A817897.txt

From:        "Donna-Claire Hunter RAFTS" <donna-claire@rafts.org.uk>
To:      "Colin Bean" <Colin.Bean@snh.gov.uk>
CC:      "Callum Sinclair" <callum@rafts.org.uk>, "Diane Kennedy"
<diane@rafts.or...
Date:        25/08/2011 10:48
Subject:     RAFTS Database information
Attachments:   Locational Guidance DatabasevBriefing Paper.doc; Database Screen
Shots Aug
       11.docx

Hi Colin,

Thank you very much for taking the time to meet with us, your advice and
thoughts have been extremely helpful and we will be building on many of the
things we discussed.

As promised please find attached two documents the first is a briefing paper
on the database and the second document contains screen shots.

If you have any have any questions or thoughts please do not hesitate to
contact us.

Kind Regards
Donna-Claire

# RAFTS

## Lochaber Fisheries Trust

## North West Coast Aquaculture Project:
## Manageing Interactions

| Open Fishery Information Page | Open Aquaculture Information Page | Open Water Body Information |
|---|---|---|

| Input New Data | Complete Risk Assessment |
|---|---|

RIVERS & FISHERIES TRUSTS of SCOTLAND

Saf guarding Scotland's Rivers & Lochs

# Wild Fishery Information

## Five Year Averages for Salmon and Sea Trout

**Sea Trout Numbers**     **Salmon Numbers**

Fishery Name

## Distances from Fishery to Nearest Fish Farm

Fishery Name

Distance Range (Km

Site Name

## Collective Distances

Distance Range (Km)

Fishery Name

## Navigation Buttons

Open DC Model

Close Fishery Information Page

Open Historic Catches for Fishery

Open Fishery Map

Open Aquaculture Information Page

Open Water Body Information Page

## Nearby Biomass (tonnes)

Fishery Name

Distance Range

Biomass Nearby

## Declining / Improving Salmonid Populations Trend with Five Year Average

**Salmon**     **Sea Trout**

Fishery Name

## Fishing Effort Information

Fishery Name

## Understanding the Data

The Five Year Average calculation of the catch for a fishery is used here to assess the economical importance of the fishery. The complete valuation guide can be viewed on the scottish assessors web page www.saa.gov.uk/practice_notes/e_to_i/mpc01.html

There is a graph compiled to show the catches as far back as the data is available. Press button to view

The graph requires fishing effort for each fishery to extrapolate accurate catch trends.

The trend analysis of each fishery will give an idea of a decling or improving salmonid population

# Aquaculture Information

## Containment History

Site Name [ ▼ ]

Company Name [ ]

Date of Incident [ ]

Weight of Fish [ ]

No. Fish Escaped [ ]

## Distances from Fish Farm to Nearest Fishery

Site Name [ ▼ ]

Distance Range (Km) [ ▼ ]

Fishery Name

[ ]

## Site Biomass

Site Name

[ ▼ ]

Biomass

[ ]

## Collective Distances From Fishery

Distance Range (Km) [ ▼ ]

Site Name

[ ]

## Navigation Buttons

Close Aquaculture Information Page

Open DC Model

Open Fishery Information Page

Open Water Body Information Page

## Fish Farm Benthic Survey

Receiving Water [ ▼ ]

Fish Farm Site [ ▼ ]

Company Name [ ]

Maximum Biomass (tonnes) [ ]

Survey Date [ ]

Survey Result [ ]

## Scottish Government FHI Reports (FOI)

Site Name [ ▼ ]

Company Name [ ▼ ]

Inspection Date [ ▼ ]

Audit Issue [ ]

## Understanding the Data

The fish farm benthic data can be used to determine if the carrying capacity of the sea bed has reached it's limit at the present biomass. It is also an indication of the quantity of therapeutants that have been required to control sea lice at the site.

Scottish Government Fish Health Inspectorate reports of inspections of Scottish salmon farms from 2009 and 2010, obtained under freedom of information law.

# Water Body Information

## Water Body Physical Properties

Water Body [ ▼ ]

Water Body Length (Km) [ ]

A, Water Body Area (Km2) [ ]

V, Volume (Mm3) [ ]

Flushing Time, Tf (days) [ ]

Flushing Rate, Q (Mm3/yr) [ ]

R, Tidal Range (m) [ ]

## Water Body Categorisation

Water Body [ ▼ ]

Category [ ]

Nutrient Enrichment Index [ ]

Benthic Impact Index [ ]

Combined Index [ ]

## Understanding the Data

Locational guidance for finfish farming is produced by Marine Scotland Science based on the existing levels of nutrient loading and associated benthic impact from finfish developments. MSS identifies three categories of coastal water bodies as follows:

Category 1: where the development of new or the expansion of existing marine fish farms will only be acceptable in exceptional circumstances.

Category 2: where new development or expansion of existing sites would not result in the area being re-categorised as Category 1.

Category 3: where there appear to be better prospects of satisfying nutrient loading and benthic impact requirements, although the detailed circumstances will always need to be examined carefully.

The predicted ECE values and percentage areas of 'degraded' seabed are combined in a manner which identifies the relative potential sensitivity of sea lochs to further fish farming development. This approach involves a semi-logarithmic scaling of ECE values from 0-5, such that each sea loch can be assigned an index of nutrient enhancement.

Benthic impact index is derived from the percentage area of sea-bed of a loch, predicted to show reduced Infaunal Trophic Indices (ITI) as a result of the deposition of organic matter from fish farms. Percentage areas are derived from the carbon deposition model described in the report SCOTTISH EXECUTIVE LOCATIONAL GUIDELINES FOR FISH FARMING: PREDICTED LEVELS OF NUTRIENT ENHANCEMENT AND BENTHIC IMPACT.

