Aquaculture insurance industry risk analysis processes

Philip A.D. Secretan
AUMS Ltd.
112 Malling Street
Lewes, East Sussex
BN7 2RJ United Kingdom of Great Britain and Northern Ireland
secretan@aums.com

Secretan, P.A.D. 2008. Aquaculture insurance industry risk analysis processes. In M.G. Bondad-Reantaso, J.R. Arthur and R.P. Subasinghe (eds). Study on understanding and applying risk analysis in aquaculture. *FAO Fisheries and Aquaculture Technical Paper.* No. 519. Rome, FAO. pp. 229–245.

ABSTRACT

The aquaculture insurance industry's approach to risk analysis is wide ranging and thorough. It starts during the insurance arrangement process and carries on throughout the life of the insurance policy. The analysis process relies on information obtained through the completion of specially designed proposal forms that have to be completed by applicants seeking insurance. Different forms are used for different types of aquaculture. Information is gathered on every aspect of each farm, and questions must be answered in considerable detail. Answers must be correct and accurate, as a completed proposal form becomes a legal component of any policy that is issued, and any failure to provide information that proves to be material[1] can render the policy null and void. Once a policy is issued, risk analysis continues through special clauses and conditions in policies that mandate that details of changes to rearing processes, growing systems and management have to be reported to insurers, together with losses and possible losses. Risk analysis and management is thus carried on continuously through the life of every policy, with all changes being assessed as to their importance and potential impact on the safety or otherwise of the crop. Insurance policies are subject to deductibles (self-insure amounts carried by the farm itself) that rule out the many small losses but are also a technique used to modify insurers' exposure to specific risk and hazards that they regard as high, or to reduce premiums. Following risk analysis, they may also exclude specific high-risk perils. Insurers, therefore, do not become involved in the day to day mortalities from the small losses that are a fact of life in aquaculture, or in the very high-level risks that may be considered as inevitabilities. Site surveys are essential to risk assessment at all phases of the insurance process. These are carried out by skilled surveyors, each of whom is experienced in risk assessment appropriate to the type of operation involved and its component parts. This particularly applies to marine installations and operations that include electrical and mechanical life support components. Fish health surveys are also carried out by specialist experts. The process of risk analysis is carried on continuously, from the initial application for insurance, through the life of the insurance policy and

[1] In brief, information is considered "material" if it is information that would cause an insurance underwriter to decline to underwrite an operation or to apply different insuring terms and conditions.

in the aftermath of claim situations. It is very thorough and wide ranging. Above all, it is very effective; it has been responsible for reducing losses, lowering risk profiles and avoiding financial loss in all the areas of aquaculture in which it has been applied. Above all, it has contributed to a tangible increase in wealth in many areas and has the potential to do the same in those parts of the world to which it's practices have not yet spread.

INTRODUCTION

The aquaculture industry has many insurable interests that are the same or almost identical to the insurable interests of other industries. They may range from liabilities in certain areas, to the physical assets of the business. However, aquaculture has one very important insurable interest that is almost unique – its stock! Because its stock is grown in water and is, in most cases, totally dependant on water as a life-support medium, aquaculture stock is subject to a unique set of risks and hazards that are unlike those of almost any other industry. Additionally, aquaculture, through its stock and growing processes, may affect the environment and the society around it. Thus any risks associated with these effects are of concern to politicians, public administrators and the general public, and are not, as a general rule, of concern in the arrangement of insurance on the stocks of aquatic organisms. This paper, therefore, deals only with the risk analysis processes that the aquaculture insurance industry uses to directly assess the risks to aquaculture's stock.

EVOLUTION OF AQUACULTURE INSURANCE

The insurance market for aquaculture stock began operating in 1974, when the first insurance facilities were created in the Lloyd's of London and the London Insurance Market. Because it involves growing stocks of aquatic plants and creatures in either fresh or saltwater, aquaculture is a highly unusual industry and one, it might be thought, that would pose considerable handling difficulties for insurance markets. However, the insurance industry has a long track record of assessing and handling the risks of a very wide variety of vastly different industries and insurable interests. While growing stocks of aquatic plants and creatures in water presented some very unusual challenges, the insurance industry was able to fall back on its historical experience of assessing and handling risk in different situations and design an approach to aquaculture that took into account its "oddities".

