

# Fisheries Service FY 2012 Budget Report to the Sport Fisheries Advisory Commission October 2012



*Martin O'Malley, Governor*  
*Anthony G. Brown, Lt. Governor*  
*John R. Griffin, Secretary*  
*Joseph P. Gill, Deputy Secretary*

# INTRODUCTION

The Fisheries Service's mission is to assess, protect, conserve and fairly allocate fish resources of Maryland for balanced ecological and socio-economic benefits. This is accomplished through scientific investigation, application of data, and proactive involvement with an informed citizenry. Fisheries Service's responsibilities fall into four core functions:

- 1) Protect, conserve and enhance fisheries resources.
- 2) Provide and enhance fishing opportunities, including access.
- 3) Provide sustainable economic opportunities.
- 4) Promote and protect fisheries resources through public outreach and education.

Revenue from sport fishermen provides funding for about half of all fisheries programs in Maryland. This is from the sales of fishing licenses, gasoline sales surcharges and a federal excise tax on sport fishing tackle and related equipment. Other fund sources include general funds from state taxpayer dollars, commercial license sales, state reimbursable funds such as Maryland Department of Transportation (MDOT), and grants from federal taxpayer dollars.

Law requires Maryland Department of Natural Resources (MD DNR) to annually report on sport fishing management fees credited to the saltwater fund known as the Fisheries Research & Development Fund (FR&D). Natural Resources Article § 4-745 states MD DNR shall publicly report annually the amount of sport fishing license revenues credited to and expended from FR&D. In the annual preparation of plans to expend sport fishing revenues credited to FR&D, MD DNR is also required to solicit the advice and opinions from the Sport Fisheries Advisory Commission, representative fishing and boating associations, and other interested parties. The reporting requirement is different for non-tidal sport fishing license fees. For sport fishing fees associated with the non-tidal fund known as the Fisheries Management and Protection Fund (FM&P), MD DNR is required to "publicly report annually the amounts collected and the expenditures."

Because MD DNR would not be able to manage the State's diverse and high quality fishery resources without revenue from fishing licenses, it is vital that anglers understand the importance of their contribution and how their license dollars are used. MD DNR is committed to informing sport fishermen and providing

a comprehensive report on all sport fishing license fees and other revenue sources. This report meets statutory reporting requirements, but more importantly, it is intended to provide information which helps anglers and the public understand the magnitude of their contributions and the importance of these contributions to funding programs which benefit both fisheries resources and the sport fishermen who use those resources.



# BUDGET

## Reporting Period and Budget Terminology

This report provides budget information for revenues and expenditures during fiscal year 2012 (FY 2012), the most recently completed fiscal year. FY 2012 was July 1, 2011 through June 30, 2012. Sport fishing license sales reported are for calendar year 2011 since Maryland sells sport fishing licenses by calendar year, and 2011 is the most recently completed year.

In order to understand the information in this report, here are a few terms you will need to know:

- **SPECIAL FUNDS** – revenue from recreational fishing license sales, commercial fishing license sales and oyster bushel tax, aquaculture fees, gasoline sales surcharges (see explanation under Revenues), and agreements with non state organizations (i.e. private company's donation for Atlantic sturgeon restoration). Recreational tidal license sale and fee revenues are deposited into the Fisheries Research and Development Fund (FR&D). Non-tidal license sale revenues are deposited into the Fisheries Management and Protection Fund (FM&P).
- **FEDERAL FUNDS** – revenue from a tax on sport fishing tackle purchases (Wallop-Breaux), and federal partner grant awards from federal taxes.
- **GENERAL FUNDS** – revenue from State taxes.
- **REIMBURSABLE FUNDS** – revenue from Maryland State agencies such as Maryland Department of Transportation (MDOT).





# License Sales, Revenues and Expenditures

## A. License Sales

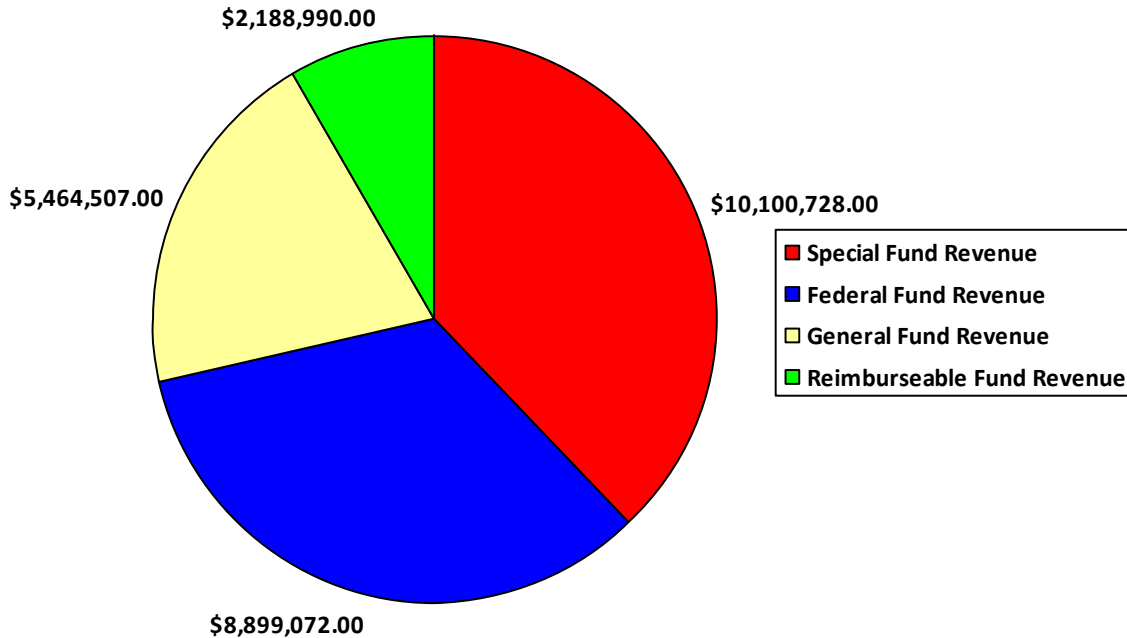
<i>FISHING STATISTICS BY LICENSE YEAR</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>
<i>RESIDENT NON TIDAL</i>	139,632	118,737	120,093	111,241	105,893
<i>NON RESIDENT NON TIDAL</i>	12,378	11,657	11,986	11,625	11,259
<i>3 DAY NON TIDAL</i>	8,943	7,952	8,400	8,230	6,623
<i>5 DAY NON TIDAL (7 Day in 2011)</i>	6,193	7,539	8,145	8,065	8,175
<i>TROUT STAMP</i>	63,897	58,103	59,839	56,247	
<i>RESIDENT TROUT STAMP (New 2011)</i>					44,187
<i>NON RESIDENT TROUT STAMP (New 2011)</i>					6,827
<i>NON TIDAL BLIND</i>	104	111	124	107	104
<i>SENIOR CONSOLIDATED LICENSE</i>	19,317	20,168	21,884	22,147	23,224
<i>RESIDENT BAY (and Coastal) SPORT</i>	107,251	91,607	94,688	89,985	93,074
<i>NON RESIDENT BAY (and Coastal) SPORT</i>	21,504	21,242	23,373	22,471	21,011
<i>5 DAY BAY SPORT</i>	13,558	15,469	17,344	15,352	
<i>RESIDENT 7 DAY BAY AND COASTAL SPORT (New 2011)</i>					7,032
<i>NON RESIDENT 7 DAY BAY AND COASTAL SPORT (New 2011)</i>					17,274
<i>PLEASURE BOAT DECAL</i>	50,556	46,828	47,001	46,888	48,584
<i>BAY (and Coastal) SPORT BLIND</i>	258	217	205	158	160
<i>BAY AND COASTAL SPORT REGISTRATION (New 2011)</i>					58,683
<i>RECREATIONAL CRABBING</i>	41,277	36,702	39,059	42,186	44,479
<i>NON RESIDENT RECREATIONAL CRABBING</i>	5,475	5,134	5,625	7,181	6,745
<i>RECREATIONAL CRABBING BOAT</i>	3,204	3,446	3,847	4,297	4,645

