



AEM Tier 2 Worksheet

Nearshore Aquaculture

Glossary

Biofouling - the fouling of pipes and underwater surfaces by organisms such as barnacles and algae.

Brine - (or briny water) is a high-concentration solution of salt (typically sodium chloride or calcium chloride) in water.

Cultch - is a loose, solid material placed on oyster beds to allow larval oysters to attach themselves.

FLUPSY - floating upwellers that are specially designed in-house for low maintenance and high efficiency. The unique design incorporates a basket/silo combination to allow easy access to your seed and extend the oysters further into the water column creating more water pressure and higher water flow. Water flow from individual silos is dumped into a centrally located trough with a well and mounted pump to eliminate cavitation.

Ploidy - the number of sets of chromosomes in a cell, or in the cells of an organism.

Seed - the early stages of fish/shellfish.

Stock - is a defined discrete group of fish with some definable attributes which are of an interest to fishery managers.

Background

Aquaculture is the production of aquatic organisms under controlled conditions throughout part or all their lifecycle. Its development can help meet future food needs and ease burdens on natural resources. Ensuring that a healthy, competitive, and sustainable aquaculture sector can produce an abundant, safe, environmentally sound, and affordable supply of seafood products is important and necessary in New York. The Long Island region has a long history of aquaculture dating back to the 1820's, and as one of our premier commodities and a growing sector of New York's agricultural industry, New York Agriculture and Markets and the Soil and Water Conservation Committee is working with Soil and Water Conservation District staff and partners in Suffolk and Nassau Counties to expand the Agricultural Environmental Management (AEM) framework to include nearshore aquaculture. The development and piloting of the AEM tools will help growers to prevent non-point source pollution, protect water quality, prevent biofouling and pests, encourage habitat restoration, protect our food supply, and adapt to a changing climate. This partnership will support the State's fisheries, aquaculture and seafood sectors while protecting the environment and natural resources.

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AEM Tier 2 Worksheet: Nearshore Aquaculture - Animals		Potential Concern		
Factors Needing Assessment	Lower 1	2	3	Higher 4
Does the grower have a conservation plan?	Yes			No <i>or</i> the plan is over 10 years old
What are your average annual starting numbers/counts?				
Seasonal Mortality rate? Over the last 3 Years	0-15%	15-25%	25-50%	50-75%
Seasonal Mortality rate? Last year.	0-15%	15-25%	25-50%	50-75%
Seasonal Mortality rate? Two years ago.	0-15%	15-25%	25-50%	50-75%
Seasonal Mortality rate? Three years ago.	0-15%	15-25%	25-50%	50-75%
How are dead stock disposed of?	Disposal into dumpsters	Driveway disposal	Disposing in water	Disposal on harvest dock adjacent to plots
Protocol for mass mortality event?	Yes		No	
Where do you process your stock?	In a building with heavy use area, wash water collection and filtration. Following food safety standards.	In a building with heavy use area with some collection.	In a building with heavy use area.	Backyard or on boat without collection or processing.
What do you do with your wash water and product?	Collect and process			Nothing, kill area present and sediment accumulated
Do you monitor for disease?	Yes		No	

AEM Tier 2 Worksheet: Nearshore Aquaculture –Growing Gear		Potential Concern		
Factors Needing Assessment	Lower 1	2	3	Higher 4
Gear Type	This section is for the gear that the product is grown on/in.			
How do you process your gear?	Natural Dry and Brush off	Hand wash/scrub (no solutions)	Brine Dip and/or Vinegar Dip	Power Wash
Where do you process your gear?	On land in a contained location	On land not managed	On the shoreline	Out on the water
What do you do with your wash by-product from gear cleaning? Please Explain.	Process		Nothing	
Is gear coated?	No coating		Biocide	Coppercide
If coated, indicate type and brand.				
Substrate on actual site	Sandy		Muddy	
Comments:				

AEM Tier 2 Worksheet: Nearshore Aquaculture – Waste Products		Potential Concern		
Factors Needing Assessment	Lower 1	2	3	Higher 4
Waste on Boat? (human)	Contained and treated, head on boat		Bucket	Not contained and untreated
Waste on Land? (human)	Facilities			No facilities
Solid Waste on Land (i.e., trash)?	Yes - receptacle and recyclable items separated and recycled			No
Are there any outfall pipes near your farm?	No			Yes
Source:	None		MS4 or Effluent	
Comments:				

AEM Tier 2 Worksheet: Nearshore Aquaculture – Gear- Boating		Potential Concern			
Factors Needing Assessment: Equipment	Lower 1	2	3	Higher 4	
Engine Type on boat	Out-board		In-Board		
What type of motor?	Electric	Diesel	4- stroke	2-stroke	
Bottom paint?	No		Yes		
Painted with?	No coating		Antifoul - (biocide)	Coppercide	
If painted, please indicate type and brand.					
Do you monitor your boat, trailer and engine for Invasive species?	Yes		No		
Does the launch site exhibit erosion?	No		Yes - where?		
Comments:					

AEM Tier 2 Worksheet: Nearshore Aquaculture – Other		Potential Concern		
Factors Needing Assessment	Lower 1	2	3	Higher 4
Distance to Port	Less than a mile		More than a mile	
Transport to Market	No		Yes	
How do you transport animals to market?	Refrigerator Truck or Hired Transport		Coolers with ice	Nothing
Comments:				
<p>Benefits to other resources can also be possible while working toward improved water quality. Taking stock of how existing and future management affect soil, water, air, plants, animals, energy, greenhouse gases, people, and economics can result in more effective plans and additional benefits to farms and communities both now and into the future.</p> <p>Additional Comments:</p>				