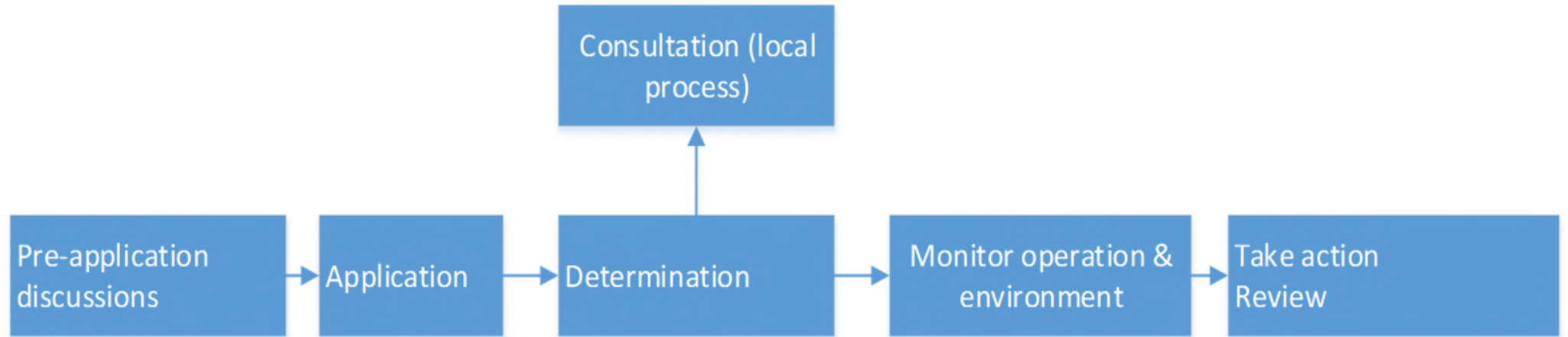


Aquaculture Sector Regulation - Permits and Process

External Stakeholder Workshop – 2 May 2019

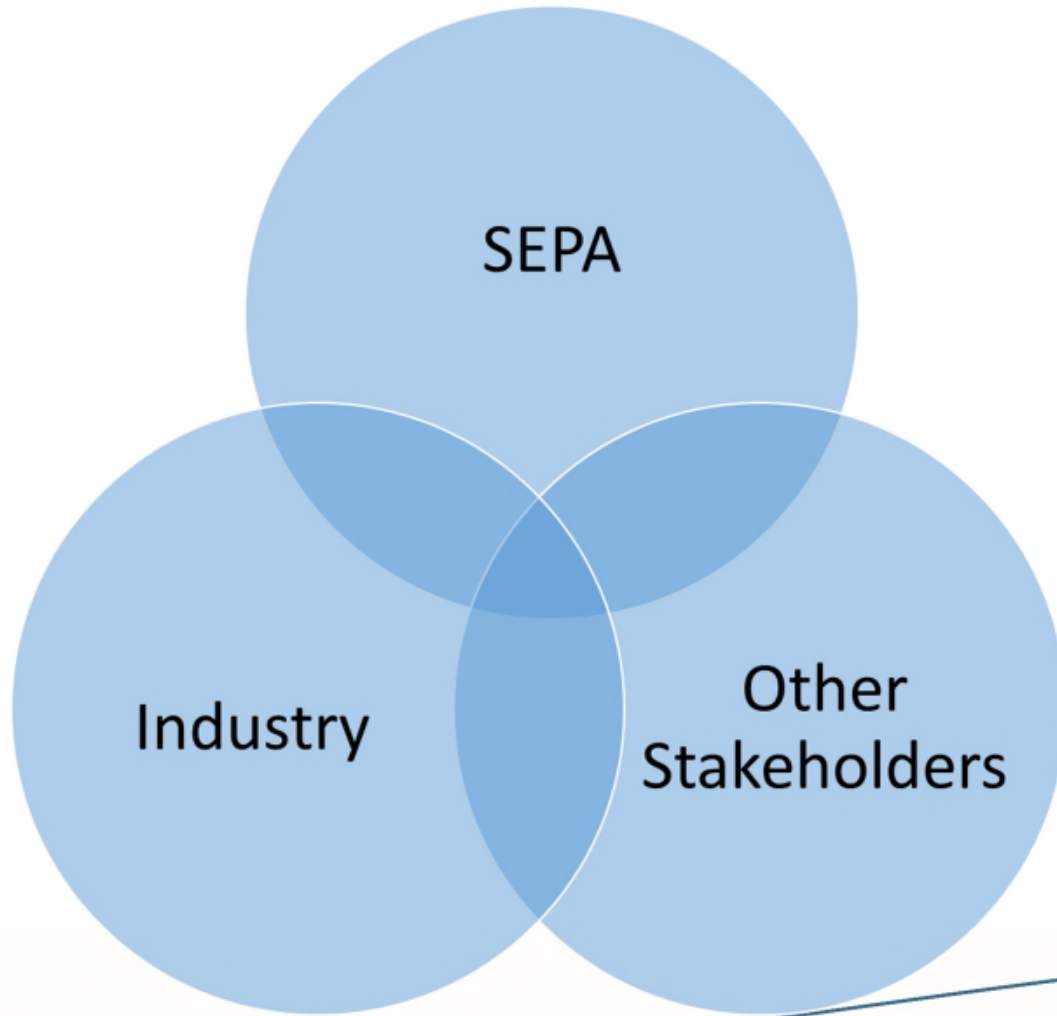
Scott Crawford - Permitting Implementation Officer
Neil Robins – Senior Policy Officer (Permitting)