The table above shows calendar year recreational license sales from 2007 to 2011. License changes, including the comprehensive Coastal & Bay fishing license, short term licenses expanded to 7 days, creation of separate trout stamp for Non-residents, and Maryland Saltwater registration, were added in 2011.

## B. Revenues (\$)

Total FY 2012 Fisheries revenues were \$26,653,297 and are broken down as follows: 38% Special Fund revenue; 33% Federal Fund revenue; 21% General Fund revenue; and 8% Reimbursable Fund revenue.

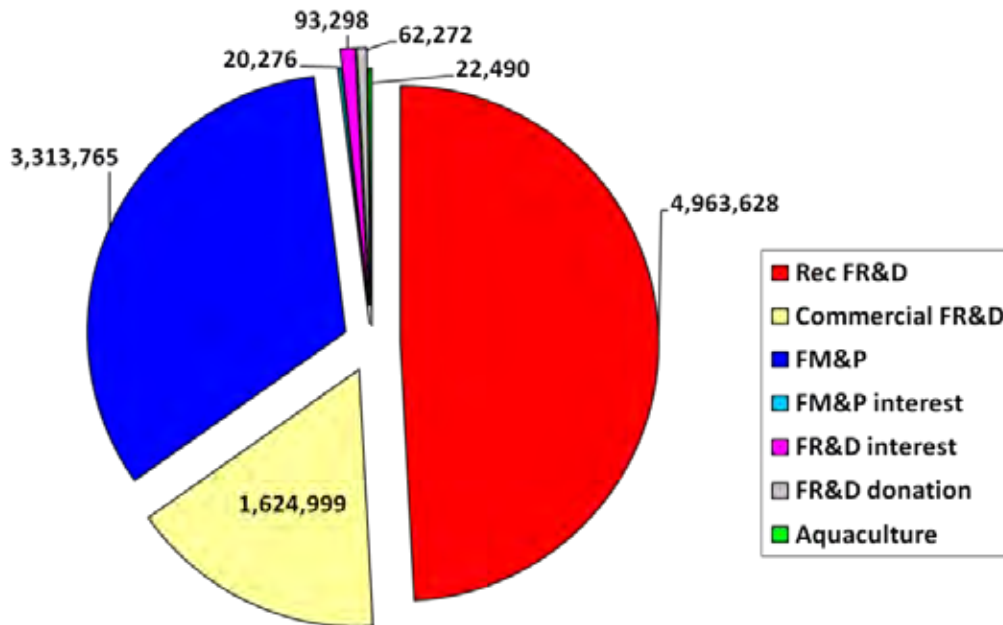
### FY 2012 DNR Fisheries Service Revenue



- **SPECIAL FUNDS** - revenue from recreational fishing license sales, commercial fishing license sales and oyster bushel tax, aquaculture fees, gasoline sales surcharges, and agreements with non state organizations.
- **FEDERAL FUNDS** – revenue from a tax on sport fishing tackle purchases (Wallop-Breaux), and federal partner grant awards from federal taxes.
- **GENERAL FUNDS** – revenue from State taxes.
- **REIMBURSABLE FUNDS** – revenue from Maryland State agencies such as Maryland Department of Transportation (MDOT).

The breakdown of Special Fund revenues into the component sources is shown in the chart below. Recreational tidal license sale and fee revenues are deposited into the Fisheries Research and Development Fund (FR&D). Non-tidal license sale revenues are deposited into the Fisheries Management and Protection Fund (FM&P).

# FY 2012 DNR Fisheries Service Fund Revenues

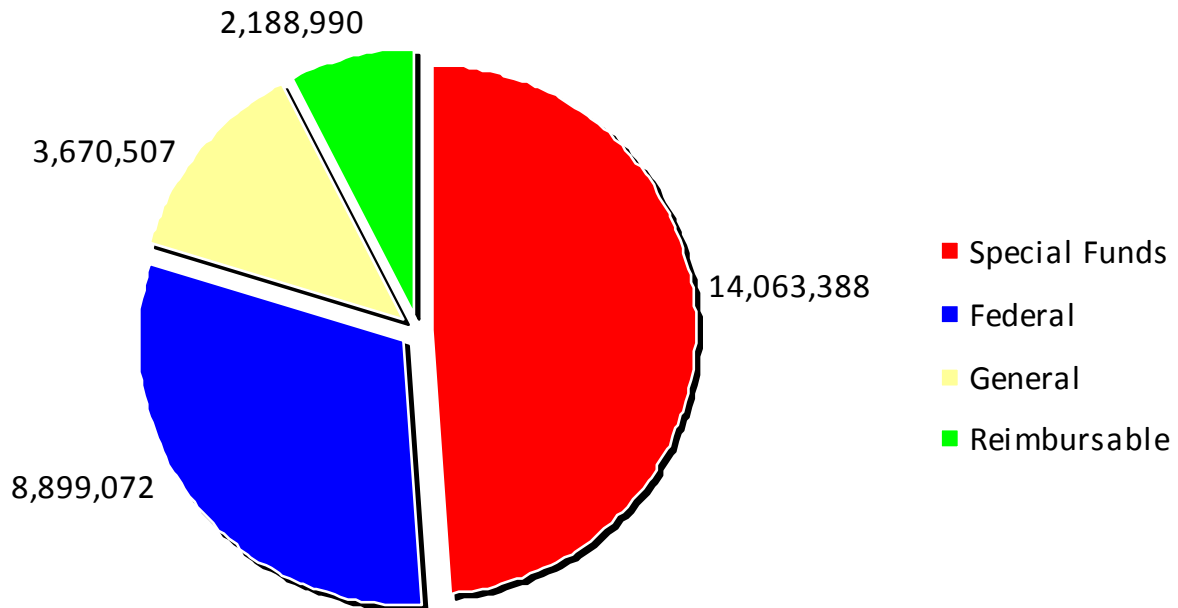


There is a boat gas surcharge that is a fee charged on sales of fuel at marinas. In the 2007 Special Session the General Assembly changed the apportionment that Fisheries Service received from a percent of the gas fee to a flat contribution of general funds based on previous revenue received from the fund. This revenue (\$1,794,000) is received as general funds. The statute (Natural Resources Article 4-209 Annotated Code) specifies that a General Fund appropriation of not less than \$1,794,000 is credited to the to the Fisheries Research and Development Fund. This revenue is received as general funds, deposited in FR&D, and expended from this fund. Therefore, the expenditures listed below for General funds are \$1,794,000 lower than the revenue. This money was expended as a special fund and is reflected in the expenditures chart below.



