

Shellfish Aquaculture Management

Gear Cycling

Virginia Interim Conservation Practice Job Sheet 706(a)



Photo source: VIMS

Definition

Applying environmentally sound management and sustainable aquaculture practices in the husbandry of bivalve mollusk species.

Purpose

The purpose of shellfish aquaculture management is to enhance the sustainability of aquaculture, ensure dependable quantity and quality of water to support shellfish production, ensure adequate quantity and quality of food to support shellfish production and optimize the benefits of shellfish farming on water, plant, animal and human resources, including, but not limited to the protection of marine and estuarine wildlife.

Where Used

Intertidal and subtidal areas where propagation and aquaculture of shellfish is licensed and/or permitted by the governing regulatory authorities.

Criteria

The practice of gear cycling can significantly reduce biofouling on aquaculture equipment. Biofouling is the growth of plant or animals on gear, and can severely reduce water flow to a shellfish crop. The reduced water flow can lead to slow production and/or loss of product.

Extreme biofouling can lead to abandonment of gear. Abandoned gear is a physical hazard in the marine system and is a visual nuisance. Gear cycling is a component of a Shellfish Management Plan.

Growers must purchase 20% extra gear for gear cycling if using cages and bags and 100% if using nets. Twenty percent of the gear should be kept off site to dry for re-use at a later date. Any gear deemed not reusable should be properly disposed of.

When gear on site becomes fouled, the grower will replace fouled gear with clean gear. The clean gear will be placed in a new location to reduce the potential of creating anoxic areas. The fouled gear will be brought on shore, air dried and cleaned in an approved (VA VMRC) area off site. This cycle will continue throughout the growing season until 100% of the gear is cycled.

Operation and Maintenance

The client/participant is responsible for the operation and maintenance of this practice.

Ensure that any manipulation of sediment or biofouling removal activities do not impact sites downstream.

Monitor nets, cages and other equipment regularly for biofouling.

Replace nets in a timely manner.

Keep records of net cycling, replacement, removal and movement.

The client/participant is responsible for ensuring that either VMRC or VIMS has spot-checked their gear cycling at least once per growing season.

Shellfish Aquaculture Management – Job Sheet

Specifications

Site-specific requirements are listed on this specification sheet. This job sheet is provided as a component of a resource conservation plan. Plan maps, location of leases/fields to be managed, complementary conservation practices and measures, other relevant information and additional specifications may be included. Specifications are prepared in accordance with the NRCS Field Office Technical Guide. See Conservation Practice Standard *Shellfish Aquaculture Management* (706).

<i>For:</i>	<i>Farm #:</i>
<i>Lease(s):</i>	<i>Tract #:</i>
<i>Designed By:</i>	<i>Approved By:</i>
<i>Drawing No(s):</i>	<i>Signature:</i>
<i>Date:</i>	<i>Date:</i>

Purpose (check all that apply)	
<input type="checkbox"/> Enhance the sustainability of aquaculture	<input type="checkbox"/> Ensure dependable quantity and quality of water to support shellfish production
<input type="checkbox"/> Minimize adverse impacts of shellfish farming on water, plant, animal and human resources	<input type="checkbox"/> Ensure adequate quantity and quality of food to support shellfish production

Gear (write N/A where not applicable)		
<i>Number of current Gear prior to 706 implementation</i>	<i>Surplus for cycling</i>	<i>Total gear cycling</i>
Clams		
_____ clam nets included out of a total of _____ (typical net 14' by 60')	_____ linear feet * 100%	_____ linear feet of net
Oysters		
_____ small cages included out of a total of _____ (typically holds 500 oysters)	X 20%	_____ small cages
_____ medium cages included out of a total of _____ (typically holds 1,000 oysters)	X 20%	_____ medium cages
_____ large cages included out of a total of _____ (typically holds 2,000 oysters)	X 20%	_____ large cages
_____ oyster bags included out of a total of _____ (typically 300 oysters per bag)	X 20%	_____ bags

* Minimum documentation required for certification includes:

- Receipts of new gear purchased
- Record of date and type of gear that has been cycled

CHECK OUT:

Amount Completed: _____

Remarks _____

This practice meets NRCS standards and specifications Yes No

Check out by: _____ Date: _____

Self-Certification Verification:

I have completed the gear cycling plan for 100% of the gear on
Farm _____ Tract(s)/Lease _____ Field/Block _____
and have complied with specification as stated in this job sheet.

Participant Signature : _____ Date: _____

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