



BLUE MARINE
FOUNDATION

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Solent Project Manager



**SOLENT
OYSTER**
RESTORATION PROJECT



**BLUE MARINE
FOUNDATION**

- **Securing marine protected areas** to ensure the protection of at least 30% of the ocean by 2030.
- **Developing models of sustainable fishing** proving that low-impact fishing benefits marine life, local fishers and communities.
- **Restoring marine habitats** to revive and protect vulnerable and threatened species and to sequester carbon.
- **Tackling unsustainable fishing** by highlighting poor practice and developing solutions.
- **Connecting people with the sea** and enhancing ocean understanding across generations.



- **Began** in 2015
- **12 oyster nursery sites** around the Solent
- **Handbook** to create oyster nurseries produce in partnership with the Wild Oysters Project
- **130 species** have been found associated with the oyster nurseries to date
- **300 volunteers** have worked on the project
- **105,000 Native Oysters Restored** to The Solent so far....



ECOSYSTEM SERVICES PROVIDED BY NATIVE OYSTERS *OSTREA EDULIS*

INCREASED WATER CLARITY

Can benefit recovery of seagrass and other coastal aquatic plants



INCREASED FISH PRODUCTION

Provides a suitable feeding and nursery grounds for fish



INCREASED OYSTER POPULATIONS

Provides a spill over effect to local oyster fisheries



CULTURAL VALUE

Have previously formed the heart of coastal communities



IMPROVED WATER QUALITY

Removes pollutants from the water column



BIODIVERSITY ENHANCEMENT

Form a complex structure that provides shelter and food for a diversity of species



DENITRIFICATION

Removes excess nutrients



STABILISATION OF SEDIMENTS

Reduces the resuspension of fine sediment, improving water clarity

- *Provisioning services*
- *Regulating services*
- *Cultural services*



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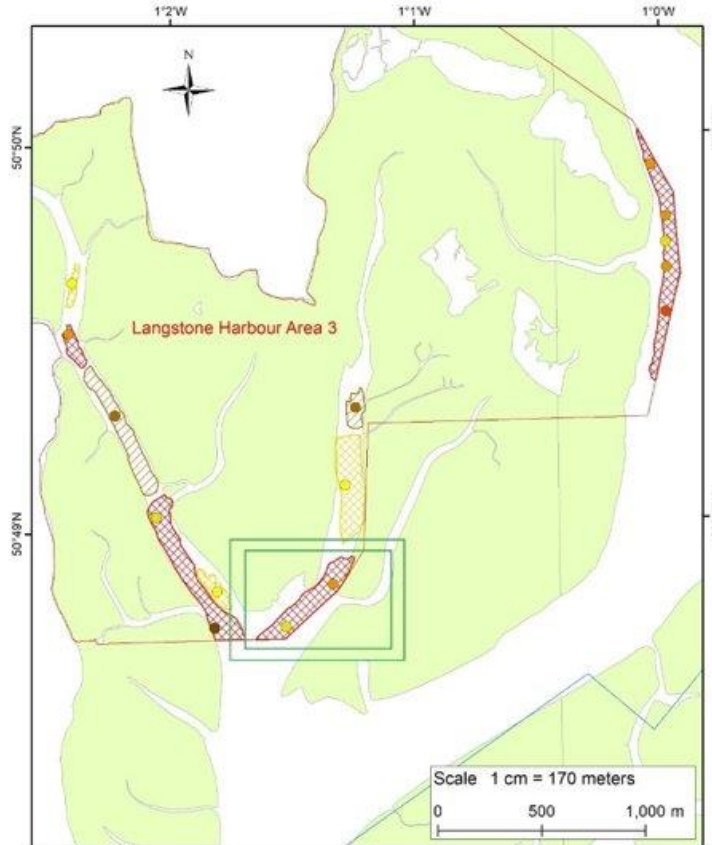
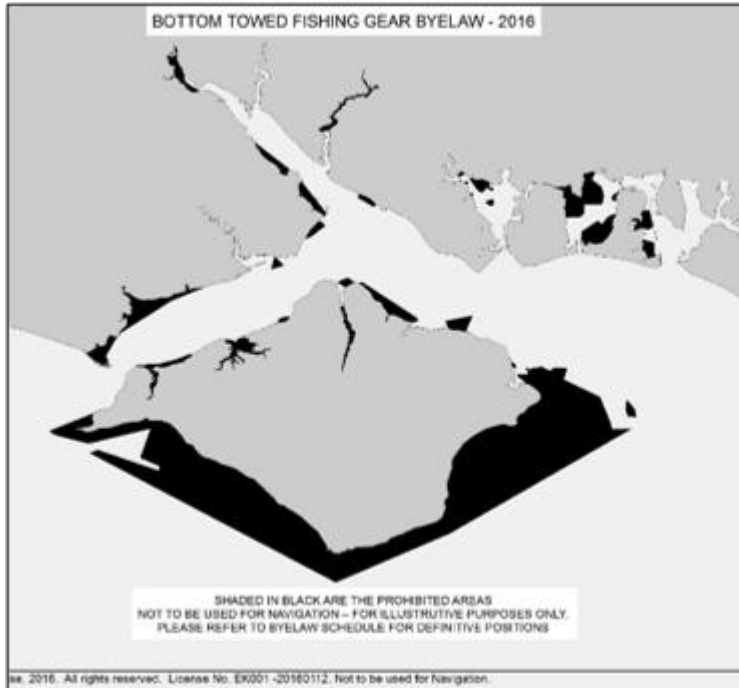
Photo: Andy Hunt