## C. Expenditures (\$)

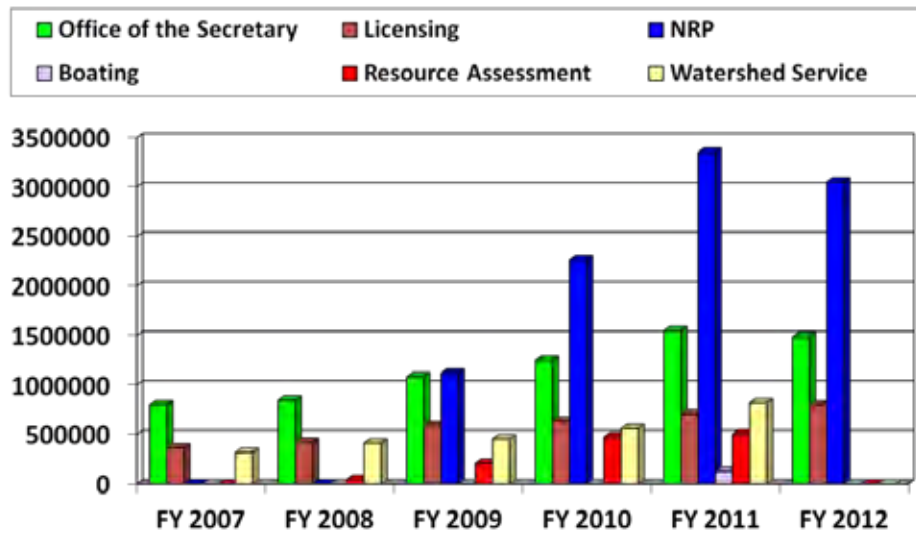
### FY 2012 DNR Fisheries Service Use of Funds (\$)



The pie chart above shows Fisheries Service sport fishing expenditures in FY 2012. Total funds used were \$28,821,957 and exceeded revenue by \$2,168,660. Fisheries Service used Special Funds in a (FR&D and FM&P) savings account to cover the expenses to maintain the services being provided to fulfill our mission. Based on the current level of revenue and expenditures, we estimate Fisheries Service will exhaust the Special Fund savings account in FY 2014. This deficit may increase based upon proposed reductions in Federal funds that are apportioned to the States to manage fisheries resources.

Some expenditure of special funds is for MD DNR units outside Fisheries Service to support mission critical projects for fisheries conservation and management. The chart below shows total Special Fund expenditures for other MD DNR units from FY 2007 to FY 2012. The total of these expenditures in FY 2012 was \$5,335,790. This investment of Fisheries Service special funds allowed other MD DNR units who perform work critical to fulfilling the mission of Fisheries Service to continue implementing priorities identified in the 2008 report of the Task Force on Fisheries Management including but not limited to: habitat preservation and restoration (i.e. water quality monitoring, benthic habitat surveys, prioritization of critical habitats, environmental review), legal issues, enforcement of fisheries management rules (i.e. Natural Resources Police), and implementation of COMPASS – a new licensing system – necessary to comply with Federal angler registry requirements. It is important to note that the Office of the Secretary sector includes several MD DNR units: the Secretary's Office; Attorney General; Finance and Administration; Human Resources; Information Technology; COMPASS development; and Office of Communication.

# FY 2007-2012 Special Fund Transfers to Support Fisheries Service



## COST RECOVERY

Fisheries Service expenditures have exceeded revenues for the past few years. This has drawn down the special fund savings account and prompted Fisheries Service to begin a review of revenue and costs per sector. In addition, legislation from the 2012 session of the General Assembly required MD DNR to review the existing laws, regulations, fees, and processes associated with commercial fishing licenses in the State.

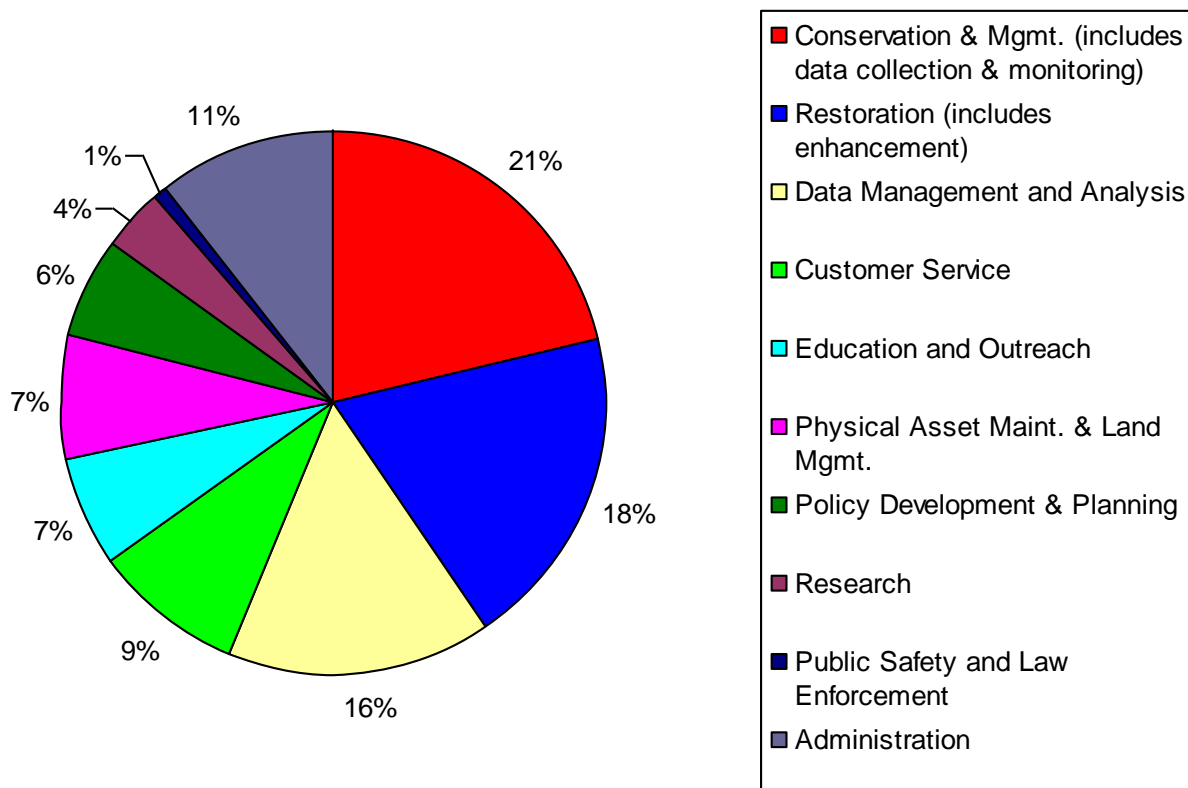
The legislation required MD DNR to collaborate with the Tidal Fisheries Advisory Commission (TFAC) and the Sport Fisheries Advisory Commission (SFAC) in conducting the review. In conducting the review and developing the recommendations, MD DNR was required to (1) determine the allocation of the user fees for fisheries management of commercial or recreational fisheries based on revenues from those respective sectors; and (2) ensure that general fund appropriations for fishery management be allocated fairly and reasonably between the recreational and commercial fisheries. A report will be submitted to the Governor and the General Assembly and it must identify actions needed to implement the plan by July 1, 2013.