The nutrient enhancement is strongly dependent on the flushing rate. The Flushing Rate, Q is the total volume of water that is exchanged in one year.

$$Q = 365.V/Tf$$

The flushing time Tf, of the loch can be calculated by assuming that the water volume is replaced by the volume of water entering and leaving on each tide (the tidal prism).

$$Tf = 0.52V/0.7 \, A.R \text{ days}$$

## Water Body Topography

Water Body [ ▼ ]

Water Body Biomass [ ]

Water Body Orientation [ ]

Water Body Shape [ ]

## Water Body Environmental Designations

Water Body [ ▼ ]

SAC [ ]

Maerl Beds Present [ ]

## Navigation Buttons

| Open Water Body Map | Close Water Body Information |
| --- | --- |
| Open Fishery Information Page | Open DC Model |
| | Open Aquaculture Information Page |

# Risk Assessment

**Planning Application Type** [ ▼ ]

**Site** [ ▼ ]  **Water Body Name** [ ▼ ]

## Aquaculture Risk Identification

### Identified Risk

Biomass Range [ ▼ ]

Biomass Increase [ ▼ ]

Distance from Fishery (Km) [ ▼ ]

Benthic Survey Result [ ▼ ]

Have escapes occured at this site? [ ▼ ]

## Nearest Fishery Risk Identificaton

### Identified Risk

Five Year Average of Salmon [ ▼ ]

State of Salmon Populations [ ▼ ]

Five Year Average of Sea Trout [ ▼ ]

State of Sea Trout Populations [ ▼ ]

## Water Body Risk Identification

WB Shape [ ▼ ]

Max Biomass [ ▼ ]

Category [ ▼ ]

WB Orientation [ ▼ ]

Maerl Beds [ ▼ ]

SAC [ ▼ ]

## Navigation Buttons

Open Fishery Information Page

Open Aquaculture Information

Close Risk Assessment Page

Open Risk Scoring Matrice

Open Water Body Information

Preview Risk Assessment Report

## Risk Rating

1-20    LOW RISK

21-36   MEDIUM RISK

37-60   ▉

## Risk Scoring Calculation

Biomass Range [ ]

Biomass Increase [ ]

Distance from Fishery (Km) [ ]

Benthic Survey Result [ ]

Has escape occured at this site? [ ]

Five Year Average of Salmon [ ]

State of Salmon Populations [ ]

Five Year Average of Sea Trout [ ]

State of Sea Trout Populations [ ]

Fjordic Risk Score [ ]

Water Body Biomass Risk Sco [ ]

Category Score [ ]

WB Orientation Risk Score [ ]

Maerl Bed Risk Score [ ]

SAC Risk Score [ ]

Total Score [ ]

**Rivers and Fisheries Trusts of Scotland**
**Scottish Government**

**Aquaculture Mitigation Project**

**Steering Group Paper:**

**Locational Guidance**
**Briefing Paper**
**July 2011**

## 1. Background

This briefing paper aims to demonstrate the Locational Guidance database and provide a basic user guide. It will also aid in the further development of a scoring and weighting matrix for the risk assessment of wild fisheries, aquaculture sites and water bodies.

## 2. Security

Some Trusts have indicated that raw data used in the database development should not get into the public domain. It is therefore imperative that the databases are locked with very strict Administrator access only. The raw data held within the database will be hidden behind a user interface.

## 3. Version Control

This database and modelling tool will require continual updating and maintenance for it to remain a useful and accurate device for the assessment of the aquaculture planning proposals. Therefore the Steering Group are required to assist in the development of a robust version control system.

## 4. Data Collected

Data collected so far include
- SEPA benthic surveys to date
- MS catch returns
- FOI dossier from MSS site inspections
- Escape and containment information from Scottish Government,
- Distance analysis from fishery to aquaculture site
- West coast stocking information by site from SEPA
- Fishing effort information from Trusts
- Five year average statistics for catches
- Water body physical properties from Scottish Government Locational Guidance documents
- Water body topography
- Environmental designations of water bodies from SNH and MarLIN

## 5. Software Requirements

The software required to run this database is MS Access 2007. This is the best and most commonly used software to use for incorporation and running of GIS models.

## 6. Local Knowledge

At present each Trust's database is identical. As a Steering Group we need to come up with ways of incorporating local knowledge, quirks of the fisheries and catchments and extra information that each Trust may feel is useful in having to hand when responding to their aquaculture planning applications. It is proposed that the Project Coordinators visit each of the Trusts to download the databases and ensure they work and also discuss with Trusts any extra information they want included in their datasets.

## 7. Database

At present there is a separate database for each Trust area. The database contains a front page which will appear when the database is opened and then there are labelled buttons to take you to a Fishery Information Page, Aquaculture Information Page and a Water Body Information Page. All the results from the above datasets have been analysed and organised within each of these information pages.

Within each of the information sections there are separate pages containing full size maps and graphs, each new page being accessed by a labelled button. Each page is easily navigable with drop down choice boxes and buttons.

At present there are no links (queries and visual basic macros) between the datasets on the pages so ease of rearranging the fields and formatting is possible. There is an Understanding the Data section included on each page as an aid to origins of each dataset and reminders for Administrator (me).

### 7.1 Front Page

This page will automatically appear when you open the database, ensuring that raw data held behind the database is secure. This data can only be accessed by those with Administrator privileges.

