

Fisheries Service
FY 2013 Budget Report
to the Sport Fisheries Advisory Commission
October 2013



Photo Credit: David Sikorski



Martin O'Malley, Governor
Anthony G. Brown, Lt. Governor
Joseph P. Gill, Secretary
Frank W. Dawson III, Deputy Secretary

INTRODUCTION

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 almost 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.

Natural Resources Article § 4-745 requires the Maryland Department of Natural Resources (MD DNR) to publicly report annually the amount of sport fishing license revenues credited to and expended from the Fisheries Research & Development Fund (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 nontidal sport fishing license fees. For sport fishing fees associated with the nontidal 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 2013 (FY 2013), the most recently completed fiscal year. FY 2013 was July 1, 2012 through June 30, 2013. Sport fishing license sales reported are for calendar year 2012 since Maryland sells sport fishing licenses by calendar year, and 2012 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, 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). Nontidal 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

Table 1 shows calendar year recreational license sales from 2008 to 2012. 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. The percent change in license sales from 2011 was calculated to show recent changes.

Including angler registrations, recreational crabbing, tidal and nontidal fishing licenses, there were 318,541 unique anglers in Maryland in 2012. This does not include anglers less than 16 years of age and/or individuals who fish on free fishing days.

Table 1. Maryland recreational license sales by calendar year

FISHING STATISTICS BY LICENSE YEAR	2008	2009	2010	2011	2012	% Change from 2011
RESIDENT NON TIDAL	118,737	120,093	111,241	105,893	108,600	2.6%
NON RESIDENT NON TIDAL	11,657	11,986	11,625	11,259	11,289	0.3%
3 DAY NON TIDAL	7,952	8,400	8,230	6,623	6,344	-4.2%
5 DAY NON TIDAL (7 Day in 2011)	7,539	8,145	8,065	8,175	8,094	-1.0%
TROUT STAMP	58,103	59,839	56,247			
RESIDENT TROUT STAMP (New 2011)				44,187	46,744	5.8%
NON RESIDENT TROUT STAMP (New 2011)				6,827	6,986	2.3%
NON TIDAL BLIND	111	124	107	104	101	-2.9%
SENIOR CONSOLIDATED LICENSE	20,168	21,884	22,147	23,224	24,675	6.2%
RESIDENT BAY (and Coastal) SPORT ¹	91,607	94,688	89,985	93,074	94,291	1.3%
NON RESIDENT BAY (and Coastal) SPORT	21,242	23,373	22,471	21,011	20,937	-0.4%
5 DAY BAY SPORT	15,469	17,344	15,352			
RESIDENT 7 DAY BAY AND COASTAL SPORT (New 2011)				7,032	6,410	-8.8%
NON RESIDENT 7 DAY BAY AND COASTAL SPORT (New 2011)				17,274	16,880	-2.3%
PLEASURE BOAT DECAL	46,828	47,001	46,886	48,584	49,350	1.6%
BAY (and Coastal) SPORT BLIND	217	205	158	160	122	-23.8%
BAY AND COASTAL SPORT REGISTRATION (New 2011)				58,683 ²	34,296	
RECREATIONAL CRABBING ³	36,702	39,059	42,186	44,478	44,981	1.1%
NON RESIDENT RECREATIONAL CRABBING	5,134	5,625	7,181	6,745	6,359	-5.7%
RECREATIONAL CRABBING BOAT	3,446	3,847	4,297	4,645	5,078	9.3%

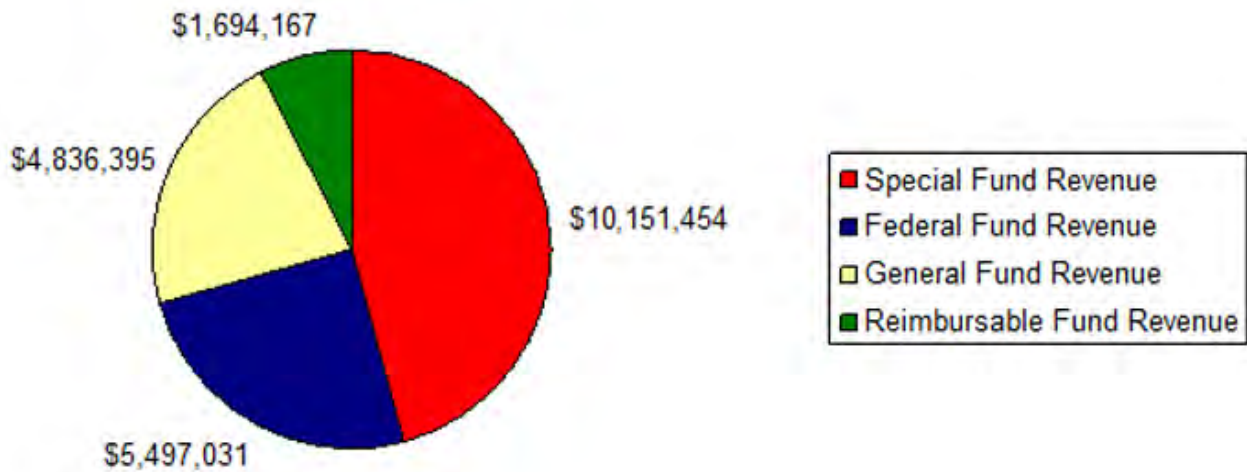
¹ Does not include complimentary licenses from the Bay and Coastal Sport Decal. ² Includes Potomac registrations.

³ Does not include complimentary licenses from the Bay and Coastal Sport Decal or Crabbing Boat Decal.

B. Revenues

Total FY 2013 Fisheries Service revenues (all fund sources) were \$22,179,047 and are broken down as follows: 46% Special Fund revenue; 25% Federal Fund revenue; 22% General Fund revenue; and 8% Reimbursable Fund revenue (Figures 1 and 2). FY 2013 Fisheries revenues are \$4.47 million lower than FY 2012. This is primarily due to reductions of \$3.4 million in Federal, \$628,113 in General, and \$494,823 in Reimbursable revenues, respectively. \$1.2 million of the Federal revenue reduction was due to spending down the Federal blue crab fishery disaster grant.

