



Inshore Fisheries and
Conservation Authority

Biosecurity Plan

2014

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The application of biosecurity in aquaculture is a shared responsibility. Each individual involved plays a different but critical role in the implementation of the overall programme. This highlights the fact that, in order to be effective, biosecurity is necessary at all levels within aquaculture industry, from the control of infectious disease spread at an international level, to the development of national controls and down to operation of suitable practices at a local level. In these terms, the World Organisation for Animal Health (OIE) monitors the status of international diseases, our government (through Cefas) is responsible for controlling biosecurity within national limits, and Aquaculture Production Businesses (APBs) are responsible for biosecurity within their enterprises.

The key elements of biosecurity are; practical and appropriate legislative controls, adequate diagnostic and detection methods for infectious diseases, disinfection and pathogen eradication methods, reliable high quality sources of stock, and best management practices. At the local level, implementation of an effective biosecurity plan is essential in reducing the risk of disease introduction to an APB. This follows the traditional principle that prevention is better than the cure, which is also a cornerstone of the GB Animal Health & Welfare Strategy published in June 2004.

In the context of shellfish farming, disease prevention is the only effective measure. Once a disease is present within a harvesting area it is difficult to control and there is little possibility of eradication. There are many examples throughout the world where introduced diseases have had devastating effects on sectors of the shellfish farming industry. The spread of *Bonamia* sp. in native oysters within the UK is just one example.

The Aquatic Animal Health (England and Wales) Regulations 2009 recognises the importance of effective biosecurity measures in restricting disease spread. Under the new legislation, CEFAS has recognised Eastern IFCA as the 'operator' responsible for ensuring that the requirements of the Regulations within the area covered by the Wash Several Order are met and as such it is required to create and implement a biosecurity plan. The CEO of the Authority is the appointed biosecurity manager responsible for the creation and implementation of the plan. The Authority is also responsible for recording:

- The movement of any aquaculture animals into and out of the mollusc farming area
- The results of any surveillance (sampling) carried out by Eastern IFCA and the results of any surveillance (sampling) carried out by Cefas

The greatest risk of introducing disease into The Wash Production Area comes with movements of live shellfish.

The main risks identified for The Wash Production Area are:

- Mussel is imported into from many other areas in the UK
- Records of seed bivalve shellfish movements not required under EC 853/2004 Annex 3 Section 7
- Restocking and harvesting can occur throughout the year – monitoring of all activities is not possible
- High number of operators and widespread distribution of production areas in the Wash reduces monitoring effectiveness
- Verification of where seed mussel originates from is difficult to determine. Monitoring of seed mussel beds in other areas is low
- Live cockle is transported from many other areas of the UK for processing at factories situated in King’s Lynn and Boston. This can lead to live cockle being spilt in loading process at factory washed off the quayside.



In addition to the risk of introducing disease through shellfish movements, there are other routes by which disease can be introduced and spread within The Wash.

The main risks identified for The Wash Production Area are:

- Commercial fishing vessels from The Wash operate in other areas of the UK
- Commercial fishing vessels from other areas of the UK operate within The Wash Production Area
- Seed mussel from all over the country is mixed on lay ground in The Wash Production Area
- Mussel lays are situated adjacent to, or in close proximity to naturally occurring mussel and cockle beds
- Mussel and cockle bags used for transportation are exchanged between vessels both in The Wash Production Area and around other fisheries and shellfish processing plants in the UK



In addition to obligations under Animal Aquatic Health Directive, Eastern IFCA has obligations under the Marine and Coastal Access Act 2009, Countryside and Rights of Way Act 2010 and the Conservation of Species and Habitats Regulations 2010 to maintain biological diversity and further the conservation objectives of marine protected areas.

There is a potential that, through the movement of shellfish for the purpose of aquaculture, non-native or invasive species may be introduced into The Wash Production Area which may have adverse effects on protected features and the wider ecosystem e.g. natural mussel and cockle beds.

The main risks identified for The Wash Production Area are:

- Introduction of Pacific oysters (*Crassostrea gigas*)
- Introduction of American slipper limpets (*Crepidula fornicate*)
- Introduction of American razor shell (*Ensis Directus*)
- Introduction of unknown non-native or invasive species.