Future position



Permitting Function

- Why we issue permits
- When we issue permits



Permit Principles

- Transparent
- Proportionate
- Enforceable
- Place responsibility environmental management on to the operator

Proposed Template

- Shorter
- Plain English
- Succinct, enforceable conditions
- Regulatory controls:
 - Medicine minimisation
 - Environmental standards

Authorised Person

1.1 Duty of Authorised Person

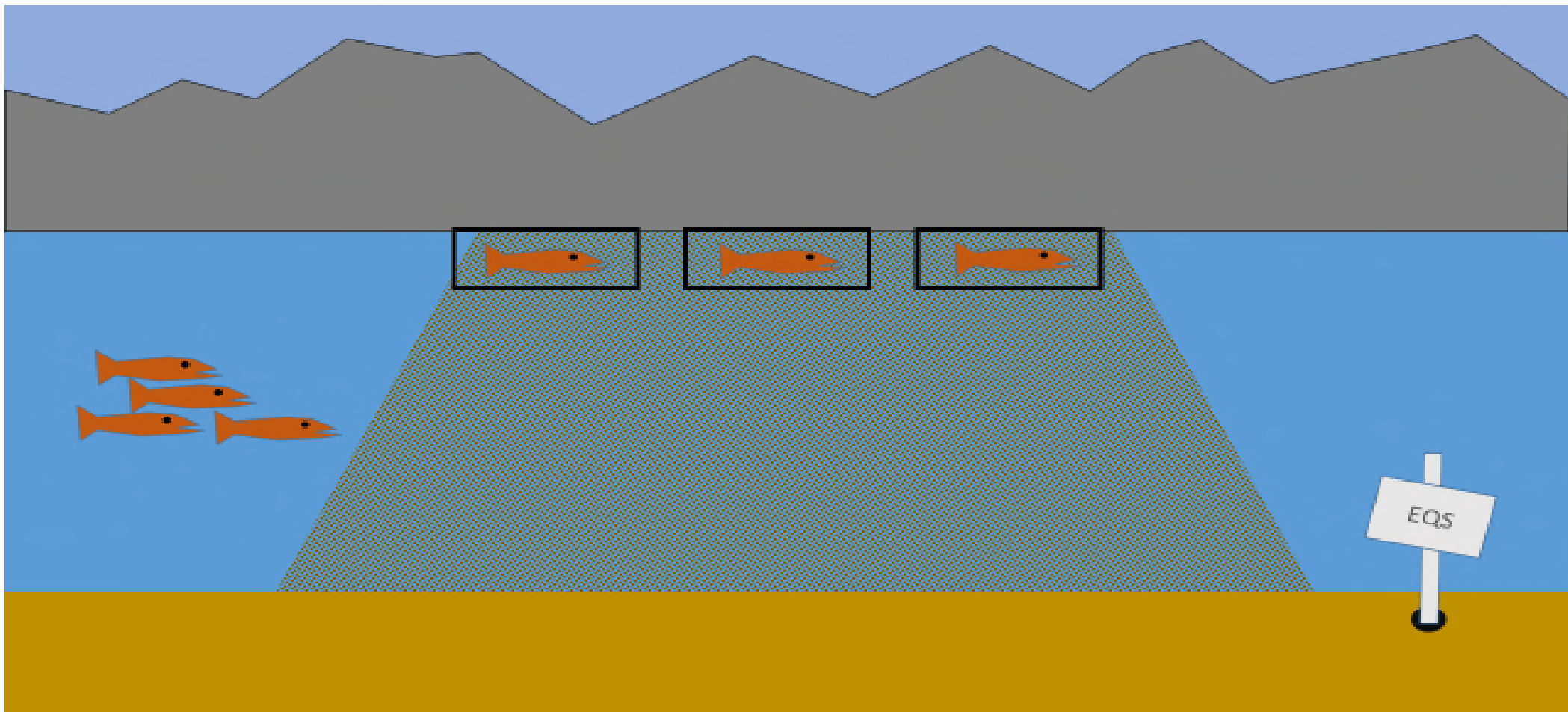
1.1.1 The Authorised Person must comply with all the conditions of the Permit.