Below is the Front Page of the database.
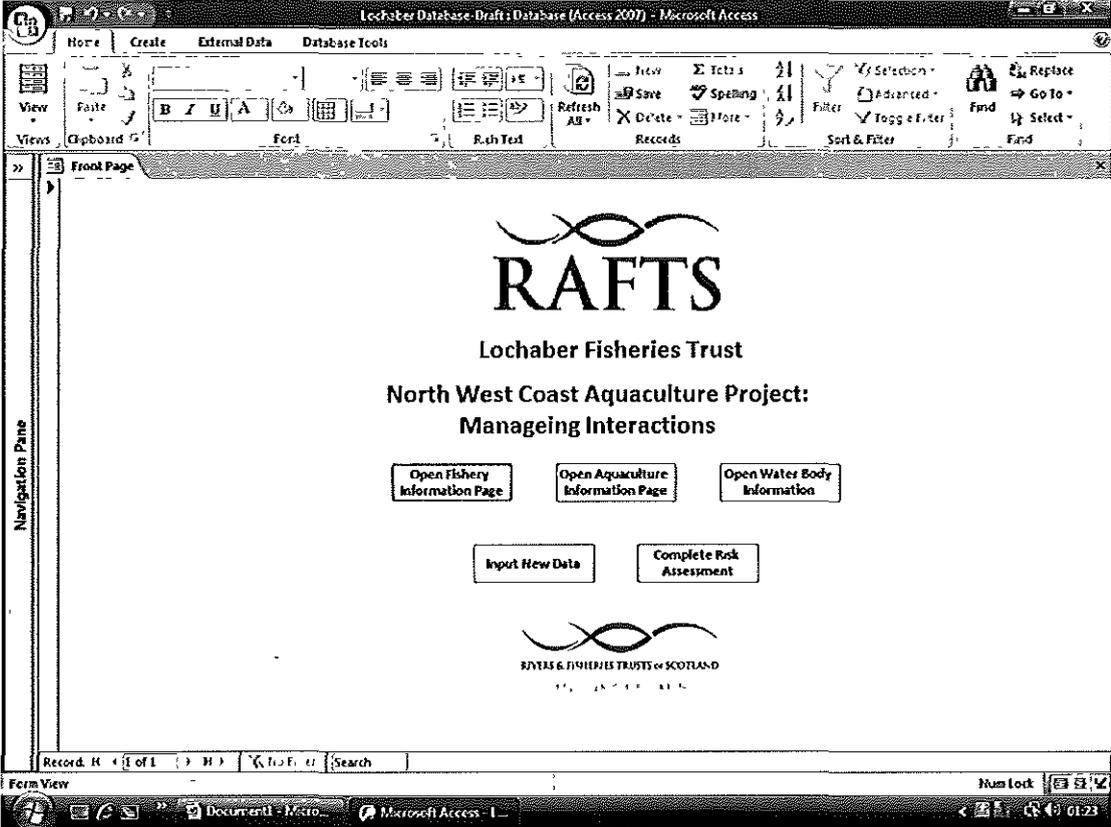


All of the Information Pages are accessible from this screen using labelled buttons.

## 7.2 Fisheries Information Page

Below is the Wild Fisheries Information Page of the database.



As you can see all data choices are made using drop down combo boxes with the information appearing in the corresponding list boxes. All information pages can be accessed from here also. The fishery map and historic catches graph are accessed by pressing a button. The data here is presented by fishery.

The five year average dataset is used to measure the economic value of the fishery as described by the Scottish Assessors. This shows the data in terms of high value and low value fisheries as calculated by catch return data.

The Declining/Improving Salmonid populations are divided into Sea trout and Salmon catches by fishery and basic trend analysis shows whether the five year average figures is representative of the salmonid populations. This dataset is not robust enough to use independently so each Trust has been asked to provide a description of fishing effort, pressures such as poaching and netting and whether the fishery is let commercially or not.

The Biomass information corresponds to the nearest aquaculture marine site to demonstrate the total biomass at X km away and basically the fisheries that have aquaculture sites on their doorstep at present.

From this information page it helps to give an appreciation of the economic value of the fishery, the total aquaculture biomass at a given distance, the number of fish farm sites in the vicinity of the fishery and whether the salmonid populations at present accurately reflects the catchment pressures and the historic and futuristic capacity of the fishery.

There are trends already showing here and the next step is identifying the most at risk fisheries, least at risk fisheries and the stretches of coastline that would be less critically impacted by a new aquaculture development (see open DC model button).