The risks identified in sections 2, 3 and 4 can be reduced by taking the following actions:

- Additional conditions added to WFO Shellfish Lay Lease
 - Shellfish farmers are required to apply to Eastern IFCA to deposit shellfish from outside of The Wash Production Area onto private lays – this will include a Habitat Regulation Assessment which will need to be approved by Natural England prior to the activity. The origin of shellfish will be considered.
 - Shellfish farmers are required to provide details of the amount of seed to be brought in and its origin
 - Shellfish farmers are required to report unusual levels of mortality to the Authority
- Fishermen participating in a Wash Fishery Order fishery will be required to use standard bags, pending a feasibility study as part of the Eastern IFCA 2014/15 enforcement work.
- All Wash shellfish farmers are notified of the risks of spreading disease – including information on the *Bonamia* sp. *controlled areas*
- Vessels leaving The Wash Production Area to fish in areas outside of the district are required to be steam cleaned and washed with disinfectant to ensure no shellfish remains onboard.
- Vessels entering the Wash Production Area are required to be steam cleaned and washed with disinfectant to ensure no shellfish remains onboard.

Details of how and when these measures will be explored and implemented are presented in Appendix B.

The recording of the actions taken against the measures put in place in the plan are listed below:

- Shellfish farmers regularly inspect their lays - incidents of mortality and meat yields are reported to the Authority and recorded
- Shellfish intended for relaying from outside of The Wash Production Area are inspected by EIFCA Officers. Officers record inspections and these are held in the office. Any issues are reported to FHI
- Shellfish entering and leaving The Wash Production Area is monitored – EIFCA Officers record monthly lay activity and report annually to FHI
- Eastern IFCA Officer time will be dedicated to lay inspection as per the 2014/15 Enforcement Risk Register.
- EIFCA Officers are made available to inspect vessels before leaving The Wash Production Area.



In the event that diseased shellfish were positively identified by shellfish farmers or EIFCA Officers within the Wash Production Area would/could take the following actions if deemed appropriate:

- 1) Brief EIFCA Officers of the presence of a disease, its effects, methods of reducing the spread of the disease
- 2) Inform all Wash Production Area shellfish fishermen in writing of the presence of a disease outlining the steps that they can take to minimise the risk of spreading the disease
- 3) Inform Cefas, the Fish Health Inspectorate, Defra, DARD, SFPA, MMO, WAG, SFCs, SAGB of the presence of diseased shellfish within the Wash
- 4) Place an information notice on the EIFCA website detailing the disease, actions to take to minimise the spread of the disease and details of the disease
- 5) Identify the source of the diseased shellfish through surveys or sampling of shellfish stocks
- 6) Determine the extent of the spread of the disease through surveys or sampling of shellfish stocks
- 7) Introduce a temporary closure of any open shellfish fisheries to prevent the movement of shellfish fishing vessels from spreading the disease

Revoke any outstanding authorisations or licences to fish shellfish to prevent the movement of diseased/contaminated shellfish or shellfish fishing vessels in/out or within the Wash Production Area

Summer 2009

- Cockle mortalities recorded in the Wash have been reported to CEFAS and FHI
- A significant survey programme was conducted by EIFCA to investigate whether food availability may have been a cause for the mortality

Summer 2010

- All Wash Fishery Order 1992 licensed fishermen in the Wash were notified of the mortalities along with all other IFCA's, MMO and SAGB. Fishermen were advised to clean down their vessels before leaving The Wash if bound for other areas of the UK



Mr Philip Haslam
Chief Executive Officer
Eastern Inshore Fisheries & Conservation Authority
6 North Lynn Business Village
Bergen Way
King's Lynn
Norfolk
PE30 2JG

Tel: 01553 775321

Fax: 01553 772031

Email: mail@eastern-ifca.gcsx.gov.uk

Web: www.eastern-ifca.gov.uk

The Wash Production Area is that area of the Wash that lies within the Wash Fishery Order 1992.

