



Marine
Management
Organisation

Stage 4 Marine Protected Areas: Guidance note for online WebApps



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Stage 4 Marine Protected Areas: Guidance note for online WebApps

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1 Introduction

To support engagement on Stage 4 marine protected areas (MPAs), MMO have developed interactive WebApps.

This document provides guidance on how to access and make the most of each WebApp, to help users provide informed consultation responses.

To ensure compliance with INSPIRE regulations¹, all spatial data and coordinates are provided in the European Terrestrial Reference System 1989 (ETRS89) and maps and WebApps are displayed in the projection ETRS89 Lambert Azimuth Equal Area (ETRS89 LAEA). This also ensures the complex marine environment is displayed in a clear and consistent manner. While the World Geodetic System 1984 (WGS84) is more commonly used by fishers, the systems are compatible. Any GPS WGS84 positions can be plotted on ETRS89 maps and vice versa.

2 How do I...

2.1 Access the WebApps?

The WebApps, their key components and their web location are detailed in **Annex 1**.

2.2 Navigate the map?

There are two ways to zoom and pan or navigate the maps displayed within the WebApps:

1. Within the map itself.
2. Using the List of MPAs displayed to the left of the WebApp.

Navigating within the map

To navigate within the map itself, hover the mouse over the map.

¹ INSPIRE regulations: ico.org.uk/for-organisations/foi-eir-and-access-to-information/inspire-regulations/do-the-inspire-regulations-apply-to-me/ (Last accessed 22 July 2024)

To alter the extent of the map by zooming in or out, users may scroll using the mouse wheel while hovering over the map or left-click on either the plus or minus zoom buttons in the bottom right-hand corner of the map:



The '+' button zooms in to the map, whereas the '-' buttons zooms out of the map.

To pan or move around the map, users can click and hold the left mouse button and drag/move the map around within the map window.

Navigating using the List of MPAs

In all WebApps, the 'List of MPAs' is displayed to the left of the main map; an example is shown in the image below.

Stage 4 Marine Protected Areas	
	Bristol Channel Approaches / Dynesfeydd Môr Hafren
	Greater Wash
	Liverpool Bay / Bae Lerpwl
	Outer Thames Estuary
	Southern North Sea

The list is designed to enable users to locate and explore the data layers associated with specific MPAs. The MPAs are listed in alphabetical order.

Note - the user may need to scroll to see the full list.

Clicking on an MPA within the list will select the MPA. Only one MPA can be selected at a time from the list. Selecting an MPA from the list will result in a blue bar appearing next to the MPA name to show it has been selected and cause the main map to zoom to the selected MPA. The border of the selected MPA will flash blue for a few seconds on the main map to highlight its location. Clicking the same MPA a second time within the list will deselect it and cause the map to zoom out to the original full map extent. Clicking a different MPA within the list will deselect the previous MPA and cause the main map to zoom to the newly selected MPA.

Note – When an MPA is selected directly in the map, a pop-up box appears on the main map detailing the name of the MPA.

2.3 Display and hide data layers?

By default, all key data layers present in the map are displayed on the map when the WebApp is first opened. To avoid confusion and map cluttering other layers included in the WebApp are not displayed when the WebApp is first opened.

Identifying available data layers

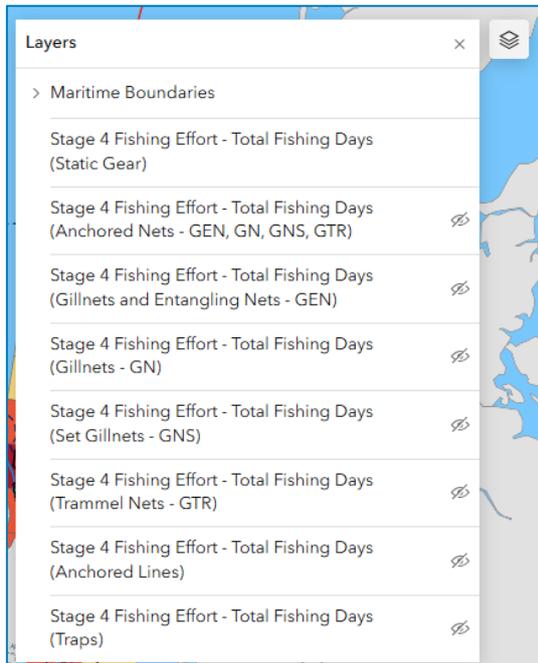
It is possible to display ('turn on') or hide ('turn off') data layers as necessary. Data layers within a map can be turned on and off where you see the following symbol in the top right-hand corner of the map:



This is the layer visibility icon (see top right of the image below).

Note - if this icon is not visible, turning data layers on and off will not be possible for that map.

Clicking on the layer visibility icon will open a window showing the data layers included in the map, as shown in the image below.



Clicking on the layer visibility icon a second time, or clicking 'x', will close the window. Data layers are listed by name, in the order in which they appear on the map.

