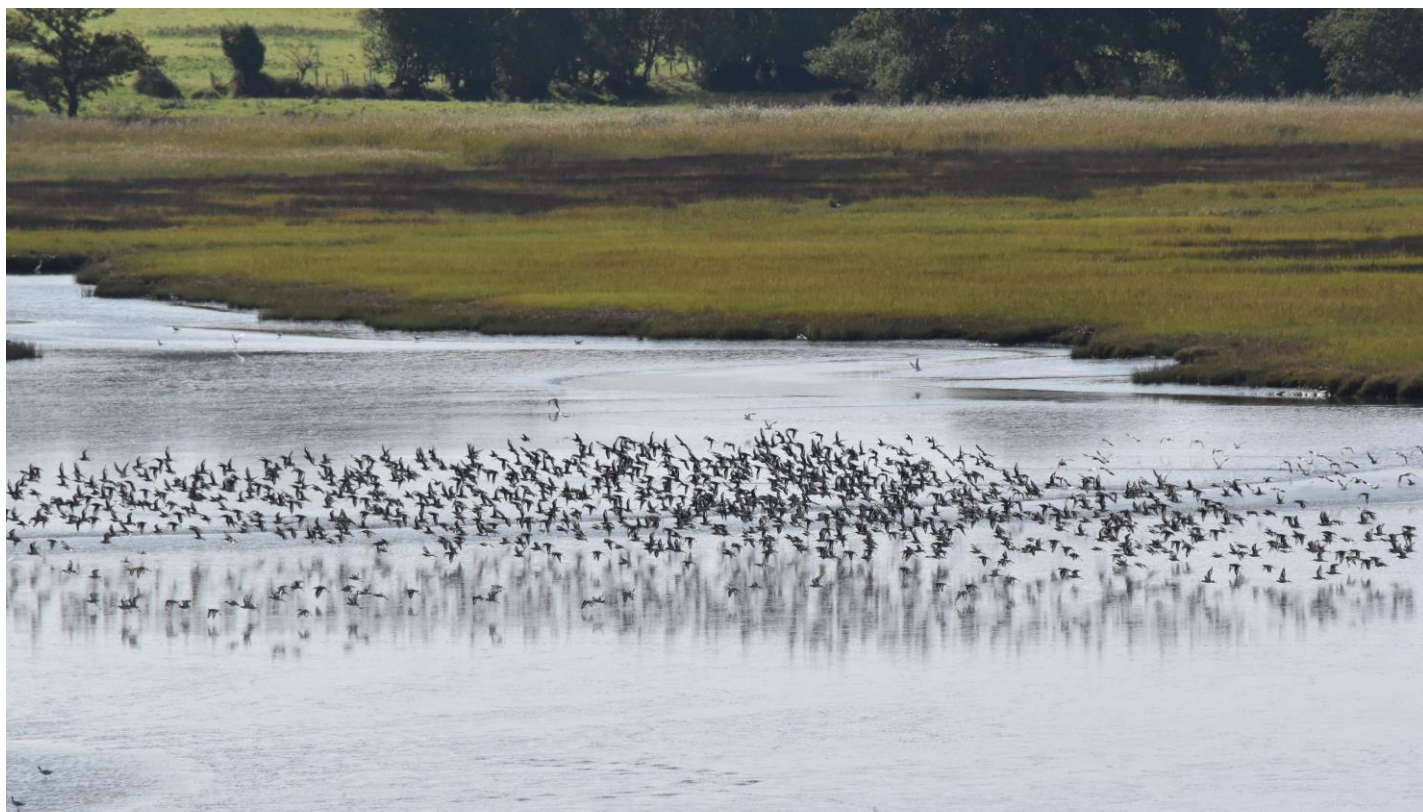


Poole Harbour Recreation Background Paper (Consultation Draft)



Spring 2019



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1. Introduction

The Purpose of this Paper

This paper is prepared by the Borough of Poole in conjunction with Purbeck Council and Natural England.

The aim of this document is to provide an evidence base to support the Poole Harbour Recreation Mitigation Strategy. This paper draws upon various studies and assessments which have already been undertaken and identifies the disturbance issues which are arising from recreational activities. It highlights the need for future monitoring and also draws upon the need for suitable mitigation.

This document is to be considered in conjunction with the Poole Harbour Recreation Mitigation Strategy Supplementary Planning Document (SPD) which sets out the strategy and its process.

The evidence summarised in this paper has been used to help prepare the policies in the adopted Poole Local Plan (2108) and the Purbeck Local Plan (2018-2034) pre-submission draft; and the draft Poole Harbour Recreation Planning Supplementary Planning Document (2019).