OVERVIEW OF THE INSURANCE INDUSTRY'S GENERAL APPROACH TO RISK ANALYSIS

The insurance industry's approach to aquaculture is to protect it against risks that can cause severe losses, and not against those that cause minor ones. The analysis of risk that is constantly carried out by aquaculture stock insurers is similarly focused on the risks that can do the most harm. In order to put this approach into effect, standard aquaculture insurance policies carry substantial deductibles (self-insure amounts that are carried by the farm itself) that are designed to exclude the small losses that are a fact of life in the industry but are also used as an underwriting mechanism for modifying insurers' exposure to specific risk and hazards that they regard as high but not necessarily so high as to require exclusion from the cover provided. They can also be used as a mechanism for reducing premiums. Insurers, therefore, do not get involved in paying for the day to day mortalities and the small losses the industry incurs.

The insurance industry's general approach to risk analysis in "industrial" situations, of which aquaculture is an example, is very thorough and extensive, and generally follows a fairly standard path. It begins with a process of gathering information on the interest offered for insurance. Information is usually obtained through the completion of a proposal form that is specific to the business involved. Proposal forms request

relevant facts and figures on all the different areas of the business that insurers identify as being important to their risk analysis process.

The initial analysis of proposal form information regularly results in insurers asking additional questions about issues they perceive to be important. However, once all information is provided to them, and providing the overall operation is satisfactory and meets their underwriting criteria, they will issue a premium quotation and an indication of the terms of coverage.

In many situations, however, insurers will require a survey to be carried out as part of the information gathering and risk assessment processes. Surveyors will be specialists in particular parts of industrial processes, such as the electrical, mechanical or chemical components, or expert in marine, fire, security and other more general aspects. Surveyors produce reports that generally contain recommendations as to how processes can be improved to achieve lower risk levels.

Information gathering having been completed and a terms, conditions and premium quotation produced that is acceptable to the farm's owner, a policy of insurance is put into effect. Policy wordings detail the contractual arrangement between the insurer and the insured, covering such issues as the amount of premium required, what the insured has to do in the event of a claim and many other issues. In aquaculture, the information gathering and risk analysis processes are perpetuated through the operation of policy wordings. These will normally contain conditions that require material changes and alterations to the operation to be reported to the insurer, who reserves the right to change the terms of the policy to reflect their introduction. Changes may either improve terms in response to improvements in risk or penalize the insured if they cause risks to increase.

A re-analysis of risk will also take place when a claim occurs. Indeed, when a serious risk that a loss may occur arises, it must, under the terms of the policy, be immediately reported to insurers. This prompts an urgent analysis of the situation by all parties, leading to all reasonable steps being taken to mitigate the situation.

Insurance policies normally run for a period of 12 months, unless the policy period is adjusted to accommodate a particular growing period. When a policy is renewed, the information gathering process is generally repeated either in whole or in part. A new proposal form will have been supplied that updates information on all issues, and another survey may also be carried out. Renewal information is once again analyzed by the insurers in a repeat of the initial acquisition process.

INSURANCE RISK ANALYSIS PROCESSES AS APPLIED TO AQUACULTURE

The risk analysis processes developed by the specialist aquaculture insurance market recognize one very important thing – no aquaculture operation stays the same! Farms change, their surroundings change, the people running them change and the fundamental production processes change. It is therefore very important to insurers that all material changes are brought into their analysis processes as they occur, enabling them to adjust their insuring terms and conditions and apply effective risk management strategies that each change prompts.

Insurers achieve a constant evaluation of risk and of the risks inherent in operational changes by developing relevant information at four points in the insurance cycle:

- when an operation applies for insurance;
- when a key change in the farming process takes place;
- when a claim occurs and
- at the renewal of the policy.

The acquisition of information during the initial underwriting process and at policy renewal relies heavily on the use of proposal forms and site surveys. Material changes, however, occur during the course of a policy term, and therefore there needs to be a structured system reporting and analysing them. Insurers achieve this through specific

conditions in their policies that mandate that policy holders must report material changes to their operations and also give immediate advice of claims and potential claims.

The role of proposal forms

Proposal forms that have been specially designed for the industry are key to basic risk analysis in aquaculture insurance. These have to be completed when insurance is applied for, and generally when a policy is due for renewal. They must be signed by the insured signifying that their contents are true and accurate, and they are formally incorporated into the wording and conditions of the insurance policy.

Special forms (see Annexes 1 and 2) have been designed for fish in onshore and offshore situations, and also for operations that are different to conventional onshore gravity flow and offshore cage production profiles. Thus, operations with a very high pumping and recirculation content may merit their own specially designed proposal forms, and so too may molluscs grown on beds as opposed to on longlines and rafts.