Displaying and hiding data layers

The eye icon indicates whether the data layer is visible/displayed on the map. Users are able to manage which data layers are visible on the map by clicking on the eye icon. The eye icon without a diagonal line across it indicates that the layer is visible or 'on' whereas an eye icon with a diagonal line across it indicates the layer is hidden or 'off' on the map (see the image above). Clicking the eye icon turns the layer visibility 'on' or 'off'. The eye icon remains visible when the layer is hidden or 'off', The eye icon is not displayed in the list when the layer is 'on'. To confirm whether a layer is turned on, or to change a layer from on to off hover over the layer in the list to display the eye icon.

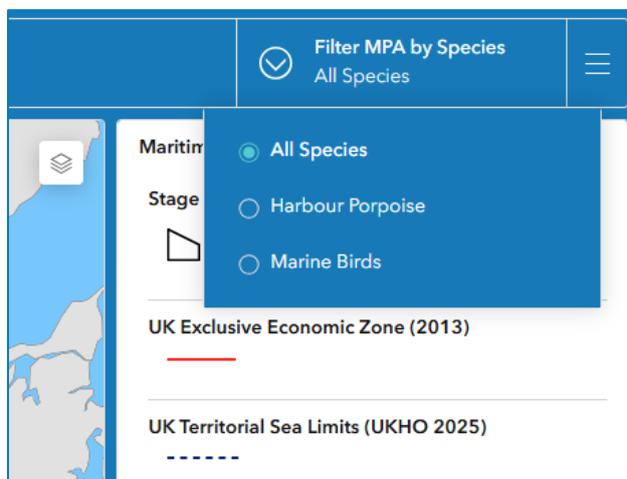
Layer visibility can be turned on or off. Using the image above as an example, clicking the eye icon next to 'Stage 4 Fishing Effort – Total Fishing Days (Static Gear)' would turn 'off' the 'Stage 4 Fishing Effort – Total Fishing Days (Static Gear)' data layer, making them no longer visible within the map.

Note - layers which are turned 'off' are also removed from the Legend until they are turned back 'on'.

By default, the map displays all Stage 4 MPAs, including those designated for harbour porpoise and marine bird species.

Displaying and hiding bird or harbour porpoise MPAs

It is possible to display ('turn on') or hide ('turn off') either the harbour porpoise MPAs or the bird MPAs. Left clicking on the "Filter MPA by Species" box in the top right corner of the map will open the window displayed in the image below. Left clicking on "All Species" will display all Stage 4 MPAs in the map. Left clicking on "Harbour Porpoise" will display only the MPAs designated for harbour porpoise in the map. Left clicking on "Marine Birds" will display only the MPAs designated for birds in the map.



2.4 Use the legend?

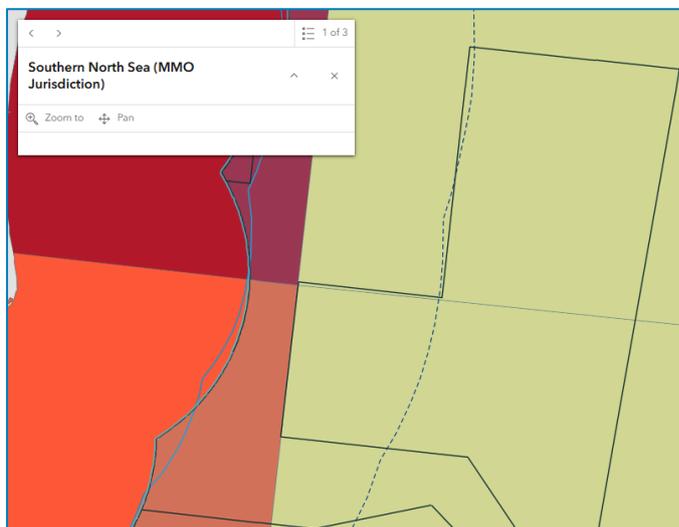
The legend lists the data layers visible in the main map. Users may need to scroll down through the legend to view the desired data layer.

Note - the legend does not display data layers from the Overview Map, or layers in the main map which have been ‘turned off’ using the layer visibility icon – see Section 2.3 above)

Layers in the legend are arranged in the order in which they appear on the map.

