

Balancing Act

- New program
- High population density
- Competing interests
 - Boating
 - Fishing
 - Shellfishing
 - Home-owner views
 - Natural resources
- Reg Burdens vs Protection of our trust resources & Program costs

Our shared goal is a successful shellfish aquaculture program!



When?

Goal is to have regulation in place & leasing started in second half of 2014

Complex & Multifaceted Issue

- Regulations
- Internal & external permitting
- Biological sampling methods & protocols
- Boundary surveys

Under Delaware's APA, simple regulations typically take about 5 months from publication of SAN to publication of final regulation

Workshop(s) is prior to the formal regulatory process

- to help guide us in regulation development
- Provides insights from diverse stakeholder groups



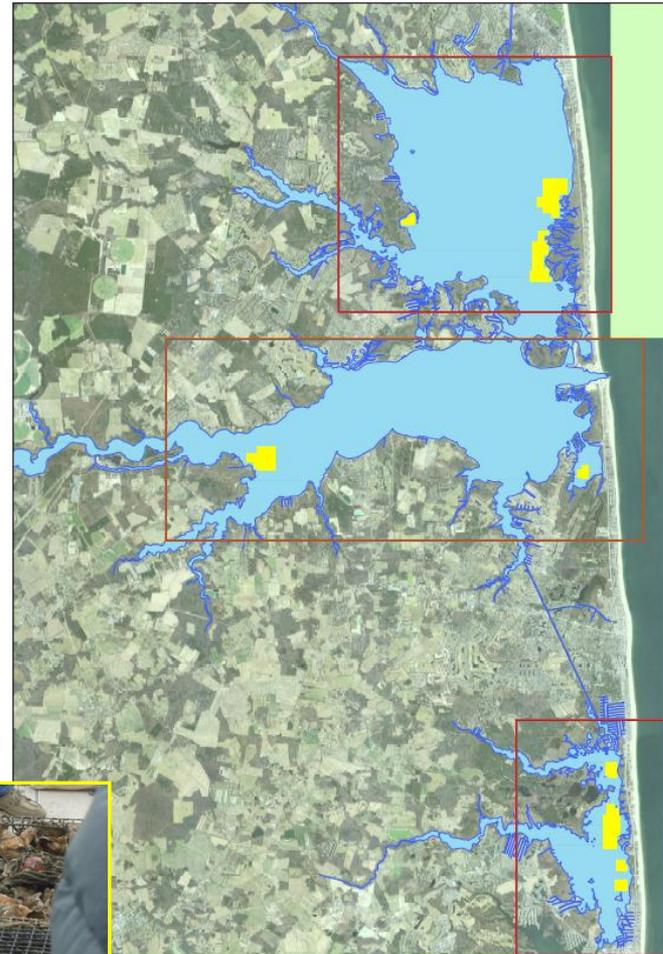
Where?

Code specifies that we may lease up to:

- 5% of Indian River & Rehoboth Bay
- 10% of Little Assawoman Bay
- In areas compatible with:
 - Comm Fishing & Shellfishing
 - Rec Fishing & Shellfishing
 - Boating navigation
 - Public water access & use
 - Native biota
- Aquaculture can't occur in shellfish closures
 - 43% of IR is Restricted
 - Further focuses the "where"
- Enforceability
- **Shellfish Aquaculture Development Areas (SADA)**
 - CIB's Tiger Team
- Need: Your thoughts
 - Stations with maps

Proposed Shellfish Aquaculture Development Areas (SADA) in the Inland Bays

These SADA were developed by the Center for the Inland Bays' Shellfish Aquaculture Tiger Team



Who?

Anyone may apply, and we envision ...

- An operations plan
- Evidence of financial capability
- Liability Insurance
- Bond

- Streamline the application process for SADA
 - The Department acts as the agent for USACE permit to allow for an expedited process
 - Seeking SADA exemption from Wetlands & Subaqueous Lands (7 Del Code 7205)

- Outside a SADA more burden is placed on the applicant to demonstrate they've met the conditions of the code
 - USACE and Wetlands permits

- Biological Sampling
 - Working on a method and protocols for biological sampling
 - Viable hard clam population



What?

Eastern oyster (*Crassostrea virginica*)

- Rehoboth Bay
- Indian River Bay
- Little Assawoman Bay

Hard clams (*Mercenaria mercenaria*)

- Little Assawoman Bay
- **Native to Delaware**
- **Demonstrated success**



How?

Container-only aquaculture for oysters

- Bottom cages

Predator exclusion mesh for hard clams



Questions, Comments, Concerns?

Law Authorizes DNREC to Develop Shellfish Aquaculture Regulations

Addressing the Following Points and Considerations:

- (1) To issue and administer leases, licenses, and permits to engage in shellfish aquaculture and to amend or revoke said leases, licenses or permits for due cause;
- (2) To identify areas where shellfish aquaculture leases may be established that are compatible with commercial and recreational finfishing and shellfishing, boating navigation and safety, public water access and use, and native biota. In no cases shall the sum total of areas identified for shellfish aquaculture leasing in Rehoboth Bay and Indian River Bay exceed 5% of their respective total subaqueous lands in each bay at mean high water and no more than 10% of the total subaqueous lands of Little Assawoman Bay at mean high water.
- (3) To add acreage for shellfish aquaculture from areas not identified by the Department as long as all state and federal criteria for leasing are met and the percentage of subaqueous bottom available for leasing in each inland bay as detailed in paragraph (a)(2) of this section is not exceeded.
- (4) To inspect and approve vessels and equipment intended to be used in Inland Bays waterways in support of the shellfish aquaculture industry;
- (5) To attempt to prevent and control the spread of shellfish-borne diseases among both shellfish aquaculture products as well as wild shellfish and to provide for the sanitary harvesting, handling, transportation, processing, production and sale of shellfish aquaculture products and wild shellfish;
- (6) To inspect and approve the importation of any live or dead shellfish and/or seed-on-cultch material to be used for shellfish aquaculture purposes conducted in or on waters of Delaware's Inland Bays or having a discharge into waters of Delaware's Inland Bays;
- (7) To provide for the conservation, preservation and improvement of the wild shellfish resources of the Inland Bays or their tributaries when deemed necessary;
- (8) To set criteria for the approval or denial of shellfish aquaculture leases in Delaware's Inland Bays;
- (9) To establish criteria for the approval or denial of any requests to conduct shellfish aquaculture outside of identified shellfish aquaculture lease sites;
- (10) To establish criteria for what constitutes active use of shellfish aquaculture lease sites and the criteria that define the abandonment of a shellfish aquaculture lease site, and for the release of the abandoned acreage into the inventory of available shellfish aquaculture lease sites;
- (11) To establish marking requirements for shellfish aquaculture lease sites and any equipment moored on, suspended above, or placed on subaqueous lands leased for shellfish aquaculture purposes;
- (12) To establish eligibility requirements for lease applicants and reporting requirements for shellfish planted and/or harvested from shellfish aquaculture lease sites;
- (13) To approve the species of shellfish that may be used for aquaculture purposes in Delaware's Inland Bays;
- (14) To establish the eligibility of shellfish seed stock proposed for planting on shellfish aquaculture leases, including consideration of the use of disease-free stock and the genetic make-up of the stock;
- (15) To establish what types of mechanical gear may be used to harvest shellfish from identified shellfish aquaculture lease sites;
- (16) To establish seasonal restrictions on when leased shellfish aquaculture sites may be actively worked;
- (17) To approve methodologies to determine wild shellfish densities that will allow for prospective aquaculture lease sites.