**Figure 1. FY 2013 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 Figure 2. Recreational tidal license sale and fee revenues are deposited into the Fisheries Research and Development Fund (FR&D). The FR&D fund also includes revenue from commercial fishing license fees. Nontidal license sale revenues are deposited into the Fisheries Management and Protection Fund (FM&P).

**Figure 2. FY 2013 DNR Fisheries Service
Special Fund Revenues**



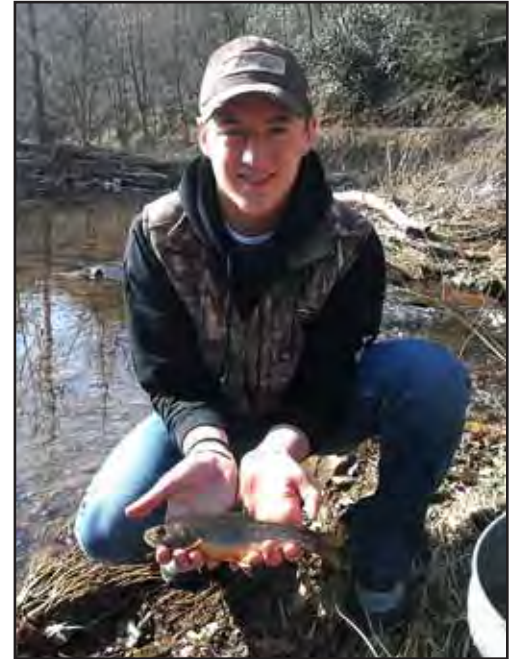
Fisheries Service began FY 2013 with a balance of \$5,740,068 and \$737,980 in the FR&D and FM&P funds respectively. Total FY 2013 revenue credited to these funds included \$6,781,615 to FR&D and \$3,348,084 to FM&P (Table 1).

**Table 2. Fisheries Service - FR&D and FM&P Funds
FY 2013**

	Fisheries Management and Protection Fund	Fisheries Research and Development Fund	Total
Beginning Balance	\$ 737,980	\$ 5,740,068	\$ 6,478,048
Revenues	\$ 3,348,084	\$ 6,781,615	\$ 10,129,698
Gasoline Sales Surcharge	\$ (873)	\$ 1,865,990	\$ 1,865,118
Total Funds Available	\$ 4,085,191	\$ 14,387,673	\$ 18,472,864
Summary of Expenditures			
Fisheries Service	\$ 1,267,830	\$ 6,991,916	\$ 8,259,746
Non-Fisheries Service	\$ 1,629,903	\$ 3,801,611	\$ 5,431,514
NRP - Field Operations	\$ 545,385	\$ 2,137,036	\$ 2,682,421
Licensing	\$ 318,227	\$ 473,800	\$ 792,027
Watershed Service	\$ 256,729	\$ 56,157	\$ 312,886
Information Technology Service	\$ 161,700	\$ 327,600	\$ 489,300
Finance & Administrative Service	\$ 119,000	\$ 241,100	\$ 360,100
Office of Secretary	\$ 80,300	\$ 162,700	\$ 243,000
Office of Attorney General	\$ 50,500	\$ 102,300	\$ 152,800
Resource Assessment Service	\$ 50,462	\$ 204,518	\$ 254,980
Human Resource Service	\$ 24,300	\$ 49,200	\$ 73,500
Office of Communications	\$ 23,300	\$ 47,200	\$ 70,500
Total Expenditures	\$ 2,897,733	\$ 10,793,527	\$ 13,691,260
(Revenue+Gas Surcharge) - Expenditures	\$ 449,478	\$ (2,145,922)	\$ (1,696,444)
Ending Balance (Total Funds Available – Total Expenditures)	\$ 1,187,458	\$ 3,594,146	\$ 4,781,604

C. Expenditures

In FY 13, MD DNR expended a total of \$25,555,039 from the Fisheries Service budget and FR&D and FM&P Special Funds that went to other MD DNR Units (Figure 3). Fisheries Service expended \$20,123,525 and the other Units expended \$5,431,514 (Figure 4, Table 2). Funds expended by other MD DNR Units were in support of Fisheries Service’s mission, consistent with many of the priorities identified in the 2008 report of the Task Force on Fisheries Management. This includes but is not limited to: enforcement of fisheries management rules (i.e. Natural Resources Police); habitat preservation and restoration (i.e. water quality monitoring, benthic habitat surveys, prioritization of critical habitats, environmental review), legal issues, and licensing services (i.e. 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 Office of Attorney General; Finance and Administration Service; Human Resources Service; Information Technology Service; COMPASS development; and Office of Communication Management.



MD DNR expended a total of \$10,793,527 and \$2,897,733 of FR&D and FM&P funds, respectively in FY 2013. FY 2013 expenditures of FR&D and FM&P funds exceeded FY 2013 revenue credited into these funds by \$1,696,444. As a result, the balance of FR&D and FM&P funds (\$4,781,604) is lower than it was at the start of the fiscal year (Table 2).