The Statutory Instrument 1992 No. 3038 Sea Fisheries Shellfish. The Wash Fishery Order 1992 can be downloaded from:

www.eastern-ifca.gov.uk

The Wash Fishery Order 1992 consists of two distinct areas, the:

- 1) Regulated Fishery whereby the public right to fish is restricted to those that hold an entitlement to a licence issued by the Authority and;
- 2) The Several Fishery whereby the public right to fish is severed with an area of seabed being leased by the Authority on behalf of the Crown Estates to an individual for the purpose of shellfish cultivation. Each piece of seabed that is leased is referred to as a lay.

Within the Several Fishery there are currently 51 lays covering a total area of 252.46ha. All of the mussel cultivation occurring within these lays is benthic cultivation. Not all of the lays are currently in use. The amount of mussel present within the lays varies throughout the year and year on year depending on market demand, seed supply and the profitability of other fisheries within the area.

Appendix B

Biosecurity Risk	Mechanism	Risk rating (high, medium, low)	Mitigation measures	Date implemented	Residual Risk rating (high, medium, low)
Contracting/spreading disease	Shellfish imported from outside of The Wash Production Area.	High	Condition on WFO Shellfish lay lease to apply to Eastern IFCA to import shellfish from outside The Wash Production Area – origin of shellfish will be considered. Habitat Regulation Assessment submitted to Natural England for their consideration – application dependent on outcome of this Assessment. Monitoring of WFO lay activity for unauthorised shellfish deposits.	April 2014 – condition to be included in updated WFO Shellfish Lay Lease	Low
Contracting/spreading disease	Restocking and harvesting can occur throughout the year – monitoring of all activities is not possible	Medium	Condition on WFO Shellfish lay lease to apply to Eastern IFCA to import shellfish from outside The Wash Production Area – origin of shellfish will be considered. Targeted enforcement based on local knowledge and strong relationship with WFO Shellfish	April 2014 – condition to be included in updated WFO Shellfish Lay Lease	Low