7.3 Aquaculture Information page

Below is the Aquaculture Information Page of the database.
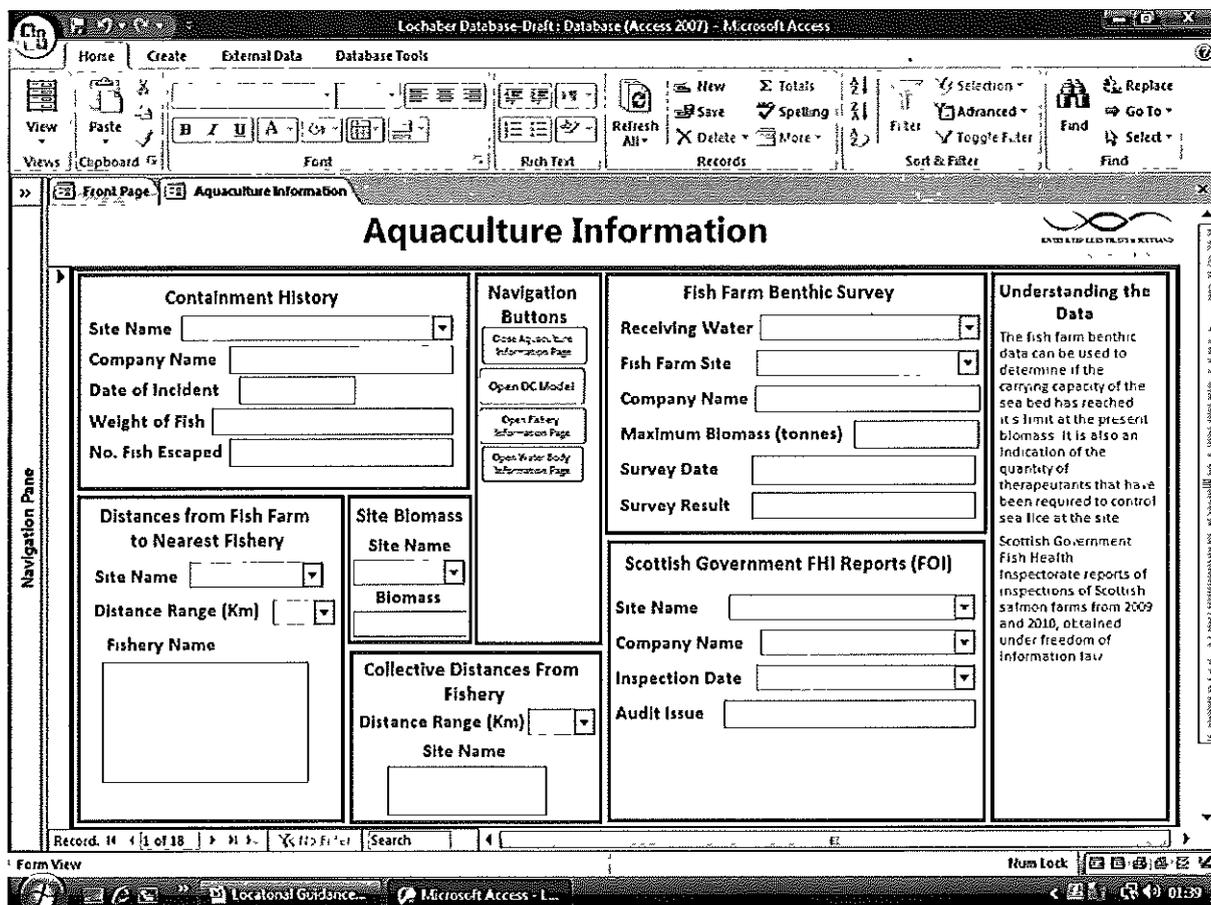


The Containment History dataset is from the Scottish Government and this shows all breaches of containment and supporting information by site since 2001.

The Biomass Information was supplied by SEPA and again this is on a site by site basis.

The Distance to Nearest Fish Farm is useful in determining what fish farms are nearest to the fishery and the Collective Distance to Fishery dataset allows you to see from increasing distance all the fish farms that are nearest to all the fisheries.

The Fish Farm Benthic Data was again supplied by SEPA and this is a good indication of the carrying capacity of the fish farm foot print at the present biomass. If the benthic sample shows a consistent unsatisfactory result then really the site has reached the biomass it can environmentally cope with. This was organised by receiving water mainly because some water bodies contain more than one site and if all sites within a water body are failing then aquaculture in the area could be causing a wide spread deterioration of the sea bed.

The Freedom of Information dossier from Scottish Government fish farm inspectors audits was added as it indicates fish husbandry (sea lice) and general housekeeping (record keeping) performance.

Again as with the Fishery Information Page this page shows up some patterns and trends also. If you look at each fish farm site over all the data sets you begin to see indications of what sites may be deemed high risk and are candidates for relocation or for having their biomass capped or even reduced. If you then look back at their nearest fishery, trends appear that again support at the risk fisheries. You also see the sites that consistently perform well, have no wild fishery neighbours and thus would be considered for expansion and development with low risk to the salmonid populations. Obviously migration routes of salmonid populations would need to be known also.

## 7.4 Water Body Information Page

Below is the Water Body Information Page of the database.
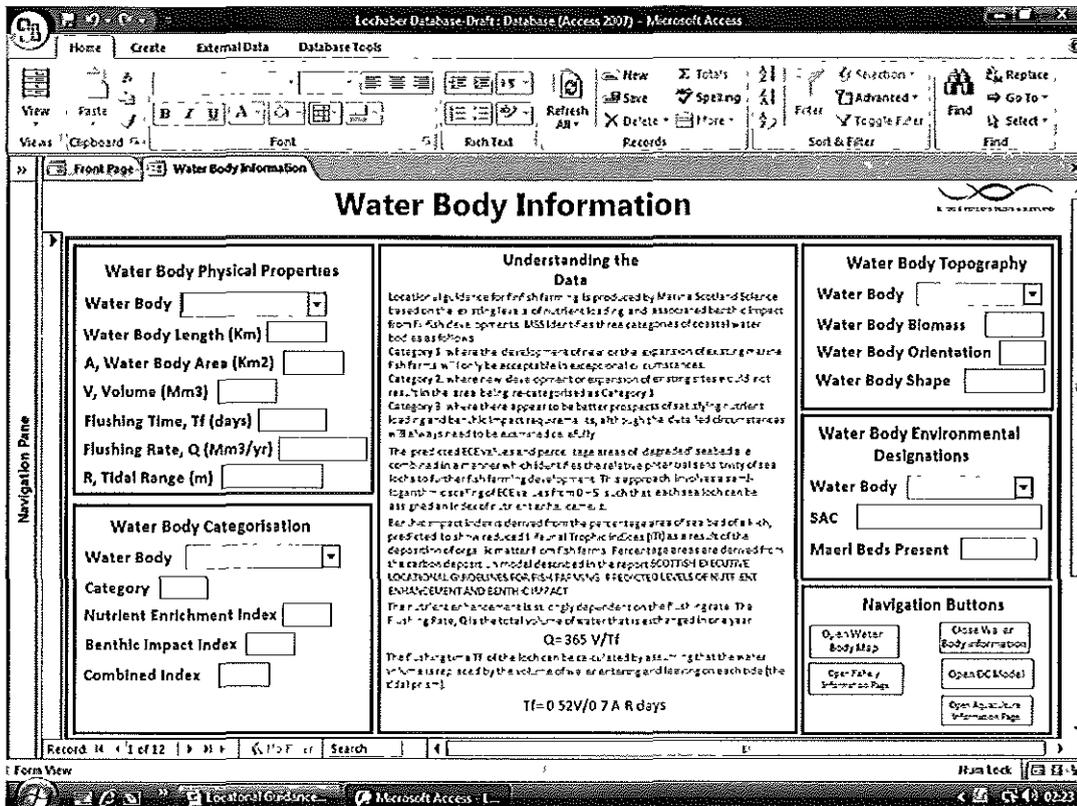
Water Body Physical Properties and Water Body Characterisation was compiled to ensure the optimum situation of a fish farm site. All this is explained in the Understanding the Data section on this page.