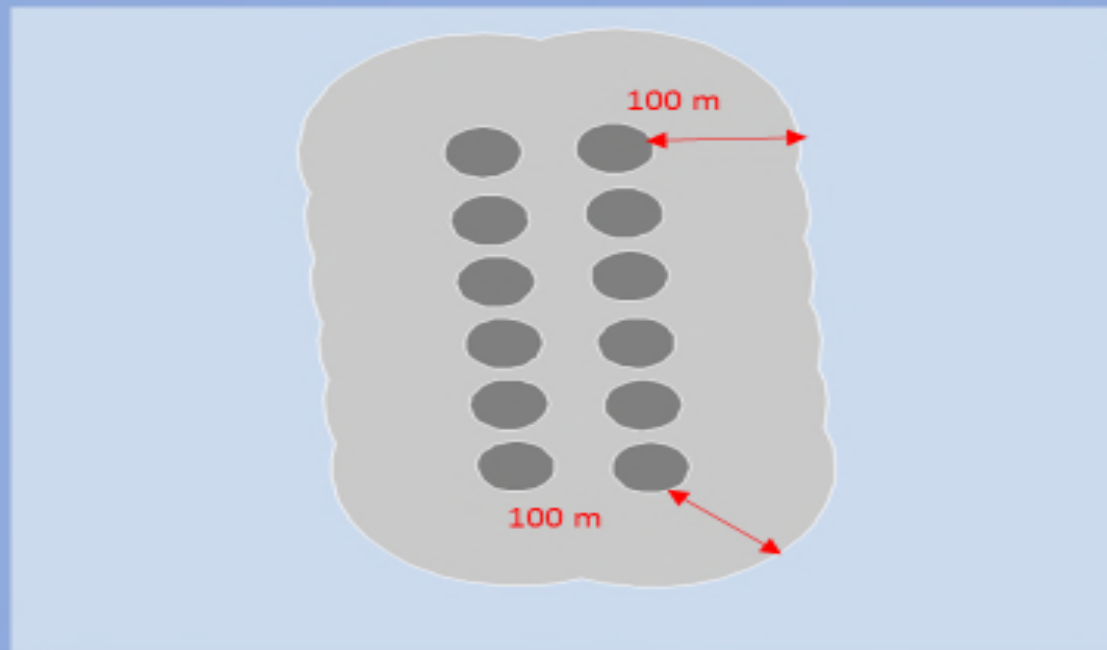
1.2 Environmental Harm

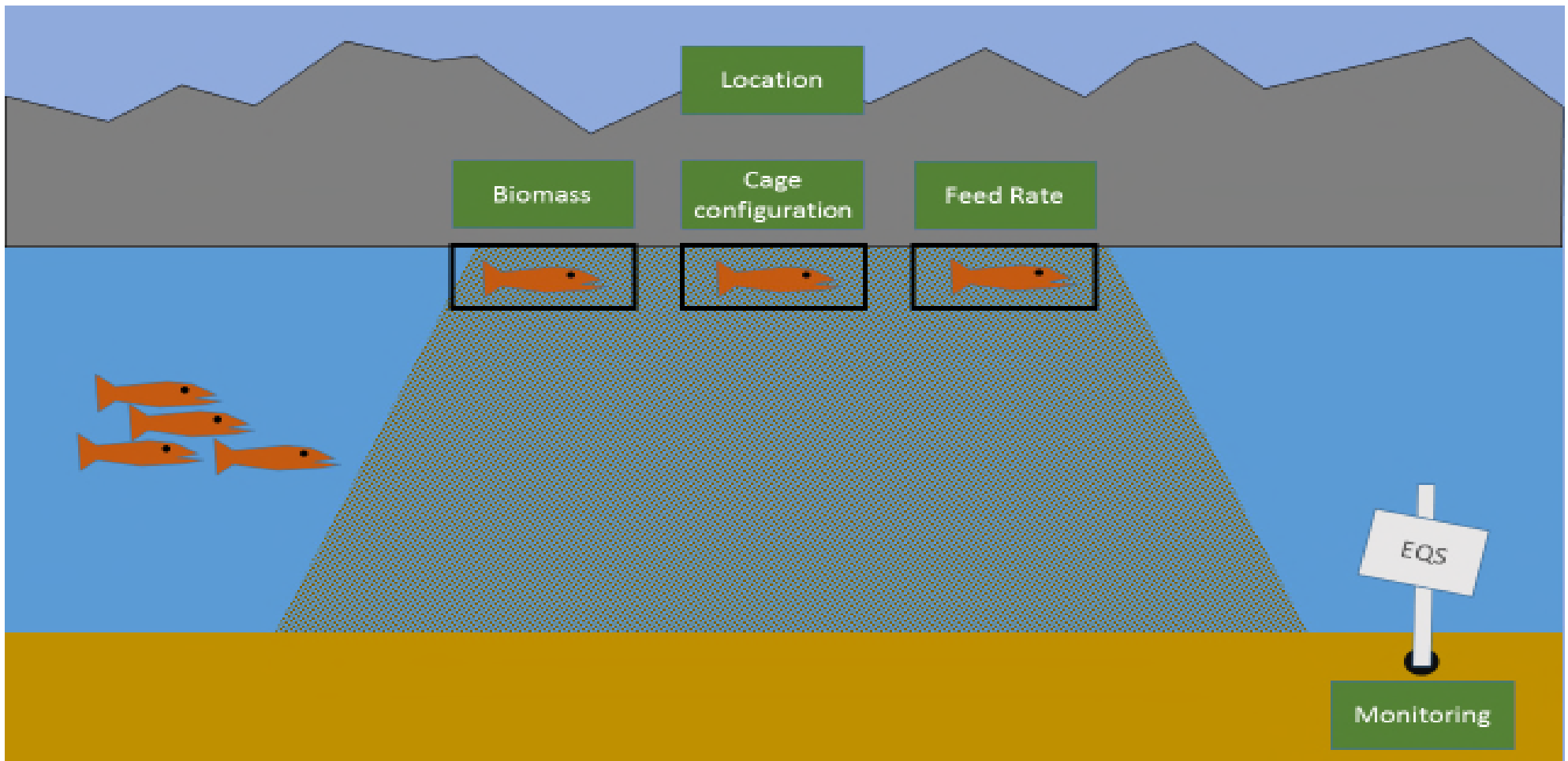
1.2.1 Unless specifically authorised or limited by this Permit, the Authorised Activities must not cause Environmental Harm.

Environmental Harms