Between May and October 2012, MD DNR conducted a cost recovery study based on the approach used in Australia and New Zealand; the first countries to fully implement cost recovery. The discussions with the TFAC and SFAC are ongoing; however, the analysis has indicated that the commercial fishing sector and the general public (tax dollars) are not paying enough to cover the costs of the services they receive from Fisheries Service. These are the sectors that Fisheries Service will look to derive more revenue and maintain services. If revenue is not increased in FY 2014, Fisheries Service will have to reduce the services it currently provides.



# ACTIVITIES & ACCOMPLISHMENTS

MD DNR wants sport anglers who help fund our mission critical work to understand the activities that their financial contributions support. The chart below illustrates Fisheries Service expenditures by function as a total % of its budget. For example, Fisheries devotes 18% of its annual budget to restoration and enhancement activities.



- **Conservation and management** activities, including data collection and monitoring, total 21% of expenditures. This includes estuarine and marine species, inland species, shellfish, hatcheries, aquaculture, fish health, marketing, environmental factors influencing fish, socio-economics, invasive species, marine mammals and sea turtles, rare, threatened and endangered (RTE) species, and wildlife species.
- **Restoration and enhancement** activities total 18% of expenditures. This includes estuarine and marine species, inland species, shellfish, habitat (oyster reefs, stream habitat, fish passage), and RTE species.
- **Data management and analysis** activities total 16% of expenditures. This includes estuarine and marine species, inland species, hatcheries, aquaculture, fish health, marketing, environmental factors influencing fish, socio-economics, license trends, invasive species, marine mammals and sea turtles, RTE species, and wildlife species.
- **Customer service** activities total 9% of activities. This includes public inquiries, website, social media, aquaculture lease application and survey assistance, sport fishing reports, sport fishing guide book, shellfish disease testing for importation and movement, marketing assistance and access.
- **Education and outreach** activities total 7%. This includes youth fishing rodeos, fishing shows, citizen requested events, marketing field trips, Marylanders Grow Oysters, Maryland Fishing Challenge, website, production of print and electronic material, fish citations and state records, scientific collection permits.
- **Physical asset maintenance and land management** activities total 7%. This includes environmental

reviews, Fishery Management Areas, maintenance of Unit's facilities, and equipment field property maintenance.

- **Policy development and planning** activities total 6%. This includes fisheries management plans, sustainable fisheries plans, intra and interstate management bodies, legislative coordination, regulation development process, fisheries advisory bodies, penalties, development of Unit's annual work plan and policies for operations.
- **Research** activities total 4%. This includes estuarine and marine species, inland species, shellfish, hatcheries, aquaculture, fish health, marketing, environmental factors influencing fish, invasive species, and RTE species.
- **Public safety and law enforcement** activities total 1%. This includes staff coordination with Natural Resources Police (NRP), fish health, and shellfish closure, and does not include funds that are transferred to NRP to support their operations.
- **Administration** activities total 11%. This includes internet technology; budget preparation, projections and monitoring; administration of federal grants from U.S. Fish & Wildlife Service and National Oceanic and Atmospheric Administration; reimbursable grants from MDOT, and Memoranda of Understanding; revenue/accounts receivable; invoice/receipts payable; inventory control; fleet management; purchase orders; Managing for Results; and human resources.



# Accomplishments

Following is a list of some of the activities Fisheries Service accomplished through the use of special funds during FY 2012.

## **PROTECT, CONSERVE AND ENHANCE FISHERIES RESOURCES**

- ASMFC approval of more conservative management reference points for Atlantic menhaden.
- ASMFC approval of coastwide requirements to facilitate striped bass law enforcement.
- Drafted proposal for Amendment #2 to the 1997 Chesapeake Blue Crab Fishery Management Plan. Amendment #2 provides the mechanism for formally adopting new biological reference points and control rule; establishes the need for developing a male threshold reference point; and recognizes the importance of fishery-independent and fishery-dependent monitoring.
- Expanded Data Management and Quota Monitoring Program through the hiring of two full time employees - a Database Specialist and a Program Manager. Proper management of the Units biological and commercial harvest data are essential components to the stock assessments conducted for the species managed by Fisheries Service.
- Dedicated one staff position to Environmental Review and the FERC Relicensing of hydroelectric facilities on the Susquehanna River. This position has established relicensing issues to be resolved at Conowingo Dam including fish passage, sedimentation behind Conowingo Dam and land transfers. For the Environmental Review duties, this position has been instrumental in reducing impacts from the expansion of Calvert Cliffs Nuclear Power, Cove Point Liquefied Natural Gas and review of over 350 annual, project reviews.
- Conducted the Annual Blue Crab Winter Dredge Survey and the Recreational Blue Crab Survey. The Winter Dredge Survey collects data that are critical for management of the blue crab resource in the Chesapeake Bay. Abundance estimates produced from this survey are important for the setting of seasonal harvest limits for the MD fishery. The Recreational Survey combines intercept interviews with recreational boaters and a random phone survey to estimate recreational fishing effort and harvest.
- Communicated directly with WV Div. of Natural Resource Director and Chief of NRP regarding North Branch Potomac River enforcement. Obtained a pledge of more cooperation. Several patrols were made including a joint patrol with MD NRP officers.
- Hosted the East Coast Trout Management and Culture Workshop. This included representatives from academia and federal and state management agencies as far away as Arkansas, Georgia and Michigan.
- Provided extensive staff support and review in the planning and monitoring phases of the ICC. Fisheries and ER staff were instrumental in protecting a small but symbolically important brown trout population in the Paint Branch watershed. Heavy use of state of the art technology and best management practices at the insistence of MD DNR staff is believed largely responsible for protecting aquatic resources in the corridor. The persistence of the wild trout population is an indication that water quality was not significantly degraded during the construction and early performance phase.
- Monitored soft-shell clam and oyster stocks for health issues, including protection of native stocks by monitoring proposed importations.
- Provided marine mammal and sea turtle stranding response for evaluation of human interaction and stock health to minimize recreational and commercial interactions.
- Participated in national take reduction teams for marine mammals which may interact with recreational and commercial fisheries.
- Provided integrated terrestrial/aquatic system approaches to understanding habitat impacts on aquatic organisms ranging from viruses to vertebrates.
- Conducted finfish health studies, including striped bass, underpinning individual animal health, stock health, and habitat consequences.
- Provided GIS support for projects related to recreational access, commercial monitoring & reporting, federal

aid projects reporting geographically based results.