Proposal forms gather information on every aspect of each operation, including:

- the species being farmed.
- the location(s) involved;
- the management and its skills and experience;
- the layout of production unit(s);
- the growing processes;
- loss history;
- disease history;
- health monitoring and
- the values involved.

Focused questions are asked in respect of the different sectors of the industry and their various organizational and structural arrangements. Thus, onshore proposals will go into the layout of ponds, tanks and raceways; the way water is moved around them; and the arrangement of pumping and aeration systems used. Offshore proposal forms will go into the exposure to wind, currents, plankton blooms, superchill and shipping movements, as well as into the structure of the cages and the arrangement and design of moorings.

All proposal form questions have to be answered in considerable detail, with answers being supported by maps, plans, photographs, feeding charts and personal curriculum vitae (CVs). As has already been noted, it is very important that all answers are correct and accurate; when insurance is put into effect, each proposal form becomes a legal component of the insurance arrangement, and any failure to provide information that proves to be material can render the insurance policy null and void.

The role of the proposal form is to provide insurers with an intimate overview of an operation at the time it is completed. It must provide them with sufficient information on the farm to enable them to analyze its inherent risks, develop an approach to managing them, and prepare fair and equitable terms and conditions for insuring them.

The role of site surveys

Aquaculture is an unusual business because it is carried on in water. This fact impacts on the many different risks that threaten the business. For example, stock control is very difficult in water, and it complicates both spotting diseases and treating them. Water can also carry pollution, flood sites and exercise massive forces on cages, rafts and mooring systems. The fact that it is carried on in water makes aquaculture a high-risk business!

The specialist aquaculture insurance market is widely familiar with the exposures the various types of aquaculture face and the losses they have suffered. It is very

important to insurers, and fundamental to their commercial success, that they bring this experience to bear on reducing risks to the farms they insure. They see it as unsatisfactory to rely on a farmer completing a proposal form, to fully appreciate and describe all the risks to which his site is exposed. Insurers, therefore, regularly insist that surveys of farms are carried out by specialist surveyors.

The aquaculture insurance market has thus developed a significant survey capability, which it regularly employs as an adjunct to the proposal form information gathering process. It is a very important part of the risk analysis and management process in aquaculture insurance and has proved to be a very successful way of identifying, analysing and managing risks. The creation of a sophisticated surveying capability is one of the factors that has enabled the market to achieve reasonable underwriting profitability after many years of losses.

The aquaculture insurance survey facilities built up by insurers over many years are an extremely valuable asset, and one that could be much more widely used by the aquaculture industry, to whom it is fully available on a commercial basis. Some producers, however, argue that survey costs are too high and believe that they carry out their own surveys perfectly satisfactorily.

The counter arguments are that surveys are expensive because they have to be carried out by skilled professionals who command high fees, but the expense is very low when compared to the losses they can help to avoid. The cost of a survey can be amply repaid if it reveals just one risk that can be eliminated.

There is also much evidence that shows that owners and farm managers are very often "over familiar" with their operations, to the extent that they miss critical weaknesses. Few doubt farmers' genuine efforts to risk manage their operations, but it is difficult for them to spot flaws in systems with which they are intimately familiar, and independent surveyors, unfamiliar with the layout and workings of sites, are much more critical in their approach. As a result, they look much more deeply into all aspects of the structure, arrangement and operation; ask many "what if" questions; and thus discover shortcomings that farmers tend to miss.

The survey process

Surveys tend to fall into two groups. General risk assessment surveys cover at all aspects of an operation, checking that the proposal form information is correct and accurate, looking for any weaknesses in the production process and making recommendations as to how an operation can be better risk managed. Specialist surveys are designed to look at features of an operation that demand specialist attention. These would include surveys of cage groups by qualified marine surveyors, examination of biological husbandry by disease experts, and the inspection of key electrical and mechanical components by qualified engineers, especially when there is a heavy dependence on the latter for life support.

Surveyors will look very closely at the components of the farm that come within their area of competence. Thus in the case of a cage farm, a specialist surveyor would look very closely at the wave climate and wave characteristics, the storm exposure and the mooring designs needed to deal with them; he would also examine maintenance and replacement procedures. If a farm uses intensive pumping and aeration, the arrangement of such systems would be critically examined, including examining fail-safe backups, the arrangement of alarms and the response to them, equipment maintenance procedures and staff training on emergency procedures. All will be the subject of intense scrutiny.