The Water Body and Topography dataset provides information on the fjordic shape of a loch, which is said to influence flushing, and sea lice transportation, and the orientation of the loch which is said to increase the water body's susceptibility to sea lice infestation.

The Water Body Environmental Designations dataset shows whether a water body has an SAC attached to it and whether Maerl beds are present. Any other environmental designation information will be added also.

7.5  Input New Data Page

This page will be useful when new sites are developed and data can be added into existing dataset. It is not developed yet.

## 8. Risk Assessment

This is one of the most crucial aspects of the database so a whole section is being dedicated to its development. Risk assessment is carried out in all industries and walks of life.  A complicating issue for environmental risk assessment is the lack of an easily defined measure of what constitutes *harm* to the environment. In some cases definitions of environmental damage are laid down in statute, but in others appropriate criteria will need to be selected on the basis of scientific and social judgments.

Firstly, it is imperative to establish what the problem is and that is the crux of this project, declining salmonid populations. To start the risk assessment process a useful concept to think about is the SOURCE→ PATHWAY→ RECEPTOR model. In this model the PATHWAY between a hazard SOURCE and a RECEPTOR are investigated. If no PATHWAY exists then no risk exists!

So what is the SOURCE, PATHWAY, RECEPTOR relationship? The SOURCE is where all identified hazards originate from. In the case of this project there are three SOURCES, the fishery, the fish farm site and the wider catchment i.e. the water body. The RECEPTORs in this case is the water body and the fishery. The PATHWAY is the linkage by which the RECEPTOR could come into contact with the SOURCE. This is an environmental risk assessment process so several permanent PATHWAYS exist, the sea and tide, the wind and lastly sea lice infected escaped and contained farmed Atlantic salmon and introgression.

| SOURCE | PATHWAY | RECEPTOR |
|---|---|---|
| FISHERY | | FISHERY |
| FISH FARM SITE | | WATER BODY |
| WATER BODY | | |
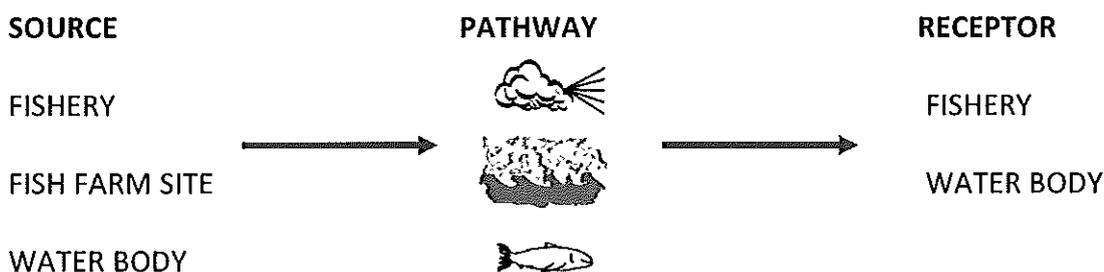
A very basic Risk Assessment Page has been compiled. Each of the hazards have been identified and nominally scored. No weightings or categorisations have been carried out at this stage. Each Information page has its own section and on completion of the assessment a score will be generated. This score will fall into one of three categories, low risk, medium risk and high risk.