- Maintained fish health contract with USFWS to protect hatchery stocks and wild populations from introduced pathogens.
- Conducted American shad and hickory shad hatchery-based restoration activities in Choptank River and Patuxent River. Stocked 8.4 million larvae.
- Developed captive brood population of Atlantic sturgeon and conducted research to facilitate hatchery-based restoration.
- Produced largemouth bass for corrective stocking, population enhancement and research. Annual request varies dependent upon management needs identified by regional biologists. Approximately 30,000 advanced juveniles were produced this year.
- Developed biosecurity and fish health policies to protect state natural resources.
- Performed the 2011 Fall Oyster Survey to document abundance, reproduction, and disease in Chesapeake Bay oysters.
- Performed a clam survey in the Coastal Bays to document clam populations.
- Initiated an oyster feeding study to determine what oysters eat in Chesapeake Bay.
- Developed and adopted oyster restoration metrics.
- Developed Shellfish Health Policy for importations and movement of shellfish.
- Implemented clam harvest reporting requirement

### **PROVIDE AND ENHANCE FISHING OPPORTUNITIES, INCLUDING ACCESS**

- Wild brook trout were transplanted to Aarons Run (Savage Run) and Winebrenner Run (Georges Cr). These streams were largely devoid of fish for many years due to acid mine drainage. Cooperative efforts with the MDE Abandoned Mine Reclamation program identified these as prime sites for AMD mitigation. Recent water quality improvements resulting from these projects allowed the recent reintroductions.
- Produced nearly one dozen warm water and cool water species for children's fishing rodeos (69 events), the Backyard Fishing program (3 events), stock enhancement, research, corrective stocking and restoration.
- Produced three species of trout for put and take trout stocking and other management strategies to benefit Maryland anglers. Approximately 385,000 adults and 159,000 juveniles were stocked.
- Produced several species to complete hatchery-based supplementation of Savage Reservoir fish populations subsequent to the repair drawdown in 2010.
- Completed Bear Creek Hatchery disinfection and rehabilitation subsequent to whirling disease outbreak. The facility is now restored to full production.
- Continued to develop new trout culture opportunities at cooperative facilities and investigated new culture strategies such as recirculating aquaculture systems to increase coldwater production capability.
- Completed USS Radford Reefing Project off Del-Mar-Va Coast in partnership with NJDEP and DNREC.
- Expanded Cook's Point Reef Ball site in sanctuary at Choptank River, in partnership with Chesapeake Bay Foundation.
- Completed Simkin's Dam Oyster Reef Project off Swan Point, mouth of Chester River, in partnership with CBF and NOAA.
- Deployed 250 additional reef balls at Memorial Stadium reef, within Gales Lump Oyster Sanctuary, in partnership with CBF and MSSA.
- Completed tank-testing component of limestone substrate oyster experiment at Piney Point Oyster Hatchery.

### **PROVIDE SUSTAINABLE ECONOMIC OPPORTUNITIES**

- Developing new and alternative management approaches including allocation policy.
- Implement new oyster restoration and aquaculture development plan.
- Standardization of bushel containers and oyster tagging to comply with Food and Drug Administration requirements
- Expanded fisheries marketing program.



## **PROMOTE AND PROTECT FISHERIES RESOURCES THROUGH PUBLIC OUTREACH AND EDUCATION.**

- Conducted annual Maryland Fishing Challenge contest. Hired charter boats for 3 Diamond Jim tagging trips and disbursed \$25,000 grand prize. 1300 anglers participated and 1700 attended finale event.
- Online recreational and commercial regulations now maintained and displayed through a database.
- Improved Fisheries website with mobile web application, Angler's log and 'Hot Spot' fishing area map. More than 1000 entries were posted on the Angler's log in FY 2012.
- Expanded use of social media to communicate with anglers. Launched Facebook account; fan base has topped 2,000.
- Launched e-mail subscription list which now has over 400 subscribers
- Developed and posted 41 weekly Fishing Reports on website. Developed 58 press releases about fisheries issues.
- New websites were added for Fisheries Habitat and Ecosystems Program, Snapping Turtle workgroup, Aquaculture Coordinating Council, and MD Seafood Marketing Advisory Commission.
- Increased focus on visual media; 18 videos on various programs are now available online.
- Certified 5 new state record fish and awarded plaques to anglers.
- Created two license free fishing areas in Ocean City.



# SUMMARY

As this report demonstrates, MD DNR's ability to fund programs to assess, protect, conserve and fairly allocate fish resources of the State for balanced ecological and socio-economic benefits is not possible without anglers who support this work by paying for fishing licenses, fees and excise taxes. These revenues pay for an extensive and diverse suite of activities which meet the four core functions of the Fisheries Service:

- 1) Protect, conserve and enhance fisheries resources.
- 2) Provide and enhance fishing opportunities, including access.
- 3) Provide sustainable economic opportunities.
- 4) Promote and protect fisheries resources through public outreach and education.

The top priorities for Fisheries Service in FY 2013 are listed in Appendix 1.

As this report describes, Fisheries Service expenditures have outpaced revenues for the past few years. This has drawn down the special fund savings account and prompted Fisheries Service's initiation of a cost recovery analysis to review revenue and costs per sector. The analysis indicated that the commercial fishing sector and the general public are not paying enough to cover the costs of the services they receive from Fisheries Service. These are the sectors that Fisheries Service will look to derive more revenue in order to maintain services. If revenue is not increased in FY 2014, Fisheries Service will have to reduce the services it currently provides.

The next budget report for Fisheries Service is scheduled for October 2013, and will focus on fiscal year 2013 which will close on June 30, 2013. If FY 2014 revenue is not expected to increase, the FY 2013 report will identify services which will need to be reduced to maintain support for mission critical programs.

Fisheries Service is committed to providing a comprehensive annual report on sport fishing revenues and expenditures. We are always interested in hearing from anglers and the general public about issues of concern or new project ideas that you believe we should consider pursuing as we work to ensure Maryland's fisheries resources are sustainably managed for the benefit of those who enjoy them today as well as future generations.

If you have any questions or input regarding this budget report, please contact Karen Knotts, MD DNR Fisheries Service, Communications and Outreach Division Manager at [kknotts@dnr.state.md.us](mailto:kknotts@dnr.state.md.us) or 410-260-8294.



# Appendix 1. Fisheries Service FY 2013 Priorities

In light of Fisheries Service's FY 2013 budget, the primary focus of the Unit over the coming year will be on continuing operations. In addition, we will make as much progress on priority issues or activities as resources allow. The list below includes top priorities for FY 2013 identified by Fisheries Service Division.

## Legislation, Regulation, Fishery Management Plans, Fish Passage and Habitat Protection Division

### 1) **Priority Task** – Continue process for Bloede Dam Project.

**Desired Achievement Date** – Ongoing. The goals are to improve fish passage, public health and safety while considering historical, cultural, and recreational values.

**Obstacle** – The main obstacle is communication with the public and making sure the public understands why removal is the preferred option for obtaining the goals of fish passage, public health and safety, and consideration for historical, cultural and recreational values.

**Solution** – MD DNR held two open houses in Catonsville at the end of June and will now review comment from the open houses and the online comment page through August 2012. Answers to questions raised by the comment will be addressed by postings on the Bloede webpage.

### 2) **Priority Task** – Focus on ways to develop priorities for habitat conservation and restoration projects.

**Desired Task Achievement Date** – Ongoing

**Obstacle** – Determining which areas to focus efforts for habitat conservation and restoration

**Solution** – MD DNR has formed a Habitat Matrix Team that will be working with all MD DNR Units to determine the best locations for focusing habitat restoration, conservation, and protection in order to provide the greatest benefits to our natural resources while combining efforts amongst Units, other State agencies, local government, federal government, and NGOs.

### 3) **Priority Task** – Propose a new fishing gear regulation chapter.

**Desired Task Achievement Date** – Ongoing

**Obstacle** – Because of the amount of law relating to gear in statute and regulation, staff has been working throughout 2012 to draft a new chapter of regulation that will incorporate or reference all existing gear rules. This is cumbersome because old statutes contain provisions that are no longer needed but cannot be undone without new legislation to remove them.

