

The following is a summary list of the major functions provided to the commercial fishery – it is not an exhaustive list of all functions. In addition, the services listed are not entirely covered by commercial license fees. Most have multiple funding sources including recreational license fees and general tax dollars as those sectors benefit from these services as well. Therefore, this list is not for the purpose of determining services that may be cut in order to meet the 2.6 million dollar deficit because the cuts may have significant impact to the other sectors. Consideration needs to be given to these benefits, and a separate list focused on commercial costs would need to be developed.

## **Services provided (in part or whole) to the Commercial Fishing Industry within the Fisheries Service Unit:**

### **Director and Deputy Directors**

- Directs and manages Fisheries Service. Some specific responsibilities are listed below,
  - Represents MD on ASMFC Management Boards, Policy Board and Executive Committee, Potomac River Fisheries Commission, Chesapeake Bay Program Sustainable Goal Implementation Team
  - Chairs Chesapeake Bay Stock Assessment Committee
  - Provides testimony on legislation affecting Maryland's commercial fisheries.

### **Policy & Planning Division:**

- Legislation and regulatory development;
- Fisheries management plans (currently 23 plans) – development, review and modification
- Fisheries habitat and ecosystem monitoring & assessment - management and land use impacts on fisheries resources;
- Fish passage for anadromous species, including participation with the ASMFC Fish Passage Workgroup
- DNR invasive species matrix and habitat teams
- Chesapeake Bay Sustainable Fisheries Goal Implementation Team – serves as coordinator of team

### **Estuarine and Marine Fisheries Division**

#### *Division Manager*

- Directs and manages the Estuarine and Marine Fisheries Division. These duties include representing MD on the National Marine Fisheries Service's Mid-Atlantic Fisheries Management Council

*Analysis and Assessment Program-* Stock assessment analysis and analytical support for major commercial fisheries such as striped bass, menhaden, summer flounder and blue crabs. Striped bass commercial quota analysis.

#### *Chesapeake Finfish- American Eel Project*

- Young-of Year Survey: ASMFC mandated survey provides annual index of recruitment to assess population status
- Commercial eel pot survey from two Maryland Chesapeake Bay tributaries. Provides stock assessment data (growth data, sex ratio, mortality rates, etc) and parasite infestation rates.
- Eel pot survey in the SassafRAS River. Provides stock assessment data (relative abundance, growth data, sex ratio, mortality rates, etc) and parasite infestation rates.

- Silver eel survey: Only Atlantic coast data on migratory phase American eels. Provides valuable information on age-at-maturity.
- Committee Representation: ASMFC American Eel Technical Committee; ASMFC American Eel Stock Assessment Subcommittee.

#### Resident Species

- Winter trawl survey: Provides stock assessment data for white perch, yellow perch, catfish species, forage fish and invasive species.
- Commercial fyke net (yellow perch) monitoring: Provides stock assessment data for annual yellow perch assessment and TAC.
- Choptank River fyke net survey: Provides stock assessment and biological data for white perch, yellow perch, catfish species and forage fishes.

#### Inter-jurisdictional Fisheries

- *Alosa spp.* (American shad, hickory shad and river herring)
  - Conowingo Dam Hook and Line/Tagging Survey: Provides stock assessment data and estimates of abundance for spawning stock populations of American shad in the Susquehanna River. ASMFC mandated.
  - Gill Net Survey: Provides stock assessment data and estimates of abundance for spawning stock populations of river herring in upper Chesapeake Bay. ASMFC mandated.
  - Nanticoke River Fyke/Pound Net survey: Provides stock assessment data and estimates of abundance for American shad, hickory shad and river herring. ASMFC mandated.
  - Juvenile Survey: Provides recruitment data from Chester, Corsica and North East rivers.
  - Committee Representation: ASMFC Shad and River Herring Technical Committee; SRAFRC Technical Committee
- Migratory species
  - Onboard sampling survey: Primarily samples commercial pound nets and provides stock assessment data for Atlantic croaker, weakfish, spot, bluefish, summer flounder and Atlantic menhaden. Also provides Maryland's only limited biological data on black drum, red drum, spotted seatrout and Spanish mackerel. Provides ASMFC required age and length data for weakfish
  - Fish-house sampling: Provides biological samples to fill data gaps in the onboard sampling survey.
  - Committee Representation: ASMFC Atlantic Croaker and Black Drum Technical Committees, ASMFC Spot Plan Review Team; ASMFC Atlantic Croaker Plan Review Team; ASMFC Atlantic Menhaden Plan Development Team.

*Blue Crab Program-* The following surveys have been conducted to provide information in managing the crab fishery and commercial catch limits.

- Winter dredge survey sampling, data entry and analysis which supports crab management.
- Summer trawl survey which provides key in-season information about crab population dynamics.
- Blue crab commercial effort survey – estimates the number of commercial crab pots deployed in Maryland's portion of Chesapeake Bay for each month of the crabbing season. Critical information for stock assessment and for estimating annual harvest as a cross check for reported harvest.
- Blue crab cooperative data collection program. A program where watermen and DNR biologists partner to provide critical data on commercial harvest rates and characteristics of the commercial catch – size, sex and life stage composition. This information is used in stock assessment and is key for estimating annual harvest as a cross check for reported harvest.