- Organic impacts
- Chemical impacts







3.1 Fish Species & Maximum Weight

3.1.1 Only [species] may be grown at the site.

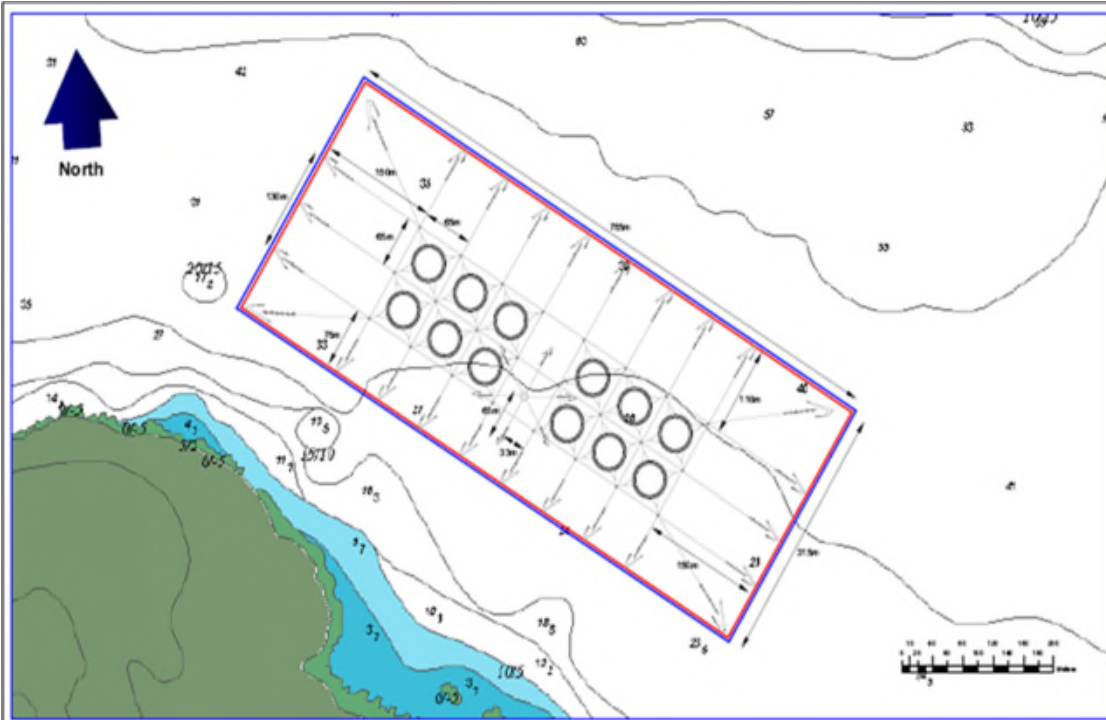
3.1.2 The maximum weight of [species] held on site at any one time must not exceed [weight]