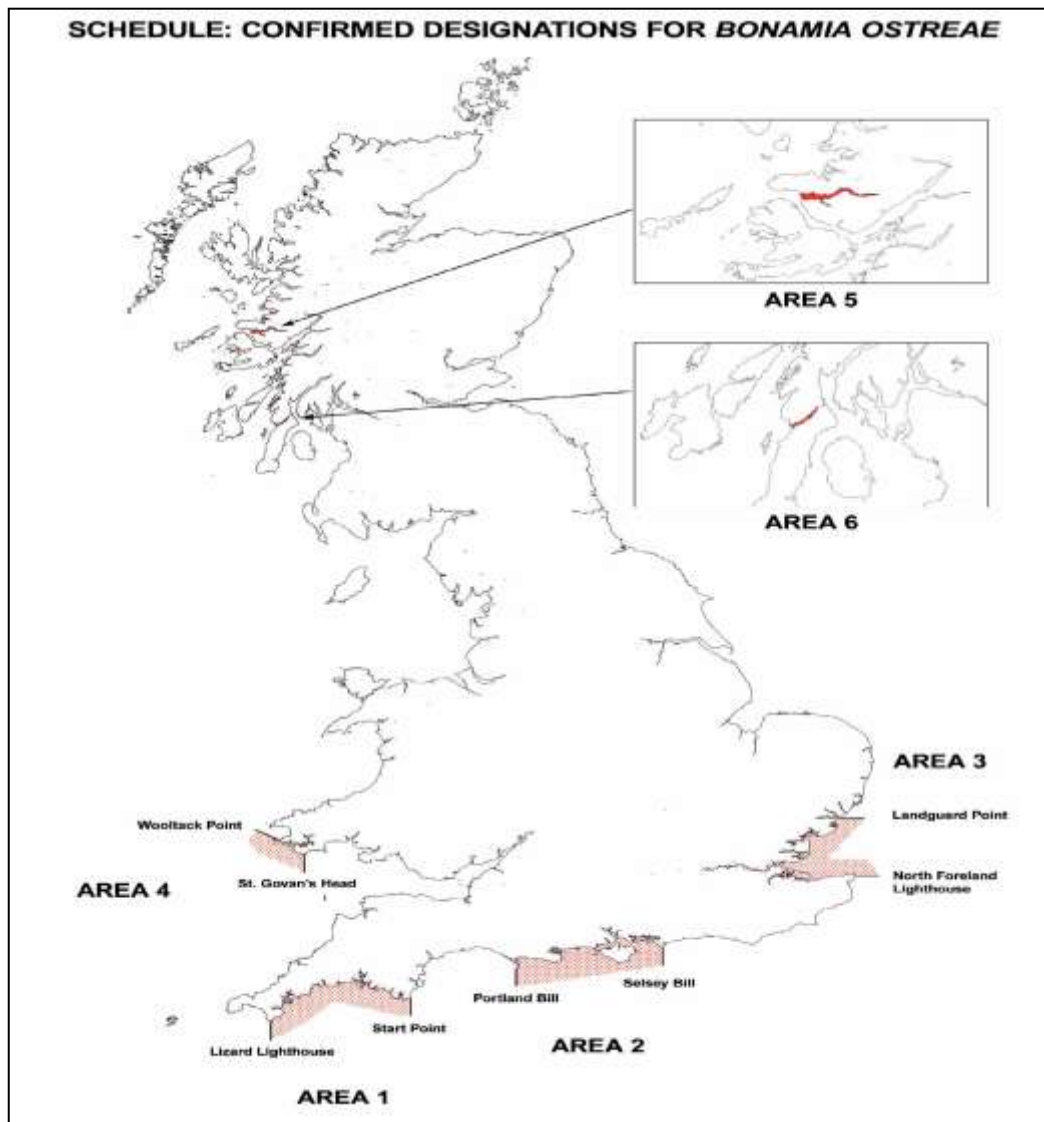
			Lay holders.		
Contracting/ spreading disease	High number of operators and widespread distribution of production areas in the Wash reduces monitoring effectiveness	Medium	WFO Shellfish Lays plotted using GIS, all shellfish lay locations known. Monthly reporting of WFO Shellfish Lay activity. Targeted enforcement based on local knowledge and strong relationship with WFO Shellfish Lay holders.	April 2014 – Enforcement and reporting mechanisms to be reflected in Eastern IFCA’s 2014/15 Enforcement Risk Register	Low
Contracting/ spreading disease	Verification of where seed mussel originates from is difficult to determine. Monitoring of seed mussel beds in other areas is low	High	Condition on WFO Shellfish lay lease to inform Eastern IFCA of origin of shellfish – application to deposit shellfish within The Wash Production Area will depend partly on the origin of shellfish i.e. not from an area known to contain disease.	April 2014 – condition to be included in updated WFO Shellfish Lay Lease	Low
Contracting/ spreading disease	Live cockle is transported from many other areas of the UK for processing at factories situated in King’s Lynn and Boston. This can lead to live cockle being spilt in loading process at factory washed off the quayside.	Low	Risk to be reflected in revision of The Wash Management Policies – best practice established and imposed on producers	2015 – Wash Management Policies to be reviewed by 2015	Low
Contracting/ spreading disease	Commercial fishing vessels from The Wash operate in other areas of the UK/Commercial fishing vessels from other areas of the UK operate within The Wash Production Area	Medium/High	Risk to be reflected in revision of The Wash Management Policies – requirements to sterilise vessels on entering/leaving The Wash Production Area will be	2015 – Wash Management Policies to be reviewed by 2015	Low/Medium* <i>depending on outcome of Wash Management</i>

			considered		<i>t Policies Review.</i>
Contracting/ spreading disease	Seed mussel from all over the country is mixed on lay ground in The Wash Production Area	High	Condition on WFO Shellfish lay lease to apply to Eastern IFCA to import shellfish from outside The Wash Production Area – origin of shellfish will be considered. Habitat Regulation Assessment submitted to Natural England for their consideration – application dependent on outcome of this assessment. Monitoring of WFO lay activity for unauthorised shellfish deposits.	April 2014 – condition to be included in updated WFO Shellfish Lay Lease. Enforcement and reporting mechanisms to be reflected in Eastern IFCA’s 2014/15 Enforcement Risk Register	Low / medium
Contracting/ spreading disease	Mussel lays are situated adjacent to, or in close proximity to naturally occurring mussel and cockle beds	Medium	Existing procedures ensure that natural mussel and cockle beds are not adversely affected by WFO Shellfish Lays. Condition on WFO Shellfish lay lease to apply to Eastern IFCA to import shellfish from outside The Wash Production Area – origin of shellfish will be considered. Habitat Regulation Assessment submitted to Natural England for their consideration – application dependent on outcome of this Assessment. Monitoring of WFO lay activity for unauthorised shellfish deposits.	April 2014 – condition to be included in updated WFO Shellfish Lay Lease. Enforcement and reporting mechanisms to be reflected in Eastern IFCA’s 2014/15 Enforcement Risk Register	Low

