



## Section 2 Management Matrix

# Poole Harbour Aquatic Management Plan



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This section of the Plan contains a Matrix which shows a summary of activities taking place in Poole Harbour, their potential impacts, and their current and proposed management. Each activity has been numbered and colour coded so to refer to the relevant section of the main Base Plan document listed. The Matrix also provides lead authorities for each of the activities and contact details for these can be found in the Appendices.

### Abbreviations:

<b>AMP</b> – Asset Management Plan	<b>MMO</b> – Marine Management Organisation
<b>BASC</b> – British Association for Shooting & Conservation	<b>NE</b> – Natural England (English Nature)
<b>BMF</b> – British Marine Federation	<b>NT</b> – National Trust
<b>BoP</b> – Borough of Poole	<b>NVZ</b> – Nitrate Vulnerable Zone
<b>BP</b> – British Petroleum	<b>PDC</b> – Purbeck District Council
<b>DCC</b> – Dorset County Council	<b>PHC</b> – Poole Harbour Commissioners
<b>DWASC</b> – Dorset Wildfowlers Association for Shooting & Conservation	<b>PMT</b> – Poole Maritime Trust
<b>DWT</b> – Dorset Wildlife Trust	<b>PYA</b> – Poole Yachting Association
<b>EA</b> – Environment Agency	<b>RM</b> – Royal Marines
<b>EH</b> – English Heritage	<b>RSPB</b> – Royal Society for the Protection of Birds
<b>EIA</b> – Environmental Impact Assessment	<b>RYA</b> – Royal Yachting Association
<b>EMS</b> – European Marine Site	<b>SIMCAT</b> – Simulate Observations Using Space Catalog
<b>EU</b> – European Union	<b>SMP</b> – Shoreline Management Plan
<b>HCO</b> – Harbour Control Officer	<b>SSFDC</b> – Southern Sea Fisheries District Committee
<b>MARPOL</b> – International Convention for the Prevention of Pollution from Ships	<b>STW</b> – Sewage Treatment Works
<b>MCA</b> – Maritime & Coastguard Agency	<b>TBT</b> – Tributyltin
<b>MCS</b> – Marine Conservation Society	<b>UV</b> – Ultra Violet
	<b>WW</b> – Wessex Water Services Ltd

## Contents Table:

This table lists the activities and their given number as found in the Matrix. Activities directly relevant to the management of the European Marine Site are highlighted in green text.

No.	Activity	No.	Activity
1	Grazing of Sika Deer	22	Pilotage & marine traffic management
2	Nutrient enrichment, (diffuse agricultural run-off)	23	Maintenance dredging
3	Use of pesticides & herbicides	24	Capital dredging
4	Soil erosion	25	Anchoring
5	Discharges from industry	26	All recreational activity
6	Airborne emissions from traffic, industry & vessels	27	Yacht racing
7	Discharge of treated effluent from STW	28	Other non-motorised watercraft
8	Overflow of sewage from sewerage network	29	Windsurfing and Kitesurfing
9	Use of antifouling paints	30	Wildfowling
10	Use of sacrificial anodes	31	Dog walking and uncontrolled dogs
11	Ballast water transfer	32	Illegal egg collecting
12	Discharge of waste from commercial & recreational vessels	33	Unauthorised landing on shorelines
13	Marine & terrestrial littering	34	Shoreline & intertidal based development
14	Managing the shoreline	35	Yachting
15	Shellfish dredging	36	Motor boating
16	Drift and set net fishing	37	Moorings
17	Eel fishing	38	Water-skiing / Wakeboarding and Personal Watercraft
18	Bait digging	39	Low flying aircraft & helicopters
19	Bait dragging	40	Chemical transportation by ship & storage on land
20	Use of Hovercraft	41	Archaeological excavations
21	Illegal fishing		

