

# Status of Shellfish Aquaculture Regulation Development

12/6/13



# Accomplished:

- “Tiger Team” workgroup—discussions, meetings, research
- HB160—proposed, signed, official
- Early work on regulations
  - Research other states, background issues, stakeholders

# Shellfish Aquaculture in Delaware is a Balancing Act

- DNREC committed to starting a shellfish aquaculture program in the Inland Bays
- Mindful of responsibilities to all user groups, and biological interests



# Where to Begin?

Begin ▶

§2002. Duties of Department; powers; making and enforcing regulations.

- (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.

- (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 sub-aqueous bottom available for leasing in each Inland Bay 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 sub-aqueous 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.

# Legislative/Regulatory Process a Marathon, Not a Sprint

- Spend the time researching/planning/discussing now to avoid problems later.



# The Process of Beginning Shellfish Aquaculture in Delaware

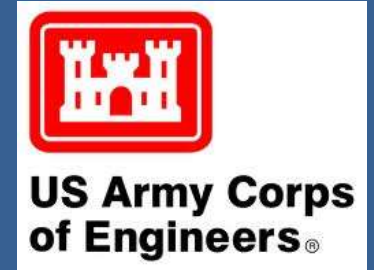
- 17 purposes = A lot of decisions
  - Consideration for all stakeholders & natural biota with each decision.
  - Consideration of cost/benefit for each decision.
  - Designing a program that will work well for business, other users, and biology over time.
    - Details, details, details

# A Few of the Considerations

- (1) Administering leases
- (4) To inspect and approve vessels and equipment
- (11) Marking requirements



# Combined Permitting



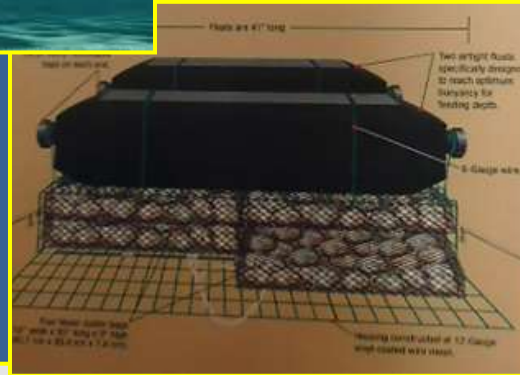
- DNREC permitting:
- Federal permitting:
  - Contacting Native American tribes
  - Contacting USFWS (Threatened & Endangered species)
  - Contacting Heritage Program (archeological resources)
- Regulations, then permitting

# Vessels & Equipment

- Considering business:
  - There are many different gear that have grown shellfish successfully in aquaculture



# More Shellfish Aquaculture Gear



# There are also Many Records of Gear Interaction

- Considering biology and other users:
  - Certain types of gear can interfere with threatened/endangered species
  - Gear may = trash or impact aesthetics
  - Types of gear may exclude other users
  - Pop. density a factor;  $D = 281/\text{mile}^2$



Figure 16: Clam net littering the tidal marsh near Chincoteague Island (26 nets counted in this photo).



# Aquaculture Gear Interactions



# Marking the shellfish lease

- Questions: besides what kind of marking?
  - Who does the initial marking?
  - Who maintains the marking?
- Cost/benefit analysis
  - Staff/equipment costs
  - GPS capability
  - Neighbor disputes
  - Enforcement issues
  - Possible legal proceedings



# Over-Marking the Lease?

- Consider if there can be too many markers
  - For aesthetics
  - For other users/boaters
  - Possible trash washing ashore