Report and recommendations

A key outcome of a survey is the production of the Survey Report. These reports contain recommendations on to how the risks inherent in the farm and its processes

can either be managed more effectively or avoided entirely. The recommendations surveyors make are an extremely important part of the survey process. They are regularly linked by insurers to the insurance policy through special policy conditions that require recommendations to be completed, usually within a specified period. Policy conditions may also specify that recommendations must be reported to insurers once completed, and it is not unknown for insurers to require a further visit by the surveyor to ensure that recommendations have been completed properly and that safety routines are being put into practice properly.

Ownership of survey reports

It might be thought that the farmer would automatically have full rights to see the contents of a survey report on his farm. In fact, this is not necessarily the case, and in practice he may only be allowed to see the recommendations that the report contains. This is because survey reports are owned by those who commission them, and this is generally the insurers who are being asked to insure the operation.

It is most important, from all points of view, that a surveyor has the freedom to deal with all issues he finds on a survey and that he is able to comment on them frankly and in confidence. If a farm is not up to a suitable standard, the surveyor must feel free to say so! However, he may be reluctant to do so if he knows that his comments are going to be seen by the owner. Insurers, therefore, tend to guarantee confidentiality to their surveyors. Though in theory this means that farmers are prevented from reading reports on their own operations, in reality, confidentiality is a fall-back position that is infrequently used, and report information is usually readily available. Farmers also respect the skills of surveyors, very much welcome their suggestions on how their farms can be improved and are generally keen to implement their recommendations.

Use of surveys and survey reports by insurers

Surveys and survey reports are an extremely important part of the underwriting process and of the on-going handling of risk analysis under aquaculture insurance policies. Insurers rely on them extensively when analysing the risks to which an operation is exposed and when deciding on the insurance terms and conditions they will offer. Insurers will frequently liaise closely with individual surveyors, seeking their comments and taking their advice on many issues, especially on changes and alterations to the farm. Insurers will also encourage farmers to consult surveyors in advance of making changes, and insurers will also request midterm surveys if they believe a farm has gone through radical change.

Cost of surveys

Survey costs are levied in different ways. They may be charged directly to the farmer or met by the insurer out of the premium. As to what costs are, these vary enormously. Survey fees depend on may factors, from the size of the farm, whether it may be one of several farms all being surveyed at the same time, to the nature and complexity of the operation. Suffice it to say that, historically, surveys have proved to be a very cost effective, hence their wide use.

On-going risk analysis through insurance policy conditions

Insurers recognize that change is a constant feature of aquaculture. They know that farmers are always trying to improve their systems and indeed, to make them safer. They also know that farms exist in a constantly changing environment and that the people who run them are also free to move to other opportunities. What is important to insurers is that they find out about changes, that they have the opportunity to analyze the risk associated with each change and that they can defend their commercial position when change alters the risk profile of a farm they are insuring.

Change in aquaculture can have a dramatic effect on risk levels, either raising or lowering them. It is a situation that is normal in insurance generally, although arguably it is of much greater significance in aquaculture because of both the incredible pace of change in the industry and because of its unique nature. With respect to the latter, aquaculture is is in a class of its own! The fact that is it conducted in water and that it utilizes such a wide range of species, growing systems and geographically different and challenging locations means that to be profitable, insurers have to exercise very tight control over change, and that means that they must have a way of monitoring it and responding to it.

The importance of analysing the risks associated with "change"

The process of monitoring, analysing, and in some cases actually controlling change is achieved by insurers through special conditions in their policy wordings. These conditions are used to achieve and control the following:

- mandatory reporting of material changes;
- stocking densities;
- reporting of losses and potential claims;
- rights of subrogation; and
- individual "warranties".

Mandatory reporting of material changes

"Materiality" is described in Footnote 1. Aquaculture policies contain reporting clauses that stipulate that all material changes must be advised to an insurer, who, under the terms of the same clause, reserves the right to alter or amend the terms and conditions of the policy, including/excluding coverage or even cancelling the policy. Some versions of the clause advise the policy holder to contact the insurer if there is any uncertainty as to whether a change is "material" or not.

The effect of these material change clauses is that the process of risk analysis is carried on throughout the life of the policy. The clause is designed to cause every material change to be reported to insurers so that they can evaluate it in the light of their experience and analyze the impact it may have on risk levels.