3.2.1 The feed used must adhere to the criteria and limitations in Table 1

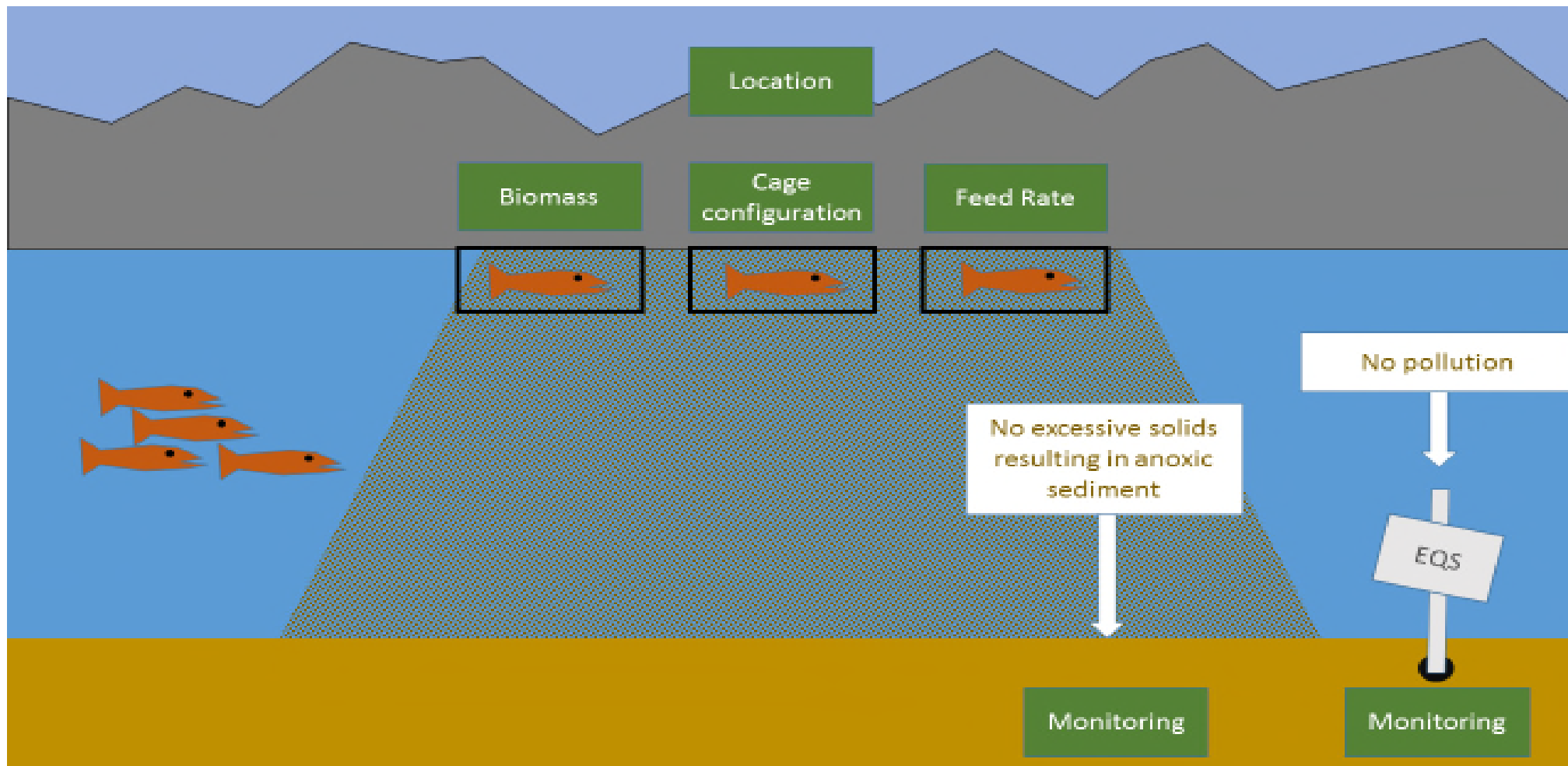
Criteria	Limitations
Maximum feed rate ([XX] percent of any growth cycle)	[XX] tonnes per [<u>time period</u>] (dry weight)
Maximum Carbon content	[XX]% (dry weight)