Figure 3. FY 2013 Fisheries Service use of Funds

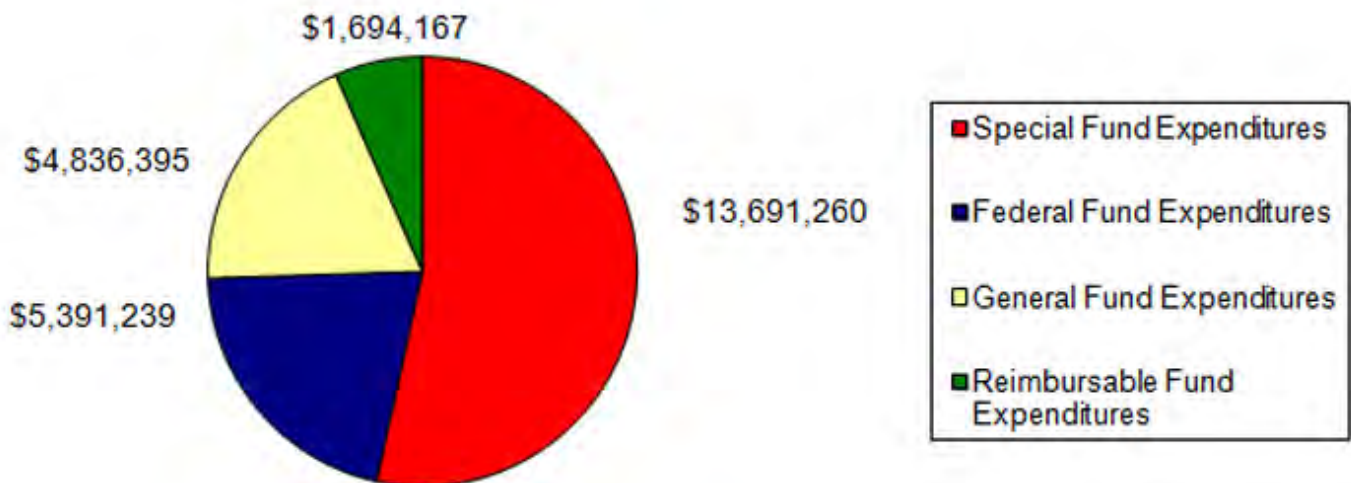
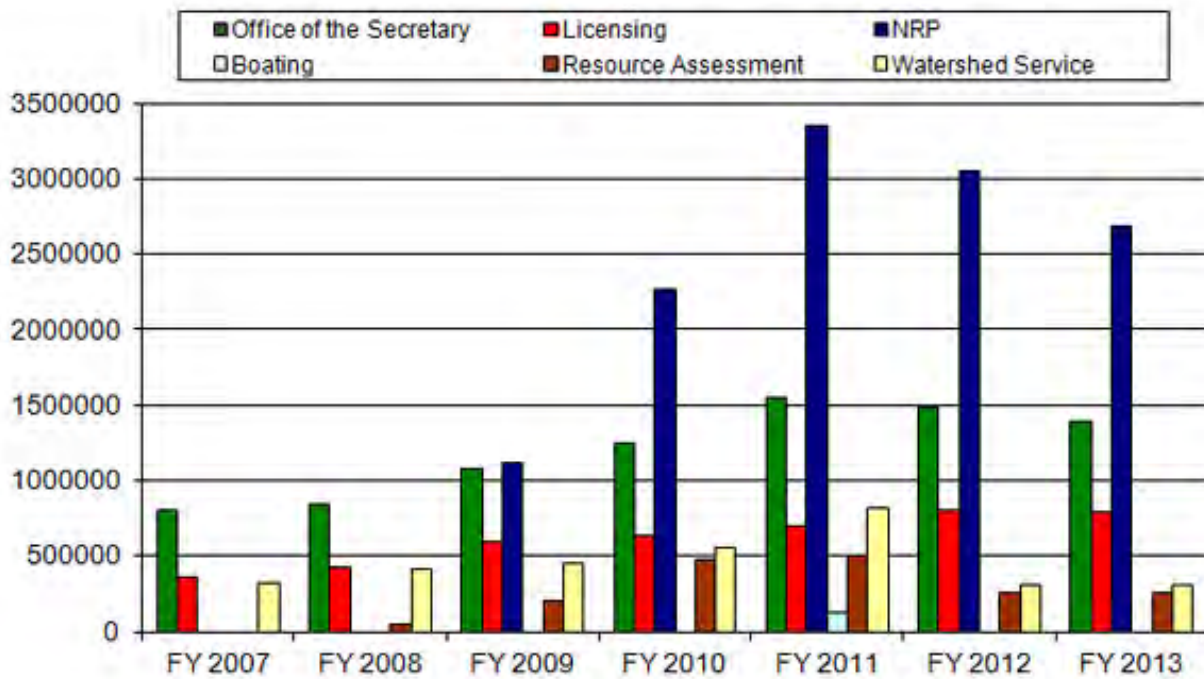


Figure 4. FY 2007-2013 Special Fund Transfers to Support Fisheries Service



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.

In FY 2013, Fisheries Service expenditures exceeded revenue by \$1,696,444. A portion of the FY 2013 beginning balance of FR&D and FM&P Special Funds were used to cover these expenses. The current level of services MD DNR provides to fulfill the mission of Fisheries Service will only be sustainable if there is an increase in revenue and/or implementation of more cost efficient operations. In recognition of this fiscal situation, Fisheries Service completed a cost recovery analysis in FY 2013 to determine where an additional revenue request was warranted (http://www.dnr.maryland.gov/fisheries/pdfs/HB_1372_Commercial_Fisheries_Cost_Recovery_Report_1-17-2013.pdf). The analysis concluded that sports fishermen are currently providing sufficient revenue to cover their management service. However, an increase in commercial fishing license fees is needed to cover their management services. An increase in general funds is also needed for services that benefit the non-fishing public.

The Maryland General Assembly adopted a 2014 MD DNR Fisheries Service budget with an increase in General Funds. Passed in the 2013 Session, Senate Bill 662 increased commercial license fees and is anticipated to bring in \$1.6 million in additional FR&D Special Funds. These revenues will reduce MD DNR's dependency on FR&D and FM&P balances that accrued prior to the recession. In recent years, Fisheries Service has utilized these balances to maintain mission critical functions formerly supported by General Funds.

With a FY 2014 beginning balance of \$4.78 million in FR&D and FM&P funds, the MD DNR will have sufficient funds to maintain the current level of Fisheries Service related services. However, without an increase in revenue, implementation of more cost effective operations, and/or reduction in services, it is anticipated that there will not be sufficient funds to maintain all of these services by FY 2016. The MD DNR is working to identify strategies to address this issue.