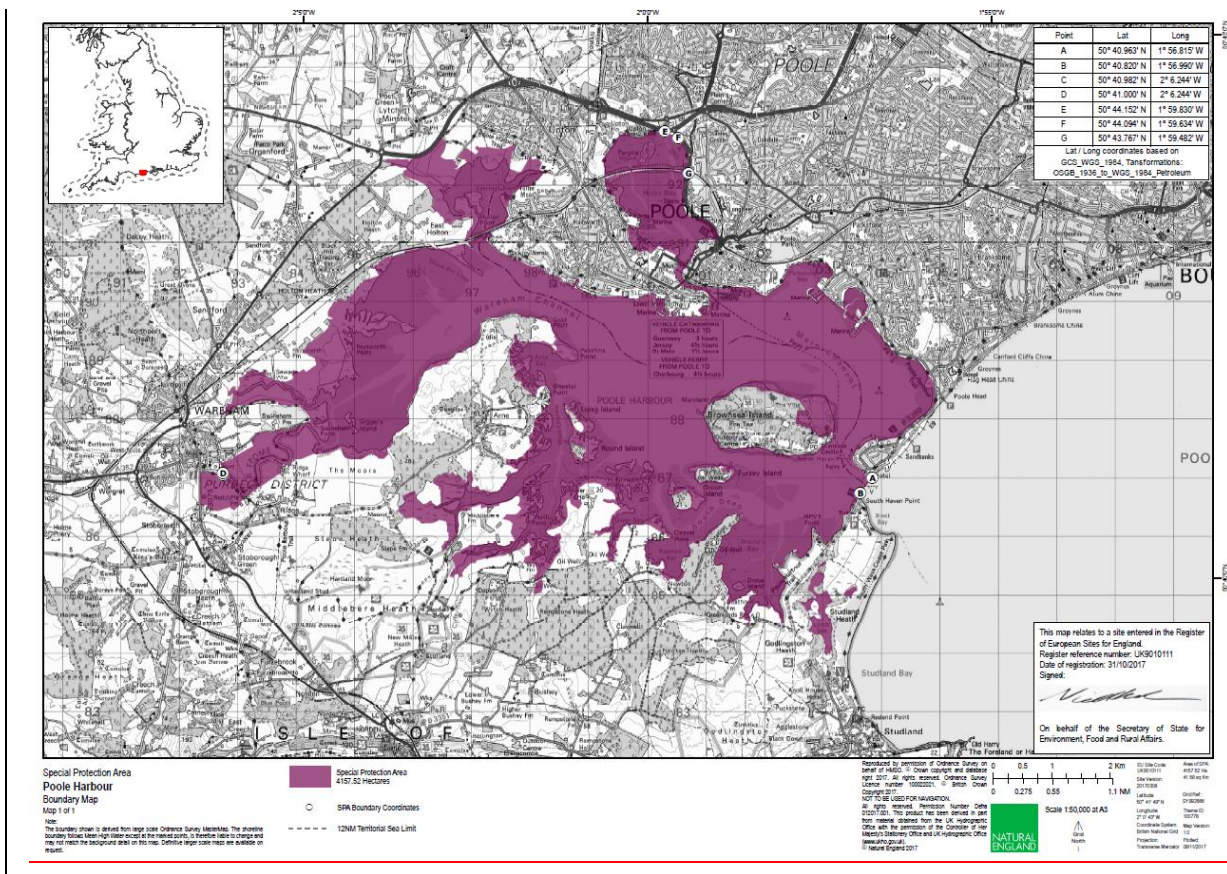
Poole Harbour Designations and the Importance of Birds

Poole Harbour was classified as a Special Protection Area (SPA) in 1999. The special site was designated under the EC Directive 79/409 on the Conservation of Wild birds (Birds Directive) in order to protect rare, vulnerable and migratory birds which inhabit the area. In particular, the internationally important populations of regularly occurring species and migratory species are Little Egret (non-breeding); Eurasian Spoonbill (non-breeding); Common shelduck (non-breeding); Avocet (non-breeding); Black-tailed Godwit (non-breeding); Mediterranean Gull (breeding); Sandwich Tern (breeding); and Common Tern (breeding). There is also an internationally important assemblage of waterfowl including Dunlin, Redshank and Brent Goose. The harbour also provides supporting habitats for seagrass; shallow

inshore waters including coastal lagoons; intertidal sediments; saltmarsh; and reedbeds

The Special Protection Area (SPA) around the harbour was extended in 2018 to incorporate the subtidal areas of the harbour and also areas of Lytchett Bay now subject to tidal inundation; and also to add some new features.

Figure 1: Poole Harbour Special Protection Area (SPA)



In 1990 Poole Harbour was also designated as a Site of Special Scientific Interest (SSSI) under section 28 of the Wildlife and Countryside Act (1981). The SSSI interests relate to its estuarine habitats, including marshes, mudflats and sub-tidal communities; fringing terrestrial habitats, including heathlands and grasslands; and species supported by these habitats, including breeding and wintering birds, lichens, rare invertebrates and red squirrel. The SSSI was also extended in May 2018.

The harbour is also designated as a Ramsar site due to a number of special features including the presence of two species of nationally rare plant and one nationally rare

alga; at least three British Red data book invertebrate species; and examples of natural habitat types such as Mediterranean and thermos Atlantic halophilous scrub.

Poole Harbour also sits within a wider landscape of heathland and coastal habitats including a number of heathland SSSIs which are contiguous with the Harbour and include components of the Dorset Heathlands SPA and Dorset Heaths Special Area of Conservation (SAC). Outside the Harbour, Studland Bay also holds important concentrations of waterbirds and a wide stretch of coast is used by the feeding terns. These areas fall within the Solent and Dorset Coast potential SPA.¹

Poole harbour also supports a wealth of other marine habitats and species such as eelgrass beds; and sea horses and peacock worm beds which are typical estuary species and require action to maintain and avoid their deterioration due to unintentional activities.

¹ Poole Harbour Special Protection Area (SPA): monitoring strategy relating to the strategic mitigation scheme for impacts from recreation (2018)

2. Background

Natural England locally has raised concern at the intensification of residential development in Poole and Purbeck, and the resultant pressures placed upon Poole Harbour SPA/Ramsar site, in particular through recreation related effects such as disturbance. Disturbance can be defined as any human activity that influences a bird's behaviour or survival.

Various studies have found that public access into and close by the harbour from nearby development has led to increased disturbance and has a variety of impacts, with most studies demonstrating behavioural effects, such as birds changing their feeding behaviour (Fitzpatrick & Bouchez 1998; Verhulst, Oosterbeek, & Ens 2001), taking flight (Burger 1998; Fernandez-Juricic, Jimenez, & Lucas 2001, 2002; Blumstein et al. 2003, 2005; Eason et al. 2009) or being more vigilant (Riddington 1996; Stevens & Boness 2003; Randler 2006). Other studies have focused on physiological impacts, such as changes in the levels of stress hormones (Remage-Healey & Romero 2000; Tempel & Gutierrez 2003; Walker, Dee Boersma, & Wingfield 2006; Thiel et al. 2011) or heart rate (Hubert & Huppopp 1993; Nimon, Schroter, & Oxenham 1996; Weimerskirch et al. 2002). Direct mortality resulting from disturbance has been shown in a few circumstances, such as through trampling of eggs or young (Liley 1999; Yasue & Dearden 2006) and many studies have shown a reduction in breeding success where disturbance is greater (Murison 2002, 2007; Bolduc & Guillemette 2003; Ruhlen et al. 2003; Brambilla, Rubolini, & Guidali 2004; Beale & Monaghan 2005; Arroyo & Razin 2006). There are also many examples of otherwise suitable habitat being under-used as a result of disturbance (Gill 1996; Liley & Clarke 2003; Kaiser et al. 2006; Liley & Sutherland 2007), or birds being displaced from one site to another (Cairns, Dibblee, & Daoust 1998).²

² Natural England Commissioned Report NECR108 (2012) Identifying best practice in management of activities on Marine Protected Areas

Evidence of Disturbance - Poole Harbour

Poole Harbour Disturbance Study (2012)

This study and report for Natural England was carried out to assess the impact of recreational disturbance to wintering waterfowl in Poole Harbour.