See below the Risk Assessment Page of the database.
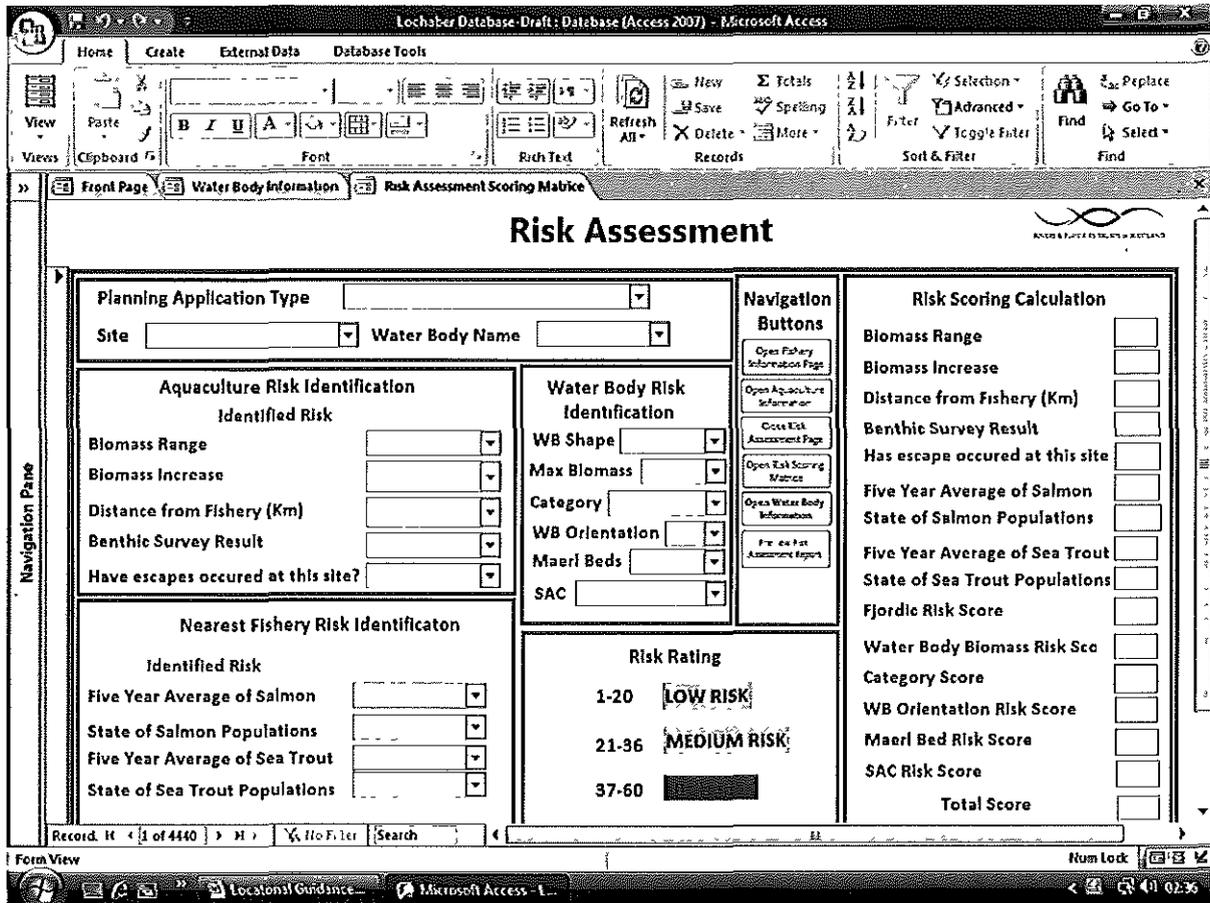


## 8.1 Hazard and Risk Terminology

One of the difficulties with the concept of risk is that it relates to common experiences for which a language has been developed across a diverse range of disciplines and activities. It is important to set out clearly the way that the terms *hazard* and *risk* are used here:

*hazard* - a property or situation that in particular circumstances could lead to harm.

*risk* - a combination of the probability, or frequency, of occurrence of a defined hazard and the magnitude of the consequences of the occurrence.

### 8.1.2   Hazard Identification

The first stage in risk assessment is the hazard identification. Identification of primary hazards has been carried out. Secondary hazard identification has not been carried out at this stage, this is where spin off hazards occur in relation to the primary hazards i.e. fish escape due to seal attack (primary hazard), escaped fish suspected of having a notifiable disease (secondary hazard). Below is a list of the primary hazards identified so far from the database. Included in this also is consideration towards assigning weightings to the assessment scores.

### 8.1.2.1   Wild Fishery Hazard Identification

- Declining catch trends at a fishery not related to low fishing effort i.e poor cumulative water quality in the river, susceptibility of fishery to low rainfall and poor management of the fishery, these are considerations to take into account when ranking and weighting the risk score.
- Decreasing five year average as a measure of the economic value of the fishery (when assessing this category it would be very easy to state downward trend five year average is high risk and upward trend is low risk BUT what about if the low catch, downward trend fishery was never a highly productive fishery (even before aquaculture pressure)? What about the fishery that has the capacity to increase its catch statistics (historically productive) but has a poorly performing fish farm on its doorstep? Lastly what about the fishery that is highly productive, of high economic value and has no aquaculture pressures in its catchment?
- Aquaculture sites within close vicinity of the fishery
- Large existing biomass near by the fishery
- Seasonal variance of sea lice prevalence in areas without aquaculture pressure.

### 8.1.2.2   Aquaculture Hazard Identification

- Consistently poor benthic survey results
- Poor escape record
- Large existing biomass of site
- Site has a poor husbandry and housekeeping record
- Poor therapeutic success (treatment efficacy)
- No AMA, so possibly no synchronised treatments and fallowing

### 8.1.2.3   Water Body Hazard Identification

- Water body has environmental designations i.e SAC and WFD classification ('Good ecological status'), maybe not a true hazard but would affect ranking and weighting.
- Water body has fjordic shape
- Water body as a whole contains a large fish farm biomass
- Water body has a SW orientation
- Prevailing wind and tidal information indicates water body susceptibility to sea lice infection.