2.5 Interrogate map data?

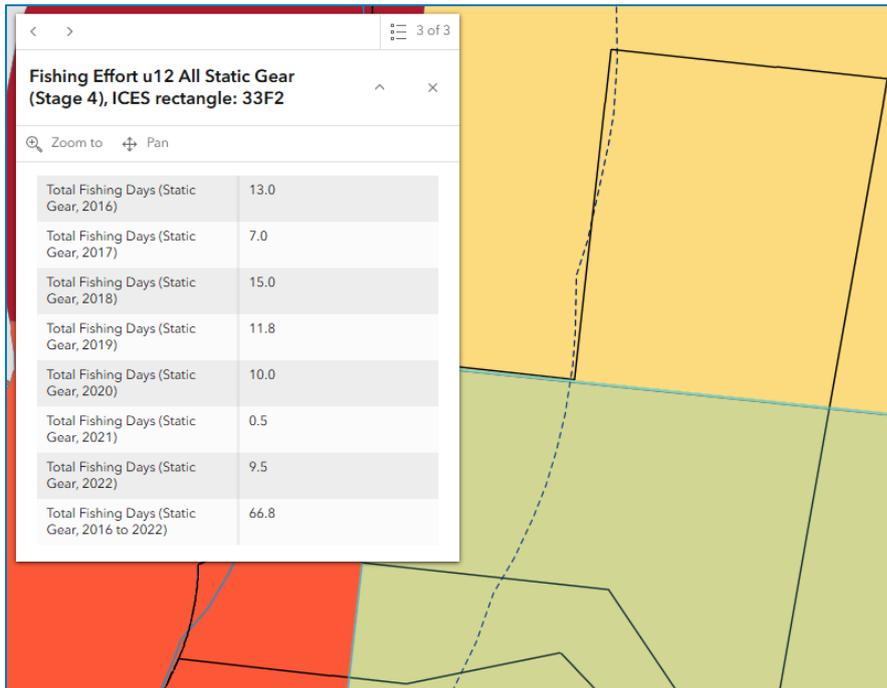
Left clicking on the map window will select all the portions of data under the mouse/cursor. The selected data will be in purple, as detailed in the image below:



Upon selecting data, a pop-up box appears displaying additional information concerning the selected data. As per the image above, if multiple data layers are selected, for example where different data layers overlap, the pop-up box will contain left and right arrows to navigate to the different information available for the selected data layer.

For example, in the image above a ‘Stage 4 Fishing Effort – Total Fishing Days (Static Gear)’ grid cell has been selected. The selected cell overlaps with the ‘Southern North Sea (MMO Jurisdiction)’ and the ‘Outer Thames Estuary (MMO Jurisdiction)’ data layers. As a result, the pop-up box shows ‘1 of 3’ in the top right-hand corner. The pop-up box currently displays the Southern North Sea (MMO Jurisdiction) layer. To view the additional pop-up information for the selected component of the ‘Stage 4 Fishing Effort – Total Fishing Days (Static Gear)’ data layer, left-click on the right pointing triangular arrow button next to ‘1 of 3’ to move to pop-up display ‘2 of 3’ and then ‘3 of 3’ as per the image below.

The pop-up box now displays the ‘Stage 4 Fishing Effort – Total Fishing Days (Static Gear)’ for the selected grid cell.



3 Contact

If you would like further information on how to use the WebApps, please get in touch with us: conservation@marinemanagement.org.uk.

Annex 1 – MMO Stage 4 MPA WebApps

Title	Key map contents	Link
Fishing Effort (UK) under 12m, Stage 4 MPAs, Static Gear (2016 to 2022)	<ul style="list-style-type: none"> • Stage 4 MPAs • Static gear fishing effort from under 12 m vessels 	https://defra.maps.arcgis.com/apps/dashboards/e22cfbcbc45d42ea877f2ab3c6c1f2b4
Fishing Effort (UK) under 12m, Stage 4 MPAs, Bottom Towed Gear (2016 to 2022)	<ul style="list-style-type: none"> • Stage 4 MPAs • Bottom towed gear fishing effort from under 12 m vessels 	https://defra.maps.arcgis.com/apps/dashboards/485b757efe9d40bf839ffef4cf2641ad
Fishing Effort (UK) under 12m, Stage 4 MPAs, Midwater Gear (2016 to 2022)	<ul style="list-style-type: none"> • Stage 4 MPAs • Midwater gear fishing effort from under 12 m vessels 	https://defra.maps.arcgis.com/apps/dashboards/8921e908e3e14635a2170865c5468a59
VMS Report Density (over 12m) in Stage 4 MPAs, Static Gear (2016 to 2022)	<ul style="list-style-type: none"> • Stage 4 MPAs • Static gear VMS report density 	https://defra.maps.arcgis.com/apps/dashboards/3326387e6c8340ecb9bf533c7892c06c
VMS Report Density (over 12m) in Stage 4 MPAs, Bottom Towed Gear (2016 to 2022)	<ul style="list-style-type: none"> • Stage 4 MPAs • Bottom towed gear VMS report density 	https://defra.maps.arcgis.com/apps/dashboards/f14d81ed79a54af990c4e12e6aa50341
VMS Report Density (over 12m) in Stage 4 MPAs, Midwater Gear (2016 to 2022)	<ul style="list-style-type: none"> • Stage 4 MPAs • Midwater gear VMS report density 	https://defra.maps.arcgis.com/apps/dashboards/f12426a4484741078941eff59374f34

Annex 2 – Glossary of terms

Data layer - a data layer displays geographic data in a map. For example, the 'Stage 4 Marine Protected Areas (MMO Jurisdiction)' data layer displays the geographic boundaries of the Stage 4 Marine Protected Areas (MPAs) relevant to this engagement.

Legend - a list of the data layers displayed in the map and the symbols or colours which depict them in the 'main map' to permit a better understanding or interpretation of it.

Main map - the largest map in the centre of the screen where the key data will be displayed such as the highly protected marine areas.

WebApp - an application for viewing, interrogating and experiencing digital maps and data.