47 different bird species within the count areas were recorded in total (18 wader species; 18 wildfowl, and 11 other species). Whitely Lake and Middle Beach Studland had the smallest range of species recorded whilst Holes Bay north and Brands Bay had the highest range of species recorded. Generally the north of Holes Bay, and the southern bays (Newton Bay and Brands Bay) held the largest number of birds. The study indicated that disturbance had a significant negative effect on the number of waders and wildfowl present, indicating that birds respond to disturbance levels and redistribute as a result of disturbance. There was a response from birds to people 1.7 times per hour and birds were flushed approximately once per hour with December rates being markedly higher than other months.

Water-based activities (such as canoeing, pump scoop dredging, small sailing boats and kite surfing) tended to be more likely to cause disturbance although these made up a relatively small proportion of the activities recorded. Dog walking (with dogs off leads) accounted for 40% of the birds observed flushed whilst walkers accounted for 17% and canoeists 15%.

Birds were most frequently flushed at Studland (Pilot Point, Bramble Bush Bay, Middle Beach) and at Arne. At sites with the highest levels of access (Baiter and Sterte), birds were less likely to respond to each event but this may be due to the type of activity, a high proportion of which was walkers and cyclists. The probability of major flight taking place may also be due to the species of bird although proximity of the activity to the bird also played a factor.

A wide range of activity types were recorded. Walking without a dog was the most commonly recorded activity (36%), followed by dog walking with a dog off the lead (17%) and cycling (16%).

Poole Harbour Visitor Survey (2016)

Observation surveys of visitors were conducted at five different locations on the north, urban side of Poole Harbour (Sandbanks; Baiter; Ham Common Lytchett Bay; and Holes Bay). The busiest location was Baiter Park and the locations with the fewest visitors were Holes Bay and Lytchett Bay. Cyclists accounted for 16% of visitors to Baiter and 30% of visitors to Holes Bay. In addition to observation surveys, some interviews were also conducted, where possible. Overall the majority of interviewees were dog walkers accounting for 70% at Baiter, Ham Common and Lytchett Bay. Whilst at Sandbanks and Holes Bay there were more varied activities. Nearly half of visitors felt that being 'close to home' was a factor for visiting and 65% said that they mostly visited Poole Harbour or another associated site for their current activity with Upton Country Park being frequently mentioned as an alternative. Half of interviewees lived within 1.7km radius of the survey points and three quarters of interviewees lived within 4.8km. Of those visiting daily, half lived within 0.66km which suggests that proximity was a factor in frequency of visiting. At Sandbanks visitors travelled much greater distances whilst in Baiter the visitors tended to live closer, in either central Poole or Parkstone and were dominated by dog walker but with some meeting to socialise, and also jogging and cycling. At Holes Bay there was a wider catchment with visitors living as far away as Creekmoor, Wimborne Minster and Branksome with a third of those visitors being cyclists. At Lytchett Bay there tended to be a small catchment of local visitors, mainly dog walkers, three quarters of which lived within 0.6km. At Ham Common there was a wide catchment of visitors as far as Lytchett Matravers and Wareham.

Wild Purbeck NIA Visitor Survey Analysis Report (2014)

This survey focussed on Arne Peninsula; Greenlands and Wareham Forest with 21 survey locations. In terms of counts, there were 3033 groups recorded with 5241 adults, 889 children, 2251 dogs and 1597 cyclists. The busiest site overall was Sika Trail car park (in Wareham Forest) with 14% of all groups entering or leaving being recorded here and the highest percentage of dogs recorded (18% from overall). 25% of all cyclists were recorded on Ferry Road (on the edge of Poole Harbour). The busiest area was Wareham Forest and dog walking was the primary activity whereas at Greenlands cycling was more popular and at Arne Peninsula more of a focus for families. The highest proportion of dogs was observed at Great Ovens

where 94% of interviewees had dogs, 71% of groups had dogs off the lead. People visiting Wareham Forest were most likely to have dogs with them (76%) whilst in the Greenlands area only 18% of groups had dogs.

The majority of visitors to the survey points were travelling from home on a day trip (81%), with 15% on holiday in the area. Although visitors came from a wide range of locations, the majority were from the south coast and 82% from within Dorset. In the Wareham Forest area 91% of interviewees were from Dorset and 60% within Purbeck District. Similarly 59% of visitors to Arne Peninsula originated from within Purbeck District whilst Greenlands had a low level of visitors from Purbeck District (11%) and much higher relative use by Dorset residents (largely East Dorset and the conurbation). Being close to home was often cited as a reason for visiting (24%). Half of visitors that travelled by car/van lived within 8.2km of the survey location, whilst half of those who walked lived within 0.7km. Three quarters of all visitors with dogs travel from less than 10km in order to reach the survey location. Dog walkers visit most often with 32% on a daily basis.

Overall the most popular activity for visitors was dog walking (47%), then on/off road cycling 23%) followed by walking (18%).

Wild Purbeck NIA Recommendations towards a Visitor Management Strategy (2014)

This Purbeck wide report accompanied the Wild Purbeck NIA Visitor Survey Analysis and made a series of strategic recommendations about how visitor management in Purbeck could be approached to safeguard vulnerable features and wildlife.

Disturbance to waders and wildfowl within Poole Harbour and to breeding birds generally on the coast was highlighted. In addition to visitor monitoring, a project officer was suggested to co-ordinate between providers, review zoning, develop and promote codes of conduct, and develop a wildlife accreditation scheme.