In FY 2014, Fisheries Service will focus on maintaining the operations performed in FY 2013 as well as the priorities listed in Appendix 1. Appendix 2 highlights some of the activities Fisheries Service accomplished through the use of special funds during FY 2013.

The next budget report for Fisheries Service is scheduled for October 2014, and will



focus on fiscal year 2014 which will close on June 30, 2014.

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 or 410-260-8294.



SFAC Commissioners

In June 2012, Fisheries Service announced the appointment of seven new members to the Sport Fisheries Advisory Commission (SFAC). The SFAC advises the Department on recreational fishing issues and is comprised of individuals from across the State that represent recreational fishing interests.

Public participation is vital to the Department's ability to successfully conserve, manage and restore Maryland's fisheries resources. Members of our advisory bodies serve as your representatives and we invite you to contact them with questions, concerns and/or suggestions about fisheries issues. Visit <http://www.dnr.maryland.gov/fisheries/fmp/index.asp> for the list of Commissioners who advise the Department on your behalf. Simply click on Sport Fisheries Advisory Commission to find contact information and affiliation of each member. You can also keep up with Commission activities with the meeting agendas, materials and summaries which are posted in conjunction with the quarterly SFAC meetings.



Left to Right: Scott Sewell (proxy for Roger Trageser), Micah Dammeyer, Dr. Ray Morgan, Vince Ringgold, Kate Chaney, Val Lynch, Tim Smith, Dave Sikorski (Vice Chair), Phil Langley, Bill Goldsborough (Chair), Mark DeHoff, James Womack, Ed O'Brien, Jim Gracie (Outgoing Chair), (missing Beverly Fleming)

SFAC Commissioner Wins Award of Excellence in FY 2013

At the spring 2013 meeting of the Atlantic States Marine Fisheries Commission (ASMFC), Commissioner Bill Goldsborough was recognized with an award of excellence in the area of policy and management. Read the ASMFC press release at http://www.asmfc.org/press_releases/2013/pr24AAE.pdf.



Left to Right: Bill Goldsborough (SFAC Chair), Tom O'Connell (Fisheries Service Director)

Appendix 1. Fisheries Service FY 2014 Priorities

In light of MD DNR's FY 2014 beginning balance of \$4.78 million in FR&D and FM&P funds, 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. A list of priorities by Fisheries Service divisions is included below. These are not each division's only priorities, but are the ones that focus on sport and charter fishing in some way.

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 continues to use the created website and will continue to hold open houses when needed throughout the process.

2) **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 – Staff time and involvement in the system are being altered to accommodate workload. Continued collaboration with IT and NRP will aid in databasing the system and saving staff time in entering information.

3) **Priority Task** – Focus on communication tools for habitat conservation and restoration projects.

Desired Task Achievement Date – Ongoing

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

Solution – Working through existing Units and the DNR Habitat Conservation Matrix Team, development communication tools and dialogue with stakeholders, local government, federal government, legislators, and general public to get out the message that “Good Conservation is the right resources in the right place.” Also, continuing survey and mapping work to provide the best information possible for outreach purposes.

Estuarine and Marine Fisheries

1) **Priority Task** - Continue to support and work with NOAA on the development of the Marine Recreational Information Program (MRIP). Staff anticipates working on a project to evaluate the possibility that DNR Fishery Service's manage the recreational fishing intercept survey. The benefit to increased involvement is better confidence in the data collected and will enhance our understanding of our own State fisheries.

Desired Task Achievement Date - Ongoing

Obstacle – Funding and staff resources

Solution – A commitment from DNR and the recreational fishing community to supplement the federal program (MRIP) with additional funds to increase sample sizes (number of intercepts)

2) **Priority Task** – Continue coordinated efforts with partner states of the Atlantic States Marine Fisheries Commission (ASMFC) on the review of the 2013 Atlantic Striped Bass Benchmark Stock Assessment and potential management actions which may result from this report.

Desired Task Achievement Date – Ongoing

Obstacle – Pressure from the industry.

Solution – Continue to promote co-management with the recreational and charterboat communities as we work through this task.

- 3) **Priority Task** - Continue coordinated efforts with partner states of the Atlantic States Marine Fisheries Commission (ASMFC) and the Mid-Atlantic Fisheries Management Council (MAFMC) to incorporate new federal recreational accountability measures, which resulted from the MAFMC's Omnibus Amendment, into ASMFC management plans for summer flounder, black sea bass, scup and bluefish. This task relies on the adoption the MAFMC's recommendations to NMFS.

Desired Task Achievement Date – Ongoing

Obstacle – Pending plan adoption. Differing state and federal regulations and management guidelines.

Solution – Continue to stay engaged and find creative solutions to achieve the desired outcome

- 4) **Priority Task** - Maintain all current finfish monitoring programs in the Chesapeake and Coastal Bays. Data collected provide inputs to enhance stock assessments for various recreational and forage species including striped bass, summer flounder, black sea bass, spot, white perch, yellow perch, red drum, Atlantic croaker, catfish, Atlantic menhaden and river herring.

Desired Task Achievement Date – Ongoing

Obstacle – None

Inland Fisheries Management Division

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

Desired Task Achievement Date – November 2013. Achievements in 2013 include compilation of state-wide access data and targeted field verification of records, development of an interactive GIS format map for presentation of information.

Obstacle – Ramp and pier data are accessed through another DNR Units website, however that site is not yet available.

Solution – Working with IT staff and Boating Access PI to make those data available

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

Desired Task Achievement Date – December 2013. Direct contact with release boat captains has improved survival. Safe Handling information has been updated in the Anglers Guide and is viewed as a part of the tournament registration process. Live-well studies are underway and a cooperative study is being planned with BASS and Mississippi State University.

Obstacle – Varying conditions require anglers to adjust their handling strategies for best survival.