3.4 Cage Configuration

3.4.1 The fish cages must be configured and located as set out in Figure 1 and Table 2



Number of cages	X
Circumference of cages	Xm
Depth of nets	Xm
Number of different cage groups	X
Number of cages in each group	X
Number of cages in row 1	X
Number of cages in row 2	X
Gap between each cage	Xm
Gap between cage groups	Xm
Cage Group 1 NGR at Corners	NGR 1, NGR 2, NGR 3, NGR 4
Cage Group 2 NGR at Corners	NGR 1, NGR 2, NGR 3, NGR 4



5.1 Biological Seabed standards

- 5.1.1 At the cage edge, and up to the boundary of the 100 metre mixing zone as defined by [ref], a minimum of 2 species of sediment re-worker polychaetes must be present in densities greater than 1,000 individuals per square metre at all times.
- 5.1.2 At the edge of, or beyond, the boundary of the 100 metre mixing zone as defined by [ref], a standard of $0.64 \text{ EQR}_{\text{IQI}}$ must not be exceeded.

Medicine & Chemical Use

- Minimise
- Use appropriately to prevent environmental harm

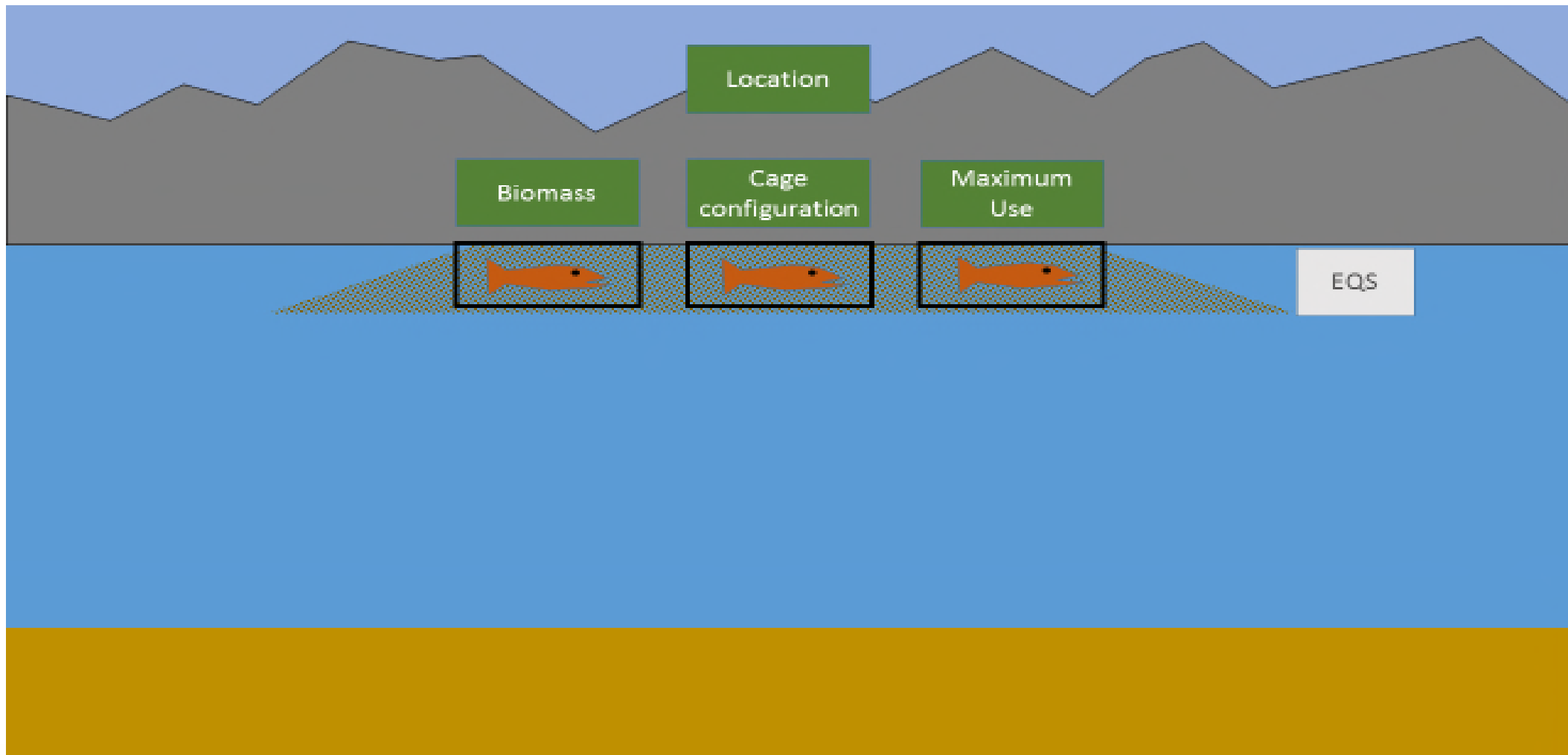
3.3 Fallow Period