Poole Harbour Aquatic Management Plan (PHAMP)

The Poole Harbour Aquatic Management Plan provides a framework for the effective, co-ordinated management of the Harbour and the Poole Harbour Special Protection Area (SPA) and serves as a Management Scheme for the European

Marine Site, as set out in Regulation 384 of the Conservation of Habitats and Species Regulations 2017. It also covers the present and future needs of nature conservation, recreation and commercial use and other interests of the Harbour. The plan recognises that the trends in all bird populations need to be monitored and reasons for change understood. As a result the Wetland Birds Survey (WeBS), coordinated by the British Trust for Ornithology (BTO) result in volunteers undertaking bird surveys every month from September to March at several places around the harbour. Recreational activities such as windsurfing, water-skiing, wildfowling, use of personal watercraft and wider access to the foreshore from the land are highlighted as potentially causing disturbance especially during the winter months. The use of personal watercraft to the north of Brownsea Island may be disturbing birds feeding and nesting on the lagoon and beach and watercraft close to the breeding gull colony to the west of Rockley may also cause significant disturbance. Windsurfing at Whitely Lake in the winter may also displace some bird species to other feeding grounds to the south of the harbour. Any proposals for increasing coastal access to Poole Harbour from the landward side are also of concern such as jetties or boat moorings.

Referring to the Poole Harbour Monitoring Strategy (2009) it is recognised that an increased number of people living in Poole is likely to cause a rise in the frequency, intensity, duration and extent of recreational activities taking place in and around the Harbour. It was summarised that this possible increase in recreational activity could result in a direct disturbance to nesting birds, feeding waders, roost sites, and waterfowl, and may cause indirect damage to substrates.”

In response to this the PHAMP identifies a number of management objectives for Poole Harbour. Of particular relevance are those in respect of recreational activities:-

- To ensure all recreational activity is undertaken in a sustainable & sensitive manner.
- To manage access to & use of the Harbour from land to minimise conflicts between users and wildlife.

- To improve communication with user groups & organisations to explain their potential impacts on the interest features of the EMS.
- To ensure safe navigation for all by minimising conflict between commercial and recreational craft.
- To review moorings policy to ensure impact on wildlife, habitats and seascape is minimised.
- To maintain and improve present standards to reduce conflict between yacht racing and commercial activities.

Wader and Seafowl Roost Survey of Poole Harbour, Dorset Winter (2014/15)

The survey was commissioned by Natural England and highlighted that there was a significant increase in disturbance to the wader roosts since that observed by Morrison (2004). Wildfowling was the main cause of disturbance to roosts in the south of the harbour between Wytch Lake and Brand's Bay, and likely Wareham Channel south around Gigger's Island. Cockle/clam fishing boats was also a regular cause of disturbance but not as extensive as wildfowling. In the north-west of the harbour, in the conurbation of Poole and adjacent areas, dog walkers, walkers and general recreation were the main causes of disturbance, in that order, between Hamworthy Park and Studland Bay/Brand's Bay. This affected 10 different roosts or more whilst also incurring the highest number of disturbance incidents.

It was also identified that the Spartina die-back and deteriorating saltmarshes within the harbour were additional threats to roosts, which emphasises the importance of providing other alternative areas for refuges which are free from human disturbance.

Human disturbance to seafowl roosts was observed at Brand's Bay west and off Round Island and mainly caused by wildfowling, clam/cockle fishing, and windsurfing. No disturbance was noted in Studland Bay although disturbance from motor powered watercraft and wind-surfers was frequent during the day. Additional causes of disturbance included wind-surfers heading out from Hamworthy Park.

Site Improvement Plan (SIP) – Poole Harbour

This plan was developed by Natural England to provide a high level overview of the issues (both current and predicted) affecting the condition of the Natura 2000

features on the site(s) and outlines the priority measures required to improve the condition of the features. The plan identifies public access/disturbance as a pressure or threat to Poole Harbour which is one of England's Natura 2000 sites (a combined term for sites designated as Special Areas of Conservation (SAC) and Special Protected Areas (SPA)). At the time A026(NB) Little Egret, A048(NB) Common shelduck, A132(NB) Avocet, A156(NB) Black-tailed Godwit, A176(B) Mediterranean Gull, A193(B) Common Tern, A294(NB) Aquatic Warbler, and Waterbird assemblage were all identified as features which could be affected. In referencing the Recreational Disturbance Study (2012/2013) the SIP indicated that disturbance from recreation was a significant factor influencing the distribution of birds in Poole Harbour. An increase in residential development in the locality is expected to increase the recreational pressure on the Harbour. In response to this 9 actions are identified (see below fig 2). Some of these actions have been partly carried out; leaflets have been created and disseminated to raise awareness on bird sensitive areas; also leaflets for kite surfers and canoeists; patrols within the harbour waters have been carried out by Poole Harbour Commissioners; and some interpretation boards have been erected to raise awareness.

Figure 2: Site Improvement Plan Actions

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
5A	Improve users' awareness of the bird sensitive areas (refuge areas agreed in the Poole Harbour aquatic management plan) and how they can minimise disturbance. Develop and disseminate Codes of Conduct for both recreational and commercial users using leaflets and interpretation boards	£50,000	2015-25	Advice: Education & awareness raising	Not yet determined	Natural England	Dorset Wildlife Trust, National Trust, RSPB, Poole Harbour Steering Group
5B	Improve awareness of dog owners of impact of bird disturbance by dogs, bird sensitive areas and alternative locations for their activity through liaison with dog owners, interpretation and updating of a website	£44,000	2015-25	Advice: Education & awareness raising	Not yet determined	Local partnership	Dorset Dogs, Poole Harbour Steering Group
5C	Limit access and disturbance to sensitive areas by managing visitor numbers and intensity, by screening, setting back paths and encouraging inland routes. Find alternative locations that could be made more attractive for users for activities such as dog walking, walking and cycling.	Not yet determined	2015-25	Advice: Other	Not yet determined	Local partnership	Dorset Dogs, Poole Harbour Steering Group