Insurers recognize that change does not automatically translate into increased risk, and indeed that the aquaculture industry has made enormous strides, not to mention huge investments, in changing to reduce the risks it faces. So the approach of insurers in wanting to know about changes to farms should not be seen in a negative light. In using their experience to analyze the affect on risk that change brings about, aquaculture insurers should be judged to be making a very positive contribution to the on-going success of the industry.

Control of stocking densities

Stocking density is a key factor in the husbandry of all types of organisms. It is particularly important in aquaculture, again, because of the wide diversity of the environmental conditions in which the industry operates and the wide range of organisms that it farms. As far as insurers are concerned, it is a vital factor, and one that must be very carefully controlled because any increase in stocking density directly increases the risk to stock from disease. The higher the stocking density, the greater the risk of the development of disease, the extent to which it spreads and the speed with which it does so.

Stocking density levels also impact on the general ability of stock to withstand stress. Stress can arise from a very wide range of factors, from extreme water temperatures, exposure to pollution and plankton blooms, to the effects of storms. The severity of losses following on from such events can be directly related to the stocking density at which the stock was held at the time of the event. Insurers, therefore, set stocking

density limits in their policies that insureds must adhere to at all times. If the density on a farm increases (it rarely decreases!), insurers must be advised, and if the increase is significant, they will be entitled to amend their insuring terms accordingly.

Reporting losses and analysing threatening situations

As has been emphasized, all changes in circumstances in aquaculture need to be analyzed from a risk point of view. However, never is this more important that in the case of the occurrence or threat of a loss of any kind! It is crucial to analyze both the level of the threat and the opportunities for mitigating the effect it may have. The standard loss reporting clauses in aquaculture policies all stipulate that insurers must be advised as soon as fish start dying or when an event occurs that puts stock in jeopardy.

Insurers have a great deal of experience in handling aquaculture losses of every conceivable kind. They are, therefore, very well positioned to analyze threatening situations and to advise their insureds on the best course of action to take to save their stock. Their interests and those of their insureds are almost completely in tandem! Both parties stand to lose if a serious loss occurs; the assured through the substantial deductibles (self-insured factors) that will inevitably apply, and the insurer because they will have to pay the largest portion of the loss.

The loss reporting process should, once again, not be seen in a negative light. The immediate involvement of insurers in loss situations is an extremely positive aspect of being insured! Insurers can bring to bear levels of experience and practical support that the farmer is very unlikely to find anywhere else. This is a very valuable by-product of being insured and one that, over many years, has resulted in massive savings to the industry.

Rights of subrogation

This clause does not actually constitute part of the risk analysis process, but the effect it can have "after the fact" is very important. However, it is a largely ignored part of the risk analysis picture.

Subrogation rights are reserved for insurers, in a specific policy condition. This gives the insurer the automatic right to benefit from the insured's right to take legal action against a third party who is responsible for losses to the insured's stock. In other words, if a claim has been paid, the insurer can take over and exercise the insured's right to sue any party responsible for the damage. The classic case is when a third party is responsible for the death of stock by polluting the watercourse a farm draws from. The insurer will seek to recover by suing the polluter in the name of the farm owner.

As far as the analysis of risk is concerned, the point to be made is that the potential for third-party pollution to cause losses may well be have been recognized during the pre-insurance risk analysis processes. Recognition, however, led to the conclusion that the risk was not significant, because if pollution actually occured, insurers would be able to recover from the responsible party by using the subrogation provisions in the policy.

Subrogation is an important consideration in a number of risk analysis issues in aquaculture. These include the risk of the introduction of disease through bought-in juveniles, the risk of loss from contaminated feed, the risk of failure of equipment such as pumps and aerators, and indeed the risk of basic design failure. As far as the latter is concerned, a question increasingly asked by insurers is – Who designed the farm? The objective behind the question is to identify who is responsible for design, so that recovery can be instituted against them if a basic design failure causes a loss.

One aspect of insurance that is rarely recognized is the benefit that the effect of being insured can have on the way the farmer is treated by third parties who are outside his influence but who can do him damage. In the eyes of a large potential polluter, for example, a farmer on his own is much less of a concern than a farmer who

is insured! Forced to defend himself using his own resources, the farmer may well be at a distinct disadvantage as the injured party because the financial resources he can use to prosecute a polluter are inevitably limited. Potential polluters know this and tend to behave accordingly. A farmer who is insured, however, is a totally different proposition, and one who potential polluters will treat with much more respect. They know that the farmer has behind him the resources and expertise of his insurers, and that, for them, is a much more formidable proposition.