- 3.3.1 There must be a minimum period of [42 consecutive days]/[6 consecutive weeks] in every 24 month period during which no fish shall be kept on site.
- 3.3.4 The site must be operated in accordance with the Management Agreement concluded between [involved parties], [document reference].

4.1 Medicine minimisation

4.1.1 The discharge of medicine residues must be reduced by using at least two of the following control methods before administering any medicine to control sea lice infestations:

- a) Physical barriers;
- b) Stock control;
- c) Biological control;
- d) Non-chemical treatments;
- e) Mechanical Removal.



4.3 Bath Sea Lice Medicines

Table 3: Permitted Medicine – Bath

Medicine name	Active ingredient
Salmosan, Salmosan Vet or Azasure	Azamethiphos
AMX or ALPHAMAX	Deltamethrin

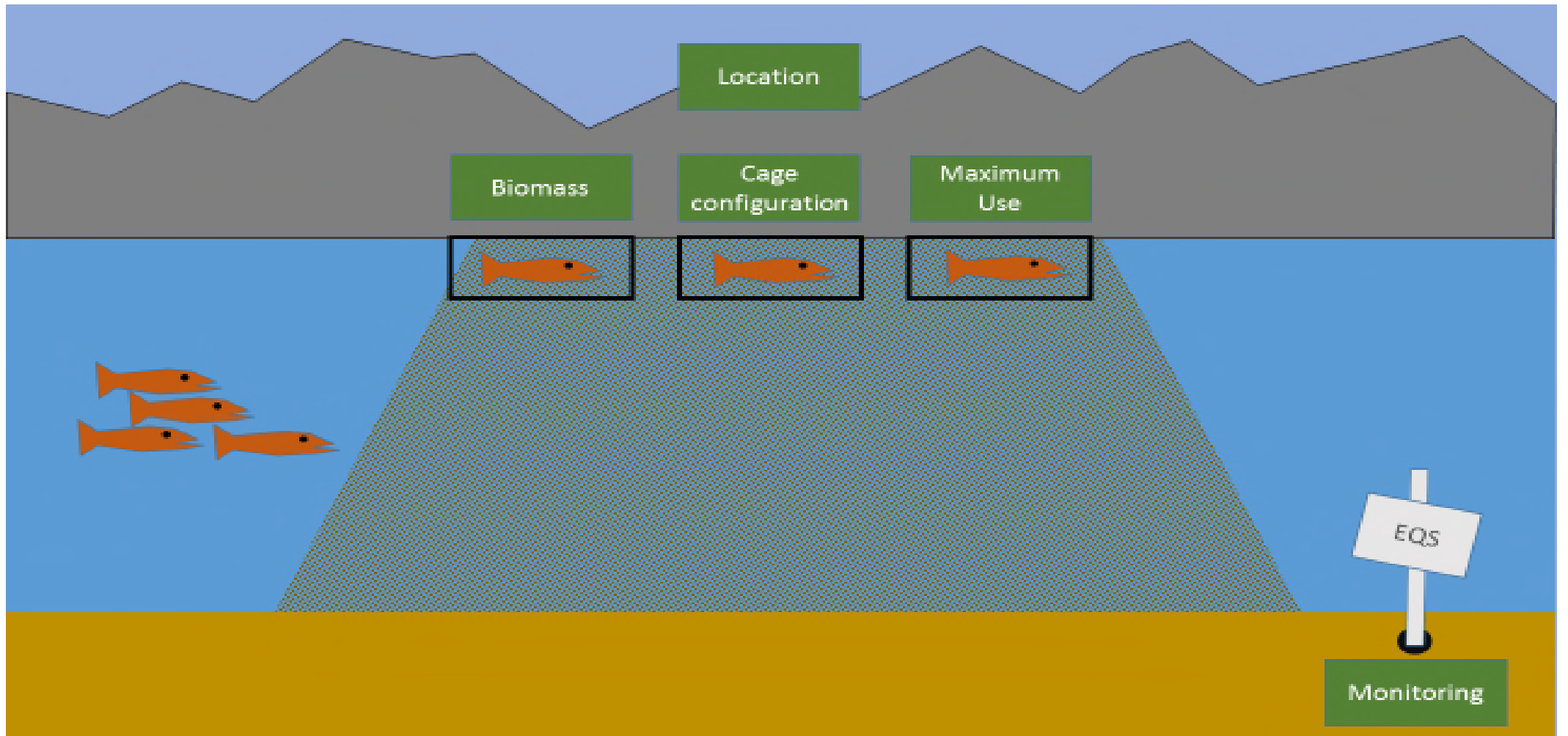
- 4.3.1 The medicines in Table 3 must only be discharged following the treatment of the fish within an enclosure fully separated from the sea.
- 4.3.2 The enclosure in which fish are treated with [Medicine Name] must be no more than [XX]% of the full cage volume.