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
5D	Increase the level of water based wardening by Poole Harbour Commissioners, and increase awareness through boat trips of the wildlife value of site, bird sensitive areas and how water based activities could potentially impact on the birdlife through disturbance.	£200,000 (+£35,000)	2015-25	Advice: Education & awareness raising	Developer Contributions Scheme (DCS)	Borough of Poole	Natural England, Poole Harbour Steering Group
5E	Increase shore based wardening working with landowners such as RSPB, Dorset Wildlife Trust, National Trust and Borough of Poole, to include guided walks and talks to improve appreciation of the wildlife value of the site and raise awareness around 'bird sensitive areas' and how activities such as walking and dog walking can result in bird disturbance issues at some locations.	£200,000	2015-25	Advice: Wardening	Developer Contributions Scheme (DCS)	Local partnership	Dorset Wildlife Trust, National Trust, Natural England, RSPB, Dorset Dogs, Poole Harbour Steering Group
5F	Undertake surveys to detect any change in the numbers and behaviour of water craft using the Harbour to provide information on which activities and locations may need better management.	£24,000	2015-25	Investigation / Research / Monitoring	Developer Contributions Scheme (DCS), Other partnership	Local partnership	Natural England, Poole Harbour Steering Group
5G	Undertake surveys to detect any change in the numbers and behaviour of shore-based recreation users to provide information on which activities and locations may need better management.	£22,500	2015-25	Investigation / Research / Monitoring	Poole Harbour Commissioners	Natural England	Dorset Wildlife Trust, National Trust, Borough of Poole, RSPB, Dorset Dogs, Poole Harbour Steering Group
5H	Monitor bird response to disturbance; this should include surveying breeding terns and mediterranean gulls, wader and wildfowl roosts and offshore waterfowl and analysing Wetland Bird Survey (WeBS) data.	£100,000	2015-25	Investigation / Research / Monitoring	Conservation bodies	Natural England	Dorset Wildlife Trust, National Trust, RSPB, Poole Harbour Steering Group
5I	Ensure the strategic delivery of projects is overseen eg by employment of European Marine Site officer - the most appropriate management structure for the European Marine site will be identified nationally by key agencies. An independent point of contact is required for recreational users eg through liaison groups, record keeping of activities and incidents taking place in the Harbour, data storage and reporting.	£300,000	2015-25	Advice: Other	Not yet determined	Local partnership	Defra, Environment Agency, Natural England, Borough of Poole, Southern Inshore Fisheries Conservation Authority (IFCA), Marine Management Organisation (MMO), Poole Harbour Steering Group, Joint Nature Conservation Committee (JNCC), Local Government Association (LGA)

Review of Estuary SPA Sites

A national review by Natural England of Estuary SPA sites housing levels and bird disturbance aimed at providing more context for detailed HRA work. In the review Poole Harbour ranked 14th out of 29 SPA sites in terms of its vulnerability to disturbance impacts from increased housing and is lower than other south coast sites such as Exe Estuary SPA, the Solent & Southampton Water SPA, Portsmouth Harbour SPA and Chichester & Langstone Harbours SPA. However, compared with

other sites, there are considerable parts of the shoreline which have low levels of existing housing nearby (ie the Purbeck side of the Harbour) and extensive areas of the Harbour having limited access. Different parts of the harbour are therefore expected to be under heavier recreational pressure than other areas which are comparatively quiet.

Impact of Human Disturbance on Coastal Birds: Population Consequences derived from Behavioural Responses (Collop 2016)

A PhD study suggested that the current levels of human activity were not sufficient to reduce the carrying capacity for wading birds, as they were able to compensate for disturbance, for example by redistributing within the site. However, increased levels of human activity, particularly when combined with environmental change such as sea-level rise, were likely to be problematic.

Identifying best practice in management of activities on Marine Protected Areas (2012)

A report by Natural England to review how certain activities are being controlled to mitigate impact to protected habitats and species. The aim of the report was to better inform Natural England and other relevant (or management) authorities on activities which may cause damage to Marine Protected Area interests (both Natura 2000 sites and Marine Conservation Zones) and the potential management options available. One of those activities studied was recreational disturbance to habitats and species. Although the report focussed on damage relating to trampling and abrasion from vehicles and eutrophication such as dog fouling, which are not the focus area of this background paper, it did identify the various ways in which disturbance or damage can be mitigated which can be grouped as:-

- Habitat Management;
- Planning & Off-site Management Measures;
- On Site Access Management Measures;
- Education; and
- Enforcement.

Holes Bay Nature Park: A profile on the ecology & human activity. Dorset Wildlife Trust (2017)

Highlighted that the Holes Bay saltmarsh has suffered highly significant erosion (70% 1924-94) and 60% 1998-2006). Doing nothing would result in increased die back and reduce the area of mudflats as a result of sea level rise. This would impact upon internationally important wading and water birds feeding, roosting and overwintering and may affect the status of the harbour as a SPA, SSSI and RAMSAR site. It could also result in additional sediment being released which may have historical pollutants from previous industrial operations in Poole and could affect water quality. A six-year trial is proposed to re-create the saltmarsh and recycle over 6 hectares of dredged spoil from the area.

It also highlights that activities such as recreational fishing; bait digging; boat use (mainly south of the railway); wildfowling; birdwatching (marginal); cycling (along the north and east side); walking or jogging (including dog walkers) are also causing some disturbance to the birds.

Other potential impacts also include train and traffic movements; low flying aircraft and helicopters flying drones; dumping of waste and motor vehicles parking on grass verges or paths.

Some possible mitigation included additional parking and upgrading of footpaths and cycle ways; and development of alternative areas for recreation.

Poole Harbour Monitoring Strategy (2009)

This document was commissioned by the Borough of Poole to provide a monitoring/research plan in response to the potential impacts of future residential development within Poole on the nature conservation interest of the Poole harbour designated site. The plan identifies key locations and activities where additional human pressures are likely to arise and details the monitoring/research which will enable changes in public use of the harbour and bird distribution, well being and abundance to be detected and predicted.

The strategy assumes that additional housing will result in an increase in the number of people living close to Poole Harbour and as a consequence there is likely to be an increase in the frequency, intensity, duration and extent of recreational activities taking place in and around Poole.

