consider if drones are causing damage and if so to apply bye-law to manage activity. There are signs that drones will be licenced. Any further methodology to be managed nationally.</p>	<p>NEG</p>	<p>NEG Nov 2018</p>	<p>Action: NEG to consider what further actions if any</p>

SEMS Actions	Action Progress	Lead and Partners	Date for Completion	Actions for SEMS to Agree September 2018
To identify appropriate ways of engaging with drone operators to influence their behaviours		All		Agreed 2018
Distil key messages regarding use of drones in SEMS for all RAs to use	Drone guide circulated 17 Aug 2018	NE		Complete
<p>Monitoring Actions</p> <ul style="list-style-type: none"> Establish a standard central recording mechanism for drone activity: NEG officer to draw out a methodology and form from NECR242 and Chloë Smith's paper (this paper will be for RA cautious reference only) Lindsay to ask Anna Parry if Bird Aware Rangers could monitor drone activity NEG officer to ask WeBS recorders if they could include drone surveillance <p>Consider developing CoastXplore app so public could monitor drone activity</p>		<p>NEG</p> <p>LM /KC/ AP</p> <p>NEG</p> <p>NEG</p>		Agreed 2018

4.9 Fishing (including shellfisheries)

No actions.

4.10 Fishing (shore-based activities)

SEMS Actions	Action Progress	Lead and Partners	Date for Completion	Actions for SEMS to Agree September 2018
<p>The following action could be taken forward as a pilot in one area of SEMS:</p> <p>NE and the IFCAs to clarify what work they are doing to address bait digging, and the timescale with regard to previous action to set up a Solent Bait Digging Working Group with IFCAs, other RAs and landowners to monitor bait digging and collect evidence of any damage caused. Working Group to develop, agree and introduce a sustainable strategic bait collection management regime across the SEMS</p>	<p>SoIFCA update- they were working with the MMO on a national project considering bait collection which could have potentially included a pilot study. However this project has been discontinued and will not be taken further. SoIFCA are now part of a bait collection</p>	<p>NE SoIFCA SxIFCA</p>	<p>To be advised depending on resources</p>	<p>Ongoing and Remains Agreed in 2017</p>

SEMS Actions	Action Progress	Lead and Partners	Date for Completion	Actions for SEMS to Agree September 2018
	project led by NE, looking at developing best practice when assessing bait digging impacts. Project is in the early stages and there will be further updates in the future			
RHHA is working with the police and compiling evidence for SoIFCA on gangs of bait diggers	Ongoing	RHHA SoIFCA	Action ongoing	Ongoing and Remains Agreed in 2017
IFCA/s to produce guidance for Harbour authorities and other RAs on how best to build the evidence base and what actions all can take to help achieve improved management	Guidance for Solent RAs for Monitoring Shore-based Fishing circulated 5 Sept 2018	Kathryn Nelson	End of December 2017	Completed
RAs to continue to gather evidence on bait digging and impacts		All RAs	Ongoing	Ongoing and Remains Agreed in 2017
Ask The Crown Estate (TCE) for guidance or a position statement on how to manage bait digging on their sites	Completed See Appendix 6			Completed
RAs to continue to gather evidence on bait digging, hand collection of shellfish by groups (e.g. at Weston Shore) and impacts and send their reports on this to SoIFCA or SxIFCA		All RAs	Ongoing	Ongoing and Remains Agreed in 2017
Send data to SEMS from SxIFCA's Assessment work on bait	Pending clarity from Defra. NE and IFCA's are working on a project to develop a coordinated approach to assessing bait collection impacts with a deadline of the end of December 2018 to have all assessments completed and potential management measures identified	Erin Lawes		Ongoing and Remains Agreed in 2017
New action: Contact SoIFCA regarding concerns about scale of shellfish collection at Weston Shore that may exceed personal use.		LM	a.s.a.p.	Agreed and ongoing

SEMS Actions	Action Progress	Lead and Partners	Date for Completion	Actions for SEMS to Agree September 2018
New action: Check whether there is a byelaw regarding hand gathering of shellfish. There is a Poole Harbour Shellfish Hand Gathering Byelaw ³⁹ prohibiting hand gathering between 1 st November to 31 st March, but no such byelaw in the rest of the SolFCA district.	Completed	CF	a.s.a.p.	Completed