- **Nurseries** important for increasing recruitment of oysters
- **Reefs** important for increasing settlement opportunities of larvae
- **Restoration** of the seabed to limit negative impacts of INNS
- **Bigger** scale

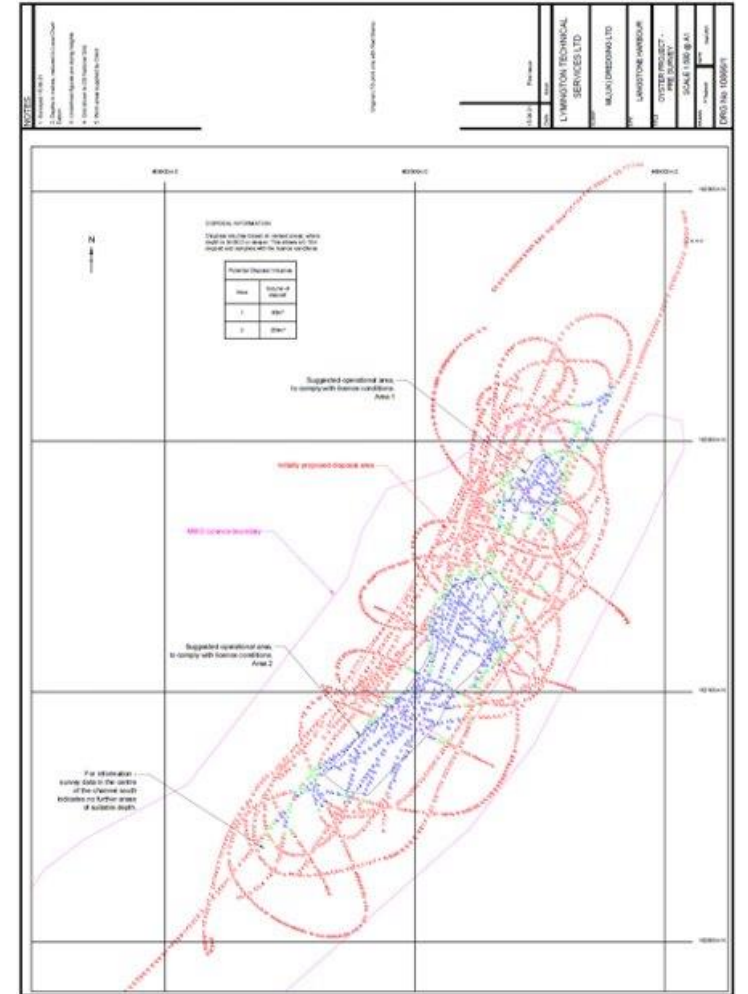


SOLENT OYSTER RESTORATION PROJECT



Habitat Polygons and Sample Sediment Type

Habitat Type (MNCR Code)	Sediment Texture Group	Symbol	Code
SS.SMx.ISaMu - Infralittoral Sandy Mud	sM	Yellow circle	gmS
SS.SSa.IMuSa - Infralittoral Muddy Sand	mS	Orange circle	mG
SS.SMx.IMx - Infralittoral Mixed Sediment	(g)sM	Red circle	msG





SOLENT OYSTER

RESTORATION PROJECT

- 50:50 mixture of cockleshell and gravel
- 361 cubic metres
- 15cm deep
- 2000 square metres
- 7 days
- Cultch placed on seabed via excavator bucket to ensure accuracy, avoid separation of shell and gravel and minimise seabed disturbance



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- **Oysters** collected from aquaculture facility in Loch Linnhe in Scotland

BIOSECURITY

- **Visually** assessed with particular attention to INNS
- **10%** solution of household bleach for 10 minutes
- **Measured** for size class analysis
- **Rested** for 48 hours
- **Deployed** onto the reef via local fishing vessel
- **Featured** on the BBC One Show





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Langstone Reef



**SOLENT
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RESTORATION PROJECT

1 Marine License

Three locations covered

361

m³ of shell and
gravel deployed

7

Barge loads

36,000

NATIVE OYSTERS
RESTORED

Monitoring

Video surveys – oyster density and reef
location

Grab surveys - Oyster density, particle
size analysis and biodiversity

Oyster sampling - Assess disease status
and prevalence

Storm Eunice....

£110,000

So far.....



River Hamble



Newtown Harbour



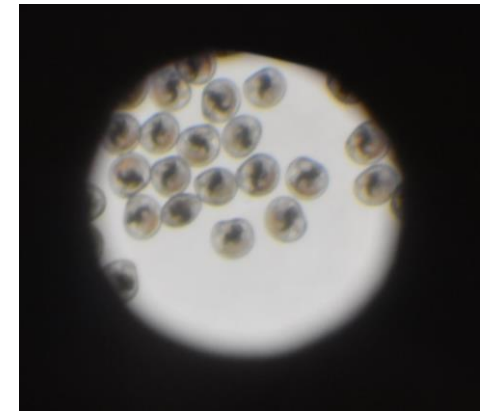
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SOLENT OYSTER

RESTORATION PROJECT

- **Built** in 2021
- **Collaboration** with the University of Portsmouth
- **First** restoration focused Native Oyster Hatchery in the UK
- **Local** oysters are creating the next generation of oysters to be deployed on the reef





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Looking to the future....

- Seagrass
 - Saltmarsh
 - Seabird habitat
 - Seascape scale restoration
-
- Endangered Landscapes Programme