

EXECUTIVE NOTE TO
THE FISH FARMING BUSINESSES (RECORD KEEPING) (SCOTLAND) ORDER
2008
(S.S.I. 2008/326)

The above instrument was made in exercise of the powers conferred by section 1 of the Aquaculture and Fisheries (Scotland) Act 2007. The instrument is subject to negative resolution procedure in terms of section 43(2) of the Aquaculture and Fisheries (Scotland) Act 2007.

Policy Objectives

The Aquaculture and Fisheries (Scotland) Act 2007 gives powers to help support the aquaculture industry and helps build public and international confidence in fish farming by underpinning the voluntary approach set out in A Code of Good Practice for Scottish Finfish Aquaculture. It underpins the voluntary measures primarily by providing ‘backstop’ provisions to tackle the long running and difficult issues of control of parasitic sea lice and the containment and prevention of escape of farmed fish which may have a negative environmental impact. The Act provides powers for inspectors to inspect fish farms to assess whether satisfactory measures are in place for controlling parasites and for preventing fish escapes. The Scottish Ministers have the discretion to serve enforcement notices where the measures are found to be insufficient or there are problems which need to be rectified.

This instrument sets out the records which must be compiled and retained by those engaged in the business of fish farming in respect of each site in which they farm fish. The records specified in the Order are in relation to the control of and treatment of parasites and the containment and prevention of escapes of fish.

Under the powers of the Aquaculture and Fisheries (Scotland) Act 2007, Fisheries Research Services will take on the role of Inspectorate and reporting body. Guidance notes for Fish Health Inspectors and the enforcement notice have been developed alongside this Order.

Consultation

There was no statutory requirement to consult on this Order, given the wide ranging consultation during the passage of the Aquaculture and Fisheries (Scotland) Bill through Scottish Parliament. However, the draft Order was circulated for comment to all finfish farming businesses in Scotland, industry trade bodies and the main aquaculture stakeholder groups including wild fisheries interests and environmental Non-Governmental Organisations during summer 2008.

Draft guidance for Fish Health Inspectors including a proposed enforcement notice was tabled at relevant aquaculture stakeholder meetings including the Ministerial Working group on Aquaculture and Aquaculture Health Joint Working Group. It was also included as part of a wider Fisheries Research Services information dissemination campaign to fish farmers and aquaculture stakeholders including a letter, posters and additional information issued by mail and through publication on the Fisheries Research Services web site.

Inspection Regime

The proposed regime will comprise of both inspections and audits. Inspections will follow a risk based approach and will involve:

- Inspection and analysis of sea lice records and inspection of site stock.
- Enquiry into whether any escapes have occurred and inspection of the site to check for site integrity and the risk of escape of fish in relation to operational practices such as fish transfer, grading, harvesting etc.

The outcomes of an inspection will determine whether a subsequent site audit is required, either immediately or through an additional visit. Audits will cover greater depth and detail to the work completed under inspection. Up to ten percent of sites will be audited annually, this amounts to approximately 35 seawater sites for sea lice and 50 sites (freshwater and seawater) for containment.

Audits will compliment the work covered by the inspection and will also involve all or some of the following:

- Sea Lice: Audit of staff conducting sea lice counts and/or administering treatments; sea lice counts conducted by FHI; sample collection.
- Containment: Inspection and analysis of records and documents; audit of site procedures, collection of samples.

In addition, further escapes investigations will be undertaken, involving experts in engineering / cage design as necessary. Advice and/or enforcement action may be given or conducted during or following an inspection or audit.

Inspections will commence once the Order is in place which is envisaged to be early November 2008.

Financial Effects

A Regulatory Impact Assessment was carried out as the Aquaculture and Fisheries (Scotland) Bill passed through Scottish Parliament. A Financial Memorandum accompanied the Bill on its introduction in the Scottish Parliament on 29 June 2006 and set out the expected costs associated with the measures associated with the Bill. A copy of the relevant sections of the Financial Memorandum is attached as Annex A of this Executive note. After consideration of best practice guidance, a further Regulatory Impact Assessment has not been carried out as this Order does not introduce any additional costs to business, charities or the voluntary sector.

The expected costs to the Scottish Executive (as was) proposed in the Financial Memorandum were based on an annual inspection regime somewhere between a de-minimus approach of 10% of sites and a wider risk-based approach of about 20% of sites inspected. The actual audit inspection regime to be conducted will target up to 10% of sites annually and has been estimated by Fisheries Research Services to add additional running costs of £127 K per annum. This falls well within the range of costs estimated in the original Financial Memorandum and is programmed into the FRS Service Level Agreement.