Contracting/ spreading disease	Mussel and cockle bags used for transportation are exchanged between vessels both in The Wash Production Area and around other fisheries and shellfish processing plants in the UK	Medium	Condition on WFO Shellfish lay lease to use branded 'Standards bags' for movement of shellfish relating to WFO Shellfish Lay activity.	2015 – feasibility and practicalities to be explored during Eastern IFCA 2014/15 Enforcement work.	Low
Introduction of known non-native or invasive species	Shellfish to be deposited from outside of the Wash Production Area contain non-native and invasive species	Medium	Condition on WFO Shellfish lay lease to apply to Eastern IFCA to import shellfish from outside The Wash Production Area – origin of shellfish will be considered. Shellfish to be examined by Eastern IFCA enforcement officers for presence of non-native or invasive species.	April 2014 – condition to be included in updated WFO Shellfish Lay Lease	Low
Introduction of unknown non-native or invasive species	Shellfish to be deposited from outside of the Wash Production Area contain non-native and invasive species	Medium	Condition on WFO Shellfish lay lease to apply to Eastern IFCA to import shellfish from outside The Wash Production Area – origin of shellfish will be considered. Shellfish to be examined by Eastern IFCA enforcement officers for presence of non-native or invasive species.	April 2014 – condition to be included in updated WFO Shellfish Lay Lease	Medium / Low
Naturalisation of non-native or invasive species	Shellfish deposited on WFO Shellfish Lays contains non-native or invasive species which becomes established on a private lay.	Low	Existing condition on WFO Shellfish Lay Lease for shellfish farmers to report abundance of non-target species. Eastern IFCA officers to make random inspections of lays.	April 2014 – inspections to be included in 2014/15 Enforcement Risk Register.	Low

Appendix C

The map below shows those areas within which the presence of *Bonamia Ostreae* have been confirmed.





CD 04/2010 - Oyster Herpesvirus containment area

The designated area is known as Oyster Herpesvirus Containment Area - Swale, Thames and North Kent Coast, Compartment 6



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Further information on shellfish diseases and how they can effect your stock can be located from the following organisations:

Centre for Environment Fisheries and Aquatic Science Fish Health
Inspectorate

www.cefas.co.uk

www.efishbusiness.co.uk

CEFAS

Pakefield Road

Lowestoft

Suffolk NR33 0HT

Tel: +44 (0) 1502 562244

Fax +44 (0) 1502 513865

Fish Health Inspectorate

Tel: +44 (0) 1305 206700

Confidential hotline:

+44 (0) 1305 206681 (24-hour)

Fax: +44 (0) 1305 206602

Defra - Fish, crustacean and shellfish health and disease control

<http://www.defra.gov.uk/foodfarm/fisheries/farm-health/diseases.htm>

Aquatic Animal Health Unit

Defra

Area 5D

17 Smith Square

London, SW1P 3JR

E-mail: fishhealth@defra.gsi.gov.uk

APB	Aquaculture Production Area
CEFAS	Centre for Environment Fisheries and Aquaculture Science
DARD	Department of Agriculture and Rural Development
DEFRA	Department of Environment Food and Rural Affairs
EIFCA	Eastern Inshore Fisheries & Conservation Authority
FHI	Fish Health Inspectorate
IFCA	Inshore Fisheries & Conservation Authority
MMO	Marine Management Organisation
SAGB	Shellfish Association of Great Britain
SFPA	Scottish Fishery Protection Agency
WAG	Welsh Assembly Government
WFO	Wash Fishery Order
WPA	Wash Production Area