The ability of insurers to recover from third parties is an important part of the whole picture, and while it may not be relevant to the analysis of the extent and likely occurrence of risk generally, it is a very relevant factor in analysing the potential cost of risk.

The application of individual conditions to policies

In addition to relying on standard clauses, insurers also design specific one-off conditions, applying them to individual policies to meet individual situations. An example might be to make it a condition of a cage-farm policy that navigation warning lights be located on cages to warn marine traffic of their position. Such individual policy conditions very often stem from the recommendations surveyors make in their survey reports. Indeed, there are a wide range of circumstances in which insurers, having analyzed risks of a situation, decide that it can be improved if a particular action or series of actions is taken. They will then apply a special condition to the policy accordingly.

The importance of underwriting experience in risk analysis

The aquaculture insurance market has over 30 years' experience of the aquaculture industry's losses and of paying for them! This long experience is very important and is a key element in its risk analysis processes and a reason why they are so successful. Individual insurers are able to bring considerable experience to bear on analysing risks, and they understand very well the vulnerabilities of the industry in its many configurations. Their experience also enables them to make sound assessments and judgements on new systems and species that are offered to them. Equally, the techniques insurers have developed for analysing risks and managing them have grown in sophistication over the years, and the routines involved are now backed by in-depth knowledge and considerable practical experience.

CONCLUSIONS

The process of risk analysis in insurance is carried on continuously, from the initial application for insurance, through the life the insurance policy, at renewal, and in the aftermath of claim situations. It is very thorough and wide ranging. It is supported by experienced professionals in many spheres and has a track record of saving the aquaculture industry vast amounts of money, having been responsible for reducing losses, lowering risk profiles and avoiding financial loss in all the areas of aquaculture in which it has been applied. Above all, it has contributed to a tangible increase in wealth in many areas and has the potential to do the same in those parts of the world to which it's practices have not yet spread.

ANNEX 1

EXAMPLE FISH FARM PROPOSAL FORM
FOR HATCHERY AND LAND-BASED SITES

Sunderland Marine
Mutual Insurance Company Limited

Fish Farm Proposal Form
(Hatchery & Land based Sites)

Aquaculture
Risk (Management) Ltd

1.

PROPOSER'S NAME:
CONTACT NAME:
POSITION WITHIN COMPANY:
MAILING ADDRESS:
POSTCODE: **TEL NO:** **FAX NO:**
MOBILE NO: **E-MAIL:**
SITE NAME:
SITE ADDRESS: **POST CODE:**
SITE LOCATION (Latitude and Longitude): **SITE LICENCE NO:**
TEL NO.: **FAX. NO.:** **E-MAIL:**

SITE MANAGEMENT PERSONNEL			
FIRST NAME			
SURNAME			
DATE OF BIRTH			
POSITION	MANAGER	ASS. MANAGER	
QUALIFICATIONS			
NUMBER OF YEARS EXPERIENCE			
NUMBER OF YEARS AT THIS SITE			
MOBILE NO:			
TOTAL NUMBER OF PRODUCTION PERSONNEL			

FOR OFFICE USE ONLY	**OBSERVATIONS**
RECEIVED	
REVIEWED	
INITIATED	

DATE SITE FIRST ESTABLISHED AND BY WHOM:

DATE SITE COMMENCED OPERATION UNDER PRESENT OWNERSHIP:

DETAIL ANY KNOWN OR POTENTIAL SOURCES OF RISK E.G. POLLUTION, DISEASE ETC. AT ANY LOCATION WITHIN 5 MILES OF YOUR SITE:

ARE THERE ANY OTHER PRODUCTION FACILITIES LOCATED ON THIS WATER SOURCE AND IF SO WHERE ARE THEY LOCATED:

PROVIDE INFORMATION ON THE PRIMARY WATER SOURCE IN THE TABLE BELOW:

WATER PARAMETERS		
WATER TEMPERATURE	MIN:	MAX:
D.O. LEVELS	MIN:	MAX:
pH LEVELS	MIN:	MAX:
SALINITY (Where relevant)	MIN:	MAX:
FLOW RATE	MIN:	MAX:

PROVIDE INFORMATION ON THE SECONDARY WATER SOURCE IN THE TABLE BELOW:

WATER PARAMETERS		
WATER TEMPERATURE	MIN:	MAX:
D.O. LEVELS	MIN:	MAX:
pH LEVELS	MIN:	MAX:
SALINITY (Where relevant)	MIN:	MAX:
FLOW RATE	MIN:	MAX:

IF THERE IS A TERTIARY WATER SOURCE THEN PLEASE INCLUDE DETAILS OF THIS SOURCE AT THE END OF THIS FORM.