4.3.4 The quantity of medicines in Table used must not exceed:

- a) [XXX] grams of azamethiphos in any [XX] hour period.
- b) [XXX] grams of deltamethrin in any [XX] hour period.

4.3.5 Only one of the medicines in Table 3 may be used for each individual treatment and must not be used at the same time as any other substance or compound which may alter the effects of the medicine on the environment.

4.3.6 The medicines in Table 3 must not be discharged within 24 hours of the discharge of any bath treatment medicine from a wellboat at the site.



4.4 In-feed sea lice medicines

Table 4: Permitted Medicine – In-feed

Medicine name	Active ingredient
Slice or Quinafish	Emamectin benzoate

- 4.4.1 The medicine in Table 4 must not be administered for longer than 7 consecutive days in any treatment.
- 4.4.2 The total quantity of the medicine in Table 4 used in any treatment must not exceed 60 micrograms per kilogram of fish treated per day.
- 4.4.3 Any treatment of fish with the medicine in Table 4 must not exceed the Total Allowable Quantity (TAQ), [XXX]

5.2 Chemical Seabed Standards

- 5.2.1 At the edge of, or beyond, the boundary of the 100 metre mixing zone as defined by [\[guidance ref\]](#), Emamectin benzoate concentrations must not exceed 12ng/kg (dry weight) or 763ng/kg (wet weight).

4.6 Notification of Medicines Use

4.6.1 SEPA must be given the information in Table 5 no fewer than [XX] days before using any medicine listed in Table 5.

Table 5: Medicine Use Notifications

Medicine type	Information required
Bath medicines	<ul style="list-style-type: none">• Biomass at start of treatment• Biomass at end of treatment• Amount of medicine to be used• Amount of active ingredient to be used
In-feed medicines	<ul style="list-style-type: none">• Duration of treatment• Justification for the proposed use of the medicine

4.5 Permitted Substance Working Plan

- 4.5.1 All medicines and chemicals named in the PSWP [REF] must be used in accordance with the manufacturer's instructions.

Data Returns & Recording

- Legislative requirements
- Demonstrate compliance
- Capture information to allow future informed regulatory decisions

Data Returns & Recording

1	Maximum biomass held on site during each month (tonnes)
2	Total amount of feed used per [time period] (tonnes)
3	Total Salmosan, Salmonsan Vet or Azasure use each month (g)
4	Total AMX or ALPHAMAX use each month (litres)
5	Total Slice or Quinafish use each month (g)
6	Total azamethiphos use each month (g)
7	Total deltamethrin use each month (g)
8	Total emamectin benzoate use each month (g)
9	Total anti-parasiticide use each month [(unit of measurement)]
10	Total anti-microbial use each month [(unit of measurement)]
11	Total weight of mortalities each month (kg)
12	Copper from weekly feed use (kg)
13	Zinc from weekly feed use (kg)
14	Nitrogen from weekly feed use (kg)
15	Phosphorus from weekly feed use (kg)
16	Carbon from weekly feed use (kg)

Data Recording

- **8.1.2 Records must be kept of the following:**
- a) All medicine use notifications;
- b) Start and finish dates of each sea lice medicine treatment;
- c) Quantities of medicine used during each sea lice medicine treatment;
- d) Biomass of fish at end of each sea lice medicine treatment (tonnes);
- e) Veterinary prescription for each sea lice medicine treatment;
- f) Maximum Nitrogen content of fish feed (percentage of dry weight);
- g) Maximum Phosphorus content of fish feed (percentage of dry weight).

Incidents

- Notify SEPA of an incident
- Manage and stop the incident
- Provide SEPA with an incident report

Summary

- Shorter
- Plain English
- Succinct, enforceable conditions
- Additional regulatory controls