No.	Activity	Reference Point	Potential Impacts	Current Management	Proposed Management	Lead Authorities
1	Grazing of Sika Deer	5.9.2	Trampling and loss of saltmarsh and reedbed habitat	Deer management takes place and effects are monitored.	Monitor to assess whether further management is required	NE, RSPB
2	Nutrient enrichment, (diffuse agricultural run-off)	6.2	Algal blooms and mats-smothering of foreshore & oxygen depletion	Catchment sensitive farming initiative Designation of nitrate vulnerable zones (NVZ) and Harbour as a nitrate sensitive area	Undertake appropriate measures to reduce nitrate input into Poole Harbour to be identified through a nutrient reduction plan developed by NE, EA and Wessex Water Monitor the persistence of algal mats through the year	EA, NE, WW
3	Use of pesticides & herbicides	6.2	Fish, invertebrate & plant mortality	Not currently identified as an issue in the River Frome and Piddle catchment	None at present as currently not an issue	EA, NE
4	Soil erosion	6.2	Increased turbidity- smothering of shellfish & reduced prey visibility	Catchment sensitive farming initiative	Increase uptake of appropriate farming practices through the catchment sensitive farming initiative	EA, NE
5	Discharges from industry	6.4	Build up of heavy metals and other chemicals in sediments Introduction of harmful aquatic organisms and pathogens into the environment	Ongoing monitoring to assess compliance with EU Directives and monitoring discharges	Ongoing monitoring to assess compliance with EU Directives and monitoring discharges	EA
6	Airborne emissions from traffic, industry & vessels	6.4	Potential for toxic contamination	Ongoing monitoring of air quality by local councils Permits required by shore based industry	None at present	BoP, PDC, Shipping operators

No.	Activity	Reference Point	Potential Impacts	Current Management	Proposed Management	Lead Authorities
7	Discharge of treated effluent from STW	6.5	Eutrophication from nitrate & phosphate discharge. May also contain harmful pathogens	Upgrade of STWs with UV disinfection complete. Nitrate reduction plant installed at Poole STW	<p>Undertake appropriate measures to reduce nitrate input into Poole Harbour to be identified through a nutrient reduction management plan developed by NE, EA and WW</p> <p>Wessex Water to assess the contribution their assets are having to nitrogen inputs into the Harbour using EA SIMCAT model</p> <p>Wessex Water investigating bacterial inputs from Corfe Castle and Studland STWs</p>	NE, WW, EA
8	Overflow of sewage from sewerage network	6.5	Eutrophication from nitrate & phosphate discharge. May also contain harmful pathogens	Provision of additional storm storage and settlement tank capacity, in accordance with AMP4 programme of work	Investigate opportunities for upgrades to the existing system	WW, EA
9	Use of antifouling paints	6.6	Toxic contamination of water and sediment with problems of bio-accumulation	<p>EU Regulations restricting the use of TBT based paints</p> <p>Best Practice Guidance for boatyards</p>	<p>Education of boatyards, yacht clubs and owners on best practice</p> <p>Promotion of The Green Blue initiative</p>	Shipping operators, PHC, EA, PYA, BMF, RYA
10	Use of sacrificial anodes	6.6	Possible adverse effect on marine fauna from heavy metals, primarily zinc	<p>Ongoing research</p> <p>Review of existing research by The Green Blue project</p>	Promotion of The Green Blue initiative	EA, BMF, RYA, PHC, PYA

No.	Activity	Reference Point	Potential Impacts	Current Management	Proposed Management	Lead Authorities
11	Ballast water transfer	6.6	Introduction of harmful aquatic organisms and pathogens into the environment	European strategy	Review future guidance	MCA, PHC, EA, Shipping operators
12	Discharge of waste from commercial & recreational vessels	6.6	Potential for discharge of contaminated bilge water & sewage discharge, as well as litter, with potential impacts on marine life & water quality.	Ongoing monitoring to assess compliance with EU Directives and monitoring discharges  The International Convention for the Prevention of Pollution from Shipping 1973 (MARPOL 73/78  Harbour byelaws and implementation of Port Waste Management Plan	Awareness raising information published in Poole Harbour Guide and Poole Quay Boat Haven Guide annually  Promotion of The Green Blue initiative	PHC, EA, MCA, RYA, Shipping operators
13	Marine & terrestrial littering	6.7	Birds & mammals can become entangled in or ingest litter	Enforcement through existing byelaws and legislation	Look to organise annual beach cleans around the Harbour.  Awareness raising information published in Poole Harbour Guide and Poole Quay Boat Haven Guide annually	PHC, BoP, PDC, MCS, Keep Britain Tidy, Landowners

No.	Activity	Reference Point	Potential Impacts	Current Management	Proposed Management	Lead Authorities
14	Managing the shoreline	Chapter 7	<p>Direct smothering by man-made structures &amp; indirectly due to changes in sedimentation process</p> <p>Potential damage to coastal / intertidal archaeology</p> <p>Changes to Harbour regime and intertidal and coastal habitats</p> <p>Need for increased dredging to deal with increased erosion, may result in faster currents</p> <p>Sea level rise</p> <p>Deteriorating condition of tidal floodbanks</p> <p>Increased flooding of residential areas</p>	Shoreline Management Plan 2 recently completed	Poole Bay Coastal Strategy in progress – this will investigate sediment movement, coastal processes and the future management of the shoreline in more detail	NE, EA, PHC, BoP, PDC