### 8.1.3    Risk Assessment Threshold Criteria

The risk threshold criteria are conditions that need to be met before the hazard can have an effect. If we look at the identified hazards above all can have associated risk threshold criteria.

| Hazard Number | Identified Hazard | SOURCE | Risk Threshold Criteria |
|---|---|---|---|
| 1 | Catch trends at a fishery (not related to low fishing effort) | Wild Fishery | DOWN<br>STATIC<br>UP |
| 2 | Five year average as a measure of the economic value of the fishery | Wild Fishery | <50<br>50-100<br>100-200<br>200-300<br>300+ |
| 3 | Aquaculture sites vicinity of the fishery (Km) | Wild Fishery | <5<br>5-10<br>10-20<br>20-30<br>30+ |
| 4 | Existing biomass near by the fishery (tonnes) | Wild Fishery | <500<br>500-1000<br>1000-2000<br>2000-3000<br>3000+ |
| 5 | Benthic survey results | Aquaculture | SATISFACTORY<br>UNSATISFACTORY<br>BORDERLINE |
| 6 | Escape recorded | Aquaculture | YES<br>NO |
| 7 | Existing biomass of site (tonnes) | Aquaculture | <500<br>500-1500<br>1500-2000<br>2000-2500<br>2500+ |
| 8 | Site husbandry and housekeeping record (FOI Dossier) | Aquaculture | YES<br>NO |
| 9 | Therapeutic success (treatment efficacy) | Aquaculture | YES<br>NO |
| 10 | AMA, so possibly no synchronised treatments and fallowing | Aquaculture | YES<br>NO |
| 11 | Water body as a whole total fish farm biomass (tonnes) | Water Body | <500<br>500-1000<br>1000-2000<br>2000-3000<br>3000+ |

| 12 | Water body has orientation (SW) | Water Body | YES<br>NO |
|----|--------------------------------|------------|-----------|
| 13 | Prevailing wind and tide | Water Body | ? |
| 14 | Water body has shape | Water Body | FJORDIC<br>NOT FJORDIC |
| 15 | Water body has environmental designations | Water Body | YES<br>NO |

### 8.1.4 Risk Assessment Weighting, Ranking and Scoring

This is a technique of assigning the order of relative importance of a particular hazard and risk threshold criteria and applying a multiplier to reflect this importance.

For example if we look at the identified hazards associated with catch numbers (Hazard no. 1), aquaculture site in close vicinity (Hazard no. 3), benthic survey results (Hazard no. 5), escape recorded (Hazard no. 6) and their associated risk threshold criteria of <50, <5 Km and YES respectively they would all score as HIGH RISK. Then we start to get a picture of why a fishery may be decling, poorly performing fish farm site

So either by ALL identified hazards or by SOURCE the identified hazards should be ranked by order of importance. This requires discussion with the steering group.

To ensure that the 'highest value' or 'most important' hazards influence the final risk score a multiplier called a weighting must be added. This requires discussion with the steering group.

| Hazard Number | Identified Hazard | SOURCE | Risk Threshold Criteria | Risk Score | Weighting | Risk score x Weighting=Final Score |
|---------------|-------------------|--------|-------------------------|------------|-----------|-----------------------------------|
| 1 | Catch trends at a fishery (not related to low fishing effort) | Wild Fishery | DOWN<br>STATIC<br>UP | 5<br>3<br>1 | | |
| 2 | Five year average as a measure of the economic value of the fishery | Wild Fishery | <50<br>50-100<br>100-200<br>200-300<br>300+ | 5<br>4<br>3<br>2<br>1 | | |
| 3 | Aquaculture sites vicinity of the fishery (Km) | Wild Fishery | <5<br>5-10<br>10-20<br>20-30<br>30+ | 5<br>4<br>3<br>2<br>1 | | |
| 4 | Existing biomass near | Wild Fishery | <500<br>500-1000 | 1<br>2 | | |

| | | | 1000-2000 | 3 | | |
|---|---|---|---|---|---|---|
| | by the fishery (tonnes) | | 2000-3000 | 4 | | |
| | | | 3000+ | 5 | | |
| 5 | Benthic survey results | Aquaculture | SATISFACTORY | 1 | | |
| | | | BORDERLINE | 3 | | |
| | | | UNSATISFACTORY | 5 | | |
| 6 | Escape recorded | Aquaculture | YES | 5 | | |
| | | | NO | 1 | | |
| 7 | Existing biomass of site (tonnes) | Aquaculture | <500 | 1 | | |
| | | | 500-1500 | 2 | | |
| | | | 1500-2000 | 3 | | |
| | | | 2000-2500 | 4 | | |
| | | | 2500+ | 5 | | |
| 8 | Site husbandry and housekeeping record (FOI Dossier) | Aquaculture | Issues Found | 5 | | |
| | | | No Issues Found | 1 | | |
| 9 | Therapeutic success (treatment efficacy) | Aquaculture | YES | 1 | | |
| | | | NO | 5 | | |
| 10 | AMA, so possibly no synchronised treatments and fallowing | Aquaculture | YES | 1 | | |
| | | | NO | 5 | | |
| 11 | Water body as a whole total fish farm biomass (tonnes) | Water Body | <500 | 1 | | |
| | | | 500-1000 | 2 | | |
| | | | 1000-2000 | 3 | | |
| | | | 2000-3000 | 4 | | |
| | | | 3000+ | 5 | | |
| 12 | Water body orientation (SW) | Water Body | YES | 5 | | |
| | | | NO | 1 | | |
| 13 | Prevailing wind and tide | Water Body | ? | | | |
| 14 | Water body has shape | Water Body | FJORDIC | 5 | | |
| | | | NOT FJORDIC | 1 | | |
| 15 | Water body has environmental designations | Water Body | YES | 5 | | |
| | | | NO | 1 | | |

### 8.1.5 Final Score

The database will calculate a final score for the risk assessment. This final score requires validation. Notionally the final score could appear as a traffic light configuration where

1-20 LOW RISK
21-36 MODERATE RISK
37-60 HIGH RISK

### 8.1.6 Risk assessment Output

The database has the capacity to produce a report type document that can be used as an appendix to the aquaculture planning responses. The report can contain anything from a catchment map, the risk assessment and the final risk score and any supporting information that maybe out with the scope of the database.