Solution – Develop a comprehensive set of guidelines to cover all situations

- 3) **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 – Still some public opposition to current management strategy because harvest and techniques associated with high release mortality were eliminated.

Solution – Outreach is needed to demonstrate recent improvements in populations and the potential for further population improvement.

- 4) **Priority Task** – Continue to focus on water quality issues affecting important coldwater fisheries.
Desired Task Achievement Date – Ongoing
Obstacle – Major tailwater trout fisheries are threatened by competing water uses.
Solutions – Adopt agreements with impoundment management agencies to guarantee adequate flow and temperature for healthy trout populations.
- 5) **Priority Task** – Increase angler access to public waters.
Desired Task Achievement Date – Ongoing
Obstacle – Posting of private lands and the closure to public access by land management agencies and private enterprise concerned with liability have resulted in loss of access to waters with viable fisheries.
Solutions – Seek implementation of HB 797 with SHA/MDOT. Advocate for public access with management agencies. Find solutions to liability concerns for private land holders. Enhance fishing opportunities in areas which are currently open to the public.

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 2010-2013 oyster year classes. 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 2013.
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** – Find cost effective ways to exploit new sources of substrate for oyster restoration.
Desired Task Achievement Date – Begin shell placement in 2014 using fossil shell.
Obstacle – Establishing and managing contracts and raising funds.
Solution - Keep searching for new sources and ways to utilize them.
- 3) **Priority Task** - Develop a regionally-based stock assessment for oysters in Chesapeake Bay.
Desired Task Achievement Date – 2014-2015 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.

Cooperative Management Investigations and Fisheries Health Division

- 1) **Priority task** – Maryland fishery economics (value characterization of recreational fisheries)
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** – 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.

3) **Priority task** - Develop a finfish health and bio-safety bacteriology laboratory for diagnosing disease in captive and wild finfish.

Desired Task Achievement Date – December 2013

Obstacle – Requires renovation of lab space

Solution – Follow state bid process for construction services

4) **Priority task** – Commission a new research vessel to support DNR science

Desired Task Achievement Date – December 2013

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 – Fall 2013 for phase I construction.

Obstacle – There are no obstacles at this time.

Solution – Mettiki Plan has been signed by Mettiki officials. Awaiting Departmental execution 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 - Adult abundance assessment strategy was determined in winter 2012. One to two more years of data collection are required to fine-tune gear bias coefficients.

Obstacle – No obstacles for adult population estimate task. Need for cooperation of all pertinent state and federal agencies to identify cause of population declines along the Atlantic coast.

Solution - Work with ASMFC to determine potential causes for coastal population declines and develop response strategies. Need one to two years of additional sampling to support adult abundance estimates.

3) **Priority task** - Implement Patapsco River shad and herring restoration project to support population reintroduction subsequent to dam removals and other habitat improvements.

Desired Task Achievement Date - Stocking began in 2013 and will continue through 2015. Assessment work will continue through 2017.

Obstacle - None at this time.

Solution - Stock multiple life stages of marked, hatchery-origin American shad, hickory shad, blueback herring and alewife to create juvenile populations in historically productive nursery habitat. Stocked fish should return as spawning adults and natural reproduction will support population restoration.

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 2014

Obstacle - Lack of expertise within Hatcheries Division (assigned staff recently left state service); need to backfill Hatcheries Division position to work with a database specialist to complete and implement.

Solution – Seek staff support from Fisheries Service database specialists.

5) **Priority task** – Support new ASMFC Atlantic sturgeon stock assessment. Findings will determine future conservation strategies. Continue to maintain captive brood population pending stock assessment.

Desired Task Achievement Date – Ongoing, 2015 target completion

Obstacle – Acquisition and compilation of all available data.

Solution – Participation in stock assessment data workshops and other ASMFC activities. Holding captive brood population and staff is providing routine fish husbandry.

Communications and Outreach Division

1) **Priority task** - Develop, edit, layout, and publish 2014 Maryland Fishing Guide. To include print, PDF and virtual publication and fully interactive, HTML-based web site compatible with smart phone platforms. Identify opportunities to increase percentage of production cost which can be offset by advertising.

Desired Task Achievement Date – December 2013.

Obstacle – Lengthy procurement process may impact production schedule. Policy to provide free premium advertising space for Maryland Fishing Challenge sponsors limits advertising revenue.

Solution – Work closely with DNR procurement staff to avoid unnecessary delays. Work closely with vendor to identify and implement strategies which increase the percentage of production cost which can be offset by advertising while maintaining the highest quality publication possible.

2) **Priority task** - Evaluate Maryland Fishing Challenge to identify opportunities to make it more accessible, efficient and successful in meeting its objective of showcasing Maryland as a great fishing destination and increasing the number of youth, families and individuals participating in sport fishing through recognition and awards. Identify strategies to improve awareness of the contest and expand access to more anglers, in particular youth and families.

Desired Task Achievement Date – Ongoing

Obstacle – Contest is year-round. Staff time and resources in first quarter of the fiscal year are focused on completing 2012/2013 contest. 2013/2014 contest will be in progress before evaluation is complete.

Solution – Complete evaluation of 2012/2013 contest within one month of Finale. Identify opportunities and strategies, and assess whether they can be implemented during FY 2014 while maintaining integrity of contest rules. Seek feedback from SFAC and implement changes during FY 2014 or defer until FY 2015 as appropriate.

3) **Priority task** - Manage Fisheries website migration to new State approved format. New format provides easier access to information across all current platforms (desktops, tablets, phones, watches).

Desired Task Achievement Date - Ongoing.

Obstacle – Must complete review of web material and remove/archive outdated material before migration. Staff training on tools developed to perform migration to new format is required.

Solution - Develop a framework to determine which material (pages) will be recreated and develop a plan for when this material will be recreated to new format. Implement plan to recreate approved material until migration of all material is complete.