No.	Activity	Reference Point	Potential Impacts	Current Management	Proposed Management	Lead Authorities
15	Shellfish dredging	8.2	<p>Displacement of birds from breeding, feeding &amp; roosting grounds</p> <p>Over exploitation of shellfish stocks</p> <p>Possible damage to eel grass beds and subtidal habitats by dredging equipment</p> <p>Detrimental effects on non target species</p>	<p>Management by SSFDC using existing byelaws</p> <p>Licensing for clam fishery by SSFDC</p> <p>Clam licence conditions advise holders to stay out of eelgrass beds within the harbour (and have been issued with maps to identify areas)</p> <p>Eelgrass beds re marked with signage saying no trawling</p>	<p>Promote awareness of Bird Sensitive Areas and eelgrass</p> <p>Produce code of conduct for fishermen</p> <p>Enforce byelaws</p>	SSFDC, NE
16	Drift and set net fishing	8.2	<p>Over exploitation of fish stocks</p> <p>Birds caught in unattended nets</p> <p>Possible navigation hazard to recreational yachts &amp; commercial shipping</p>	<p>Management using existing SSFDC and Harbour byelaws</p>	<p>Anti-poaching work ongoing</p> <p>SSFDC continue their practice of making fishermen aware during inspections and boardings</p>	SSFDC, NE, EA, PHC
17	Eel fishing	8.2	<p>Death of otters trapped in fyke nets without otter guards and over exploitation of eel stocks</p>	<p>Enforcement using existing legislation by EA</p>	<p>EA licensing and antipoaching work ongoing</p>	NE, EA

No.	Activity	Reference Point	Potential Impacts	Current Management	Proposed Management	Lead Authorities
18	Bait digging	8.2.6	<p>Direct loss of individual bait species</p> <p>Displacement of birds from breeding, feeding &amp; roosting grounds</p> <p>Unfilled holes left in foreshore</p> <p>Damage to intertidal archaeology</p> <p>Possible physical damage to habitat, flora &amp; fauna</p>	Education through production of bait digging leaflet	<p>Prepare map of known and potential areas of intertidal archaeology for the Harbour</p> <p>Promote awareness of Bird Sensitive Areas</p> <p>Disseminate baitdigging leaflet</p> <p>Commission further research into the impacts and extent of bait digging</p> <p>Improve the management of baitdigging where potential conflict between bait digging and the nature conservation interest of the Harbour</p>	Landowners NE, PDC, BoP
19	Bait dragging	8.2.6	<p>Direct loss of individual bait species</p> <p>Displacement of birds from breeding, feeding &amp; roosting grounds</p> <p>Damage to seabed archaeology</p> <p>Possible physical damage to habitat, flora &amp; fauna</p>	None at present	<p>Monitor location of activity. Raise awareness amongst users of the location of sensitive sites within the Harbour</p>	NE

No.	Activity	Reference Point	Potential Impacts	Current Management	Proposed Management	Lead Authorities
20	Illegal fishing	8.2.8	Over exploitation of fish stocks  Conflict with authorities and other Harbour users  Possible physical damage to habitat and disturbance to wildlife	Enforcement operations and prosecution through existing byelaws	Increase policing effort to catch & prosecute illegal fishermen	SSFDC, EA, NE
21	Use of Hovercraft	Chapter 9 & 5.8.4	Disturbance to birds	Authorisation from PHC required	Continued liaison with users and awareness raising of sensitive times and sensitive parts of the Harbour	PHC, NE
22	Pilotage & marine traffic management	Chapter 9	Potential for collision, grounding and pollution incident	Compulsory pilotage for vessels of a certain size  Poole Marine Safety Plan  Channel routinely surveyed and dredged and navigation aids maintained  Oil spill contingency plan in place  Continue exercises and review of plans in accordance with regulations	Continue with existing management and other initiatives	PHC

