



**BLUE MARINE
FOUNDATION**



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Background to oyster nurseries/oyster gardening

This short technical document is intended to be used as an appendix and in combination with the 'Guide to Oyster Nurseries UK & Ireland' and provides more detail around the process involved in establishing a nursery for oyster restoration in the UK (some details may vary depending on region and will likely be different outside of the UK).

Regardless of your decision to use broodstock nurseries to increase larval supply and/or other systems to on grow juveniles, you will need to follow a series of steps to ensure you comply with current regulations in the area you are working. This document has been written with the process required in England (correct in May 2023). It is essential that you check the regulations in the area you are working and that they are up to date. The systems detailed are recommendations but can be modified to suit.

Step 1: register an aquaculture production business or aquatic animal holding

Despite the intention to use these systems for restoration purposes and as a 'production business' in the traditional sense, it is still a requirement to apply to the Fish Health Inspectorate (FHI) for authorisation to set up a new aquaculture production business or aquatic animal holding - all government advice can be found here: <https://www.gov.uk/guidance/fish-shellfish-or-crustacean-farm-authorisation#how-to-apply-for-authorisation>

Fish Health Inspectorate

Email: fhi@cefas.co.uk

Telephone: 01305 206 700 Out of hours: 07833 293506

Monday to Thursday, 9am to 5pm and Friday 9am to 4:30pm

Complete AW1 Form to Authorise a fish or shellfish farm or aquatic animal holding.

Points to note and recommended steps:

- Section two - Select shellfish farm
- Section two - type will be cages, scallop trays/miniplate or AP6 depending on your choice. It may be best to select a number of methods not to restrict the use of additional methods
- Section 3 - water details - N/A
- Section 4 - fill for appropriate supplier (see step 3 for examples)
- Section 4 - Common name: European flat oyster or Native oyster / Latin Name: *Ostrea edulis*
- Section 4 - End use of stock: Restoration
- Section 5 - leave blank
- Section 6 - provide site map
- **Required documents** - Habitat Regulation Assessments (HRA) are required if the site falls within a Special Area of Conservation (SAC), Special Protection Areas (SPAs) and / or RAMSAR site(s). **A template is provided within this pack and must be amended for the site(s) in new applications. SSSI consent may also be required from Natural England, it is always best practice to engage with the local NE team regardless to make them aware of any activities.**



Step 2: Ensuring the risk of disease and invasive non-native species introductions is minimised

Establish and follow a Shellfish biosecurity measures plan ([BMP](#)) - a template is also provided within this pack. As native oysters are molluscs the following species will need to be considered for their disease status in the donor and recipient sites as part of the plan. See the OIE list of notifiable diseases:

Notifiable disease/Species	Disease status
Bonamiosis - <i>Bonamia exitiosa</i>	Declared free
Bonamiosis - <i>Bonamia ostreae</i>	Declared free except control areas Menai Strait, Lizard to Start Point, Portland Bill to Selsey Bill, North Foreland to Landguard Point and St Ann's Head to Linney Head
Dermo disease/Chronic wasting disease - <i>Perkinsus marinus</i>	Declared free
Marteiliosis, digestive gland disease, Aber disease - <i>Marteilia refringens</i>	Declared free except control area River Tamar
Mikrocytos mackini	Declared free
Oyster herpesvirus - Oyster herpesvirus-1 microvariant	Declared free except control areas Poole Harbour, River Teign Lee-over-sands to Port Richborough, ButleyCreek, and Essex, Kent and Suffolk

It is also important to put measures in place to prevent the spread of invasive non-native species (INNS).

For Solent or south coast specific projects:

Biosecurity systems are in place at the University of Portsmouth's Institute of Marine Sciences (IMS) for the Solent Oyster Restoration Project. The use of Blue Marines holding tanks and IMS lab space can be arranged to allow shipments of oysters from donor sites that are outside the Solent to be processed in a manner that ensures the highest biosecurity standard prior to them entering the recipient site. As a brief overview:

Oysters are held in tanks that are on a static system, so no water exits them.

Oysters are then transferred into the lab and sorted with any other species removed, including any pacific oysters. Larger oysters are then thoroughly scrubbed and scraped to remove any encrusting organisms - particular attention is paid to the hinge area. Smaller/juvenile oysters are cleaned as much as possible when removing organisms but not necessarily scrubbed.

