Proposal No. 2 7 - 2 3 3

Proposal for Task Force Consideration at the ISSC 2027 Biennial Meeting *(Tab to go to next field)*	1. a. ☐ Growing Area b. X Harvesting/Handling/Distribution c. ☐ Administrative
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9. Proposal Subject	Aquaculture Sinking for Bird & Mammal Control
10. Specific NSSP Guide Reference	Section II. Model Ordinance, Chapter VI. Shellfish Aquaculture, Chapter VIII. Control of Shellfish Harvesting, Chapter IX. Shucking and Packing, Chapter XIII. Shellstock Shipping
11. Text of Proposal/ Requested Action	Section II. Model Ordinance, Chapter VI. Shellfish Aquaculture @ .01 General A. Aquaculture activities which may pose a significant public health concern and are regulated in this Chapter include, but are not limited to: (1) Seed production in waters classified as Prohibited or Unclassified; (2) Aquaculture structures that attract birds or mammals; and (3) Land based aquaculture. B. The Authority shall: (1) Approve the written operational plan for operations as outlined in @.01A above; (2) Inspect operations outlined in @.01A above at least annually; and (3) At a minimum inspect operator records to verify that appropriate permits are up to date and operational plans required in @ .01 A (1). are being implemented~~.~~; and (4) ~~Consistent with Chapter IV @ .01 D(1)(e) w~~When aquaculture as defined in the Model Ordinance attracts birds or mammals, consider their presence ~~should be considered~~ for possible adverse effects on growing area water quality, consistent with Chapter IV @ .01 D(1)(e). (a) The Authority shall make a determination of which market size shellstock, if any, require sinking to allow the shellstock to purge potential contamination due to birds or mammals, based on aquaculture gear types and methods, including whether gear types or the use of effective bird or mammal deterrents preclude the need for sinking. For shellstock, if any, that are identified as requiring sinking, the Authority shall establish, as determined necessary and based on the best available science: (i) The minimum time period that shellstock must be sunk prior to harvest; (ii) The minimum depth at which sinking must occur, if determined necessary by the Authority based on the potential of bird or mammal contamination near the water surface; (iii) Methods to ensure that water flows freely to all shellstock; (iv) Methods to ensure adequate separation between shellstock requiring sinking and other shellstock; and (v) The method that the grower shall use to inform the Authority or original dealer of the sinking date. .04 Aquaculture That Attracts Birds or Mammals

A. Operational Plan. Each aquaculture site that the Authority determines may attract sufficient birds and/or mammals that their waste presents a human health risk shall have a written operational plan. The plan shall be approved by the Authority prior to its implementation and shall include:

(1) A description of the design and activities of the culture facility;

(2) The specific site and boundaries in which shellfish aquaculture activities will be conducted;

(3) The types and locations of any structures, including rafts, pens, cages, nets, or floats which will be placed in the waters;

(4) The species of shellfish to be cultured and harvested;

(5) Procedures to assure that no poisonous or deleterious substances are introduced from the aquaculture activities;

(6) A description of the mitigation or deterrent measures to minimize the potential pollution impact of birds and/or mammals; ~~and~~

(7) A description of the method for sinking shellstock identified by the Authority as requiring sinking to purge potential contamination due to birds or mammals; and

(~~7~~8) Maintenance of the required records, including, if required by the Authority, approved methods for informing the Authority or original dealer of the sinking date for any shellstock requiring sinking.

Section VIII. Control of Shellfish Harvesting

F. Shellstock Identification.

(1) Each harvester shall affix a tag to each container of shellstock which shall be in place while the shellstock is being transported to a dealer.

(2) If the shellstock was harvested at more than one (1) location, each container shall be tagged at its growing area.

(3) When the harvester is also the dealer, the harvester has the option to tag the shellfish with a harvester's tag or a dealer's tag meeting the requirements outlined in Chapter X. Section .05.

(4) The harvester's tags shall:

(a) Be durable, waterproof and sanctioned by the Authority prior to use; and

(b) Be at least 13.8 square inches (89.03 cm2) in size.

(5) The harvester's tag shall contain the following indelible, legible information in the order specified below:

(a) The harvesters' identification number as assigned by the Authority;

(b) The date of harvest;

(c) The most precise identification of the harvest location or aquaculture site as is practicable, including the initials of the State of harvest, and the Authority's designation of the growing area by indexing, administrative or geographic designation. If growing areas have not been indexed by the Authority, then an appropriate geographical or administrative designation must be used (e.g. Long Bay, Decadent County, lease number, bed, or lot number).

(d) The type and quantity of shellstock; and

(e) The following statement in bold capitalized type on each tag: "THIS TAG IS REQUIRED TO BE ATTACHED UNTIL CONTAINER IS EMPTY OR IS RETAGGED AND THEREAFTER KEPT ON FILE, IN CHRONOLOGICAL ORDER, FOR 90 DAYS."

(6) For shellstock, if any, required by the Authority to be sunk prior to harvest in accordance with Chapter VI. @.01 B. 4(a):

(a) The harvester's tag shall include the date of sinking , if required by the Authority; or

(b) The harvester shall provide the Authority or the original dealer with

other means, approved by the Authority, of identifying the date of sinking to the original dealer.

(~~6~~7) If the shellstock is removed from the original container, the tag on the new container shall meet the requirements in Section .02 F.

(~~7~~8) Bulk tagging of a lot of shellstock during transport from harvest area to the dealer facilities.

(a) When shellstock are harvested from one (1) harvest area on a single day by a single harvester or aquaculture leaseholder, multiple containers may be utilized on a wrapped pallet, in a tote, in a net bailer, in a single boat, vehicle, conveyance or other container and the unit tagged with a single tag in accordance with the requirements of Section .02 F.