4.11 Littering and Removal of Litter

SEMS Actions	Action Progress	Lead and Partners	Date for Completion	Actions for SEMS to Agree September 2018
<p>NEG to make proposals to produce products to help prevent marine littering; these could include the following:</p> <p>Target waterfront occupiers with information and advice on littering with existing leaflets or web links. This would involve identifying which businesses to target, e.g. polystyrene packaging users, marinas etc. and how to target them (e.g. directly and via fairs e.g. Boat Show)</p> <p>Produce a generic Solent leaflet based on MCS Beach Clean data for RAs to use if they wish – RAs could produce and drop leaflets in their area of jurisdiction, targeted at their local residents and businesses</p> <p>Produce a generic Solent poster that RAs could distribute if they wish</p> <p>Invite the public to a biannual litter pick – this could be by supporting the Great British Beach Clean and encouraging local people to participate. Feedback relevant results to SEMS.</p> <p>New action proposed: A business which has recently installed a new contained area could be used to exemplify good practice</p> <p>Funding is available from Defra to prevent marine littering</p>	<p>2018: The 'Clean Solent Seas and Shores' (CSSS) project is delivering these actions. First Project Group meeting held; KMc produced a draft PID in Aug 2018 which went out for consultation</p> <p>CSSS is an umbrella project - it will also include actions on water quality + work with others' initiatives</p> <p>Funding currently being sourced for a project officer</p>	NEG	Time frame for each to be decided by NEG depending on resources	<p>Ongoing and Remains</p> <p>These actions have all been taken on by the Clean Solent Shores and Seas Project</p> <p>Action agreed and ongoing</p>
EA to take action against the storage of nurdles and businesses dumping large items along the coast and rivers		EA		Action agreed and ongoing

4.12 Operation of Coastal Flood and Erosion Risk Management Schemes, Barrages and Sluices

No actions.

³⁹ <http://www.southern-ifca.gov.uk/byelaws#PooleHarShellHandGath>

4.13 Boat Repair/Maintenance

SEMS Actions	Action Progress	Lead and Partners	Date for Completion	Actions for SEMS to Agree September 2018
Harbour Authorities to continue to promote best practice with respect to potential environmental impacts of boat repair / maintenance		All Harbour Authorities / RAs	Action ongoing	Ongoing and Remains Agreed in 2017
Consider identifying and publicising existing material on invasive non-native species (INNS) relevant to SEMS features, focusing on those that NE's condition assessments show are causing unfavourable conditions	<p>Progress 2018: NE's condition assessments show that all marine SACs in the Solent region are subject to threats from INNS, recreational craft is one of several vectors by which INNS can be introduced to new areas.</p> <p>Action:</p> <ul style="list-style-type: none"> • NE to send an update on INNS to SF for distribution 	NEG, NE	NEG Nov 2018	Ongoing and Remains NEG, NE to agree, amend or reject action and agree lead and date
To discuss whether engagement with businesses to undertake best practice in boat repair and maintenance might be a useful tool	NEG November 2018	KC, NEG		Action agreed

4.14 Navigation (maintenance of infrastructure) and operation of ports and harbours

No actions.

Appendix 1 What is included in the SEMS Management Scheme (MS) and what is excluded

In order to clarify what the MS contains, and what it does not, actions can be divided into 5 types:

- 1 Reporting harmful activities to other authorities under whose jurisdiction they fall
- 2 General good practice to comply with the Habitats Regulations
- 3 General good practice to not harm habitats or species
- 4 Actions that should be reported through SEMS Annual Monitoring**
- 5 Completion of each authority's undertakings regarding MS actions**

Operations of Type 1-3 are not included in the MS although they may be referred to

Operations of Types 2-3 are those which RAs may wish to strongly encourage colleagues in relevant departments of each organisation to take account of, or to incorporate into policy

Operations of Type 4 should be reported through the Annual Online Monitoring Survey

Operations of Type 5 can be reported in the same way as for Type 4, or verbally at the Annual MG meeting; thus the MS will be kept up to date.

Removing Type 1-3 operations from the MS enables the RAs to focus on activities where the MG can deliver the requirements of the Habitats Regulations. Examples of each of the 5 types of action are given below:

Examples

1 Reporting harmful activities to other authorities under whose jurisdiction they fall

- Notify Environment Agency of water quality breaches, notify IFCA of illegal fishing activity
- Contact Southern or Sussex IFCA if asked to designate shellfish harvesting area/s, as there may be problems if shellfish are collected from certain areas

2 General good practice to comply with the Habitats Regulations

- R&CAs should work with PUSH, NE, EA and Harbour Authorities etc. through appropriate mechanisms to reduce their contribution to adverse effects
- Remind planning and land managers, beach staff and other relevant staff that they have a responsibility and remit with regard to protection of the SEMS
- Link pro-actively across SEMS with other groups seeking to minimise disturbance (such as RSPB and BCU)
- Local authority Environmental Health Officers should ensure no shellfish are removed from unclassified beds

3 General good practice to not harm habitats or species

- Maintain a precautionary approach, for example through local neighbourhood planning committees promote voluntary conservation action
- Promote good practice in flushing behaviour via each organisations' web sites, toilet doors and waste recycling literature, including councils' targeting messages to schools

4 Actions that should be reported through SEMS Annual Monitoring

- Keep a watching brief and report drone activity, remote controlled aircraft and other airborne craft where these may be causing a problem for SEMS. Record adverse effects on waterfowl (e.g. date, time, photo)

5 Completion of each authority's undertakings regarding MS actions

- Use and disseminate the messages in the SEMS Paddlesports Guidelines in ways to which their stakeholders will be most receptive, particularly by educating people who use the few more vulnerable sites, and add the SEMS logo (in high resolution) to them

Appendix 2 SEMS Annual Monitoring Responses 2018

The SEMS Annual Monitoring Responses 2018 can be found at <http://www.solentems.org.uk/publications/>.