PROVIDE DETAILS OF FILTRATION SYSTEMS USED ON INTAKE e.g.

PROVIDE DETAILS OF INFLUENT WATER TEMPERATURE MANIPULATION, IF ANY

PROVIDE DETAILS OF AERATION / OXYGEN SYSTEMS

IS THE UNIT SUBJECT TO ANY FORM OF RECIRCULATION

WATER MONITORING:	**FREQUENCY**
	METHOD

STATE ANY WATER QUALITY PROBLEMS PAST & PRESENT:

WHAT IS THE SOURCE AND TYPE OF FEED USED:

IS FOOD FED AUTOMATICALLY OR BY HAND:

STOCK – CURRENT

SPECIES	DATE OF TRANSFER TO SITE	NUMBER AT TRANSFER TO SITE	WEIGHT AT TRANSFER TO SITE MAX/MIN	SUPPLIER	PROJECTED MORTALITY TO HARVEST/ TRANSFER OFF SITE	PROJECTED HARVEST/ TRANSFER WEIGHT OFF SITE	PROJECTED HARVEST/ TRANSFER DATE OFF SITE
Atlantic Salmon							

STOCK – FUTURE (WITHIN THE NEXT 12 MONTHS)

SPECIES	DATE OF TRANSFER TO SITE	NUMBER AT TRANSFER TO SITE	WEIGHT AT TRANSFER TO SITE MAX/MIN	SUPPLIER	PROJECTED MORTALITY TO HARVEST/ TRANSFER OFF SITE	PROJECTED HARVEST / TRANSFER WEIGHT OFF SITE	PROJECTED HARVEST TRANSFER DATE OFF SITE
Atlantic Salmon							

OVERALL MAXIMUM STOCK VALUE: CURRENCY AMOUNT

COVER REQUIRED: YES☐ NO☐

2.

EQUIPMENT:

TYPE: TANKS, PONDS, RACEWAYS ETC	DIMENSIONS	MANUFACTURER/ BUILDER	YR OF MANUFACTURE	MATERIAL	NUMBER	VALUE

COVER REQUIRED: YES ☐ NO☐

ATTACH AN ANNOTATED PLAN OR PROVIDE A DIAGRAM OF THE SITE:

SHOW:

1. NUMBER & FULL CONSTRUCTION DETAILS OF ALL TANKS OR HOLDING SYSTEMS.
2. PATH OF WATER FLOW, FROM SOURCE TO DISCHARGE / RECIRCULATION.
3. DETAILS OF ALTERNATIVE WATER SUPPLIES IN THE EVENT OF MAIN SUPPLY FAILURE & PERCENTAGE REUSE IF APPLICABLE.
4. DETAILS OF PUMPING WATER (IF ANY).
5. DETAILS OF FILTRATION AND AERATION (IF ANY).
6. DETAILS OF ALARM SYSTEMS INSTALLED (IF ANY) INCLUDING DETAILS OF THE FACTORS MONITORED (E.G. WATER TEMPERATURE, WATER FLOW RATE, WATER LEVEL ETC) AND THE METHOD OF SIGNALLING A SYSTEM FAILURE.
7. STATE REQUIRED MINIMUM FLOW RATE AND DURATION OF SUPPLY AT THIS MINIMUM RATE.
8. DETAILS OF ALL PRODUCTION PLANT, PUMPS, TREATMENT APPARATUS, GENERATORS ETC.
9. IF THIS SYSTEM WAS PURPOSE BUILT PLEASE ADVISE DATE OF COMMISSION / CONSTRUCTION, DESIGNOR, CONSULTANTS USED & COPY OF ORIGINAL PLANS.

3.