This legislation was introduced as a 'backstop' to the measures in the voluntary industry code, A Code of Good Practice for Scottish Finfish Aquaculture, to ensure that farms who

could not, or would not, sign up to the code would have to adhere to certain minimum standards. The code has been operational since January 2006.

Fish farming businesses adhering to the standards set out in the Code of Good Practice should not face additional unnecessary burden and are unlikely to have problems that would require enforcement notices to be served.

Marine Directorate
Scottish Government
30 September 2008

The Fish Farming Businesses (Record Keeping) (Scotland) Order 2008 (S.S.I. 2008/...)

Annex A Aquaculture and Fisheries (Scotland) Bill:
 Financial Memorandum (in part)

85. This document relates to the Aquaculture and Fisheries (Scotland) Bill introduced in the Scottish Parliament on 29 June 2006.
86. The purpose of this Financial Memorandum was to set out the expected costs associated with the measures associated with the Bill. The document addressed the aquaculture and fisheries elements of the Bill separately.

AQUACULTURE

Parasites

87. The measures provided in the sections relating to parasite control, while drafted for parasites in general, were drawn up with protecting the welfare of farmed fish and mitigating the threat that sea lice on farmed fish may pose to wild fish in mind. The Bill consequently defines ‘parasite’ as meaning the two important species of sea louse that affect salmon. Should other parasites become a problem in the future, this can be changed by statutory instrument.
88. The management of sealice is already undertaken on the majority of salmon farms by a variety of means, notably the national treatment strategy on sea lice, the fish industry’s Code of Good Practice (which incorporates the national treatment strategy) and voluntary arrangements which endorse best practice such as synchronised fallowing and co-ordinated treatments.

Costs on the Scottish Executive

89. The Bill gives powers for persons authorised by the Scottish Ministers to act as inspectors under the Bill. The Scottish Executive intends to extend the current remit of the Fish Health Inspectorate within the Fisheries Research Services to include parasite control in addition their duties in respect to disease control under existing fish health legislation. The proposals broadly mirror powers and duties placed upon the Fish Health Inspectorate by existing fish health legislation. With respect to parasites, authorised inspectors may:
- require production of, inspection of and copying of records in relation to the control of parasites;
 - carry out inspections (including the taking of samples) for the purposes of assessing the levels (if any) of parasites and the measures in place for the control of parasites
- and the Scottish Ministers may:
- require, by means of a statutory instrument, the compilation and provision of information in relation to the control of parasites;

- serve an enforcement notice to require the taking of such measures as the Scottish Ministers consider necessary for the control of parasites;
- where such an enforcement notice has been contravened, the Scottish Ministers may authorise an inspector to take such action as they consider necessary to fulfil the requirements of that notice with regard to the control of parasites and to recover any reasonable expenses in so doing.

90. The Scottish Executive envisages additional running costs to the Fisheries Research Services as a direct result of the new responsibilities placed upon them in the area of parasite control. The Fisheries Research Services Fish Health Inspectorate's mission is to support a healthy sustainable aquaculture industry and to safeguard the health of wild fish stocks, through regulation and scientific advice backed by high quality research. The Fish Health Inspectorate's main objective is to prevent the introduction and spread of serious fish and shellfish diseases in Scotland. Fish health inspectors are appointed by the Scottish Ministers to act as veterinary inspectors under current fish health legislation. The Fish Health Inspectorate currently incurs costs of around £1.2 million and employs 16 staff.

91. The meaning of parasites in the Bill is limited to sealice, which means that only marine fish farms will be affected by the provisions relating to parasites.

92. The tables below illustrate three possible scenarios for the inspection of marine fish farms with respect to sea lice control. They show the range of costs that could be incurred by the Fish Health Inspectorate in the course of carrying out its new duties.

93. Table 1 outlines a de-minimus approach, whereby the rate of inspection is based on inspecting only farms that have not signed up to the industry's code of practice and farms where there is reason to suspect that there may be a problem with sea lice control. This is expected to be no more than 10% of marine fish farms or 30 site visits per year. An estimate for repeat visits where problems are found is factored in to the costs.

Table 1

Fish Health Inspector half time ($\frac{1}{2}$ x B2 grade)	£38,000
Travel & Subsistence and overtime	£5,500
Annual Running Cost	£43,500

(Figures based on gross staff costs at 2007/08 rates and numbers of registered marine fish farms, as at January 2006)

94. Table 2 outlines a wider risk-based approach, whereby in addition to inspecting the farms that have not signed up to the industry's code of practice and where intelligence indicates there may be a problem with sea lice control, inspections are extended to include a random sampling of other farms.