The cleaned and sorted oysters are then placed into a bleach bath to kill off any other species on the outside of the shell that may have been missed during the other cleaning.

Excess bleach is rinsed off and then the oysters are placed into holding tanks that are on flow-through systems where fresh water is supplied constantly. The oysters are then allowed to rest and recover for a couple of days before they go out into their respective end destinations.



Step 3 - some parts of step 2 will require some parts of step 3 to progress

Once you have permission to set up an oyster nursery

Note: All of the following information is available online and any additional contact information has been added with the respective individual's consent. All disease and invasive species status' given as of June 2022.

Purchasing and holding adult oysters

Adult native oysters are not available all year round, it is difficult or often not at all possible to source them during the spawning season (typically from the end of May until August/September). There is a fishery for native oysters in Essex, unfortunately the presence of the invasive American oyster drill (*Urosalpinx cinerea*) means that oysters should not be translocated from the area to anywhere else.

Rossmore Oysters

Contact: Tristan Huge Jones Location: Loch Ryan, Scotland Disease status*: *Bonamia* positive
Rossmore Oysters Ltd, Lakeview, Old Hollow, Worth, Sussex, RH10 4TA Tel: 01293 888868 Mobile /
WhatsApp: 07887 575747 <https://www.oysters.co.uk/contact-us/> Email: office@oysters.co.uk

Purchasing scallop-trays or miniplat systems

Osprey Limited, Dunslow Road, Scarborough, North Yorkshire, United Kingdom, YO11 3UT
<https://j32980.wixsite.com/ospreyminiplat>
Telephone: +44 (0)1723 585333 Email: fishing@osprey-plastics.co.uk

Purchasing and holding juvenile oysters

There are several sources for juvenile oysters and regular communication with the suppliers is recommended to establish how many oysters are likely to be available and supplied. Managing large populations of oysters on farms requires a lot of work and getting exact numbers is impossible at scale so it is often estimates. Examples of sources:

Seawilding (Juvenile oysters ongrown)

Contact: Danny Renton Location: Loch Craignish, Scotland Disease status*: *Bonamia* negative
Seawilding, Achanarnich, Nr Lochgilphead, Argyll, PA31 8QS

Atlantic edge oysters (Juvenile oysters ongrown)

Contact: Dr Andy Woolmer Location: Milford Haven, Wales Disease status*: *Bonamia* positive
Tethys Oysters Ltd, 17 Trem Y Mynydd, Burry Port, Dyfed, Wales, SA16 0FZ

Lochnell Oysters (Juvenile oysters ongrown)

Contact: John Hamilton Location: Loch Linnie, Scotland Disease status*: *Bonamia* positive
Lochnell Oysters Ltd, Glencoe, By Etive Park, North Connell, By Oban, Argyll, PA371SJ

Morecambe Bay Oysters (seed oysters from hatchery)

Contact: Kelsey Thompson Location: Morecambe Bay, England Disease status*: *Bonamia* negative
Old Gravel Works, South Walney Island, Burrow-in-Furness, Cumbria, LA14 3YQ

****Disease status correct at time of publication. It is imperative that this be checked at the time of any works to be conducted and prior to movement of shellfish.***



Purchasing AP6 units

Typically, smaller oysters are held in 8mm mesh units before being transferred and thinned out into 16mm to accommodate the fairly rapid growth. Therefore, purchasing a variety of sizes would be recommended to accommodate this long term. The AP6 units can be arranged in a variety of ways – on lines, under pontoons, on trestles, floating etc (see Interimas website for more images) and can be used to hold adult oysters although at the time of publication there is little information on how well they perform in this system.



Photos from Seawilding Project and Interimas.

John Hamilton at Lochnell Oysters can design, construct and ship a system to suit your requirements as he has done in the Solent and Loch . Alternatively, the AP6 units can be purchased from:

Interimas - <https://www.interimas.com/our-activities/aquaculture/a-product-for/oyster-farming/ap6-plus-oyster-system.html>

Triskell - <https://www.triskellseafood.com/product/aquapurse-interimas-ap6-plus-oyster-basket/>



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