The strategy identifies principal types of access (activities) within the Harbour which could potentially have impacts upon the nature conservation interest of the harbour:-

Type of Access	Description / notes
Shore based recreation	
Dog walking	Dogs loose on mud or chasing birds a particular issue
Cycling	
Fishing	
Collecting shellfish	
Bait digging	
Shore-based commercial activity	Marina staff, building work, laying out/repairing moorings etc
Wildfowling	
Other shore-based activities	Encompassing a range of activities such as birdwatching, walking, jogging, mending boats, kite flying, kids playing etc
Water-based recreation	
Kite surfing	Separated from other types of activity as unique and birds could respond differently
Small non-motorised craft	Windsurfers, dinghies, canoes / kayaks, able to use shallow water areas
Large sailing craft	Tending to stick to main channels
MOD / RNLI	Fast boats, some testing of equipment, hovercraft etc
Pump scoop dredging	Shellfish dredgers stay in one area, often for hours
Commercial craft	Freight, channel ferries, fishing boats etc
Jet skis and small motor boats	Fast recreational craft, using shallow water
Dredging	Specific craft associated with channel deepening etc
Tourist boats / tour boats	Boats providing tours of the harbour, trips to Brownsea etc

Also the potential nature conservation impacts on the wildlife of Poole Harbour associated with development and increased population within Poole Borough:-

Type of impact	Description	Species	Key locations
Direct effects			
Disturbance to nesting birds	Trampling of nests, increased flushing and avoidance of otherwise suitable habitat as a result of recreational pressure	Gulls, waders (redshank, oystercatcher, ringed plover), terns	Islands in Wareham channel Brownsea Arne peninsula Studland (Brands Bay)
Disturbance to feeding waders	Loss of feeding time, avoidance of feeding areas, energetic costs	Breeding and wintering waders	All areas of mudflat, eelgrass beds and other feeding areas
Disturbance to roost sites	Energetic costs from flushing, avoidance of some sites	Waders	North shore, Studland
Disturbance to waterfowl	Energetic costs, avoidance of some sites	Waterfowl e.g. red-breasted merganser, goldeneye, grebes	Poole Bay, areas of open water
Indirect effects			
Damage to substrates (Shellfish dredging, bait digging)	This damages benthic invertebrate communities, reducing food abundance/availability and quality	Wintering waders and wildfowl	North and south shores
Damage to substrates, repair/replacement of artificial structures in the backwater channel	Repair or replacement of piling may reduce extent of communities due to use of new materials eg anti fouling etc	<i>Suberities massa</i> and fast flowing water invertebrate communities	Backwater Channel

Poole Harbour Special Protection Area (SPA): monitoring strategy relating to the strategic mitigation scheme for impacts from recreation (2018)

This was commissioned by the Borough of Poole to provide an update of the previous strategy set out in 2008.

The strategy made a number of monitoring recommendations and provided estimated costings and timeline for the components of the strategy over a 20 year period. The different components and costings are discussed further in chapter 3.

Other examples

The Solent - Similar harm has been highlighted in other SPAs such as around the Solent also in the south of the UK, where it was considered that recreational activity such as people walking, cycling and jogging, and the presence of dogs often disturbs the birds. The recreational activity at the coast was anticipated to increase as a result of the number of new homes which are to be delivered. In response, the Solent Recreation Mitigation Strategy was introduced which deal with the impact on

the Solent SPAs from increased recreational activity resulting from the construction of new homes.

North Kent - The Bird Wise North Kent Mitigation Strategy was adopted in January 2018 following concerns raised over the potential impact of recreational disturbance on bird populations of three SPAs and Ramsar sites; Thames Estuary and Marshes SPA; the Medway Estuary and Marshes SPA; and the Swale SPA. There significant development is planned for north Kent with growing demand for new homes to accommodate the increase in population in the administrative areas of Canterbury, Dartford, Gravesham, Medway and Swale. The strategy provides a mechanism to mitigate any increase recreational disturbance which could arise from this new development.

[*Link to new residential development*](#)

Habitats Regulations Assessment of the Draft Regional Spatial Strategy for the South West (2007)

Recommended changes to the policy wording of the Regional Spatial Strategy (RSS) to make it clear that local plans must address any potentially adverse effects as a result of increased tourism, recreation and urbanisation. The Habitats Regulation Assessment (HRA) also suggested a number of mitigation measures that could be taken forward at local level. Typical impacts included disturbance to species such as ground-nesting birds and wintering wildfowl from walking, cycling, and water sports; disturbance from dogs and damage from dog excrement. In the absence of any specific reference in the draft RSS to consider the potential effects, it was not possible to conclude that no adverse effect upon the integrity of numerous protected sites would occur including to Poole Harbour SPA and Ramsar. Whilst the RSS was subsequently abandoned the HRA nevertheless highlighted the issue of recreation impacts upon protected areas and potential impacts of growth. As a result, this was considered in subsequent local plan reviews and HRAs for both Poole and Purbeck.

[Poole](#)

Poole Core Strategy Habitat Regulations Assessment (2008)

Recreation was highlighted as being an issue which affects Poole Harbour. Shorelines typically represent thin strips of land and are popular with people for a range of activities, such as sun bathing, dog walking, and fishing. Due to the linear nature and narrow width of most shorelines, the density of people can often be very high which can result in disturbance to birds using the beach and associated habitats. Within Poole Harbour there is recreational access to many areas, with the northern shore and sites such as Baiter and Hamworthy Park being particularly busy.

The Core Strategy outlined plans for 10,000 new homes over the period 2006-2026 with 40% being concentrated to the central area. It was considered that the volume of new houses will result in a change in the distribution of accommodation, an increase in local residents and possibly a change in the types of people living in different areas which would likely have consequence for the levels of recreational activity within parts of the borough. The likely significant effect identified was the increased levels of recreational activity to the shoreline areas of Poole Harbour, with the potential for increased levels of disturbance to birds in or around Poole Harbour. At the time the effects from additional residential developments upon Dorset heathlands were also considered to be having more conclusive adverse effect, hence mitigation measures were brought forward earlier by the authorities in a joint SPD to ensure that the integrity of the Dorset Heathlands would not be adversely affected.

The Core Strategy HRA recommended that a new policy for the Harbour needed to be added to the strategy which would require developer contributions to provide provision for mitigation measures to reduce the effects upon habitats and species by controlling and managing development and access. The introduction of the Community Infrastructure Levy (CIL) provided for this requirement although later some authorities (such as Poole) considered that CIL could only address mitigation which was defined as infrastructure and could not provide provision for other necessary aspects such as monitoring or wardening etc (SAMMS).

