

SHELLFISH AQUACULTURE IN THE INLAND BAYS: ISSUES AND OPPORTUNITIES



THE WAY WE SEE IT

OUR MISSION

- **“....conserve and manage the fish and wildlife resources of the state, to provide safe and enjoyable fishing, hunting, and boating opportunities to the citizens of Delaware and its visitors”**

INLAND BAYS ACTIVITIES MANAGED BY DDFW

- **Recreational and commercial fishing**
- **Recreational and commercial clamming**
- **Recreational crabbing**
- **Boating**
- **Hunting**

ESTABLISHED INLAND BAYS ACTIVITIES AND SHELLFISH AQUACULTURE

- **Shellfish aquaculture must be made compatible with established uses**
- **DDFW focusing on two areas:**
 - Legal/Regulatory
 - Compatibility Issues
 - Oyster aquaculture
 - Clam aquaculture

LEGAL HURDLES FOR SHELLFISH AQUACULTURE

- Eight chapters of Title 7 of the Delaware State Code concern shellfish.
- **Big Hurdle:** Title 7, Chapter 19, Section 1905 prohibits shellfish leases in Indian River, Indian River Bay and Rehoboth Bay.
- **Other Hurdles:** Title 7, Chapter 21, Section 2101 states it is unlawful to harvest oysters without an oyster license and also states that DDFW shall not issue any new oyster licenses after June 30, 2011.

COMPATIBILITY FOR OYSTER AQUACULTURE

- **There are no oyster fisheries in the Inland Bays, thus oyster aquaculture does not present culture versus wild harvest issues.**
- **To avoid conflicts with existing native clam resources, boating and fishing, limit to areas:**
 - Hard clam density less than 2.2/m² (NJ productive bottom criteria)
 - Not heavily fished
 - Would not cause a navigational hazard
- **Limit lease sizes initially; ensure leases are used**
- **Prohibit mechanized harvest methods**

HARD CLAMS IN THE INLAND BAYS

- **Unlike oysters, hard clams support productive commercial and recreational fisheries in Indian River, Indian River Bay and Rehoboth Bay.**
 - Hard clam harvest has been steady over the past 40 years
 - Harvest is limited by the harvest methods
 - Hard clams can live for 40+ years and grow slowly once they reach maturity
 - A healthy clam population needs a large spawning stock and will be dominated by chowder clams.

COMPATIBILITY FOR CLAM AQUACULTURE

- **Clam aquaculture will likely conflict with the established clam fisheries of Indian River, Indian River Bay and Rehoboth Bay because:**
 - Productive clamming bottom reduced by 40% compared to the 1970s due to seasonal marina-related closures
 - Even if there is unproductive clam bottom in good clam culture locations, leasing this bottom out may still cause user conflicts
 - If clam culture allowed, the need to harvest economically would lead to pressure to allow mechanical harvesting
- **Use Little Assawoman Bay for clam culture**
 - Suitable bottom for culture but no existing shellfisheries
 - FDA approval for aquaculture is expected in 2014 (DNREC DWS)

THE DDFW APPROACH

- **Slow and steady; getting all the problems resolved will take time, but it is certainly doable**
- **Understand the frustration with this approach but:**
 - Legislation is needed and will take time
 - Inland Bays has many established uses and established users
 - Watershed population density 281/mile² vs. 35/mile² in VA coastal bay watersheds
 - DDFW is not alone in remembering the Inland Bays oyster leasing fiasco in the 1970s
 - Many businesses depend on Inland Bays public trust resources