A817894

# Rhoda Davidson

**From:** Donna-Claire Hunter RAFTS [donna-claire@rafts.org.uk]
**Sent:** 16 August 2012 15:38
**To:** Colin Bean
**Cc:** Callum Sinclair
**Subject:** Proposed Meeting

Hi Colin,

I hope that your workshop went well yesterday.

This is just a quick follow up to the proposal of a meeting. I have checked dates with Callum and in the next few weeks we are both available in August the 28th or 29th and then the following week into September the days of the 4th or 5th are also good. If these dates are too soon we could also do September the 20th, 25th, 26th or 27th.

If there are SNH colleagues attending who haven't been involved or seen the project to date then we could initially introduce and present the project background and were the work has developed to date to try and bring everyone up to speed with what we are attempting to achieve before then holding a more in depth or focussed session with the group that would involve discussions into the details and workings of the tool, the criterion and scoring systems being developed. That would allow us to both to bring SNH colleagues up to date and also try to gather in your advice as to how we progress from the current position. We would very much welcome your input, ideas and there are some questions that we would like to get the thoughts from you and the SNH Aquaculture group on. As you know we would like the project outputs to be available to and supported by other bodies and view SNH as a key organisation in this regard.

Please let me know if any of those dates are suitable and if the proposed approached to meeting is workable for you.

I look forward to hearing from you.

Kind Regards

Donna-Claire


**From:** Colin Bean
**Sent:** Tuesday, August 14, 2012 12:28 PM
**To:** Callum Sinclair ; Donna-Claire Hunter RAFTS ; matthew.gubbins@scotland.gsi.gov.uk ; Stuart.Middlemas@scotland.gsi.gov.uk
**Subject:** RE: Finalised Meeting Details Wednesday 15th of August

Callum et al.,

I have just returned to the office after leave and see that this date has ben finalised - unfortunately I have also been fingered to run a workshop at the SNH Hydro Sharing Good Practice event tomorrow and have been told that my presence is required.

I'm sorry if this throws a spanner in the works for your meeting - but on a brighter note, I have been asked if you would be willing to come and talk to the SNH aquaculture group to go over the tool and possibilities for further development.

C.

28/01/2013

**From:** Callum Sinclair [mailto:callum@rafts.onmicrosoft.com]
**Sent:** 13 August 2012 16:13
**To:** Donna-Claire Hunter RAFTS; matthew.gubbins@scotland.gsi.gov.uk;
Stuart.Middlemas@scotland.gsi.gov.uk
**Cc:** Colin Bean
**Subject:** RE: Finalised Meeting Details Wednesday 15th of August

All

With sincere apologies for my ever changing arrangements I can confirm that I have rearranged i.e. had cancelled, my other commitment on Wednesday morning to free my time up to meet as planned on Wednesday afternoon.

Can I suggest that we, therefore, meet as originally advised by Donna Claire at 2pm at the RAFTS offices in Edinburgh? Do please let Donna-Claire and myself know if this is no longer suitable.

Stuart

I will be in the office all day and so happy to catch up before 2pm if suits your train travel arrangements. Let me know and I will make sure I keep my diary clear.

Apologies again and look forward to seeing you on Wednesday.

Thanks
Callum

**Callum Sinclair**
**Director: RAFTS**
**Capital Business Centre**
**24 Canning Street**
**Edinburgh**
**EH3 8EG**

**E: callum@rafts.org.uk**
**T: 0131 272 2797**
**M: 07766 221444**
**Web: www.rafts.org.uk**
**Twitter: @rafts_scotland**

---

**From:** Callum Sinclair
**Sent:** 09 August 2012 15:40
**To:** 'Donna-Claire Hunter RAFTS'; matthew.gubbins@scotland.gsi.gov.uk; Colin.Bean@snh.gov.uk;
Stuart.Middlemas@scotland.gsi.gov.uk
**Subject:** RE: Finalised Meeting Details Wednesday 15th of August
**Importance:** High

Folks

I think Colin is unavailable for this meeting as he is attending another meeting. We will look to catch up with Colin and SNH separately.

28/01/2013

Re below:
I have a bit of a problem with both the time and location now for the 15th as the location of my morning meeting has been changed from Edinburgh to Dunblane I wonder whether it would be possible to change the location of our afternoon meeting to the Dunblane Centre and with a start time at 2.30pm? I'm assuming that Stuart and Matt are travelling from the north and so hope that this might save folks a bit of a journey.

Could you let Donna-Claire and I know if the changed arrangements might work for you? Stuart tried to give you a bell a few moments ago but without success.

Many thanks
Callum

---

**From:** Donna-Claire Hunter RAFTS [mailto:donna-claire@rafts.org.uk]
**Sent:** 08 August 2012 10:44
**To:** Callum Sinclair; matthew.gubbins@scotland.gsi.gov.uk; Colin.Bean@snh.gov.uk; Stuart.Middlemas@scotland.gsi.gov.uk
**Subject:** Finalised Meeting Details Wednesday 15th of August

Dear All,

Thank you for taking the time to complete the doodle poll. This email is confirmation of the meeting details for next week.

The meeting will be held in the RAFTS office in Edinburgh (http://www.rafts.org.uk/contact-us/) on the afternoon of Wednesday the 15th of August starting at 2pm.

I look forward to seeing you all there.

Kind Regards

Donna-Claire

Dr Donna-Claire Hunter
RAFTS
•´¯`•...,><((((º>`•.,,.•´¯`•.,.•´¯`•...,><((((º>
Tel: 01463783597
Mob: 07794622257

sùil a chumail air puist-dealain a' tighinn a-steach agus a' dol a-mach bho SNH


\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*