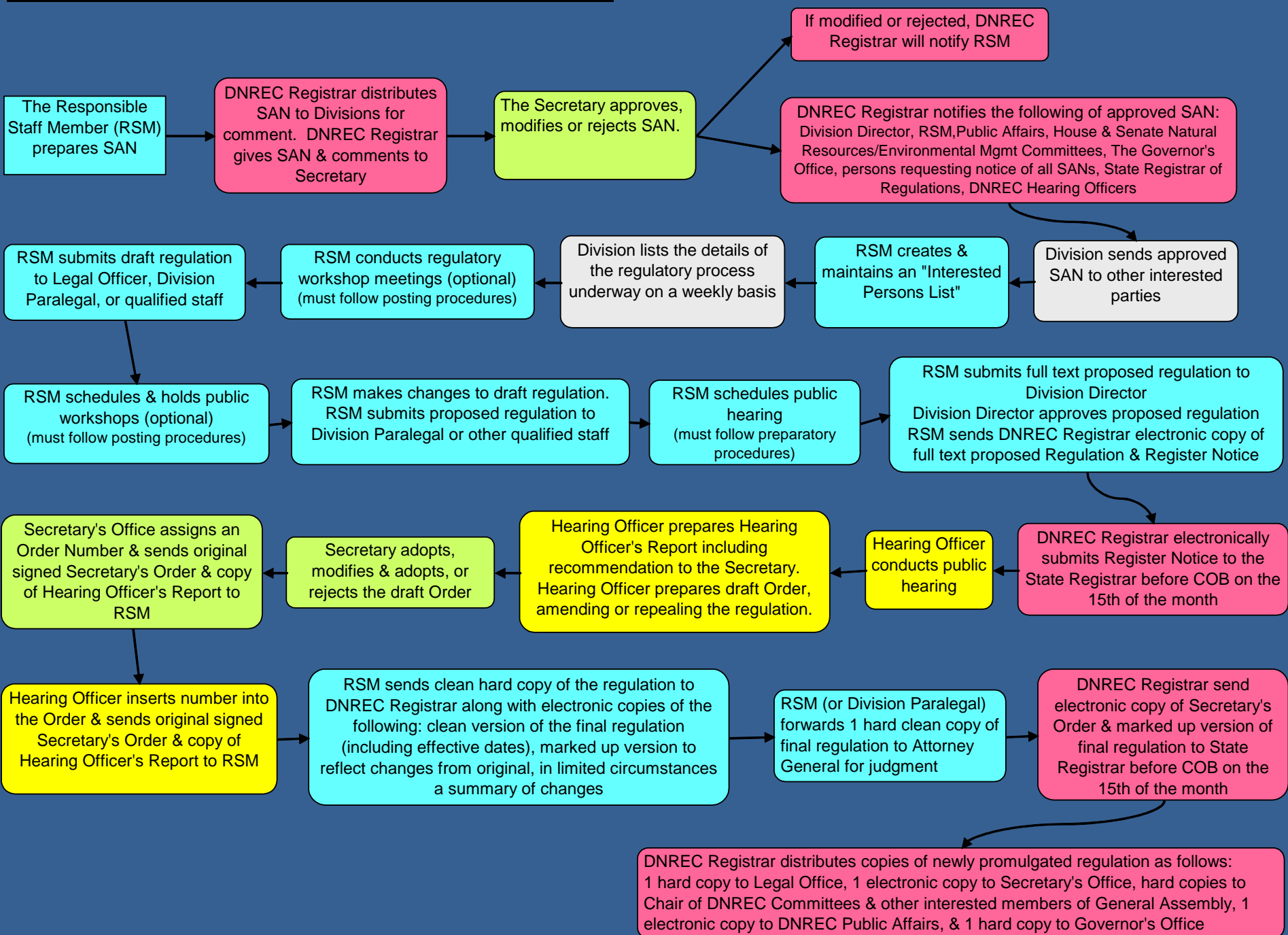


# Regulations: Current Status



- Finalizing DNREC draft
  - Intra-DNREC meeting
- Public dissemination of draft regulations
- Public workshop(s) on draft regulations
- Army Corps application
- Lease preparation and regulations schedule

# DNREC Regulation Development Process



# Regulations in Place

- Goal: July, 2014

| 2014<br>July |     |     |     |     |     |     |
|--------------|-----|-----|-----|-----|-----|-----|
| Sun          | Mon | Tue | Wed | Thu | Fri | Sat |
|              |     | 1   | 2   | 3   | 4   | 5   |
| 6            | 7   | 8   | 9   | 10  | 11  | 12  |
| 13           | 14  | 15  | 16  | 17  | 18  | 19  |
| 20           | 21  | 22  | 23  | 24  | 25  | 26  |
| 27           | 28  | 29  | 30  | 31  |     |     |