4) **Priority task** – Complete Hail Cove shallow-water artificial reef project.

Desired Task Achievement Date – Summer 2014.

Obstacle – MD DNR Engineering and Construction barges are in dry dock and working with a private contractor may be too expensive under the existing budget.

Solution – MD DNR barges are expected to be ready in Spring 2014. Fisheries staff will work with USFWS to determine whether the project can be completed within budget, using a private contractor. If this is not possible, Fisheries will maintain communication with Engineering & Construction to monitor MD

DNR barge status.

5) **Priority task** – Complete pilot project to test the concept of using volunteer anglers to obtain fishing success data on artificial reef sites.

Desired Task Achievement Date – Fall 2013.

Obstacle – Artificial Reef Committee must approve project and funding via Maryland Artificial Reef Initiative. Requires participation of sufficient number of volunteer anglers.

Solution – Submit project and funding proposal to ARC in summer 2013. Issue call for volunteers via social media, email list, website and reach out to recreational fishing groups.

Fisheries Marketing Program Priorities

1) **Priority task** - Develop of a charter boat marketing website with a comprehensive market campaign plan.

Desired Task Achievement Date - December 2013.

Obstacle – Resources. The program is already stretched with its focus on seafood marketing. In order to take on the additional marketing responsibilities of recreational marketing some initiatives may have to be dropped.

Solution - Reallocation of resources and a shift in focus.

2) **Priority task** - Work in partnership along with Maryland Department of Business and Economic Development and Maryland Legislative Sportsmen’s Foundation on a recreational marketing initiative.

Desired Task Achievement Date – June 2014

Obstacle – None at this time



Appendix 2. Fisheries Service FY 2013 Accomplishments

Following is a list of some of the activities Fisheries Service accomplished through the use of FR&D and FM&P special funds during FY 2013.

PROTECT, CONSERVE AND ENHANCE FISHERIES RESOURCES

- Completed multi-program monitoring efforts for finfish and blue crab from the headwaters of the Chesapeake Bay to the Coastal Bays of the Atlantic Ocean. Approximately 20 staff biologists worked around the state collecting valuable samples from hundreds of site locations in an effort to provide data for recreational harvest estimates (Striped Bass Trophy Season Creel Survey), long term trend analysis, stock assessments and to aid managers in making informed management decisions. There were 100+ species of finfish and crustaceans observed including important recreational and forage species such as Blue Crab, Striped Bass, Summer Flounder, Black Sea Bass, Spot, White Perch, Yellow Perch, Red Drum, Atlantic Croaker, catfish, Atlantic Menhaden and river herring.
- Obtained approval among the Atlantic coastal states of Amendment II to the Interstate Fisheries Management Plan for Atlantic Menhaden. This Amendment stresses the ecological importance of Menhaden as a prey species, highlighting them as a key component to a healthy ecosystem.
- Obtained approval among the Atlantic coastal states of Addendum III to Amendment 6 of the Interstate Fisheries Management Plan for Striped Bass. This Addendum incorporated commercial enforcement recommendations from an Interstate Watershed Task Force as State compliance requirements.
- Completed an analysis of data provided by Marine Recreational Information Program (MRIP) to determine what changes, if any, could result in separate Chesapeake Bay and Coastal Bays harvest estimates that could be used for management. While MRIP continues to evolve, the analysis demonstrated that significant increases over historical sampling levels would be required to obtain precision levels to support separate Chesapeake and Coastal Bays management.
- Initiated a new gill net survey to satisfy ASMFC-mandated sampling requirements for river herring (Alewife Herring and Blueback Herring). A coastwide harvest ban is currently in force due to low abundance of both species. The survey included 10 sample days (30 man-days) and surveyed 40 sites on Northeast River.
- Worked within the Mid-Atlantic Fisheries Management Council to approve a new Omnibus Amendment to address recreational accountability. This amendment takes a new approach to account for exceeding recreational harvest limits based on MRIP estimates. Confidence limits around the harvest estimate will now be included in the examination of the overage. Management actions that result from an overage will now be scaled for stock health and degree of the overage. The intention is to provide more stable management measures.
- Expanded the Bluefin Tuna and Billfish Catch Card Program to include shark species caught recreationally in the Atlantic. This effort will support the National Marine Fisheries Service's ongoing efforts to collect biological information on sharks to better assess their stock status along the coast.
- Compliance reports which detail current regulations and summarize research surveys were completed and submitted to ASMFC for various recreationally important species/species complexes. These included Striped Bass, Summer Flounder, Black Sea Bass, Red Drum, Weakfish, Atlantic Croaker, Atlantic Menhaden and the shad and river herring complex (4 species).
- Continued collaborative blue crab management with Bay jurisdictions resulting in maintaining blue crab abundance and fishing removals at safe levels.
- Restored trout densities in the Savage River Trophy Trout Area to levels which existed prior to the draining of the reservoir in 2009.
- Upper Savage River Brook Trout population finally responded to 0-Creel Limit regulation. Densities exceeded 1,000 trout per mile in several tributaries with a significant number of 10 -12" fish in the population.
- Added a new Delayed Harvest Trout Fishing Area at Catoctin Creek Park in Frederick County.
- Collaborated with Trout Unlimited and Washington Suburban Sanitary Commission to develop a year round

tailwater trout fishery below Triadelphia Reservoir.

