

Bivalve Aquaculture Gear and Biofouling Control

Virginia Conservation Practice Job Sheet

400



Photo source: VIMS

Definition

Actions that reduce, clean or remove biofouling organisms and other waste from bivalve production areas while minimizing environmental risk.

General Criteria

A Shellfish Aquaculture Management Plan shall be developed that addresses all of the identified resource concerns, including, but not limited to, the following:

Maintain adequate water flow through the production area by using husbandry practices including, but not limited to, the following:

- Monitor containment gear and other equipment regularly for biofouling.
- Clean and remove biofouling organisms frequently to facilitate shellfish health and growth, replacing containment gear with new and/or biofoul free equipment when necessary.
- Cycle off-bottom containment gear used for epifaunal culture with redundant gear for collection, transport and treatment of biofouling.
- Clean gear on-shore.
- Avoid the return of fouling organisms and macro algae into surface waters.
- Use only environmentally appropriate biofoul control methods, including, but not limited to: air drying, brine dip, vinegar dip, fresh water dip, sweeping or power washing.
- Collect, transport and dispose of waste gear on-shore, in a manner that is timely and does not cause environmental degradation.

Manage the risk of accidental loss of and/or damage to aquaculture gear within the environment due to inadequate securing, excessive fouling, and ice or hazardous weather damage by adopting the following actions:

- Properly demarcate lease site boundaries per VMRC regulations to prevent motor vessel collisions which can then result in gear/net entanglement.
- Secure and effectively maintain shellfish containment systems on a regular basis, and especially before hazardous weather.
- Collect and dispose of waste gear outside of the marine environment as soon as practical after removal from production areas, and especially before hazardous weather.
- Keep records of gear cycling, replacement, removal, and movement to monitor losses that may pose an environmental or navigational hazard.

Virginia Bivalve Aquaculture Gear/Biofouling Control – Practice Certification

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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 Virginia Conservation Practice Standard *Bivalve Aquaculture Gear and Biofouling Control (Code 400)*.

<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"/> Minimize adverse impacts of shellfish aquaculture operations and gear on water, plant, animal and human resources	<input type="checkbox"/> Ensure dependable quantity and quality of water to support shellfish production
	<input type="checkbox"/> Ensure adequate quantity and quality of food to support shellfish production

Description of current aquaculture system (include details of the aquaculture growing system, length of growth period, types of cages used, current cleaning techniques/methods, etc.):

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

Proposed Gear Cycling Date:
Gear Cleaning Location:
Gear Cleaning Method:
Precautions taken to ensure runoff from cleaning does not return to water:

- * 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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