Habitat Regulations Assessment of the Poole Local Plan, Issues and Options at public consultation (2015)

Highlighted that the progression of measures to mitigate for recreational impacts on Poole Harbour had been slow. Since the HRA of the Core Strategy, additional evidence of the impacts of disturbance has become available. It was considered imperative that further progression of mitigation implementation continues and is prioritised for the new local plan, with clear reference and commitment as part of policy.

It was considered that with the increase in housing proposed, the regeneration activities proposed to enhance the attractiveness of the town for tourism, and the specific proposals to enhance or increase watersports activities, the development and implementation of a management scheme was necessary to ensure that recreational activities had full regard for the potential to disturb SPA/Ramsar birds. The Management Scheme was required to put in place timely, effective and enforceable measures to prevent any increase in disturbance by appropriately controlling and managing activities.

Poole Local Plan Submission Stage Habitats Regulations Assessment (2017)

The HRA recognises that recreation in Poole Harbour can cause disturbance to birds. It takes account of the national review of estuary SPA sites by Natural England and using this data, the HRA concluded that that disturbance is a risk to the SPA, and from the scale of development set out in the plan and its concentration in the town centre/close to the Harbour, recreation impacts cannot be ruled out as having an adverse effect on the integrity of the site.

To date some developer contributions have been collected to provide mitigation for recreation impacts although this has been only collected from a limited number of developments in the town centre.

The plan as proposed includes policy wording which recognises the risk from increased recreation pressure to Poole Harbour and the continuing need for mitigation. There is a mechanism in place, however, the SPD is yet to be produced and long-term mitigation measures and details are not formalised and lacking. It is essential that this is progressed and finalised to provide clarity and confidence, and to progress monitoring as an integral part of the SPD. The visitor data provides the

context for identifying where new development has the potential to result in increased access to the Harbour and will help inform the mitigation and monitoring requirements.

Purbeck

Habitats Regulations Assessment of the Purbeck Core Strategy Pre-Submission Draft (2010)

Highlighted some of the recreational pressures upon Poole Harbour which were being addressed in an Aquatic Management Plan whilst referring to the Poole Harbour Monitoring Strategy (2009) for monitoring measures which need to be carried out to address increases in access and quantify potential impacts to the SPA.

Purbeck Core Strategy, Implications of Additional Growth Scenarios for European Protected Sites (2010)

The report was commissioned alongside the Habitats Regulations Assessment to consider additional levels of development identified in the proposed changes to the Regional Spatial Strategy. It highlighted that without existing visitor data it was difficult to predict how access to Poole Harbour might change and the extent of which water-based activities would increase. However, it considered that the mitigation measures set out in the Core Strategy HRA would be likely to resolve any potential adverse effects even with the additional growth.

Habitats Regulations Assessment of Purbeck Core Strategy, Proposed Changes to Pre-Submission (2011)

Proposed changes to the pre-submission plan included a new policy which was specifically focussed around addressing recreational pressure upon Poole Harbour. The HRA suggested further minor adjustments to the wording of the policy.

Habitats Regulations Assessment of Pre-submission Publication of the Purbeck Local Plan Review (2018)

It highlighted that the development of a Poole Harbour Management Scheme which had been recommended under the Habitats Regulations Assessment for the Core Strategy, had not been taken forward and that progression of measures to mitigate

for recreational impacts on Poole Harbour had been slow. The screening assessment of the revised housing options for likely significant effects identified risks in terms of the additional recreation pressure the proposed housing allocations would bring upon European sites sensitive to such pressure, and it was difficult to rule out such risk in the absence of measures to avoid or mitigate for potential impacts. Since the HRA of the Core Strategy, additional evidence of the impacts of disturbance has become available. The new Purbeck Local plan at pre-submission stage now sets out in policy and detail within supporting text for Policy E9, a commitment to delivering mitigation for recreation impact on Poole Harbour (para 4.39).

3. Monitoring and Mitigation

Monitoring

The Poole Harbour Monitoring Update Strategy (2018) provides a recent review of the monitoring and research which needs to be carried out with costings.

Monitoring recommendations within the strategy include:

- **Automated counters:** these will provide detailed data on the change in visitor numbers over time at very specific locations.
- **Vantage point counts:** these will provide data on the change in visitor numbers over time over a wide area, including open water.
- **Visitor interviews:** these will show to what extent access patterns are linked to new housing, pick up changes in access patterns and potentially also show the extent to which mitigation measures are influencing behaviour.
- **Analysis of WeBS data:** this will show how wintering bird numbers are changing and how the distribution of birds changes. The data are collected by volunteers and relate to low tide only.
- **Roost survey:** this will show which sites are important at high tide and show what changes have taken place and issues are emerging.
- **Breeding gulls and terns:** these targeted surveys will survey the SPA breeding interest only and collate information to ensure the correct locations and issues can be targeted for mitigation.
- **Repeat of 2012 Bird Disturbance study:** these surveys would involve targeted fieldwork to systematically record bird-people interactions and log the activities causing issues, the locations and changes in comparison to previous surveys.
- **Distribution of new homes:** this will ensure mitigation can be targeted at the right place and will inform to what extent changes in visitor numbers etc. are linked to housing.
- **Mitigation delivery:** this will provide information on what mitigation measures have been undertaken where and when, and will provide basic information to relate to visitor and bird data and allow future mitigation to be targeted appropriately.

This list is not exhaustive and other monitoring/surveys may need to be carried out as appropriate.

Forms of Mitigation Measures

Natural England advises that local authorities undertaking appropriate assessment will identify any adverse effects upon the harbour SPA in combination with other proposals, but that avoidance or mitigation measures can still allow development to be approved.

As discussed by Liley et al (2012) there are a range of measures would most likely be effective in tackling these issues and these are considered as follows:-

Habitat Management

New habitat creation – the creation of new functionally linked habitats to provide alternative refuge away from areas affected by human recreation and disturbance.

Restoring existing habitats – restoring existing habitats to provide an alternative refuge for birds in the harbour. For example coastal erosion causing damage to habitats might be addressed through recharging beach sediment.