(b) In addition to the information required in Section .02 F. the unit tag shall also include:

(i) A statement that "All shellstock containers in this lot have the same harvest date and area of harvest"; and

(ii) Number of individual containers in the unit or an estimate of the total weight, volume or count.

(~~8~~9) Bulk Sale of Shellstock. If shellstock are sold in bulk, the harvester or dealer shall provide a transaction record prior to shipment. This transaction record shall contain all the information required in Section .02 F. with the addition of the name of the consignee.

Section II. Model Ordinance, Chapter XI. Shucking and Packing

.01 Critical Control Points, A. Receiving Critical Control Point - Critical Limits.

(1) The dealer shall shuck and pack only shellstock obtained from a licensed harvester who has:

(a) Harvested the shellstock from an Approved or Conditionally Approved area in the open status as indicated by the tag; or[C]

(b) Harvested restricted shellstock and properly tagged with information describing the restriction; [C]

(c) Identified the shellstock with a tag on each container or transaction record on each bulk shipment; and [C]

(d) Harvested the shellstock in compliance with the time temperature requirements of Chapter VIII. @.02 A. (1), (2), or (3) as determined from records supplied by the harvester described in Chapter VIII. .02 G. (2); and [C]~~.~~

(e) Sunk any shellstock identified by the Authority as requiring sinking prior to harvest for the minimum time period established by the Authority, as determined by the sinking date recorded by the harvester on the harvester tag or by other approved means. [C]

Section II. Model Ordinance, Chapter XIII. Shellstock Shipping

.01 Critical Control Points, A. Receiving Critical Control Point - Critical Limits.

(1) The dealer shall ship or repack only shellstock obtained from a licensed harvester who has:

(a) Harvested the shellstock from an Approved or Conditionally Approved area in the open status as identified by the tag; and [C]

(b) Identified the shellstock with a tag on each container or transaction record on each bulk shipment; and [C]

(c) Harvested the shellstock in compliance with the time temperature requirements of Chapter VIII. @.02 A. (1), (2), or (3) as determined from records supplied by the harvester described in Chapter VIII. .02 G. (2); and [C]~~.~~

	(d) Sunk any shellstock identified by the Authority as requiring sinking prior to harvest for the minimum time period established by the Authority, as determined by the sinking date recorded by the harvester on the harvester tag or by other approved means. [C]
12. Public Health Significance	Throughout its history, the NSSP has had to develop ways of handling newly emerging sanitation concerns to ensure that shellfish harvesting and handling is standardized according to best practices that protect shellfish consumers across jurisdictions. Currently, the emerging concern we are all trying to understand is how to handle bird contamination of oysters grown in floating gear. States and industry are trying various approaches, with little standardization across the NSSP as of yet. This proposal is an idea that offers a framework for states to limit illness risk from bird contamination. As per the language in the proposal, it does not require states to take any action, but simply provides an optional structure for handling the bird issue. Deterrence measures to prevent birds from landing on aquaculture gear is the best way to control the risk of bird contamination, and deterrence or mitigation measures are currently required for aquaculture sites which the Authority has determined to be at risk for attracting birds or mammals. Effective deterrence is necessary but difficult, and sinking oysters that may be contaminated by birds under the water surface for a prescribed length of time prior to harvest is an effective mitigation of this risk that allows oysters to purge any contamination that resulted from deterrents that weren't fully effective. Sinking has been shown to be an effective strategy to control illness risk and prevent emergency closures, product recalls, and other regulatory action. Recent outbreaks of Campylobacter linked to bird contamination of aquaculture sites is a significant hazard for oysters grown in floating gear. The NSSP already contains an effective means of controlling significant hazards through the HACCP plan. It logically follows that, if the state determines that sinking shellstock is a necessary control to mitigate the risk posed by bird contamination, consideration should be given to the establishment of HACCP plan critical limits that ensure the significant hazard of bird contamination is controlled. This proposal establishes an optional framework for the following approach. The Authority determines which aquacultured shellstock (if any – this is only an option, for use when determined necessary and appropriate by states) are at risk of bird contamination and so require sinking, based on time of year, location, effectiveness of bird deterrents, or other factors as determined by the Authority. The grower then sinks that shellstock for a time period established by the Authority. Upon harvest, the grower records the date of sinking on the harvester tag (no new tags must be purchased – the sinking date can be handwritten on the tag), or else records the sinking date in another way approved by the Authority. Then the receiving dealer checks the sinking date on the tag to ensure that the shellstock was sunk for the required time period before harvest, and documents this check along with the other Receiving critical limits. To emphasize, this proposal does not require the Authority to identify any shellstock that require sinking – or, if the Authority does identify shellstock that require sinking, require that it be incorporated into the HACCP system – but simply offers a framework that can be optionally followed.

	We have already instituted this system in Delaware, and it has proven to be relatively easy for growers and dealers (especially as compared to the record logs we formerly required growers to maintain to document sinking for the required time period). The grower simply writes the sinking date on the harvester tag, then the receiving dealer simply checks to ensure that the sinking date was at least 14 days before harvest, which is our required time period for aquaculture sites which we have determined to be at risk of bird contamination. The resubmergence date stays on the harvester tag, and does not need to be transferred onto the dealer tag, as the hazard is controlled by the original dealer. This approach of incorporating control of bird contamination into the HACCP plan has been an easy and effective means of ensuring sinking and controlling risk for us in Delaware, and we are offering it as a suggestion for possible inclusion as an optional framework in the Model Ordinance. We believe that it may be an advisable step toward getting a handle on the bird issue.
13. Cost Information	None
14. Changes Needed to Guidance (if proposed change is adopted)	None