**Solution** – Staff will incorporate all rules into one chapter while working to remove antiquated laws during future legislative sessions.

### 4) **Priority Task** – Streamline the fishing penalty system.

**Desired Task Achievement Date** – Ongoing

**Obstacle** – The penalty system has evolved over the past few years and various changes have been made in both regulation and statute adding to the complexity of the system

**Solution** – Because of these changes, staff continues to work to improve the process both internally and externally. Communications with both the Office of the Attorney General (OAG) and Natural Resources Police (NRP) has been key and database improvements continue to aid the process.

### 5) **Priority Task** - Regulation and penalty communications.

**Desired Task Achievement Date** - Ongoing

**Obstacle** – Outreach is the biggest obstacle.

**Solution** - Staff is working to improve outreach on regulatory and penalty changes through better use of the website, handouts, and communication with licensing agents, licensing service centers, and NRP.

Estuarine and Marine Fisheries Division

- 1) **Priority Task** - Advise Director of Fisheries and other Maryland representatives on management actions under consideration by the Atlantic States Marine Fisheries Commission and Mid-Atlantic Fisheries Management Council.  
**Desired Task Achievement Date** – Ongoing  
**Obstacle** – None  
**Solution** – Not applicable.
  
- 2) **Priority Task** - Development of an alternative management system in the commercial striped bass fishery. Options for a new system are currently being developed with the commercial industry through the Striped Bass Workgroup and TFAC. Fisheries Service’s management principles of sustainability, enforceability, harvest accountability and cost recovery, as well as industry goals and objectives are a necessary component for this new system. In addition, reducing the risk of overfishing by lowering the number of commercial striped bass tags that are distributed each year is a priority of this plan.  
**Desired Task Achievement Date** – July 1, 2013  
**Obstacle** – Pressure from the industry.  
**Solution** – Continue to promote co-management as we work through this task.  
**Obstacle** – Political pressure to minimize changes and impacts on current striped bass permit holders.  
**Solution** – Develop a series of open house public meetings to inform fishermen, law makers and the general public regarding the options being considered by the Department for the 2014 fishery.
  
- 3) **Priority Task** - Maintain coordinated baywide sustainable blue crab fishery management program. This focus in FY 2013 will be to develop male biological reference points and discuss commercial allocation scenarios among MD, VA and PRFC. Modify and streamline recreational crabbing license requirements.  
**Desired Task Achievement Date** - Ongoing  
**Obstacle** - Coordination of inter-jurisdictional management and data sharing.  
**Solution** - Continue to communicate and participate with other Chesapeake Bay partners.
  
- 4) **Priority Task** - Obtain approval among the Atlantic coastal states to implement a more conservative management plan for Atlantic menhaden in recognition of their ecosystem importance as a prey species.  
**Desired Task Achievement Date** – Ongoing; possible final approval in November 2011. The Draft Addendum addressing this issue has been sent out for public comment (August 2011).  
**Obstacle** - Pressure from the industry (reduction and bait fisheries) due to the short term socio-economic impacts that will result from the adoption of a more conservative management plan.  
**Solution** - Continue to stress the ecological importance of menhaden as a prey species and work closely with ASMFC Board members to develop a plan that takes into consideration impacts as well as the benefits of increasing the abundance of the menhaden population.
  
- 5) **Priority Task** - Continue to support and work with NOAA on the development of the Marine Recreational Information Program (MRIP). Staff will work on a project that will allow recreational harvest estimates to be calculated separately for the Chesapeake Bay and Coastal Bays. Having separate harvest estimates will help us better manage species that live in both areas (i.e. summer flounder).  
**Desired Task Achievement Date** - Ongoing  
**Obstacle** – Coordination with NOAA  
**Solution** – Continue to communicate and participate in the overall program development (MRIP) and stress the importance of the smaller projects like the one mentioned above.

Inland Fisheries Management Division

- 1) **Priority Task** - Create Online Angler Access and Resource Map.



**Desired Task Achievement Date** – January 2013. Achievements in 2012 include 5 of 6 databases populated; need quality control check.

**Obstacle** - No dedicated personnel

**Solution** – Working with GIS staff

**Obstacle** – Several Regional databases were corrupted.

**Solution** – Western Region will have to recreate data table and map.

- 2) **Priority Task** – Provide effective enforcement of non-tidal Potomac River and North Branch Potomac River angling regulations

**Desired Task Achievement Date** – June 2013

**Obstacle** – Jurisdictional limitations do not allow NRP to enforce regulations with VA and WV.

**Solution** – Create language within the reciprocal agreements which allow officers from each state to enforce regulations from either bank, and implement via MD and WV legislation.

**Obstacle** – Reciprocal states are not focused on these rivers because they are Maryland's rivers and regulations.

**Solutions** – Organize concurrent patrols to be more effective in focusing resource officers' attention on this problem and create outreach to convince WV and VA residents that better enforcement will improve their fishing as well. In 2012 WV did step up patrol effort including one concurrent operation with MD. WV DNR Director verbally pledged greater enforcement effort.

- 3) **Priority Task** – Reduce mortality of catch and release black bass tournaments.

**Desired Task Achievement Date** – December 2013

**Obstacle** – Tournament organizers do not understand best handling procedures.

**Solution** – Meet with organizations to educate them and stress the importance of working livewells and efficient weigh-in procedures. In 2012, Fisheries developed outreach material and engaged with directors of all large events.

**Obstacle** - Tournament organizers do not follow through with best management practices.

**Solution** – Work to establish regulations to permit black bass tournaments in Maryland waters.

- 4) **Priority Task** – Finish brook trout life history studies and apply new findings to management of brook trout fisheries across the state.

**Desired Task Achievement Date** – December 2014

**Obstacle** – Limited knowledge of brook trout life history hampers effective management.

**Solution** – Tagging studies in the Savage River will provide critical migration, mortality and longevity information. Genetic analysis will determine if separate stocks exist and the degree to which they mix. These data will provide a baseline with which to compare other populations.

**Obstacle** – Public often opposes MD DNR management actions because they don't recognize a problem, don't think that MD DNR has the correct solution, or believes our actions are aimed at rewarding one group over another.

**Solution** – Outreach efforts must be continual and must include all affected groups; they should stress the problem and the logic behind the solution. In 2012, Fisheries held an open house in Cumberland, MD; summarized 5 years of population monitoring, provided findings and discussed status.

- 5) **Priority Task** – Continue to focus on water quality issues affecting important inland fisheries.

**Desired Task Achievement Date** – Ongoing

**Obstacle** – Major tailwater trout fisheries are threatened by competing water uses.

**Solutions** – Identify target temperatures and discharges which protect trout populations, advocate for standards at public meetings, within advisory groups and with MDE.

**Obstacle** – Environmental review often provides opportunity to only partially mitigate problems which will

occur from projects which are too far into the planning process to prevent.

**Solution** – Develop important resource data to insert into the local planning process; support MBSS in their efforts in this strategy.