- Collaborated with Trout Unlimited and other partners to develop a recreational trout fishery in the Piney Run tailwater in Carroll County. As we await the capability to deliver cold water from Piney Run dam, Fisheries Service is managing parts of the property as a seasonal recreational trout fishery.
- Documented colonization and spawning of wild Brook Trout in Cash Valley Run after restoration project removed a major road culvert barrier.
- Developed and implemented a study of nuisance algae blooms on the nontidal Potomac River. This ongoing survey will estimate temporal and spatial coverage and monitor water quality parameters important to healthy fish populations including evidence of cyanotoxins associated with bluegreen algae blooms.
- Played a major role in cooperative project to develop baseline water quality data in drainages which may experience natural gas fracking in the future.
- Continued discussions with the U.S. Army Corp of Engineers and the Upper Potomac River Commission to protect North Branch Potomac trout resources from negative impacts due to low discharge levels from Jennings Randolph and Savage River Reservoirs. Developed a model which predicts downstream water temperatures from air temperature and JR discharge data.
- Participated in cooperative project with the U.S. Geological Survey and National Park Service to determine vectors for intersex condition in Smallmouth Bass in the upper Potomac drainage. Evidence suggests that the intersex condition may be induced during the early life stages through exposure to endocrine disrupting contaminants.
- Maintained fish health contract with U.S. Fish and Wildlife Service 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 4.5 million larvae and juveniles.
- Implemented Patapsco River shad and herring restoration project. Stocked 1.9 million American Shad, Hickory Shad, Blueback Herring and Alewife larvae and juveniles to support population reintroduction subsequent to dam removals and water quality improvements.
- Developed new metrics to evaluate efficacy of shad restoration stocking programs.
- Executed a Memorandum of Understanding with University of Maryland Center for Environmental Science to support collaborative juvenile grow-out efforts to meet Fisheries Service management needs. Resources at the Horn Point Laboratory will be leveraged to produce several fish species for the Department.
- Maintained captive brood population of Atlantic Sturgeon and conducted research to facilitate hatchery-based restoration.
- Participated in ASMFC stock assessment process for Atlantic Sturgeon.
- Produced Largemouth Bass for corrective stocking, population enhancement and research. Annual request varies dependent upon management needs identified by regional biologists. Approximately 132,000 juveniles were produced this year.
- Applied biosecurity and fish health policies to protect state natural resources.
- Obtained Harris Creek Restoration permit and expanded restoration work in partnership with the Oyster Recovery Partnership and the University of Maryland.
- Secured an additional \$9.5 million in State Capital funds to support oyster restoration in Harris Creek sanctuary.



- Completed additional oyster baseline abundance surveys in sanctuaries.
- Worked with Natural Resources Police to implement Maritime Law Enforcement Information Network (MLEIN) which will be used to enhance enforcement of oyster sanctuaries and harvest areas.
- Performed a clam survey in the Coastal Bays to document clam populations.
- Continued an oyster feeding study to determine what oysters eat in Chesapeake Bay.
- Completed first full year of clam harvest monitoring.
- Monitored oyster and clam stocks for health status and disease impacts, including protection of native stocks by testing shellfish stocks proposed for importation.
 - Processed and analyzed 1,655 wild oysters for diseases, among 57 samples from Chesapeake and Chincoteague bays.
 - Processed and analyzed 120 wild razor clams for diseases, among 4 samples from high-mortality populations in the Patuxent River estuary.
 - Reviewed pathology reports from external sources on samples of Florida clams (1) and Virginia oysters (5) for which Maryland import permit applications were pending, and made regulatory recommendations to protect Maryland shellfish resources from introductions of exotic pathogens.
- Processed and analyzed samples for finfish health studies, including Striped Bass, Largemouth Bass, and trout, underpinning individual animal health, stock health, and habitat consequences. Provided fish health support to inland and marine hatchery & restoration programs.
 - Processed tissues from 1,775 estuarine finfish samples to produce 3,302 histological slides for analyses to detect pathological conditions, including mycobacteriosis in Striped Bass and other estuarine fishes.
 - Co-designed a 2-year genetics study to determine how Largemouth Bass strains introduced from Florida waters impact Maryland Largemouth Bass populations in Chesapeake Bay tributaries.
 - Collected thousands of tissue samples for disease surveillance analyses. Includes DNR hatchery trout and other fish, and wild Hickory Shad broodstock collected for hatchery fry production to enhance depleted natural populations.
 - Analyzed tissues from 64 fish from DNR hatchery production lots. These included fish which were dead or showing disease signs.
 - Began a research project to determine effects of fish age and environmental variables on development and intensity of whirling disease. Analyzed tissues from 600 Rainbow Trout from a cooperative nursery facility for DNR hatchery trout in Garrett County.



- Analyzed 1,570 wild oysters collected during the fall 2012 survey for disease. The 2012 survey documented increased abundance, high reproduction, outstanding survival, and moderate disease impacts among oyster populations in Maryland waters of Chesapeake Bay.
- Conducted finfish health studies to investigate individual animal health, stock health, and habitat consequences. Processed 200 Striped Bass samples including histology, microbiology, and bloodwork.
- Implemented a multi-species finfish health initiative to gauge the general health, potential bacterial pathogens and parasites in Chesapeake Bay watersheds: collected and processed 300 fish samples including histology, microbiology and bloodwork.
- Began the process to convert lab space located at the Cooperative Oxford Laboratory to a finfish receiving and necropsy facility and a biological safety laboratory suitable for work with bacterial pathogens
- Provided marine mammal and sea turtle stranding response and served on national take reduction teams. Responded to 46 marine mammals and sea turtles, including histology, microbiology and virus determination.
- Streamlined the fishing penalty system via completion of several key process-related clarifications relating to process.
- Developed a series of spatial datasets that represent Fisheries regulations for various species.
- Moving forward with the removal of Bloede Dam. Sediment volume estimates were updated and work is progressing on a sediment management plan. The team has secured \$3.8 million for the removal of Bloede Dam and associated restoration activities (NOAA funds), which will be combined with other funds including from the DNR capital budget. The Team is continuing to investigate additional funding sources as they await engineering design plans and an updated construction cost estimate.
- Utilized the Chesapeake Bay Program's Sustainable Fisheries Goal Implementation Team to present stakeholders with the science and importance of sustainable land management for conserving, protecting and restoring fishery resources, and strengthen stakeholder advocacy.