No.	Activity	Reference Point	Potential Impacts	Current Management	Proposed Management	Lead Authorities
23	Maintenance dredging	9.5	<p>Removal of sediment from system- loss of intertidal habitat.</p> <p>Increased turbidity- reduced prey visibility for birds &amp; fish</p> <p>Direct physical damage to seabed.</p> <p>Remobilisation of contaminants in bed sediment</p>	Sediment Management Plan & Maintenance Dredging Policy	<p>Poole Harbour Maintenance Dredging &amp; Disposal Plan will be written that will include alternative dredging techniques and beneficial use of dredgings</p>	PHC, SSFDC, EA, NE, BMF, MMO
24	Capital dredging	9.5 & 11.1.2	<p>Removal of sediment from system</p> <p>Increased turbidity</p> <p>Direct physical damage to seabed and benthic flora and fauna</p> <p>Remobilisation of contaminants in bed sediment</p> <p>Direct physical damage to submerged archaeology</p>	National & local consents	<p>Ongoing monitoring</p> <p>Commission further research into potential impacts</p> <p>Set up reporting protocol for any archaeological objects recovered</p> <p>Ensure archaeological interests are included in any EIA</p>	PHC, SSFDC, EA, NE, BMF, MMO
25	Anchoring	5.8.5	<p>Displacement of birds from feeding &amp; roosting grounds</p> <p>Damage to subtidal habitat and communities</p>	Identification of anchorage sensitive zones and promotion of bird sensitive leaflets and eelgrass leaflets	<p>Monitor effectiveness of anchorage sensitive zones</p> <p>Awareness raising of relevant user groups</p>	PHC, SSFDC, NE

No.	Activity	Reference Point	Potential Impacts	Current Management	Proposed Management	Lead Authorities
26	All recreational activity	Chapter 10	<p>Possible conflict with other recreational and commercial users</p> <p>Possible disturbance to wildlife and habitats</p>	<p>Regular liaison meetings between PHC and some users groups</p> <p>Zoning of activities, and restrictions of permits speed limits, byelaws</p>	<p>Review effectiveness of current recreational zoning</p> <p>Annual recreational surveys</p> <p>Evaluate effectiveness &amp; adequacy of existing launch sites</p> <p>Review existing codes of practice for users</p> <p>Investigate setting up workshops &amp; presentations with user groups</p>	PHC, BMF
27	Yacht racing	10.2	Potential for accidents from use of shipping channels by racing yachts	<p>Active liaison between Harbour Control and Race Officers</p> <p>Good communication between HCO and Race Officer</p> <p>Agreed procedures for racing</p>	Continue to progress measures to reduce conflict between commercial and recreational activities and between recreational activities and the nature conservation interest of the site	PHC, PYA
28	Other non-motorised watercraft	10.8	<p>Possible displacement of birds from feeding grounds</p> <p>Trampling of saltmarsh &amp; reedbeds by people landing in remote areas</p>	Existing restrictions on beach landing	<p>Monitor activity to verify whether further management measures required</p> <p>Develop codes of practice for users</p> <p>Promote awareness of Bird Sensitive Areas</p>	PHC

No.	Activity	Reference Point	Potential Impacts	Current Management	Proposed Management	Lead Authorities
29	Windsurfing and Kitesurfing	10.3 & 10.4	<p>Possible displacement of birds from feeding grounds</p> <p>Conflict with other water users, especially kitesurfers</p>	<p>Zoning of activity, and enforcement of byelaws</p> <p>Windsurf area realigned so as to not overlap eelgrass beds</p> <p>Kite surfing code of conduct produced</p>	<p>Monitor activity to verify whether further management measures required</p> <p>Disseminate kite surfing code of conduct</p>	PHC
30	Wildfowling	10.10	<p>Direct mortality of individual species</p> <p>Possible displacement of birds from roosting &amp; feeding grounds</p>	<p>DWASC have existing management plans</p> <p>Wildfowling takes place through a lease of sporting rights granted to DWASC by The Crown Estate</p> <p>DWASC permits required to shoot</p> <p>Bag statistics and visit numbers are analysed by BASC and reported on annually to NE and The Crown Estate</p> <p>No-shooting areas are designated and managed by DWASC</p> <p>Season restricted to 1<sup>st</sup> September to 20<sup>th</sup> February</p>	<p>Monitor activity to verify whether further management measures required</p> <p>Identify on a map, important areas for breeding &amp; feeding birds which users could potentially disturb</p> <p>Improve communication between wildfowlers, statutory bodies and conservation organisations</p>	<p>BASC, DWASC, RSPB, DWT, NE, NT, The Crown Estate</p>