### Shellfish Division

- 1) **Priority Task** - Increase oyster monitoring to document changes in the new oyster sanctuaries, to assess the Power Dredge Study areas and track the success of the 2010 oyster year class. Ancillary to this is the continued quality assurance/quality control of the Fall Oyster Survey database, maintaining the annual Oyster Biomass Index, and producing the Fall Survey report.  
**Desired Task Achievement Date** – Initiated in 2010, to be continued in 2012.  
**Obstacle** - Insufficient staff to complete surveys due to loss of 3 of 5 key field crew.  
**Solution** - Reallocate Fisheries staff relative to workload of program.
  
- 2) **Priority Task** - Develop a regionally-based stock assessment for oysters in Chesapeake Bay.  
**Desired Task Achievement Date** – 2012-2013 implementation in one river  
**Obstacle** - Insufficient staff to complete surveys due to loss of 3 of 5 key field crew.  
**Solution** - Reallocate Fisheries staff relative to workload of program.  
**Obstacle** – Need estimate of total area of oyster habitat.  
**Solution** - Expand sonar surveys and modify/enhance fall survey (see #1).  
**Obstacle** - Enhanced enforcement needed for reporting compliance.  
**Solution** – Obtain full oyster harvest report compliance regarding accuracy and completeness; oyster container and tag regulations should facilitate enforcement, but will need independent verification of fishery-dependent reports.
  
- 3) **Priority Task** - Develop and implement a statewide Clam Tagging Program to meet National Shellfish Sanitation Program (NSSP) guidelines.  
**Desired Task Achievement Date** – Summer 2013.  
**Obstacle** – No regulations for hard clams outside of Worcester County; separation of razor clams from soft-shell clams in regulation.  
**Solution** – Fully integrate clam reporting and oyster tagging into data collection system. Obtain full shellfish tax compliance. Rewrite Clam Fishery Management Plan and modify regulations.  
**Obstacles** – Incomplete reports, tax enforcement.  
**Solution** – Returning incomplete reports, better accounting of taxes and administrative penalties
  
- 4) **Priority Task** - Improve web presence for the Shellfish Program. Over the years (the first oyster surveys were conducted in the 1870s) a tremendous amount of information has been generated that would be of interest to researchers, managers, legislators, students, and the general public. Especially during the past two decades, the program has expanded to include Coastal Bays studies, restoration-related research and monitoring, the reintroduction of bay scallops, the development of hard clam and soft clam/razor clam survey protocols, opportunistic studies (e.g. freshet-related oyster mortalities), a five-year patent tong study of select oyster bars, and several other projects, while continuing the annual Fall Oyster Survey (initiated in 1939). Most of this material is languishing as reports in file cabinets and should be exposed to a greater audience that the web provides. Not only is the information of interest and utility, but it provides a record of accomplishment.  
**Desired Task Achievement Date** – Preliminary groundwork began in July 2012 with a full implementation by mid-2013  
**Obstacle** - None (except time).
  
- 5) **Priority Task** - Solicit new sources of substrate for oyster restoration.  
**Desired Task Achievement Date** - Ongoing

**Obstacle** - Finding appropriate sources of large volumes of material suitable for oyster restoration.

**Solution** - Keep searching for new sources until large new sources are identified.

Cooperative Management Investigations and Fisheries Health Division

1) **Priority Task** – Cost recovery/budget analysis and Maryland fishery economics (value characterization of recreational fisheries; blue crab recreational license structure analysis).

**Desired Task Achievement Date** – Specific to each analysis.

**Obstacle** – Insufficient information (data gaps).

**Solution** - Case specific – working assumptions necessary, products will address needs and longer term approaches.

2) **Priority Task** – Commercial blue crab accountability pilot.

**Desired Task Achievement Date** – Initiate July 2012. Continue in 2013.

**Obstacle** -Training watermen for participation.

**Solution** - Watermen training with phones and iPads for texting, call center and web based reporting to begin 7/12; with participants to begin reporting on 7/16.

**Obstacle** – Public awareness

**Solution** – The Design Team issued press release on 7/12-13. Baltimore Sun ran story on 7/14-15.

3) **Priority Task** – Conduct shellfish disease research and surveys. Provide demonstrations, presentations and educational programs on shellfish health and disease.

**Desired Task Achievement Date** - Ongoing

**Obstacle** – There are no obstacles at this time.

4) **Priority Task** – Conduct baywide fish health survey. Provide finfish health diagnostic and histological services.

**Desired Task Achievement Date** - Ongoing

**Obstacle** - There are no obstacles at this time.

Hatcheries Division

1) **Priority task** - Restore coldwater production capacity to level prior to the 2006 whirling disease outbreak that shuttered three trout production facilities. Bear Creek is back online at full production and continues to test clean. Implementation of Mettiki Coal LLC Plan phase I is needed. If this pilot culture trial is successful, development of Phase II production facility could meet remaining state needs

**Desired Task Achievement Date** – Spring 2013 for phase I construction.

**Obstacle** – There are no obstacles at this time.

**Solution** – Mettiki Plan has been approved by Fisheries Service and Mettiki. Awaiting Departmental approval of Memorandum of Understanding.

**Obstacle** – Funds to complete project.

**Solution** – Evaluate budget to identify potential areas for reallocating resources.

2) **Priority task** - Continue critical evaluation of current shad restoration strategies in light of coast wide declines in American shad populations. Part of this strategy will require development of adult population estimates in Maryland restoration target tributaries.

**Desired Task Achievement Date** - Develop and implement adult abundance assessment strategy by winter 2012.

**Obstacle** - Need for cooperation of all pertinent state and federal agencies to identify cause of population declines along the Atlantic coast. Development of adult abundance estimates within the target tributaries requires substantial planning and staff resources.

**Solution** - Work with ASMFC to determine potential causes for coastal population declines and develop response strategies. Need to identify appropriate strategy, in cooperation with MD DNR stock assessment experts, to estimate adult abundance in restoration tributaries. Need to implement this strategy, either with existing MD DNR staff or new hires.

3) **Priority task** - Improve culture techniques for warm water species such as largemouth bass and musky. Largemouth bass production has been significantly reduced due to uncontrollable conditions in hatchery ponds. Alternative methods are being investigated to improve production, including tank culture and control of nuisance algae.

**Desired Task Achievement Date** - Ongoing for both new research trials and algae research.

**Obstacle** - Nuisance algae are largely unstudied. Intensive tank culture success for warm water game fish species is variable and facility-specific throughout the country.

**Solution** - Develop successful protocols to address nuisance algae and improve efficacy of MD DNR intensive tank culture strategies to reduce reliance on extensive pond culture strategies. Need to include collaboration with U of MD Extension for algae research (could require funding). Need to refine culture strategies through targeted research at MD DNR and UMCES facilities. Successful development of protocols will lead to need for additional funds for increased hatchery capacity.

4) **Priority task** - Develop and implement production databases for coldwater and warm water hatcheries. Stocking databases have been developed for coldwater and warmwater hatcheries. Production database has been developed to the template stage but need to get it constructed and implemented.

**Desired Task Achievement Date** – Spring 2013

**Obstacle** - Lack of expertise within Hatcheries Division; need to work with a database specialist to complete and implement.

**Solution** – Seek staff support from Fisheries Service database specialists.

5) **Priority task** – Update Atlantic sturgeon Endangered Species listing information. Reward program terminated and all research has been suspended.