MAXIMUM STOCKING DENSITY: Kg/m2 or Kg/m3	WHEN THIS OCCURS:

STOCK HEALTH RECORD (DETAIL ANY PROBLEMS DURING THE LAST 5 YEARS)

CAUSATIVE AGENT	DATE	TREATMENT	FREQUENCY	OUTCOME

DETAIL DISEASE MONITORING & LABORATORY FACILITIES:-

ON SITE:
OFF SITE:
VETERINARIAN USED:NAME TELEPHONE NO.:
FREQUENCY OF HEALTH CHECKS:
BY WHOM NAME QUALIFICATIONS
EXPERIENCE

SECURITY

GENERAL			
ALARMS			
GUARD PATROL	**YES**☐ **NO**☐	IF YES 24 HOURS	**YES**☐ **NO**☐

IS ALL MECHANICAL PLANT, INCLUDING PUMP AND ALARM SYSTEMS, THE SUBJECT OF MAINTENANCE CONTRACTS? IF SO PROVIDE DETAILS:

EMERGENCY AVAILABILITY OF STAFF ON SITE **YES**☐ **NO**☐ PROXIMITY TO SITE:

IS THE SITE EXPOSED TO ANY OF THE FOLLOWING

PARTICULAR RISKS:	YES	NO	IF YES STATE PREVENTATIVE/REMEDIAL MEASURES
STORM	☐	☐	
TSUNAMI	☐	☐	
DISEASE	☐	☐	
BLOOMS (ALGAL,PLANKTON)	☐	☐	
POLLUTION	☐	☐	
PREDATION	☐	☐	
WATER SUPPLY FLUCTUATION	☐	☐	
WATER QUALITY	☐	☐	
DEBRIS EXPOSURE AT INTAKE etc.	☐	☐	
THEFT	☐	☐	
OTHER (DETAILS)	☐	☐	

4.

PREVIOUS LOSS HISTORY DURING THE LAST 10 YEARS (WHETHER OR NOT THE SUBJECT OF A CLAIM)
STOCK

DATE	CAUSE OF LOSS	SPECIES	NUMBER	AVERAGE WEIGHT	GROSS LOSS	NETT SETTLEMENT
		Atlantic Salmon				
		Atlantic Salmon				
		Atlantic Salmon				
		Atlantic Salmon				
		Atlantic Salmon				
		Atlantic Salmon				
		Atlantic Salmon				
		Atlantic Salmon				
		Atlantic Salmon				
		Atlantic Salmon				

NAME OF PRESENT INSURERS:
RENEWAL DATE:

NAME OF ANY PREVIOUS INSURER:

IN RESPECT OF THE PROPERTY, THE SUBJECT OF THIS PROPOSAL, HAS ANY INSURER:

(A)	**DECLINED:**	**YES** ☐	**NO** ☐
(B)	**CANCELLED COVER:**	**YES** ☐	**NO** ☐
(C)	**IMPOSED RESTRICTED TERMS OR ADDITIONAL PREMIUMS:**	**YES** ☐	**NO** ☐

IF YES, PROVIDE DETAILS:

PLEASE PROVIDE ANY OTHER INFORMATION WHICH YOU FEEL MAY BE RELEVANT:

SIGNING THIS FORM DOES NOT BIND THE PROVIDER OR INSURER TO COMPLETE THE INSURANCE, BUT IT IS AGREED THAT THIS PROPOSAL SHALL BE THE BASIS OF THE INSURANCE CONTRACT ENTERED INTO WITH THE COMPANY.

I HEREBY DECLARE THAT THE PARTICULARS AND ANSWERS GIVEN IN THIS PROPOSAL ARE IN EVERY RESPECT TRUE AND CORRECT AND THAT I HAVE NOT WITHHELD ANY INFORMATION CALCULATED TO INFLUENCE THE DECISION OF THE COMPANY IN REGARD TO THE UNDERWRITING OF THE RISKS TO WHICH THIS PROPOSAL RELATES.

FAILURE TO DISCLOSE ALL RELEVANT FACTS MAY INVALIDATE YOUR POLICY.

INSURERS SHOULD IMMEDIATELY BE ADVISED OF ALL MATERIAL CHANGES OR ALTERATIONS OF THE INFORMATION PROVIDED IN THIS PROPOSAL. A MATERIAL CHANGE IS ONE WHICH WOULD INFLUENCE THE JUDGEMENT OF A PRUDENT INSURER IN SETTING THE TERMS OR PREMIUMS OR DETERMINING WHETHER TO CONTINUE ACCEPTANCE OF THE RISK.

SIGNATURE:	**DATE:** DD/MM/YY
PRINT NAME:	**POSITION:**
COMPANY:	
COMPANY ADDRESS:	

Managers

Salvus Bain (Management) Limited

Registered Office: The Esplanade, Sunderland, SR2 7BQ, UK

Tel: +44 (0) 191 568 2000 Fax: + 44 (0) 191 565 8625 E-mail: aqua@smmi.co.uk