#### *Striped Bass Program-*

- Spring Spawning Stock Survey (Est. 1984 – Present) Survey using drift gill nets set by watermen on Potomac and Upper Bay. Provides data to ASMFC on abundance of spawning population plus age, length, sex ratio; abundance of age 8 – older spawners; input to Statistical Catch at Age (SCA) model

- Juvenile Seine Survey (Est. 1954 – Present) Measures relative abundance and distribution of Young of Year (YOY) striped bass; Also captures up to 105 other species. Provides data to ASMFC on YOY striped bass to determine future potential of the commercial and recreational striped bass fishery.
- Check Station Commercial Fishery Monitoring (Est. 1993 – Present) Sample harvest at check stations for biological characterization of the harvest from all commercial gear types. Provides data to ASMFC on length / weight / scales for ageing; Length and age distribution; and Catch-at-age.
- Commercial Pound Net Monitoring (Est. 1989 – Present) Sample directly from watermen’s pound nets for biological characterization of the harvest and stock. Provides data to ASMFC on length / weight / scales for ageing; Length and age distribution; and Catch-at-age; also samples other species.
- Striped Bass Health Bay wide sampling of striped bass from other surveys for prevalence of lesions, sores, anomalies.
- Representation on the ASMFC striped bass technical committee.

*Coastal Fisheries Program-* Coastal Bays Fisheries Investigation (Juvenile survey used in the coastal stock assessments of many species including summer flounder, black sea bass, spot, and American eels.

- Offshore Commercial vessel sampling which collects data for stock assessments and monitoring for important commercial fisheries including horseshoe crabs, striped bass, spiny dogfish, etc.
- Review of the in-state commercial spiny dogfish fishery. Industry has requested forming a workgroup to discuss best methods for limiting entry to the spiny dog fishery including an ITQ.
- ASMFC Technical Committees: Horseshoe Crab; Horseshoe Crab Biomedical Harvest Best Practices Workgroup; Horseshoe Crab Adaptive Resource Management; Summer Flounder, Black Sea Bass, Scup; Spiny Dogfish and Coastal Sharks; American Lobster
- Mid-Atlantic Fisheries Management Council (MAFMC) Monitoring Committees: Summer Flounder, Black Sea Bass, Scup and Spiny Dogfish

*Data management and commercial reporting*

- Collects, records, and maintains all commercial harvest data reported by commercial fishermen through monthly harvest reports.
- Creates accounts and trains watermen for electronic commercial harvest reporting system, and downloads data to be used for management.
- Issues reporting materials to fishermen, provides customer service, and communicates reporting problems when needed.
- Provides commercial fishing data to biologists, statisticians, and managers for use in making management decisions that relevant to commercial fisheries.

*Commercial harvest permits, quota monitoring, and limited entry*

- Manages quotas, tag distribution, and permitting for all permitted commercial species, including striped bass, yellow perch, horseshoe crabs, black sea bass, summer flounder, and snapping turtles.
- Registers and certifies new pound net sites and haul seines.
- Administers all aspects of the commercial fishing apprenticeship program.

**Cooperative Management Investigations & Fisheries Health** – A joint DNR/NOAA research and management facility which supports all other divisions.

- Alternative commercial fisheries management program evaluation;
- Fisheries economic analyses;
- Monitors pathogens, and finfish & shellfish health;
- MD representative on National Marine Fisheries Services’ Office of Protected Resources Take Reduction Teams including: large whales, sea turtles and large dolphins;
- GIS Support.

## **Shellfish Division -**

- Public oyster and clam fishery management and policy;
- Oyster habitat rehabilitation;
- Shellfish (oysters, clams and scallops) population monitoring and analysis for Chesapeake Bay and Coastal Bays;
- Oyster restoration;
- Staff support of Oyster Advisory Commission and 12 County Oyster Committees, and CBP Sustainable Fisheries Goal Implementation Team's Oyster Metrics Workgroup.
- Conducts surveys of Public Shellfish Fishery Areas in response to lease applications and pier construction permits.

**Hatcheries Division** – Responsible for fish and shellfish production, fish restoration and population enhancement, and invasive species research.

**Communications & Outreach Division** – Responsible for internal and external communications: Website, social media, graphics and publications, public notices and media relations. Supports Tidal Fisheries Advisory Commission.

**Fisheries Marketing Division** – Marketing and promotion of Maryland's fisheries industries including commercial, aquaculture, charter boat industries. Outreach to seafood dealers, vendors, restaurants and chefs; Trade-shows, True Blue Program; Representation on Maryland Seafood Advisory Commission.

**Fiscal & Management Services Division** – Supports Fisheries Service with management of budget, fleet (cars and boats), personnel, inventory and facilities. Also handles all unit grants Management & Federal Aid Coordination; Procurement/Accounting and service contracts/MOUs with outside entities.

### **Fisheries Dollars Spent in other Units with Services to the Commercial Industry**

Fisheries Service only provides a portion of the funding these sectors receive.

*Environmental review*- Monitors land use impacts on aquatic habitat, reviews projects and actions requiring State and/or Federal environmental permits.

*Licensing*- Provides for commercial license renewal, striped bass declaration, and license transfers.

*Natural Resources Police*- Enforcement of fisheries rules.

*Office of the Secretary*- This sector is several units: the Secretaries' Office, Attorney General, Finance and Administration Service, Human Resources, Information Technology, and Office of Communication.. But this sector provides policy, legal, and operational support to Fisheries Service.

*Boating Services*- Sets clam, sanctuary, and float free channel buoys.

*Resource Assessment Service*- The Maryland Geological Survey conducts studies of habitat, sediment and water sources critical to the support of the State's Fisheries. Mapping bottom habitat in the Chesapeake Bay, Coastal Bays and Atlantic waters of the state using remote sensing technologies combined with collection of samples to provide ground truth.