Four Reports were also submitted by relevant authorities to accompany their online submissions. These are available from info@solentems.org.uk.

Appendix 3 Natural England's Condition Assessments

See separate .pdf attachment



Appendix 3 Natural
England Condition As:

Appendix 4 Bird Aware Update

During 2017/18, the Bird Aware Solent Partnership conducted stakeholder workshops before drafting the long term Solent Recreation Mitigation Strategy. This then received political sign-off to allow a period of public consultation to take place during Summer 2017.

Following this, final edits were made to the Strategy to incorporate key points raised during the consultation. This final version was then endorsed by PUSH in December 2017 and locally approved by each of the 14 Local Planning Authorities (LPAs) within the partnership, for implementation from 1st April.

The new long term Strategy is more comprehensive than the interim version was and therefore requires a higher level of developer contribution. This is now charged on a sliding scale, based on the bedroom size of the proposed developments, ranging from £337 for a one bedroom property to £880 for a five or more bedroom property.

Alongside this, the Partnership has increased staffing levels to assist in the delivery of this more comprehensive package. Two new, year round, Rangers have been recruited, as well as a full time Brand and Communications Lead post.

During the Winter 2017/18 period, the Rangers carried out the following activities and grew their social media presence as follows:

Achievement	Figure
Site visits	466
Hours on site	1759
Total number of people engaged with during site visits	5184
Engagements related to work of Bird Aware Solent	4645
Engagements related to impact of bird disturbance	2831
Community events attended	33
Number of people engaged with at events	1727
Bird Aware leaflets given out	3407
Twitter followers at 31 st March 2018	733
Facebook followers at 31 st March 2018	381
Instagram followers at 31 st March 2018	142

Monitoring work during Winter 2017/18 focused on visitor surveys at coastal locations, pedestrian counters at 10 coastal locations and the production of the first 3 Access Management Assessments (for Bunny Meadows, Emsworth and Ryde Sands).

The Dog Initiatives Group has focused on the production of leaflet targeted at stimulating positive interactions between the Rangers and the dog owner/walker community. This is being trialled over Summer 2018 with a view to being used during Winter 2018/19.

Appendix 5 Comments received from SEMS Management Group

Extra information from phone calls / emails on 13 and 14 June 2018

Authority	Increase in Activity Reported	Escalation of Issue for Further Investigation?
Beaulieu Enterprises	Land recreation – Other – Firework Displays Non-motorised water sports Drones	At this time it probably doesn't need further investigating. In regards to my responses; Land Recreation – Other - Fireworks – This request is coming from our Hotel that is located on the river banks at Buckler's Hard. They are doing more weddings with nearly every weekend booked up. It has become a more fashionable thing to have at weddings and affordable. At the moment we are saying no to fireworks but we are getting a lot of pressure from the hotel to why we can't allow it. Non-Motorised Water sports – The same as any harbour who are experiencing an increase due to the popularity of paddleboarding. I am currently in the process of producing an educational leaflet to include bird disturbance etc., which will be handed out to paddleboarders and kayaks. Drones – Again has become an affordable fashionable hobby. Although we don't allow it unless permission is requested, you are seeing more of them being flown without permission.
Cowes Harbour Commissioners	Non-motorised water sports (increase in paddle boarders – anecdotal)	Not needed. No evidence of a problem yet. Harbour Commissioners will continue to monitor the situation and may erect signs if necessary.
Isle of Wight Council	Operation of coastal flood and erosion risk management schemes, barrages and sluices	Not needed. Whilst the stated planning applications have increased the overall amount of erosion risk schemes, individually each application was considered to have no impact upon SEMS. I do think it is worth keeping an eye on this activity and if reporting continues to flag up increases then an impact in combination should be explored.
Langstone Harbour Board	Powerboating or sailing with an engine	Not needed. Behaviour has improved following regulation and ongoing management measures
Lymington Harbour	Drones (increase in requests to fly over harbour)	Not needed. Drone activity is very well controlled. Authorised by Harbour Commissioners. Mostly TV and other operators for environmentally led projects that are well risk assessed. Activity seems to have plateaued.
Natural England	Non-motorised water sports Navigation	Comments refer to an increase in use of small watercraft (paddle-boarders, kayakers etc) and subsequent disturbance to birds on North Solent NNR. This comment does not relate to any impacts on EMS and is the view from NNR rather than the SEMS as a whole. Spoke and sent email 14 June 2018 and 27 June
New Forest National Park Authority	Land recreation – Walking (other than dog walking) Land recreation – Other	Not needed. Increase is likely due to increase in number of dwellings and other improvements, e.g. at Lepe Country Park. Increase is managed via plans and projects process (appropriate assessments), Bird Aware rangers and National Park Recreation Management Strategy. Response boxes ticked in error
Southampton City Council	Land recreation – Other - Beach School events	Not needed. Activity infrequent and low risk, but will continue to monitor
Yarmouth Harbour	Non-motorised water sports (increase in kayaks and paddle boards)	Not needed. No evidence of a problem yet. Harbour Commissioners will continue to monitor the situation and may erect signs if necessary.