Planning & Off-site Management Measures

Site development away from Marine Protected Area's – from the available evidence, proximity is clearly a factor in visitors to the harbour. However, the use of an exclusion buffer would not be possible in the case of the harbour as particularly within the Poole authority, much of the development and regeneration needs to take place in existing urbanised areas which are in close proximity to the coast.

Planning conditions on adjacent development – potentially an option where appropriate but need to be considered on a case by case basis. Urban design can ensure that new development plans minimise impact. Examples could include careful planning of landscape (planting, screening or access routes).

Providing alternative recreational facilities – this provision would encourage recreation away from the harbour. For example the evidence indicated that Upton Country Park was a popular alternative to visitors to Poole Harbour and this is being expanded with surrounding Suitable Alternative Natural Greenspace (SANG) provision. Similarly improving facilities at alternative places for recreation may also encourage visitors away from the harbour. However, it should be recognised that the unique nature of the harbour is such that it would be impossible to recreate some features elsewhere to completely draw away visitors.

On-Site Access Management

Based upon the evidence, there are clearly numerous parts of the harbour where access management would provide an effective measure in tackling disturbance caused by recreation. Access Management projects by their very nature would tend to be infrastructure projects.

Restricting/preventing access- examples could include re-alignment of existing footpaths (away from the coast) or using barriers such as planting or fencing. Also the consolidation of multiple accesses to a singular access, particularly in the case of designated access points for water sports.

Control/Restricting of activities– areas which are already busy with visitors or not used frequently by birds could be sacrificed in lieu of preserving other more suitable habitats. Or activities could be restricted in certain areas. For example some areas could require dogs to be kept on leads whilst in other areas the use of fencing could be more appropriate. Zoning could largely tackle water sports although this could become very onerous to monitor.

Facilities – the management of car parking. Location of parking or park fees/restrictions can reduce significant areas of concentration. However, this might encourage use of other areas with no parking management that may currently be quieter and with currently less visitors which may not be preferable.

Education

Education is a powerful tool in prevention. There are a wide range of tools which can be used for education such as:-

- Signs, interpretation and leaflets – focussed at different user groups and activities such as dog walkers, walkers, canoeist/kayakers etc to raise awareness of issues.
- Wardening – face to face contact to speak with users of the Harbour.
- Electronic communications – raising awareness through electronic communications such as websites, social media, email etc.
- Contact club groups – engagement with clubs taking part in relevant activities.
- Visits to communities – schools, clubs etc to educate children or families.

Enforcement

Enforcement provision somewhat overlaps with the role of Poole Harbour Commissioners. Wardening provides an element of enforcement and Poole Harbour Commissioners do have various wardens although none are specifically focussed towards tackling recreational disturbance.

- Dog control orders – can be imposed where dogs are a particular issue.
- Legal enforcement – prosecution for damage or disturbance although good evidence would be required and this can be a relatively costly approach. Prevention is the preferred approach.
- Wardening – There is some overlap with education. A warden would also have the power to enforce byelaws and prosecute.

Recommended Monitoring and Mitigation

Having regard to these range of measures set out by Liley et al (2012) and that which is set out in the Poole Harbour Special Protection Area (SPA): monitoring strategy relating to the strategic mitigation scheme for impacts from recreation (2018) it is considered that the monitoring and mitigation measures for the Poole Harbour Strategy is as follows:-

- Monitoring and surveys
- Warden/ranger role
- Co-ordinator role
- Range of projects
- Access Management Plan

Monitoring and Surveys

Ongoing monitoring and surveys will be necessary to measure the effect upon the birds within the harbour and their behaviours. Further information is also needed about visitors using the harbour and the different recreational activities which are being carried out.

The monitoring and surveys will help to inform the effectiveness of the mitigation measures and whether any changes or adjustments will be necessary.

A schedule for monitoring and surveying is set out Poole Harbour Special Protection Area (SPA): monitoring strategy relating to the strategic mitigation scheme for impacts from recreation (2018).

Warden/Ranger

The warden/ranger role will continually visit all parts of the harbour coastline to provide an active presence and engagement with visitors and landowners. The warden/ranger would educate visitors and enforce where necessary. The harbour coastline stretches 100km so the warden/range is anticipated to be largely on-site although there will also be an element of off-site associated to the role (for example, school visits or attending meetings). It may be that the warden/range may be able to assist with some of the monitoring/surveys which need to be carried out. It is envisaged that this would initially require one full time post all year round.

Co-ordinator

This role would be important in liaising with various statutory stakeholders including Borough of Poole; Purbeck District Council; Natural England; and Poole Harbour Commissioners; and landowners to determine the strategic delivery of managing recreation activity in the harbour.

The role would also overview the monitoring and surveying, and projects which are carried out as part of the strategy, as well as collation and review of data and reports to inform recreational management.

It is envisaged that initially this would require a part-time post, all year round.

Projects

The projects for the strategy will be initially focussed around the measures discussed above, having regard to current evidence which identifies which activities are considered to cause the disturbance to birds and the locations around the harbour where such disturbance could take place. The additional surveying to be carried out under the strategy will however, help to determine which projects are likely to be most effective in mitigating harm as well as identifying other suitable projects going forward.

Access Management Plan

The development of an 'Access Management Assessment' project will also be commissioned in order to:-

- Identify locations where bird disturbance is, or could become, an issue
- Identify the most appropriate interventions to reduce/avoid disturbance in each location
- Consider emerging intervention proposals with Partnership rangers, organisations and wider stakeholders

The above measures would be regarded as Strategic Access and Monitoring (SAMM).

In addition to this some infrastructure projects may also be necessary to provide physical improvements or facilities.

4. Conclusions

From the studies and surveys which have been carried out to date, it is evident that some recreational activities are having an adverse effect upon the behaviour of birds within Poole Harbour.

Future development planned close to the harbour within Poole and Purbeck will result in increased visitors and greater effect upon these important birds.

As highlighted in Habitat Regulations Assessments, a mitigation strategy is required to mitigate the effects of this development. The measures discussed and set out in the strategy are considered to be a robust and effective response.

This background paper supports the strategy as set out in the Poole Harbour Recreation Supplementary Planning Document (SPD).

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