

# LANAqu12 – SQA Unit Code HC0G 04

## Monitor the aquatic production environment for farmed fish/shellfish



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### Overview

This standard is about monitoring the aquatic production environment for any farmed fish or shellfish. It relates to the implementation of programmes to monitor and maintain the production environment within holding units.

It requires that work is completed in accordance with site standard operating procedures and in line with industry codes of practice.

This standard is for those who monitor the production environment.

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#### Performance criteria

*You must be able to:*

- P1 carry out work safely in line with relevant health and safety requirements
- P2 monitor the condition of **holding units**
- P3 carry out procedures to maintain water exchange within holding units
- P4 carry out procedures to control discharge from holding units
- P5 carry out procedures to maintain oxygen levels within holding units
- P6 take action to limit the impact of adverse weather and environmental conditions, within the limits of your own authority
- P7 dispose of waste according to site waste management procedures
- P8 where appropriate, monitor the condition of **pest** and **predator** preventive measures and devices, and monitor the farm environment for signs of predation and escape
- P9 report any suspected escapes and concerns regarding containment, in accordance with site procedures
- P10 monitor and report the presence of any **commercially damaging species**
- P11 respond to production environment emergencies in accordance with site procedures
- P12 maintain appropriate levels of hygiene and bio-security
- P13 provide information to maintain records of monitoring in accordance with legal and site requirements

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### Knowledge and understanding

*You need to know and understand:*

- K1 the relevant health and safety requirements associated with monitoring the aquatic production environment
- K2 how to inspect and test holding units
- K3 the environmental conditions required by the fish/shellfish being farmed and the actions that can be taken to maintain conditions within holding units
- K4 why it is important to maintain environmental conditions within holding units and how changes in environmental conditions can affect fish/shellfish
- K5 the equipment and methods used to sample and assess environmental conditions
- K6 the relationship between water temperature and dissolved oxygen
- K7 how legislation affects water usage and discharge
- K8 why waste must be disposed of according to site procedures
- K9 how the design and construction of holding units and handling equipment supports containment
- K10 potential causes of stock escapes and the actions to follow if an escape is suspected or identified
- K11 common pests and predators and how they are likely to affect farm stock
- K12 signs that can indicate potential predator activity
- K13 relevant legal pest and predator preventative measures and devices
- K14 types of commercially damaging species, why they need to be controlled and the action to take if their presence is suspected
- K15 how the loss of fish/shellfish can affect the environment and farm production and how the legal implications of escapes can impact on the farm
- K16 emergency procedures and why they must be followed when dealing with an incident
- K17 the site back-up systems, including when and how they are used to maintain environmental conditions and deal with emergencies
- K18 site procedures for maintaining effective hygiene and bio-security
- K19 the legal and site requirements for maintaining records of monitoring the aquatic production environment

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#### Glossary

**holding units** – facilities used to hold fish or shellfish in a controlled production environment e.g. cages, pens, ponds, tanks, longlines, raceways, nets, socks/tubing, bags, etc.

**pests** – e.g. sea lice and other parasites, snails, jellyfish, slipper limpets, calcareous tube worms

**predators** – e.g. seals, otters, mink, cormorants, heron, starfish, crabs

**commercially damaging species** – a species of fish or shellfish, any other species of animal or a species of plant that, if not controlled, would be likely to have a significantly adverse impact on the economic or commercial interests of a fish or shellfish farmer, and where the species itself is of little or no commercial value. This would include non-native invasive species.

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