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<https://deq.nc.gov/about/divisions/marine-fisheries/shellfish-sanitation-and-recreational-water-quality>

## Commercial Shellfish Harvest

### BIRD MITIGATION PLANS FOR FLOATING GEAR



#### **Overview:**

Bird Mitigation Process  
Concerns from Bird Interactions  
Mitigation Plan Requirements

Floating gear provides opportunity for birds to land, feed, and roost. Waste from birds can build up on gear and in the water leading to major health concerns.



**Bird Mitigation Plan** includes efforts to deter birds from landing or staying on floating gear.



Birds prevented from staying on floating gear and impacting shellfish health and water quality.

#### **Q: Why do I need a bird mitigation plan?**

**A:** The National Shellfish Sanitation Program (NSSP) requires a written operational plan to mitigate birds being attracted to and remaining on exposed aquaculture operational gear (i.e., floating cages/bags). This written plan must include drawings/photos of deterrent gear and explanations of how deterrents will withstand strong weather conditions.

#### **Q: What is the danger of birds on aquaculture gear?**

**A:** In addition to the negative public perceptions associated with bird waste encrusted aquaculture gear, birds roosting, feeding, and defecating on gear can cause significant public health issues and may lead to harvest closures. Known impacts from bird waste include the introduction of dangerous levels of bacteria and parasites, algal blooms from increased nutrients, and even shellfish or fish kills from decreased oxygen in the water column. As examples, several farms in New York State were recently closed because of impacts from bird wastes, and an illness outbreak in 2021 from Rhode Island shellfish was eventually tied back to bacterial contamination associated with bird waste.

#### **Q: What does the bird mitigation plan need to include?**

**A:** The plan needs to have a description of the mitigation or deterrent measures to minimize the potential pollution impact of birds and/or mammals and how this plan will be implemented and maintained. Mitigation plans need to be implemented prior to receiving an Aquaculture Operation Permit for the 2022 season.

#### **Q: What are examples of commonly used bird deterrents?**

**A:** Common deterrents used on aquaculture gear include scare kites, poles with streamers, zip ties, and gull sweeps.

#### **Resources available to learn about bird mitigation plans:**

- **National Shellfish Sanitation Program** - <https://www.fda.gov/food/federalstate-food-programs/national-shellfish-sanitation-program-nssp>
- **East Coast Shellfish Growers Association** - <https://ecsga.org/wp-content/uploads/2021/03/BirdInteractions.pdf>

#### For Questions Regarding Aquaculture Operations Permits:

#### **Shellfish Lease and Aquaculture Program**

<http://portal.ncdenr.org/web/mf/habitat/enhancement/shellfish-leases>

Reach out to the Aquaculture Permit Coordinator at 252-808-8056 or [Zach.Harrison@ncdenr.gov](mailto:Zach.Harrison@ncdenr.gov)