**Desired Task Achievement Date** - Ongoing

**Obstacle** – ASMFC working through the listing process.

**Solution** – Holding captive brood population and staff is providing routine fish husbandry.

#### Aquaculture Division

1) **Priority Task** – Establish seed and harvest size limits for aquacultured oysters and a tolerance limit for undersized oysters harvested from leases.

**Desired Task Achievement Date** – September 2012.

**Obstacle** - Regulations

**Solution** – Draft emergency regulations to allow harvest and sale of oysters that are less than 3” from leases when commercial oyster fishery is closed and establish a 5% tolerance limit. Submit emergency regulations package in late July.

**Obstacle** – Coordinating Council does not concur with time of year restriction and recommends allowing water column leaseholders to harvest oysters that are less than 3” from their leases year round.

**Solution** – Staff will work with Council Workgroup, NRP and Fisheries to evaluate the enforcement concerns expressed by NRP and try to identify a mechanism that would assist NRP’s enforcement efforts and reduce the risk associated with the theft of undersized oysters from public bars. This effort could result in providing the industry with more flexibility in selling oysters that are less than 3” without seasonal restrictions.

2) **Priority Task** – Evaluate the ability to obtain crop insurance for shellfish aquaculture producers in Maryland through the USDA-Risk Management Agency, Group Risk Plan (GRP).



**Desired Task Achievement Date** – 2013 and 2014

**Obstacle** – Crop insurance under the GRP is not currently available to Maryland growers. However, policies have been established for Louisiana oyster farmers and clam growers in FL, MA, SC and VA.

**Solution** – Meet with USDA-RMA officials to provide them with an industry overview and discuss in detail what would be required to establish a crop insurance program in MD.

**Obstacle** – In order to be eligible for the GRP, a State or local jurisdiction must have interest and a commitment from the industry to invest in the group policy.

**Solution** – Staff will work with growers to evaluate demand for obtaining crop insurance under the GRP.

3) **Priority Task** - Hire aquaculture permitting lead position (MDE pin transfer)

**Desired Task Achievement Date** – February 2013

**Obstacle** - DBM approval

**Solution** - DBM approval in process, hiring process will follow approval.

4) **Priority Task** - Develop and implement field operations component of Division

**Desired Task Achievement Date** – October 2012

**Obstacle** - Funding

**Solution** - Defer a portion of existing operational funds, budget appropriation

**Obstacle** - Guidelines for field staff operations

**Solution** - Develop standard operating procedures to include survey protocols, compliance inspection forms and implementation of best management practices.

5) **Priority Task** - Continued implementation of the Oyster Aquaculture Development Plan and associated regulatory packages

**Desired Task Achievement Date** - Through 2013

**Obstacle** - Federal permitting for AEZs and Preapproved Areas in Coastal Bays

**Solution** - Establish as a State priority, increased interaction with Federal partners and local officials that will lead to finalizing authorizations for these activities.

Communications and Outreach Division

1) **Priority Task** - Develop and carry out angler recruitment and retention strategies to increase angler participation. Focus on youth and lapsed anglers.

**Desired Task Achievement Date** – June 2013.

**Obstacle** – Maryland Youth Fishing Club has been initiated but needs further development. Need to obtain electronic database of anglers via new Compass system for outreach

**Solution** – Develop strategic plan for Maryland Youth Fishing Club. Work with IT to secure access to electronic database for implementing outreach strategies targeting existing anglers. Partner with the Recreational Boating and Fishing Foundation.

2) **Priority Task** – Manage and improve Fisheries website to provide easier access to regulatory and management information as well as descriptions of Fisheries mission, purpose and activities.

**Desired Task Achievement Date** – March 2013

**Obstacle** – MD DNR Internet Technology (IT) Division resources for necessary design changes as well as DNR IT approval of any recommended design changes.

**Solution** – Develop a framework and identify website design changes that will require IT design work and/or approval. Move existing content into new framework and work with IT to find solutions to solve resource or design problems.

3) **Priority Task** – Develop new outreach tools and materials. Includes annual budget and expenditure report;

interactive website map tool to provide fishing information; fishing license application in Spanish; and outreach materials with a youth angler focus.

**Desired Task Achievement Date** – October 2012 for annual budget report; June 2013 for all others.

**Obstacle** – Staff resources and funding.

**Solution** – Develop a work plan for each new outreach tool to identify staff and funding needs, potential partners and funding sources, and timelines for development.

- 4) **Priority Task** - Develop, edit, layout, and publish 2013 Maryland Fishing Guide. To include print, PDF and virtual copy of the printed publication with pages that readers can turn online. Fully interactive, HTML-based web site to be compatible with all current smartphone platforms.

**Desired Task Achievement Date** – December 2012

**Obstacle** – Request for bid process and contractor interest.

**Solution** – Await response to request for bids (RFB). If necessary, Fisheries will follow process for developing, publishing and distributing 2012 Guide via existing contract.

- 5) **Priority Task** – Creation of 1 – 2 Maryland Artificial Reef (MARI) demonstration projects using locally sourced limestone for benthic habitat enhancement in Chesapeake Bay. Site selection will be within the existing network of Maryland’s Chesapeake oyster sanctuaries.

**Desired Task Achievement Date** – Complete design by December 31, 2012. Initiate material placement in summer 2013. Initiate compliance and performance monitoring in summer 2014.

**Obstacle** – Project approval must be obtained from Department and potential resistance from stakeholders.

**Solution** – Seek Departmental approval of plans and design. Conduct outreach efforts to include all affected groups.

**Obstacle** – Funding

**Solution** – Work within existing MARI partnership and elsewhere to augment available funding.

### Fisheries Marketing Division

- 1) **Priority Task** – Develop and implement the ‘True Blue’ Program.

**Desired Task Achievement Date** – Ongoing. The goal is to build an ever-growing community of foodservice professionals that will help sustain and grow the local seafood processing industry.

**Obstacle** – The main obstacle is outreach. While the story has run in several newspapers every potential restaurant has not been reached with information about the program.

**Solution** – Staff working on an e-mail campaign to increase the industry’s awareness of the program.

- 2) **Priority Task** – Develop workplan and priorities for marketing MD sportfish and charter boat industries; include review of past marketing plans.

**Desired Task Achievement Date** – Spring 2013

**Obstacle** – Resource limitations.

**Solution** – Realignment of priorities to reallocate staff time.

- 3) **Priority Task** – Develop a Maryland Seafood website.

**Desired Task Achievement Date** – August 2012

**Obstacle** – This is a complete redesign of the website that will take a tremendous amount of staff time. Additionally, the web development team has been moved out of MD DNR making communication slower.

**Solution** – Dedicated time to bring this project to completion as well as more meetings with web development staff.

- 4) **Priority Task** – Develop a pilot “community supported fishery” program.

**Desired Task Achievement Date** – October 2012

**Obstacle** – Permits from Department of Health & Mental Hygiene (DHMH), logistics, and training.

**Solution** – Contact counterparts in North Carolina to request assistance in preparation and planning.

5) **Priority Task** – Create online resource for consumers to better identify locations to purchase local seafood.

**Desired Task Achievement Date** – December 2012

**Obstacle** – Outreach. Need to find a way to contact restaurants, crab houses, watermen that sell their own product, etc. in order to have a comprehensive list.

**Solution** – Work with the DHMH to get a list of all licensed seafood dealers. Start a public outreach campaign through the media. Work with wholesalers to contact restaurants.