95. This is estimated at 20% of marine fish farms or 60 site visits per year. An estimate for repeat visits where problems are found is factored in to the costs.

Table 2

Fish Health Inspector (1 x B2 grade)	£76,000
Travel & Subsistence and overtime	£11,000
Annual Running Cost	£87,000

(Figures based on gross staff costs at 2007/08 rates and numbers of registered marine fish farms, as at January 2006)

96. Table 3 illustrates a more intensive approach, whereby inspections are based on visiting all farms during the second year of their production cycle (which is when sea lice are a problem). Taking into account farms that are fallowing and farms with juveniles, such an intensive inspection regime would cover no more than 50% of marine fish farms or 150 site visits per year. An estimate for repeat visits where problems are found is factored in to the costs).

Table 3

Fish Health Inspector (1 x B2 grade)	£76,000
Fish Health Inspectors (2 x B1 grade)	£128,500
Travel & Subsistence and overtime	£18,000
Annual Running Cost	£225,500

(Figures based on gross staff costs at 2007/08 rates and numbers of registered marine fish farms, as at January 2006)

97. Taking into account its view that the Bill is intended to be a backstop to the industry's voluntary code of practice, the Scottish Executive believes that a risk-based approach is preferable to the more intensive approach illustrated at Table 3. While the exact degree of coverage that would be deemed appropriate for a risk-based approach is likely to be the subject of debate, the Scottish Executive believes that the final costs of inspections will lie somewhere between the figures in Tables 1 and 2. The above estimated annual costs are likely to first arise during the financial year 2007/2008.
98. The Scottish Executive also envisages an additional one-off cost to train Fish Health Inspectorate staff in sea lice identification monitoring and management, amounting to £6,000 (although this could be dependent on staff turnover).

Costs on local authorities

99. The Scottish Executive does not anticipate that the provisions should impose any additional costs on local authorities.

Costs on other bodies, individuals and businesses

100. Because the Bill proposals represent backstop provisions that are not as wide ranging as those in the industry's own code of practice, the Scottish Executive believes that the Bill will not impose any additional costs on fish farming businesses. The only possible exception to this is where inspectors determine that action is required to reduce sea lice levels on the fish farm. However, any direction to treat will be served on the basis that

the fish farmer has not monitored and controlled sea lice effectively i.e. has not done what should have been done under accepted norms of good practice. This means that any costs of complying with the notice are costs that would normally fall to a farmer following good practice. The overall costs to the fish farmer of mandatory treatment should therefore be neutral.

101. Costs of treatment are difficult to generalise, as approaches to sea lice management vary. In feed treatments cost approximately £30 per tonne of fish, equating to around £22,500 for a 750 tonne salmon farm, £30,000 for a 1000 tonne salmon farm, and £45,000 for a 1500 tonne salmon farm. Bath treatments are volume based and cost approx. £1500 for an 18m/7600m³ cage. The amount of treatment required depends on the number of occupied cages on a fish farm. An 800 tonne farm could typically contain 10 such cages, leading to a treatment cost of £15,000.

102. It is also envisaged that many of the inspections with regard to sea lice could take place in the context of the Fish Health Inspectorate's annual inspections so that the new parasite inspection regime does not add an additional burden to fish farms.

Containment and prevention of escapes

103. Escaped fish have the potential to spread disease, compromise the genetic integrity of wild fish stocks and increase competition habitat and food. The measures provided in the sections relating to containment are concerned primarily with the prevention of escapes from fish farms in both freshwater and marine environment. The measures provided also relate to situations where a fish farm escape has taken place.

Costs on the Scottish Executive

104. As described for parasite control above, the Scottish Executive intends to extend the current remit of the Fish Health Inspectorate and appoint specialist inspectors with regard to the containment of fish and the prevention of the escape of fish. The Fish Health Inspectorate currently has a role with respect to the statutory notification procedures for fish escapes, investigates the possible causes of escapes incidents and may recommend remedial action on behalf of the Scottish Ministers.

105. With respect to the containment of fish and the prevention of the escape of fish, authorised inspectors may:

- require the production of, inspection and copying of records in relation to containment and escapes (for example, equipment maintenance records and wave-height analyses of the site);
- carry out inspections (including the taking of samples and the examination of documents and records) for the purposes of ascertaining the risk of escape of fish from a fish farm, ascertaining whether fish have escaped from a fish farm, and

assessing the measures in place for the containment of fish on a farm and the prevention of escapes of fish from the fish farm;

and the Scottish Ministers may:

- require by means of statutory instrument, the compilation and provision of information in relation to the containment of fish on fish farms, the prevention of escape of fish from fish farms and the recovery of escaped fish;
- serve an enforcement notice to require the taking of such measures as the Scottish Ministers consider necessary for the containment of fish on a farm and the prevention of escapes of fish from the fish farm.