PROVIDE AND ENHANCE FISHING OPPORTUNITIES, INCLUDING ACCESS

- Produced nearly one dozen warm water and cool water species for children's fishing rodeos (68 events), the Backyard Fishing program (4 events), stock enhancement, research, corrective stocking and restoration. Demonstrated unprecedented walleye production success, with more than one million walleye larvae cultured for state management needs.
- Produced three varieties of trout for put and take trout stocking and other management strategies to benefit Maryland anglers. Approximately 375,000 adults and 175,000 juveniles were stocked.
- Completed a renovation of the Albert Powell Hatchery hatch room that substantially increased trout production capacity and dramatically reduced early life-stage mortality.
- Successfully implemented new protocols for advanced Largemouth Bass grow-out at warm water hatcheries. Larger fish stocked at greater than five months old should improve recruitment to catchable stocks in target tributaries.
- 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.
- Improved boat ramp access at the Gary Yoder and McCoolle Fishery Management Areas on the North Branch of the Potomac River.
- Conducted GIS groundwork for a Statewide Fishing Access Map
- Created a contact list for all existing license free fishing areas (LFFA). Spoke with each contact to request and receive feedback on site usage. Designed and coordinated the production of new heavy duty signs at existing LFFAs.
- In partnership with Chesapeake Bay Foundation, expanded Cook's Point Reef Ball site in sanctuary at Choptank River to total of 8 acres.
- In partnership with Chesapeake Bay Foundation and Maryland Saltwater Sportfishing Association, deployed 200 additional reef balls at Memorial Stadium reef, within Gales Lump Oyster Sanctuary

- Issued 26 license exemptions to 22 patient care organizations so 1,636 patients could go fishing for a day without having to purchase a license

PROVIDE SUSTAINABLE ECONOMIC OPPORTUNITIES

- Began development of a web map tool which will allow anglers to find fishing guide and charter boat services in the area in which they would like to go fishing.
- Initiated monitoring of Largemouth and Smallmouth Bass tournaments statewide. Includes collection of catch data and disseminating information on safe handling and release of bass.

PROMOTE AND PROTECT FISHERIES RESOURCES THROUGH PUBLIC OUTREACH AND EDUCATION.

- Improved outreach on regulatory and penalty changes. Fisheries now meets regularly with Natural Resources Police and Licensing and Registration Service staff. Reminders of regulatory and penalty changes are being sent via emails. The website has been updated to help aid in understanding.
- Initiated an angler creel survey on the nontidal Potomac River. Demonstrated catch rates equal to surveys of the 1970s and 80s.
- Attended several youth fishing rodeo events to promote DNRs youth angler programs. Continued to expand youth angler outreach. 4 Backyard Fishing events were held. Novice anglers were instructed in casting, knot tying and fishing basics. The Maryland Youth Fishing Club website was updated.
- Hosted a Black Bass Roundtable to bring together anglers, guides, tournament directors and DNR biologists to discuss all aspects of Maryland's black bass fishing and fisheries. Items of discussion included: 1) licensing of non-resident anglers, general licensing concerns, and the potential of a Black Bass Stamp; 2) keeping bass in their home rivers; 3) lifting catch-and-release regulation during spring season for some impoundments; and 4) inconsistent Northern Snakehead regulations between PRFC and neighboring jurisdictions.
- Restored a significant portion of Brook Trout habitat through a cooperative project with Garrett County Schools, Youghioghenny Chapter of Trout Unlimited and others. The Cove Run Brook Trout Restoration Project will protect portions of this important Bear Creek tributary through riparian plantings and livestock fencing on two large farms. The project has gained the attention of other nearby landowners which may allow increasing protected habitat in the future.
- Completed a major overhaul of the 2013 Maryland Guide to Fishing. Significantly improved the ease of use with a new layout and interactive online version. Reduced production cost by 30% by introducing advertising and aligning number of printed guides with license sales. Further reduction in production costs may be possible thanks to cooperative efforts with DNR and Department of General Services procurement officers during FY 2013 which allowed vendors to bid on a 5 year contract
- Youth Fishing Club (YFC) membership expanded by 27% to 948 members. Mailed 874 letters to YFC members asking for volunteer for DJ tagging trips and took 41 youth on charter boat fishing trip to assist with tagging striped bass for DJ component of MFC. Implemented new Youth Anglers Log where young anglers can share their fishing stories online.
- Conducted annual Maryland Fishing Challenge contest. Hired charter boats for 15 Diamond Jim tagging trips and disbursed \$25,000 grand prize. 1,263 anglers participated (an increase of 20% over 2012) and an estimated 2,000 attended finale event.
- Online recreational and commercial regulations now maintained and displayed through a database.
- Posted 401 Facebook messages; fanbase grew from 404 to 1,075 – a 166% increase. Twitter fanbase increased by 90% during FY 2013.
- Sent 175 email messages via e-mail subscription list. Membership doubled from 350 subscribers to more than 700 during FY 2013.
- Developed and posted 42 weekly Fishing Reports on website. Developed 41 press releases about fisheries issues.

- Added Spanish language page to Fisheries Service website. Developed and posted new Spanish resource materials including Guide for Anglers (Spanish/English), fish identification, and tables listing recreational fishing regulations.
- Certified 4 new state record fish and awarded plaques to anglers.
- Developed, coordinated the production and posting of Attention Anglers sign which was posted across MD at fishing hot spots.
- Coordinated 4 SFAC meetings and 2 ARC meetings and posted all meeting materials and summaries on website.
- Drafted and processed 78 log letters to respond to constituents on behalf of the DNR Secretary or Governor.
- DNR Fisheries Service sponsored the Outdoorsman Radio Show to promote the Maryland Fishing Challenge and highlight fishing opportunities and fisheries issues across the state. During FY 2013, staff participated in 10 shows to talk about Fisheries programs /projects and answer questions from the host and callers. These shows are recorded and available on podcast at: <http://www.ellisoutdoors.com/podcasts.html>.
- Lefty Kreh trail on Gunpowder was dedicated in June 2012.