No.	Activity	Reference Point	Potential Impacts	Current Management	Proposed Management	Lead Authorities
31	Dog walking and uncontrolled dogs	5.8.4 Chapter 10	Displacement of birds from breeding, feeding & roosting grounds	Some restricted access to foreshore. The Borough of Poole has installed new signs providing information for owners about controlling dogs around birds.	Monitoring to assess whether further management required through visitor questionnaires, surveys and shore based activity counts	Landowners BoP, NE, DCC
32	Illegal egg collecting	5.8.4 Chapter 10	Removal of eggs, reducing population and causing disturbance	Enforcement through existing national legislation	Appropriate controls in place to alert authorities of illegal egg collecting and surveillance monitoring to prevent further activity  Parties undertaking any scientific research within the harbour contact PHC so when Harbour Control get reports of trespass or illegal activity such as egg collecting they know if it is a bonafide party or not	NE, RSPB, DWT
33	Unauthorised landing on shorelines	Chapter 10 5.8.4	Possible disturbance to breeding, feeding and roosting birds  Damage to intertidal habitats	Landowners permission required	Raise awareness eg appropriate dissemination of Bird Sensitive Areas Leaflet and Harbour Guide.  Monitor situation	PHC, Landowners, DWT, RSPB

No.	Activity	Reference Point	Potential Impacts	Current Management	Proposed Management	Lead Authorities
34	Shoreline & intertidal based development	Chapter 10 5.8.4	<p>Direct smothering by man-made structures e.g. jetties &amp; slipways &amp; indirectly due to changes in sedimentation process.</p> <p>Displacement of birds from feeding grounds due to visual disturbance</p> <p>Potential damage to coastal / intertidal archaeology</p> <p>Sea level rise</p>	Regulation through national and local consenting process and local planning controls	Appropriate dissemination of guidance on how small developments could be designed to minimise adverse impacts on the foreshore	PHC, NE, BoP, PDC, MMO
35	Yachting	10.2	<p>Displacement of birds from feeding grounds</p> <p>Potential navigational hazard to large commercial vessels</p>	<p>Enforcement through existing byelaws</p> <p>Education of boat owners &amp; clubs</p>	<p>Review existing codes of practice for users</p> <p>Promote awareness of Bird Sensitive Areas</p> <p>Annual recreational surveys</p> <p>Continue with existing liaison and safety meetings</p>	PHC, PYA, BMF

No.	Activity	Reference Point	Potential Impacts	Current Management	Proposed Management	Lead Authorities
36	Motor boating	10.2	<p>Danger to other water users and possible disturbance due to noise</p> <p>Potential disturbance to wildlife of the Harbour</p> <p>Pollution from oil and fuel</p>	<p>Regulation through existing Harbour byelaws and speed limits</p> <p>Zoning of activities and speed restrictions in quiet area</p>	<p>Evaluate effectiveness &amp; adequacy of existing launch sites</p> <p>Annual recreational surveys</p> <p>Review codes of practice for users</p> <p>Promotion of The Green Blue initiative</p> <p>Investigate setting up workshops &amp; presentations with user groups</p>	PHC, BoP, BMF
37	Moorings	10.2.3	<p>Displacement of birds from feeding grounds</p> <p>Damage to subtidal habitat and communities</p>	<p>Poole Harbour Commissioners Moorings Policy</p>	<p>Review moorings policy to ensure adequate facilities for users and to minimise potential impact on EMS</p>	PHC, EA, PYA, Commercial Operators
38	Water-skiing / Wakeboarding and Personal Watercraft	10.5 & 10.6	<p>Possible displacement of birds from feeding grounds due to wash and noise</p> <p>Danger to other water users and disturbance due to noise</p>	<p>Exclusion from quiet area and restrictions on landing on Brownsea Island</p> <p>Zoning of activity, and restrictions of permit and speed limits</p> <p>Limited launch sites</p>	<p>Review effectiveness of current recreational zoning</p> <p>Annual recreational surveys</p> <p>Evaluate effectiveness &amp; adequacy of existing launch sites</p> <p>Review existing codes of practice for users</p> <p>Investigate setting up workshops &amp; presentations with user groups</p>	PHC, BoP

No.	Activity	Reference Point	Potential Impacts	Current Management	Proposed Management	Lead Authorities
39	Low flying aircraft & helicopters	Chapter 11 5.8.4	Disturbance to birds Noise pollution over urban areas	Routing by Air Traffic Control	Initiate discussions with relevant authorities regarding setting up no fly zones	NE, RSPB, RM, MCA, BP, Bournemouth Airspace Control
40	Chemical transportation by ship & storage on land	Chapter 13	Chemical spill- mortality of birds, mammals, fish and other fauna Smothering of intertidal habitats and long-term persistence of chemicals in sediment	PHC oil spill contingency plan, "Poolspill" MCA ensure compliance with National Contingency Plan	Ensure equipment and personnel are readily available to respond to an incident in accordance with established and up-to-date oil spill contingency plans	PHC, BoP, PDC, DCC, MCA
41	Archaeological Excavations	Chapter 14	Damage to subtidal habitat and communities	Existing guidance	None at present	EH, DCC, Landowners Developers