106. The Scottish Executive envisages additional running costs to the Fisheries Research Services as a direct result of the new responsibilities placed upon them in this area. The Scottish Executive envisages any new staff to be appropriately qualified and have the expertise to deal with fish farm structures and questions of engineering.

107. The provisions on containment and escapes cover freshwater fish farms as well as marine on the basis that fish escapes are serious no matter where they occur. Therefore, this Financial Memorandum concerns itself with the costs of inspecting freshwater and marine fish farms.

108. Table 4 illustrates the likely costs where 20% of fish farms (or 100 sites) are visited on an annual basis (with a factor for repeat visits included).

Table 4

Fish Farm Inspector (1 x C1 Grade)	£139,000
Travel and subsistence/overtime	£6,100
Annual running cost	£145,100

(Figures based on gross staff costs at 2007/2008 rates and numbers of registered fish farms, as at January 2006)

109. Table 5 shows the costs where half of all fish farms (some 250 farms) are visited on an annual basis (with a factor for repeat visits included).

Table 5

Fish Farm Inspector (2½ x C1 Grade)	£347,500
Travel and subsistence/overtime	£15,500
Annual running cost	£363,000

(Figures based on gross staff costs for 2007/2008 rates and numbers of registered fish farms, as at January 2006)

110. There may be circumstances where a site inspection requires the use of divers. The Scottish Executive envisages this happening in no more than five percent of site visits. It is difficult to give a precise assessment of costs as the workload will vary from site to site.

We estimate costs in the region of £2000 per inspection by divers. These estimates are based on hiring teams of four divers (including travel expenses).

111. The costs of using divers therefore would amount to £10,000 in the scenario outlined in Table 4 and £25,000 in the scenario outlined in Table 5.

112. Taking into account that it is in fish farmers' own interests to contain fish and prevent their escape, and the fact that inspections for containment measures are likely to be quite detailed, the Scottish Executive believes that an inspection rate nearer the 20% estimate (i.e. every farm to be inspected in detail once every five years) is more likely than the biannual inspections suggested by the 50% rate. It must not be forgotten that inspectors will be visiting fish farms for other reasons and any obvious faults noticed then could cause a more detailed visit to be scheduled. . The above estimated annual costs are likely to first arise during the financial year 2007/2008.

Costs on local authorities

113. The Scottish Executive does not anticipate that the provisions should impose any additional costs on local authorities.

Costs on other bodies, individuals and businesses

114. The Bill should not result in any additional costs for fish farms, except where there are containment standards or operations deemed unacceptable by inspectors and/or where there has been an escape of farmed fish and/or where an enforcement notice has been served upon the fish farm operator to remedy deficiencies.

115. Where the Fish Health Inspectorate decides that there is a need for the fish farm operator to take action then it is possible that the fish farming industry may face costs in areas such as: replacing nets or equipment such as cages or moorings; training operatives; improving supervision of high risk activities; and ensuring regular equipment maintenance. Potential costs to industry will range from a few thousand pounds for training and equipment maintenance to several hundred thousand pounds for the replacement of cages, nets and moorings. Any action required by the Fish Health Inspectorate for training, repair and maintenance would, in practice, not attract additional costs to a fish farm operator, where that fish farm operator was already required to comply with the industry's own Code of Good Practice.

116. Section 8 of the Bill also provides monitoring and enforcement powers for the Scottish Ministers with respect to any code of practice in relation to the prevention, control and reduction of parasites and the containment of fish, approved by order under the terms of section 7 of the Bill. However, the Scottish Executive does not envisage such orders being made to approve a code of practice unless problems arise with the aquaculture industry's code of practice over the next few years. There are therefore no estimates for the costs of monitoring and enforcing an approved code of practice in this Financial Memorandum.

SUMMARY TABLE OF COSTS (AQUACULTURE) TO THE SCOTTISH EXECUTIVE

Proposals\Costs	Recurring	Non-recurring
Parasite Control (paragraphs 87-101)	Estimated at between £43,500 and £225,500	Estimated at £6,000
Containment (paragraphs 102-115)	Estimated at between £145,100 and £363,000 for inspections plus between £10,000 and £25,000 for divers.	

Marine Directorate
Scottish Government
September 2008